

2018 Comprehensive Annual Financial Report



FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

Milwaukee Metropolitan Sewerage District
Milwaukee, Wisconsin



Tour Group at MMSD Headquarters with the Lynyrd Skymmr Vessel

2018 Comprehensive Annual Financial Report

For the Years Ended
December 31, 2018 and 2017

Date of Incorporation
Reorganized April 26, 1982
pursuant to Chapter 282,
Laws of Wisconsin 1981

Finance Staff Mark T. Kaminski, CPA,
Director of Finance/Treasurer



Headquarters Green Roof Tour



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South Shore Water
Reclamation Facility



INTRODUCTORY SECTION

Commission Organization Chart



Commissioners of the Milwaukee Metropolitan Sewerage District



Kris Martinsek
Commission Chair,
Owner,
Martinsek & Associates



Carl Krueger
Commission Vice Chair,
President,
Village of Brown Deer

Dan Devine
Mayor,
City of West Allis

LaTonya Johnson
Wisconsin State Senator

Jeff Stone
Vice President,
Kapur & Associates

Kathy Ehley
Mayor,
City of Wauwatosa

Eugene Manzanet
Vice President,
Community Development,
PNC Bank

John Swan, III
Business Agent,
LIUNA Local 113

Cavalier C. Johnson
Alderman,
City of Milwaukee

José G. Pérez
Alderman,
City of Milwaukee

District Staff

Kevin L. Shafer, P.E.
Executive Director

Anna Kettlewell
Commission Secretary

Susan B. Anthony
Director of Legal Services

Michael Martin
Director of Technical Services

Principal Advisors

Baker Tilly Virchow Krause, LLP
Independent Auditors

Foley & Lardner and
MWH Law Group
Co-Bond Counsel

Robert W. Baird & Co.
Financial Advisor

2018 Letter From The MMSD Chair

The 2018 Comprehensive Annual Financial Report details investments made by our customers and MMSD for the mission of protecting area waterways. But there are clouds on the horizon.

Yes, MMSD remains a global leader in its field, capturing and cleaning 98.4% of all the water and wastewater entering our system (versus the national goal of 85%). In 2018, we returned 76.9 billion gallons of clean water to Lake Michigan, 6% more than 2017, which was 6% more than in 2016.



Kris Martinsek
Commission Chair

As we move forward implementing our 2035 Vision and developing a 2050 plan, we are committed to providing reliable sewerage services, building flood resilience, and enhancing and protecting our waterways. But we face challenges. MMSD's

reclamation facilities and 300 miles of regional sewers are aging and will require substantial investments to assure we optimize reliability and performance of both new and aging assets. In 2018 we invested \$60.3 million in capital projects with \$1.4 billion slated over the next six years (including debt service payments and new capital expenditures).

That alone will not be enough to meet future demands. Our climate is changing and in 2018 our region experienced frequent, high volume rainstorms making sewer overflows and flooding bigger threats. The latest National Climate Assessment, required by Congress and released by the Trump administration in November, stressed again that "heavy precipitation events in the Midwest have increased in frequency and intensity since 1901 and are projected to increase through this century."

We know we can't build our way out of the problem. To protect our environment and improve the region's ability to respond to these threats, we need to focus more resources on climate resiliency, managing water where it falls, before it enters the sewer system.

"We need to focus more resources on climate resiliency, managing water where it falls"

We have more work to do preserving critical floodplain areas and hydric soils, removing concrete from rivers, naturalizing them and restoring habitat and aquatic life. The region will always need to reduce inflow and infiltration from aging, leaky sewers. At the same time, we need to construct more green infrastructure and practice sustainability.

The future success of our efforts will depend on whether we can recruit the 1.1 million people in the MMSD service area to join our army of Freshcoast Guardians and take personal responsibility to reduce water pollution and improve our rivers and Lake Michigan. Help to manage water where it falls by installing a rain barrel, planting a rain garden, installing porous pavers on your patio or driveway and simply reducing the amount of water you use during wet weather events.

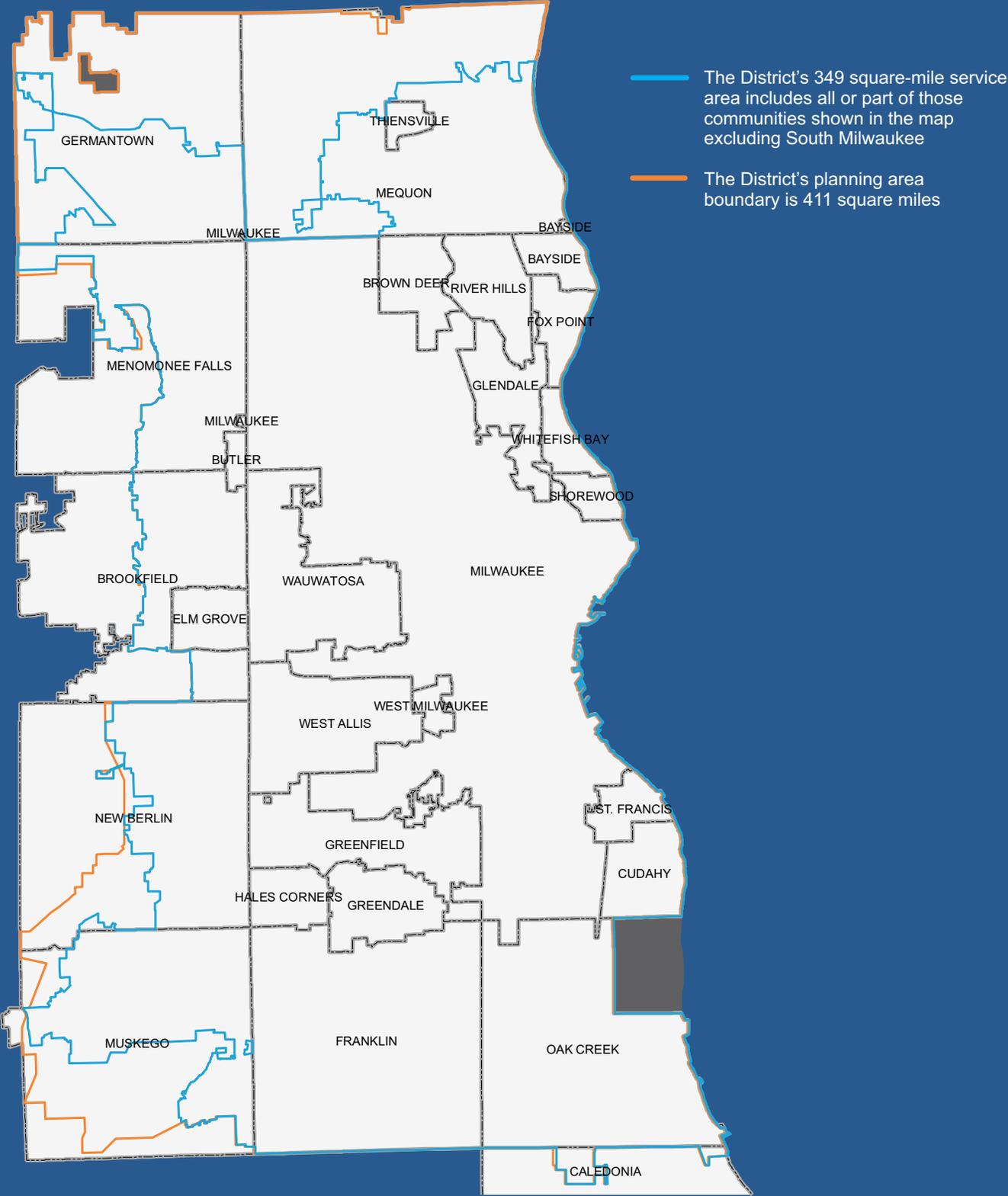
With a sound financial footing, a dedicated staff, strong partnerships with other government agencies and community organizations, and all of you working with us, together we can weather the storm.

Sincerely,

Kris Martinsek

Commission Chair

Milwaukee Metropolitan Sewerage District





June 11, 2019

The Commissioners
Milwaukee Metropolitan Sewerage District

Dear Commissioners:

State law requires that the Milwaukee Metropolitan Sewerage District (District) publish a complete set of financial statements presented in conformance with generally accepted accounting principles (GAAP) and audited in accordance with generally accepted auditing standards by a firm of independent licensed certified public accountants. Pursuant to that requirement, we hereby issue the comprehensive annual financial report of the District for the fiscal year ended December 31, 2018.

This report consists of management's representations concerning the finances of the District. Accordingly, management assumes full responsibility for the completeness and reliability of all information presented in the report. To provide a reasonable basis for making these representations, management of the District has established a comprehensive internal control framework that is designed both to protect the government's assets from loss, theft, or misuse and to compile sufficient reliable information for the preparation of the District's financial statements in conformity with GAAP. Because the cost of internal controls should not outweigh their benefits, the District's framework of internal controls has been designed to provide reasonable rather than absolute assurance that the financial statements will be free from material misstatement. As management, we assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

Baker Tilly Virchow Krause, LLP, a firm of licensed certified public accountants, has audited the District's financial statements. The goal of the independent audit was to provide reasonable assurance that the financial statements of the District for the fiscal years ended December 31, 2018 and 2017, are free of material misstatement. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; assessing the accounting principles used and significant estimates made by management; and evaluating the overall financial statement presentation. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are

appropriate in the circumstances, but not for expressing an opinion on the effectiveness of the District's internal control over financial reporting. Accordingly, Baker Tilly Virchow Krause, LLP expresses no such opinion. The independent auditor concluded, based upon the audit, that there was a reasonable basis for rendering an unmodified opinion that the District's financial statements for the fiscal years ended December 31, 2018 and 2017 are fairly presented in conformity with GAAP. The independent auditor's report is presented as the first component of the financial section of this report.

The independent audit of the financial statements of the District was part of a broader, federally mandated "Single Audit" designed to meet the special needs of federal and state agencies. The standards governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the financial statements, but also on the audited government's internal controls and compliance with legal requirements, with special emphasis on internal controls and legal requirements involving the administration of federal and state awards. These reports are available in the District's separately issued Single Audit Report.

GAAP require that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement MD&A and should be read in conjunction with it. The District's MD&A can be found immediately following the report of the independent auditors.

PROFILE OF THE DISTRICT

General

The District is a special purpose municipal corporation organized under the laws of the State of Wisconsin. The District was created in 1982 by the reorganization of the sewerage function previously financed by the Milwaukee County government.

Milwaukee Metropolitan Sewerage District
260 W. Seeboth Street, Milwaukee, WI 53204-1446
414-272-5100 • www.mmsd.com

Legal Boundary

The District's legal boundary presently includes all of Milwaukee County with the exclusion of the City of South Milwaukee. The legal boundary also includes the portion of the Village of Bayside that is in Ozaukee County, and those portions of the City of Milwaukee that are in Waukesha and Washington Counties. The District may levy ad valorem property taxes from time to time on all taxable property within its legal boundary.

Service Area

The District presently provides sewage treatment services for the 18 cities and villages within the District's legal boundary. In addition, the District is authorized under state statutes to provide sewage treatment service to areas beyond its legal boundary but within the portion of the multi-county drainage basin delineated as part of the Water Quality Management Plan developed by the Southeastern Wisconsin Regional Planning Commission pursuant to section 208 of the Federal Water Pollution Control Act Amendments of 1972. This area includes all or parts of 10 municipalities outside Milwaukee County. District sewage treatment service is presently provided to all or parts of these 10 municipalities.

Service Responsibilities and Powers

The District is statutorily responsible for construction, operation and maintenance of its sewers, watercourse improvements and treatment plant facilities within its service area. The District possesses the right of eminent domain throughout Wisconsin. It has the authority to promulgate rules and regulations necessary and proper to promote the best operation of the system, protect its works, prevent damage to the sewerage system, prevent surcharging of sewers or interference with the treatment process, and to attain state and federal pretreatment requirements. These rules and regulations apply throughout the territory served and have precedence over any conflicting ordinance, code or regulation. The District may issue special orders to attain compliance with its rules and regulations and it may issue special use permits.

Governance

The District's governing body is the Milwaukee Metropolitan Sewerage Commission, which is composed of eleven members. Seven of the eleven members are appointees of the Mayor of the City of Milwaukee. Three of the appointees of the Mayor of the City of Milwaukee must be elected officials. Four of the eleven members are appointees of a body comprised of the elected executive

officer of each city or village other than the City of Milwaukee within the District's boundary. Of these four appointees, three must be elected officials. All appointees have terms of three years, except the elected official appointees of the Mayor of the City of Milwaukee, who serve for one year. The Commission elects a Chairperson and Vice Chairperson from its membership. Most major financing decisions of the District require an approving vote of two-thirds of all Commissioners.

Budgets

The District's annual Operation and Maintenance, and Capital budgets are financial plans outlining the established expenditures for programs or projects already authorized or to be considered by the District's Commission. Approval of the budgets by the District's Commission does not in itself authorize any specific expenditures or projects. Requests for capital project expenditures must be approved by either the Commission or the Executive Director, as appropriate, within established limits of authority prior to the commitment of funds. Operation and Maintenance budgets are structured so that expenses can be approved, and costs can be accumulated by: a) cost center, b) expense category, c) user charge parameter/activity in accordance with the cost recovery manual, as updated annually by the Commission, and d) special program costs as requested and approved by the Commission.

FACTORS AFFECTING FINANCIAL CONDITION

The information presented in the financial statements is perhaps best understood when it is considered from the broader perspective of the specific environment within which the District operates.

Local Economy

The Milwaukee metropolitan area continues to reflect a solid economic base and diversification despite the most significant national economic recession since the 1920's. After five straight years of declining property values, for the fifth consecutive year, taxable valuations in 2018 increased, with a 3.6% increase within the District and 3.6% in the District's total service area. The District's ten largest taxpayers make up only 4.4% of the total tax base. Six of these taxpayers are commercial real estate developers whose projects include shopping malls, office buildings, and hotels.

The Milwaukee metropolitan area continues to have a sizable manufacturing base, one of the largest in the Midwest. However, continued expansion of the service sector provides diverse employment opportunities to metropolitan area residents in the financial, governmental, and health care areas and has reduced the relative importance of manufacturing.

Another indicator of the improvement in the Milwaukee area economy has been the decrease in the unemployment rate. The unemployment rate in Milwaukee County was 3.6% in 2018 compared to 4.0% in 2017. The unemployment rate has now decreased each of the last eight years since 2010 when the unemployment rate was 9.6%.

Long-range Financial Planning

The District maintains long-range financing plans for its Operation and Maintenance (O&M) and Capital budgets. The District's operating budget utilizes a user charge stabilization fund and an equipment replacement fund to help stabilize user charge rates while improving customer service and the efficiency of operations. Items of note in the 2019 operating budget include:

- \$84.8 million in budgeted sewer user charge billings for 2019, an 1.22% increase from 2018. The annual average District household charge of \$140.22 in 2019 represents an increase of \$2.85 or 2.1% from the 2018 amount of \$137.37.
- Total O&M expenditures were budgeted at \$104.7 million, 2.7% higher than in 2018.
- The primary reasons O&M expenditures are increasing \$2.7 million in 2019, is because 2019 is the first full year of the extension agreement for the operating contract with Veolia Water Milwaukee and ensuring adequate funding for machinery and equipment replacement that does meet the capital budget funding criteria.

The District's six-year financing plan for the capital budget seeks to accomplish the District's capital program needs within the following financing objectives:

- 25% cash financing for capital projects, and
- Maintaining outstanding debt at no more than 2.5% of total equalized property value (i.e., 50% of the statutory limit of 5%).

The six-year plan provides for \$783.4 million in capital project and program expenditures from 2019 through 2024, primarily for rehabilitation, upgrade or replacement

of assets at the District's two water reclamation facilities, structural and hydraulic upgrades to the Metropolitan Interceptor Sewer system, watercourse and flood management projects, private property infiltration and inflow reduction, and development of green infrastructure solutions.

The 2018 Capital Budget continues the Private Property Infiltration and Inflow (PPI/I) Reduction program which began in 2010 and continues a program to fund municipal green infrastructure. One of the primary causes of system capacity problems is the amount of clear water entering the system through infiltration and inflow from private property, such as aging or deteriorating laterals, or foundation drains. The District's PPI/I Reduction program provides funding to municipalities to remedy I/I from private property sources within their municipalities. The Green Solutions program provides funding to municipalities to implement green infrastructure, assisting the District in meeting its permit requirement to capture an additional one million gallons of stormwater each year through green infrastructure. The long-range financing plan includes \$30 million (\$5 million per year) in planned funding for the PPI/I Reduction program and \$30 million (\$5 million per year) for the Green Solutions program.

The District's tax levy increased 1.75% when compared to last year's levy and is projected to increase 4% annually from 2020 through 2024.

Operating Contract

In June of 2016, the District's Commission approved a 10-year extension agreement between the District and Veolia Water Milwaukee, LLC (Veolia) as the operator of the District's two water reclamation facilities, biosolids management and field operations, with the terms of the extension beginning on March 1, 2018. This extension agreement follows a 10-year contract that expired February 28, 2018, in which Veolia replaced United Water Services (UWS) as the operator of the District's two water reclamation facilities. Biosolids management and field operations.

The District continues to operate its industrial waste pretreatment program; capital planning and engineering services; environmental laboratory, water quality monitoring and research; Milorganite sales, marketing, and distribution. The District has an extensive contract compliance and oversight program related to the 10-year extension.

LANDFILL GAS PIPELINE

The District has designed and built a low-pressure pipeline approximately 19 miles long to transport landfill gas from Advance Disposal Services Emerald Park Landfill in Muskego, to fuel the District's Jones Island Water Reclamation Facility, providing 25 years of green energy and reducing greenhouse gas emissions. The pipeline began full operations in 2014. The pipeline is estimated to result in significant savings to District customers over a 25-year period, depending on natural gas prices.

AWARDS AND ACKNOWLEDGEMENTS

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the District for its comprehensive annual financial report (CAFR) for the fiscal year ended December 31, 2017. This was the 40th consecutive year that the District has received this prestigious award. To be awarded a Certificate of Achievement, the District published an easily readable and efficiently organized CAFR. This report satisfied both GAAP and applicable legal requirements.

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

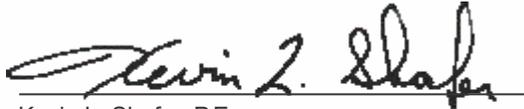
The District received the GFOA's Distinguished Budget Presentation Award for its 2018 annual budget document. To qualify for the distinguished Budget Presentation Award, the District's budget document was judged to be proficient in several categories. These categories include presentation as a policy document, financial plan, operations guide, and a communications device.

The preparation of this report would not have been possible without the efficient and dedicated services of the entire staff of the Accounting Department. Staff diligently and faithfully contributed to the continued improvement of the District's accounting function and preparation of this report. Their professional expertise, experience and judgment have been invaluable to us and to the overall efficiency of the District. We would like to thank the members of the Communications and Graphics staffs, for without their efficient and dedicated services,

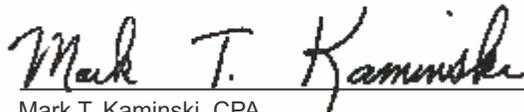
the preparation of this report could not have been accomplished on a timely basis. We would also like to thank the Commission for providing the policy direction that allows us to pursue sound financial management practices.

FINANCE STAFF CHANGES

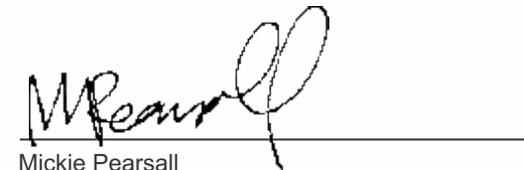
After forty years of service to the District, Mark Kaminski is retiring in 2019. Mickie Pearsall has been named Mark's successor beginning in 2019. Mark will stay on the staff for part of 2019 to ensure a smooth transition.



Kevin L. Shafer, P.E.
Executive Director



Mark T. Kaminski, CPA
Director of Finance/Treasurer 2018



Mickie Pearsall
Director of Finance/Treasurer 2019

The GFOA Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Milwaukee Metropolitan Sewerage District for its comprehensive annual financial report for the fiscal year ended December 31, 2017. This was the 40th consecutive year that the government has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

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



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Milwaukee Metropolitan Sewerage District, Wisconsin

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

December 31, 2017

Christopher P. Morill

Executive Director/CEO



FreshCoast Guardians
Resource Center Tours



FINANCIAL SECTION



INDEPENDENT AUDITORS' REPORT

To the Commissioners
Milwaukee Metropolitan Sewerage District (the District)
Milwaukee, Wisconsin

Report on the Financial Statements

We have audited the accompanying financial statements of Milwaukee Metropolitan Sewerage District (the District), as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control over financial reporting relevant to the District's preparation and fair presentation of the financial statements 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, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the District as of December 31, 2018 and 2017, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note I, the District adopted the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective January 1, 2018. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming an opinion on the basic financial statements as a whole. The Introductory Section and Statistical Section as identified in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we express no opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

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

Baker Tilly Virchow Krause, LLP

Madison, Wisconsin
June 11, 2019

Management's Discussion and Analysis

As management of the Milwaukee Metropolitan Sewerage District (District), we offer readers of the District's financial statements this narrative overview and analysis of the financial activities of the District for the fiscal years ended December 31, 2018 and December 31, 2017. We encourage readers to consider the information presented here in conjunction with the additional information that we have furnished in our letter of transmittal, which can be found on pages 8 - 11 of this report.

FINANCIAL HIGHLIGHTS

- The District's net position of \$2.6 billion decreased 2.5% to \$2.5 billion because of the District implementing GASB Statement 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (GASB Statement 75) in 2018.
- The District has a deficit balance of \$81.9 million for its unrestricted net position. This represents an increase of \$75.2 million from the deficit balance of \$6.7 million at December 31, 2017. In accordance with GASB Statement 75, at December 31, 2018, the District has recorded a total Other Postemployment Benefits (OPEB) liability of \$120.2 million. The District has elected to fund its liability related to postretirement benefits other than pensions as it comes due rather than when it is incurred. At January 1, 2018, the total OPEB liability was \$136.7 million using a net discount rate of 3.44%. At December 31, 2018 the net OPEB liability decreased \$16.5 to \$120.2 million using a net discount rate of 4.10%. This decrease of \$16.5 million, combined with a decrease of \$6.8 million in deferred inflows related to the OPEB expense during 2018, is the primary reason total operating expenses declined by 8% in 2018 when compared to 2017's amount. See note 11 to the financial statements for further details.
- During 2018, the District received \$19.7 million in loan proceeds from the State of Wisconsin Clean Water Fund Loan Program. The issuance of this new debt, along with the other general obligation debt, brings the District's outstanding bonded debt at December 31, 2018 to \$815.6 million. This is a decrease of \$64.6 million over the balance at December 31, 2017. The District's debt limit rate decreased from 1.46% to 1.30%, well below the statutory limit rate of 5%.

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the District's basic financial statements. The District's basic financial statements are comprised of two components: 1) the financial statements and 2) notes to the financial statements that explain in more detail some of the information in the financial statements.

REQUIRED FINANCIAL STATEMENTS

The financial statements of the District report information about the District using accounting methods that are similar to those used by private-sector companies. These statements provide both long-term and short-term information about the District's overall financial status.

The statement of net position presents information on all of the District's assets, deferred outflows of resources, liabilities, and deferred inflows of resources with the difference reported as net position. This statement provides information about the nature and the amounts of investments in resources (assets) and the obligations to District creditors (liabilities). It provides one way to measure the financial health of the District by providing the basis for evaluating the capital structure of the District and assessing the liquidity and financial flexibility of the District. However, one will need to also consider nonfinancial factors such as changes in economic conditions, population, and industrial/commercial customer growth, and new or changed government legislation.

All the current year's revenues and expenses are accounted for in the Statement of Revenues, Expenses, and Changes in Net Position. This

See accompanying independent auditors' report.

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, net Milorganite sales revenue, other charges, and credit worthiness.

The final required financial statement is the Statement of Cash Flows. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities. This statement 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.

FINANCIAL ANALYSIS OF THE DISTRICT

Net Position

As previously noted, net position may serve over time as a useful indicator of an entity's financial position. In the case of the District, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$2.5 billion at the close of the most recent fiscal year.

As can be seen in Table A-1 on page 17, the largest portion of the District's net position (99.9 % at December 31, 2018) reflects its investment in capital assets (e.g., sewers, buildings, machinery, and equipment), less any related debt used to acquire those assets that is still outstanding. The District uses these capital assets to provide sewerage treatment services, provide flood management and to maintain and improve watercourses for the entire District service area; consequently, these assets are not available for future spending. Although the District's investment in its capital assets is reported net of related debt, it should be noted that the resources to repay this debt must be provided from other sources, since the capital assets themselves are not intended to be used to liquidate these liabilities.

As shown in Table A-1, current, other assets and noncurrent assets decreased \$7.9 million or 2.4% from 2017 to 2018. The primary reason for the decrease was the District had \$53.1 million in unused proceeds from the General Obligation Promissory Notes, Bonds 2017A remaining at December 31, 2017. Only \$33.4 million in proceeds remain at December 31, 2018. This drawdown was planned, and the District does not plan to issue new General Obligation Debt until 2020. This decrease was partially offset by increases in unrestricted assets due to contributions to the user charge stabilization fund and the generation of O&M surpluses.

The Deferred Outflow of Resources consists of \$7.3 million related to pension deferred outflows in accordance with GASB Statement 68, Accounting and Financial Reporting for Pensions, at December 31, 2018 (see note 10 to the financial statements for additional details). The remaining \$3.3 million relates to the unamortized loss on the District issued \$47.8 million of General Obligation Sewerage System Refunding Bonds, Series 2015C.

As can be seen from Table A-1, total liabilities remained approximately unchanged at \$1 billion or a 0.3% increase from 2017 to 2018. The District received \$19.7 million in new debt proceeds during 2018 which was offset by \$84.3 million in planned principal pay down of existing District general obligation issued debt and Clean Water Fund Program loans. Offsetting this \$64.6 million net decrease in outstanding debt is the increase in the total OPEB liability from implementing GASB 75, increasing \$67.3 million from \$52.9 million at December 31, 2017 to \$120.2 million at December 31, 2018.

The Deferred Inflow of Resources increased \$10.9 million or 8.3%. \$8.9 million of the increase at December 31, 2018, is related to OPEB deferred inflows in accordance with GASB Statement 75. The balance is related to pension deferred inflows in accordance with GASB Statement 68, Accounting and Financial Reporting for Pensions.

The slight increase in the District net position invested in capital assets of \$12.1 million from 2017 to 2018 is due primarily from the District's continued effort to rehabilitate, replace, upgrade or improvement of existing District facilities and infrastructure.

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

	2018	2017	2016	Percentage Increase (Decrease) 2018 Versus 2017
Current and Other Assets	\$218,116	\$215,974	\$227,767	1.0%
Noncurrent Assets	108,021	118,105	54,988	(8.5)
Capital Assets	<u>3,322,297</u>	<u>3,362,780</u>	<u>3,399,024</u>	(1.2)
Total Assets	<u>3,648,434</u>	<u>3,696,859</u>	<u>3,681,779</u>	(1.3)
Deferred Outflows of Resources	<u>10,652</u>	<u>12,047</u>	<u>14,402</u>	(11.6)
Current Liabilities	112,703	109,039	124,059	3.4
Noncurrent Liabilities	<u>887,650</u>	<u>888,741</u>	<u>875,092</u>	(0.1)
Total Liabilities	<u>1,000,353</u>	<u>997,780</u>	<u>999,151</u>	0.3
Deferred Inflows of Resources	<u>141,780</u>	<u>130,913</u>	<u>130,153</u>	8.3
Investment in Capital Assets	2,513,765	2,501,652	2,489,929	0.5
-Restricted	85,071	85,236	83,418	(0.2)
-Unrestricted	<u>(81,883)</u>	<u>(6,675)</u>	<u>(6,470)</u>	(1,126.7)
Total Net Position	<u>\$2,516,953</u>	<u>\$2,580,213</u>	<u>\$2,566,877</u>	(2.5)

The deficit in the District's unrestricted net position increased significantly by \$75.2 million to \$81.9 million. The deficit in the unrestricted net position is the result of the District electing to fund its long-term liability related to postretirement health and life insurance as it comes due rather than when it is incurred. As mentioned above, the District implemented GASB 75 in 2018. The total long-term OPEB liability related to this benefit was \$120.2 million at December 31, 2018. At December 31, 2017, the long-term liability reported was \$52.9 million. It should be noted in 2017 the District disclosed an unfunded actuarial accrued liability of \$172.1 million, and under GASB 75 accounting and reporting requirements, the entire unfunded liability has decreased to \$120.2 million.

When comparing 2016 to 2017, Table A-1 indicates current, other assets and noncurrent assets increased \$51.3 million or 18.2%. The primary reason for the increase was the issuance in \$80 million of General Obligation Promissory Notes, Bonds 2017A. The District had \$53.1 million in unused proceeds from the Bonds remaining at December 31, 2017. That amounts compare with the \$4.1 million remaining in unused proceeds at December 31, 2016 from the General Obligation Promissory Notes, Series 2015A.

The Deferred Outflow of Resources consists of \$8.3 million related to pension deferred outflows in accordance with GASB Statement 68, Accounting and Financial Reporting for Pensions, at December 31, 2017 (see note 10 to the financial statements for additional details). The remaining \$3.8 million relates to the unamortized loss on the District issued \$47.8 million of General Obligation Sewerage System Refunding Bonds, Series 2015C.

As can be seen from Table A-1, total liabilities remained approximately unchanged at \$998 million or 0.1% decrease from 2016 to 2017. Although the District received \$92.9 million in new debt proceeds during 2017 this was offset by the planned pay down of existing District general obligation issued debt and Clean Water Fund Program loans.

The slight increase in the District net position invested in capital assets of \$13.3 million from 2016 to 2017 is due primarily from the District's continued effort to rehabilitate, replace, upgrade or improvement of existing District facilities and infrastructure.

The deficit in the District's unrestricted net position increased slightly by \$205,000 to \$6.7 million. The deficit in the unrestricted net position is the result of the District electing to fund its long-term liability related to postretirement health and life insurance as it comes due rather than when it is incurred. The total long-term liability related to this benefit was \$52.9 million at December 31, 2017 with an unfunded actuarial accrued liability of \$172.1 million, amortized as a level dollar amount and the amortization period is open and is 30 years in accordance with GASB Statement 45, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.

While the Summary of Net Position (Table A-1) shows the change in the District's financial position the Statements of Revenues, Expenses, and Changes in Net Position provides answers as to the nature and source of these changes. As can be seen in Table A-2 on page 18, for the fiscal year ended 2018, total revenues increased by \$6.8 million or 3.0% and expenses decreased by \$14.6 million or 6.9%. The major factors, which drove these results, include:

- Total user charges increased \$6.7 million or 8.5% from 2017. The District had budgeted an increase of 11.5% in user charges for 2018 primarily because it was the first year of 10-year Veolia Water operating contract extension agreement that began March 1, 2018.
 - Although the District's Milorganite revenue had a slight increase in 2018, the \$10.3 million amount represented a record high in net Milorganite revenue. As the District continues to focus on increasing sales in the retail market, including popular "big box" and warehouse stores that sell to homeowners and gardeners, the average net selling price increased \$4.05 per ton, to \$226.34 in 2018 from \$222.29 in 2017.
 - Excluding depreciation, operating expenses in 2018 decreased \$17.2 million or 19.0% over the amount for 2017. As mentioned earlier, the implementation of GASB 75 during 2018 resulted in a decrease of \$23.3 million related to the OPEB expense. The increase in the discount rate, combined with a decrease of \$6.8 million in deferred OPEB inflows created the decrease. This decrease was partially offset by a planned increase in operating expenses attributable to the first year of the extension agreement for the Veolia Water operating contract and \$700,000 in one-time expenditures for necessary environmental improvements.
 - Nonoperating revenues decreased by \$308,000 or 0.2%. The primary reason nonoperating revenues changed only slightly was because the District adopted a 0% increase in the tax levy for 2018 purposes.
 - Although nonoperating expenses in 2018 increased only 0.6% or \$178,000 from 2017's amount, it is important to note that interest expense increased \$3.2 million or 15.9%. In 2018, the District adopted GASB Statement 89, Accounting for Interest Cost Incurred Before the End of a Construction Period (GASB Statement 89). GASB Statement 89 requires the District to recognize interest costs before the end of a construction period as an expense in the year in which the costs are incurred. Since GASB Statement 89 also requires this change in accounting to be treated prospectively, the 2017 interest expense was net of \$5.1 million of interest cost capitalized in accordance with prior GASB Statements. Therefore, actual interest costs in 2018 decreased from approximately \$25.4 million in 2017 (amount prior to capitalization) to \$23.6 million in 2018, consistent with the District's decrease in outstanding debt.
- For the fiscal year ended 2017, when compared to 2016 amounts, total revenues increased by \$14.7 million or 7.0% and expenses increased by \$3.1 million or 1.5%. The major factors, which drove these results, include:
- Total user charges increased \$1.7 million or 2.2% from 2016. This is consistent with the District 2.5% budgeted or \$1.8 million increase for 2017 sewer user charge billings.

See accompanying independent auditors' report.

Table A-2 Condensed Summary of Revenues, Expenses, and Changes in Net Position (000's)

	2018	2017	2016	Percentage Increase (Decrease) 2018 Versus 2017
Operating Revenues:				
User Charges	\$84,965	\$78,301	\$76,582	8.5%
Fertilizer	10,313	\$10,272	9,054	0.4
Other	1,466	1,042	625	40.7
Total Operating Revenues	96,744	89,615	86,261	8.0
Nonoperating Revenues:				
Property Tax	98,328	98,250	95,798	0.1
Capital Charges - Municipalities Outside the District	31,700	31,523	25,912	0.6
Other	4,049	4,612	1,320	(12.2)
Total Nonoperating Revenues	134,077	134,385	123,030	(0.2)
Total Revenues	230,821	224,000	209,291	3.0
Operating Expenses:				
Systems - Operation and Maintenance	59,490	56,415	57,348	5.5
Laboratory and Research Services	832	2,812	2,582	(70.4)
Industrial Waste and Conveyance Monitoring	(601)	3,161	3,470	(119.0)
Finance, Engineering and Administration	13,591	28,115	25,756	(51.7)
Depreciation	96,356	93,951	91,961	2.6
Total Operating Expenses	169,668	184,454	181,117	(8.0)
Nonoperating Expenses	27,490	27,381	26,942	0.4
Land Contributed to Municipalities	87	18	649	383.3
Total Nonoperating Expenses	27,577	27,399	27,591	0.6
Total Expenses	197,245	211,853	208,708	(6.9)
Income (Loss) Before Capital Contributions	33,576	12,147	583	176.4
Capital Contributions	2,682	1,189	1,860	125.6
Changes in Net Position	36,258	13,336	2,443	
Beginning Net Assets, as Restated	2,580,213	2,566,877	2,564,434	
Cumulative Effect of a Change in Accounting Principle	(99,518)	0	0	
Ending Net Position	\$2,516,953	\$2,580,213	\$2,566,877	

- The District's Milorganite revenue increased \$1.2 million or 13.5% in 2017. As the District continues to focus on increasing sales in the retail market, including popular "big box" and warehouse stores that sell to homeowners and gardeners, 1,621 more tons were sold in 2017 and the average net selling price increased \$2.07 per ton, to \$222.29 from 2016 to 2017.
- Excluding depreciation, operating expenses in 2017 increased \$1.3 million or 1.5% over the amount for 2016. The District had a budgeted increase for 2017 expenditures of 0.7%. The primary reason for the larger increase in actual expenditures over 2016's amount, is a \$1.5 million larger than expected increase in health claims.
- Nonoperating revenues increased by \$11.3 million of 9.2%. Although tax levies to District member communities increased property tax revenue by \$2.5 million or 2.6%, there was an increase of \$5.6 million or 21.7% in 2017 for capital charges to municipalities outside the District. This is primarily due to lower credits related to a decrease in watercourse expenditures.

Municipalities outside the District receive a credit for expenditures on watercourses for which they are not tributary to the watercourse being improved.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

As of December 31, 2018, the District's investment in capital assets amounted to \$3.3 billion (net of accumulated depreciation) as shown in Table A-3 below. The decrease of \$40.5 million in net capital assets for 2019 reflects an \$96.3 million increase in accumulated depreciation which exceeds the \$55.5 million in net additions to the asset base during 2018.

During 2018 and 2017 the District incurred capital expenditures to rehabilitate, upgrade or replace assets at its two water reclamation facilities and conveyance system; continued to work on flood management projects, as well as work on sustainability projects and 2050 Facilities Planning. In 2019, the District's current six-year capital expenditure forecast projects \$783.3 million in project and program

Table A-3 Capital Assets (000's)

	2018	2017	2016	Percentage Increase (Decrease) 2018 Versus 2017
Land, Land Easements & Land Improvements	165,928	159,874	\$157,224	3.8%
Buildings	825,901	821,594	815,266	0.5
Machinery & Equipment	1,010,263	945,351	936,622	6.9
Aeration and Clarifier Tanks	86,398	86,254	86,254	0.2
Watercourse Improvements	363,229	361,507	361,382	0.5
Intercepting Sewer System & Rights	2,502,735	2,502,186	2,502,198	0.0
Construction in Progress	222,959	244,794	206,008	(8.9)
Subtotal	5,177,413	5,121,560	5,064,954	1.1
Less: Accumulated Depreciation	(1,855,116)	(1,758,780)	(1,665,930)	5.5
Net Capital Assets	\$3,322,297	\$3,362,780	\$3,399,024	(1.2)%

See accompanying independent auditors' report.

expenditures over the six-year period from 2019 through 2024. During this six-year period the capital improvement program continues its focus on asset management and sustainability rather than expansion of capacity.

More detailed information about the District's capital assets is presented in Note 6 to the financial statements.

Debt Administration

General obligation indebtedness outstanding at December 31, 2018 amounted to \$815.6 million. Included in this amount are \$286.5 million of general obligation bonds issued by the District.

The remaining balance of \$529.1 million represents funds received by the District through the State of Wisconsin Clean Water Fund Loan Program, which provides low interest loans for use in the construction of wastewater treatment facilities. Interest on these loans is payable semi-annually with interest rates ranging from 1.76% to 4.95%.

On June 12, 2017, the District issued \$80 million of General Obligation Promissory Bonds, Series 2017A. The net proceeds from this issue will provide funding for a portion of the District's capital improvements program in 2017 through 2019. The Series 2017A issue, competitively sold by the District, is the first issue since October of 2015.

Fitch Ratings affirmed the District's current bond rating on May 18, 2017. Moody's Investor's Services and Standard & Poor's current bond rating were affirmed on April 5 and April 7, 2017 respectively. The current ratings are as follows:

<u>Fitch Ratings</u> AAA	<u>Moody's Investors Service</u> Aa1	<u>Standard & Poor's</u> AA+
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At December 31, 2018, the District has an intergovernmental loan for \$18.8 million. This loan is with City of Franklin for costs related to constructing the Ryan Creek Interceptor in accordance with District standards and which the District will purchase from Franklin. The District made payments to Franklin, beginning in 2015, equal to Franklin's annual payments toward repaying its loan with the Clean Water Fund Loan Program used to finance the construction of the interceptor. On January 3, 2017, the District reimbursed Franklin for the sums Franklin has paid toward the Clean Water Fund Program loan through 2014.

Additional information on the District's long-term debt can be found in Note 7 to the financial statements and Exhibits B-12 to B-14 in the statistical section of this report.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGETS AND RATES

- The average unemployment rate for Milwaukee County was 3.6 percent for 2018, a decrease from the 4.0 percent rate for 2017. This compares to the state's unemployment rate of 3.0 percent and the national rate of 3.9 percent.
- Inflation in the metropolitan area was similar to the national consumer price index.
 - The Midwest Region inflation rate was 1.3% for 2018.
 - The average U.S. city rate was 2.4% for 2018.
- The equalized valuation for the District's service area (including communities outside the District) increased by 3.6 percent in 2018, while 2018 user charge wasteloads changed as follows:
 - Billable flows down 1.5%.
 - Pounds of Biochemical Oxygen Demand (BOD) down 2.8%
 - Pounds of Total Suspended Solids (TSS) down 2.3%.

All these factors were taken into consideration when preparing the District's budgets.

The District approved a \$104.7 million 2019 Operation and Maintenance Budget, an increase of \$2.7 million or 2.7% from 2018. The District's user charge billings for 2019 are budgeted to increase 1.22% to \$84.8 million. The average District residential charge for 2019 is increasing \$2.85 to \$140.22 or 2.1% from the 2018 amount of \$137.37.

See *accompanying independent auditors' report*.

Items of note in the 2019 Operations and Maintenance (O&M) Budget include:

- Sewer user charge billings are increasing 1.22%, as the District enters the second year of a ten-year Veolia Water operating contract extension agreement that began in March of 2018.
- The 2019's O&M budget the District returns the 2017 surplus of \$6.0 million, a 19.3% decrease over 2018's amount of \$7.5 million.
- Milorganite net revenue is projected to increase to \$10 million or an 11.1% increase over 2018's budgeted amount. As the District continues to focus on increasing sales in the retail market, including popular "big box" and warehouse stores that sell to homeowners and gardeners, the District earned \$10.3 million in Milorganite revenue in 2018.
- Total O&M expenditures are increasing 2.7% or \$2.7 million, compared to the 2018 O&M budgeted amount. A significant portion of the increase is attributable to first full year of the extension agreement with Veolia Water, as well as ensuring adequate funding for machinery and equipment replacement that does not meet the capital budget funding criteria.

The District's Commission approved a 2019 Capital Budget that included a tax levy of \$100.1 million, which is a 1.75% increase over the amount of the levy of the prior year. The tax rate decreased 2.4% from \$1.73 to \$1.69 per \$1,000 of equalized value. Included in the 2019 Capital Budget is the current six-year financing plan that projects tax levy increases of 4% per year from 2020 through 2024, while increasing the estimated tax rate from \$1.69 to \$1.82 per \$1,000 of equalized value.

In the summer of 2010, the District's service area and local systems experienced extreme wet weather events that exceeded system capacity. To address the great magnitude of the problem, the 2011 Capital Budget introduced a Private Property Infiltration and Inflow (PPI/I) Reduction program. The 2018 Capital Budget's long-range financial plan maintains funding at \$5 million for years 2019 through 2024, bringing the total actual and planned program funding to \$80 million. The funding for this program will be used to reimburse each of the 28 municipalities within the District service area as they incur expenditures addressing I/I issues on private property within their own municipality. PPI/I program expenditures are written off in the year the municipality is reimbursed as they do result in a District asset.

The great majority of capital expenditures in the 2019 Capital Budget are for the continued effort to rehabilitate, replace, upgrade or improvement of existing District facilities and infrastructure, at over \$460 million over the next six years. Extensive expenditures are planned for watercourse and flood management improvements at \$176 million in the six-year long-range financing plan. The District's 2050 Facilities Plan and Green Infrastructure plan are underway and will have a significant impact on future budgets once the recommendations are approved.

Finally, the six-year long range financing plan provides for an average level of expenditures for capital projects and programs of \$130.1 million per year from 2019 through 2024 while the District maintains its average of 25% cash financing objective over the six-year period and while maintaining and stabilizing debt outstanding as a percentage of equalized value in a range of 1.21% in 2019 to 1.22% in 2024.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the District's finances for all those with an interest in the District's finances and to demonstrate the District's accountability for the money it receives. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Milwaukee Metropolitan Sewerage District, 260 W. Seeboth St., Milwaukee, WI. 53204-1446 or made at the District's website www.mmsd.com.



Exhibit A-1

Statements of Net Position

AS OF DECEMBER 31, 2018 AND 2017
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

ASSETS	2018	2017
	(In Thousands)	
Current unrestricted assets:		
Cash and cash equivalents	\$ 22,285	\$ 6,327
Investments	14,629	24,439
Receivables:		
Billed user charges	3,798	6,941
Unbilled user charges	13,742	12,506
Fertilizer sales	1,599	1,062
Other	2,014	1,307
Inventories:		
Operating and maintenance supplies	2,498	2,499
Fertilizer	1,618	1,435
Total Current Unrestricted Assets	<u>62,183</u>	<u>56,516</u>
Current restricted assets:		
Cash and cash equivalents	5,010	18,072
Investments	18,918	10,339
Receivables:		
Tax levy	100,102	98,380
Capital charges – municipalities outside the District	29,660	30,892
Grant funds	1,658	628
Other	392	812
Prepaid expenses and other	193	336
Total Current Restricted Assets	<u>155,933</u>	<u>159,458</u>
Total Current Assets	<u>218,116</u>	<u>215,974</u>
Noncurrent restricted assets:		
Investments	<u>108,021</u>	<u>118,105</u>
Capital assets, at cost:		
Land	77,416	76,911
Land easements	65,063	62,921
Land improvements	23,449	20,042
Buildings	825,901	821,594
Aeration and clarifier tanks	86,398	86,254
Machinery and equipment	1,010,263	945,351
Intercepting sewer system	2,478,146	2,477,597
Interceptor rights	24,589	24,589
Watercourse improvement	363,229	361,507
Construction in progress	222,959	244,794
Total Capital Assets	5,177,413	5,121,560
Less: Accumulated depreciation	<u>(1,855,116)</u>	<u>(1,758,780)</u>
Net Capital Assets	<u>3,322,297</u>	<u>3,362,780</u>
Total Assets	<u>3,648,434</u>	<u>3,696,859</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows of resources:		
Pension deferred outflows	7,320	8,265
Unamortized loss on refunding	3,332	3,782
Total Deferred Outflows of Resources	<u>10,652</u>	<u>12,047</u>

See accompanying notes to financial statements.



LIABILITIES	<u>2018</u>	<u>2017</u>
	(In Thousands)	
Current liabilities (payable from unrestricted current assets):		
Accounts payable	\$ 10,744	\$ 7,399
Accrued salaries and wages	290	296
Accrued vacation pay	1,275	1,222
Other	<u>510</u>	<u>560</u>
Total Current Liabilities (Payable from Unrestricted Current Assets)	<u>12,819</u>	<u>9,477</u>
Current liabilities (payable from restricted assets):		
Accounts payable	9,421	7,759
Retainers payable	685	937
Accrued interest	4,959	5,405
Long-term obligations due within one year	<u>84,819</u>	<u>85,461</u>
Total Current Liabilities (Payable from Restricted Assets)	<u>99,884</u>	<u>99,562</u>
Total Current Liabilities Payable	<u>112,703</u>	<u>109,039</u>
Noncurrent liabilities:		
Retainers payable	199	7
Long-term obligations:		
General obligation bonds	273,222	298,909
Clean Water Fund Program loans	469,655	509,471
Intergovernmental loan	17,555	18,800
Total OPEB liability	120,212	52,920
Net pension liability	6,435	8,222
Accrued vested sick pay	<u>372</u>	<u>412</u>
Total Long-term Obligations	<u>887,650</u>	<u>888,741</u>
Total Liabilities	<u>1,000,353</u>	<u>997,780</u>
DEFERRED INFLOWS OF RESOURCES		
Tax levies	100,102	98,380
Capital charges – municipalities outside the District	29,770	32,031
Pension deferred inflows	2,966	502
OPEB deferred inflows	<u>8,942</u>	<u>-</u>
Total Deferred Inflows of Resources	<u>141,780</u>	<u>130,913</u>
Total Liabilities and Deferred Inflows of Resources	<u>1,142,133</u>	<u>1,128,693</u>
NET POSITION		
Net Position:		
Investment in capital assets	2,513,765	2,501,652
Restricted – capital projects and programs	62,188	58,337
Restricted – equipment replacement	15,082	14,694
Restricted – debt service	7,801	12,205
Unrestricted (deficit)	<u>(81,883)</u>	<u>(6,675)</u>
TOTAL NET POSITION	<u>\$ 2,516,953</u>	<u>\$ 2,580,213</u>

See accompanying notes to financial statements.



Exhibit A-2

Statements of Revenues, Expenses and Changes in Net Position

FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

	2018	2017
	(In Thousands)	
OPERATING REVENUES		
User charges	\$ 84,965	\$ 78,301
Fertilizer	10,313	10,272
Other	1,466	1,042
Total Operating Revenues	<u>96,744</u>	<u>89,615</u>
OPERATING EXPENSES		
Systems - operation and maintenance	59,490	56,415
Laboratory and research services	832	2,812
Industrial waste and conveyance monitoring	(601)	3,161
Finance, engineering, and administration	13,591	28,115
Depreciation and amortization	96,356	93,951
Total Operating Expenses	<u>169,668</u>	<u>184,454</u>
OPERATING LOSS	<u>(72,924)</u>	<u>(94,839)</u>
NONOPERATING REVENUES (EXPENSES)		
Property taxes - capital	98,328	98,250
Investment income	2,970	1,390
Net increase (decrease) in fair value of investments	14	(165)
Interest expense	(23,603)	(20,364)
Capital charges - municipalities outside the District	31,700	31,523
Gain (loss) on disposal of capital assets	(1,251)	1,034
Capital program expenditures	(3,887)	(7,017)
Land contributed to municipalities	(87)	(18)
Other	2,316	2,353
Total Nonoperating Revenues (Expenses), Net	<u>106,500</u>	<u>106,986</u>
Income before Capital Contributions	33,576	12,147
CAPITAL CONTRIBUTIONS	<u>2,682</u>	<u>1,189</u>
CHANGE IN NET POSITION	36,258	13,336
NET POSITION - Beginning of Year	<u>2,580,213</u>	<u>2,566,877</u>
Cumulative effect of a change in accounting principle	<u>(99,518)</u>	<u>-</u>
NET POSITION - END OF YEAR	<u>\$ 2,516,953</u>	<u>\$ 2,580,213</u>

See accompanying notes to financial statements.

Exhibit A-3

Statements of Cash Flows

FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

	2018	2017
	(In Thousands)	
CASH FLOW FROM OPERATING ACTIVITIES		
Receipts from customers and users	\$ 100,143	\$ 92,566
Payments for capital programs	(3,887)	(7,017)
Payments to suppliers	(77,371)	(71,976)
Payments to employees	(14,340)	(13,890)
Net Cash Provided (Used) by Operating Activities	<u>4,545</u>	<u>(317)</u>
CASH FLOW FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Acquisition and construction of capital assets	(54,834)	(54,254)
Proceeds from long-term debt issued	19,734	92,850
Principal payments on long-term obligations	(85,518)	(96,169)
Interest paid on long-term obligations (net of capitalized interest)	(25,205)	(28,078)
Premium received on debt issued	-	5,579
Government grant receipts and other contributions	877	526
Tax levy receipts	98,328	98,250
Capital charges – municipalities outside the District	30,671	30,877
Net Cash Provided (Used) by Capital and Related Financing Activities	<u>(15,947)</u>	<u>49,581</u>
CASH FLOW FROM INVESTING ACTIVITIES		
Investment income	2,970	1,390
Purchase of investments	(602)	(45,836)
Proceeds from sale and maturity of investments	11,930	10,393
Net cash provided (used) by investing activities	<u>14,298</u>	<u>(34,053)</u>
Net (decrease) increase in cash and cash equivalents	2,896	15,211
CASH AND CASH EQUIVALENTS - Beginning of Year	<u>24,399</u>	<u>9,188</u>
CASH AND CASH EQUIVALENTS - END OF YEAR	<u>\$ 27,295</u>	<u>\$ 24,399</u>
CASH AND CASH EQUIVALENTS AS PRESENTED IN THE ACCOMPANYING STATEMENTS OF NET POSITION		
Current cash and equivalents	\$ 22,285	\$ 6,327
Current investments	14,629	24,439
Current restricted cash and investments	23,928	28,410
Noncurrent investments	108,021	118,105
Less: Noncash equivalents	<u>(141,568)</u>	<u>(152,882)</u>
CASH AND CASH EQUIVALENTS	<u>\$ 27,295</u>	<u>\$ 24,399</u>
RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED (USED) BY OTHER OPERATING ACTIVITIES		
Operating loss	\$ (72,924)	\$ (94,839)
Adjustments to reconcile operating loss to net cash provided (used) by operating activities		
Depreciation	96,356	93,951
Postretirement benefits	(23,284)	2,626
Other nonoperating revenue	2,316	2,353
Capital program expenditures	(3,887)	(7,017)
Changes in current assets and liabilities:		
Current receivables and other assets	1,083	598
Prepaid expenses and other	143	(105)
Inventories	(182)	(180)
Accounts payable and other liabilities	<u>4,924</u>	<u>2,296</u>
NET CASH (USED IN) PROVIDED BY OPERATING ACTIVITIES	<u>\$ 4,545</u>	<u>\$ (317)</u>
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES		
Increase (decrease) in fair value of investments	\$ 14	\$ (165)
Increase (decrease) in capital grants accrued municipalities outside the District (net impact)	1,030	-
Capital assets contributed by others	1,029	646
Capitalized interest	744	934
Capitalized interest	-	5,068
Gain (loss) on disposal of capital assets	(1,251)	1,034
Land contributed to municipalities	87	18

See accompanying notes to financial statements.

NOTE 1 – BASIS OF PRESENTATION

The Milwaukee Metropolitan Sewerage District (the District) is a special purpose municipal corporation established by the laws of the State of Wisconsin. The District's legal boundary includes all of Milwaukee County with the exclusion of the City of South Milwaukee. The legal boundary also includes the portion of the Village of Bayside which is in Ozaukee County and those portions of the City of Milwaukee that are in Waukesha County and Washington County. The District determines and costs associated with collection and sewer user charges from municipalities within this area in order to apportion all operation and maintenance costs associated with treatment operations. The District also provides service to certain municipalities outside the District for collection and treatment of their sewage. Construction and maintenance of all intercepting sewers, watercourse improvements, and water reclamation facilities within its territorial area are also the responsibilities of the District. The District also produces organic nitrogen fertilizer (Milorganite®) as a by-product of its wastewater treatment process for residential and commercial use.

The District has the authority to finance its capital project costs through the use of a property tax levy, user charge, or the sale of revenue or general obligation bonds. Additionally, the District may contract with users outside the District's boundaries for payment toward its capital costs.

The accompanying financial statements include all transactions of the District for which the District is financially accountable. Financial accountability is defined as an appointment of a majority of a component unit's board and either the ability to impose the will of the District or the possibility that the component unit will provide a financial benefit to or impose a financial burden on the District. Based on these criteria, the District has determined that there are no component units that come under the criteria for inclusion. The District is not a component unit of any other government entity.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the District have been prepared in conformity with accounting principles generally accepted in the United States of America as applied to enterprise funds of governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The following is a summary of the more significant policies.

FINANCIAL STATEMENT PRESENTATION AND BASIS OF ACCOUNTING

The District prepares its financial statements on an enterprise fund basis. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private businesses, where the intent is that all costs of providing certain goods and services to the general public be financed or recovered primarily through user charges, or where it has been deemed that periodic determination of net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes. Accordingly, the District's financial statements are presented using the economic resources measurement focus and the accrual basis of accounting. Revenues from operations, investments, and other sources are recorded when earned, and expenses are recorded when liabilities are incurred.

In June 2015, the GASB issued Statement No. 75 - Accounting and Financial Reporting for Postemployment Benefits Other than Pensions. This statement replaces the requirements of Statements No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB. This standard was implemented January 1, 2018. The cumulative impact of implementation is shown in Note 14.

In June 2018, the GASB issued Statement No. 89 - Accounting for Interest Cost Incurred before the End of a Construction Period. This statement establishes requirements for interest cost incurred before the end of a construction period. This standard was implemented January 1, 2018.

CASH EQUIVALENTS

The District generally considers deposits and all unrestricted highly liquid investments purchased with an initial maturity of three months or less to be cash equivalents.

INVESTMENTS

Investment of the District's funds is restricted by state statutes. Investments are limited to:

- ◆ Time deposits in any credit union, bank, savings bank or trust company maturing in three years or less.
- ◆ Bonds or securities of any county, city, drainage district, technical college district, village, town, or school district of the state. Also, bonds issued by a local exposition district, local professional baseball park district, local professional football stadium 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.
- ◆ The local government investment pool.
- ◆ Any security maturing in seven years or less and having the highest or second highest rating category of a nationally recognized rating agency.
- ◆ Securities of an open end management investment company or investment trust, subject to various conditions and investment options.
- ◆ Repurchase agreements with public depositories, with certain conditions.

Investments are reported at fair value based on quoted market prices in accordance with GASB statement No. 72, Fair Value Measurement and Application. Fair values are based on methods and inputs as outlined in Note 3.

Investment income, including changes in the fair value of investments and realized gains and losses, is recognized as revenue in the Statements of Revenues, Expenses, and Changes in Net Position.

The District invests in the Wisconsin Local Government Investment Pool (the Pool), which 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 (SEC), but operates under the statutory authority of Wisconsin Chapter 25. The Pool reports the fair value of its underlying assets annually. The District's investment in the Pool is reported at fair value in the statements of net position. The fair value of the District's investment in the Pool equals the net realizable value of the District's share of the Pool (see Note 3). The Pool is authorized by Wisconsin statutes to enter into investments on behalf of government entities within Wisconsin and, in certain circumstances, to enter into derivative transactions to maximize the yield on its investments. However, specific information about the Pool's derivative transactions is not available to the District. Participants in the Pool have the

right to withdraw their funds on the same business day, if notification is received by the Pool by 11:00 am.

USER CHARGES

User charges are recorded on the accrual basis. User charges billed to municipalities within the service area are designed to cover only operation and maintenance expenditures and are not intended to recover capital costs. User charge rates are set by District resolution on an annual basis to recover net estimated operating expenses, excluding depreciation, after giving effect to prior year surpluses or deficits. These charges are billed to municipalities in proportion to each user's contribution to total wastewater loading into the treatment system. Each municipality's bill reflects the amount due from each user class – residential, commercial, and industrial. Due to the delay in user charge billing caused by the monthly or quarterly billing cycle, the District accrues unbilled service charges with respect to services provided during the current year.

INVENTORIES

Inventories are valued at the lower of cost (weighted average cost) or market.

PREPAYMENTS

Prepayments represent costs of insurance paid during the current audit year for coverage in subsequent years.

RESTRICTED ASSETS

The District maintains specific investments held by the bank for safekeeping for funds intended for equipment replacement. The equipment replacement funds are classified as restricted assets and were approximately \$15,082,000 and \$14,694,000 in 2018 and 2017. Also included in restricted assets are investments, receivables, and other assets available for restricted liabilities related to the District's capital improvement program of \$207,684,000 and \$197,608,000 in the same periods. Investments restricted for debt service were \$7,801,000 and \$12,205,000, respectively. Investments related to unspent bond proceeds primarily restricted for construction funds were \$33,387,000 and \$53,056,000, respectively.

PROPERTY TAXES AND CAPITAL CHARGES

Property taxes levied have been designated by the District's Commission to be legally available for capital expenditures, capital programs, and debt service requirements in the ensuing year. Taxes levied in 2018, to be collected in 2019, of \$101,101,650, have been included in deferred inflows of resources in the statements of net position at December 31, 2018, and are available for expenditure in 2019. Taxes levied in 2017, to be collected in 2018, of \$98,380,000, have been included in deferred inflows of resources in the statements of net position at December 31, 2017, and were available for expenditure in 2018.

The various municipalities within the District's legal boundary initially collect District taxes. As collections are made, the local or county treasurer makes pro rata settlements with the District beginning on or before January 15 each year and monthly thereafter. All municipalities are required to remit delinquent District taxes to the treasurer of the county in which such municipality is located by August 15 each year. The county treasurer, in turn, must settle the taxes in full with the District by August 20 regardless of actual collections.

Communities outside the District's legal boundary, but within the service area are assessed a capital charge in place of levying a property tax.

CAPITAL CONTRIBUTIONS

Capital contributions consist of federal and state grants, contributions from Veolia Water, and funds from other outside sources used to finance capital expenditures. Federal and state grant receivables are recognized as the related capital project expenditures are incurred. Revenue from grants and contributions is recognized in the year in which all eligibility requirements have been satisfied. Eligibility requirements include timing requirements, which specify the year when the resources are required to be used or the fiscal year when use is first permitted, matching requirements, in which the District must provide local resources to be used for a specified purpose, and expenditure requirements, in which the resources are provided to the District on a reimbursement basis.

CAPITAL ASSETS

Capital assets, which include land, land easements, land improvements, buildings, aeration and clarifier tanks, machinery and equipment, intercepting sewer system, interceptor rights, and watercourse improvements, are stated at cost. The District defines capital assets as assets with an initial individual cost of more than \$5,000 and an estimated useful life of three or more years. Public domain property (i.e., sewers) and other capital assets are recorded at cost. Donated capital assets are recorded at their estimated acquisition value at the date of donation. The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend the assets' lives are not capitalized.

Through December 31, 2017, interest was capitalized on constructed assets acquired with tax-exempt debt. The amount of interest to be capitalized is calculated by offsetting interest expense incurred from the date of the borrowing until completion of the project with interest earned on invested proceeds over the same period. Capitalized interest cost is amortized on the same basis as the related asset is depreciated. The amount of interest capitalized was \$0 and \$5,068,000 in 2018 and 2017, respectively. As of January 1, 2018, the District adopted GASB Statement No. 89.

Depreciation/amortization are provided using the straight-line method over the following estimated useful lives:

	Years
Land easements	50
Land improvements	30-60
Buildings	50-65
Aeration and clarifier tanks	20-25
Machinery and equipment	3-50
Intercepting sewer system	20-100
Interceptor rights	50
Watercourse improvements	65-80

Depreciation is not provided on construction in progress until the project is completed and placed in service.

VACATION PAY

Vacation pay is accrued as earned although vacation pay is to be used within one year, as an accommodation to workload variations, employees are allowed to accumulate vacation hours in excess of the current year allotment during the calendar year. However, all balances in excess of 150% of the current year allotment are reduced to the 150% level on December 31 of each year. The accrued vacation pay of \$1,275,000 and \$1,222,000 at December 31, 2018 and 2017, respectively, is classified as a current liability.

RETAINERS PAYABLE

The District withholds payment for a portion of construction work completed. Upon completion of construction projects, the District remits payment for the amount withheld. Retainers expected to be paid during the next year are classified as current.

DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

A deferred outflow of resources represents the consumption of net position that applies to a future period and therefore will not be recognized as an outflow of resources (expense) until that future period.

A deferred inflow of resources represents an acquisition of net position that applies to a future period and therefore will not be recognized as an inflow of resources (revenue) until that future time.

On an accrual basis, revenue from property taxes and capital charges for communities outside the District are recognized in the period they are intended to finance, which is the year after the taxes are levied and the capital charges are incurred. A deferred inflow of resources arises when assets are recognized before the period for revenue recognition has occurred.

Gains or losses on refunding are deferred and amortized over the life of related bonds on a straight line basis and are reported as deferred inflows or outflows.

Certain changes impacting the net position liability and total OPEB liability are deferred as discussed in Note 10 and 11.

BOND PREMIUMS AND DISCOUNTS

Bond premiums and discounts are deferred and amortized over the life of the bonds using the effective interest method. Bonds payable are reported net of the applicable bond premium or discount.

VESTED SICK PAY

Prior to 1984, it was the District's practice that employees could accumulate unused sick pay to a maximum of 240 days, and upon retirement could receive payment for one-half of their accumulated days. In 1984, the accumulated unused sick pay for management employees was frozen at the balance earned as of December 31, 1983. The Union employees continued to accumulate unused sick pay until 2012. The accumulated sick pay for Union employees was frozen at the balance earned as of April 30, 2012. As of December 31, 2018, the District had no employees covered by a labor agreement. District Council 48, Local 366, AFSCME, AFL-CIO, which previously represented 82, voted to decertify in 2016 and the associated labor agreement expired April 30, 2016. The frozen sick pay of the District employees is \$662,000 and \$708,000 at December 31, 2018 and 2017, respectively. Of the total, \$372,000 and \$412,000 at December 31, 2018 and 2017, respectively, are classified as a long-term liability. The current portion is included with accrued salaries and wages.

PENSIONS

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Employees' Retirement System (ERS) and additions to/deductions from ERS' fiduciary net position have been determined on the same basis as they are reported by ERS. 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.

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

For purposes of measuring the total OPEB liability (asset), deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, the OPEB Plan recognizes benefit payments when due and payable in accordance with the benefit terms.

NET POSITION

Net position is displayed in three components as follows:

Investment in Capital Assets – consists of all capital assets, net of accumulated depreciation and reduced by outstanding debt that is attributable to the acquisition, construction, and improvement of those assets; debt related to unspent proceeds or other restricted cash and investments is excluded from the determination.

Restricted – consists of constraints placed on net position that are legally restricted by outside parties or by law through constitutional provisions or enabling legislation. When both restricted and unrestricted resources are available for use, generally it is the District's policy to use restricted resources first, then unrestricted resources when they are needed.

Unrestricted – consists of net position that does not meet the definition of "restricted" or "net investment in capital assets".

CLASSIFICATION OF REVENUES AND EXPENSES

The District has classified its revenues as either operating or nonoperating. Operating revenue includes activities that have the characteristics of exchange transactions, including sewer user charges and fertilizer (Milorganite®) sales. Nonoperating revenue includes interest income on investments and activities that have characteristics of nonexchange transactions including federal, state, and local grants and contributions.

Operating expenses are related to the operating, managing, and maintaining of the District's sewerage system. These expenses are primarily funded by sewer user charges and sales of Milorganite®. Nonoperating expenses are related to the cost of acquiring, purchasing, adding to, leasing, planning, designing, constructing, extending, and improving all or any part of the District's sewerage system; capital programs designed to finance improvements outside the system that minimize the need for future system expansion; and paying principal, interest, or premiums on any indebtedness for these purposes. These expenses are primarily funded by property taxes levied on member communities and capital billings to communities outside the District.

GAIN (LOSS) ON DISPOSAL OF CAPITAL ASSETS

Gains and losses on disposal of capital assets include assets retired as well as projects that were terminated and disposed of during the year. In addition, the cost of demolition associated with certain watercourse properties is included here.

CAPITAL PROGRAM EXPENDITURES

The District offers funding to municipalities for planning, design, investigation, and construction of projects intended to reduce inflow and infiltration on private property. The District also offers funding to municipalities for the implementation of green infrastructure. Actual costs reimbursed by the District to municipalities are shown as a nonoperating expense on the statements of revenues, expenses, and changes in net position.

LAND CONTRIBUTED TO MUNICIPALITIES

As part of its watercourse and flood abatement program, the District purchases natural wetlands to reduce the risk of future flooding problems. These properties are subsequently donated to local municipalities because they provide multiple benefits to the local community in the form of open space, wildlife habitat and passive recreation, while the District retains a conservation easement.

USE OF ESTIMATES

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues, expenses, and capital contributions during the reporting period. Actual results could differ from those estimates.

NEW ACCOUNTING PRONOUNCEMENTS

GASB has approved GASB Statement No. 83, Certain Asset Retirement Obligations, Statement No. 84, Fiduciary Activities, Statement No. 87, Leases, Statement No. 88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, and Statement No. 90, Majority Equity Interests – an amendment of GASB Statements No. 14 and No. 61. When they become effective, application of these standards may restate portions of these financial statements.

RECLASSIFICATION

Certain amounts in the 2017 financial statements may have been reclassified to conform to the classification used in 2018.

NOTE 3 – DEPOSITS AND INVESTMENTS

As of December 31, 2018, the District had the following investments and cash and cash equivalents and maturities:

Carrying Value	Investment Maturities (in Years)		
	Less than 1	1-2	3-5
	(In Thousands)		
Checking (overdraft)	\$ (334)	\$ -	\$ -
U.S. Instrumentalities	17,651	7,015	10,636
U.S. Treasuries	10,846	4,043	4,819
Local Government Investment Pool	128,935	-	-
Corporate Bonds	6,247	2,398	3,849
Money Market	5,010	5,010	-
Certificates of Deposit	508	508	-
Total Cash and Investments	\$ 168,863	\$ 147,575	\$ 19,304

As of December 31, 2017, the District had the following investments and cash and cash equivalents and maturities:

Carrying Value	Investment Maturities (in Years)		
	Less than 1	1-2	3-5
	(In Thousands)		
Checking (overdraft)	\$ (1,394)	\$ -	\$ -
U.S. Instrumentalities	20,711	5,082	14,173
U.S. Treasuries	7,809	2,365	4,455
Local Government Investment Pool	136,387	-	-
Corporate Bonds	6,258	2,858	1,003
Money Market	7,006	7,006	-
Certificates of Deposit	504	504	-
Total Cash and Investments	\$ 177,281	\$ 152,808	\$ 21,025

The checking account bank balance was \$363,800 and \$445,600 at December 31, 2018 and 2017, respectively. Deposits in each local and area bank are insured by the FDIC in the amounts of \$250,000 for time and savings accounts (including NOW accounts) and \$250,000 for demand deposit accounts (interest and noninterest bearing). Bank accounts are also insured by the State Deposit Guarantee Fund (SDGF) in the amount of \$400,000.

Interest rate risk is the risk changes in interest rates will adversely affect the fair value of an investment. During 2018 and 2017, the District was in compliance with its investment policy that all investments shall be limited to maturities not exceeding five years, and the District shall maintain at least \$10,000,000 of its total investment portfolio in instruments maturing in 60 days or less. During 2018 and 2017, investments with maturities of less than 180 days, based on par value, comprised on average, 85.95% and 84.9%, respectively, of the District's month-end investment portfolio balance.

Credit risk is risk that an issuer of an investment will not fulfill its obligations to the District. State law limits investments in commercial paper and corporate bonds to the top two ratings issued by a nationally recognized rating service at the time of purchase.

The District investment policy further limits the purchase of commercial paper to issuers with a commercial paper program size of at least \$500,000,000, except for banks and companies located within the District's boundaries. The District did not hold any investments in commercial paper as of December 31, 2018 and 2017. The District's investment in corporate bonds at December 31, 2018 and 2017, ranged from A+ to AAA by Standard & Poor's, or Aa3 to Aaa by Moody's Investors Service.

As to the credit risk related to the District's investment in the Local Government Investment Pool (LGIP), the investments are not insured. The Federal Deposit Insurance Corporation (FDIC) insures the pro rata share of certificates of deposit held by the LGIP.

At December 31, 2018 and 2017, all of the District's investment in U.S. Instrumentalities are rated either AA+ by Standard & Poor's or Aaa by Moody's Investors Service.

Concentration of credit risk is the risk of loss attributed to the magnitude of the District's investment in a single issuer. The District places no limit on the amount invested in any one issuer.

As of December 31, 2018, the District had more than 5% of the District's investments in the following issuer:

Issuer	Percentage
U.S. Treasury Note	5.11

As of December 31, 2017, the District did not have more than 5% of the District's investments in any individual issuer.

In the case of deposits, in which the related risk is the event of a bank failure, the District's deposits may not be returned to it. The District maintained certificates of deposit of \$500,000 at December 31, 2018 and 2017, respectively. These deposits, excluding \$8,000 of accrued interest at December 31, 2018 and \$4,000 of accrued interest at December 31, 2017, are fully insured through a combination of federal and state deposit insurance.

FAIR VALUE MEASUREMENT

The District records assets and liabilities in accordance with GASB 72, which establishes general principles for measuring fair value, provides additional fair value application guidance and enhances disclosures about fair value measurements.

GASB 72 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is a market-based measurement for a particular asset or liability based on assumptions that market participants would use in pricing the asset or liability. Such assumptions include observable and unobservable inputs of market data, as well as assumptions about risk and the risk inherent in the inputs to the valuation technique. As a basis for considering market participant assumptions in fair value measurements, GASB 72 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels:

- ◆ Level 1 inputs are quoted prices for identical assets or liabilities in active markets that a government can access at the measurement date. Examples include U.S. Treasury securities and equity securities from active markets. The hierarchy gives the highest priority to Level 1 inputs.
- ◆ Level 2 inputs are inputs other than quoted prices included in Level 1 that are observable for an asset or liability either directly or indirectly. Examples include government agency securities and derivatives valued using prices for similar locations or products on published exchanges.
- ◆ Level 3 inputs are unobservable inputs for an asset or liability.

The following valuation methods were used for the Districts' recurring fair value measurements as of December 31, 2018 and 2017:

- ◆ Corporate Bonds, U.S. Instrumentalities and U.S. Treasuries classified in Level 1 of the fair value hierarchy are valued using quoted market prices and all fall under the Level 1 category.

The District has the following recurring fair value measurements as of December 31, 2018 and 2017:

Investment Type	December 31, 2018				Total
	Level 1	Level 2	Level 3		
	(In Thousands)				
Corporate Bonds	\$ 6,247	\$ -	\$ -	\$ -	\$ 6,247
U.S. Instrumentalities	17,651	-	-	-	17,651
U.S. Treasuries	10,846	-	-	-	10,846
Total Investments	\$ 34,744	\$ -	\$ -	\$ -	\$ 34,744

Investment Type	December 31, 2017				Total
	Level 1	Level 2	Level 3		
	(In Thousands)				
Corporate Bonds	\$ 6,258	\$ -	\$ -	\$ -	\$ 6,258
U.S. Instrumentalities	20,710	-	-	-	20,710
U.S. Treasuries	7,809	-	-	-	7,809
Total Investments	\$ 34,777	\$ -	\$ -	\$ -	\$ 34,777

NOTE 4 – OPERATING CONTRACT AND EXPENSES

On December 3, 2007, the Milwaukee Metropolitan Sewerage District Commission approved a 10-year contract effective March 1, 2008 with Veolia Water Milwaukee, LLC (Veolia) to replace UWS as the operator of the District's two wastewater treatment plants, biosolids management and field operations, while retaining ownership of the assets. Veolia's proposal was determined to be the most cost-effective and was selected based on a competitive bid process which included UWS and after evaluating the cost effectiveness of returning the operations to the public sector. The District continued to operate its industrial waste pretreatment program; capital planning and engineering services; environmental laboratory, water quality monitoring and research; Milorganite® sales, marketing and distribution while maintaining ownership of the assets. On June 27, 2016, the District's Commission approved a 10-year extension agreement between the District and Veolia effective March 1, 2018.

As part of the original contract with Veolia, the District transferred custody of the operating and maintenance supplies inventory to Veolia on March 1, 2008 while the District retained ownership. At the termination of the contract, custody of the inventory reverts back to the District, and any change in the value of inventory is paid by the District or to the District. Any changes in inventory levels throughout the term of the agreement are recorded as inventory.

The operation and maintenance and utility fees are subject to adjustments based on various indices. The total net expenditures related to the contract for the year ended December 31, 2018 were \$48,307,000 and for the year ended December 31, 2017 were \$46,283,000. The District continues to operate its industrial waste pretreatment program, engineering, central lab monitoring and research, Milorganite® sales, marketing, and distribution. Under the terms of the new contract with Veolia the District is liable for 75% of actual energy costs, except landfill gas costs which are paid entirely by the District and Veolia is responsible for the remainder.

NOTE 5 – FEDERAL AND STATE GRANTS

The District has been awarded federal grant funds for planning, design, and construction, and state grant funds for construction.

Available and outstanding federal and state grants are presented as follows:

	Total Grant Awards	Outstanding Grants Receivable		
		Billed	Unbilled	Total
(In Thousands)				
December 31, 2018:				
Federal	\$ 5,141	\$ 1,202	\$ -	\$ 1,202
State and other	699	456	-	456
Totals	\$ 5,840	\$ 1,658	\$ -	\$ 1,658
December 31, 2017:				
Federal	\$ 1,333	\$ 78	\$ -	\$ 78
State and other	3,234	550	-	550
Totals	\$ 4,567	\$ 628	\$ -	\$ 628

The District accrues for unbilled grant amounts based on eligible project expenditures incurred. Actual billings are made in accordance with respective grant provisions.

Grants and amounts received may be subject to compliance audits. In the District's opinion, adjustments, if any, resulting from the disallowance of expenditures would not have a material adverse effect on the District's financial position.

NOTE 6 – CAPITAL ASSETS

Capital assets activity for the year ended December 31, 2018 was as follows:

	Balance, Beginning of Year	Additions	Deductions	Balance, End of Year
(In Thousands)				
Capital assets not being depreciated:				
Land	\$ 76,911	\$ 505	\$ -	\$ 77,416
Construction in progress	244,794	55,051	76,886	222,959
Total Capital Assets Not Being Depreciated	321,705	55,556	76,886	300,375
Capital assets being depreciated:				
Land easements	62,921	2,142	-	65,063
Land improvements	20,042	3,407	-	23,449
Buildings	821,594	4,308	-	825,902
Aeration and clarifier tanks	86,254	143	-	86,397
Machinery and equipment	945,351	64,933	21	1,010,263
Intercepting sewer system	2,477,597	549	-	2,478,146
Interceptor rights	24,589	-	-	24,589
Watercourse improvements	361,507	1,722	-	363,229
Total Capital Assets Being Depreciated	4,799,855	77,204	21	4,877,038
Less accumulated depreciation:				
Land easements	6,230	1,503	-	7,733
Land improvements	13,327	353	-	13,680
Buildings	409,494	16,195	-	425,689
Aeration and clarifier tanks	42,900	1,172	-	44,072
Machinery and equipment	524,981	36,431	21	561,391
Intercepting sewer system	694,358	35,161	-	729,519
Interceptor rights	2,213	492	-	2,705
Watercourse improvements	65,277	5,050	-	70,327
Total Accumulated Depreciation	1,758,780	96,357	21	1,855,116
Total Capital Assets Being Depreciated, Net	3,041,075	(19,153)	-	3,021,922
Total Capital Assets, Net	\$ 3,362,780	\$ 36,403	\$ 76,886	\$ 3,322,297

Notes to Financial Statements

Continued

Capital assets activity for the year ended December 31, 2017 was as follows:

	Balance, Beginning of Year	Additions	Deductions	Balance, End of Year
	(In Thousands)			
Capital assets not being depreciated:				
Land	\$ 75,920	\$ 991	\$ -	\$ 76,911
Construction in progress	206,008	57,111	18,325	244,794
Total Capital Assets Not Being Depreciated	281,928	58,102	18,325	321,705
Capital assets being depreciated:				
Land easements	61,262	1,659	-	62,921
Land improvements	20,042	-	-	20,042
Buildings	815,266	6,328	-	821,594
Aeration and clarifier tanks	86,254	-	-	86,254
Machinery and equipment	936,622	9,939	1,210	945,351
Intercepting sewer system	2,477,609	-	12	2,477,597
Interceptor rights	24,589	-	-	24,589
Watercourse improvements	361,382	125	-	361,507
Total Capital Assets Being Depreciated	4,783,026	18,051	1,222	4,799,855
Less accumulated depreciation:				
Land easements	4,840	1,390	-	6,230
Land improvements	12,996	331	-	13,327
Buildings	393,402	16,092	-	409,494
Aeration and clarifier tanks	41,732	1,168	-	42,900
Machinery and equipment	491,779	34,291	1,089	524,981
Intercepting sewer system	659,227	35,143	12	694,358
Interceptor rights	1,721	492	-	2,213
Watercourse improvements	60,233	5,044	-	65,277
Total Accumulated Depreciation	1,665,930	93,951	1,101	1,758,780
Total Capital Assets Being Depreciated, Net	3,117,096	(75,900)	121	3,041,075
Total Capital Assets, Net	\$ 3,399,024	\$ (17,798)	\$ 18,446	\$ 3,362,780

The District had construction contract commitments of approximately \$18,935,000 and \$8,059,000 as of December 31, 2018 and 2017, respectively.

The increase in construction in progress may differ from the decrease in capital assets due to discontinued projects, projects or assets from completed projects transferred or donated to other municipalities or other parties.

NOTE 7 – LONG-TERM OBLIGATIONS

Changes in long-term obligations for the year ended December 31, 2018 were as follows:

	Beginning Balance	Additions	Reductions (In Thousands)	Ending Balance	Due within One Year
General obligation bonds	\$ 312,940	\$ -	\$ (26,465)	\$ 286,475	\$ 24,080
Plus unamortized premium	12,434	-	(1,607)	10,827	-
Total Bonds Payable	325,374	-	(28,072)	297,302	24,080
State of Wisconsin Clean					
Water Fund	567,253	19,734	(57,838)	529,149	59,494
Subtotal	892,627	19,734	(85,910)	826,451	83,574
Intergovernmental loan	20,014	-	(1,214)	18,800	1,245
Net OPEB liability	136,720	5,894	(22,402)	120,212	-
Net Pension liability	8,222	-	(1,787)	6,435	-
Vested sick pay*	708	-	(48)	662	290
Total	\$ 1,058,291	\$ 25,628	\$ (111,359)	\$ 972,560	\$ 85,109

Changes in long-term obligations for the year ended December 31, 2017 were as follows:

	Beginning Balance	Additions	Reductions (In Thousands)	Ending Balance	Due within One Year
General obligation bonds	\$ 270,040	\$ 80,000	\$ (37,100)	\$ 312,940	\$ 26,465
Plus unamortized premium	8,483	5,579	(1,628)	12,434	-
Total Bonds Payable	278,523	85,579	(38,728)	325,374	26,465
State of Wisconsin Clean					
Water Fund	611,184	12,850	(66,781)	567,253	57,782
Subtotal	889,707	98,429	(95,509)	892,627	84,247
Intergovernmental loan	22,302	-	(2,288)	20,014	1,214
Other long term debt	-	-	-	-	-
Other postretirement benefits	50,294	9,110	(6,484)	52,920	-
Net Pension liability	8,075	147	-	8,222	-
Vested sick pay*	777	-	(69)	708	296
Total	\$ 971,155	\$ 107,686	\$ (104,350)	\$ 974,491	\$ 85,757

*Vested sick pay is frozen as discussed in Note 2.

The District has issued general obligations bonds to provide funds for the acquisition and construction of major capital assets. All general obligation bonds are backed by the full faith and credit of the District. Interest on these bonds is payable semiannually at varying interest rates ranging from 2.39% to 4.45% (effective interest rate of 3.32%).

Debt service requirements are as follows:

Year	Principal	Interest (In Thousands)	Subsidy*	Total
2019	24,080	11,024	(557)	34,547
2020	24,855	10,076	(523)	34,408
2021	25,940	9,044	(487)	34,497
2022	19,640	7,961	(449)	27,152
2023	15,275	7,149	(410)	22,014
2024-2028	85,305	26,314	(1,379)	110,240
2029-2033	62,735	11,189	(183)	73,741
2034-2037	28,645	2,110	-	30,755
Total	\$ 286,475	\$ 84,867	\$ (3,988)	\$ 367,354

* The subsidy is based on the original 35% federal interest subsidy provided by the federal government. During fiscal year 2018 interest subsidies received were reduced by 6.6% and during federal fiscal year 2019, the subsidy payments have been reduced by 6.2%. This amount may continue to change based on sequestration.

The District has received funds through the State of Wisconsin Clean Water Fund Loan Program. Interest on these loans is payable semiannually at varying interest rates ranging from 1.76% to 4.95% (effective interest rate of 2.88%). Principal is payable annually in varying amounts. Debt service requirements are as follows:

Year	Principal	Interest (In Thousands)	Total
2019	\$ 59,494	\$ 12,218	\$ 71,712
2020	60,242	10,686	70,928
2021	58,417	9,178	67,595
2022	46,024	7,883	53,907
2023	45,631	6,769	52,400
2024-2028	191,386	18,340	209,726
2029-2033	58,039	3,470	61,509
2034-2036	9,916	321	10,237
Total	\$ 529,149	\$ 68,865	\$ 598,014

The District has outstanding loan commitments available of \$6,907,959 and \$7,904,948 at December 31, 2018 and 2017, respectively, from the State of Wisconsin Clean Water Fund Loan Program. These commitments will be utilized for future construction of wastewater treatment facilities.

In 2010, the District entered into an intergovernmental loan agreement with the City of Franklin to finance the Ryan Interceptor (project). The City of Franklin is constructing the project which will ultimately become an asset of the District. The City of Franklin has obtained Clean Water Fund Loan financing for this project at 2.46%. The District's obligation will equal the total principal and interest payments on that loan. The District has agreed to make payments to the City of Franklin beginning in 2015 and the debt is anticipated to be paid off in 2031. On January 3, 2017, the District made a payment to the City of Franklin to reimburse the City for the sums paid toward the loan through 2014. The outstanding amount at December 31, 2018 is \$18,799,970. Debt service requirements are as follows:

Year	Principal	Interest (In Thousands)	Total
2019	1,245	448	1,693
2020	1,275	417	1,692
2021	1,307	385	1,692
2022	1,339	352	1,691
2023	1,372	319	1,691
2024-2028	7,382	1,064	8,446
2029-2031	4,880	182	5,062
Total	\$ 18,800	\$ 3,167	\$ 21,967

On December 15, 2003, the District issued \$38,105,000 General Obligation Capital Purpose Refunding Bonds, Series 2003I. The proceeds were used to purchase state and local government securities which, together with an initial cash deposit and debt service funds released, were placed in an irrevocable trust with an escrow agent to provide for future debt service payments on a portion of the General Obligation Capital Purpose Bonds, Series 2001A and Series 2003D. Neither the defeased debt nor the funds held in trust are recorded on the District's statement of net position. The difference between the reacquisition price and the net carrying amount of the old debt was a loss of \$1,981,000, which is reported in the accompanying financial statements as a reduction to long-term obligations and is being amortized as a component of interest expense through 2018. The unamortized refunding loss was \$0 and \$100,000 as of December 31, 2018 and 2017, respectively. The remaining balance on the Series 2003I Bonds at December 31, 2018 and 2017, included in general obligation bonds, is \$0 and \$6,180,000 respectively.

On April 21, 2005, the District issued \$57,115,000 of General Sewerage System Refunding Bonds, Series 2005A. The proceeds were used to purchase state and local government securities which, together with an initial cash deposit and debt service funds released, were placed in an irrevocable trust with an escrow agent to provide for future debt service payments on a portion of the General Obligation Sewerage System Bonds, Series 2001A. Neither the defeased debt nor the funds held in trust are recorded on the District's statement of net position. The difference between the acquisition price and the net carrying amount of the old debt was a loss of \$217,000, which is reported in the accompanying financial statements as a reduction to long-term obligations and is being amortized as a component of interest expense through 2022.

The unamortized refunding loss was \$45,000 and \$57,000 as of December 31, 2018 and 2017, respectively. The remaining balance on the Series 2005A Bonds at December 31, 2018 and 2017, included in general obligation bonds, is \$38,485,000 and \$42,525,000 respectively.

On August 4, 2008, the District issued \$70,000,000 of General Sewerage System Bonds, Series 2008F, with an average interest rate of 4.9 percent. The proceeds were used to fund District capital improvements. On October 21, 2015, \$42,725,000 of callable maturities of the 2008F bonds were funded with the issuance of the 2015C General Sewerage System Bonds. The new service life of the remaining debt is through 2018. The remaining balance on the Series 2008F Bonds at December 31, 2018 and 2017, included in general obligation bonds, is \$0 and \$3,235,000, respectively.

On December 23, 2010, the District issued \$50,000,000 of General Obligation Sewerage System Bonds, Series 2010L with an average interest rate of 3.9 percent. Included in the proceeds is a subsidy from the Build America Bonds program of \$9,186,000 which will reduce the payment over the life of the bonds until 2030. This amount may change based on sequestration. The proceeds were used to fund District capital improvements. The remaining balance on the series 2010L Bonds at December 31, 2018 and 2017 included in general obligation bonds is \$32,365,000 and \$34,635,000, respectively.

On May 6, 2015, the District issued \$100,000,000 of General Obligation Sewerage System Bonds, Series 2015A with an average interest rate of 3.7 percent. The proceeds were used to fund District capital improvements. The remaining balance on the Series 2015A Bonds at December 31, 2018 and 2017, included in general obligation bonds, is \$95,670,000 and \$100,000,000, respectively.

On October 21, 2015, the District issued \$47,765,000 of General Sewer System Refunding Bonds, Series 2015C. The proceeds were used to purchase U.S. government securities which, together with an initial cash deposit and debt service funds released, were placed in an irrevocable trust with an escrow agent to provide for future debt service payments on a portion of the General Obligation Sewerage System Bonds, Series 2008F. Neither the defeased debt nor the funds held in trust are recorded on the District's statement of net assets. The difference between the acquisition price and the net carrying amount of the old debt was a loss of \$4,443,000, which was reported in the accompanying financial statements as a loss to long-term obligations and is being amortized as a component of interest expense through 2028. The unamortized refunding loss was \$3,287,000 and \$3,624,000 as of December 31, 2018 and 2017, respectively. The remaining balance on the Series 2008F Bonds at December 31, 2018 and 2017, included in general obligation bonds, is \$0 and \$3,235,000, respectively. The remaining balance on the Series 2015C Bonds at December 31, 2018 and 2017, included in general obligation bonds, is \$45,695,000 and \$46,365,000, respectively.

On June 12, 2017 the District issued \$80,000,000 of General Sewerage System Bonds, Series 2017A, with an average interest rate of 3.5 percent. The proceeds are being used to fund District capital improvements. The remaining balance on the Series 2017A Bonds at December 31, 2018 and 2017 included in general obligation bonds, is \$74,260,000 and \$80,000,000, respectively.

Interest incurred to finance the construction of capital projects were capitalized as additional costs of capital projects. Such costs capitalized, net of related interest income, amounted to \$0 in 2018 due to the implementation of GASB issued Statement No. 87 - Accounting for Interest Cost Incurred Before the End of a Construction Period, and \$5,068,000 in 2017.

A computation of the legal debt margin, as defined by Wisconsin Statute, as of December 31 follows:

	2018	2017
	(In Thousands)	
Equalized valuation as determined by the Supervisor of Assessments of the Wisconsin Department of Revenue	\$ 62,864,828	\$ 60,253,027
Statutory debt limit rate - Wisconsin Statutes Section 67.03	5%	5%
Statutory Debt Limit	3,143,241	3,012,651
General obligation indebtedness:		
Outstanding bonds issued by the District	(286,475)	(312,940)
Clean Water Fund Program loans	(529,149)	(567,253)
Legal Debt Margin	\$ 2,327,617	\$ 2,132,458

NOTE 8 - RISK MANAGEMENT

The District is exposed to various risks of loss related to torts; theft of, damage to, or destruction of assets; errors and omissions; workers' compensation; and health care of its employees. The District carries policies of insurance with respect to its property, vessels, equipment, and passenger and commercial vehicles (including comprehensive liability), environmental site liability, contractor's pollution liability, owner's professional liability, excess workers' compensation and health benefits. The District carries no insurance coverage for general liability. Settled claims have not exceeded the commercial coverage in any of the past three years. There has been no reduction in insurance coverage from that of prior years.

The District is self-insured for workers' compensation and employer liability claims subject to certain limits of coverage. In addition, the District retains the risk for all comprehensive general liability claims. A liability for a claim is established if information indicates that it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss is reasonably estimable. The liability for claims payable included with accounts payable in the statements of net position includes claims incurred but not reported (IBNR) totaling approximately \$40,000 and \$80,000 as of December 31, 2018 and 2017, respectively.

	2018	2017	2016
	(In Thousands)		
Unpaid claims, beginning of year	\$ 80	\$ 120	\$ 140
Claim payments	(62)	(61)	(108)
Current year claims and changes in estimates	22	21	88
Unpaid Claims, End of Year	\$ 40	\$ 80	\$ 120

In addition, the District retains a certain level of risk related to employee health insurance, and uses commercial insurance for stop-loss purposes. A liability for claims incurred but not reported (IBNR) is estimated at year end based on a review of the historical data. As of December 31, 2018 and 2017, the IBNR reported in other current liabilities is \$510,000 and \$560,000, respectively.

	2018	2017	2016
	(In Thousands)		
Unpaid claims, beginning of year	\$ 560	\$ 560	\$ 440
Claims and premiums paid	(8,312)	(10,486)	(8,458)
Current year claims and changes in estimates	8,262	10,486	8,578
Unpaid Claims, End of Year	\$ 510	\$ 560	\$ 560

The District does not allocate overhead costs or other nonincremental costs to the claims liabilities.

NOTE 9 - CONTINGENCIES AND COMMITMENTS

LITIGATION

The District is involved in various legal proceedings, claims, and administrative actions arising in the normal course of business. In the opinion of management, the District's liability, if any, will not materially affect its financial condition.

Provision has been reflected in the accompanying financial statements if deemed appropriate by the District, for the following major lawsuits and administrative actions:

Claims by Upstream Riparian Landowners relating to Estabrook Dam Removal

During 2018 the District received 49 Notices of Claim from riparian landowners along the Milwaukee River; previously these same property owners filed suit and sought damages based on claimed diminution in property value as the result of removal of the Estabrook Dam. This prior case was captioned Brian Kreuziger, et al. v. Milwaukee County and MMSD, Milwaukee County Circuit Case No. 11-CV-8784. The District was never formally served with process in that case; and the case is now dismissed (without prejudice) by agreement of the Parties. In that case, the plaintiffs sought to certify a class of similarly situated riparian land owners. On behalf of this putative class, plaintiffs sought \$11 million in property value depreciation and \$1.2 million for remediation of property damage, along with punitive damages, costs, fees and attorneys' fees. It is possible that the recent Notices of Claim filed with the District will be the basis for future litigation against the District, but no action has been filed to date. If a suit is filed, the District expects to prevail in this action.

Urbain A. Boudjou v. MMSD

ERD Case No. CR201703576 and EEOC Case No 26G201800346C

Plaintiff former employee filed case in January of 2018, alleging violation of the Wisconsin Fair Employment Act. Mediation of the matter was successful, resulting in a settlement approved by the Commission March 2019.

Metropolitan Interceptor Sewer Contamination with PCB's

Polychlorinated biphenyl (PCB) contamination has been identified in the District's Basin H sewer near Capitol Drive. The sewer is directly downstream of an abandoned die casting facility with heavy PCB contamination. PCBs are present in the sewer at levels greater than 50 parts per million, triggering regulation by the United States Environmental Protection Agency ("U.S. EPA") under the Toxic Substances Control Act. The area for proposed remediation extends for roughly 8,000 linear feet (1.5 miles). The District prepared a Risk Based Work Plan, which U.S. EPA has approved for the remediation of Basin H. The estimated cost to implement the Work Plan is between \$2.5 and \$3.8 million. The design of remediation is underway; and cleanup is expected to begin in 2018. The District has notified its insurance carriers of this liability, and expects a portion of this to be a covered liability, less the \$250,000 deductible.

PCB contamination has also been identified in a sewer running under Mitchell Park at levels exceeding 50 parts per million. The PCB contamination at this site is limited to a length of sewer less than 1000 feet in length. The District does not have an estimated cost for remediation, but anticipates that it will be less than the cost to remediate the Basin H site. The District has notified its insurance carrier of this liability.

PCB contamination has also been identified in a sewer running between South 56th Street and Bruce Streets at 52.2 parts per million. This sewer has been unused in recent years. The District does not have an estimated cost for remediation, if it becomes necessary.

CLAIM FOR DAMAGES RELATED TO SETTLEMENT OF HARBOR SIPHONS

On or about February 10, 2018, structural distress occurred at the Harbor Siphons High-Level Flow Chamber (chamber) structures at the Jones Island Water Reclamation Facility (JiWRF), causing untreated sewage to leak from the siphons onto the ground surface. The siphons project was constructed in 2007-09 as part of an \$87.0 million construction project. The siphons are a system of multiple pipes used to lift sewage up to JiWRF from pipes located several hundred feet below the surface, which have settled as the result of earth movement. An emergency was declared and excavation and repairs were initiated. Estimates of the repairs are up to \$10 million. The District notified its liability carrier, AIG, of the claim. On March 22, 2018, AIG issued a reservation of rights, conceding \$100 million of coverage (with a \$100,000 deductible) under the policy for earth movement, but reserved rights while an investigation is undertaken. The District believes coverage will be afforded under the AIG policy and negotiations are underway with AIG.

NATURAL GAS PURCHASING COMMITMENT

On March 1, 2008 the District entered into an operating contract with Veolia Water for operations of the wastewater treatment facilities. As part of the contract the District became directly responsible for 75% of the natural gas costs at the plants. During 2008, management and the Commission determined it to be prudent to enter into forward transactions with a supplier to purchase natural gas for future periods. At December 31, 2018 the District had commitments to purchase \$2,583,790 in natural gas during the future year, of which 75% will be paid for by the District and 25% will be paid for by Veolia. At December 31, 2017 the District had commitments to purchase \$3,195,025 in natural gas during the future years, of which 75% will be paid for by the District and 25% will be paid for by Veolia. These purchases will be recorded as expenses and liabilities in the period in which the gas is delivered.

NOTE 10 – RETIREMENT SYSTEM

General Information About the Pension Plan

Plan description. All full-time and other eligible employees of the District are members of the Employees' Retirement System of the City of Milwaukee (the System), a cost-sharing multiple employer defined benefit pension plan. The System provides retirement, disability, and death benefits to plan members and beneficiaries.

The City Charter assigns the authority to establish and amend benefit provisions. The System issues a publicly available financial report that includes financial statements and required supplementary information for the City of Milwaukee. Detailed information about the pension plan's fiduciary net position is available in these separately issued financial statements. That report may be obtained by writing to the Employees' Retirement System of the City of Milwaukee, 200 East Wells Street, Room 603, Milwaukee, WI 53202.

Plan members are required by charter ordinance of the City of Milwaukee to contribute, or have contributed on their behalf, 5.5% of their salary or wages to the System. The District is required to contribute the remaining amounts necessary to fund the System. In 1970, the District began contributing the 5.5% on behalf of the employees. However, as a result of Wisconsin Act 10, the management/non-represented employees were required to begin making the 5.5% employee contribution in 2011. Effective, October, 2011, the management/non-represented employees began to make the 5.5% employee contribution. The represented employees were not required to begin the contribution at that time since they were covered by a labor agreement that expired on April 30, 2012. Beginning the first pay period in May, 2012, the represented employees began making the 5.5% employee contribution. As of December 31, 2018 and 2017, the System recognized \$1,587,306 and \$1,546,382 in contributions from the District.

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

At December 31, 2018 and 2017, the District reported a liability (asset) of \$6,435,000 and \$8,222,000, respectively for its proportionate share of the net pension liability (asset). The net pension liability (asset) was measured as of December 31, 2017 and 2016, and the total pension liability used to calculate the net pension liability (asset) was determined by an actuarial valuations as of January 1, 2017 and 2016 rolled forward to December 31, 2017 and 2016. 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 liability (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, 2017, the District's proportion was 1.7749%, which was a decrease of 0.1546% from its proportion measured as of December 31, 2016. At December 31, 2016, the District's proportion was 1.9295%, which was an increase of 0.0094% from its proportion measured as of December 31, 2015.

For the year ended December 31, 2018 and December 31, 2017, the District recognized pension expense of \$3,447,000 and \$3,571,000.

The District reported deferred outflows of resources and deferred outflows of resources related to pensions from the following sources as of December 31:

Deferred Outflows of Resources	2018	2017
Differences between expected and actual experience	\$ 889,000	\$ -
Net differences between projected and actual earnings on pension plan	-	5,416,000
Changes in actuarial assumptions	3,248,000	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	3,000	5,000
Employer contributions subsequent to the measurement date	3,179,564	2,844,067
Total	\$ 7,319,564	\$ 8,265,067

The District reported deferred inflows of resources and deferred inflows of resources related to pensions from the following sources as of December 31: (cont.)

Deferred Inflows of Resources	2018	2017
Differences between expected and actual experience	\$ -	\$ (449,000)
Net differences between projected and actual earnings on pension plan	(2,495,000)	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	(201,000)	-
Changes in actuarial assumptions	-	(53,000)
Total	\$ (2,966,000)	\$ (502,000)

Deferred outflows related to pensions resulting from the District's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability (asset) in future periods. At December 31, 2018 the District reported \$3,179,564 in contributions made subsequent to the measurement date, which will be recognized in 2019 (\$1,571,704) and 2020 (\$1,607,860) when they are recognized by the plan in the actuarial report. Other amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year	Deferred Outflows of Resources
2019	\$ 1,423,472
2020	1,040,469
2021	(93,158)
2022	(1,196,783)
Thereafter	-
Total	\$ 1,174,000

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

Actuarial valuation date	January 1, 2017
Measurement date of net pension liability (asset)	December 31, 2017
Actuarial cost method	Entry Age Normal – Level Percentage of Pay
Asset valuation method	Market Value
Investment Rate of Return	8.00% for calendar years through 2022, and 8.25% thereafter
Discount rate	8.24%
Inflation	2.50%
Salary increases	
General City	2.5% - 5.5%
Police & Fire	4.0% - 13.4%
Mortality	For regular retirees and for survivors, the RP-2014 Healthy Annuitant Mortality Table (using 111% of rates for males and 110% of rates for females) projected generationally with Scale MP-2016. For duty and ordinary disability retirees, the RP-2014 Disability Mortality Table (using 102% of rates for males and 98% of rates for females) projected generationally with Scale MP-2016 was used. For death in active service, the RP-2014 Non-annuitant annuitant Mortality Table projected generationally with Scale MP-2016

Actuarial assumptions are based on an experience study for the period January 1, 2012 – December 31, 2016.

Actuarial assumptions. The total pension liability in the December 31, 2017, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial valuation date	January 1, 2016
Measurement date of net pension liability (asset)	December 31, 2016
Actuarial cost method	Entry Age Normal – Level Percentage of Pay
Asset valuation method	Market Value
Investment Rate of Return	8.25% for calendar years through 2017, and 8.50% thereafter
Discount rate	8.5049%
Inflation	3.00%
Salary increases	
General City	3.0% - 7.5%
Police & Fire	3.0% - 14.4%
Mortality	For regular retirees and for survivors, the RP-2000 Combined Mortality Table projected nine years using Scale AA. Future generational rates are projected from 2009 based on Scale AA. For duty and ordinary disability retirees, use the RP-2000 Disability Mortality Table. For death in active service, the rates are similar to those used for regular retirees and survivors with a 6-year setback.

Actuarial assumptions are based on an experience study for the period January 1, 2007 – December 31, 2011.

Long-term Expected Rate of Return. The long term expected rate of return on pension plan investments was determined based on the results of an experience review performed by Conduent HR Consulting, LLC. Projected long term rates of return for each major asset class in the Retirement System's target asset allocation as of December 31, 2018 are summarized in the following table:

Asset Class	Actual	Long-term Expected Rate of Return
Public Equity	49.00%	8.25%
Fixed Income	13.00%	1.83%
Cash	1.00%	0.94%
Real Estate	7.70%	6.91%
Real Assets	3.30%	5.38%
Private Equity	8.00%	12.54%
Absolute Return	18.00%	4.66%
	<u>100.0%</u>	

Long-term Expected Rate of Return. The long term expected rate of return on pension plan investments was determined using Callan Associates' 10 year geometric capital market projections. Projected long term rates of return for each major asset class in the Retirement System's target asset allocation as of December 31, 2017 are summarized in the following table:

Asset Class	Actual	Long-term Expected Rate of Return
Public Equity	55.72%	8.32%
Fixed Income	20.50%	1.87%
Cash	0.62%	0.92%
Real Estate	7.95%	6.82%
Real Assets	2.20%	5.63%
Private Equity	4.96%	12.52%
Absolute Return	8.05%	4.67%
	<u>100.0%</u>	

Discount rate. The discount rate used to measure the total pension liability was 8.24% and 8.5% for 2018 and 2017, respectively. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the utility'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) calculated using the discount rate of 8.24 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 (7.24 percent) or 1-percentage-point higher (9.24 percent) than the current rate:

Proportionate Share of Net Pension Liability (Asset)	1% Decrease (7.24%)	Current Discount Rate (8.24%)	1% Increase (9.24%)
2018	\$ 18,071,000	\$ 6,435,000	\$ (3,310,000)

Sensitivity of the utility'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) calculated using the discount rate of 8.50 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 (7.50 percent) or 1-percentage-point higher (9.50 percent) than the current rate:

Proportionate Share of Net Pension Liability (Asset)	1% Decrease (7.50%)	Current Discount Rate (8.50%)	1% Increase (9.50%)
2017	\$ 19,385,000	\$ 8,222,000	\$ (1,194,000)

NOTE 11 – OTHER POSTRETIREMENT BENEFITS

The District implemented GASB No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, effective January 1, 2018. The cumulative effect of the change in net position due to the change in accounting standard is shown as a change in beginning net position for 2018. The prior year balances for deferred outflows of resources, deferred inflows of resources, and the total OPEB liability were not restated due to the measurement date used for the calculation of the balances and the timing of the information received by the Plan.

Plan description. The District provides postretirement health and life insurance in accordance with union contracts and Commission policy. Represented employees hired prior to December 1, 2004, who retired from the District on or after attaining age 55 with at least 10 years of creditable service, or who left employment prior to age 55 with at least 20 years of creditable service, are eligible for postretirement health insurance at age 55 and a pension benefit. For represented employees hired on or after December 1, 2004, the employee must have at least 20 years of service and reach age 55 in order to be eligible for the postretirement health insurance.

Management/nonrepresented employees hired prior to August 1, 2002, covered by Commission policy, who retire from the District on or after attaining age 60 with at least 10 years of creditable service, or with at least 15 years of creditable service who are under the age of 60, are eligible for postretirement health insurance. Management/nonrepresented employees hired after August 1, 2002, covered by Commission policy, with at least 15 years of creditable service, will be entitled to the following pre-Medicare health insurance benefits:

Years of Service:	Premium Paid by District
15 – 19	30%
20 – 24	40
25 or more	50

The District no longer pays for supplemental health insurance upon becoming Medicare eligible for management/nonrepresented employees hired after August 1, 2002.

Benefits provided. The District provides the same health coverage as offered active employees. This insurance provides approximately 100% coverage; certain health coverage options involving deductibles; and co-pays. The Commission has the authority to establish and revise the funding policy for the plan. Currently the plan is funded on a pay-as-you-go basis.

Employees covered by benefit terms. At December 31, 2018, the following employees were covered by the benefit terms:

Retired Participants	500
Terminated vested participants	5
Active plan members	249
	<u>754</u>

Effective March 1, 1998 the District curtailed the plans as a result of the transfer of 290 employees to a private contractor in conjunction with the privatization of the District's operations (see Note 4).

TOTAL OPEB LIABILITY

The utility's total OPEB liability of \$120,211,696 was measured as of December 31, 2018, and was determined by an actuarial valuation as of that date.

Actuarial assumptions and other inputs. The total OPEB liability in the December 31, 2018 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% per annum
Healthcare cost trend rates	8.0% decreasing to 5.0%
Retirees' share of benefit-related costs	<u>Represented Employees (contributions cease at age 65)</u> Pre 1984 Retirees \$ 0 Post 1984 Retirees \$35 Single / \$70 Family Post 2004 Retirees \$45 Single / \$90 Family Post 1/1/2008 Retirees \$50 Single / \$100 Family Pre-Medicare coverage only for post 3/8/2010 hires. <u>Non-Represented Employees</u> Pre 2003 Hires \$ 0 Post 2003 Hires (pre-Medicare coverage only): Years of Service Retiree Contribution 15-20 70% of Cost 20-30 60% of Cost 30+ 50% of Cost
	<u>UWS Transfers</u> For employees who transferred to UWS, MMSD is liable for a portion of total benefits based on the ratio of service at MMSD to total service.

The discount rate of 3.44% was used as of January 1, 2018 and 4.10% as of December 31, 2018.

Mortality rates were based on the RP-2000 Healthy Annuitant Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale AA.

CHANGES IN THE TOTAL OPEB LIABILITY

	Total OPEB Liability
Balances at December 31, 2017	\$ 136,720,232
Changes for the year:	
Service cost	1,305,767
Interest	4,588,191
Differences between expected and actual experience	(8,959,140)
Changes in assumptions or other inputs	(6,758,198)
Benefit payments	(6,685,156)
Net changes	<u>(16,508,536)</u>
Balances at December 31, 2018	\$ 120,211,696

Changes of assumptions and other inputs reflect a change in the discount rate from 3.44 percent in 2017 to 4.10 percent in 2018.

Sensitivity of the total OPEB liability to changes in the discount rate. The following presents the total OPEB liability of the utility, as well as what the utility's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.10 percent) or 1-percentage-point higher (5.10 percent) than the current discount rate:

	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)
Total OPEB liability	\$ 135,413,779	\$ 120,211,696	\$ 107,564,482

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The following presents the total OPEB liability of the utility, as well as what the utility's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower (7.0 percent decreasing to 3.5 percent) or 1-percentage-point higher (9.0 percent decreasing to 5.5 percent) than the current healthcare cost trend rates:

	1% Decrease (7.0% Decreasing to 3.5%)	Healthcare Cost Trend Rates (8.0% Decreasing to 4.5%)	1% Increase (9.0% Decreasing to 5.5%)
Total OPEB liability	\$ 108,732,299	\$ 120,211,696	\$ 133,888,641

Notes to Financial Statements

Continued

OPEB EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO OPEB

For the year ended December 31, 2018, the utility recognized OPEB expense of (\$23,283,429). At December 31, 2018, the utility 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	\$ -	\$ (5,097,340)
Changes of assumptions or other inputs	-	(3,845,105)
Total	\$ -	\$ (8,942,445)

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

Year Ended December 31:

2018	\$ (6,774,893)
2019	(2,167,552)
Total	(8,942,445)

As of January 1, 2017 the District's annual OPEB cost (expense) for the fiscal year ending December 31, 2017 is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The following table shows the components of the District's annual OPEB cost for the year, the amount actually contributed to plan, and changes in the District's net OPEB obligation to the plan:

	2017 (In Thousands)
Annual required contribution	\$ 10,385
Interest on net OPEB obligation	870
Adjustment to annual required contribution	(2,145)
Annual OPEB cost	9,110
Contributions made	(6,484)
Increase in Net OPEB Obligation	2,626
Net OPEB Obligation - Beginning of Year	50,294
Net OPEB Obligation - End of Year	\$ 52,920

The District's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for 2017 and 2016 was as follows:

Fiscal Year Ended	Annual OPEB Cost (In Thousands)	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation (In Thousands)
2017	\$ 9,110	71.2%	\$ 52,920
2016	9,583	56.5%	50,294

The funded status of the plan as of December 31, 2017, the most recent actuarial valuation dates, was as follows:

	2017 (In Thousands)
Actuarial accrued liability (AAL)	\$ 172,143
Actuarial value of plan assets	-
Unfunded Actuarial Accrued Liability (UAAL)	\$ 172,143
Funded ratio (actuarial value of plan assets / AAL)	-
Covered payroll (active plan members)	\$ 20,851
UAAL as a percentage of covered payroll	826%

Actuarial valuations of an ongoing plan involve estimates for the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, will present multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members to that point. The methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the actuarial valuation, the entry age actuarial cost method was used. The 2017 Annual OPEB Cost was calculated using the actuarial assumptions of 1.66% investment rate of return and an annual healthcare cost trend rate of 8.0% initially, reduced to an ultimate 5% after seven years, including a 2.5% inflation assumption. The plan has not accumulated assets and does not hold assets in a segregated trust. The plan's unfunded actuarial accrued liability is being amortized as a level dollar amount. The amortization period is open and is 30 years.

NOTE 12 – LEASES

The District's primary source of lease revenue was derived from Alterra Coffee for space within the District's Milwaukee River Flushing Station. The District has been granted a permit for an outdoor advertising structure for RED Outdoor Media that is to be constructed in 2019. Lease receipts for this structure will not begin until it is operational. The District has one long term, through 2058, lease with Pt. Loomis Associates Limited Partnership related to an enclosed channel. The remaining leases involve seasonal crop land agreements on land from the District's Conservation Easement Program, use of office space by the Conservation Easement Program and a billboard on District property.

Future minimum lease receipts under noncancelable operating leases (with initial or remaining lease terms in excess of one year) as of December 31, 2018 are as follows:

Year ending December 31:		
2019	\$	186,226
2020		224,696
2021		228,068
2022		229,187
2023		228,055
2024 through 2028		428,197
2029 through 2033		245,705
2034 through 2038		245,705
2039 through 2043		101,705
2044 through 2048		65,705
2049 through 2053		65,705
2054 through 2058		65,705
Total Minimum Lease Receipts	\$	2,314,659

The District has five lease agreements for antenna space on towers or buildings in the Milwaukee area. The antennas serve as hubs for the District's radio communication system that is used to send and receive data from the District's remote facilities, which are located throughout the service area. Each lease agreement is for 10 years.

Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) as of December 31, 2018 are:

Year ending December 31:	
2019	\$ 72,744
2020	42,619
2021	42,857
2022	43,183
2023	43,433
2024-2028	96,245
2029-2033	66,015
2034-2037	42,493
Total Minimum Lease Payments	449,589
Less current installments of obligations under operating leases	(72,744)
Obligations under Operating Leases, Excluding Current Installments	\$ 376,845

NOTE 13 – SUBSEQUENT EVENT

The utility evaluated subsequent events through the date that the financial statements were available to be issued, for events requiring recording or disclosure in the financial statements.

NOTE 14 – CUMULATIVE EFFECT OF A CHANGE IN ACCOUNTING PRINCIPLE

The utility adopted GASB Statement No. 75 effective January 1, 2018. The cumulative effect of implementation is reflected as a change in net position at December 31, 2017 as follows:

Total OPEB liability January 1, 2018	\$ 136,720
Deferred inflows January 1, 2018	15,718
Total	152,438
Less: 2017 liability recorded under GASB 45	(52,920)
Cumulative Effect of a Change in Accounting Principle	\$ 99,518



Career Day at MMSD



Required Supplementary Information

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

SCHEDULE OF FUNDING PROGRESS AND CONTRIBUTIONS Other Postemployment Benefit Plans

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
(In Thousands)						
12/31/2017	\$ -	\$ 172,143	\$ 172,143	0%	\$ 20,851	826%
12/31/2016	-	189,300	189,300	0%	20,077	943%

SCHEDULE OF EMPLOYER'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (ASSET) Employee's Retirement System

	2018	2017	2016	2015
Employer's proportion of the net pension liability (asset)	1.7749%	1.92951%	1.92007%	1.928695%
Employer's proportionate share of the net pension liability (asset)	\$ 6,435,000	\$ 8,222,000	\$ 8,075,000	\$ 2,189,000
Employer's covered payroll	18,587,334	17,752,000	17,030,000	16,655,000
Employer's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	34.62%	47.42%	47.42%	13.14%
Plan fiduciary net position as a percentage of the total pension liability (asset)	93.70%	91.87%	97.76%	97.76%

SCHEDULE OF EMPLOYER'S CONTRIBUTIONS Employee's Retirement System - Employer Year

	2018	2017	2016	2015
Contractually required contributions	\$ 1,587,306	\$ 1,546,382	\$ 1,532,962	\$ 1,517,102
Contributions in relation to the contractually required contributions	\$ 1,587,306	\$ 1,546,382	\$ 1,532,962	\$ 1,517,102
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -
Employer's covered payroll (calendar year)	\$ 19,280,366	\$ 18,587,334	\$ 17,752,000	\$ 17,030,000
Contributions as a percentage of covered-employee payroll	8.02%	8.25%	8.64%	8.91%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The District is required to present the last ten years of data; however, accounting standards allow the presentation of as many years as are available until 10 years are presented.

Changes of benefit terms: There were no changes in benefit terms.

Changes of assumption: There were no changes in assumptions.

See accompanying notes and required supplementary information.

Supplementary Information

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

HEALTH INSURANCE SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS Most Recent Fiscal Year

	<u>2018</u>
Total OPEB Liability	
Service cost	\$ 1,305,767
Interest	4,588,191
Changes of benefit terms	-
Differences between expected and actual experience	(8,959,140)
Changes of assumptions	(6,758,198)
Benefit payments	<u>(6,685,156)</u>
Net Change in Total OPEB Liability	(16,508,536)
Total OPEB Liability - Beginning	<u>136,720,232</u>
Total OPEB Liability - Ending	<u>\$ 120,211,696</u>
Covered-employee payroll	\$ 21,217,853
Total OPEB liability as a percentage of covered-employee payroll	566.56%

Notes to Schedule:

Valuation date:

Actuarially determined contribution rates are calculated as of December 31, 2018, one year prior to the end of the fiscal year.

Actuarial cost method	Entry age normal												
Amortization method	N/A												
Amortization period	N/A												
Asset valuation method	N/A												
Inflation	4.10 percent												
Healthcare cost trend rates	8.0 percent initial decreasing to an ultimate rate of 5.0 percent												
Salary increases	3.0 percent, average, including inflation												
Investment rate of return	N/A												
Retirement age	Rates of retirement are based on age only. Rates are shown below:												
	<table> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">55-59</td> <td style="text-align: center;">5%</td> </tr> <tr> <td style="text-align: center;">60</td> <td style="text-align: center;">25%</td> </tr> <tr> <td style="text-align: center;">61</td> <td style="text-align: center;">15%</td> </tr> <tr> <td style="text-align: center;">62-64</td> <td style="text-align: center;">30%</td> </tr> <tr> <td style="text-align: center;">65</td> <td style="text-align: center;">100%</td> </tr> </tbody> </table>	<u>Age</u>	<u>Rate</u>	55-59	5%	60	25%	61	15%	62-64	30%	65	100%
<u>Age</u>	<u>Rate</u>												
55-59	5%												
60	25%												
61	15%												
62-64	30%												
65	100%												
Mortality	RP-2014 Mortality Table base rates projected to 2019 with scale MP2018, Sex Distinct												

Benefit changes. There were no changes to the benefits.

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

The utilities implemented GASB Statement No. 75 in 2018. Information prior to 2018 is not available.

See accompanying notes and required supplementary information.

This part of the Milwaukee Metropolitan Sewerage District's (District) comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the District's overall financial health.

<u>Contents</u>	<u>Exhibit</u>
Financial Trends These schedules contain trend information to help the reader understand how the District's financial performance and well-being have changed over time.	B-1, B-2
Revenue Capacity These schedules contain information to help the reader assess the District's most significant revenue sources.	B-3, B-4, B-5, B-6, B-7, B-8, B-9, B-10, B-11
Debt Capacity These schedules present information to help the reader assess the affordability of the District's current levels of outstanding debt and the government's ability to issue additional debt in the future.	B-12, B-13, B-14, B-15
Demographic and Economic Information These schedules offer demographic and economic indicators to help the reader understand the environment within which the District's financial activities take place.	B-16, B-17
Operating Information These schedules contain service and infrastructure data to help the reader understand how the information in the District's financial report relates to the services the government provides and the activities it performs.	B-18, B-19

Jones Island Water
Reclamation Facility



STATISTICAL SECTION



Exhibit B-1

Net Position By Components

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

	Fiscal Year				
	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
	(In Thousands)				
Investment in Capital Assets	\$ 2,513,765	\$ 2,501,652	\$ 2,489,929	\$ 2,471,795	\$ 2,486,416
Restricted - Capital Projects and Programs	62,188	58,337	43,412	50,887	34,527
Restricted - Equipment Replacement	15,082	14,694	14,667	14,509	14,411
Restricted - Debt Service	7,801	12,205	25,339	31,130	25,541
Unrestricted	<u>(81,883)</u>	<u>(6,675)</u>	<u>(6,470)</u>	<u>(3,887)</u>	<u>(4,382)</u>
	<u>\$ 2,516,953</u>	<u>\$ 2,580,213</u>	<u>\$ 2,566,877</u>	<u>\$ 2,564,434</u>	<u>\$ 2,556,513</u>



Fiscal Year				
<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
(In Thousands)				
\$ 2,464,531	\$ 2,466,406	\$ 2,505,430	\$ 2,481,000	\$ 2,436,462
46,210	37,633	21,158	17,781	46,899
14,411	14,411	14,916	16,066	16,066
26,518	24,829	5,801	16,568	11,650
<u>4,131</u>	<u>10,905</u>	<u>14,488</u>	<u>17,288</u>	<u>20,726</u>
<u>\$ 2,555,801</u>	<u>\$ 2,554,184</u>	<u>\$ 2,561,793</u>	<u>\$ 2,548,703</u>	<u>\$ 2,531,803</u>



Exhibit B-2

Change In Net Position

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>Operating Revenue</u>	<u>Operating Expenses</u>	<u>Operating Income/(Loss)</u>	<u>Total Nonoperating Revenues/(Expenses)</u> (In Thousands)	<u>Income/(Loss) Before Capital Contributions</u>	<u>Capital Contributions</u>	<u>Change In Net Position</u>
2018	\$ 96,744	\$ 169,668	\$ (72,924)	\$ 106,500	\$ 33,576	\$ 2,682	\$ 36,258
2017	89,615	184,454	(94,839)	106,986	12,147	1,189	13,336
2016	86,261	181,117	(94,856)	95,439	583	1,860	2,443
2015	83,609	175,417	(91,808)	94,858	3,050	3,070	6,120
2014	78,806	175,605	(96,799)	91,507	(5,292)	6,004	712
2013	78,397	167,921	(89,524)	88,125	(1,399)	3,016	1,617
2012	78,634	162,924	(84,290)	72,440	(11,850)	4,241	(7,609)
2011	78,515	158,675	(80,160)	91,201	11,041	2,049	13,090
2010	77,783	153,985	(76,202)	91,374	15,172	1,728	16,900
2009	76,858	152,909	(76,051)	102,305	26,254	1,994	28,248



Exhibit B-3

Operating Revenue by Source

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>Total Operating Revenue</u>	<u>Sewer User Charge</u> (In Thousands)	<u>Fertilizer</u>	<u>Other</u>
2018	\$ 96,744	\$ 84,965	\$ 10,313	\$ 1,466
2017	89,615	78,301	10,272	1,042
2016	86,261	76,582	9,054	625
2015	83,609	73,940	8,603	1,066
2014	78,806	70,029	7,993	784
2013	78,397	69,572	7,667	1,158
2012	78,634	69,578	7,827	1,229
2011	78,515	69,570	7,252	1,693
2010	77,783	70,355	7,004	424
2009	76,858	68,460	7,957	441



Exhibit B-4

Operating Expenses

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>Total Operating Expenses</u>	<u>System-Operation & Maintenance</u>	<u>Laboratory & Research Services</u>	<u>Industrial Waste & Conveyance Monitoring</u>	<u>Finance, Engineering & Administration</u>	<u>Depreciation</u>
				(In Thousands)		
2018	\$ 169,668	\$ 59,490	\$ 832	\$ (601)	\$ 13,591	\$ 96,356
2017	184,454	56,415	2,812	3,161	28,115	93,951
2016	181,117	57,348	2,582	3,470	25,756	91,961
2015	175,417	57,618	2,388	3,274	22,231	89,906
2014	175,605	58,754	2,449	3,444	23,311	87,647
2013	167,921	57,130	2,448	3,227	22,331	82,785
2012	162,924	55,177	2,511	3,458	21,803	79,975
2011	158,675	56,896	2,170	3,280	20,121	76,208
2010	153,985	55,218	2,115	3,794	21,310	71,548
2009	152,909	58,055	2,339	3,774	19,610	69,131



Exhibit B-5

Nonoperating Revenue and Expenses

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>Total Non-Operating Revenues (Expenses)</u>	<u>Property Taxes</u>	<u>Capital Charges Municipalities Outside the District</u>	<u>Investment Income and Change in Fair Value of Investments</u> (In Thousands)	<u>Interest Expenses</u>	<u>Gain (Loss) on Disposal of Capital Assets</u>	<u>Land Contributed to Municipalities</u>	<u>Capital Program Expenditures and Other</u>
2018	\$ 106,500	\$ 98,328	\$ 31,700	\$ 2,984	\$ (23,603)	\$ (1,251)	\$ (87)	\$ (1,571)
2017	106,986	98,250	31,523	1,225	(20,364)	1,034	(18)	(4,664)
2016	95,439	95,798	25,912	799	(22,816)	(1,766)	(649)	(1,839)
2015	94,858	93,239	28,433	402	(23,450)	(791)	(515)	(2,460)
2014	91,507	90,919	29,396	437	(24,260)	(2,110)	(722)	(2,153)
2013	88,125	88,626	28,424	(53)	(24,293)	(1,582)	(176)	(2,821)
2012	72,440	86,485	27,562	491	(22,663)	(5,033)	(8,782)	(5,620)
2011	91,201	85,212	24,864	736	(21,783)	87	-	2,085
2010	91,374	82,390	22,445	919	(13,333)	(2,134)	-	1,087
2009	102,305	82,332	22,757	2,176	(11,725)	6,053	-	712



Exhibit B-6

User Charge Revenue by Municipality Within the District

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Municipality	Fiscal Year				
	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
City of Cudahy	2,138,977	2,057,456	1,960,292	\$ 1,804,675	\$ 1,618,550
City of Franklin	2,468,702	2,210,560	2,202,361	2,143,999	2,040,662
City of Glendale	1,078,316	984,641	1,008,386	953,839	900,806
City of Greenfield	2,349,736	2,120,970	2,107,906	2,036,361	1,945,286
City of Milwaukee	48,987,466	45,350,427	43,968,676	42,484,064	40,235,500
City of Oak Creek	2,773,581	2,454,978	2,367,729	2,222,514	2,133,231
City of St. Francis	678,143	590,960	585,989	561,119	540,392
City of Wauwatosa	3,793,471	3,404,955	3,259,792	3,178,030	2,961,982
City of West Allis	4,356,397	4,088,271	4,066,099	3,896,350	3,726,150
Village of Bayside	259,506	238,859	238,959	234,505	239,170
Village of Brown Deer	904,192	819,350	809,479	777,074	735,633
Village of Fox Point	408,707	372,589	375,364	372,582	363,849
Village of Greendale	866,391	814,645	792,771	796,170	788,101
Village of Hales Corners	513,223	470,888	469,508	456,334	436,428
Village of River Hills	112,498	97,527	89,271	88,063	84,893
Village of Shorewood	837,409	652,279	709,321	691,074	676,706
Village of West Milwaukee	892,546	922,139	944,055	961,138	917,770
Village of Whitefish Bay	<u>838,158</u>	<u>748,213</u>	<u>731,223</u>	<u>724,679</u>	<u>697,095</u>
Total Within the District	<u>\$ 74,257,419</u>	<u>\$ 68,399,707</u>	<u>\$ 66,687,181</u>	<u>\$ 64,382,570</u>	<u>\$ 61,042,204</u>



Fiscal Year				
<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
\$ 1,507,280	\$ 1,613,522	\$ 1,656,103	\$ 1,805,096	\$ 1,855,515
2,006,441	1,914,760	1,925,628	1,931,327	1,800,766
934,241	923,834	931,804	912,462	875,951
1,944,800	1,964,108	1,962,998	1,957,031	1,872,833
40,211,422	40,081,180	40,329,654	41,323,722	40,763,430
2,069,149	1,991,631	2,005,209	2,052,065	1,905,558
540,870	555,621	496,818	368,714	365,919
2,997,566	3,115,200	3,088,718	3,144,526	2,924,523
3,717,622	3,716,622	3,721,541	3,679,178	3,443,449
230,494	240,845	240,213	229,068	216,064
721,924	731,400	719,455	710,976	679,053
361,777	359,258	369,485	363,502	346,870
742,539	715,631	733,597	720,827	705,538
434,642	428,409	433,212	429,876	413,923
84,355	85,807	89,742	88,543	83,757
662,621	673,288	678,964	659,074	658,519
971,000	1,105,930	1,006,938	895,309	1,062,403
<u>687,053</u>	<u>694,737</u>	<u>698,033</u>	<u>682,223</u>	<u>449,142</u>
<u>\$ 60,825,796</u>	<u>\$ 60,911,783</u>	<u>\$ 61,088,112</u>	<u>\$ 61,953,519</u>	<u>\$ 60,423,213</u>



Exhibit B-7

User Charge Revenue by Municipality Outside the District

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Municipality	Fiscal Year				
	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
City of Brookfield	\$ 1,086,410	\$ 995,317	\$ 985,854	\$ 969,822	\$ 917,553
City of Mequon	1,374,444	1,246,411	1,281,186	1,234,929	1,206,940
City of Muskego	1,320,220	1,156,039	1,130,497	1,132,336	1,092,905
City of New Berlin	2,178,966	1,950,333	1,956,174	1,978,663	1,859,908
City of South Milwaukee*	29,349	30,331	30,568	25,146	30,496
Village of Butler	252,748	432,882	404,769	224,889	175,348
Village of Caledonia	29,134	19,519	25,636	27,062	26,174
Village of Elm Grove	362,836	328,731	337,961	337,445	325,919
Village of Germantown	1,697,876	1,568,676	1,613,777	1,536,335	1,387,769
Village of Menomonee Falls	2,164,756	1,980,487	1,936,950	1,897,058	1,777,329
Village of Thiensville	<u>210,618</u>	<u>192,587</u>	<u>191,595</u>	<u>193,249</u>	<u>186,370</u>
Total Outside the District	<u>\$ 10,707,357</u>	<u>\$ 9,901,313</u>	<u>\$ 9,894,967</u>	<u>\$ 9,556,934</u>	<u>\$ 8,986,711</u>

* Household Hazardous Waste Program Charges Only



Fiscal Year				
<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
\$ 898,795	\$ 897,586	\$ 956,248	\$ 935,751	\$ 903,262
1,094,553	1,119,264	1,077,743	1,056,814	1,018,547
1,054,548	1,041,072	1,024,359	1,004,530	969,988
1,818,911	1,827,310	1,764,458	1,776,161	1,717,723
28,042	27,588	25,225	27,456	26,594
174,544	171,463	182,373	177,528	183,573
25,528	25,639	26,407	25,047	25,597
310,463	297,649	301,897	308,781	300,991
1,413,618	1,278,930	1,190,224	1,185,985	1,046,395
1,745,112	1,799,637	1,750,504	1,721,685	1,670,983
<u>181,708</u>	<u>180,254</u>	<u>182,594</u>	<u>181,356</u>	<u>172,849</u>
<u>\$ 8,745,822</u>	<u>\$ 8,666,392</u>	<u>\$ 8,482,032</u>	<u>\$ 8,401,094</u>	<u>\$ 8,036,502</u>



Exhibit B-8 User Charge Rates

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>Flow (Cents Per 1000 Gallons)</u>	<u>Biochemical Oxygen Demand (BOD) (Cents Per Pound)</u>	<u>Total Suspended Solids (TSS) (Cents Per Pound)</u>	<u>Connection Charge (Dollars Per Year)</u>
2018	\$1.25965	\$0.13589	\$0.17541	\$30.34
2017	1.12748	0.12730	0.16289	23.98
2016	1.11377	0.11869	0.16275	21.71
2015	0.96079	0.11781	0.15807	30.21
2014	0.88437	0.10061	0.15815	30.68
2013	0.86507	0.09992	0.15924	29.84
2012	0.81173	0.09910	0.15803	31.78
2011	0.81861	0.09120	0.16142	33.45
2010	0.82846	0.12689	0.14968	23.49
2009	0.80385	0.13323	0.13372	20.51

Volumetric rate computed for domestic strength sewage using the equivalencies of 310 mg/l BOD equals 2.585 pounds per thousand gallons and 370 mg/l TSS equals 3.086 pounds per thousand gallons.

This rate is applicable to the entire residential class and noncertified commercial users located within the District's Service Area.



<u>Volumetric (Dollars Per 1,000 Gallons)</u>	<u>Average Household (Dollars Per Year)</u>	<u>Million of Gallons of Sewage Treated</u>
\$2.152241	\$137.37	76,900
1.959230	124.04	71,800
1.922831	122.42	68,200
1.753133	125.17	67,100
1.632498	120.68	68,480
1.614778	118.20	73,900
1.555585	117.97	60,100
1.552504	121.17	74,100
1.618383	118.26	71,300
1.560910	113.65	72,200



Exhibit B-9 Wastewater Loadings by Customer Class

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

PARAMETER	Fiscal Year				
	2018	2017	2016	2015	2014
<u>Billable Flow (1,000 Gallons)</u>					
RESIDENTIAL	16,051,283	16,492,164	16,864,146	17,640,483	17,769,153
NON-CERTIFIED COMMERCIAL	10,311,636	10,305,654	10,416,779	10,297,948	10,399,901
CERTIFIED COMMERCIAL	1,520,052	1,615,067	1,679,723	1,602,378	1,684,463
CERTIFIED INDUSTRIAL	<u>3,935,501</u>	<u>3,899,933</u>	<u>3,819,379</u>	<u>3,754,697</u>	<u>3,675,147</u>
TOTALS	<u>31,818,472</u>	<u>32,312,819</u>	<u>32,780,026</u>	<u>33,295,507</u>	<u>33,528,663</u>
<u>Biochemical Oxygen Demand (Pounds)</u>					
RESIDENTIAL	41,492,565	42,632,247	43,593,817	45,600,648	45,940,473
NON-CERTIFIED COMMERCIAL	26,655,586	26,640,109	26,927,382	26,620,196	26,888,015
CERTIFIED COMMERCIAL	3,291,454	3,430,903	3,595,322	3,550,589	3,673,331
CERTIFIED INDUSTRIAL	<u>42,821,001</u>	<u>44,791,831</u>	<u>42,082,946</u>	<u>38,786,074</u>	<u>39,320,945</u>
TOTALS	<u>114,260,606</u>	<u>117,495,090</u>	<u>116,199,467</u>	<u>114,557,507</u>	<u>115,822,764</u>
<u>Total Suspended Solids (Pounds)</u>					
RESIDENTIAL	49,534,260	50,894,825	52,042,750	54,438,534	54,832,149
NON-CERTIFIED COMMERCIAL	31,821,701	31,803,254	32,146,176	31,779,465	32,092,121
CERTIFIED COMMERCIAL	3,928,144	4,104,044	4,302,174	4,244,553	4,380,708
CERTIFIED INDUSTRIAL	<u>18,564,724</u>	<u>19,444,039</u>	<u>19,499,076</u>	<u>18,590,657</u>	<u>18,622,057</u>
TOTALS	<u>103,848,829</u>	<u>106,246,162</u>	<u>107,990,176</u>	<u>109,053,209</u>	<u>109,927,035</u>
<u>Connections</u>					
RESIDENTIAL	266,115	265,519	265,067	264,492	264,015
NON-CERTIFIED COMMERCIAL	37,164	37,145	37,409	37,137	37,160
CERTIFIED COMMERCIAL	1,791	1,957	1,979	1,995	2,000
CERTIFIED INDUSTRIAL	<u>687</u>	<u>677</u>	<u>684</u>	<u>694</u>	<u>699</u>
TOTALS	<u>305,757</u>	<u>305,298</u>	<u>305,139</u>	<u>304,318</u>	<u>303,874</u>



Fiscal Year				
<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
17,613,063	17,879,709	18,320,590	18,967,992	19,320,420
10,353,855	10,833,579	10,536,191	10,446,335	10,630,049
1,710,422	1,819,600	1,703,993	1,727,538	1,719,087
<u>3,936,045</u>	<u>4,199,362</u>	<u>4,281,621</u>	<u>4,233,640</u>	<u>4,428,295</u>
<u>33,613,385</u>	<u>34,732,250</u>	<u>34,842,396</u>	<u>35,375,505</u>	<u>36,097,851</u>
45,536,920	46,226,302	47,366,157	49,039,952	49,951,014
26,768,965	28,009,249	27,240,384	27,008,069	27,482,929
3,663,473	3,855,902	3,657,812	3,700,567	3,708,026
<u>43,583,211</u>	<u>41,248,840</u>	<u>40,762,360</u>	<u>36,817,277</u>	<u>37,344,665</u>
<u>119,552,569</u>	<u>119,340,293</u>	<u>119,026,713</u>	<u>116,565,865</u>	<u>118,486,634</u>
54,350,489	55,173,312	56,533,775	58,531,540	59,618,952
31,950,040	33,430,370	32,512,699	32,235,413	32,802,206
4,366,923	4,544,170	4,297,500	4,344,976	4,342,935
<u>18,653,681</u>	<u>19,999,548</u>	<u>19,664,094</u>	<u>19,073,819</u>	<u>18,840,371</u>
<u>109,321,133</u>	<u>113,147,400</u>	<u>113,008,068</u>	<u>114,185,748</u>	<u>115,604,464</u>
264,034	264,013	263,867	264,190	263,862
37,164	37,483	37,104	37,168	37,286
2,030	2,014	1,991	1,937	1,980
<u>721</u>	<u>715</u>	<u>718</u>	<u>742</u>	<u>746</u>
<u>303,949</u>	<u>304,225</u>	<u>303,679</u>	<u>304,037</u>	<u>303,873</u>



Exhibit B-10

Ten Largest Sewer Users

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 AND 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Customer</u>	<u>Type of Business</u>	<u>2018</u>		<u>2009</u>	
		<u>Sewer Revenue</u> <u>Amount</u>	<u>%</u>	<u>Sewer Revenue</u> <u>Amount</u>	<u>%</u>
MillerCoors	Brewery	\$ 3,654,678	4.3%	\$ 3,098,006	4.5%
Patrick Cudahy	a Process meat products	1,174,659	1.4%	730,406	1.1%
D.R. Diedrich & Co.	Leather tanning and finishing	804,011	0.9%	1,082,180	1.6%
Wisconsin Paperboard	Paperboard mill	638,306	0.8%	344,330	0.5%
Milwaukee Water Works	Water utility	580,352	0.7%	527,825	0.8%
Covanta Environmental Solutions	Centralized waste treatment	517,955	0.6%		
Chris Hansen/Maple	Food preparation	499,486	0.6%		
Milwaukee Co DHHS	Health services	391,032	0.5%	334,900	0.5%
Gehl Foods	Food preparation	381,177	0.4%		
Malteurop North America	Malt manufacturing	287,023	0.3%	624,686	0.9%
Cargil Meat Solutions	b Meat packing plants			452,951	0.7%
Campbell Soup Supply Company	Food preparation			327,955	0.5%
Clement J. Zablocki VA Medical Center	Health services			263,836	0.4%
Subtotal (10 largest)		\$ 8,928,678	10.5%	\$ 7,787,075	11.4%
Balance from other customers		<u>76,036,098</u>	<u>89.5%</u>	<u>60,672,640</u>	<u>88.6%</u>
Grand Totals		<u>\$ 84,964,776</u>	<u>100.0%</u>	<u>\$ 68,459,715</u>	<u>100.0%</u>

a Subsidiary of Smithfield Foods

b Closed Milwaukee Operations



Exhibit B-11

Property Tax Information

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>Equalized Value of Taxable Property</u>	<u>Tax Levies</u>	<u>Tax Rate Per \$1,000 Equalized Value</u>
2018	\$ 59,060,994,300	\$ 100,101,650	\$ 1.69
2017	57,011,085,700	98,380,000	1.73
2016	56,188,121,100	98,380,000	1.75
2015	55,010,987,700	95,980,000	1.74
2014	54,607,126,500	93,639,000	1.71
2013	53,567,657,800	91,222,000	1.70
2012	54,435,721,000	88,694,000	1.63
2011	57,252,275,690	86,531,000	1.51
2010	59,383,339,276	85,674,000	1.44
2009	62,267,788,363	82,458,000	1.32

Due to varying assessment policies in the municipalities of the District, the District uses equalized value of taxable property for tax rate purposes.

Equalized valuations are net of the Tax Incremental District valuations.

Equalized valuations amounts provided by Department of Revenue - State of Wisconsin.



Exhibit B-12

Bonded Debt Limit and Ratio of Bonded Debt to Equalized Value

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

	Fiscal Year			
	2018	2017	2016	2015
Equalized Value ⁽¹⁾	\$ 62,864,827,600	\$ 60,253,027,200	\$ 59,145,532,800	\$ 57,445,674,300
Debt Limit (5% of equalized value) ⁽²⁾	<u>\$ 3,143,241,380</u>	<u>\$ 3,012,651,360</u>	<u>\$ 2,957,276,640</u>	<u>\$ 2,872,283,715</u>
Outstanding Bonds Issued by the District	\$ 286,475,000	\$ 312,940,000	\$ 270,040,000	\$ 305,615,000
Clean Water Fund Program Loans	<u>529,148,687</u>	<u>567,252,821</u>	<u>611,184,396</u>	<u>654,385,332</u>
Total General Obligation Debt ⁽³⁾	<u>\$ 815,623,687</u>	<u>\$ 880,192,821</u>	<u>\$ 881,224,396</u>	<u>\$ 960,000,332</u>
Legal Debt Margin	<u>\$ 2,327,617,693</u>	<u>\$ 2,132,458,539</u>	<u>\$ 2,076,052,244</u>	<u>\$ 1,912,283,383</u>
Percentage of Bonded Debt to Equalized Value	1.30%	1.46%	1.49%	1.67%

(1) Includes Tax Increment District valuation reported by State of Wisconsin, Department of Revenue.

(2) Per Wisconsin Statutes Section 67.03

(3) In accordance with GASB 44 the debt applicable to the limit may be offset only by amounts that the applicable law expressly allows. Wisconsin Statute 67.03 states that the aggregate indebtedness of the entity is subject to the debt limit.



Fiscal Year					
2014	2013	2012	2011	2010	2009
\$ 57,151,739,300	\$ 56,031,757,800	\$ 56,637,438,900	\$ 59,760,633,490	\$ 61,995,778,776	\$ 65,340,474,863
<u>\$ 2,857,586,965</u>	<u>\$ 2,801,587,890</u>	<u>\$ 2,831,871,945</u>	<u>\$ 2,988,031,675</u>	<u>\$ 3,099,788,939</u>	<u>\$ 3,267,023,743</u>
\$ 233,835,000	\$ 265,665,000	\$ 296,380,000	\$ 309,080,000	\$ 321,635,000	\$ 281,440,000
<u>689,893,418</u>	<u>704,591,497</u>	<u>712,633,839</u>	<u>661,199,044</u>	<u>662,150,024</u>	<u>611,285,569</u>
<u>\$ 923,728,418</u>	<u>\$ 970,256,497</u>	<u>\$ 1,009,013,839</u>	<u>\$ 970,279,044</u>	<u>\$ 983,785,024</u>	<u>\$ 892,725,569</u>
<u>\$ 1,933,858,547</u>	<u>\$ 1,831,331,393</u>	<u>\$ 1,822,858,106</u>	<u>\$ 2,017,752,631</u>	<u>\$ 2,116,003,915</u>	<u>\$ 2,374,298,174</u>
1.62%	1.73%	1.78%	1.62%	1.59%	1.37%



Exhibit B-13

Per Capita Debt, Personal Income and Unemployment Rate

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Year	Outstanding General Obligation Debt ⁽¹⁾	Inter- Governmental Loan	District Population	Milwaukee County Personal Income (Thousands)	District Personal Income Per Capita	Outstanding Debt		Milwaukee County Unemployment Rate
						Per Capita	Percentage of Personal Income	
2018	\$ 815,623,687	\$ 18,799,970	929,584	Not Available	-	\$ 877.41	-	4.0%
2017	880,192,821	20,014,693	924,594	42,937,677	46,439	\$ 951.98	2.05%	5.1%
2016	881,224,396	21,200,228	927,947	41,268,719	44,473	\$ 949.65	2.14%	5.1%
2015	960,000,332	22,357,276	928,743	41,201,661	44,363	1,033.66	2.33%	5.8%
2014	923,728,418	23,486,522	928,689	39,697,233	42,745	994.66	2.33%	7.0%
2013	970,256,497	24,565,423	929,373	39,213,035	42,193	1,043.99	2.47%	8.3%
2012	1,009,013,839	22,064,833	927,307	38,808,170	41,850	1,088.11	2.60%	8.4%
2011	970,279,044	-	927,321	37,035,130	39,938	1,046.32	2.62%	9.0%
2010	983,785,024	-	926,579	35,893,702	38,738	1,061.74	2.74%	9.6%
2009	892,725,569	-	910,698	35,586,784	39,076	980.27	2.51%	9.3%

(1) In accordance with GASB 44 the debt applicable to the limit may be offset only by amounts that the applicable law expressly allows. Wisconsin Statute 67.03 states that the aggregate indebtedness of the entity is subject to the debt limit.

Note:

Intergovernmental loan is with the City of Franklin to finance the Ryan Creek Interceptor.
 Personal income for Milwaukee County includes City of South Milwaukee. Data for current year not yet available.
 District population excludes City of South Milwaukee and includes portion of Village of Bayside outside Milwaukee County.

Sources:

District population from U.S. Bureau of the Census and Wisconsin Department of Administration.
 Milwaukee County personal income from U.S. Bureau of Economic Analysis.
 Milwaukee County unemployment rate from Wisconsin Department of Workforce Development.



Exhibit B-14

Computation of Overlapping Debt

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Name of Government Unit</u>	<u>Net Debt Outstanding</u>	<u>Debt Within District Boundary</u>	<u>Within District Boundary</u>
Villages & Cities:			
Village of Bayside	\$11,213,173	100.00%	\$ 11,213,173
Village of Brown Deer	\$19,790,343	100.00%	19,790,343
Village of Fox Point	\$9,715,555	100.00%	9,715,555
Village of Greendale	\$24,480,000	100.00%	24,480,000
Village of Hales Corners	\$10,460,000	100.00%	10,460,000
Village of River Hills	\$3,689,912	100.00%	3,689,912
Village of Shorewood	\$53,420,679	100.00%	53,420,679
Village of West Milwaukee	\$12,384,888	100.00%	12,384,888
Village of Whitefish Bay	\$51,080,250	100.00%	51,080,250
City of Cudahy	\$24,510,000	100.00%	24,510,000
City of Franklin	\$26,399,970	100.00%	26,399,970
City of Glendale	\$39,945,000	100.00%	39,945,000
City of Greenfield	\$80,335,000	100.00%	80,335,000
City of Milwaukee	\$962,476,349	100.00%	962,476,349
City of Oak Creek	\$98,490,000	100.00%	98,490,000
City of Saint Francis	\$12,897,492	100.00%	12,897,492
City of Wauwatosa	\$121,875,000	100.00%	121,875,000
City of West Allis	<u>73,255,754</u>	100.00%	<u>73,255,754</u>
Total Cities and Villages	\$ 1,636,419,365		\$ 1,636,419,365
School Districts:			
Brown Deer	\$ 46,646,184	100.00%	\$ 46,646,184
Cudahy	21,988,000	100.00%	21,988,000
Fox Point-Bayside	2,865,000	100.00%	2,865,000
Franklin	66,180,000	100.00%	66,180,000
Glendale-River Hills	1,861,940	100.00%	1,861,940
Greendale	15,235,000	100.00%	15,235,000
Greenfield	55,780,953	100.00%	55,780,953
Maple Dale-Indian Hill	2,308,486	100.00%	2,308,486
Milwaukee Area Technical College	103,545,000	78.04%	80,806,518
Milwaukee Public	72,147,613	100.00%	72,147,613
Nicolet High School	5,135,000	100.00%	5,135,000
Oak Creek-Franklin	104,800,000	100.00%	104,800,000
Shorewood	14,185,000	100.00%	14,185,000
Saint Francis	11,965,186	100.00%	11,965,186
Wauwatosa	-	-	-
West Allis-West Milwaukee	48,519,735	92.48%	44,871,051
Whitefish Bay	10,605,000	100.00%	10,605,000
Whitnall	<u>10,063,345</u>	100.00%	<u>10,063,345</u>
Total School Districts	\$ 593,831,442		\$ 567,444,276
Milwaukee County	<u>\$ 564,652,211</u>	98.05%	<u>\$ 553,641,493</u>
Total Overlapping Debt	<u>\$ 2,794,903,018</u>		<u>\$ 2,757,505,134</u>

Source: Milwaukee County Department of Administration, Wisconsin Department of Revenue.



Exhibit B-15

Ten Largest Taxpayers for Milwaukee County

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 AND 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Name of Business	Type of Business
NORTHWESTERN MUTUAL LIFE INSURANCE CO.	INSURANCE
MAYFAIR MALL LLC	SHOPPING MALL
BAYSHORE TOWN CENTER LLC	SHOPPING MALL
US BANK CORP	BANKING
MANDEL GROUP	REAL ESTATE
AURORA HEALTH	HEALTH CARE
SOUTHRIDGE MALL	SHOPPING MALL
METROPOLITAN ASSOCIATES	REAL ESTATE
WAL-MART/SAM'S CLUB	RETAILER
JUNEAU VILLAGE/PROSPECT TOWER/KATZ PROPERTIES	REAL ESTATE
MARCUS CORPORATION/MILW. CITY CENTER/PFISTER	HOTELS, THEATERS & RESTAURANTS
WHEATON FRANCISCAN SERVICES	HEALTH CARE
COLUMBIA ST. MARY'S	HEALTH CARE
HARLEY-DAVIDSON	MANUFACTURER OF MOTORCYCLES

Total for Ten Largest

a Now BMO Harris Bank

Source:

Largest Industrial Taxpayer - Milwaukee County

Non-Industrial Taxpayer - MMSD



2018		2009	
Equalized Valuation	Percentage of Total Equalized Valuation	Equalized Valuation	Percentage of Total Equalized Valuation
\$ 575,134,120	0.96%	\$ 348,466,357	0.55%
502,167,805	0.83%	290,292,537	0.46%
356,476,969	0.59%	345,364,935	0.54%
242,364,606	0.40%	272,626,855	0.43%
235,267,422	0.39%		
178,226,793	0.25%		
147,444,433	0.27%	138,388,621	0.22%
143,806,606	0.24%	143,606,727	0.23%
141,590,937	0.24%		
125,519,780	0.21%		
		132,329,512	0.21%
		115,588,537	0.18%
		112,188,168	0.18%
		111,801,600	0.18%
<u>\$ 2,647,999,471</u>	<u>4.40%</u>	<u>\$ 2,010,653,849</u>	<u>3.16%</u>



Exhibit B-16

Population by Municipality

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Municipality	Fiscal Year										Percentage Change 2009-2018
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	
Bayside	4,339	4,341	4,365	4,376	4,376	4,380	4,380	4,383	4,300	4,170	4.1%
Brown Deer	12,346	12,340	12,305	12,217	12,157	12,086	12,065	12,001	11,999	11,720	5.3%
Cudahy	18,208	18,186	18,192	18,250	18,224	18,227	18,247	18,253	18,267	18,650	-2.4%
Fox Point	6,652	6,648	6,678	6,690	6,676	6,630	6,644	6,665	6,701	6,803	-2.2%
Franklin	35,779	36,046	35,741	35,655	35,702	35,810	35,520	35,504	35,451	33,700	6.2%
Glendale	12,587	12,604	12,724	12,753	12,773	12,845	12,808	12,833	12,872	12,980	-3.0%
Greendale	14,345	14,263	14,123	14,135	14,144	14,165	14,123	14,027	14,046	13,950	2.8%
Greenfield	36,366	36,294	36,404	36,473	36,687	36,770	36,740	36,672	36,720	36,300	0.2%
Hales Corners	7,622	7,619	7,652	7,670	7,678	7,691	7,683	7,685	7,692	7,646	-0.3%
Milwaukee	595,555	591,076	594,667	595,787	595,993	596,500	595,425	595,525	594,833	584,000	2.0%
Oak Creek	35,739	35,560	35,206	34,791	34,707	34,695	34,530	34,495	34,451	32,600	9.6%
River Hills	1,568	1,577	1,577	1,581	1,584	1,587	1,591	1,593	1,597	1,634	-4.0%
St. Francis	9,434	9,435	9,458	9,475	9,465	9,462	9,452	9,448	9,365	8,936	5.6%
Shorewood	13,315	13,228	13,134	13,178	13,183	13,189	13,174	13,177	13,162	13,360	-0.3%
Wauwatosa	47,781	47,389	47,160	46,947	46,766	46,705	46,320	46,380	46,396	45,800	4.3%
West Allis	59,590	59,652	60,164	60,329	60,272	60,300	60,300	60,365	60,411	60,600	-1.7%
West Milwaukee	4,159	4,158	4,181	4,193	4,197	4,205	4,200	4,206	4,206	4,029	3.2%
Whitefish Bay	<u>14,199</u>	<u>14,178</u>	<u>14,216</u>	<u>14,243</u>	<u>14,105</u>	<u>14,126</u>	<u>14,105</u>	<u>14,109</u>	<u>14,110</u>	<u>13,820</u>	2.7%
Total District population	<u>929,584</u>	<u>924,594</u>	<u>927,947</u>	<u>928,743</u>	<u>928,689</u>	<u>929,373</u>	<u>927,307</u>	<u>927,321</u>	<u>926,579</u>	<u>910,698</u>	
Total population served by the District (2)	<u>1,079,701</u>	<u>1,072,574</u>	<u>1,075,208</u>	<u>1,074,811</u>	<u>1,074,101</u>	<u>1,074,130</u>	<u>1,071,835</u>	<u>1,071,622</u>	<u>1,051,876</u>	<u>1,054,725</u>	
2009 = 100%	102.4%	101.7%	101.9%	101.9%	101.8%	101.8%	101.6%	101.6%	99.7%	100.0%	
Total state population	<u>5,816,231</u>	<u>5,783,278</u>	<u>5,775,120</u>	<u>5,753,324</u>	<u>5,732,981</u>	<u>5,717,110</u>	<u>5,703,525</u>	<u>5,694,236</u>	<u>5,686,986</u>	<u>5,688,040</u>	
2009 = 100%	102.3%	101.7%	101.5%	101.2%	100.8%	100.5%	100.3%	100.1%	100.0%	100.0%	

(1) Includes all or parts of the following communities outside the District: Brookfield, Butler, Elm Grove, Germantown, Menomonee Falls, Mequon, Muskego, New Berlin, Thiensville and Village of Caledonia.

Sources: U.S. Department of Commerce, Bureau of the Census, Department Service Center, Wisconsin Department of Administration, MMSD Cost Recovery Procedures Manual.



Exhibit B-17

Principal Private Sector Employers

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 AND 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

<u>Employer</u>	2018			2009		
	<u>Employees</u>	<u>Percentage of Total</u>	<u>Rank</u>	<u>Employees</u>	<u>Percentage of Total</u>	<u>Rank</u>
Aurora Health Care Inc.	27,599	6.06%	1	21,570	5.09%	1
Froedtert Health	11,820	2.59%	2			
Ascension Wisconsin	8,656	1.90%	3	9,371	2.21%	2
Roundy's Inc.	7,581	1.66%	4	6,800	1.61%	4
Quad/Graphics Inc.	7,500	1.65%	5	6,600	1.56%	5
Kohl's Corp.	7,000	1.54%	6	5,920	1.40%	7
GE Healthcare	6,000	1.32%	7	6,000	1.42%	6
The Medical College of Wisconsin Inc.	5,941	1.30%	8	4,833	1.14%	10
Children's Hospital and Health System	5,170	1.13%	9			
Northwestern Mutual	5,000	1.10%	10	5,000	1.18%	9
Wal-Mart Stores				7,682	1.81%	3
Columbia St. Mary's Health System				<u>5,371</u>	<u>1.27%</u>	8
Total for Ten Largest	<u>92,267</u>	<u>20.25%</u>		<u>79,147</u>	<u>18.69%</u>	
Total Milwaukee County Employment	455,545	100.00%		423,498	100.00%	

Note:

Employee count reflects number of full-time equivalent employees in the Milwaukee area, including Milwaukee, Kenosha, Racine, Waukesha, Ozaukee, Walworth and Washington counties.

Source:

Employee count from Milwaukee Business Journal August 17, 2018 Addition.

Total County Employment from Wisconsin's Workforce and Labor Market Information System.



Exhibit B-18

Number of Employees by Identifiable Activity

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

	Full-time Equivalent Employees as of December 31,				
	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<u>Engineering/Inspection/Construction/Water Quality</u>					
Engineering	19	19	20	44	43
Planning	52	52	53	29	32
Contract Compliance	9	8	8	8	7
Lab/Monitoring	52	52	54	60	63
<u>Administration</u>					
Office of the Executive Director	4	5	2	5	5
Legal Services	6	6	6	6	6
Internal Services	<u>68</u>	<u>67</u>	<u>68</u>	<u>63</u>	<u>63</u>
Total Employees	<u>210</u>	<u>209</u>	<u>211</u>	<u>215</u>	<u>219</u>

Source:

Milwaukee Metropolitan Sewerage District Payroll Records and O&M & Capital Budgets.



Full-time Equivalent
Employees as of December 31,

<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
46	47	49	52	54
27	27	27	28	24
6	6	7	6	6
60	60	68	68	70
5	5	6	5	9
7	7	7	8	8
<u>65</u>	<u>65</u>	<u>67</u>	<u>65</u>	<u>67</u>
<u>216</u>	<u>217</u>	<u>231</u>	<u>232</u>	<u>238</u>



Exhibit B-19

Operating and Capital Indicators

FOR THE FISCAL YEARS ENDED DECEMBER 31, 2009 THROUGH 2018
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

	Fiscal Year			
	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Wastewater Treatment				
Miles of Sewers	362	359	360	362
Number of Water Reclamation Facilities	2	2	2	2
Treatment Capacity (MGD)	600	600	600	600
Storage Capacity (millions of gallons)	521	521	521	521
Amount Treated Annually (millions of gallons)	76,900	71,800	68,200	67,100
Percentage of Wastewater Captured	98.40%	99.99%	99.8%	98.9%
Percentage of Treatment Capacity Utilized	63.84%	59.61%	56.47%	55.71%
Number of Inline Storage System Events	46	52	46	47
Number of Overflows	9	1	2	2
Greenseams Acres Acquired to Date	3,711	3,647	3,433	3,183
Household Hazardous Waste (lbs collected) ¹	1,248,441	1,181,059	1,155,611	832,357
Milorganite® Production (tons)	47,722	48,418	40,274	43,816
Milorganite® Tons Sold	44,753	45,349	43,728	43,284
Average selling price per ton shipped	\$ 226.34	\$ 222.29	\$ 220.22	\$ 198.52

¹ Does not include medicine collection pounds.

Sources:

MMSD O&M and Capital Budgets, MMSD Annual Capacity, Management, Operation, and Maintenance (CMOM) Program Report, and MMSD real estate records.



Fiscal Year					
<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
362	347	356	356	321	321
2	2	2	2	2	2
600	600	600	600	600	600
521	521	521	521	521	494
68,300	73,900	60,100	74,100	71,300	72,200
99.5%	98.5%	99.9%	99.5%	96.2%	98.3%
56.70%	61.30%	49.90%	61.50%	59.20%	59.90%
47	42	47	51	40	37
3	2	1	1	8	6
3,058	2,682	2,500	2,348	2,254	2,034
909,919	866,609	977,176	965,804	992,266	1,095,425
45,408	47,954	45,203	49,376	48,817	45,338
45,498	47,672	41,378	36,073	36,685	39,277
\$ 178.57	\$ 164.15	\$ 185.89	\$ 196.49	\$ 192.71	\$ 189.61

MMSD's Mission

To cost-effectively protect public health and the environment, prevent pollution and enhance the quality of area waterways



Interns Touring the South Shore Water Reclamation Facility

Overall responsibility for preparation of this report was provided by:
Mark T. Kaminski, CPA, Director of Finance/Treasurer
Starr M. Pentek-Schuetz, Graphic Designer





Tour Group with MMSD on the Pelagos Research Vessel



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