MMSD
PARTNERS FOR A CLEANER ENVIRONMENT

2023 Operations and Maintenance & Capital Budget

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Milwaukee Metropolitan Sewerage District
2023 Budget

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Legal Services

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Community Outreach and Business Engagement

Kevin Shafer (acting)
Integrated Watershed Management

Sharon Mertens
Water Quality Protection

Scott Johanning
Information Technology Services

Managing and Contributing Staff

Christine Durkin, *Management & Budget Analyst III*
Benjamin Polony, *Management & Budget Analyst*
Don Nehmer, *Deputy Director of Finance*
Rick Niederstadt, *Capital Program Support Manager*

Recent District Awards and Honors

2022

- GFOA Distinguished Budget Presentation Award
- GFOA Certificate of Achievement for Excellence in Financial Reporting
- NACWA Environmental Achievement Award

2021

- GFOA Distinguished Budget Presentation Award
- GFOA Certificate of Achievement for Excellence in Financial Reporting
- NACWA Peak Performance Award
- NACWA Environmental Achievement Award
    - Operations and Environmental Performance
    - Public Information & Education – Educational Program
    - Special Recognition
    - Workforce Development
- Wisconsin Policy Forum Salute to Local Government
- International Gold Leaf Award
- WaterNow Emerging Leader Award

2020

- GFOA Distinguished Budget Presentation Award
- GFOA Certificate of Achievement for Excellence in Financial Reporting
- NACWA Peak Performance Award

2019

- GFOA Certificate of Achievement for Excellence in Financial Reporting
- GFOA Distinguished Budget Presentation Award
- ACEC Engineering Excellence State Finalist Award
- ACEC Engineering Excellence Best of State Award
- Mayor's 2019 Design Award
- NACWA Peak Performance Award

2018

- Historic Milwaukee 2018 Remarkable Milwaukee Honoree
- Milwaukee Riverkeeper Estabrook Dam Award
- Rivers, Trails, and Conservation Assistance Program Partner Excellence Award
- B2GNow Collaboration Award
- GFOA Distinguished Budget Presentation Award
- GFOA Certificate of Achievement for Excellence in Financial Reporting
- NACWA Peak Performance Award

2017

- GFOA Certificate of Achievement for Excellence in Financial Reporting
- GFOA Distinguished Budget Presentation Award
- Leading Utilities of the World Award
- 2017 Wisconsin Local Corporation of the Year Award

2016

- GFOA Certificate of Achievement for Excellence in Financial Reporting
- GFOA Distinguished Budget Presentation Award
- NACWA Water Resources Utility of the Future Award
- Gathering Waters – Policymaker of the Year Award
- NACWA Peak Performance Award

2015

- GFOA Certificate of Achievement for Excellence in Financial Reporting
- GFOA Distinguished Budget Presentation Award
- NACWA Water Resources Utility of the Future Award
- 2015 ACEC Engineering Excellence Award
- NACWA Peak Performance Award

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Milwaukee Metropolitan Sewerage District
Wisconsin

For the Fiscal Year Beginning

January 01, 2022

Executive Director

Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Milwaukee Metropolitan Sewerage District, Wisconsin, for its Annual Budget for the fiscal year beginning January 1, 2022. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device. This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.


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MMSD
PARTNERS FOR A CLEANER ENVIRONMENT

January 1, 2023

Commissioners:

I am proud to present to you the Milwaukee Metropolitan Sewerage District's 2023 Adopted Operations & Maintenance and Capital Budgets. This comprehensive document will advance our mission to protect public health and the environment through world-class, cost-effective water resource management, leadership, and partnership. The document was developed using national standards intended to communicate information in a manner that is understandable to a wide variety of users and to convey the policy direction of the Commissioners.

The combined budgets total $349.8 million, a $31 million increase over our approved 2022 combined budgets. This increase is possible thanks to the District's strong budgetary performance, solid reserves, manageable debt, and AAA, Aa1, and AA+ (high) credit ratings with Fitch, Moddy's, and Standard & Poor's respectively. In order to create this sizeable budget that continues our history of strong financial performance, we reviewed policies related to financial management, expanded our six-year long-range financial plan to ten years to confirm the sustainability of our finances, and matched our budgets to our identified strategic priorities.

Creating the 2023 budget came at a time of uncertainty. This year the world has seen forty-year record inflation, soaring energy prices, instability with the conflict in Ukraine, and continuing uncertainty about the pandemic and its impact on our everyday lives. As with every organization and member of our community, the economic challenges have a significant impact on the development of our budgets. The primary goals of the budget process are to ensure essential and priority programs are funded in order to provide excellent service to our community with an eye towards affordability to all of our rate and taxpayers.

The challenges are not just financial, and our strategic plan highlights our commitment beyond financial goals. We have navigated changing workplace dynamics and managed with worker shortages. We took on new projects that are in line with the federal government's renewed focus on infrastructure and climate change. We relied on our strategic plan to focus our efforts and our resource allocation. Ultimately, we present a budget that is fair and balanced. The 2023 budget continues to invest in our staff. The budget includes funding for new technology to streamline work and provide efficiencies, staff leadership and diversity training, and salary increases to keep our workforce competitive. We recognize that we cannot provide essential services like wastewater and flood management if we do not have the people, tools, and resources to do the work.

The budget is also reflective of the current times. Inflation and worker shortages among our contractor and consultant community results in higher bids to complete our work as well as uncertainty in the timing and cost of project completion. The assumptions used in creating the budget reflect the higher cost of living, while also striving to keep our services affordable. Throughout the 2023 budget document, you will find discussion of many of the factors that impact the District and provide perspective and context to financial changes implemented in the budget.

The final adopted budgets do not have any changes from the proposed budgets. Staff provided regular communication with the Commission over the course of the budget preparation process to anticipate the Commission's priorities and incorporate those priorities in the budget. Finance staff also provided monthly presentations and non-quorum briefings to Commissioners to address any questions or concerns before budget adoption.

Highlights of the 2023 Capital Budget

The 2023 Capital Budget totals $232.2 million. The long-range financing plan includes a tax levy increase of 3 percent for each year from 2023 through 2027, and an increase of 5 percent from 2028 to 2032.
The financing plan allows a strategic use of debt financing to ensure inter-generational equity while still maintaining the District's compliance with policy objectives including 20 percent cash financing and debt capacity limitations. The District will continue to seek alternative funding solutions and hopes to maximize funding opportunities from the Infrastructure Investment and Jobs Act, Inflation Reduction Act, and Water Infrastructure Finance and Innovation Act funding.

Key investments in 2023 include:

- Drying and Dewatering facilities rehabilitations, replacements and improvements: $19 million
- Basin H PCB Remediation and Rehabilitation $7 million
- Veterans Administration Grounds MIS Relocation $2 million
- Milwaukee Estuary Area of Concern Dredged Material Management Facility $2 million

The District's 2023 Capital Budget is based on its cornerstone financial objectives that provide sound long-term financial planning. These include limiting outstanding debt to no more than 2.5 percent of equalized value, while State Statutes allow up to 5 percent. In the 2023 long-range financing plan, debt outstanding is projected to be at the highest level in 2031 at 1.85 percent, and this is far below the policy provision of 2.5 percent. In addition, the District provides that ten-year total project expenditures are financed with an average 20 percent cash financing over ten years.

The majority of capital expenditures are rehabilitation, replacement or improvement of existing District facilities and infrastructure, totaling over $990 million over the ten-year plan. This is followed by extensive expenditures planned for watercourse and flood management improvements at $294 million. The District also funds various capital programs that provide unique funding mechanisms to partner with municipalities served to lower overall system costs. The details of all capital projects can be found within the capital account sections of the capital budget.

Highlights of the 2023 Operations & Maintenance Budget

In the Operations and Maintenance budget, the 2023 user charge billings increase 5.8 percent which is higher than the projected 2.5 percent in the prior year's forecast, but lower than the current rate of inflation.

The 2023 O&M Budget expenditures total $117.7 million. Overall expenditures are increasing 6.9 percent, or $7.6 million. A significant portion of the increase relates to the operations and utilities fees. In 2023, we are excited to grow our workforce by five full-time positions to help with additional construction and public education so that we can better meet the needs of our community.

In addition to user charge billings, the District has other operating revenue sources. The District's second largest O&M revenue source is from Milorganite® net revenue. The Milorganite® net revenue in the 2023 O&M Budget is projected to be $11.8 million, a 7.3 percent increase from the 2022 O&M Budget. The District's projected revenue from interest income is $300,000, which is in line with the current 2022 projection. Revenue from Other Income increases $340,000 from the 2022 budgeted level, primarily due to an anticipated grant from the WDNR. The District also administers two cost recovery programs: the Industrial Waste Pretreatment Program (IWPP) projected at $1.2 million and the Household Hazardous Waste Collection Program (HHW) projected at $1.3 million. In addition to the above-mentioned revenue sources, the District returns any available surplus from prior fiscal years and has available reserves on an as-needed basis. In 2023, the $5 million surplus from the 2021 budget is returned.

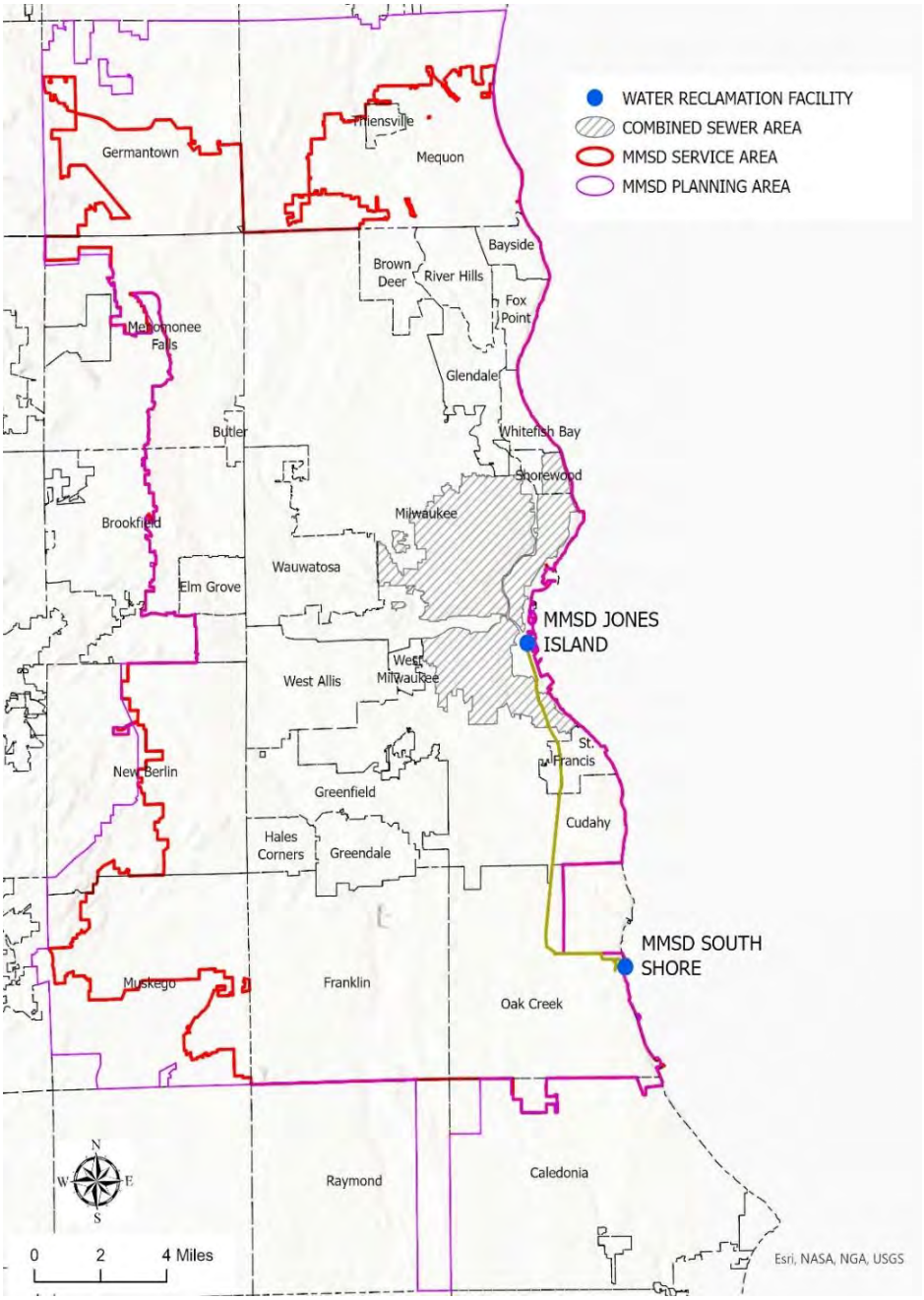
Within this budget, we address several key areas to ensure the resources provided support sustained growth. We focus on healthy watersheds, climate change resiliency, diversity in the water workforce, effective and reliable public water reclamation services, prudent financial stewardship, and organizational investments that strengthen our level of service. Thanks to all who participated in the crafting of this 2023 budget and who will join us as we continue to look forward to the District's future. We look forward to partnering with others to protect water quality and building resiliency together.

Respectfully submitted,

Kevin L. Shafer, P.E.
Executive Director
"When we work together as a Region, we succeed as a Region"

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

Background, Statistical and Supplemental Information



Who We Serve

The Milwaukee Metropolitan Sewerage District is a state chartered, governmental agency providing wastewater services for 28 municipalities with a population of about 1.1 million people. The District's chief responsibilities are to provide water reclamation services and to maintain and improve watercourses for nearly all of Milwaukee County, Wisconsin, and portions of municipalities in surrounding counties. While Milwaukee is the 31st largest city in the United States, its regional wastewater system is among the largest, most sophisticated, and well run in the country. The District's 423-square-mile planning area includes all cities and villages (except the City of South Milwaukee) within Milwaukee County and 11 municipalities in the surrounding counties of Ozaukee, Washington, Waukesha, and Racine. About 26 square miles, or six percent of the District's planning area, have combined sewers. Approximately 323 square miles, or 76 percent of the planning area, are separate sewer area. The remaining 74 square miles, or 18 percent of the planning area, are considered unsewered; they are within the planning area but have not yet been added to the District's service area. The size of the planning area increased in 2020 with the addition of parts of the Town of Raymond and the Village of Caledonia during development of the 2050 Facilities Plan.

A 4,033-mile system of local collector sewers and a 295-mile system of District intercepting and main sewers convey wastewater to the two District-owned water reclamation facilities. Additionally, the District owns six miles of combined sewers, 24 miles of near surface collectors, as well as 25 miles of Inline Storage and seven miles of remote storage that store and convey wastewater for the region.

Wastewater treatment within the District's service area is provided at two District-owned water reclamation facilities. One is the Jones Island Water Reclamation Facility, which began operations in 1925. The other is the South Shore Water Reclamation Facility, which began operations in 1968. On average, the two water reclamation facilities collect and treat more than 200 million gallons of wastewater each day, and, with a daily capacity of 600 million gallons, they return clean, clear water to Lake Michigan.

In 1926, Jones Island was the first wastewater facility to recycle biosolids by producing an organic fertilizer known as Milorganite®. This commercial fertilizer is sold throughout the United States and Canada for home lawn care as well as for golf courses, country clubs, and other professional grounds.

Governance

The District's governing body is the Milwaukee Metropolitan Sewerage Commission, which is composed of 11 members. Seven commissioners are appointed by the Mayor of the City of Milwaukee and are subject to confirmation by the Common Council. Four commissioners are appointed by the Intergovernmental Cooperation Council of elected officials of cities and villages in the District other than the City of Milwaukee. The Commission establishes and enforces District policies in compliance with statutory responsibility and directs and controls budgetary, administrative, procedural, operational, and informational support for the District.

The Commission has two standing committees: the Policy, Finance and Personnel Committee and the Operations Committee. In general, the Policy, Finance and Personnel Committee has jurisdiction over establishment of District policy, financial planning, budget recommendations, award of contracts not related to conveyance, storage and treatment, reporting and audits, personnel matters, labor relations, legal matters and legislation, and public information policies. The Operations Committee has jurisdiction over the operation of the wastewater collection and treatment systems, industrial pretreatment, and contract and bid awards for the District's conveyance, storage, and treatment projects.

Operations

In early 1998, the District approved a ten-year public private partnership agreement with United Water Services (UWS) for operating the District's two water reclamation facilities, bio-solids management, and field operations. The agreement with UWS saved District ratepayers more than $164 million over the term of the contract. On December 3, 2007, a second ten-year contract was executed with Veolia Water Milwaukee (VWM) effective March 1, 2008. In 2016, the District executed a ten-year extension of the VWM contract, which is in effect from March 2018 through February 2028. The VWM contract provides the District with the lowest cost option to maintain, operate, and manage the District's water reclamation facilities, collection, and conveyance system.

Learn More and Get Up-to-Date Information

The District strives to increase open two-way communication both internally and externally, enable consistent messages that reinforce and reflect the goals of our region, and strengthen community problem-solving to provide residents complete, accurate, and timely information. The District's website serves as the primary mode of communication with the public. The website features a contact us section and includes information for signing up for the electronic newsletter.

Find out more at mmsd.com

District staff work 365 days a year to monitor and test local water quality to protect public health.

Other Statistical Information

The District annually evaluates local and national economic trends including price indices, property values, unemployment rates, personal income, and industrial growth rates. The economic trends help the District determine what an affordable user charge rate is for its customers and in turn, future revenue and expenditures. In addition, the District uses price indices to establish or benchmark annual contractual rate increases for some multi-year contracts.

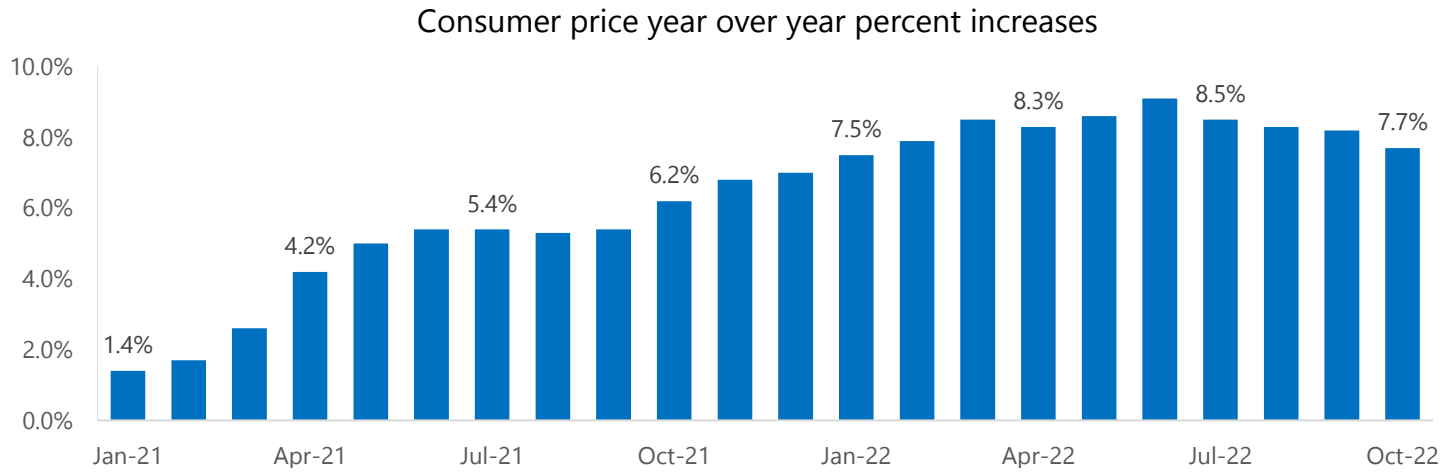
Price Indices

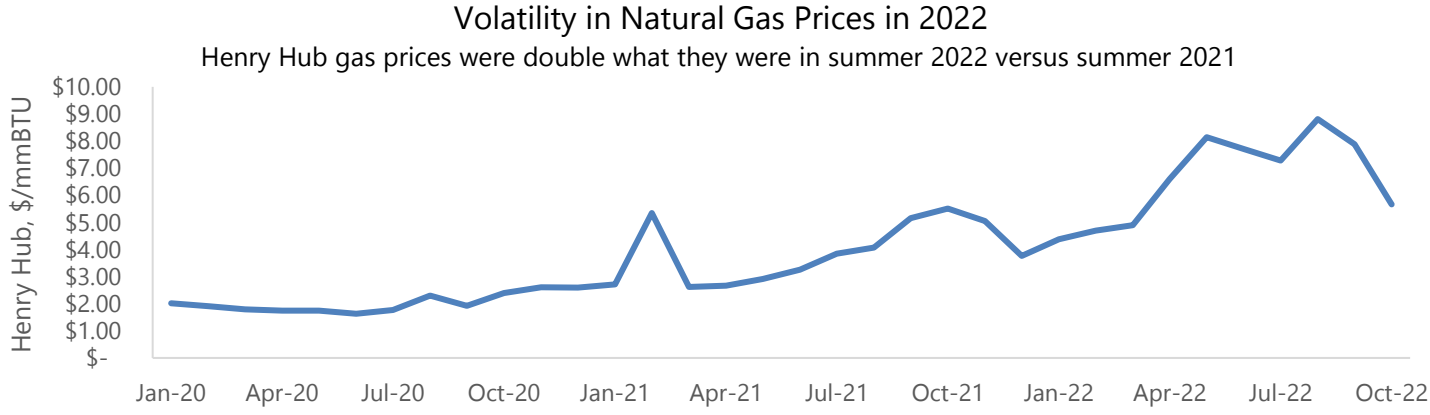
Consumer Price Index

Year	US	Midwest
2021-2022 (1st half)	8.3%	8.8%
2020-2021	4.7%	5.4%

Source: United States Department of Labor, Bureau of Labor Statistics

The Consumer Price Index (CPI) measures the change in the cost of a bundle of goods and services paid by consumers. National CPI for the first half of 2022 has increased 8.3 percent over the first half of 2021. The higher CPI means the District experiences higher prices in the goods and services it procures. The operating contract with Veolia Water is also tied to changes in the consumer price index for all items for all urban consumers in Midwest urban settings. In August of 2022, the Bureau of Labor Statistics reported July 2022 data, including: energy prices rose 32.9 percent over the past 12 months; gasoline prices increased 44.0 percent, and fuel oil prices rose 75.6 percent. Consumer prices for electricity rose 15.2 percent, the largest 12-month increase since the 12 months ending February 2006. Prices for natural gas increased 30.5 percent over the last 12 months[1]. Energy expenditures make up about 9.5 percent of the operating budget; therefore, fluctuations to the price of energy impact the overall cost of the District's operations.



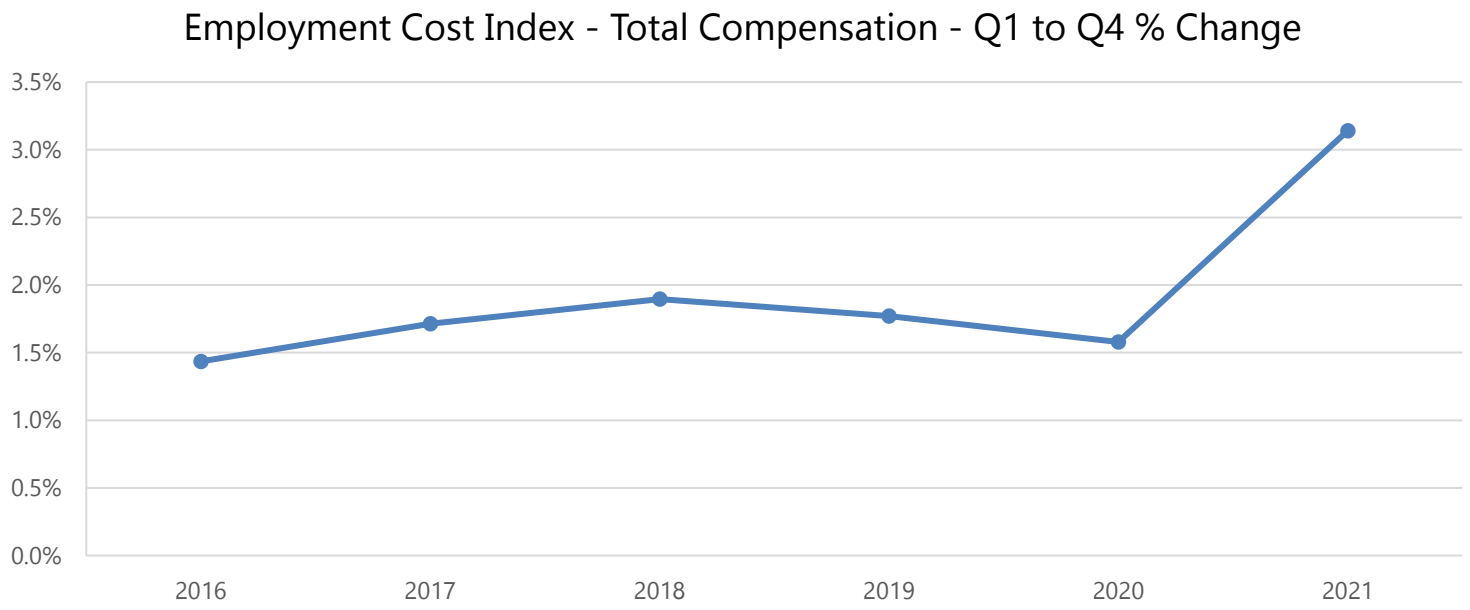


[1] Bureau of Labor Statistics, U.S. Department of Labor, The Economics Daily, Consumer Price Index unchanged over the month, up 8.5 percent over the year, in July 2022 at https://www.bls.gov/opub/ted/2022/consumer-price-index-unchanged-over-the-month-up-8-5-percent-over-the-year-in-july-2022.htm (visited August 17, 2022).

Employment Cost Index

Year	US
2021-2022 (1st half)	5.2%
2020-2021	3.6%

The Employment Cost Index (ECI) is a quarterly measure of the change in the price of labor, defined as compensation per employee hour worked. The index measures changes in the cost of compensation not only for wages and salaries, but also for a list of benefits. Compensation costs for civilian workers increased 3.6 percent for the 12-month period ending in June 2022 and also increased 2.7 percent in June 2022. The operating contract annual base cost adjustment factor with Veolia Water is also tied to changes in the employment cost index for private industry; therefore, changes in the cost of total compensation impact the cost of operations. As seen in the chart below, the cost index has increased significantly in the recent past.



Construction Cost Index and Building Cost Index

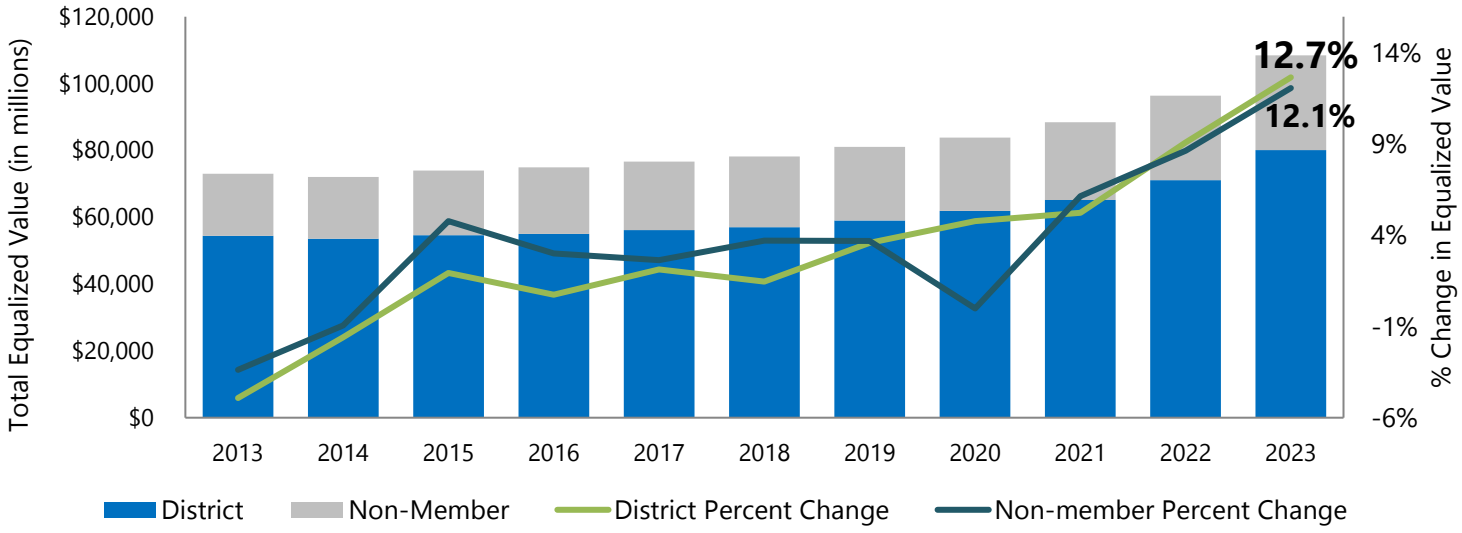
The District also uses construction price indices to plan its capital expenditures. The Engineering News Record (ENR) is a magazine that publishes cost data for 20 major U.S. cities. The Construction Cost Index (CCI) and the Building Cost Index (BCI) measure the change in construction costs. Both indices have a materials and labor component. The CCI can be used where labor costs are in high proportion of total costs, whereas the BCI is useful for structures. For the 2023 budget, the District applied a blended rate of 5 percent to account for changes in costs. This increase is lower than the current rate of inflation and was selected based on the uncertainty inherent in project cost projections.

Property Values

Property values are one of the region's most critical indicators of economic health. According to the Greater Milwaukee Association of Realtors, the average sale price is up 9.5 percent in the first half of 2022.[1]

The District levies taxes on households based on equalized property values to fund its capital projects. Equalized values are calculated annually to ensure statewide fairness and equity in distributions based on property values. In 2023, the total equalized values in the District's service area are estimated to increase approximately 12.7 percent for member communities and increase 12.1 percent for non-member communities.

2013-2023: Change in Equalized Value



Unemployment Rate

Year	US	WI	Milwaukee-Waukesha-West Allis MSA
2022 First Half	3.7%	2.9%	3.6%
2021	5.4%	3.7%	4.4%
2020	8.1%	6.3%	7.1%

Source: For national, Wisconsin, and Milwaukee-Waukesha-West Allis MSA data: U.S. Bureau of Labor Statistics (July 2022).

According to the State of Wisconsin Department of Revenue, Wisconsin employment grew 2.1 percent in 2021, adding almost 60,000 jobs. Wisconsin employment is expected to expand 2.3 percent in 2022 and 1.1 percent in 2023. The forecast expects employment to reach the pre-pandemic level by late 2023.

Personal Income

Year	US	WI
2022 Q1	4.8%	6.7%
2021	10.8%	8.6%
2020	6.2%	4.7%

Source: US Bureau of Economic Analysis

Personal income is the total income of all persons from all sources. State personal income sums up all the money that residents receive from work, certain investments, income from owning a business and property, and government assistance, including the extra federal aid provided in response to the pandemic, as well as benefits from employers or the government. The table shows annual changes in personal income for the United States and Wisconsin. The Department of Revenue reports that Wisconsin personal income growth is expected to slow to 2.3 percent in 2022. Wages and salaries are forecasted to grow 8.2 percent but personal transfer income will decline more than 10 percent given that no more federal stimulus payments are expected.

[1] Taschler, Joe. "June home prices were up and sales were down in metro Milwaukee; lack of new homes is 'systemic problem' in market; mortgage rates rising." *Milwaukee Journal Sentinel,* 21 July 2022.

Downtown Milwaukee as seen from Lake Michigan

District Performance

In order to ensure the District is meeting its mission to cost-effectively protect the quality of the region's water resources, the District measures and monitors its performance in the percent of wastewater that is captured and treated. The percent capture measures how much wastewater the District captures and treats by year, versus the amount that the District releases from its sewers to the area waterways untreated during heavy rainstorms to prevent basement backups. The table to the right shows the District's past performance in capturing and treating wastewater.

In 2022, the District captured and treated 98.7% of wastewater before returning it to the waterways.

Year	Percent captured and treated
2022	98.7%
2021	99.3%
2020	97.3%
2019	99.3%
2018	98.3%
2017	99.9%
2016	99.8%
2015	98.9%
2014	99.5%
2013	98.5%

The District's Financial Performance

Credit rating agencies repeatedly award high ratings to the District. Such highly acclaimed financial performance is the result of developing and adhering to financial policies geared toward ensuring the District's continued financial strength. Each bond rating agency has published guidelines and examples of sound financial practices normally associated with strong credit quality. One example of such a list is the Standard and Poor's Top 10 Management Characteristics. The table below demonstrates the District's achievement of these standards.

	Top Ten Management Characteristics		District Performance
1	An established rainy day/budget stabilization reserve.	✓	• The District maintains two reserve funds: the User Charge Stabilization Fund and the Equipment Replacement Fund
2	Regular economic and revenue reviews to identify shortfalls early.	✓	• Cost center managers review monthly variance reports • Quarterly variance reviews are prepared and discussed for both the O&M and Capital Budgets • Quarterly financial statements are prepared and distributed
3	Prioritized spending plans and established contingency plans for operating budgets.	✓	• Annual budget process prioritizes needs. • Annual operating contingency established through the Unallocated Reserve.
4	A formalized capital improvement plan in order to assess future infrastructure requirements.	✓	• Annual budget includes a six-year capital improvement program, including a long-range financing plan.
5	Long-term planning for all liabilities of a government, including pension obligations, other post-employment benefits and other contingent obligations would be optimal and allow for assessment of future budgetary risks.	✓	• Financial statements are presented on the accrual basis of accounting. • Expenses are recorded when liabilities are incurred. • Since 1993, the District has recorded and disclosed its unfunded obligations for retiree health and life insurance.
6	A debt affordability model in place to evaluate future debt profile.	✓	• The District's intent is to keep outstanding debt to no more than 2.5 percent of its equalized property value. The 2.5 percent limit is half of the amount allowed by Wisconsin Law. • No more than 15 percent of its outstanding general obligation bonds are in variable rate form. • Advance refunding for economic savings is undertaken only when net present value savings of at least two percent of refunded debt can be achieved.
7	A pay-as-you-go financing strategy as part of the operating and capital budget.	✓	• Capital Budget complies with a 20 percent cash financing objective. • The District has never issued debt to fund its O&M expenditures.
8	A multiyear financial plan in place that considers the affordability of actions or plans before they are part of the annual budget.	✓	• The Capital Budget includes a Long-Range Financing Plan. • Budget staff prepare a ten-year forecast of revenues and expenditures for internal decision making.
9	Effective management and information systems.	✓	• The District uses an integrated core financials management system and other program-specific systems that capture and report critical operating information.
10	A well-defined and coordinated economic development strategy.	✓	• The District regularly communicates with member communities and the top 20 industrial users regarding the District's financial decisions and the impact on District customers. • The District's user charge and tax rates are competitive on a national basis. • The District fully supports its Small, Women-, Minority and Veteran Owned Business Enterprise procurement policy. • The District provides and Workforce and Business Development Resource Program. • The District uses a local workforce preference policy whenever applicable.

Financial Planning

Just as strategic planning identifies objectives and strategies, financial planning identifies financing scenarios and alternatives for the strategic programs and other action items. A long-term forecast is prepared for both the Operations and Maintenance (O&M) and the Capital Budgets.

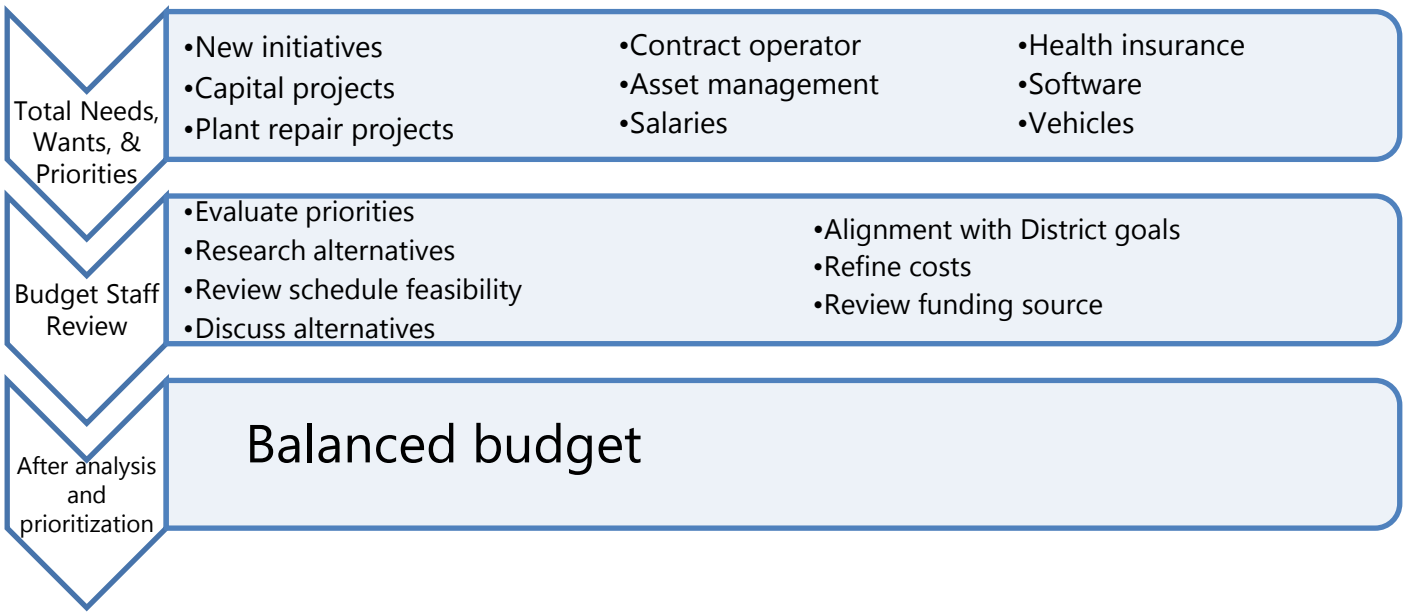
The Budgeting Process

First, the Budget Office staff begin financial planning by developing preliminary scenarios for anticipated revenues and expenditures and make a recommendation to the Executive Director regarding funds that will be available in the upcoming year for expenditures funded through the O&M Budget. At the same time, projections of capital spending and new capital project requests are identified by the requesting divisions. These capital expenditures are incorporated into a similar process to ensure that priorities are identified, and financial goals are achieved.

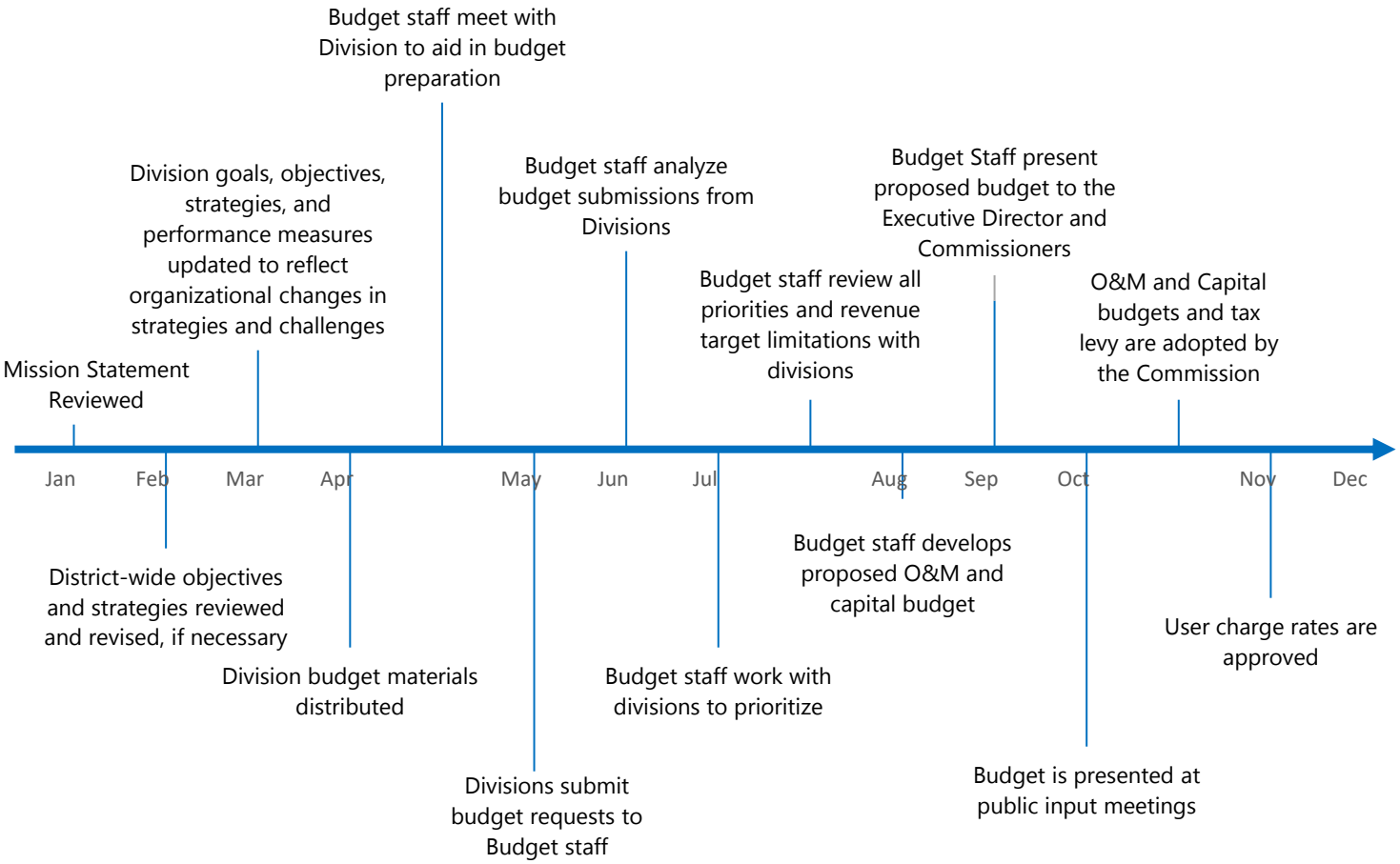
In spring, divisions submit their budget requests to the Budget Office. Budget Office staff review the requests in the context of the funding available and the Executive Director and Commission's stated goals, and offer suggestions for alternatives. The Budget Office considers the impact of the expenditure not just on the current fiscal year, but also on the forecast. Budget Office staff analyze both the O&M and Capital requests and develop a proposed budget for the Executive Director to present to the Commission for adoption. The public is welcome to review the proposed budget document once it is published on the District's website. The public is also invited to attend two public hearings before the budget is adopted. Commissioners may propose amendments to the proposed budget, and the Budget Office analyzes the amendment request before making a recommendation to include it in the final adopted budget. After that, the budgets and tax levy are adopted by the Commission in October. The user charges are adopted in November.

After the budget is adopted, the budget may be amended to accommodate new projects or to carryover unspent funds from one budget year to the next. For new projects, staff present a resolution to the Commission describing the project, the estimated expenditures, and source of funding. For unspent O&M funds, the Executive Director presents annually in April a list of funds budgeted in the previous fiscal year recommended for a carryover to the next fiscal year. The list includes details on the dollar amount recommended for carryover, purpose of expenditure, summary explanation of reason(s) fund remains unexpended, and summary of continuing need for goods or services to be procured.

For more information about the District's policies related to the budget adoption process and budget amendments, please see the appendix on Budget Policies. The following graphic depicts the District's budget planning process and shows the linkage between strategic planning and financial planning.

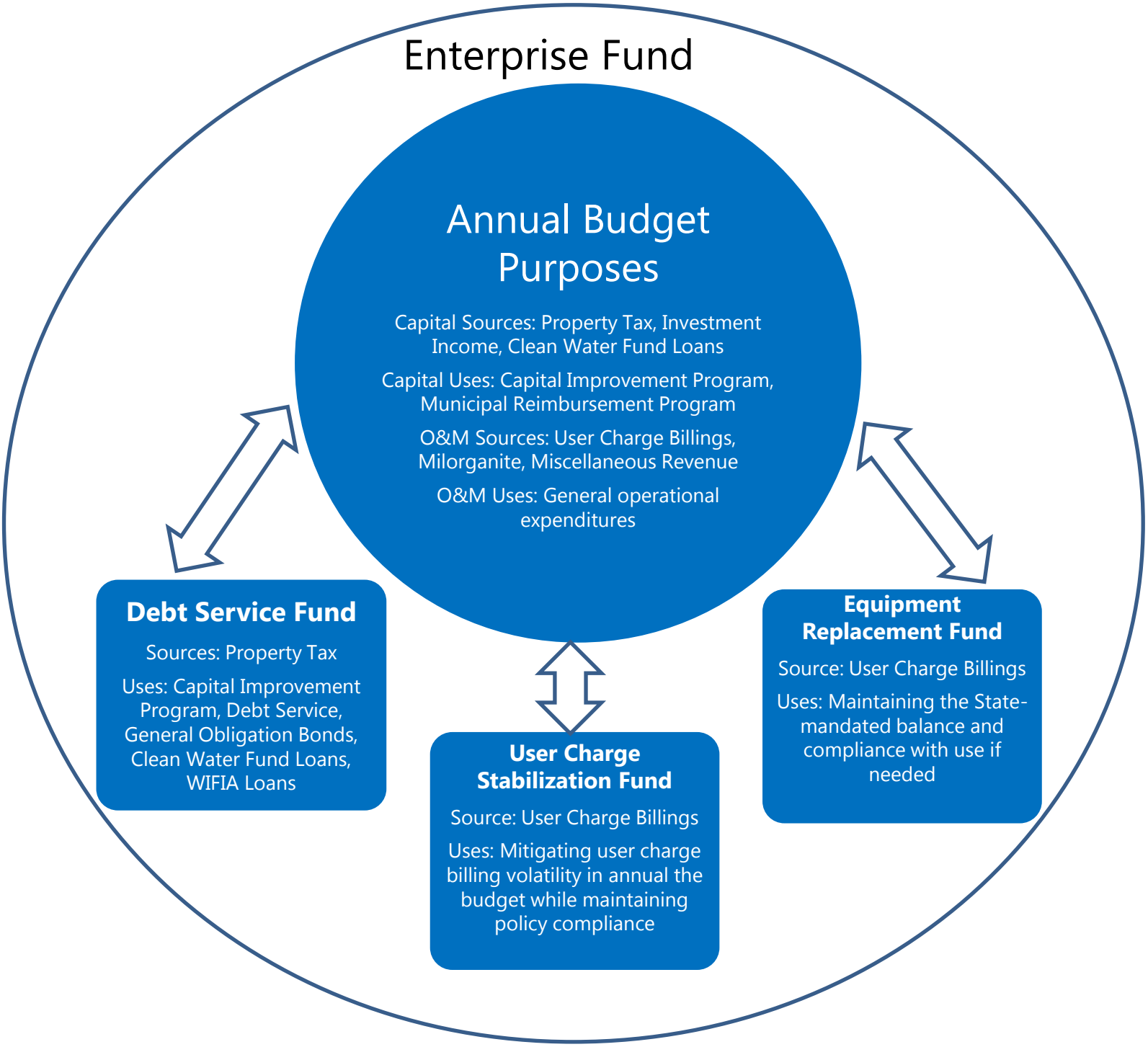


Budget Review & Adoption Calendar



Date	Time	Activity
Thursday, April 13, 2022	11:00 am	Budget Kick-Off
Friday, May 27, 2022	5:00 pm	Budget Requests Due
Throughout May and June		Staff analyze requests and begin to develop long-range financing plan and forecast
Monday, June 27, 2022	9:00 am	Capital and Operations & Maintenance Budget update to Commission
Monday, July 25, 2022	9:00 am	Capital and Operations & Maintenance Budget update to Commission
Friday, September 9, 2022	9:00 am	Distribute Budget to Commissioners
Monday, September 26, 2022	6:00 pm	Public Hearing on Budgets
Monday, October 3, 2022	5:00 pm	Budget Amendments Due
Tuesday, October 4, 2022	10:00 am	User Charge Ad Hoc Committee meets
Monday, October 10, 2022	8:30 am	Public Hearing on Budgets
Monday, October 24, 2022	9:00 am	Commission Adopts Budgets & Tax Levy Adopted
Monday, November 21, 2022	9:00 am	User Charge Billing Rates Set

District's Flow of Funds Structure



Fund Structure, Purpose, and Accounting Basis

The District is organized in a single enterprise fund. 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.

The use of funds and the budgeting, accounting, and auditing that are associated with this type of structure are governed by Generally Accepted Accounting Principles (GAAP), as determined by the Governmental Accounting Standards Board (GASB). The District's use of funds ensures that public money is spent appropriately and within the amounts authorized. Established funds account for the different types of activities and legal restrictions that are associated with a use. Depreciation and interest expense are recorded as expenses for financial statement purposes. Depreciation is not budgeted.

The District maintains several funds. Within these funds, assets are restricted. Restricted assets are equipment replacement funds and all assets related to the District's capital improvement program, including debt service and municipal reimbursement programs.

The District's financial statements are presented using the economic resources measurement focus and the full accrual basis of accounting. Revenues from operations, investments, and other sources are recorded when earned, and expenses are recorded when liabilities are incurred. More information on the Annual Comprehensive Financial Report (ACFR) is available at https://www.mmsd.com/about-us/budget-financial.

The construction of these large primary clarifiers at the water reclamation facilities is funded through the capital budget, but the maintenance is funded through the O&M budget.

Photo credit: Veolia Water Milwaukee

Basis of Budgeting and Accounting

Item	Operations and Maintenance	Capital
Sources of Funds	User Charges, Net Revenue from Milorganite® sales, Interest Income, Surplus Applied, User Charge Stabilization Fund Applied, and other operating income.	Tax Levy and Nonmember Billings, Loans and Bonds, Federal and State Aid, Interest and Other, Uses of Funds on Hand, and all other capital income.
Use of Funds	Net Division Expenses and All Other Operating Expenses.	Total Project & Program Expenses and Net Debt Service.
Budgetary Basis of Accounting	Actual revenues and expenses are recorded on a full accrual basis in accordance with Generally Accepted Accounting Principles. Revenues and expenses are budgeted on a full accrual basis, with the exception of capital outlays. These are budgeted as an expense in the year incurred but capitalized and depreciated for financial reporting purposes.	For financial reporting, actual revenues and expenses are recorded on a full accrual basis in accordance with Generally Accepted Accounting Principles. Revenues are budgeted on a cash basis. Because the Capital Budget serves as a financing plan, it is important to plan when revenues are received rather than when they are earned.
Basis for Expenses	Expenditures for repairs and maintenance on assets, which allow these assets to continue to be used during their originally established useful life; including those expenditures that do not extend the life of the asset at least 10 years or are less than $25,000. This includes costs of controlling, operating, managing, or maintaining the sewerage system. Projects occur on District owned areas do not require a conservation easement.	Costs of acquiring, purchasing, adding to, leasing, planning, designing, constructing, extending, and improving all or any part of a sewerage system and of paying principal, interest or premiums on any indebtedness incurred for these purposes if a project is greater than $25,000. If a green infrastructure project is to occur on areas not District owned, a minimum 10-year conservation easement on the property will be required.
New	Service life is less than 10 years.	Improvement and a life greater than 10 years. Installation of equipment or components that have new or improved materials and/or provide new or improved technology. Existing assets are no longer supported by the manufacturer, so an in-kind replacement is unavailable.
Replacement	The Equipment Replacement Fund may be used for machinery and equipment with a cost greater than $25,000 and a service life between 10 and 20 years.	Cost greater than or equal to $25,000 and a service life greater than 20 years for a replacement in-kind asset. Work & expenditures of major system assets or components that will extend the life of an asset funded originally from the capital budget for an additional 10 years or greater.

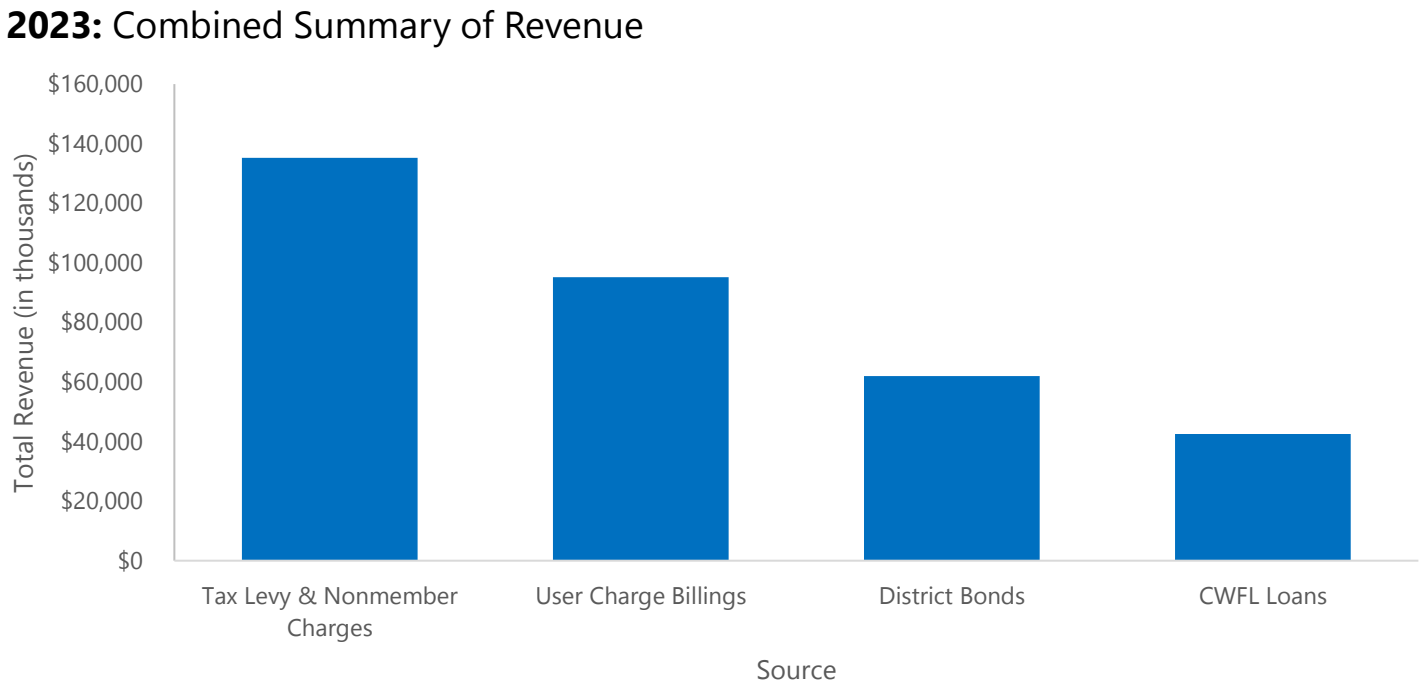
2023 Combined Summary of Revenues and Expenditures

(Dollars in Thousands)

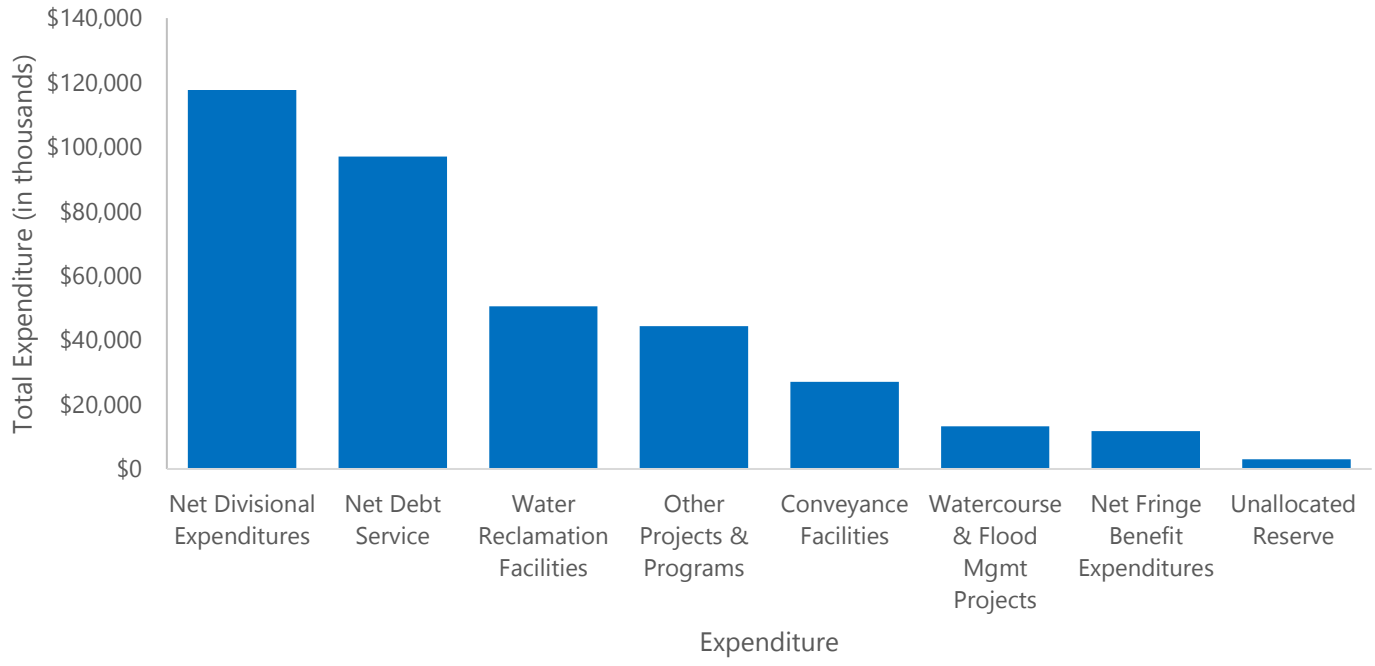
	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Amended Budget	% Change from 2022 Amended Budget
Operations & Maintenance					
Sources of Funds					
User Charge Billings	$87,065	$89,967	$95,190	$5,222	5.8%
Milorganite® Sales (Net)	10,828	11,000	11,800	800	7.3%
All Other Operating Income	5,821	5,626	5,292	(334)	-5.9%
User Charge Stabilization Fund Applied (or Contribution)	500	(2,500)	500	3,000	-120.0%
Equipment Replacement Fund Applied (or Contribution)	(93)	(250)	(150)	100	-40.0%
Surplus Applied	3,136	6,228	5,023	(1,205)	-19.3%
Total Sources of Operations & Maintenance Funds	107,257	110,072	117,654	7,583	6.9%
Capital					
Tax Levy	102,873	105,948	109,126	3,178	3.0%
Non-member Billings	27,514	26,705	26,091	(614)	-2.3%
Interest and Other Income	595	22	1,052	1,030	4683.6%
Federal and State Aid	3,955	3,044	4,279	1,235	40.6%
CWFL Loans	18,915	24,095	42,555	18,459	76.6%
WIFIA Loans	-	902	-	(902)	-100.0%
District Bonds	49,866	50,000	62,000	12,000	24.0%
Use of (Additions to) Available Funds	17,318	(1,651)	(12,951)	(11,300)	684.7%
Total Sources of Capital Funds	221,036	209,066	232,153	23,087	11.0%
Total Sources of Funds	**$328,293**	**$319,138**	**$349,808**	**$30,670**	**9.6%**
Expenditures					
Operations & Maintenance					
Net Division Expenditures	$92,352	$97,791	$102,900	$5,109	5.2%
Net Fringe Benefit Expenditures	9,235	10,135	11,763	1,628	16.1%
Unallocated Reserve	0	2,146	2,992	846	39.4%
Total Operations & Maintenance Expenditures	101,587	110,072	117,654	7,583	6.9%
Capital					
Water Reclamation Facilities	48,274	37,294	50,467	13,172	35.3%
Conveyance Facilities	9,458	16,918	27,094	10,176	60.1%
Watercourse & Flood Mgmt Projects	13,542	16,364	13,233	(3,131)	-19.1%
Other Projects & Programs	32,165	40,666	44,363	3,697	9.1%
Debt Service	117,597	97,823	96,997	(826)	-0.8%
Total Capital Expenditures	221,036	209,066	232,153	23,087	11.0%
Total Expenditures	**$322,623**	**$319,138**	**$349,808**	**$30,670**	**9.6%**

Note, totals may not appear to add due to rounding.

The District's 2023 combined budget totals approximately $349.8 million. As seen in the following chart, the primary sources of funds in the 2023 combined budgets are the tax levy, non-member billings, and user charge billings.



On the expenditure side, the Capital Budget again comprises the majority of the 2023 combined budget with net debt service, water reclamation facilities, watercourse and flood management, other projects and programs, and conveyance project expenditures totaling 66.4 percent. The net divisional and fringe benefit expenditures, which include operations of the District facilities, are 32.8 percent of the combined expenditures.



Funding By Community

Community	2022 Budget	2023 Budget	Percent Change	2023 Residential	2023 Commercial	2023 Industrial
District Members						
Bayside	$276,440	$309,664	12.0%	$261,398	$48,266	$0
Brown Deer	965,117	1,048,763	8.7%	525,819	492,905	30,039
Cudahy	2,101,204	2,423,955	15.4%	844,917	461,737	1,117,301
Fox Point	448,835	489,587	9.1%	384,726	104,861	0
Franklin	2,634,097	2,827,004	7.3%	1,589,657	953,971	283,376
Glendale	1,115,998	1,301,681	16.6%	624,673	604,589	72,419
Greendale	956,266	1,062,598	11.1%	789,002	272,946	650
Greenfield	2,530,539	2,760,850	9.1%	1,524,628	1,230,270	5,952
Hales Corners	541,300	586,968	8.4%	343,371	243,597	0
Milwaukee	50,102,191	52,782,460	5.3%	25,889,635	17,724,401	9,168,424
Oak Creek	3,051,859	3,294,469	7.9%	1,534,469	1,367,343	392,657
River Hills	118,917	130,662	9.9%	102,100	28,562	0
Shorewood	834,016	932,339	11.8%	588,280	344,059	0
St. Francis	703,173	746,964	6.2%	400,116	317,371	29,477
Wauwatosa	4,086,262	4,278,414	4.7%	2,372,785	1,354,507	551,122
West Allis	5,056,953	5,059,273	0.0%	2,865,232	1,609,662	584,379
West Milwaukee	838,355	792,305	-5.5%	151,975	305,381	334,949
Whitefish Bay	889,636	976,354	9.7%	800,611	175,743	0
Total District Members	$77,251,158	$81,804,310	5.9%	$41,593,394	$27,640,171	$12,570,745
Nonmember Communities						
Brookfield	1,254,611	1,400,390	11.6%	1,036,969	363,063	358
Butler	564,421	390,253	-30.9%	84,492	72,096	233,665
Caledonia	34,124	39,231	15.0%	35,570	3,661	0
Elm Grove	412,125	462,004	12.1%	382,459	79,545	0
Germantown	2,035,768	2,173,010	6.7%	751,641	544,758	876,611
Menomonee Falls	2,440,354	2,605,074	6.7%	1,706,785	710,738	187,551
Mequon	1,492,138	1,672,293	12.1%	1,162,670	501,460	8,163
Muskego	1,579,103	1,550,435	-1.8%	1,254,218	196,079	100,138
New Berlin	2,494,588	2,634,452	5.6%	1,570,349	791,430	272,673
Thiensville	235,301	255,046	8.4%	144,568	110,478	0
Total Nonmember Communities	$12,542,533	$13,182,188	5.1%	$8,129,721	$3,373,308	$1,679,159
Other	$173,594	$203,125	17.0%	$0	$0	$203,125
Total Communities	**$89,967,285**	**$95,189,623**	**5.8%**	**$49,723,115**	**$31,013,479**	**$14,453,029**

Comparison of Budgeted User Charges

Community	2023 Tax Levy	2023 User Charge	2023 Combined	2023 Household Hazardous Waste Program	2023 Total Billings to Communities
District Members					
Bayside	$1,110,872	$309,664	$1,420,536	$6,627	$1,427,163
Brown Deer	1,667,466	1,048,763	2,716,229	15,857	2,732,086
Cudahy	2,066,248	2,423,955	4,490,203	27,323	4,517,526
Fox Point	1,852,396	489,587	2,341,983	9,993	2,351,976
Franklin	7,158,481	2,827,004	9,985,485	50,508	10,035,993
Glendale	2,943,146	1,301,681	4,244,827	18,305	4,263,132
Greendale	2,321,286	1,062,598	3,383,884	20,920	3,404,804
Greenfield	5,060,487	2,760,850	7,821,337	48,341	7,869,678
Hales Corners	1,092,275	586,968	1,679,243	10,450	1,689,693
Milwaukee	50,341,587	52,782,460	103,124,047	772,391	103,896,438
Oak Creek	6,047,234	3,294,469	9,341,703	44,807	9,386,510
River Hills	694,325	130,662	824,987	2,689	827,676
Shorewood	2,637,870	932,339	3,570,209	18,648	3,588,857
South Milwaukee	0	0	0	31,252	31,252
St. Francis	961,170	746,964	1,708,134	11,335	1,719,469
Wauwatosa	11,611,298	4,278,414	15,889,712	72,265	15,961,977
West Allis	7,075,753	5,059,273	12,135,026	94,487	12,229,513
West Milwaukee	586,777	792,305	1,379,082	6,023	1,385,105
Whitefish Bay	3,897,769	976,354	4,874,123	20,596	4,894,719
Total District Members	**$109,126,440**	**$81,804,310**	**$190,930,750**	**$1,282,817**	**$192,213,567**
Non-member Communities*					
Brookfield	$3,055,310	$1,400,390	$4,455,700	0	$4,455,700
Butler	278,605	390,253	668,858	0	668,858
Caledonia	47,019	39,231	86,250	0	86,250
Elm Grove	1,296,713	462,004	1,758,717	0	1,758,717
Germantown	2,651,196	2,173,010	4,824,206	0	4,824,206
Menomonee Falls	4,765,839	2,605,074	7,370,913	0	7,370,913
Mequon	4,610,128	1,672,293	6,282,421	0	6,282,421
Muskego	3,521,798	1,550,435	5,072,233	0	5,072,233
New Berlin	5,327,768	2,634,452	7,962,220	0	7,962,220
Thiensville	416,632	255,046	671,678	0	671,678
Nonmember Communities**	**$25,971,008**	**$13,182,188**	**$39,153,196**	**$0**	**$39,153,196**
Other	$0	$203,125	$203,125	$0	$203,125
Total Communities	**$135,097,448**	**$95,189,623**	**$230,287,071**	**$1,282,817**	**$231,569,888**

*Non-member communities capital billing is an ad valorem charge not a tax levy.

**Represents the actual charges. Final determination of property values occurs after Budget adoption and causes a slight discrepancy from the budgeted amount listed in the Combined Summary of Revenues and Expenditures.

2035 Vision

In 2010, the Executive Director proposed, and the Commission adopted the 2035 Vision that states "MMSD envisions a healthier Milwaukee region and a cleaner Lake Michigan". The 2035 Vision has two key elements: 1) Integrated Watershed Management and 2) Climate Change Mitigation/Adaptation with an emphasis on Energy Efficiency.

1. Integrated Watershed Management

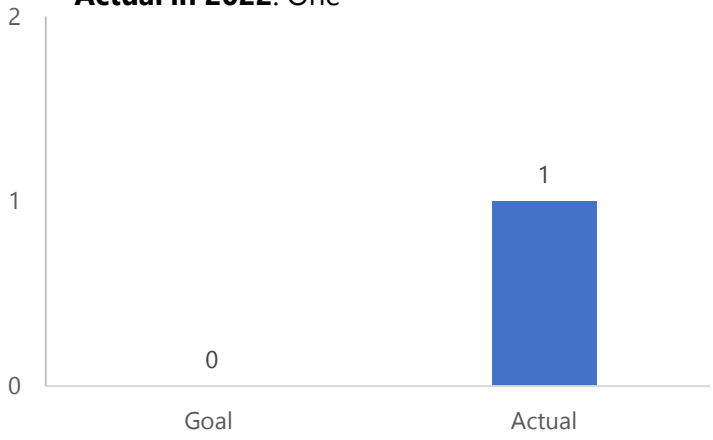
An integrated approach to watershed management must be established that responds to inter-jurisdictional opportunities and limitations. This will be accomplished by continuing MMSD's pursuit of excellent permit performance at its water reclamation facilities, preventing problems through its ongoing maintenance programs, and improving upon the capital investments made within MMSD's service area.

2. Climate Change Mitigation/Adaptation with an emphasis on Energy Efficiency

Becoming more efficient and renewable with energy usage will help MMSD adapt to changing climate, but it must also consider that climate change may have significant impacts on the District in ways beyond energy usage. As the global climate changes, there are likely to be changes within the hydrosphere.

The 2035 Vision drives annual initiatives and project selection as the District works to achieve the Vision's goals.

Goal: Zero sanitary sewer overflows
Actual in 2022: One



How are we doing?

We have work to do. While our permit allows up to six overflows a year, and we are well below that limit, full integrated watershed management means the system is not getting overwhelmed and overflowing.

What are we doing?

We are investing in asset management to review our existing conveyance assets and replacing and rehabilitating those most in need. We are expanding our green strategies to manage water where it falls rather than capturing it and funneling it through the system.

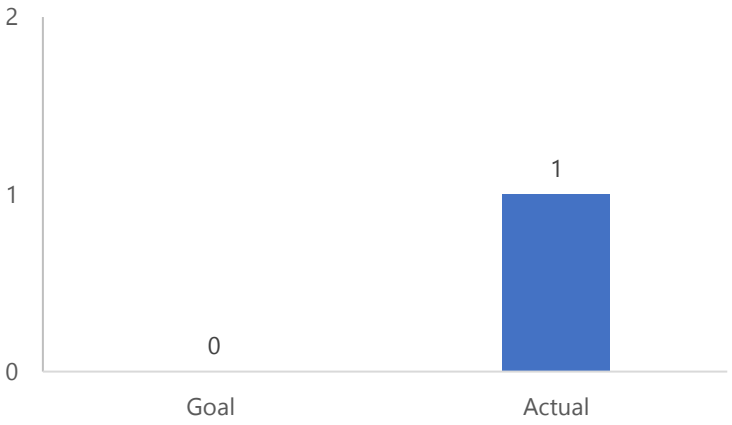
How are we doing?

We have work to do. Full integrated watershed management means the system is not getting overwhelmed and overflowing.

What are we doing?

We are investing in asset management to review our existing conveyance assets and replacing and rehabilitating those most in need. We are expanding our green strategies to manage water where it falls rather than capturing it and funneling it through the system.

Goal: Zero combined sewer overflows
Actual in 2022: One



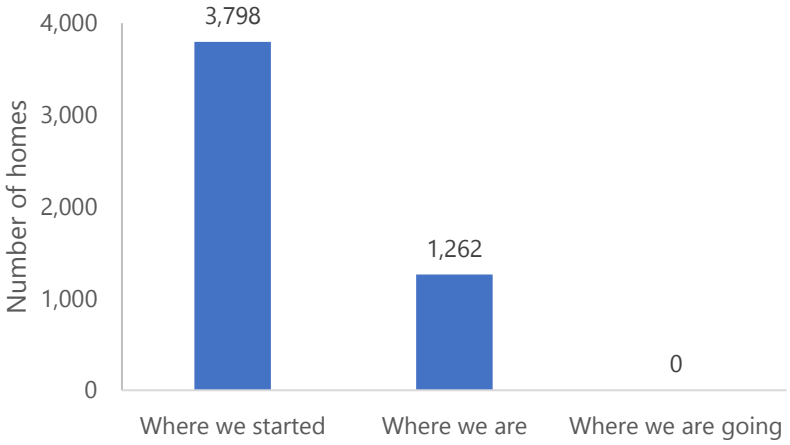
How are we doing?

We have work to do. While we have made significant progress and have already removed **1,370 homes**, having any homes in the floodplain means that when it rains, the homes are susceptible to flooding and we are not working with nature and its natural watershed properties for a full integrated approach.

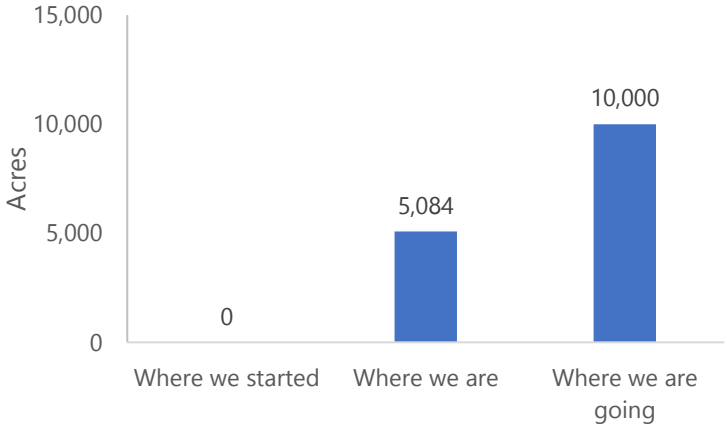
What are we doing?

We are working to create flood management plans for all of the watersheds which allows us to pursue outside funding to help acquire and remove homes from the floodplain. Learn more in the *Watercourse* capital section.

Goal: Zero homes in the 100-year floodplain
Actual in 2022: 1,262 homes



Goal: Acquire 10K acres of river buffers through Greenseams
Actual in 2022: 5,084 acres



How are we doing?

We are about halfway to our goal.

What are we doing?

In 2022, the Commission revised the Greenseams® program guidelines to include the entirety of the Milwaukee River Watershed rather than just the District service area, which encompasses only 17% of the overall Milwaukee River Watershed. The revised guidelines will provide more effective and strategic opportunities for the District to acquire voluntary acquisitions.

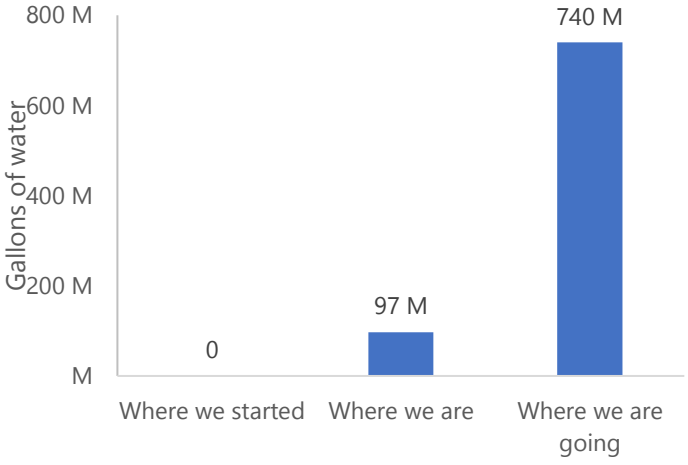
How are we doing?

We have work to do. Using green infrastructure strategies in combination with grey infrastructure increases our ability to capture and treat water before it overwhelms the system and causes an overflow.

What are we doing?

We are pursuing partnerships with the municipalities we serve, the WI DOT, and the private sector to design and construct green infrastructure on a large scale. See the G projects in the *Other Projects* section of the capital budget to learn more.

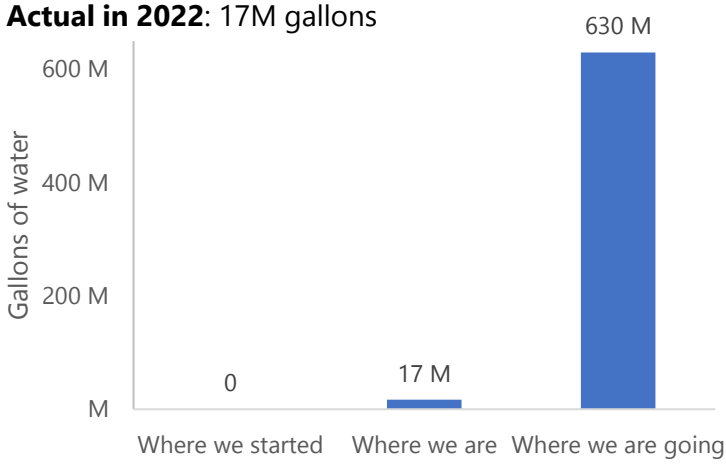
Goal: Capture the first 0.5 in of rainfall or 740M gallons
Actual in 2022: 97M gallons



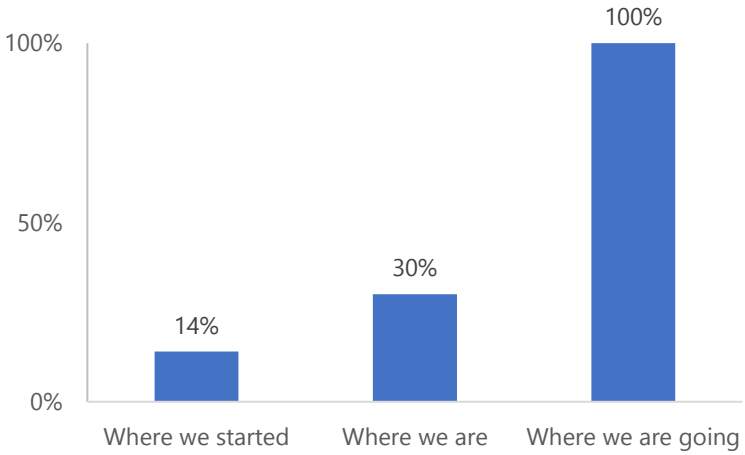
How are we doing?
We have work to do. Harvesting rainfall with green infrastructure such as rain barrels and cisterns slows the flow of the water entering our system, allowing us to have more time to convey and treat the water before it can overwhelm the system and cause an overflow.

What are we doing?
We are installing rain barrels through the neighborhood outreach program each summer. In 2022, we installed 180 rain barrels in the City of Oak Creek and the City of Milwaukee.

Goal: Harvest the first 0.25 inch of rainfall or 630M gallons
Actual in 2022: 17M gallons



Goal: Meet 100% of MMSD's energy needs with renewable energy sources
Actual in 2022: 30%



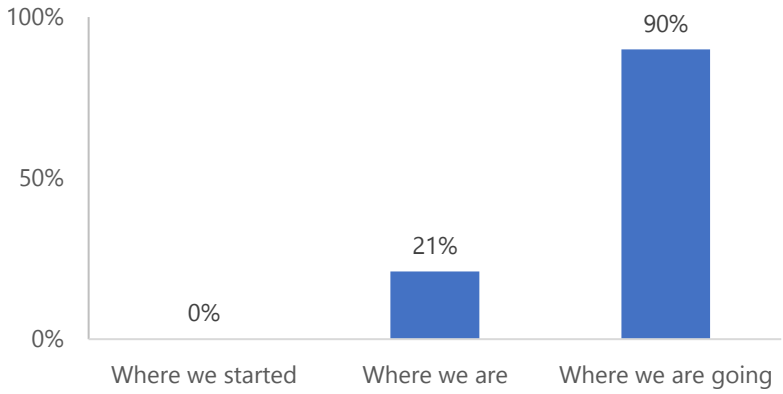
How are we doing?
We are about one third of the way there.

What are we doing?
In 2023, we anticipate completing a new Energy Plan. The purpose of the new Energy Plan is to create a comprehensive plan that will help MMSD become independent of fossil fuels. The Plan will evaluate current energy generation and energy use at all MMSD facilities. The final plan will provide a roadmap to meet the 2035 Vision. The roadmap will be a mix of capital projects and operational modifications to reduce energy use and increase renewable fuel consumption.

How are we doing?
We have some work to do.

What are we doing?
As part of the new Energy Plan due out in early 2023, we are reevaluating the baseline data and creating new ways to understand and present the carbon emissions data so that we can pursue more targeted strategies to reduce our carbon emissions.

Goal: Reduce MMSD's carbon footprint by 90% from its 2005 baseline
Actual in 2022: 21%



Supporting the United Nations Sustainable Development Goals

In 2015, the international community adopted a set of 17 Sustainable Development Goals (SDGs) as part of the United Nations 2030 Agenda for Sustainable Development. The Agenda's 17 SDGs and the associated 169 targets aim at stimulating action through 2030 in areas of critical importance for people and the planet. In order for the goals to be reached, the United Nations asks everyone to do their part, including governments, non-governmental agencies, business, and private citizens.

The District's vision of a healthier, cleaner, resilient region ties to the Sustainable Development Goals and in 2023, the District will emphasize work on the following goals:

Goal 6: Clean Water and Sanitation

Ensure access to water and sanitation for all

Goal 7: Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable, and modern energy

Goal 10: Reduced Inequalities

Reduce inequality within and among countries

Goal 13: Climate Action

Take urgent action to combat climate change and its impacts

Goal 14: Life below Water

Conserve and sustainably use the oceans, seas, and marine resources

Goal 15: Life on Land

Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

The table on the following page discusses the District's connection to each of the 17 goals, with a green circle indicating a strong tie, yellow a weaker tie, and red no tie. Throughout the 2023 budget book, projects that include work to help achieve the above goals are noted with a Sustainable Development Goals logo.

Sustainable Development Goal	Level of Alignment with MMSD Vision and Goals
1. No Poverty	● No explicit goals, policies, or actions related to this SDG.
2. Zero Hunger	● No explicit goals, policies, or actions related to this SDG.
3. Good Health and Well-Being	● No explicit goals, however, the District promotes open space and the health benefits of green infrastructure in the region. Since healthcare is not a direct responsibility of the District, most of the goals focus on the relationship between health and land use.
4. Education	● Similar to SDG #3, education is not a direct responsibility of the District. The District's Educational Outreach group works with K-12 students to promote environmental literacy.
5. Gender Equality	● No explicit goals, policies, or actions related to this SDG.
6. Clean Water and Sanitation	● The District's mission and vision are directly related to providing and protecting clean water. An extensive set of goals, permit requirements, and measures align with this SDG.
7. Affordable and Clean Energy	● An extensive set of goals, policy objectives, and measurable targets align with this SDG.
8. Decent Work and Economic Growth	● Several broad goals related to economic development are included in the District's policies.
9. Industry, Innovation, and Infrastructure	● The District's Regional Resilience Plan emphasizes the need for building resilient infrastructure.
10. Reduced Inequalities	● The District promotes internal and external review of policies and practices to promote diversity and equity. In 2021, the District formed an internal Diversity, Equity, Inclusion, and Anti-Racism (DEIAR) Council to help guide the District's improvements in DEIAR.
11. Sustainable Cities and Communities	● An extensive set of goals, policy objectives, and measurable targets align with this SDG.
12. Responsible Consumption and Production	● The District promotes public procurement practices that are sustainable.
13. Climate Action	● The District's 2035 Vision is directly related to climate change mitigation with an emphasis on energy efficiency. An extensive set of goals, permit requirements, and measures align with this SDG.
14. Life Below Water	● The District's Water Quality Protection division routinely collects data on stormwater and urban runoff as it affects water quality and ecological health. The Sustainability group emphasizes urban biodiversity in its projects.
15. Life on Land	● A small set of goals align with this SDG. Increasing urban biodiversity is a goal of new green infrastructure projects. The Greenseams® program emphasizes the conservation, restoration, and sustainable use of land.
16. Peace, Justice, and Strong Institutions	● No explicit goals, policies, or actions related to this SDG.
17. Partnerships for the Goals	● No explicit goals, policies, or actions related to this SDG.

2022-2024 Strategic Plan

Every three years the District undertakes a strategic planning process to adopt a strategic plan that will establish direction, increase accountability, and aid in decision-making. The strategic plan identifies actions the District can take in the short-term to help achieve the 2035 Vision. Over the course of 2021, District staff created, and the Commission adopted, the 2022-2024 Strategic Plan. The planning process included gathering the information needed to identify the issues, challenges, and trends that will shape and affect the District over the next three years. All staff were invited to share their priorities with the Strategic Planning Committee. The Strategic Planning Committee ranked and prioritized focus areas and identified the objectives and action items for the next three years. The Executive Director provided the final feedback of his priorities to include in the plan. The following page includes a snapshot of the focus areas that will help guide investment, allocate resources, and provide a structure for annual reviews to assure that long-term goals and objectives are achieved. The full 2022-2024 Strategic Plan can be found at https://www.mmsd.com/about-us/strategic-plan.

Vision

A healthier, cleaner, resilient region

Mission

To protect public health and the environment through world-class, cost-effective water resource management, leadership, and partnership

Organizational Values

Stewardship • Integrity • Quality • Collaboration • Diversity • Innovation

In 2010, the District's Commission adopted the Milwaukee Metropolitan Sewerage District's 2035 Vision and Strategic Objectives to improve the area's waterways and attain zero overflows, zero basement backups, and improved storm water management. The Vision also states that MMSD will be a model in its management of climate change impacts on wet weather and its focus on energy efficient and sustainable operations. The 2022-24 Strategic Plan uses the framework of the District's 2035 Vision to create a roadmap of focus areas for the next three years. The 2035 Vision includes two guiding principles: sustainable bottom line and water quality leadership and collaboration, and two objectives: integrated watershed management and climate change adaptation/mitigation with a focus on energy efficiency.

The sustainable bottom line is a framework designed to help organizations think about the environmental, social, financial, and operational impacts, benefits, and trade-offs of the organization's decisions. In the next three years, MMSD focus on the following areas:

- Workforce Planning
- Diversity, Equity, Inclusion (DEI)
- Enterprise Resource Planning (ERP)
- Post-2028 Operations Analysis
- Milorganite®

Because water does not follow municipal boundaries, MMSD prioritizes water quality leadership and collaboration in order to protect the area's water resources. We seek partnerships to provide economies of scale and operational efficiencies. In the next three years, we will build off these efforts and focus on:

- Research and Innovation
- Community Engagement
- Evaluating Shared Services

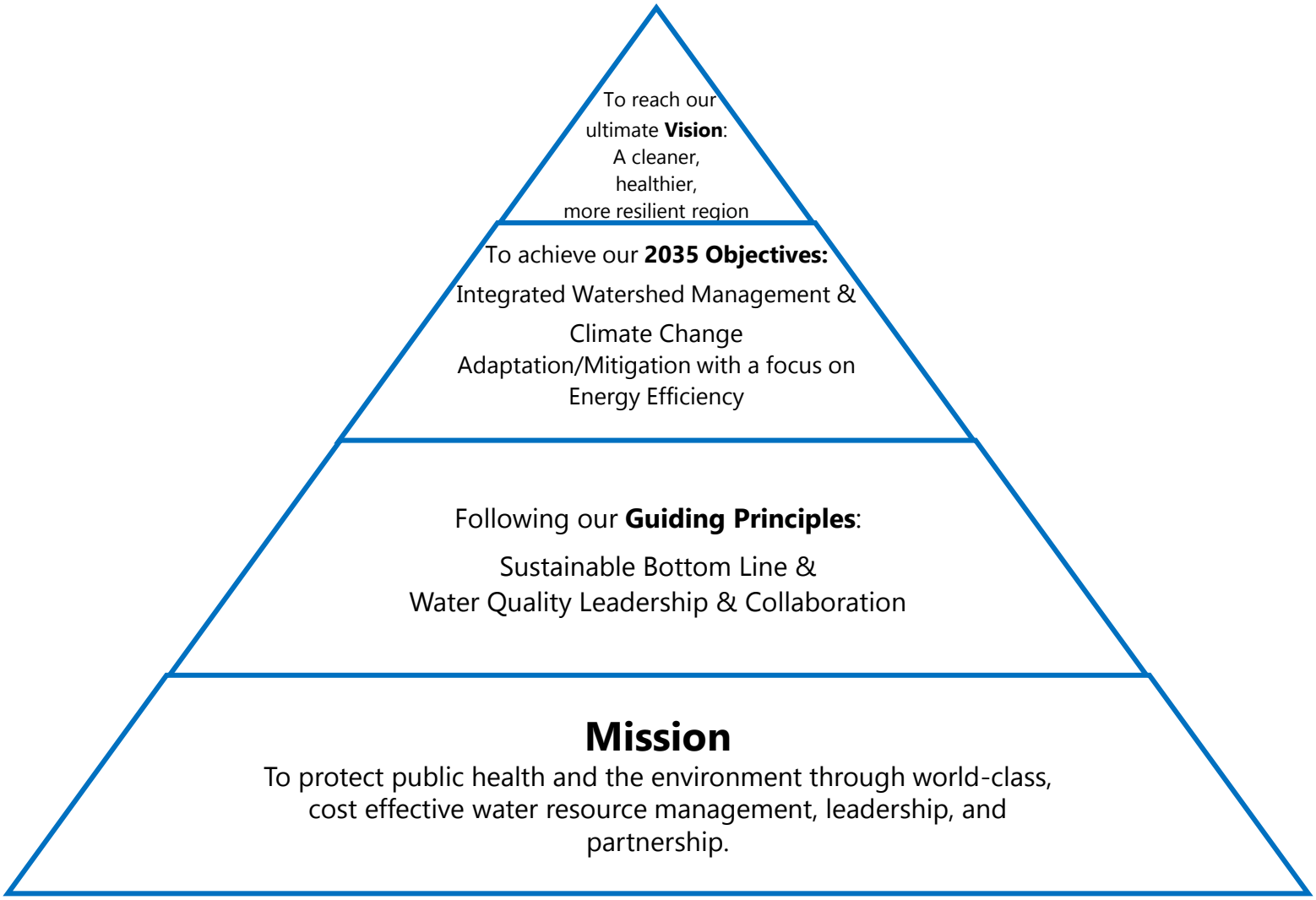
Integrated watershed management is a continuous adaptive process of managing human activities and ecosystems at the watershed scale. It integrates land and water use planning, and it evaluates cumulative effects from multiple environmental stressors. The 2021 Infrastructure Investment and Jobs Act provides significant funding for clean water

efforts and water infrastructure is receiving elevated attention at the national level. MMSD will take this timely opportunity to further its mission by focusing on the following areas:

- Optimizing Funding from the Infrastructure Investment and Jobs Act
- Milwaukee Estuary Area of Concern Projects
- Improving the Urban Water Cycle
- Increasing our Green Infrastructure Implementation

Climate change impacts MMSD's operations and flood protection efforts. MMSD must plan ahead for the consequences and costs of climate change. In order to prepare for and mitigate the impacts of climate change, MMSD is evaluating options to improve the resilience of its operations, infrastructure, and finances.

- Optimizing Funding from the Infrastructure Investment and Jobs Act
- Pursue Energy and Waste Neutrality in our Operations



Strategic FRAMEWORK

VISION

MMSD envisions a healthier, cleaner, resilient region

MISSION

MMSD protects public health and the environment through world-class, cost-effective water resource management, leadership, and partnership

VALUES

MMSD is committed to the following values:

- Stewardship
- Integrity
- Quality
- Collaboration
- Diversity
- Innovation

GOALS

SUSTAINABLE BOTTOM LINE

Balancing environmental, social, financial, and operational impacts, benefits, and trade-offs in our decisions

WATER QUALITY LEADERSHIP AND COLLABORATION

Providing strong leadership and cooperation to protect the area's water resources

INTEGRATED WATERSHED MANAGEMENT

Managing human activities and ecosystems at the watershed scale and integrating land and water use planning

CLIMATE CHANGE ADAPTATION / MITIGATION WITH A FOCUS ON ENERGY EFFICIENCY

Preparing for and mitigating the impacts of climate change by evaluating options to improve the resilience of our operations, infrastructure, and finances

MEASURES

STRATEGIES

1. Increase the number of knowledge transfer opportunities
2. Increase the number of participants in MMSD workforce development programs
3. Increase MMSD staff understanding of DEIAR
4. DEIAR Action Plan targets met
5. ERP system used to its fullest capability throughout the organization
6. Goals in operations management documented
7. Increased public awareness about the benefits of Milorganite®
8. Milorganite® sales meet its net revenue goals

→

1. Define the purpose of MMSD's internal training strategy
2. Increase the number of opportunities for job training in the water sector
3. Create a DEIAR Action Plan and the infrastructure to implement the plan
4. Launch a new ERP system
5. Work with stakeholders to determine options for operations at the expiration of the ten-year operations agreement in 2028
6. Ensure Milorganite® remains a viable product

1. Complete peer review of research programs
2. Increase the community awareness of MMSD initiatives
3. Increase the number of external partnerships

→

1. Define the purpose of the MMSD research program
2. Strengthen communication and engagement with stakeholders
3. Advance partnerships to enhance programs and reduce duplication of effort

1. Funding secured from the IIJA for MMSD projects and programs
2. Complete Milwaukee Estuary of Concern projects on time
3. Increased public awareness of the One Water, Our Water campaign
4. Implement at least 4 million gallons of green infrastructure capture capacity in the service area

→

1. Optimize funding opportunities from the Infrastructure Investment and Jobs Act
2. Complete the Milwaukee Estuary Area of Concern projects
3. Work to improve the urban water cycle
4. Increase green infrastructure implementation by 25 percent

1. Increase the number of projects funded that support climate change adaptation and mitigation
2. Climate resilience standards incorporated in project development by 20243. Decrease MMSD greenhouse gas emissions

→

1. Prepare for climate change by pursuing projects that are eligible for Infrastructure Investment and Jobs Act funding
2. Strive for energy neutrality and waste neutrality in MMSD operations

Outreach activities help local residents engage in MMSD projects.

Milwaukee Metropolitan Sewerage District

260 West Seeboth Street
Milwaukee WI 53204

Date Adopted: October 24, 2022

Adopting the Operations and Maintenance Budget for the 2023 Fiscal Year

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the 2023 Operations and Maintenance Budget, providing the total expenditures of $117,654,467 to be funded by $95,189,623 in user charge billings, $11,800,000 in Milorganite® net sales, $300,000 in interest income, $2,475,000 in other income, $1,282,817 in Household Hazardous Waste Collection Program revenue, $1,233,716 in Industrial Waste Pretreatment Program revenue, $500,000 from the user charge stabilization fund, and the return of $5,023,312 from the 2021 Operations and Maintenance surplus, is hereby adopted, with a $150,000 contribution to the equipment replacement fund anticipated.

I, Anna Kettlewell, Commission Secretary of the Milwaukee Metropolitan Sewerage District, do hereby certify that the above is a true and correct copy of Resolution No. 22-136-10, adopted by the Milwaukee Metropolitan Sewerage Commission at a meeting held on 10/24/2022.

MMSD staff conduct outreach to engage the public in its projects and operations.

2023 Operations & Maintenance Budget

The Operations & Maintenance (O&M) Budget provides a framework to implement and accomplish District priorities that support its mission of environmental stewardship and sustainability. The majority of the Operations & Maintenance Budget is targeted towards operations of wastewater reclamation facilities and controlling point and non-point sources of pollution. This budget enables the District to continue its high standard of performance in protecting water resources at levels higher than permit requirements.

Revenues

In the 2023 O&M Budget, the District anticipates $117.7 million in sources of funds. This includes user charge billings, net revenue from Milorganite® fertilizer sales, interest, and other income, two cost recovery programs, the return of a 2021 surplus, and the use of reserves. The primary source of revenue for O&M expenditures is the user charge billings. In 2023, user charge billings are budgeted at $95.2 million, a 5.8 percent increase from the 2022 budget. In the 2023 O&M Budget, total revenue increases $7.6 million or 6.9 percent from the 2022 budget.

Expenditures

A majority of the District's expenditures are related to the Veolia Water Milwaukee (VWM) contract for operations and maintenance of District water reclamation facilities and conveyance system. The VWM operations and maintenance fee comprises approximately 43.9 percent of the 2023 O&M Budget. In addition to the contract cost, the District is also responsible for 75 percent of all energy costs under this contract. Combined with the utility fee paid to VWM, energy expenditures are approximately 9.7 percent of the O&M Budget.

Capital Expenditures Impact on the Operating Budget

The District undertakes life-cycle costing in the analysis of capital projects. This includes, when possible, understanding what the change in the O&M costs will be following the completion of each capital project and carefully considering those costs in deciding which projects move forward in the Capital Improvement Program (CIP). When the CIP undertakes new initiatives or new technologies, it is more likely to result in new O&M expenditures or incremental changes to ongoing O&M expenditures. Many capital projects replace or improve existing infrastructure and might have minimal change to the O&M budget. In the capital project narratives in the capital budget section, the impact to the O&M budget is stated at the end of each project description. O&M expenditures resulting from the completion of capital projects may be budgeted in expenditures for the Veolia Water Milwaukee contract or in District division budgets.

Guide to the 2023 O&M Budget

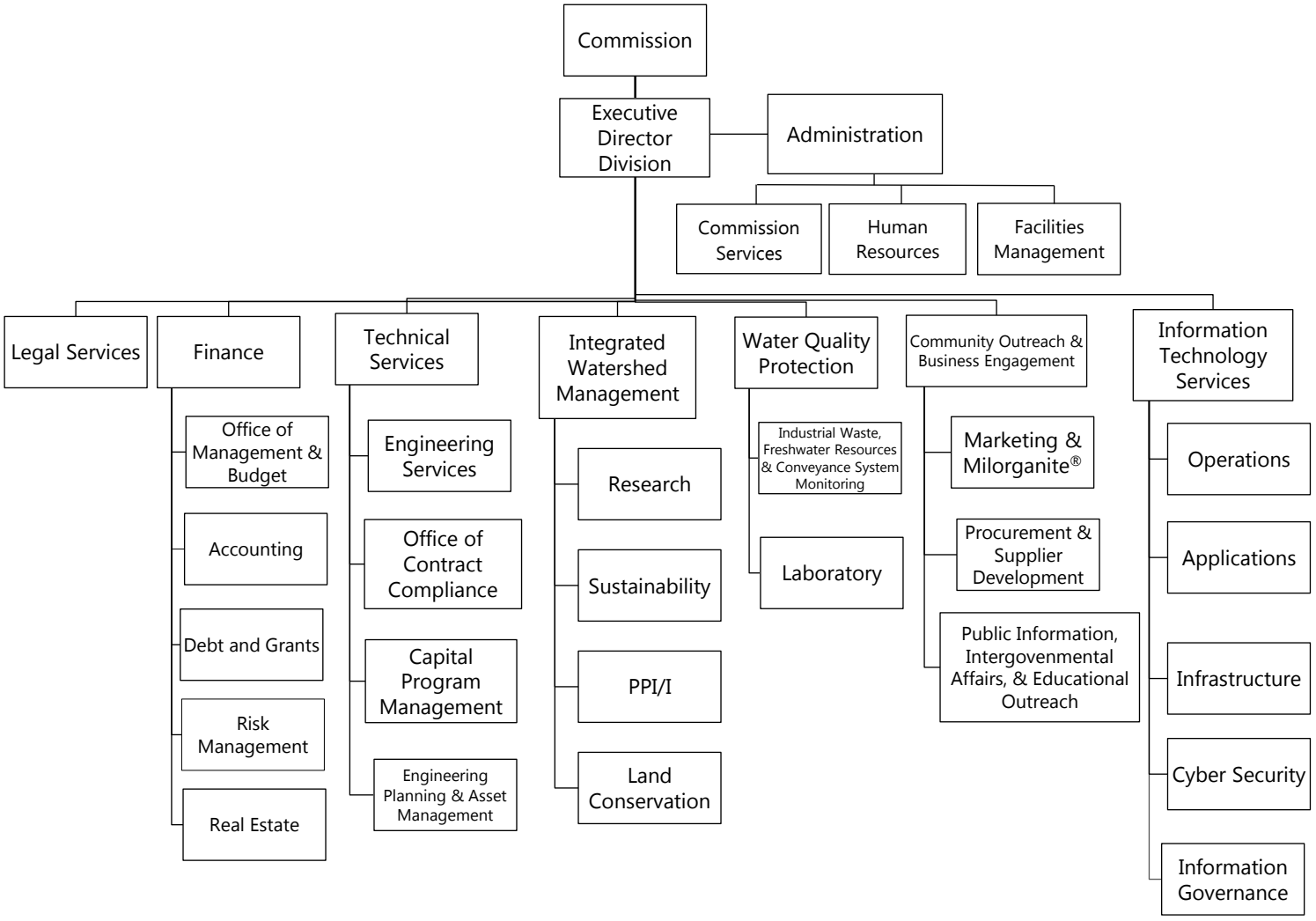
Concluding the O&M Summary are a series of charts and graphs providing an overview of the 2022 O&M Budget's organizational structure and staffing levels, District revenues and expenditures, and division and cost center expenditures. The Sources of Funds section discusses each of the District's O&M revenues. The Budget describes each revenue source's historical data, changes in funding levels, and trends that affect the revenue source. The Division Summaries discuss the District's operating divisions: the Commission, the Office of the Executive Director; Legal Services; Finance Division; Technical Services Division; Integrated Watershed Management Division; Water Quality Protection Division; the Division of Community Outreach and Business Engagement; and Information Technology Services. These summaries provide the detail of the division's structure, mission and services, budgeted expenditures, and staffing levels. The final section, Other Expenditures, provides detailed information about the District's Fringe Benefits, Division Expense Adjustments, and the Unallocated Reserve.

Public tours of Jones Island help MMSD engage and educate the public it serves

Milwaukee Metropolitan Sewerage District Organizational Chart

Below is the District's organization chart. Each division's narrative includes a detailed explanation of the responsibilities of each functional area.

The District's organizational chart is created along functional groups for direct services and indirect or support groups that help it achieve its mission in an efficient manner. The Executive Director Division is primarily responsible for overseeing the implementation of the District's mission, ensuring efficient Commission operations, and managing human resources and facilities management functions. Legal Services has a goal of protecting the District's interests and ensuring regulatory compliance. The Finance Division ensures prudent financial management. The Technical Services Division (TSD) is primarily responsible for planning, engineering and design, construction and operations of water reclamation facility, conveyance facility and watercourse assets. TSD works closely with the Integrated Watershed Management Division that is responsible for research on potential new operations strategies and sustainability initiatives that augment our gray infrastructure. The Water Quality Protection Division is responsible for monitoring and reporting the impact of all of this work or future needs on our region's waterways. The COBE Division reaches into our communities with programs aimed at promoting a robust contract community, educating our youth and neighborhoods, and also selling Milorganite® fertilizer. The Information Technology Services division supports the other working groups to ensure efficient and secure operations.



Summary of Authorized Staffing by Division

Divisions	2021 Budget	2022 Budget	2023 Budget	Change from 2022
Commission	**0**	**0**	**0**	**0**
Office of the Executive Director[1]	8	3	5	2
Human Resources	0	4	4	0
Administration	0	5	5	0
Facilities	4	4	4	0
Executive Director	**12**	**16**	**18**	**2**
Legal Services	6	7	7	0
Legal Services	**6**	**7**	**7**	**0**
Finance	19	20	20	0
Human Resources	4	0	0	0
Finance	**23**	**20**	**20**	**0**
Information Technology Services[2]	20	22	21	(1)
Information Governance	3	3	3	0
Information Technology Services	**23**	**25**	**24**	**(1)**
Office of Contract Compliance	10	10	10	0
Capital Program Support[3]	36	38	41	3
Engineering Services	23	21	21	0
Engineering Planning	0	13	13	0
Technical Services	**69**	**82**	**85**	**3**
Integrated Watershed Management[4]	25	13	14	1
Integrated Watershed Management	**25**	**13**	**14**	**1**
Industrial Waste, Freshwater Resources & Conveyance System Monitoring	40	39	39	0
Central Laboratory	24	24	24	0
Water Quality Protection	**64**	**63**	**63**	**0**
Marketing and Milorganite®	7	7	7	0
Procurement & Supplier Development[5]	6	6	5	(1)
Public Information, Intergov. Affairs, and Educational Outreach[6]	5	4	5	1
Community Outreach & Business Engagement	**18**	**17**	**17**	**0**
Total District	**240**	**243**	**248**	**5**

Note: Commissioners are not included in this table

Explanation of Changes to Divisions and Authorized Staffing

1. In mid-2022, the Office of the Executive Director cost center created one new Business Analyst position and moved one Business Analyst from the Information Technology Services cost center to the Office of the Executive Director to implement the new enterprise resource planning (ERP) software. In 2023, one vacant Senior Project Manager II position is eliminated. In mid-2022, one Division Director position is retitled Senior Fellow Diversity, Equity, and Inclusion (DEI) Officer to help spearhead the District's DEI efforts.
2. In mid-2022, one Business Analyst from the Information Technology Services cost center moved to the Office of the Executive Director to implement the new enterprise resource planning (ERP) software.
3. In the 2023 budget, one new Senior Project Manager and one new Engineering Aide position are created in the Capital Program Management cost center to help with the increase in construction in the capital budget. One new Building Information Model (BIM) Coordinator position is created in the Geospatial Services and Support group. BIM is the holistic process of creating and managing information for a built asset.
4. In mid-2022 budget, one new Administrative Coordinator – Integrated Watershed Management position is created to help with the administration of the Private Property Infiltration and Inflow (PPI/I) reduction program.
5. In mid-2022, the Deputy Director of Community Outreach and Business Engagement was promoted to the Division Director of Community Outreach and Business Engagement. The Deputy Director was budgeted in the Procurement and Supplier Development cost center, the Division Director, however, is budgeted in the Marketing and Milorganite® cost center. The previous Division Director moved to the Office of the Executive Director cost center, therefore there is no change in the headcount in the Marketing and Milorganite® cost center.
6. In the 2023 budget, one new Public Engagement Manager position is created in the Public Information, Intergovernmental Affairs, and Educational Outreach cost center to help with the increase in public outreach work.

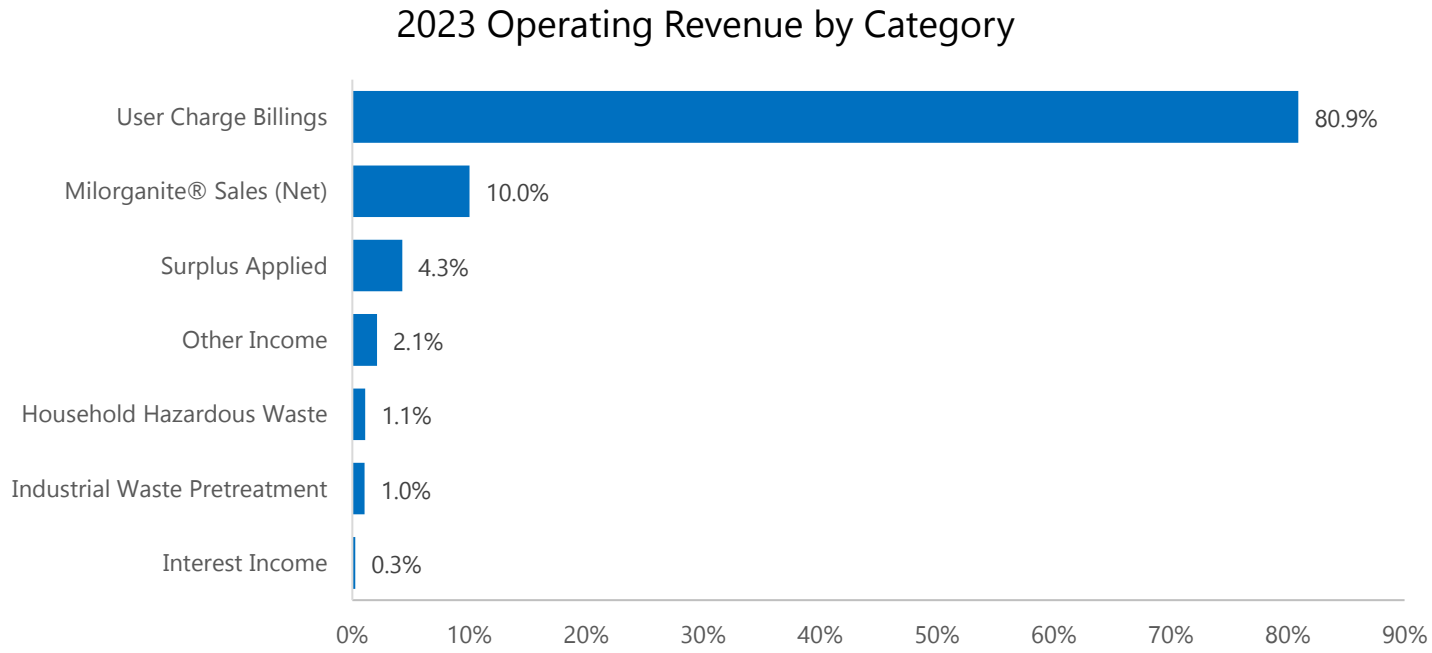
MMSD staff gather for an employee lunch.

2023 O&M Sources of Funds and Uses

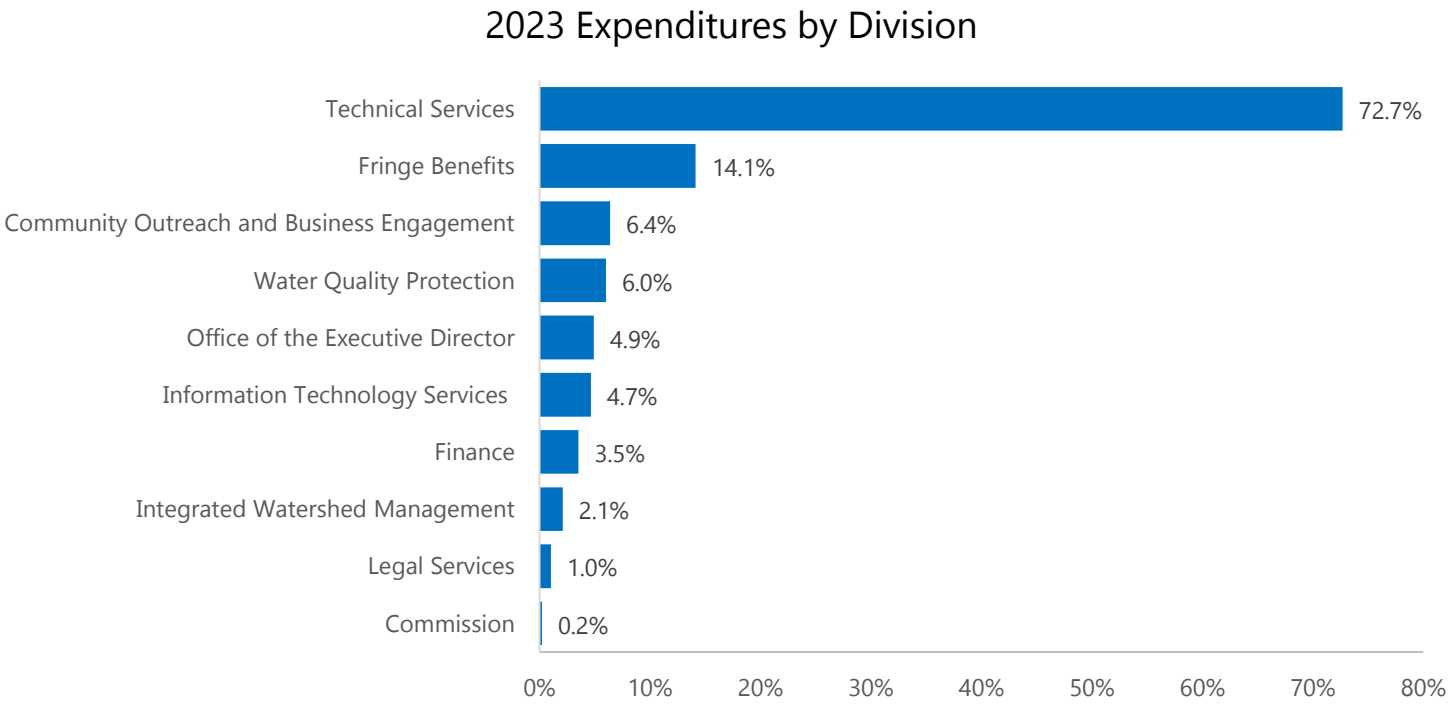
	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Amended Budget	% Change from 2022 Amended Budget
Sources of Funds					
User Charge Billings	$87,064,587	$89,967,285	$95,189,623	$5,222,338	5.8%
Milorganite® Sales (Net)	10,828,088	11,000,000	11,800,000	800,000	7.3%
Interest Income	34,248	500,000	300,000	(200,000)	-40.0%
Other Income	3,226,165	2,135,000	2,475,000	340,000	15.9%
Household Hazardous Waste	1,423,042	1,258,050	1,282,817	24,767	2.0%
Industrial Waste Pretreatment	1,137,554	1,086,916	1,233,716	146,800	13.5%
Total Operating Revenue	103,713,684	105,947,251	112,281,156	6,333,905	6.0%
Reserves and Surplus					
Equipment Replacement Fund Applied (or Contribution)	(93,497)	(250,000)	(150,000)	100,000	-40.0%
User Charge Stabilization Fund Applied (or Contribution)	500,000	(2,500,000)	500,000	3,000,000	-120.0%
Surplus or Deficit Applied	3,136,432	6,228,478	5,023,312	(1,205,166)	-19.3%
Total Reserves and Surplus	3,542,935	3,478,478	5,373,312	1,894,834	54.5%
Carryover funds from previous year	0	645,800	0	(645,800)	-100.0%
Total Sources of Funds	**$107,256,619**	**$110,071,529**	**$117,654,467**	**$7,582,938**	**6.9%**
Expenditures					
Divisions					
Commission	205,084	236,882	236,382	(500)	-0.2%
Executive Director	2,383,555	4,701,202	5,646,891	945,689	20.1%
Information Technology Services	4,637,621	5,105,249	5,332,834	227,585	4.5%
Legal Services	888,265	1,115,932	1,174,322	58,390	5.2%
Finance	3,787,721	3,579,858	4,044,984	465,126	13.0%
Technical Services	76,834,893	80,027,135	83,339,802	3,312,667	4.1%
Integrated Watershed Management	4,872,595	2,096,002	2,405,914	309,912	14.8%
Water Quality Protection	5,960,187	6,839,744	6,886,707	46,962	0.7%
Community Outreach and Business Engagement	6,420,182	6,759,346	7,316,693	557,347	8.2%
Fringe Benefits	13,264,653	13,900,554	16,209,552	2,308,998	16.6%
Charges to Capital	(17,667,247)	(16,435,978)	(17,931,169)	(1,495,191)	9.1%
Net Division Expenditures	$101,587,507	$107,925,926	$114,662,912	$6,736,986	6.3%
Unallocated Reserve	0	2,145,603	2,991,555	845,953	39.4%
Total Expenditures	**$101,582,688**	**$110,071,529**	**$117,654,467**	**$7,582,398**	**6.9%**

Note, totals may not appear to add due to rounding.

The District's 2023 O&M Budget totals approximately $117.7 million. For operating revenue, as seen in the following chart, user charge billings comprise the majority of O&M revenues, followed by net Milorganite® sales, the surplus applied from 2021. Additional details on the revenues by category may be found in the *Sources of Funds* section.



On the expenditure side, the Technical Services Division accounts for 72.7 percent of the 2023 O&M Budget. The Technical Services Division includes the Veolia Water Milwaukee contract for operations and maintenance of the District and reclamation facilities.



Operations and Maintenance Long-Range Forecast

	2022 Amended Budget	2023 Budget	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast
Revenues							
User Charge Billings	$89,967,285	$95,189,623	$99,949,104	$102,947,577	$106,036,005	$109,217,085	$112,493,597
Milorganite® Sales (Net)	11,000,000	11,800,000	11,900,000	11,900,000	11,900,000	11,900,000	11,900,000
Interest Income	500,000	300,000	306,000	312,120	318,362	324,730	331,224
Other Income	2,135,000	2,475,000	599,750	605,748	611,805	617,923	624,102
Household Haz Waste	1,258,050	1,282,817	1,289,231	1,302,123	1,315,144	1,328,296	1,341,579
Indust Waste Pretreatment	1,086,916	1,233,716	1,239,884	1,252,283	1,264,806	1,277,454	1,290,229
Total Operating Revenue	$105,947,251	$112,281,156	$115,283,969	$118,319,851	$121,446,122	$124,665,487	$127,980,731
Reserves and Surplus							
Equipment Replacement Fund Applied (or Contribution)	(250,000)	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)
User Charge Stabilization Fund Applied (or Contribution)	(2,500,000)	500,000	(782,041)	(179,205)	331,040	106,624	3,518,080
Surplus or Deficit Applied	6,228,478	5,023,312	5,645,603	5,491,555	4,852,893	4,921,220	4,980,001
Carryover Funds into Budget Year	645,800	0	0	0	0	0	0
Total Reserves and Surplus	4,124,278	5,373,312	4,713,562	5,162,350	5,033,933	4,877,844	8,348,081
Total Revenues	**$110,071,529**	**$117,654,467**	**$119,997,531**	**$123,482,202**	**$126,480,055**	**$129,543,331**	**$136,328,813**
Expenditures							
Divisions							
Commission	236,882	236,382	241,109	245,931	250,850	255,867	260,984
Executive Director	4,701,203	5,646,891	5,759,829	5,875,026	5,992,526	6,112,377	6,234,624
Legal Services	5,105,249	5,332,834	5,439,491	5,898,280	6,016,246	6,136,571	6,259,302
Finance	1,115,932	1,174,322	1,197,809	1,221,765	1,246,200	1,271,124	1,296,547
Information Tech Services	3,579,858	4,044,984	4,125,884	4,208,402	4,292,570	4,378,421	4,465,989
Technical Services	80,027,135	83,339,802	85,783,722	88,303,720	90,680,791	93,108,845	97,181,249
Integrated Watershed Mgmt	2,096,002	2,405,914	2,454,033	2,503,113	2,553,175	2,604,239	2,656,324
Water Quality Protection	6,839,745	6,886,707	7,024,441	7,164,930	7,308,228	7,454,393	7,603,481
Community Outreach and Business Engagement	6,759,346	7,316,693	7,463,027	7,612,288	7,764,533	7,919,824	8,078,221
Fringe Benefits	13,900,554	16,209,552	16,533,743	16,864,417	17,201,706	17,545,740	19,896,655
Charges to Capital	(16,435,978)	(17,931,169)	(18,378,448)	(18,836,890)	(19,306,771)	(19,784,135)	(20,277,677)
Net Division Expenditures	$107,925,927	$114,662,912	$117,644,638	$121,060,982	$124,000,054	$127,003,266	$133,655,699
Unallocated Reserve	2,145,603	2,991,555	2,352,893	2,421,220	2,480,001	2,540,065	2,673,114
Total Expenditures	**$110,071,529**	**$117,654,467**	**$119,997,531**	**$123,482,202**	**$126,480,055**	**$129,543,331**	**$136,328,813**
		5.8%	**5.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**

Note, totals may not appear to add due to rounding.

The forecasted expenditures assume an annual increase of 2 percent per year and reflect any known one-time large dollar projects. The operating contract with Veolia Water is approximately fifty percent of overall expenditures, is in effect until 2028 and helps stabilize the operating expenses as it has an annual escalator assumed at 2.5 percent. In 2023, the District is working on a $1.9M construction project to build a fish passage to improve water quality. The work is reimbursed by a grant from the WI DNR, as seen in Other Income. Once the project is complete in 2024, the grant revenue is no longer applied to Other Income. At this time, the District anticipates high rates of inflation to impact the cost of goods and services in 2024, hence the higher user charge billing rate in 2024. In 2025 and beyond, the District anticipates inflation to cool, and user charge billing rates to return to the 3 percent level. The user charge stabilization fund's intent it to minimize large increases in the user charge billings and is used in the forecast to achieve that goal.

Sources of Funds

In 2023, the District's estimated revenue is $117.7 million compared to the 2022 budgeted level of $110.1 million. The $7.5 million increase represents a 6.9 percent increase from the 2022 budget.

The District's primary source of funds is user charge billings. The District also has other sources of funds for the O&M Budget:

- Net sales of Milorganite® fertilizer
- Interest Income
- Other Income
- Cost recovery programs: Household Hazardous Waste and Industrial Waste Pretreatment Program
- Reserves
- Prior year's surplus

Each source of funds is further explained in the following pages. The table below presents a summary of the sources of funds the District expects in the 2023 O&M Budget.

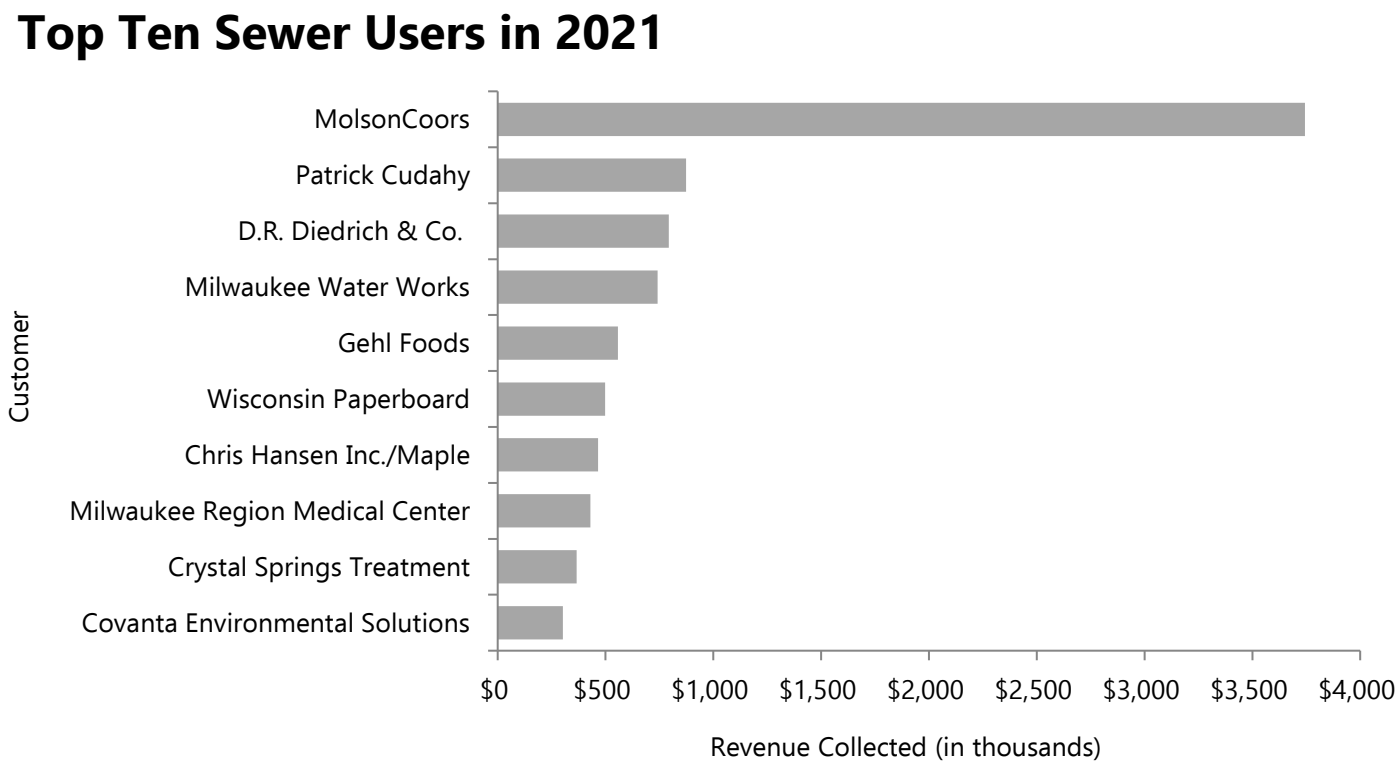
2023 Sources of Funds Summary

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
User Charge Billings	$87,064,587	$89,967,285	$95,189,623	$5,222,338	5.8%
Milorganite® Sales (Net)	10,828,088	11,000,000	11,800,000	800,000	7.3%
Interest Income	34,248	500,000	300,000	(200,000)	-40.0%
Other Income	3,226,165	2,135,000	2,475,000	340,000	15.9%
Household Hazardous Waste	1,423,042	1,258,050	1,282,817	24,767	2.0%
Industrial Waste Pretreatment	1,137,554	1,086,916	1,233,716	146,800	13.5%
Total Sources of O&M Funds	**$103,713,684**	**$105,947,251**	**$112,281,156**	**$6,333,905**	**6.0%**
Equipment Replacement Fund	(93,497)	(250,000)	(150,000)	100,000	-40.0%
User Charge Stabilization Fund	500,000	(2,500,000)	500,000	3,000,000	-120.0%
Surplus or Deficit Applied	3,136,432	6,228,478	5,023,312	(1,205,166)	-19.3%
Total Reserves and Surplus	3,542,935	3,478,478	5,373,312	1,894,834	54.5%
Carryover funds from previous year	0	645,800	0	(645,800)	-100.0%
Total Sources of O&M Funds	**$107,256,619**	**$110,071,529**	**$117,654,467**	**$7,582,938**	**6.9%**

Note, totals may not add due to rounding.

Funding the Operating Budget

District operating expenses are primarily recovered from District customers through a sewer service charge. The sewer service charge is billed to each municipality within the District's service area based on waste strength, flow volume, and the number of connections. The Environmental Protection Agency (EPA) and Wisconsin Department of Natural Resources (DNR) have approved the District's user charge system. The following table shows a listing of the ten largest sewer users within the District's service area in 2021 by revenue collected.

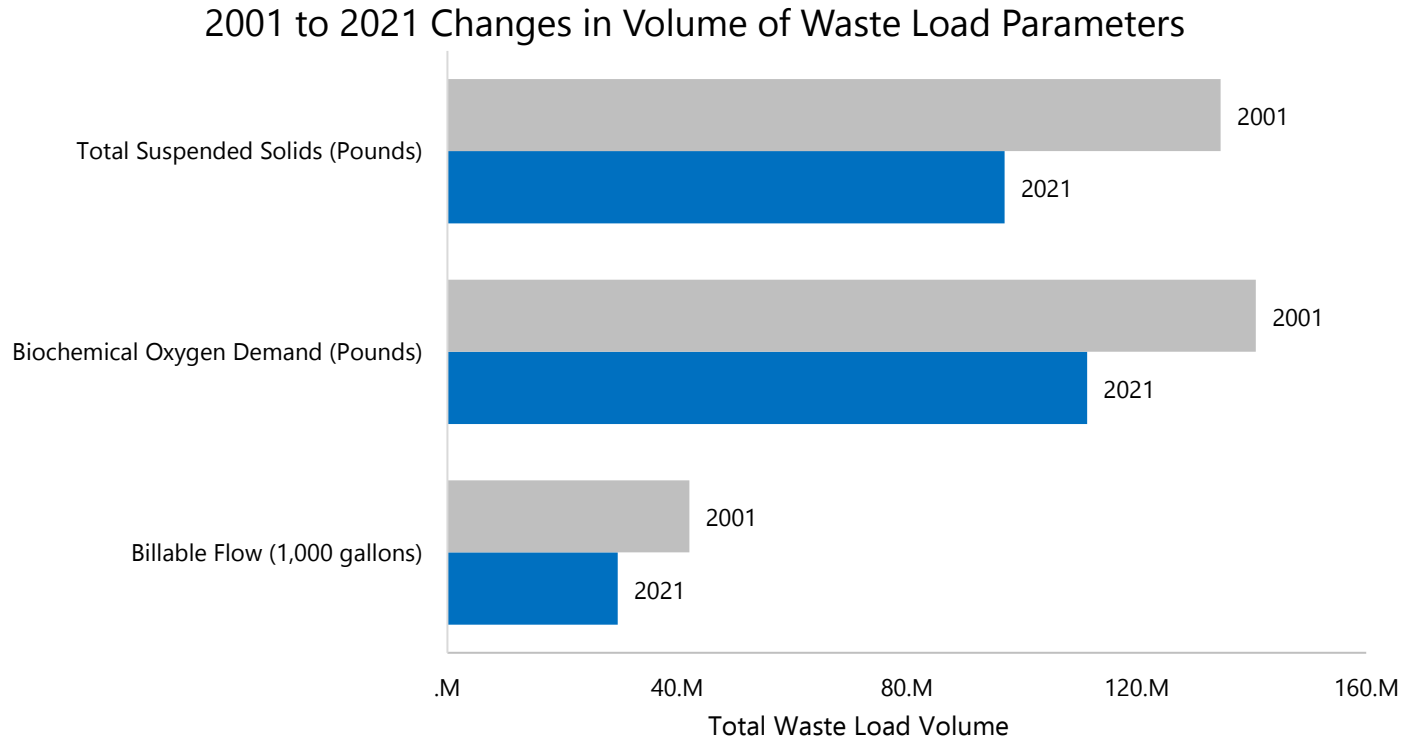


Source: 2021 Annual Comprehensive Financial Report

The majority of the operating budget is targeted towards operations of the wastewater reclamation facilities, as seen above. *Photo credit Veolia Water Milwaukee*

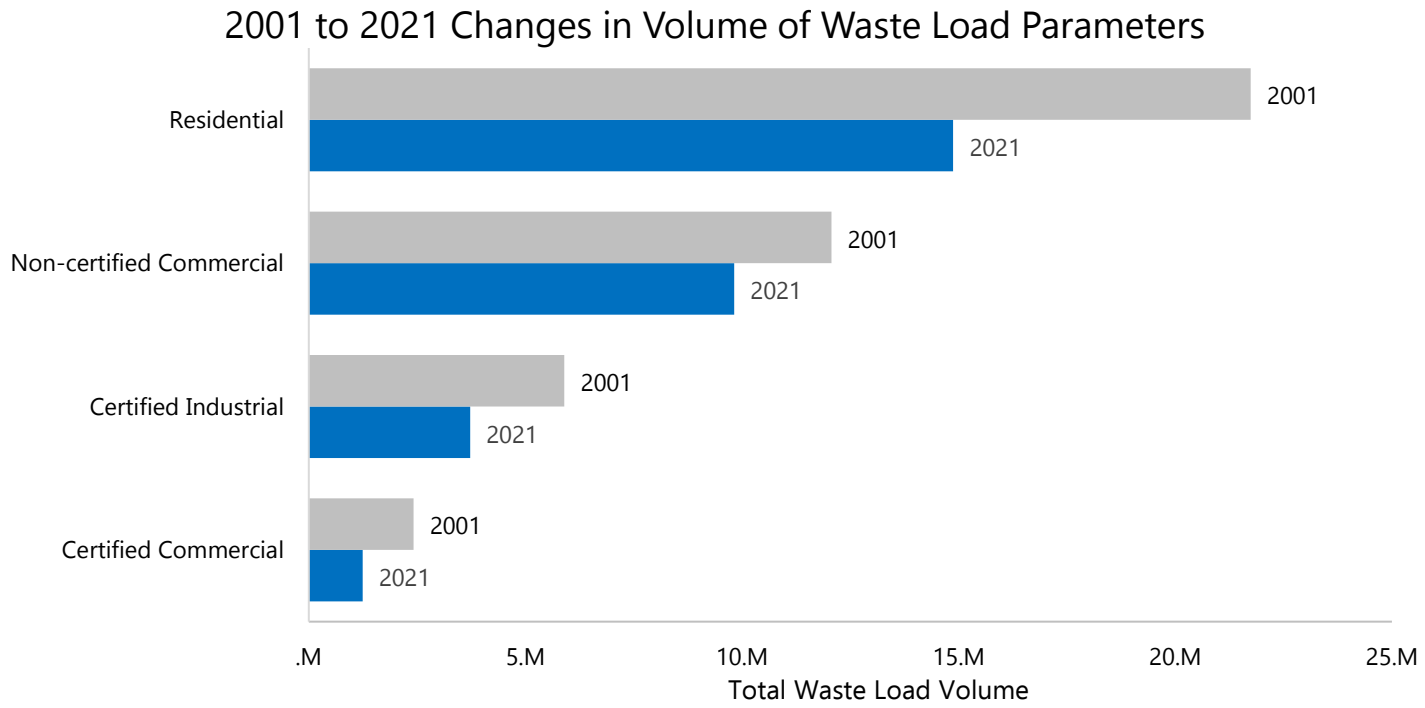
Waste Loads and the Customer Base

The District calculates user charges based on four billing parameters: flow ($/1,000 gallons), biochemical oxygen demand (BOD lbs.), total suspended solids (TSS lbs.), and connections to the sewer system. Since 2001, the District has seen an overall drop in the volume of TSS, BOD, and billable flow. Using waste load data reported in the 2021 Comprehensive Annual Financial Report, from 2001 to 2021, the waste load parameters show a 28 percent decline in TSS, a 21 percent decline in BOD, and a 30 percent decline in flow among all customers.



Source: 2021 Annual Comprehensive Financial Report

The billing parameters from each of the four customer classes: residential, non-certified commercial, certified industrial, and certified commercial has continued to decline over the last two decades.



Source: 2021 Annual Comprehensive Financial Report

User Charge Billings

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
User Charge Billings	$87,064,587	$89,967,285	**$95,189,623**	$5,222,338	5.8%

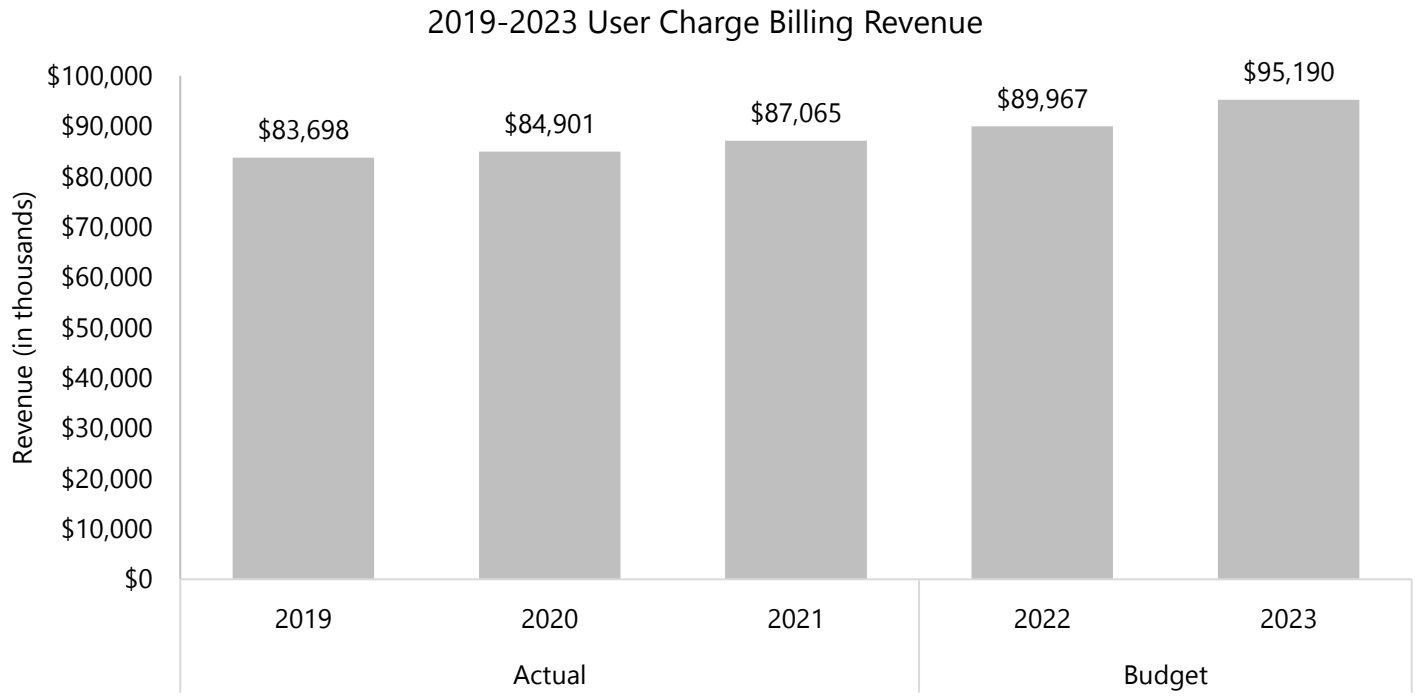
User charge billings are the primary source of revenue for the District's operating budget. The District bills each of the 28 municipalities within its service area based on waste strength, quantity, and number of connections of its users. The municipalities, in turn, directly bill their residential, commercial, and industrial users. The municipalities are required to settle with the District within 45 days from the date the municipality receives the wholesale bill from the District regardless of collections. The District's user charge system has been approved by the Environmental Protection Agency and the Wisconsin Department of Natural Resources. Such approval is a condition for grants and loans from these agencies.

In 2023, the District budget includes a 5.8 percent increase over the 2022 budgeted user charge billings.

How Rates Are Set

Sewer user charge rates are developed annually as part of O&M Budget preparation. As the Executive Director's proposed O&M Budget is prepared, Finance staff determine proposed sewer user charge rates in accordance with District Rules and Regulations as described in the Cost Recovery Procedures Manual. The user charge billing system allocates the total user charge billings to municipalities in proportion to each user's contribution to total wastewater loading into the conveyance system. This allocation is based on total waste load received and four billing parameters: Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), billable flow, and connections. Over the last two decades, there has been a significant decline in total waste load, largely due to the loss of industrial users and the increase in water conservation efforts by residential and industrial users. Each municipality's bill reflects the amount due from each user class – residential, commercial, and industrial.

An Ad Hoc User Charge Committee meets to review the proposed user charge rates and recommends rates for adoption by the Commission. The District's Commission approves an O&M Budget in October and user charge rates in November, to be reflected in municipal billings for the following fiscal year, beginning in January.

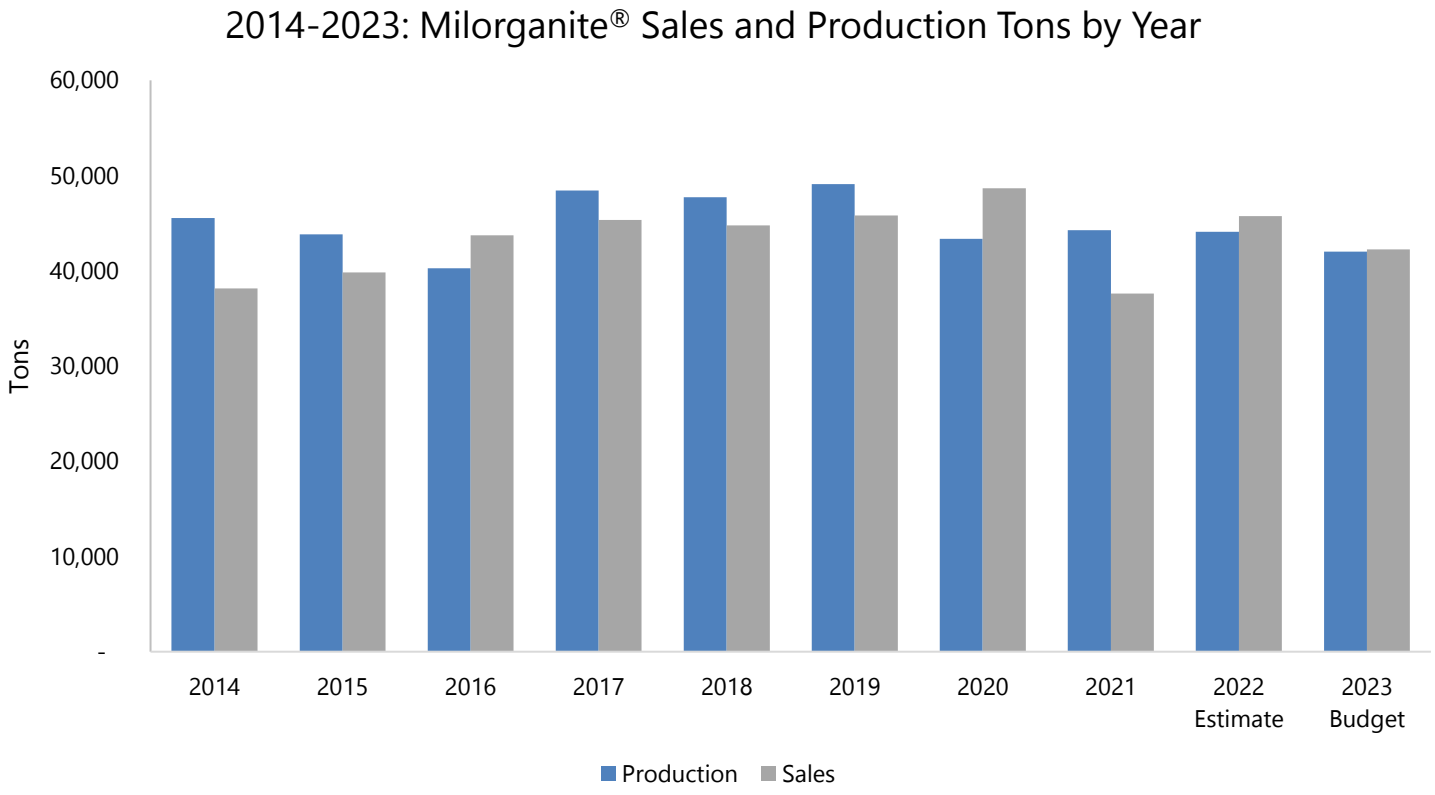


Milorganite® Sales (Net)

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Milorganite® Sales	$10,828,088	$11,000,000	**$11,800,000**	$800,000	7.3%

Milorganite® is a premier organic fertilizer on the market offering a line of all-natural, pesticide-free products. Milorganite® production is currently the most cost-effective solution for disposal of biosolids from the wastewater treatment process at the Jones Island and South Shore Water Reclamation Facilities. The Milorganite® market consists of a professional class of customers, including golf courses around the country, and a retail class of customers, including popular "big box" and warehouse stores that sell to homeowners and gardeners. To address the needs of each market, Milorganite® fertilizer comes in several particle size formulations, including Greens Grade and Classic, and is sold in a variety of packaging sizes to accommodate the needs of both professional golf courses and residential gardeners.

In 2023, the budgeted net Milorganite® revenue is $11.8 million. In 2022, the District raised the price of Milorganite® by 10 percent to reflect the increase in inflation. The following chart provides a historical perspective of production and sales tonnage of Milorganite®.



To dispose of product that does not meet specifications, or when the District has excess product, the District has entered into agreement with several agricultural distributors to place product in non-competitive markets.

Interest Income

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Interest Income	$34,248	$500,000	**$300,000**	($200,000)	-40.0%

Total Interest Income projected for the 2023 O&M Budget is $300,000, which is a 40 percent decrease from the 2022 budgeted level, but in line with the actual projection for 2022.

Staff will continue to explore ways to maximize the yield on District's investments without increasing the risk on these investments or significantly reducing their liquidity.

Other Income

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Other Income	$3,226,165	$2,135,000	**$2,475,000**	$340,000	15.9%

Other Income is budgeted at $2,475,000 in the 2023 Budget. Other Income includes the following sources of funds: District lease revenue, reimbursements from Veolia Water Milwaukee for laboratory services, gain or loss from sale of fixed assets, grants, insurance premium refunds, claims and settlements, and miscellaneous. Other income increases $340,000, or 15.9 percent from the 2022 budgeted level. The 2022 budget included a $1.5 million grant from the Wisconsin Department of Natural Resources to help build a fish passage in the Milwaukee River near the Kletzsch Park Dam. The fish passage will help improve the water quality in the river. However, the construction work was delayed in 2022 and the project is budgeted again in 2023. The total project cost for constructing the fish passage has increased to $1.9 million due to scope and inflation.

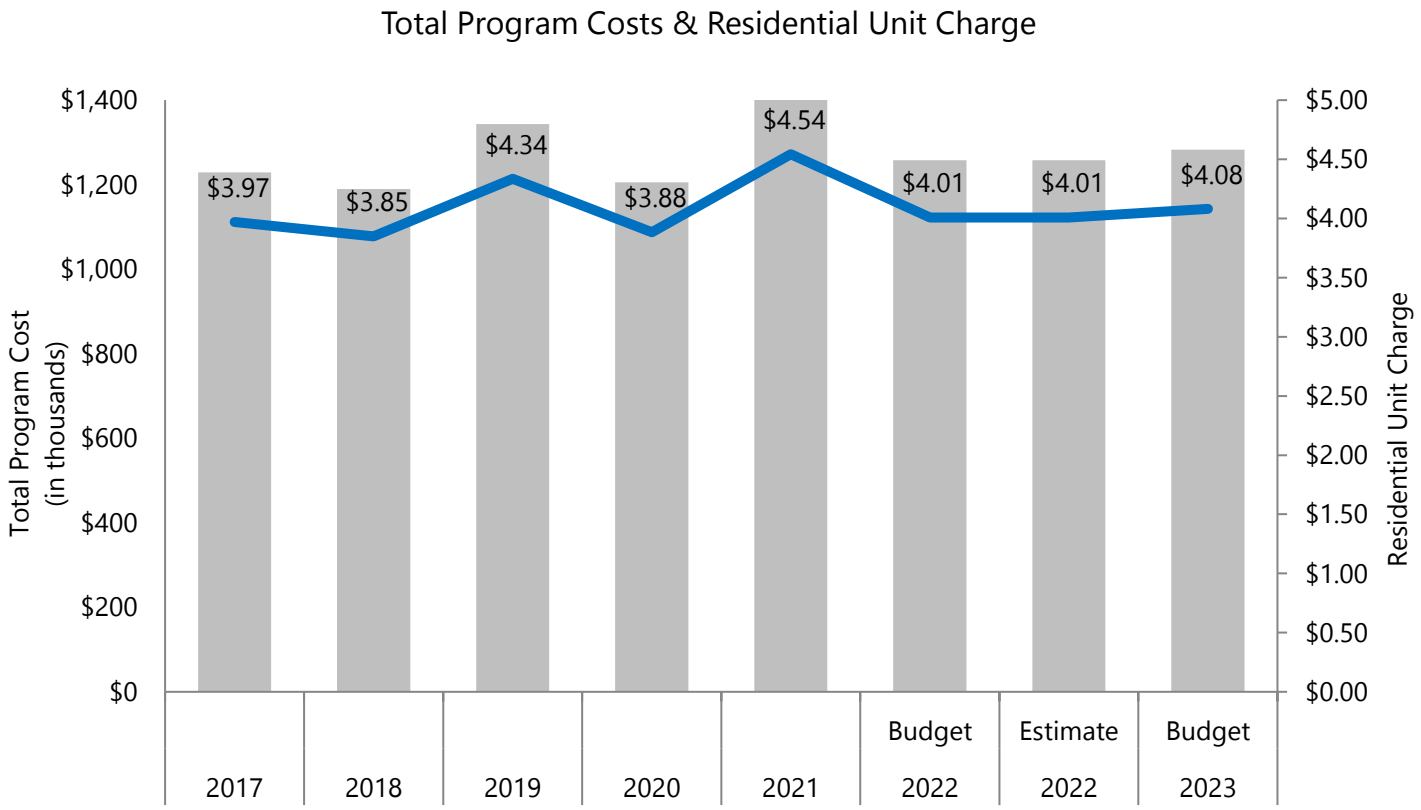
Household Hazardous Waste Collection Program

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Household Hazardous Waste Collection Program	$1,423,042	$1,258,050	**$1,282,817**	$24,767	2.0%

The Household Hazardous Waste (HHW) collection program was created in 1996, in conjunction with the Intergovernmental Cooperation Council to fulfill the public need for proper household hazardous waste collection and disposal. Properly disposing of hazardous wastes through the program benefits both water quality and overall public health.

The HHW Program is a cost-recovery program for District residents. Charges to participating communities for the Household Hazardous Waste program produce revenues. Charges for 2023 will be based on actual 2023 expenditures and billed to communities in spring of 2024. Program costs are determined by both the volume of waste collected and the type of waste, as more toxic substances are more expensive to dispose of.

The following graph illustrates historical trends of the program.



The 2023 Household Hazardous Waste program total revenue is projected to be $1,282,817 an increase of 2.0 percent from the 2022 budgeted level. The estimated cost per residential unit is $4.08 which is a $0.07 increase from the 2022 budgeted level.

Industrial Waste Pretreatment Program

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Industrial Waste Pretreatment Program	$1,137,554	$1,086,916	**$1,233,716**	$146,800	13.5%

The Industrial Waste Pretreatment Program (IWPP) protects the effluent wastewater and biosolids products by prohibiting or limiting the discharge of certain pollutants. The District's Wisconsin Pollutant Discharge Elimination System (WPDES) permit requires that the District implement the IWPP. The Department of Natural Resources originally approved the District's program in 1983. The District enforces both local limits which are self-imposed by the District, and federal standards, which are limits established for various categories of industry by the U.S. Environmental Protection Agency. The program also ensures that industrial users pay user charges in proportion to their use of the sewerage system.

The IWPP is a cost recovery program, wherein revenues reflect actual expenditures. A significant amount of effort is required to carry out the State and Federal requirements of this program, especially in an area with as broad of an industrial and commercial base as the Milwaukee metropolitan area. Most permitted industries must be inspected annually and samples are collected at facilities multiple times throughout the year to verify compliance. Both permitted and certified businesses need regular monitoring to verify waste strength. New or expanding industries must be evaluated to determine whether they need to be permitted. The program also has the authority and responsibility of evaluating requests for discharge of wastewater from construction and other dewatering activities as well as non-contact cooling water. And, to protect the water reclamation facilities, staff carry out surveillance throughout the District to help identify potential or actual violations. Program administration includes time spent by IWPP staff drafting permits, inspecting facilities, analyzing regulatory and user charge data, educating industrial customers, creating and maintaining detailed records of the activities associated with the program, responding to records requests, taking enforcement action, providing technical assistance to industry and the municipalities that MMSD serves, and preparing large and complex regulatory reports. Sampling and monitoring costs include the cost of time spent by the staff in sample collection, field measurements at industrial facilities and in the conveyance system, performing surveillance activities to identify potential violations, identify new customers, and inspect connections and customer's sampling equipment. Often, staff in the field are at the front line with our customers to answer questions. Laboratory analysis costs include the costs of some of the materials needed for sampling, the analysis of samples and review to ensure that the data meets regulatory and program requirements. Lab staff often assist in special support for enforcement cases and may help to investigate or resolve problems with unusual discharges. As the composition of industrial discharges is dynamic and regulatory requirements are ever changing, especially with new emerging contaminants and advances in pretreatment technology, all staff serving the IWPP have to keep current on technical and regulatory requirements.

In the 2023 O&M Budget, gross IWPP revenue is estimated to increase 13.5 percent to $1,233,716 due to District staff spending more time on the program.

New Significant Industrial Users Added from 2017-2021

Business	Municipality
Argon Ind	Milwaukee
Armour Coatings Inc	Germantown
BR Metal Technology	Menomonee Falls
Brenntag Great Lakes LLC	Menomonee Falls
Bruschi USA Inc. (HUF NA)	Milwaukee
Carlisle Interconnect	Franklin
Denali Ingredients	New Berlin
DreamPak LLC	New Berlin
H2FLO	Milwaukee
Hentzen Coatings, Inc.	Milwaukee
Medtronic, Inc. (Titan Spine)	Milwaukee
Metal Improvement Co.	Milwaukee
RW Lyall/Hubbell	New Berlin
Steele Solutions	Milwaukee
Wenthe-Davidson Engineering Co.	New Berlin

Reserves

The District has two reserves for its Operations and Maintenance Budget: the User Charge Stabilization Fund and the Equipment Replacement Fund. The use of reserves helps to reduce or mitigate volatility in the District's primary O&M revenue source, the user charge billings. The use of reserves is analyzed in each budget year. Moreover, there could be years in which the District needs to contribute to the reserve funds to ensure that they comply with policy.

Equipment Replacement Fund

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Equipment Replacement Fund Applied (or Contribution)	($93,497)	($250,000)	**($150,000)**	$100,000	-40.0%

The Equipment Replacement Fund (ERF) is a state-mandated reserve that is equal to 5 percent of the value of equipment owned by the District (Wisconsin Administrative Code, section NR-128.03 (18)). The District periodically conducts a fixed asset study that reviews all of the machinery and equipment with a value of $25,000 or greater and a service life of between 10 and 20 years. The total value of machinery and equipment from this study set the initial net asset value of the equipment replacement fund. Each year, the value of assets within the ERF changes due to projects that are completed resulting in new assets that meet the criteria and therefore increase the ERF or existing assets are decommissioned that decrease the value of assets within the ERF.

On January 1, 2022, the value of assets within the ERF is $320.5 million, and the required restricted fund balance is $16.0 million. The District anticipates a $16.3 million balance at year-end 2022.

As capital projects are completed, it is estimated the minimum required balance will increase. In 2023, the District includes a $150,000 contribution to the ERF to remain in compliance with the 5 percent limit.

Applying reserves allows the increase to user charge billings to be lowered in a given year, while contributing to those funds is in effect an expenditure and would require additional user charge billings. An evaluation of the ERF will be undertaken to determine whether reductions could be made to avoid future contributions.

User Charge Stabilization Fund

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
User Charge Stabilization Fund Applied (or Contribution)	$500,000	($2,500,000)	**$500,000**	$3,000,000	-120.0%

The District Commission established the User Charge Stabilization Fund in 1998 to help the District avoid large increases or decreases in the user charge billings.

Commission policy requires that the fund balance be no less than 2.5 percent of the current year's revenues. The District anticipates withdrawing $500,000 from the fund in 2023. The projected balance as of 1/1/2023 is $13.8 million and the expected balance as of 12/31/2023 is $13.3 million, both of which exceed the required minimum balance.

Applying reserves allows the increase to user charge billings to be lowered in a given year, while contributing to those funds is in effect an expenditure and would require additional user charge billings.

User Charge Stabilization Fund Summary

Balance of Fund as of 1/1/2022	$11,276,953
2022 Net Contributions	($2,500,000)
2022 Estimated Balance as of 12/31/2022	$13,776,953
Balance of Fund as of 1/1/2023	$13,776,953
2023 Net Contributions	$500,000
Anticipated Balance as of 12/31/2023	**$13,276,953**
Minimum Required per Commission Policy	$2,941,362
Remaining Available Fund Balance	$10,335,591

Surplus Returned

Source of Funds	2021 Actual	2022 Amended Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022 Budget
Surplus Returned	$3,136,432	$6,228,478	**$5,023,312**	($1,205,166)	-19.3%

The Operations & Maintenance Budgets are set for a one-year period. In any given year, the actual expenditures and revenues likely will vary somewhat from the budgeted amounts. This variance could be due to work or project timing, expenditures that are deemed unnecessary during the year, unanticipated pricing changes, revenues that either exceed or fail to meet expectations, or an unused unallocated reserve. At the end of the year, the favorable and unfavorable variances are accumulated into a funding surplus or deficit. If there is a budget surplus, those funds are either carried forward by Commission action into the next budget year, or they are applied as a source of funds to a future budget year, as follows.

In compliance with 40 CFR 35.929-2 (b) for application of surplus/deficit, the District determines the surplus or deficit attributable to each sewer user charge billing parameter (Flow, BOD, TSS, Connections) at the end of each fiscal year. The surplus or deficit is applied to user charge billing rates in the budget two years after the fiscal year that created it, in compliance with federal and state regulations.

In the 2023 budget, the District returns the 2021 surplus, or $5,023,312. The surplus is $1,205,166 less than that applied to the 2022 budget, resulting in a 19.3 percent decrease from the 2022 budgeted level. A contribution to the User Charge Stabilization Fund is made in 2023 (as noted above) due to the 2021 surplus being higher than what was forecasted in the 2022 budget for 2023.

Commission

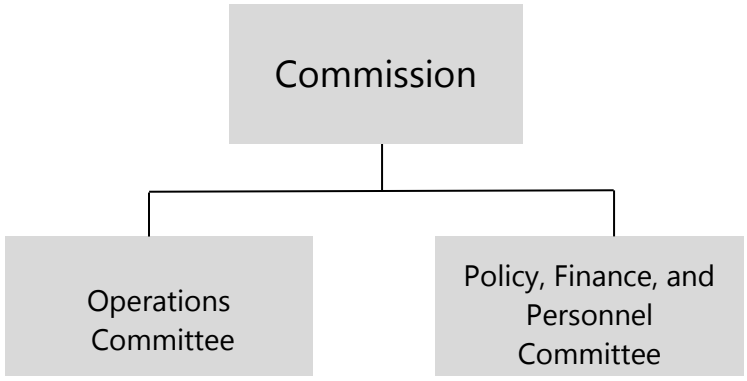
The Commission is the governing body and establishes District policies in compliance with statutory responsibility. The Commission's direction, oversight and approval include budget approval, contract approval, and new policy or initiative approval.

Background and Overview

The Commission is comprised of 11 members: seven appointed by the Mayor of the City of Milwaukee, subject to Common Council confirmation; and four appointed by the MMSD Executive Council of the Intergovernmental Cooperation Council (ICC), which is comprised of chief elected officers of the cities and villages in the District other than the City of Milwaukee. From the City of Milwaukee, three are elected officials and each serve a one-year term. The other four members are citizen appointees from Milwaukee, and each serve a three-year term. The four Commission members from the ICC include three elected officials and one citizen; all four ICC-appointed members serve a three-year term. No Commissioner may serve more than nine consecutive years.

The Commission is charged with the responsibility of establishing policies for the District. The Commission consists of two standing committees: the Policy, Finance and Personnel Committee and the Operations Committee. Matters discussed by the committees include financial planning, budget recommendations, reporting and audits, personnel matters and labor relations, legal and legislation, public information policies, collection/treatment/disposal compliance, industrial development and pretreatment, and the award of contracts.

In support of the 2035 Vision, the Commission sets policy direction to ensure that the District practices integrated watershed management, reduces its greenhouse gas emissions and plays a leading role in mitigating the potential impacts of climate change.



Commission

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Fixed Assets	$0	$0	$0	$0	0.0%
Personal Services	116,166	119,207	119,207	(0)	0.0%
Contractual Services	88,794	116,775	116,475	(300)	-0.3%
Materials & Supplies	124	900	700	(200)	-22.2%
Gross Division Total	**$205,084**	**$236,882**	**$236,382**	**($500)**	**-0.2%**
Charges to Capital	0	0	0	0	0.0%
Net Division Total	**$205,084**	**$236,882**	**$236,382**	**($500)**	**-0.2%**

Budget Comments

- The Personal Services budget includes funding for salaries for eleven Commissioners. There is no change from the 2022 budgeted level.
- Contractual services budget includes funding for the District's annual financial audit, Commissioners to travel to meetings outside of regular Commission meetings, graphic printing services, publishing official notices, and transcription services.
- The Materials and Supplies budget includes funding for office supplies.
- Support services for the Commission are managed by the Commission Secretary who is funded in the Executive Director division. The Commission Secretary is tasked with preparing, publishing, and distributing Commission meeting agenda and back-up materials in accordance with legal requirements for public meetings as well as preparing and maintaining official records of Commission actions including minutes, resolutions, and ordinances.

Commissioners welcome the donation of a historic picture of Jones Island.

Accomplishments

Provided leadership and guidance in efforts to promote collaboration including studying opportunities for enhanced alignment with the Milwaukee County Parks system.

Provided guidance in revising the Comprehensive Environmental Management policy. The major changes to the policy are a goal for a 10 percent reduction in energy and greenhouse gas for all projects, acknowledgement of climate resilience through a watershed approach, and the creation of a Climate Resilient Watershed workgroup.

The Commission approved the expansion of the Greenseams® program to include protecting all land with hydric soils within the Milwaukee River watershed.

Executive Director

The Executive Director is appointed by the Milwaukee Metropolitan Sewerage District Commission and serves as the District's Chief Executive Officer. The Executive Director provides organizational leadership to implement Commission policies that ensure the District meets its customers' needs in a cost-effective manner. The division is comprised of the Office of the Executive Director cost center, and three cost centers that report to the Chief Administrative Officer: Human Resources, Facilities Management, and Administration. The Chief Administrative Officer oversees the work required for Commission Services.

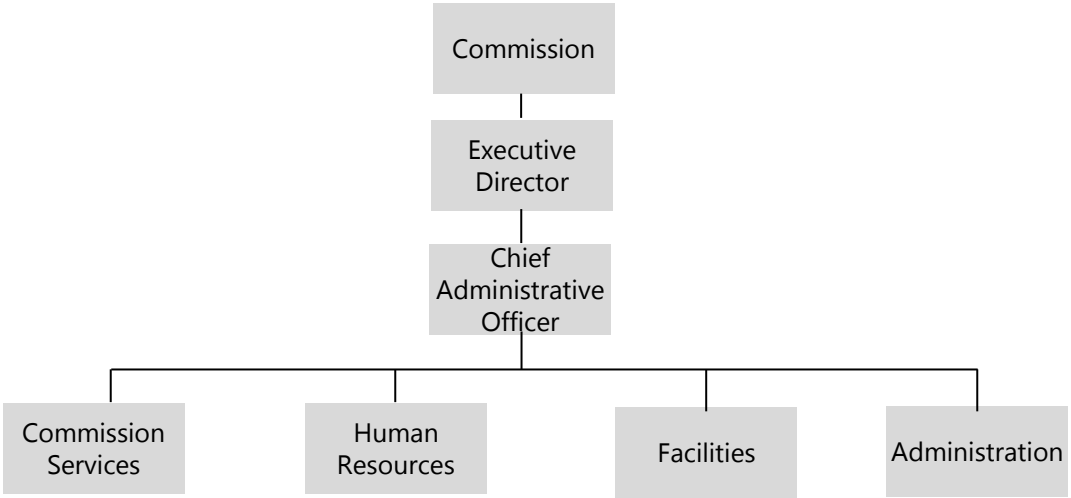
The Office of the Executive Director: Provides organizational leadership for the division and District. The cost center includes project management for improving water quality in the EPA's Area of Concern for the Milwaukee Estuary and advancing organizational culture through district-wide leadership development and Diversity, Equity, and Inclusion focused initiatives.

Commission Services: Supports the activities of the Commission and ensures proper, timely receipt and dissemination of official documents of the District.

Human Resources: Manages employee benefits, compensation, labor relations, recruitment, affirmative action and diversity, unemployment compensation, work study, organizational training and development, and other human resources policies and procedures.

Facilities Management: Helps provide a clean and safe work environment. The cost center also manages the District's mail and Headquarters building's heating, ventilation, air conditioning, and electrical and plumbing services. The cost center maintains the Headquarters buildings and grounds and focuses on environmentally-friendly, energy-efficient, sustainable, and cost-effective ways of operating the District's facilities.

Administration: Includes reception, fleet, and graphics services. Reception ensures visitors and calls are managed efficiently. Managing the District's fleet includes coordinating service, procuring new vehicles, and providing staff training on fleet usage. The graphics team provides high quality graphics arts materials for District projects and programs.



Executive Director

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses By Cost Center					
Executive Director	$1,242,225	$2,212,917	$3,226,748	$1,013,831	45.8%
Administration	-	379,111	468,533	89,422	23.6%
Human Resources	-	890,817	873,106	(17,711)	-2.0%
Facilities Management	1,141,330	1,218,357	1,078,505	(139,852)	-11.5%
Gross Division Total	**$2,383,555**	**$4,701,202**	**$5,646,891**	**$945,689**	**20.1%**
Charges to Capital	(417,831)	(448,733)	(406,833)	41,900	-9.3%
Net Division Total	**$1,965,724**	**$4,252,469**	**$5,240,059**	**$987,590**	**23.2%**
Uses By Expenditure Type					
Fixed Assets	$0	$0	$0	$0	0.0%
Personal Services	1,060,739	1,828,443	2,057,923	229,480	12.6%
Contractual Services	1,131,210	2,740,059	3,416,628	676,569	24.7%
Materials & Supplies	191,606	132,700	172,340	39,640	29.9%
Gross Division Total	**$2,383,555**	**$4,701,202**	**$5,646,891**	**$945,689**	**20.1%**
Charges to Capital	(417,831)	(448,733)	(406,833)	41,900	-9.3%
Net Division Total	**$1,965,724**	**$4,252,469**	**$5,240,059**	**$987,590**	**23.2%**
Division Staffing	12	16	18	2	

Note, in the 2022 budget, the Human Resources cost center and its budget moved from the Finance division to the Office of the Executive Director division.

Budget Comments

- In mid-2022, two Business Analyst positions, one from the Finance division and one from the Information Services division moved to the Office of the Executive Director cost center to help lead the implementation of the new enterprise resource planning (ERP) software. Also in mid-2022, the incumbent Director of Community Outreach and Business Engagement transitioned to a focus on Organizational Development, Leadership and Culture under the title of Senior Fellow/ Diversity, Equity, and Inclusion Officer and moved from the Milorganite® cost center to the Office of the Executive Director. The 2023 increase in Personal Services reflects both the increase in headcount and the increase for 2023 salaries, including the work study program.
- In the 2023 Budget, the Office of the Executive Director cost center budget includes $1.9 million for constructing a fish passage and water quality and habitat improvements at the Kletzsch Park Dam. The work is part of MMSD's effort to get the Milwaukee Estuary delisted from the US EPA's list of Areas of Concern based on the water quality. The work will be reimbursed by the Wisconsin Department of Natural Resources and the grant reimbursement is budgeted as Other Income. The work was anticipated to be completed in 2022 and therefore budgeted in 2022. The project design phase was delayed in 2021 and 2022, which delayed the construction phase. The project's cost has also increased from 2022 to 2023. The Office of the Executive Director's contractual services budget also includes funding for an outside consultant to assist in a Post-2027 Operations Assessment to help the District prepare for next steps after the expiration of the current operating contract in 2028.

Accomplishments

The Executive Director convened a group of internal staff to document the pros and cons of contracting out operations.

The Executive Director participated in a study with the Wisconsin Policy Forum on the funding options for the Milwaukee County Parks

The Executive Director met with other regional sewerage districts and the WI Department of Natural Resources to understand the implications of the Infrastructure Investment and Jobs Act

The Human Resources group implemented benefits management in the new ERP system

- In 2023, the Administration budget includes fuel for District vehicles. Fuel was previously budgeted in the Facilities budget. The fuel budget increases $15,000 over the 2022 budgeted level due to the increase in fuel prices experienced in early 2022.
- In 2023, the Human Resources budget includes funding for an outside consultant to complete a comprehensive study of the District's compensation system.
- In the 2023 Budget, the Facilities budget decreases 11.5 percent due to the completion of a one-time project to improve the garage at the S. 13th St. facility.

Strategic Goals

Workforce Planning	DEI	Area of Concern Projects	Operations Analysis	ERP
• The division will document processes and procedures to ensure successful knowledge transfer.	• Implement the DEI Strategic Plan. • Provide internal training to staff to create an inclusive work environment.	• Advance the Area of Concern projects in the Milwaukee Estuary including completing the Kletzsch Dam fish passage project.	• Work with stakeholders to determine options for operations at the expiration of the Veolia Water-Milwaukee agreement in 2028.	• Launch the full capabilities of the ERP system by end of Q3 2023.

Operational Goals

- Complete projects on schedule and within budget.
- Continue to implement a robust wellness program.
- Implement tools to measure and inform activities focused on improving organizational culture.
- Maintain the fleet and headquarters and lab building asset rosters.
- Prepare, publish, and distribute Commission meeting agenda and back up materials in accordance with legal requirements for public meetings.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
New Hire Opportunities	24	35	27
% of minority employees	19%	19%	22%
% of female employees	46%	45%	49%
Internship opportunities	7	28	25
Employee trained on the ERP absence management module	N/A	N/A	100%
Efficient operations measured by an increase in the number of Graphics requests without increasing work group headcount	449 requests	510 requests	565 requests
Efficient operations measured by an increase in the number of Facilities requests without increasing work group headcount	750 requests	810 requests	870 requests
Complete the DEI Action Plan on time	N/A	N/A	100%

Support for the SDGs

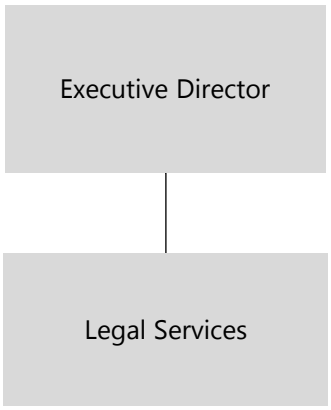
The Executive Director provides leadership and direction for the District in pursuing projects that support the UN SDGs. In 2023, the District's participation in the One Water, Our Water campaign supports SDG #6 and brings awareness to our water resources. In 2023, the Kletzsch Dam fish passage project will impact both SDGs #14 and #15 as it identifies and implements solutions to fish passage, habitat improvements, and sediment accumulations for the Milwaukee Estuary Area of Concern. The Human Resources group's work on DEI in 2023 supports SDG #10 Reduced Inequalities

MMSD staff attend job fairs to increase awareness about careers in the water sector.

Legal Services

The purpose of the Legal Services Division is to provide legal advice, strategy, and support to the Commission, Executive Director, and District staff to enable legally sound governmental and business decisions and their effective implementation.

Legal Services The Division was created by the Milwaukee Metropolitan Sewerage District Commission in 1978. The Division conducts all of the District's legal business and provides specialized legal expertise in the District's major areas of operations including: environmental, construction and contracting, government finance, municipal relations, and human resources. The Division provides ongoing support to District operations by advising the Commission, Executive Director and staff on programs and policies to ensure that District operations are consistent with legal requirements. The Division also represents the District in all litigation and claims by or against the District, either as primary legal counsel or in overseeing outside legal counsel. Each matter is assigned to a specific staff attorney to assess possible District liability, preserve evidence, identify witnesses, and provide ongoing claim monitoring activities. During the risk identification process, the Legal Services Division provides advice to the Commission and District management regarding the alternative courses of action. The Legal Services Division also provides timely advice and opinions to support District business operations and to avoid legal problems. This includes legal review and input for water and air pollution permits, compliance reporting, planning reports, and contract drafting.



Legal Services

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses by Cost Center					
Legal Services	$888,265	$1,115,932	$1,174,322	$58,390	5.2%
Gross Division Total	**$888,265**	**$1,115,932**	**$1,174,322**	**$58,390**	**5.2%**
Charges to Capital	(298,850)	(321,545)	(333,224)	(11,679)	3.6%
Net Division Total	**$589,415**	**$794,387**	**$841,098**	**$46,711**	**5.9%**
Uses by Expenditure Type					
Fixed Assets	$0	$0	$0	$0	0.0%
Personal Services	674,423	807,967	864,768	56,801	7.0%
Contractual Services	199,389	291,865	292,104	239	0.1%
Materials & Supplies	14,453	16,100	17,450	1,350	8.4%
Gross Division Total	**$888,265**	**$1,115,932**	**$1,174,322**	**$58,390**	**5.2%**
Charges to Capital	(298,850)	(321,545)	(333,224)	(11,679)	3.6%
Net Division Total	**$589,415**	**$794,387**	**$841,098**	**$46,711**	**5.9%**
Division Staffing	**6**	**7**	**7**	**0**	

Budget Comments

- The Personal Services budget includes funding for salary increases in 2023.
- Contractual Services includes outside counsel, experts, lobbying, funding for legal research providers, memberships, subscriptions and dues. In 2023, the cost center's budget is comparable to the 2022 budgeted level. The Legal Services team will continue to advocate for MMSD in energy policy, labor matters, intellectual property and trademark issues and cybersecurity.
- The Materials and Supplies budget includes funding for office supplies and books and research materials for legal staff.
- Charges to Capital increase in the 2023, resulting in a net decrease to the O&M Budget. The budgeted level in 2023 reflects the current planned capital projects that will need legal services assistance and contract drafting.

Accomplishments

Drafted or reviewed approximately 211 professional service, construction, or service contracts, an 8% increase over the 2021 level.

Drafted and negotiated approximately 42 Intergovernmental Cooperation Agreements and Memorandums of Understanding between the District, Milwaukee County and municipalities. This number is 147% higher than the 2021 level.

Drafted and reviewed approximately 20 Information Technology agreements.

Conflict management was handled internally by staff attorneys in 12 instances.

Strategic Goals

Infrastructure Investment & Jobs Act	Area of Concern Projects	Workforce Planning	Operations Analysis	Milorganite®
• Legal staff will promote the District's interest in securing Infrastructure Investment and Jobs Act funding.	• The division will provide legal guidance on Milwaukee Estuary Area of Concern projects.	• The division will document processes and procedures to ensure successful knowledge transfer.	• Division staff will work with stakeholders to determine options for operations at the expiration of the Veolia Water-Milwaukee agreement in 2028.	• The division will ensure that Milorganite® product is in compliance with the laws in every state.

Operational Goals

- Ensure timely and accurate legal advice to enable staff to achieve 100% compliance with regulations and O&M contract.
- Provide legal counsel and representation to minimize claims and litigation.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
Resolve outstanding claims as quickly and cost effectively as possible	100%	100%	100%
Settlements are resolved for amounts that do not exceed the District's exposure or that adequately recover damages	100%	100%	100%
Review replies to requests for open records	100%	100%	100%
Provide regulatory guidance for Milorganite® and all permit matters	100%	100%	100%

Support for the SDGs

The Division helps the District achieve a number of the UN SDGs by ensuring contracts are in compliance with public procurement best practices and support economic development. The Division also provides legal guidance on new initiatives that support SDGs #7, #13, #14, and #15. The Legal Services staff also advise on permit compliance in support of SDG #6 Clean Water and Sanitation.

Teaching youth about water resources and the environment.

Finance

The Finance Division provides overall prudent financial management, financial planning and financial analysis necessary for efficient operations and prudent decision making. To that end, Finance staff are involved in major organizational decisions the District undertakes by analyzing the cost and benefit of each option being considered.

Budget Preparation and Administration: Development of the annual Capital and Operations & Maintenance Budgets based on review and prioritization of all requests, related to contract operations, and from asset management; analysis of new programs or changes, recommendation on expenditures and revenues for the upcoming year to achieve District goals; monitoring budget variances and recommending strategies for issues and communicating status throughout the budget year.

Accounting, Billings, Payroll and Financial Reporting: Management of payroll and accounting transactions including accounts payable, accounts receivable, inter-fund and general ledger. Monthly financial reporting and preparation of the annual financial report. Administration of the user charge billings system that assigns charges to customers, and creates all billings for tax levy, non-member charges, and other District programs.

Treasury, Investment and Cash Management: Oversight of all treasury, investment and cash management activities and strategies to ensure compliance with statutes, Commission policy, the greatest rate of return allowable, as well as the lowest cost of transactions.

Financial & Policy Analysis and Planning: Preparation and management of financial forecasts of revenues and expenditures including the development and analysis of revenue and expenditure assumptions for out-year projections, scenario analysis for various initiatives and programs. Financial analysis and direction to large dollar items including long-term fringe benefits programs including changes to District policies regarding employee and retiree healthcare.

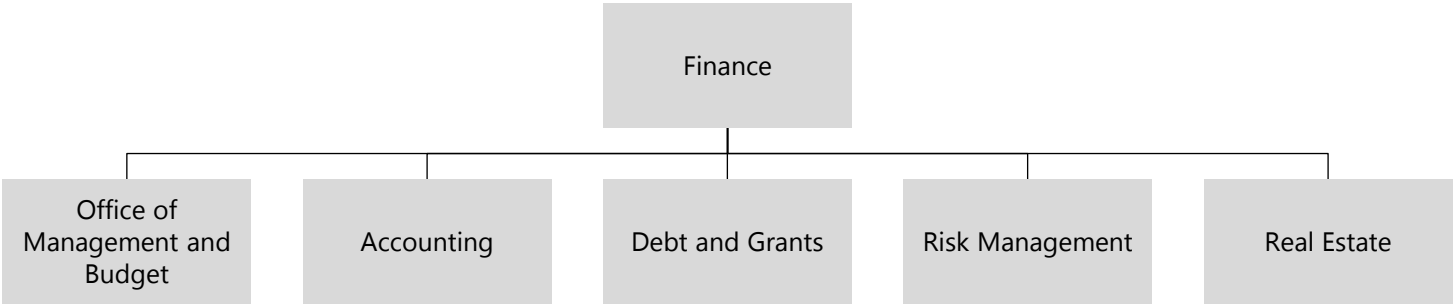
Debt Management: Planning of all General Obligation, Clean Water Fund Program loan debt issuances, Federal funding programs, and any special circumstance debt financing, and administration of related debt service payments.

Grants Management: Administration of all grants and reimbursements to ensure properly documented compliance as well as timely receipt of funds.

Risk Management: Management of the risks of accidental loss associated with property, liability and workers compensation exposures. Risk management includes safety, security and insurance coverage for all District construction and operations activities.

Real Estate: Administration of the District's real estate transactions including land and easement acquisitions, facility leases, and management of existing property rights.

Strategic Planning and Performance Management System: Develop and maintain the District's organizational performance management system with performance metrics tied to the Strategic Plan, performance indicators from core operations, related benchmarks, and trend analysis on various goals and performance. Goals are set annually, tracked throughout the year, and annual performance is reported to the Commission.



Finance

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses By Cost Center					
Finance	$3,166,354	$3,579,858	$4,044,984	$465,126	13.0%
Human Resources	621,366	-	-	-	0.0%
Gross Division Total	**$3,787,720**	**$3,579,858**	**$4,044,984**	**$465,126**	**13.0%**
Charges to Capital	(1,049,146)	(520,222)	(524,681)	(4,459)	0.9%
Net Division Total	**$2,738,574**	**$3,059,636**	**$3,520,303**	**$460,667**	**15.1%**
Uses by Expenditure Type					
Fixed Assets	-	-	-	-	0.0%
Personal Services	2,242,615	1,856,060	1,896,514	40,454	2.2%
Contractual Services	1,526,536	1,702,498	2,125,670	423,172	24.9%
Materials & Supplies	18,569	21,300	22,800	1,500	7.0%
Gross Division Total	**$3,787,720**	**$3,579,858**	**$4,044,984**	**$465,126**	**13.0%**
Charges to Capital	(1,049,146)	(520,222)	(524,681)	(4,459)	0.9%
Net Division Total	**$2,738,574**	**$3,059,636**	**$3,520,303**	**$460,667**	**15.1%**
Division Staffing	**23**	**20**	**20**	**0**	

Note, beginning in the 2022 budget Human Resources is included in the Office of the Executive Director division.

Budget Comments

- The 2023 budget for Personal Services includes funding for salary increases for 20 full time positions.
- Contractual Services increases 24.9 percent because of the increase in insurance premiums included in the Finance budget. The commercial insurance marketplace is experiencing increased premiums, stricter underwriting, and a reduction in capacity for almost all types of coverage. For the 2023 insurance year, the District program is seeing the impact of these changes. Contractual Services also includes funding for memberships and subscriptions, safety and risk management services such as employee annual physicals and building security services, and outside consultants such as real estate support, an insurance broker, and an investment advisor.
- The Materials and Supplies budget increases 7 percent for an increase in safety supplies.
- The Charges to Capital budget is similar to the 2022 budgeted level. Finance staff spend time helping with real estate, debt finance, and safety and risk management projects in the capital budget.

Accomplishments

Evaluated and recommended strategies to incorporate significant and material expenditure increases to $2B over 10 years to the capital long-range financing plan that resulted in policy changes that will prudently support the District's financial strength into the future.

Received a clean audit opinion for 2021.

Received the GFOA Certificate of Achievement for the 2021 Annual Financial Report.

Received the GFOA Distinguished Budget Presentation Award for the 2022 Annual Budget.

Received $750,000 in principal forgiveness from the Clean Water Fund Loan program.

Implemented a new cash management strategy, increasing yields on excess funds compared to benchmarks.

Participated as key stakeholder in the Oracle Cloud suite ERP implementation.

Risk Management performed a safety and security assessment of District owned facilities.

Real Estate team acquired properties for capital projects including KK River Flood Management, Kletzsch Dam Fish Passage, Basin H Rehab, and the NS12 collector system.

Accomplished all major goals during a period of significant staff turnover and transition.

Strategic Goals

Infrastructure Investment & Jobs Act	Area of Concern Projects	Innovation	Operations Analysis	ERP
• Finance staff will play a lead role in helping to understand the impacts of the 2021 Infrastructure Investment and Jobs Act and how the District can advance projects to maximize the funding opportunities.	• The division will continue to ensure the long-range financing plan can accomodate new projects, in particular the Milwaukee Estuary Area of Concern projects.	• In order to innovate and promote new strategies such as green infrastructure and energy efficient projects, Finance staff will work closely with project managers to understand their funding needs and long-term plans.	• Finance staff will work with stakeholders to determine options for operations at the expiration of the Veolia Water-Milwaukee agreement in 2028.	• The Finance division will continue to be a key participant in the District's multi-year effort to implement an enterprise resource plannign system. The ERP will provide greater modern functionality to managing the District's resources and enable efficiencies in how work is performed.

Operational Goals

- Maintain efficient and effective service levels across all functions, minimize performance gaps due to staff transitions, and manage institutional knowledge for the future.
- Achieve clean audit opinion annually.
- Produce annual budgets that support the District's mission, goals and financial targets.
- Ensure new organizational initiatives are supported by financial analyses.
- Maximize interest earnings and minimize the cost of debt.
- Ensure ongoing and regular monitoring and review of strategic plan progress.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
Bond ratings – Fitch ratings	AAA	AAA	AAA
Bond ratings – Moody's Investors Service	Aa1	Aa1	Aa1
Bond ratings – Standard & Poor's	AA+	AA+	AA+
% of operating reserve that meets or exceeds level set by policy	100%	100%	100%
# of significant internal control deficiencies or material weaknesses from internal audit	0	0	0
Receive GFOA Distinguished Budget and Annual Combined Financial Report Awards	Yes	Yes	Yes

Support for the SDGs

The Division helps mobilize resources and budget for initiatives that support the SDGs. The Budget Office also helps track the District's performance in achieving the goals.

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

Information Technology Services

The Division conducts all of the District's information technology business including records management and provides specialized expertise to assist in many of the District's major areas of operations, including environmental monitoring, construction and contracts, government finance, procurement, legal and human resources.

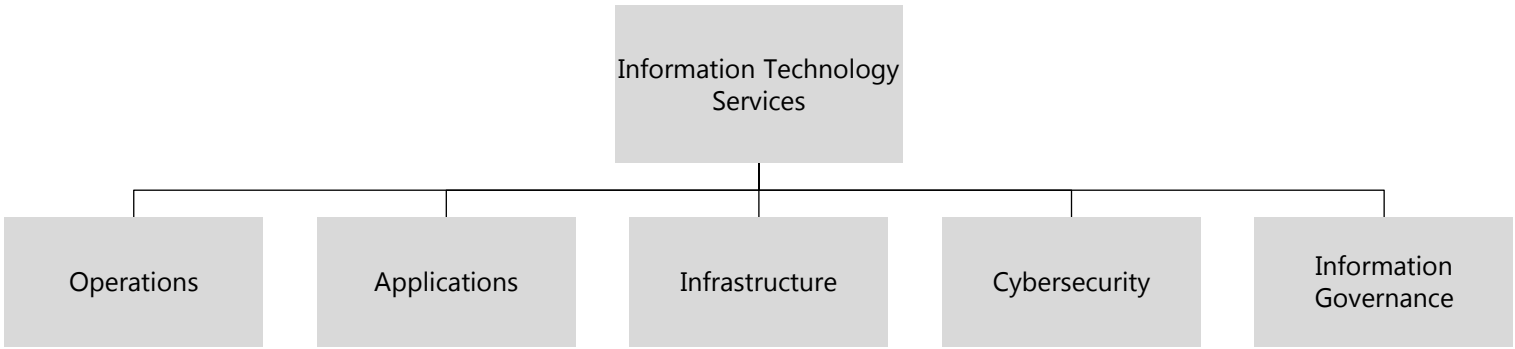
Operations: The technical staff supports the District's computer, mobile, printing, telecommunications, backup, and patching services. They respond to technical support incidents and service requests ensuring District employees and contractors are able to meet their own obligations.

Applications: This team designs, build and supports all internal applications and critical workflows. They act as a main support channel to external supported applications such as eBuilder, OnBase, Oracle and Microsoft 365.

Infrastructure: The infrastructure team maintains and supports these services: networking, WIFI, servers, data storage, fiber and wireless communications (SCADA), providing uninterrupted computing services to all.

Cybersecurity: Cybersecurity protects the District with continuous monitoring of our infrastructure and critical systems for security threats. They collaborate with Risk Management to assess threats and provide cyber security expertise to the rest of the District.

Information Governance: The Information Governance group's mission is to develop, implement, and manage a district-wide, comprehensive, integrated, systematic Information Governance Program designed to comply with Wisconsin Public Records laws. The Information Governance Program focuses on the preservation of the District's official records and informational assets (both paper and electronic) by providing direction, to all divisions for the management, access, retention, storage, protection, and disposition of those assets.



Information Technology Services

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses By Cost Center					
Information Services	$4,342,203	$4,771,578	$4,985,808	$214,230	4.5%
Information Governance	295,418	333,671	347,026	13,355	4.0%
Gross Division Total	**$4,637,621**	**$5,105,249**	**$5,332,834**	**$227,585**	**4.5%**
Charges to Capital	(502,688)	(97,199)	(73,045)	24,154	-24.9%
Net Division Total	**$4,134,933**	**$5,008,050**	**$5,259,789**	**$251,739**	**5.0%**
Uses by Expenditure Type					
Fixed Assets	-	101,000	226,000	125,000	123.8%
Personal Services	2,097,578	2,251,429	2,335,651	84,222	3.7%
Contractual Services	2,219,593	2,607,520	2,429,644	(177,876)	-6.8%
Materials & Supplies	320,450	145,300	341,539	196,239	135.1%
Gross Division Total	**$4,637,621**	**$5,105,249**	**$5,332,834**	**$227,585**	**4.5%**
Charges to Capital	(502,688)	(97,199)	(73,045)	24,154	-24.9%
Net Division Total	**$4,134,933**	**$5,008,050**	**$5,259,789**	**$251,739**	**5.0%**
Division Staffing	**23**	**25**	**24**	**(1)**	

Budget Comments

- In mid-2022, one Business Analyst position helping with implementing and administering the enterprise resource planning (ERP) software, moved from the Information Services cost center to the Office of the Executive Director cost center. The increase in Personal Services is for salary adjustments for the 24 full-time staff.
- In the 2023 budget, the Fixed Assets budget includes funding for standalone hosts and storage array networks (SANs) at the water reclamation facilities. The equipment is part of the Information Services cost center's two-year replacement plan for the SCADA servers and switches. Replacing the SCADA servers is recommended every five years.
- The $2.4 million for Contractual Services includes funding for software licenses and maintenance, software consultants, and hardware maintenance. Funding is also included for the offsite storage of physical records in the Information Governance cost center. The decrease is due to the District fully transitioning to the new ERP software in 2023, and no longer needing to support software that was required for the old ERP software.
- The $341,539 in Materials and Supplies includes funding for office and printing supplies including laptops and desktops. The increase from the 2022 budget is due to the District returning to its computer hardware replacement schedule. In 2020 and 2021, the District made significant purchases for new laptops and smartphones to help transition staff to be able to work remotely during the COVID-19 pandemic. As a result, new and replacement hardware was not needed in 2022.
- In 2023, the Charges to Capital budget decreases from the 2022 budgeted levels because it is anticipated that staff will no longer be spending as much time on the implementing the new ERP system as they did in 2021 and 2022. The 2023 budgeted level is in line with prior years without the ERP planning software implementation capital project.

Accomplishments

Improved SQL Server Environment for better performance, real-time failover, redundancy, and added encryption.

Improved Fixed Asset Management end of year processing and reporting to reduce time and effort.

Performed a successful cyber security tabletop exercise with Veolia to improve operational effectiveness in event of a cyber-attack.

Information Governance and Laboratory staff collaborated to reduce and consolidate the storage locations of Laboratory records and information, including an emphasis on storing final records in OnBase.

Deployed the Microsoft 365 Monthly Enterprise Channel to all the District computers to provide staff with new Office features each month versus the six-month bi-annual updates.

Strategic Goals

Workforce Planning	DEI	Innovation	ERP
• In order to ensure that the division is prepared for staff turnover and can provide continuity of services, the division will document processes and procedures to ensure successful knowledge transfer. The division will also explore hosting an IT Help Desk Apprentice.	• The division will work with the DEI Council to promote an inclusive workspace and participate in internal events and trainings.	• The IT division will provide leadership in the integration, analysis and management of MMSD data that will allow MMSD to pursue innovative projects.	• The IT division will continue to lead the District's multi-year effort to transform its enterprise technology and business processes to better meet the needs of the organization. The ERP will provide greater modern functionality to managing the District's resources and enable improvements in how work is performed.

Operational Goals

- Maintain 99.1% uptime for all network and server resources.
- Maintain an updated Records Retention Schedule.
- Regularly evaluate the effectiveness of software systems.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
Phishing Testing and Training Campaign Success	N/A	6.4%	<10%
Cybersecurity Risk Score Average Per Server and Workstation	N/A	18.4K	<25K
On Premise or Hosted Application Aggregated SLA	99.9%	99.9%	>99%
IT Help Desk ticket response time ≤ 30 minutes	97%	97%	95%
IT Help Desk tickets resolved within target timeframe	92%	91%	91%
Respond to all public records requests within statutory timeframes	100%	100%	100%

Support for the SDGs

The Division helps the District achieve the UN SDGs by ensuring processes are efficient and data are secure.

The intern program teaches young adults about water resources and the environment.

Technical Services

The mission of the Technical Services Division (TSD) is to protect the environment and promote public health and safety by providing for flood mitigation, wastewater conveyance, and wastewater treatment through the following: manage the planning, engineering, design and construction of capital improvements and major asset repair and replacement projects and contracts; implement and operate an asset management program; overseeing contracts to operate and maintain the District's watercourse, conveyance, landfill gas pipeline, and water reclamation facilities; manage all District capital projects within the District's project management system; and provide a variety of capital project and asset support functions, including construction management, geographic and building information management system and surveying services. Capital projects are typically identified in the District's facilities plans, Watercourse System Improvement Plans, and from Veolia Water Milwaukee requests for capital improvements or asset repair and replacements.

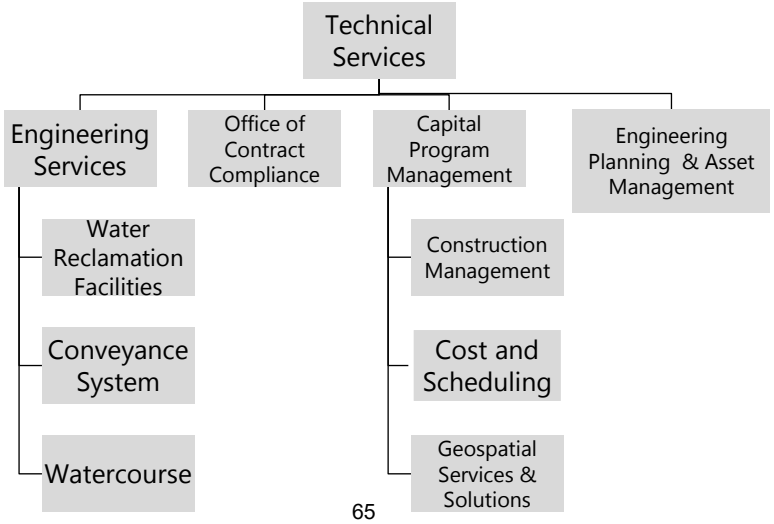
Office of Contract Compliance: Oversees contract operations of the District's wastewater reclamation facilities, conveyance system, and landfill gas supply and pipeline. The group oversees power supply and energy management, including working with We Energies and purchasing natural gas hedges. Staff also develops and manages less complex repair and replacement projects.

Engineering Services: Oversees design and engineering services of capital upgrades, including rehabilitation of existing and additions to District facilities. Most work is related to the water reclamation facilities, conveyance system, and watercourse system. In addition, this cost center manages all watercourse planning and maintenance contracts.

Capital Program Management: Manages the development and administration of the Division's Capital Improvement Program, including forecasting project costs and schedules. The cost center provides construction management and contract administration services for Capital and O&M funded construction contracts, and oversees the District's geospatial services and solutions programs. The cost center participates in the Diggers Hotline one-call system and provides surveying services.

Engineering Planning: The Engineering Planning group leads the District's long-range efforts to forecast future needs. It also serves as the main point of contact for municipalities and manages the District's sewer design rules and the surface water & stormwater rule. Planning supports other Divisions and District-wide decision-making with future development forecasting; data gathering; system modeling; and root-cause analysis.

Asset Management: The District's Asset Management Program aims to: use assets to provide defined levels of service; maintain a level of risk acceptable to the organization; and achieve service level and risk objectives at the lowest life-cycle cost. Asset management analyzes business processes, data, information systems and organizational resources in planning, design, construction, operations, and maintenance.



Technical Services

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses By Cost Center					
Engineering Services	$2,587,811	$2,860,409	$3,385,267	$524,858	18.3%
Capital Program Management	3,353,555	3,385,874	3,755,614	369,740	10.9%
Office of Contract Compliance	70,893,527	72,299,255	74,536,621	2,237,366	3.1%
Engineering Planning	-	1,481,597	1,662,300	180,703	12.2%
Gross Division Total	**$76,834,893**	**$80,027,135**	**$83,339,802**	**$3,312,667**	**4.1%**
Charges to Capital	(6,372,748)	(7,605,052)	(8,066,423)	(461,371)	6.1%
Net Division Total	**$70,462,145**	**$72,422,083**	**$75,273,380**	**$2,851,297**	**3.9%**
Uses By Expenditure Type					
Fixed Assets	$893,925	$807,000	$732,440	($74,560)	-9.2%
Personal Services	5,996,496	7,577,553	8,228,923	651,370	8.6%
Contractual Services	69,909,314	71,596,032	71,818,240	222,208	0.3%
Materials & Supplies	35,158	46,550	2,560,200	2,513,650	5399.9%
Gross Division Total	**$76,834,893**	**$80,027,135**	**$83,339,802**	**$3,312,667**	**4.1%**
Charges to Capital	(6,372,748)	(7,605,052)	(8,066,423)	(461,371)	6.1%
Net Division Total	**$70,462,145**	**$72,422,083**	**$75,273,380**	**$2,851,297**	**3.9%**
Division Staffing	**69**	**82**	**85**	**3**	

Budget Comments

- The fixed assets budget decreases 9 percent from the 2022 budget because the Office of Contract Compliance is purchasing fewer vehicles that qualify for O&M funding in 2023.
- In the 2023 budget, the division headcount is increased by three. In the Capital Program Management cost center, one additional Senior Project Manager for construction management and one Engineering Aide for construction inspection are authorized and funded. The positions are needed for the increase in the construction spending in the capital improvement program. The Capital Program Management cost center also includes one new authorized and funded position, the Building Information Model (BIM) Coordinator to help with implementing District-owned BIM, 3D computer automated drawing (CAD) technology, virtual design and drawing services.
- The Contractual Services line includes the operating contract with Veolia Water Milwaukee, which totals $51.8 million. In addition, utilities to operate the reclamation facilities and conveyance system totals $11.4 million.
- The Materials and Supplies line increases by $2.5 million in 2023 because of a contract amendment the District made with its operating contractor, Veolia Water Milwaukee, in mid-2022. Beginning in 2022, the District, rather than Veolia, will purchase chemicals to add to the treatment process which will allow the District to have more control over the timing and dosage of chemicals. The cost of chemicals is influenced by the current increase in commodity prices.
- Charges to Capital increase by 6 percent, resulting in a net decrease to the O&M Budget. The increase in charges to capital is largely due to the three new positions which will be heavily involved with capital projects.

Accomplishments

Received "Innovators in Construction" award from Trimble for innovative use of e-Builder (Enterprise Project Management Solution)

Completed and are implementing a new Strategic Plan for the newly named Geospatial Services and Solutions Group

Modified new project creation process to incorporate input from asset management teams, to scope projects more effectively at the outset and tie projects to risk categories and risk scores

Completed desktop condition assessments for 872 assets

Reviewed and approved 113 sanitary sewer plans

The Biosolids Advanced Facility Plan was submitted and approved by the DNR

Strategic Goals

Infrastructure Investment & Jobs Act	Area of Concern Projects	Innovation	Operations Analysis	Climate Change
• Manage projects that qualify for Infrastructure Investment and Jobs Act funding.	• Complete design of the Dredged Material Management Facility (DMMF). The DMMF is a key element of the Milwaukee Estuary Area of Concern program.	• In cooperation with District Research staff, identify research needs for MMSD's operations.	• Work with stakeholders to determine options for operations at the expiration of the Veolia Water-Milwaukee agreement in 2028.	• Include evaluation of climate change impacts in the project development phase.

Operational Goals

- Identify and implement improvements to project management processes.
- Continue integrating asset management and sustainability principles into practices and procedures.
- Accurate, consistent, and up to date geographic databases. Timely response to request for projects and services.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
Achieve 3.5 or greater CMAR score for JI	4.0	4.0	4.0
Achieve 3.5 or greater CMAR score for SS	4.0	4.0	4.0
O&M expenditures stay within budget	100%	100%	100%
Capital expenditures stay within budget	100%	100%	100%
Digger's Hotline requests processed within WI State Statute Timelines	100%	100%	100%
% Wastewater captured and treated	99.3%	98.7	100%
% of stormwater plan review completed within 10 days of first submittal, within 20 days of resubmittal	100%	100%	100%
% of sewer plans reviewed within 60 days	100%	100%	100%

Support for the SDGs

The Division helps the District achieve a number of the UN SDGs by designing projects to include environmental benefits and support economic development. The Division also provides technical guidance on new initiatives that support SDGs #6, #7, #13, #14, and #15.

Outreach activities help local residents engage in MMSD projects.

Integrated Watershed Management

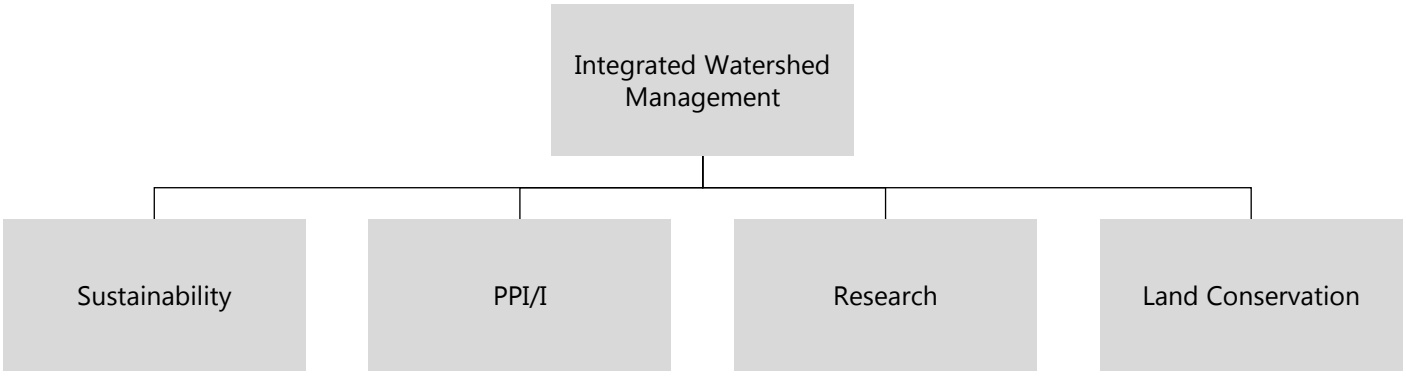
The Division oversees the District's Sustainability, Land Conservation, and Private Property Infiltration and Inflow, and Research programs. The Division works to move the District toward sustainability in all facets of the District's operations by optimizing the use of green infrastructure, furthering renewable, recyclable, eco-friendly materials, and reducing energy consumption and emissions from fossil fuels.

Sustainability: In addition to meeting regulatory requirements, the District is committed to implementing sustainable practices that have a positive impact on the environment. The Division leads the District's efforts to achieve sustainability in all facets of the District's operations by optimizing the use of renewable, recyclable, and eco-friendly materials, implementing green infrastructure, reducing energy consumption and emissions from fossil fuels, and otherwise leading efforts to attain the 2035 Vision and regional resiliency.

Private Property Infiltration and Inflow: The Private Property Infiltration and Inflow (PPII) reduction programs reduces the amount of clear water that enters the District's conveyance system by identifying and eliminating sources from private property.

Research: The research group works with industry partners and universities to conduct sound research to maximize operating efficiencies, reduce the District's carbon footprint and energy consumption, identify renewable energy opportunities, implement new, more efficient technologies, and mitigate threats to current District operations and the environment.

Land Conservation: The land conservation group oversees the Greenseams® and Working Soils® programs. The programs permanently protect key lands containing water absorbing soils, wetlands, floodplains, and forests to help manage stormwater and reduce the risk of future flooding problems.



Integrated Watershed Management

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses By Expenditure Type					
Fixed Assets	$0	$31,000	$30,000	($1,000)	-3.2%
Personal Services	2,278,331	1,159,740	1,309,224	149,484	12.9%
Contractual Services	2,524,949	838,262	1,002,310	164,048	19.6%
Materials & Supplies	69,315	67,000	64,380	(2,620)	-3.9%
Gross Division Total	**$4,872,595**	**$2,096,002**	**$2,405,914**	**$309,912**	**14.8%**
Charges to Capital	(2,126,587)	(1,336,513)	(1,594,655)	(258,142)	19.3%
Net Division Total	**$2,746,008**	**$759,489**	**$811,259**	**$51,770**	**6.8%**
Division Staffing	**25**	**13**	**14**	**1**	

Budget Comments

- In mid-2022 budget, the division added one full-time Administrative Assistant to help with the Private Property Infiltration and Inflow reduction program. The increase in the Personal Services budget reflects both the increase in headcount and the salary increases for 2023.
- The 2022 budget included funding for a new vehicle for the cost center to be able to better distribute rain barrels and neighborhood outreach green infrastructure tools and supplies. Due to supply chain issues with automobiles, the division was informed in mid-2022 that the vehicle would not be built or delivered in 2022. The division anticipates carrying over the 2022 budgeted funds into 2023, plus increasing the budget by $30,000 in 2023, in order to purchase an electric version of the vehicle in 2023. Pursuing the electric version is in line with the District's 2035 Vision and 2022-24 Strategic Plan to pursue strategies to combat climate change.
- The Contractual Services line includes funding for the conservation education program the Fresh Coast Ambassador program, an outside consultant to implement green infrastructure at the neighborhood level, and funding for outside consultants to perform research on the water industry and District processes. The line also includes funding for offsite meetings as well as memberships and subscriptions. In 2023, the division will provide funding in partnership with the local university to help fund a climate scientist. The climate scientist can help the District better understand its role in mitigating the impacts of climate change.
- The Materials and Supplies line decreased funding for rain barrels and supplies to implement green infrastructure.
- The Charges to Capital budget increases from the 2022 budgeted level due to staff cross-training on managing capital projects and the additional position in the PPII group.

Accomplishments

The Division engaged with 1,900+ residents during the summer neighborhood outreach program to install 180 rain barrels and 12 rain gardens in Oak Creek and the City of Milwaukee.

The Division added five new MPS schools and seven suburban schools to the Green Schools Program. Five MPS Green Schools were constructed in 2022 and five more moved from the conceptual planning phase to the fundraising phase.

Updated GI condition assessment application to align better with the Asset Management Program and create more comprehensive condition assessment forms.

Completed construction of nine Fresh Coast Protection Partnership GI projects for a program total of 6.75 million gallons of GI capacity built in 2022. Eight projects were added to the design phase to be built in 2023. The second phase of this program was awarded and contracted in 2022.

The Reforestation and Wetland Restoration Program kicked off in 2022 and was awarded $800,000 from the US Forest Service.

The Land Conservation team met with over 80 landowners to encourage participation in the Greenseams® and Working Soils® programs.

Strategic Goals

Workforce Planning	DEI	Innovation	Waste Neutrality
• Staff will document processes and procedures to ensure successful knowledge transfer. • Staff will evaluate the Fresh Coast Ambassador career exploration program for improvements. • Create a curriculum about the division to help onboard employees.	• The division will work with the DEI Council to promote an inclusive workspace. • Ensure neighborhood outreach program is serving our target populations equitably.	• Define the purpose of MMSD's research program. • Explore and evaluate emerging trends such as artifical intelligence in system operations.	• Explore waste neutrality solutions. • Establish a District-wide internal communication strategy for sustainability goals.

Operational Goals

- Complete projects within budget and on schedule.
- Expand asset management in green infrastructure.
- Continue the implementation of the Regional Green Infrastructure Plan.
- Meet permit requirements.
- Pursue research that meets the District's needs.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
Number of residents engaged in the summer outreach program	2,150	1,930	2,125
Number of participants in the Ambassador Program	17	24	26
As part of the WPDES permit, number of gallons of green infrastructure installed	1.8 million gallons	5.7 million gallons	10 million gallons
% of operating budget spent on research program	0.3%	0.3%	0.3%
Number of additional acres protected in the Greenseams® and Working Soils programs	390	189	400
As part of the WPDES permit, number of gallons of PPII removed from the MMSD system	5.67M	2.96M	8M

Support for the SDGs

The Division helps the District achieve a number of the UN SDGs by researching and implementing improvements to regional water quality. The Division also promotes community engagement through its neighborhood and regional programs, PPII programs, and land conservation programs.

Teaching youth about water resources and the environment.

Water Quality Protection

The Division monitors point and non-point source pollution, conveyance system performance, industry compliance with local, state and federal pretreatment requirements, and area surface water quality. This Division also provides laboratory services to meet the needs of the District. The Division contains five functional groups within two separate cost centers: Central Laboratory, (LAB Cost Center); and Systems Monitoring, Field Monitoring, Industrial Waste Pretreatment Program (IWPP), and Freshwater Resources Monitoring which are collectively managed within the IWC Cost Center.

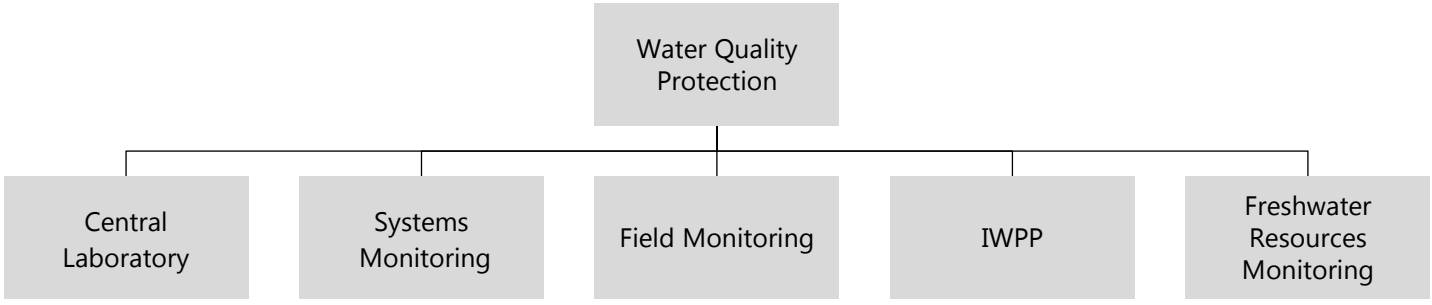
Central Laboratory: The laboratory provides quality analytical services to meet the District's needs for environmental, product and process testing. Operating 365 days/year, it supports plant operations, the District's permit under the Wisconsin Pollution Discharge Elimination Systems (WPDES), IWPP, Freshwater Resources Monitoring, Planning, Milorganite® marketing, and District projects. The laboratory is accredited under the National Environmental Laboratory Accreditation Program (NELAP) and certified by the Wisconsin Department of Natural Resources and the Wisconsin Department of Agriculture, Trade and Consumer Protection.

Systems Monitoring: The District relies on a diverse network of instrumentation to monitor operations at the water reclamation facilities and conveyance system. Metering is installed throughout the service area to measure levels, flows, rain, toxic gases and a variety of other parameters. This instrumentation generate the data necessary for operations, planning and regulatory reporting. Systems Monitoring ensures data quality and provides analysis, review, and reporting of water reclamation facility and conveyance system data for internal and external customers.

Field Monitoring: This group provides sample collection, field measurements, investigations and flow monitoring in the conveyance system and industrial settings to meet the District's regulatory and project needs. The staff are trained and certified for confined entry rescue, should the need arise. They also collect the field observations and data necessary to verify CSOs, SSOs, and other various problems. Routine duties include installation, calibration and maintenance of select monitoring equipment. They provide field support for the IWPP, including sampling, field measurements, observations and assist with investigations and inspections.

IWPP: This program is supported by three full-time staff plus the help of the Division Director, Administrative Assistant, Field Monitoring and Central Laboratory. The IWPP regulates the effluent from approximately 115 permitted industries, 26 industrial parks and over 400 dental offices in its service area. The permitted industries include those that have a federally regulated process of have the potential to discharge pollutants as defined by MMSD's local limits per MMSD Rules. Permits can be issued as well to industries that may pose a threat to the sewerage system, water reclamation facilities, or biosolids products. This group is also responsible for the administration of the user charge verification and billing activities.

Freshwater Resources Monitoring: This group is responsible for conducting surface water quality monitoring nearly 100 monitoring sites throughout the Milwaukee area watersheds. Millions of field and lab generated results are analyzed each year to characterize the rivers, creeks, and Lake Michigan. The data are collected in compliance with MMSD's WPDES permit and are used to assess the impact of the conveyance system, treatment plant operations and District projects on the waterways. The group prepares regulatory and program specific reports as well as uploads the data to state and national databases that is used for regulatory, research, and educational purposes by external stakeholders.



Water Quality Protection

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Uses By Cost Center					
Central Laboratory	$2,439,520	$2,590,939	$2,766,546	$175,607	6.8%
Industrial Waste, Freshwater Resources & Conveyance Monitoring	3,520,667	4,248,805	4,120,161	(128,645)	-3.0%
Gross Division Total	**$5,960,187**	**$6,839,744**	**$6,886,707**	**$46,962**	**0.7%**
Charges to Capital	(2,180,900)	(2,089,514)	(2,185,296)	(95,782)	4.6%
Net Division Total	**$3,779,287**	**$4,750,230**	**$4,701,411**	**($48,819)**	**-1.0%**
Uses By Expenditure Type					
Fixed Assets	$22,809	$186,000	$99,200	($86,800)	-46.7%
Personal Services	4,774,542	5,029,886	5,355,696	325,810	6.5%
Contractual Services	331,958	447,146	465,780	18,634	4.2%
Materials & Supplies	830,878	1,176,712	966,030	(210,682)	-17.9%
Gross Division Total	**$5,960,187**	**$6,839,744**	**$6,886,707**	**$46,962**	**0.7%**
Charges to Capital	(2,180,900)	(2,089,514)	(2,185,296)	(95,782)	4.6%
Net Division Total	**$3,779,287**	**$4,750,230**	**$4,701,411**	**($48,819)**	**-1.0%**
Division Staffing	**64**	**63**	**63**	**0**	

Budget Comments

- The Lab cost center has one Lab Technician Apprentice in 2023 to help with the District's workforce development initiative.
- In 2023, the Lab plans to purchase replacement equipment including an inductively-couple plasma emission spectrometer (ICPES) for metals analysis. Reliable equipment ensures that the lab can meet permit compliance. The 2023 fixed assets budget decreases from the 2022 amended budgeted level because the 2022 amended budget included carryovers from 2021 into 2022 after supply chain disruptions delayed the purchase of equipment in 2021.
- The Contractual Services budget includes funding for lab tests that cannot be performed in-house as well as service contracts for ongoing maintenance of lab and monitoring equipment. In 2023, the Field Monitoring group will finalize the upgrades to the Groundwater Monitoring Well network.
- The Materials & Supplies budget includes funding for the chemicals, equipment and supplies needed for lab testing and the instrumentation, other equipment, and supplies necessary for field monitoring and sample collection. With the extensive network of instrumentation required by the District, there is always a need for replacement and maintenance equipment. However, in 2022, the monitoring group was able to get ahead on some of these purchases which will help to minimize those purchases in 2023. Monitoring equipment and chemical supply prices are impacted by the rising inflation in 2022 and that trend is expected to continue in 2023.
- Charges to Capital remain consistent with the 2022 budgeted level.

Accomplishments

Changed out the existing network of Groundwater Monitoring Well level sensors with newer technology sensors. The new sensors are more accurate and allow data to be collected and processed more efficiently.

The Field Monitoring staff completed the retrofit of five new cube vans to add the cabinetry, equipment mounts, and safety equipment necessary for field operations. It takes several hundred hours of time to ready each van for service.

Worked with the Budget Office and COBE, to draft a job description for the Lab Technician Apprentice program and successfully recruited and hired the first apprentice for this position.

IWPP staff made considerable improvements to the process of collecting Water Balance information from commercial and industrial customers, helping to improve accuracy and efficiency of the user charge billing process.

Strategic Goals

Workforce Planning	DEI	Innovation	ERP
•Advance the wastewater workforce by continuing and improving the apprentice program in the MMSD Lab. •Plan for future workforce needs and promote process documentation.	•Promote the DEI action plan and work to create an inclusive work environment.	•Identify research needs for MMSD's operations.	•Support staff as they learn the new ERP system.

Operational Goals

- Implement recommendations from a professional external assessment (My Green Lab) to make the Central Laboratory greener and environmentally friendly.
- Provide the technical support, including sampling, testing and technical review, necessary to prepare the application for WPDES Permit renewal.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
Number of survey days for freshwater quality monitoring completed	82	80	81
Number of days of the skimmer on the water	106	108	110
Compliance with DNR reporting requirements for complete and timely submittals	100	100	100
% of laboratory analyses that meet regulatory-driven hold time requirements.	100	100	100
Number of permitted Significant Industrial Users (SIU)	124	117	120

Support for the SDGs

The Division helps the District achieve a number of the UN SDGs by collecting, analyzing, and reporting important water quality data to ensure the District is meeting its permit requirements. The work supports SDGs #6, #14, and #15.

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

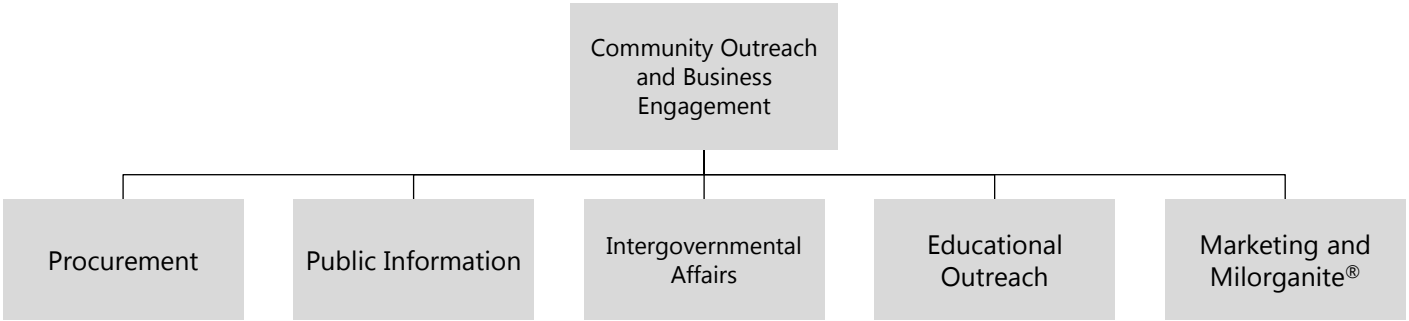
Community Outreach & Business Engagement

The Community Outreach and Business Engagement division is responsible for providing a host of public engagement and support functions aimed at maximizing the use of District resources, while adhering to statutory, Commission, and administrative policies to carry out District business. Community Outreach and Business Engagement provides procurement services, workforce and business development, public information and outreach, and the marketing, sales, and operations of Milorganite®. The Community Outreach and Business Engagement Division develops and maintains strategically effective relationships with a broad range of partners, including residents, Milorganite® customers, stakeholders, governments, news and media, educators, related organizations and employees.

Procurement and Supplier Development: Serves as the contracting authority of the District. The cost center conducts open, fair, and timely procurement processes founded upon the best practices in public purchasing. The cost center oversees the District's social responsibility policies that are incorporated into all contracting and sourcing opportunities, from the Small, Women, and Minority-owned Business Enterprise participation goals, to utilization of local workers and vendors. It also manages the resources of the Workforce & Business Development Resource Program which includes capacity building training, pre-apprenticeship training, and external internships.

Public Information, Intergovernmental Affairs, and Educational Outreach: Creates and distributes timely, accurate and relevant information to the public and other audiences on the District's projects, programs, and initiatives. The cost center also reviews and recommends legislation that affects the District's ability to carry out its mission. The cost center manages the Household Hazardous Waste Collection Program, which helps minimize storm water pollution.

Marketing and Milorganite®: Manages the Milorganite® program through coordination of its sales, marketing, and operations activities in an increasingly competitive fertilizer market.



Community Outreach and Business Engagement

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022	% Change from 2022 Budget
Uses By Cost Center					
Procurement and Supplier Development	$504,087	$565,932	$468,307	($97,625)	-17.3%
Public Information/Intergovernmental Affairs/Educational Outreach	2,084,339	1,926,072	2,081,307	155,235	8.1%
Marketing & Milorganite®	3,831,755	4,267,342	4,767,079	499,737	11.7%
Gross Division Total	**$6,420,182**	**$6,759,346**	**$7,316,693**	**$557,347**	**8.2%**
Charges to Capital	(689,116)	(251,774)	(300,309)	(48,535)	19.3%
Net Division Total	**$5,731,065**	**$6,507,572**	**$7,016,384**	**$508,812**	**7.8%**
Uses by Expenditure Type					
Fixed Assets	-	-	-	-	0.0%
Personal Services	1,554,374	1,628,160	1,684,634	56,474	3.5%
Contractual Services	4,141,836	4,354,198	4,622,392	268,194	6.2%
Materials & Supplies	723,971	776,988	1,009,667	232,679	29.9%
Gross Division Total	**$6,420,182**	**$6,759,346**	**$7,316,693**	**$557,347**	**8.2%**
Charges to Capital	(689,116)	(251,774)	(300,309)	(48,535)	19.3%
Net Division Total	**$5,731,065**	**$6,507,572**	**$7,016,384**	**$508,812**	**7.8%**
Division Staffing	**18**	**17**	**17**	**0**	

Budget Comments

- In mid-2022, the Deputy Director of Community Outreach and Business Engagement was promoted to Director of Community Outreach and Business Engagement. The former Director is authorized and budgeted in the Office of the Executive Director division and retitled Diversity, Equity, and Inclusion Officer. The Deputy Director was authorized and budgeted in the Procurement and Supplier Diversity cost center in 2022; in the 2023 budget, the cost center headcount is reduced by one with the move. The total cost center budget is reduced by 17 percent with the reduction in headcount.
- In 2023, one additional Public Engagement Manager position is authorized and funded in the Public Information, Intergovernmental Affairs, and Educational Outreach cost center.
- In 2023, the Public Information, Intergovernmental Affairs, and Educational Outreach cost center will continue the One Water, Our Water campaign, the community advisory council, and stewardship activities with a focus on river cleanups, reduction of single-use plastics, and the Water Drop alert.
- In 2023, the Marketing and Milorganite® budget increases 11.7 percent because the contracts to purchase plastic bag supplies and package Milorganite® product are tied to the Producer Price Index (PPI), which increased 8 percent in 2022. The 29.9 percent increase in the Materials & Supplies line is largely due to the increase in the price of plastics for purchasing bagging supplies for Milorganite®.
- The District's Household Hazardous Waste Collection program contract for waste collection and disposal is budgeted in the Public Information, Intergovernmental Affairs, and Educational Outreach cost center. The contract is budgeted at the 2022 level.
- The Charges to Capital budget increases from the 2022 budgeted level due to the Outreach team playing an increased role in providing public engagement support on District capital projects.

Accomplishments

Collected and disposed of over 1 million pounds of household hazardous waste.

Increased the number of visitors to Jones Island through the Historic Milwaukee Doors Open event by 24% over the 2021 level.

Increased the number of social media followers 5% over the 2021 level.

Hosted a water career fair with a number of employers in the water industry.

Led communication on the EPA's Milwaukee Estuary Area of Concern projects with over 20 partners.

Strategic Goals

Workforce Planning	DEI	Community Engagement	Operations Analysis	Research & Innovation
• Advance the wastewater workforce by exploring opportunities to hire apprentices to work at MMSD. • Ealuate the existing workforce development and career exploration programs to ensure they are meeting the industry's needs.	• Promote the DEI action plan and work to create an inclusive work environment. • Review program audiences to ensure programs are meeting the diverse needs of our region.	• Continue to partner with community members and organizations to increase engagement by those with less access to MMSD.	• Work with stakeholders to determine options for operations at the expiration of the Veolia Water-Milwaukee agreement in 2028.	• Identify research needs for MMSD's biosolids program.

Operational Goals

- Decrease purchase order processing time.
- Maximize public awareness and understanding of MMSD and its activities.
- Collect and evaluate constituent feedback and recommend action.
- Review and recommend legislation that affects MMSD's ability to carry out its mission.

Performance Indicators	2021 Actual	2022 Estimate	2023 Target
% of formal procurements with two or more valid responses	84%	83%	85%
% of contracts awarded to small, women-owned, minority-owned and veteran-owned business enterprises	29%	36%	25%
% of contracts awarded to companies located in the local sanitary sewer service area	61%	40%	50%
Number of participants engaged in internships and job shadowing	55	130	145
Public engagement through the number of social media subscribers	89,238	93,700	98,385
Public engagement through the number of email newsletter subscribers	57,595	66,327	68,401
Number of waterway cleanups through the Adopt-A-River program	216	227	250
Community engagement through the number of students in the environmental outreach program	4,006	4,700	5,000
Keeping waste out of the waterways measured by pounds collected in the Household Hazardous Waste program	1,244,000	1,163,000	1,200,000

Support for the SDGs

The Division helps the District achieve a number of the UN SDGs by ensuring contracts are in compliance with public procurement best practices and support economic development. The Division also promotes community engagement to ensure the District is working as a region to achieve its mission and further SDGs #6, #7, #13, #14, and

The intern program teaches young adults about water resources and the environment.

Other Expenditures

Other Expenditures

Other expenditures include Fringe Benefits, Charges to Capital, and the Unallocated Reserve.

Fringe Benefits

The fringe benefits accounts cover the cost of providing insurance benefits to active employees including medical, dental, vision, life, and disability insurance, unemployment and workers' compensation, Social Security and Medicare, as well as the City of Milwaukee's Employee Retirement System contributions. Retiree benefits funded through the fringe benefit account include health and life insurance.

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Retirement System Contribution	$1,624,065	$1,815,003	$3,615,003	$1,800,000	99.2%
Group Health Insurance	4,204,996	3,923,249	4,587,154	663,905	16.9%
Group Life Insurance	331,750	332,847	330,025	(2,822)	-0.8%
Worker's Compensation Insurance	107,636	120,000	40,000	(80,000)	-66.7%
Social Security	1,531,490	1,551,877	1,500,000	(51,877)	-3.3%
Unemployment Comp. Insurance	7,133	10,000	10,000	0	0.0%
Group Dental Insurance	187,295	212,961	170,000	(42,961)	-20.2%
Disability Insurance	46,209	46,753	45,000	(1,753)	-3.7%
Active Employee Subtotal	$8,040,574	$8,012,690	$10,297,182	$2,284,492	28.5%
Group Health Insurance - Retiree	5,005,707	5,624,163	5,692,369	68,206	1.2%
Group Life Insurance - Retiree	218,372	263,701	220,000	(43,701)	-16.6%
Retiree Subtotal	$5,224,079	$5,887,864	$5,912,369	$24,505	0.4%
Fringe Benefit Total	**$13,264,653**	**$13,900,554**	**$16,209,552**	**$2,308,998**	**16.6%**

Retirement System Contribution

The District is a member agency of the City of Milwaukee Employee's Retirement System (CMERS). CMERS is funded through two methods: employer contributions and member (employee) contributions. In 2013, CMERS adopted a policy for the employer contributions to create a budget stabilization method of funding. The contribution policy requires that employers make contributions to the system based on a set percent of payroll for a five-year period regardless of any individual year's performance. This policy provides predictability for budgeting for all agencies participating in the retirement system. The first five-year period concluded in 2018, and a new five-year contribution level was evaluated and set through 2022. For the District, the rate is 8.77 percent of payroll. Looking forward, CMERS has indicated that there might be additional plan changes beginning with the next five-year window and further information will be known in 2023. The District also makes payment to CMERS for former District staff who transitioned first to employment in the United Water Services operating contract and are still employed with Veolia Water – Milwaukee until their retirement. In addition to the employer contribution, District staff make member contributions through payroll deductions. For all staff hired before 1/1/2014, the deduction is 5.5 percent of payroll. For staff hired on or after 1/1/2014, the deduction is 4 percent; the change relates to plan design changes adopted by CMERS beginning 1/1/2014.

Health Care

The District is self-funded for active and some retiree health care. The cost of health care is offset by active and some retiree contributions, per prior bargaining unit contracts and District policy. In order to protect the District from volatile expenditures related to catastrophic claims, the District subscribes to a stop loss policy that takes

effect after $150,000 has been paid in claims for a single member. Since 2005, the District has averaged three members reaching the stop loss threshold each year. The rising cost of healthcare remains a key challenge for the District's budget. The District's ongoing review with health benefit consultants and the continuance of an employee wellness program have helped to curtail some of the costs, keeping the medical plan cost relatively stable.

Active Employees The 2023 budgeted level is $663,905 higher than the 2022 budget level after considering the 2021 actual expenditures and the 2022 year-end projection. District employees contribute to their premium equivalent contribution for healthcare, which decreases the amount the District pays per active employee. The 2023 budget proposes no change from the 2022 level; employees with the District's single coverage plan contribute $100 per month towards their health insurance and employees with the family coverage plan contribute $270 per month towards their health insurance. As in the past, the District will continue to offer employees a wellness credit for participating in the wellness program.

Retirees The District funds its retiree healthcare obligation on a pay as you go basis. The 2023 budgeted level is $68,206 higher than the 2022 budgeted level after considering the past actual experience and the 2022 year-end projection.

Other Fringe Benefits

The District also offers dental insurance, life insurance, and disability insurance to its employees. The District also has workers compensation and unemployment insurance policies. The 2023 budget is relatively similar to the 2022 budgeted level.

Wellness Committee Rising health care costs have prompted many organizations to look for new ways to lower expenses. One way to lower costs is to improve the health of the District's workers. Healthy people cost less, are more productive, and contribute more to the District's performance. Workplace wellness programs offer ways to help people get healthy and stay healthy. The Wellness Committee helps individuals practice healthy lifestyles and change unhealthy habits to reduce their risks of developing high-cost health problems.

Staff participate in the annual Run4Water charity 5K

The goal of a workplace wellness program is to encourage employees and their families to adopt and practice healthy lifestyles to improve their physical and mental well-being. The goal is achieved by making the work environment a place where:

- Healthy behaviors are promoted, encouraged and supported
- Employees have easy access to programs to help them make better lifestyle choices
- Employees have the opportunity to practice healthy lifestyle behaviors

In 2019, the District introduced Go365®, an employee wellness program powered by Humana. The program incentivizes employees to take a greater stake in their health by giving them the tools and support they need. The program offers resources for employees dealing with everyday stressors like financial, family, and emotional concerns.

Charges to Capital

Charges to capital reflect adjustments to cost center operating expenses, including indirect charges and laboratory charges for work performed for capital projects and facilities planning purposes, and expenditures under the Veolia Water Milwaukee operating contract that relate to the Capital Improvement Program. These accounts are designed to offset operating expenses and appropriately transfer the expenses. In 2023, charges to capital increase 9.1 percent from the 2022 level.

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Direct Charges to Capital	($5,463,661)	($5,055,393)	($5,552,496)	($497,103)	9.8%
Indirect Charges to Capital	(11,664,167)	(10,815,584)	(11,813,673)	(998,089)	9.2%
Charges to Veolia	(191,875)	(200,000)	(200,000)	-	0.0%
Charges to Capital – Other	(347,544)	(365,000)	(365,000)	-	0.0%
Charges to Capital - Total	**($17,667,247)**	**($16,435,978)**	**($17,931,169)**	**($1,495,191)**	**9.1%**

Direct Charges to Capital Direct charges relate to District labor hours associated with work on capital projects. From 2022 to 2023, direct charges to capital increase by 9.8 percent to account for salary increases and an additional two positions in the Capital Program Management cost center to help with capital construction. In 2020-2022, District staff spent a significant amount of time on implementing the new enterprise resource planning software. Once implementation is complete in the first quarter of 2023, it is anticipated that administrative staff will spend less time on capital projects.

Indirect Charges to Capital The District's indirect rate assigns costs chargeable to capital projects and allocates indirect costs on the basis of direct salaries and wages. Indirect costs are costs that are not identified specifically with a particular unit process or final cost objective, including administrative support costs and fringe benefits. The final capital projects indirect cost rate is audited each year by the District's outside auditor and a carry-forward adjustment is made for any surplus or deficit of funds recovered from the indirect cost rate.

Charges to Capital - Veolia In 2023, Veolia will continue to work on a number of District projects and charge its staff time to the Capital Budget. Charges to Capital - Veolia are budgeted at the same level as in 2022.

Charges to Capital - Other These costs include lab analyses for capital projects. The District projects a decrease in the number of capital projects requiring carbon and metal analyses and therefore a decrease in the Lab charges to capital.

Unallocated Reserve

The Unallocated Reserve fund provides a reserve for unanticipated or increased expenses that may arise during the year. The District's Commission must authorize the use of funds from the Unallocated Reserve. Once approved, funds are then transferred from the Unallocated Reserve to specific cost center line-item accounts rather than being expended directly.

	2021 Actual	2022 Amended Budget	2023 Budget	Change from 2022 Budget	% Change from 2022 Budget
Budgeted Unallocated Reserve	$0	$2,145,603	$2,991,555	$845,953	39.4%

The 2023 budgeted level is approximately 2.6 percent of net division expenditures, complying with policy requiring the Unallocated Reserve to be budgeted between 2.0 percent and 3.5 percent of net division expenditures.

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

Milwaukee Metropolitan Sewerage District

260 West Seeboth Street
Milwaukee WI 53204

Date Adopted: October 24, 2022

Adopting the Capital Budget for the 2023 Fiscal Year

RESOLVED, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director's 2023 Proposed Capital Budget, setting forth:

- Total project cost estimates for 230 capital projects totaling $2,780,966,465;
- Anticipated revenues and available funds of the District for capital purposes of $123,027,000 and the anticipated capital expenditures of the District of $232,153,000 resulting in a net local share of $109,126,000 for the fiscal year ending December 31, 2023; and
- The Ten-year Long-range Financing Plan, including $2,141,050,000 in project expenditures and $1,307,700,000 in debt service expenditures for a combined total of $3,448,750,000 in capital expenditures from 2023 through 2032. The capital expenditures are expected to be funded from $1,291,974,000 in tax levies; $299,464,000 in non-member billings; $778,850,000 in District-issued general obligation bonds and notes; $867,298,000 in Clean Water Fund state loans; $74,946,000 in Water Infrastructure Financing and Innovation Act loans; $84,790,000 in federal and state aid and grants; $8,141,000 in interest and other income; and $43,287,000 in uses of available funds on hand for a combined total of $3,448,750,000

is hereby adopted.

I, Anna Kettlewell, Commission Secretary of the Milwaukee Metropolitan Sewerage District, do hereby certify that the above is a true and correct copy of Resolution No. 22-137-10, adopted by the Milwaukee Metropolitan Sewerage Commission at a meeting held on 10/24/2022.

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

Capital Budget

The Capital Budget funds the District's investment in long-term assets supporting the District's mission to cost-effectively protect the quality of the region's water resources.

The 2023 Capital Budget shows the annual amounts approved for expenditures and revenues. The annual financing plan for a fiscal year's anticipated Capital Expenditure Account expenditures. Commission action on the Capital Budget identifies the amount of the tax levy and other sources of funds anticipated for the budget year's capital expenditures. Approval of the Capital Budget by the District's Commission does not in itself authorize any specific expenditures or projects. Expenditure of funds must be in accordance with the District's separate Commission Policies for procurement.

2023 Capital Budget

Revenues/Funding

The main sources of revenue for the capital program are the tax levy and ad valorem-based billings to non-member communities. The 2023 Capital Budget includes a tax levy increase of 3.0 percent as compared to a 3.0 percent increase projected in the long-range financing plan in the 2022 Capital Budget. In addition, the District receives funding through low-interest Clean Water Fund Program (CWFP) loans and issues its own general obligation bonds to finance capital expenditures. In 2023, debt financing provides 23 percent of overall funding of capital project expenditures. Other sources of funds include federal and state aid, interest income, and the use of available funds on hand.

The property tax rate for the 2023 Capital Budget is $1.36 per thousand dollars of equalized valuation. Equalized values for the District are 12.48 percent in 2023 and averages 2.0 percent for the remaining years in the ten-year plan. For nonmember communities, equalized values are 12.09 percent in 2023 and 3.71 percent thereafter.

Expenditures/Disbursements

The District has four capital expenditure accounts: Water Reclamation Facilities, Conveyance Facilities, Watercourse and Flood Management, and Other Projects and Programs. In the 2023 Capital Budget, Water Reclamation Facilities and Conveyance Facilities comprise 21.7 percent and 11.7 percent, respectively, of the budget. Watercourse and Flood Management projects total 5.7 percent of expenditures, and Other Projects and Programs total 19.1 percent of expenditures. The largest portion of the District's capital disbursement in the ten-year plan is for debt service payments. In the 2023 Capital Budget and debt service payments 41.8 percent of expenditures and disbursement.

For further detail on the District's capital expenditures and disbursements, please see the Uses of Funds section of this Capital Summary, each capital account section, and the Debt Service section.

Highlights of the 2023 Capital Budget

The highlights of the 2023 Capital Budget and long-range financing plan include:

- Rehabilitation and replacement of existing facilities
  - Drying and Dewatering Facilities
  - Primary Clarification System Improvements
  - Aeration System Upgrade
  - Mill / Green Bay/ Green Tree MIS Relief
  - NS12 Collector System Improvements
- Watercourse
  - North 30th Street Corridor Wet Weather Relief - West
  - Western Milwaukee
  - Kinnickinnic River Projects
  - Wilson Park Creek
  - Fresh Coast Protection Partnership
  - Milwaukee Estuary AOC Dredged Material Management Facility (DMMF)

Capital Budget Impact on the Operating Budget

The District undertakes life cycle costing in the analysis of capital projects. This includes identifying, when possible, what the change in O&M costs will be following the completion of each capital project. These analyses are useful not only for decision-making to select the lowest life-cycle cost option among competing alternatives, but also for properly forecasting expenditure changes to be included in future O&M budgets. Operating and maintenance costs should be carefully considered in deciding which projects move forward in the CIP.

The majority of the District's CIP is focused on the improvement, replacement, or a rehabilitation or of existing water reclamation and conveyance infrastructure rather than the construction of new facilities to expand capacity. As such, it is often the case that replacements do not result in changes from the current level of budgeted O&M expenditures. In project summaries, the O&M impact will be stated as "no significant impact".

When the District CIP undertakes new initiatives or new technologies, it is more likely to result in new O&M expenditures or incremental changes to ongoing O&M expenditures. Sometimes the project could result in avoided costs or savings, such as the Landfill Gas Project. In CIP project summaries, the O&M impact section will describe the changed condition, start date, and annual budget impact.

In addition, the District's capital budget includes capital programs which support the District's capital infrastructure and mission through improvements to municipal or privately-owned infrastructure. In such cases, the District's capital expenditures would generally not result in changes to the current level of O&M expenditures (as the resulting improvements are not operated or maintained by the District) but instead help to preserve the capacity and long-term cost-effective operation of the District's system.

Guide to the 2023 Capital Budget

The 2023 Capital Budget is divided into seven sections: Summary, Capital Sources of Funds, Water Reclamation Facilities, Conveyance, Watercourse and Flood Management, Other Projects and Programs, and Debt Service. The Summary section provides an overview of Capital Budget sources and uses of funds and discusses how capital project estimates are made and refined during the life cycle of a capital project. Sources of Funds provides additional detail on each source and related budget assumptions. The following four sections organize the capital accounts and describe all projects funded in 2023, as well as any changes in project scope or total project cost from the 2022 Adopted Capital Budget. In the 2023 Capital Budget, the estimated cost of each project is expressed in current dollars. An escalation factor of 2.0 percent for future years cost is included in a separate capital project account. The final section provides information on the District's debt obligations and debt service payments.

2023 Capital Budget: Summary of Revenues and Expenditures

(in thousands)

Revenues and Expenditures	2021 Actual	2022 Amended Budget	2023 Capital Budget	Change from 2022 Budget	% Change from 2022 Budget
Revenues					
Tax Levy	$102,873	$105,948	$109,126	$3,179	3.0%
Non-member Communities	27,514	26,705	26,091	(614)	-2.3%
Interest and Other Income	595	22	1,052	1,030	4619.0%
Federal and State Aid	3,955	3,044	4,279	1,235	40.6%
CWFL Loans	18,915	24,095	42,555	18,460	76.6%
WIFIA Loans	-	902	-	(902)	-100.0%
District Bonds and Notes	49,866	50,000	62,000	12,000	24.0%
Total Revenues	**203,718**	**210,716**	**245,104**	**34,388**	**16.3%**
Available Funds					
Use of (Additions to) Available Funds	17,318	(1,651)	(12,951)	(11,300)	684.4%
Total Revenues and Available Funds	**$221,036**	**$209,065**	**$232,153**	**$23,088**	**11.0%**
Expenditures					
Capital Program Group					
Water Reclamation Facilities	48,274	37,294	50,467	13,172	35.3%
Conveyance Facilities	9,458	16,918	27,094	10,176	60.1%
Watercourse and Flood Mgmt	13,542	16,364	13,233	(3,131)	-19.1%
Other Projects	32,165	40,666	44,363	3,697	9.1%
Total Capital Program Group Expenses	**103,439**	**111,243**	**135,156**	**23,914**	**21.5%**
Debt Services Payments*					
From Tax Levy and Available Funds	111,954	97,823	96,997	(826)	-0.8%
Reserved in Debt Service Fund	5,643	-	-	-	0.0%
Debt Service	117,597	97,823	96,997	(826)	-0.8%
Total Expenditures	**$221,036**	**$209,065**	**$232,153**	**$23,088**	**11.0%**
Tax Rate per $1,000 of Equalized Value	$1.58	$1.49	$1.36	($0.13)	-8.5%

Note: The sum of rounded components may not equal the total due to rounding.

Capital Improvement Program and the Long-Range Financing Plan

While the 2023 Capital Budget shows the annual amounts approved for expenditures and revenues, expenditures funded through the Capital Budget are typically for multi-year projects. Therefore, long-term planning is a critical facet of the District's capital budgeting process for both sources and uses of funds.

Long-Range Financing Plan

Providing sustainable, long-term services requires sound financial planning. The intent of the District's long-range financial planning effort is to ensure smooth, uninterrupted delivery of services into the future. The long-range financing plan approved by the Commission identifies the level of funding from each source for capital expenditures for the period 2023 through 2032. District Finance staff examine challenges and the associated opportunities to project the District's capital requirements over the next ten years. Staff then develop future scenarios to come up with strategies and tactics to help the District navigate the long-term financial challenges. The District's long-range financing plan uses projections that are preliminary and may change. The District believes that it has identified the major capital projects expected to be required to comply with current statutes and regulations applicable to the District and the services it provides and further believes that, in the absence of significant changes to these statutes and regulations, the current projections will be sufficient to allow the District to meet its mandates and fulfill its statutory requirements.

The following objectives are the cornerstone of the District's long-range financing plan:

- At least 20 percent average cash financing of project expenditures over the ten-year financing plan
- Outstanding debt no more than 2.5 percent of equalized property value
- Consistency with the implementation of current approved facility plan

In 2022, while developing the budget, staff proposed and the Commission adopted a change in debt policy. The change in Commission Policy 1-73.18, Debt Policy, modifies the average cash financing goal in the long-range financing plan to a 20% average over ten years, rather than the policy that had the goal of 25% average cash financing over six years. Changing this factor is not expected to have rating implications. In addition, the policy is updated to reflect a method of sale to include a direct sale to the United States federal government, such as the Water Infrastructure Finance and Innovation Act of 2014, in addition to minor changes to broaden the allowable projects that the District can pursue debt with the State of Wisconsin Clean Water Fund Program.

Also over the summer while creating the budget, staff proposed and the Commission adopted a change in the capital budget policy. The change in Commission Policy 1-15.02, Capital Budget, modifies the District's capital project plan and long-range financing plan to be a 10-year plan from a six-year plan. The change was discussed with the District's financial advisor, Robert W Baird. Changing the long-range financing plan from six to 10 years could result in a favorable response from rating agencies if the plan is meaningful and based on project needs. Rating agencies will recognize that there is greater confidence in the accuracy of the projections in the near term than in later years of the plan. Significantly increasing the projects included in the six-year plan is a factor that could negatively affect the District's bond ratings; however, the additional project impact may be offset by the extension of the six-year plan to a 10-year plan if that 10-year plan shows a reversion to more historically normal capital funding levels. The 2023 long-range financing plan does show the increased expenditures and a return to historical normal levels.

The uses, or expenditures, in the capital budget are typically for multi-year projects; therefore, planning is a critical facet of the District's capital budgeting process. As such, the District prepares a Capital Improvement Program (CIP) to ensure that the District appropriately plans for future capital needs. The CIP includes all known projects and identifies their start and end-dates by phase. As new projects are identified each year, they are included in the CIP. Depending on priorities and financial constraints, projects in the CIP may be advanced or delayed to meet objectives.

Projects included in the CIP are primarily identified through the District facilities plans, watercourse and flood management, asset management and annual requests, and cost reimbursement capital programs. These are described below.

2050 Facilities Plan In 2020, the District completed and submitted for DNR review a thirty-year facilities plan to address future population, land use, and wastewater asset needs within the District's service area, using an asset management approach, to identify capital improvements necessary for wastewater, conveyance, treatment, and watercourse and flood management needs through 2050.

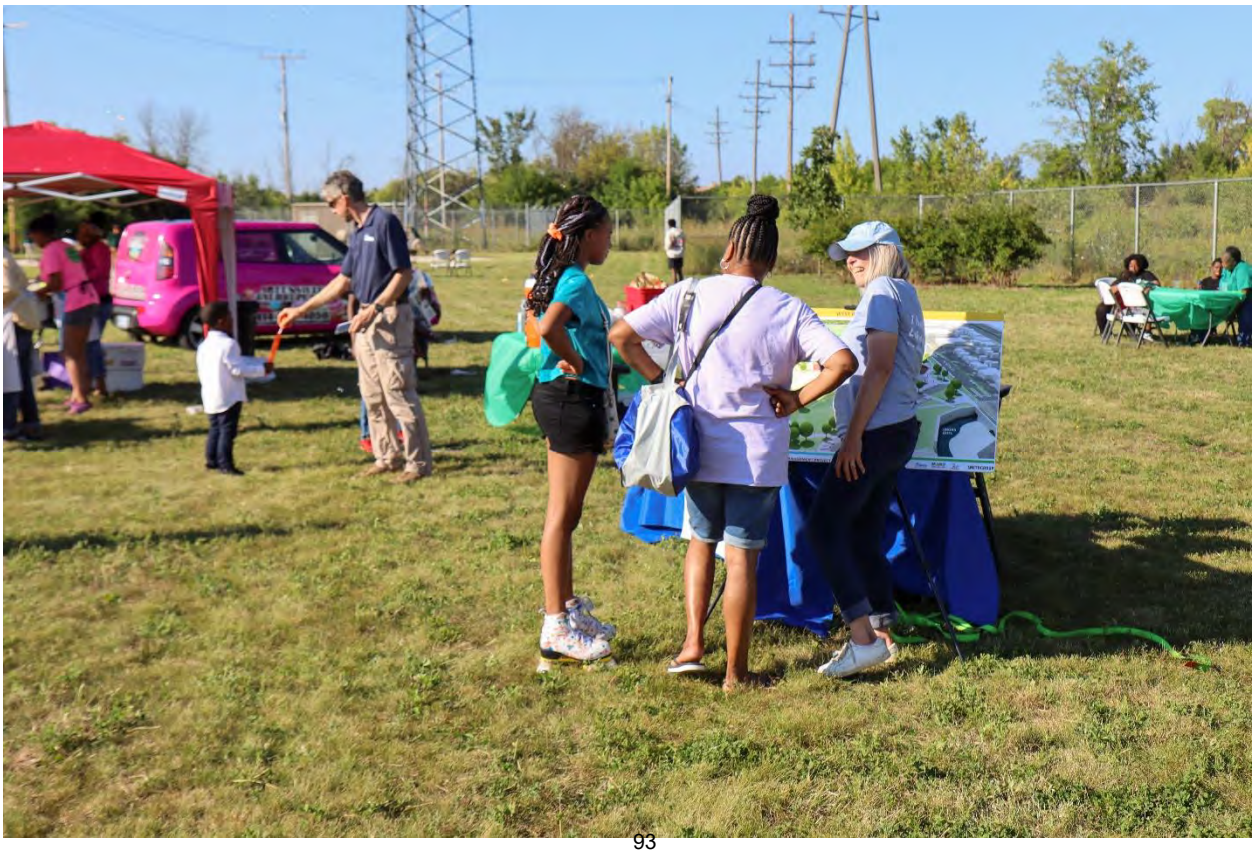
Watercourse and Flood Management There are six watersheds within the District's service area: the Kinnickinnic River, Lake Michigan Tributary Drainage, the Menomonee River, the Milwaukee River, Oak Creek, and the Root River. The District has discretionary authority to perform flood mitigation on these waterways. This work includes rehabilitation and removal of concrete, lowering floodplains and widening of channels for flood management purposes, and construction of detention basins, pumping stations, and levees.

Asset Management and Annual Requests Each year as new issues are identified by the District, new projects may be added to the CIP. Over the past ten years, the District has made a significant effort to increase its asset management efforts. Proactively managing assets can help the District plan for the future and replace assets appropriately rather than prematurely or once an asset has failed. The District manages 23,115 conveyance and water reclamation facility assets. The Asset Management Team has worked to assess these assets and identify their estimated end of life. The Asset Management Team is also working to assess the consequence of failure or the risk to the District and the public it serves if the asset fails. More than 74 percent of MMSD's conveyance and water reclamation facility assets have been assessed for consequence of failure with 6 percent have a moderate to high consequence of failure. The District has used this information to plan projects to replace the assets at risk of failure before they fail. Of the 684 high-risk assets, more than 35 percent are being worked on in a project to mitigate the risk. The remaining 442 high risk assets, or less than 2 percent of all assets, are currently being evaluated to confirm confidence in the data quality and to identify the most appropriate mitigation strategy.

Cost Reimbursement Capital Programs The District administers several capital programs that provide funding for municipal work that benefits the District's system, some of which include municipal cost reimbursement programs.

Projects in the CIP reflect current cost and scope estimates as of a point in time in the individual project's life cycle. The current cost estimate for individual projects is expressed in the budget-year dollars. The 2023 long-range financing plan estimates $2,150,557,000 in project expenditures and $1,308,274,000 in debt service expenditures for a combined total of $3,458,831,000 in capital expenditures from 2023 through 2032.

District capital projects may include large-scale flood management which impacts local residents and neighborhood landscapes. To help the District design and implement successful projects, staff regularly meet with residents to explain projects and get feedback. Resident feedback can help build engagement and ownership of the project and the end result.



2023 Capital Budget
Long-Range Financing Plan
(Dollars in thousands)

	Estimate 2022	Budget 2023	Forecast 2024	Forecast 2025	Forecast 2026
Available Beginning Balance	$66,790	$68,440	$81,391	$60,828	$45,984
Tax levy	$105,948	$109,126	$112,400	$115,772	$119,245
Non-member Billings	$26,653	$26,091	$27,227	$26,769	$22,923
Interest & other	$3,044	$1,052	$1,254	$929	$696
Federal, State Aid and Grants	$619	$4,279	$24,192	$24,258	$4,326
CWF Loans	$24,095	$42,555	$75,497	$95,193	$135,735
WIFIA loans	$0	$0	$0	$0	$0
District Bonds/Notes	$52,253	$62,000	$45,000	$93,000	$130,000
Total revenues	$212,612	$245,104	$285,570	$355,921	$412,926
Use of (Additions to) available funds	($1,651)	($12,951)	$20,563	$14,844	$9,712
Total sources	**$210,962**	**$232,153**	**$306,133**	**$370,765**	**$412,926**
Water Reclamation Facilities	$37,294	$50,467	$49,425	$89,074	$129,435
Conveyance Facilities	$16,918	$27,094	$57,252	$22,291	$31,566
Watercourse & Flood Mgmt.	$16,364	$13,233	$21,291	$25,087	$63,748
Other Projects / Programs	$40,666	$44,363	$75,123	$125,230	$78,954
Total Projects/Programs	$111,243	$135,156	$203,091	$261,681	$303,702
Existing MMSD GO debt service	$37,985	$35,216	$34,691	$33,189	$33,190
Existing CWFL debt service	$56,925	$58,267	$57,362	$55,110	$50,076
Existing Other Debt Service	$1,691	$1,691	$1,690	$1,690	$1,689
Future Clean Water Fund Loan Debt Service		$506	$3,622	$8,763	$15,464
Future WIFIA Loan Debt Service (5Yr Dfr)		$0	$0	$0	$0
Future MMSD GO debt service		$1,318	$5,676	$10,332	$18,516
Total Debt Service	$96,601	$96,997	$103,042	$109,083	$118,935
Total Uses	$207,845	$232,153	$306,133	$370,765	$422,637
Ending balance	$68,440	$81,391	$60,828	$45,984	$36,272
% Cash Financing Average					
% Change in Tax Levy		3.0%	3.0%	3.0%	3.0%
Tax rate / $1000	$1.49	$1.36	$1.38	$1.39	$1.40
G.O. Debt at Year-end	$756,546	$868,313	$911,684	$1,019,960	$1,202,032
Debt as % of Eq. Value	1.00%	1.02%	1.05%	1.15%	1.33%

Notes

1. 2022 beginning balance is net of $45.0M reserved for municipal capital reimbursement programs: Private Property I/I and Green Solutions.
2. Tax levy growth limited to 3% for 2023-2027 and 5% thereafter. To achieve tax rates shown, available working capital is placed in a debt service fund to abate the tax levy, as necessary.
3. Change in District equalized value determined in 2022 for use in 2023 is 12.48% and averages 2.0% thereafter; and non-member determined in 2022 for use in 2023 is at an average of 12.09% and averages 3.71% thereafter.
4. Investment of available funds at 1.5% interest rate.
5. Future District bond issues structured as 20-year level debt service at 4.25% in 2023 and increasing 25 basis points annually through 2032.
6. Future Clean Water Fund Loan debt service assumed at 55% of District bond rate, or 2.34% to 3.00% from 2023 through 2032.
7. WIFIA debt service is assumed for 49% of WIFIA projects and includes a 5-year debt service deferral.
8. Taxable debt is assumed for certain Green Infrastructure Projects on private property that are not eligible for tax-exempt financing.

Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030	Forecast 2031	Forecast 2032	10Y Total (2023-2032)
$36,272	$39,795	$28,255	$37,072	$53,924	$79,888	
$122,823	$128,964	$135,412	$142,183	$149,292	$156,756	$1,291,974
$24,160	$17,189	$22,046	$40,393	$46,381	$46,285	$299,464
$557	$604	$433	$573	$820	$1,223	$8,141
$4,396	$4,515	$4,589	$4,666	$4,744	$4,825	$84,790
$127,682	$106,311	$84,109	$119,679	$78,513	$2,024	$867,298
$12,465	$28,984	$5,150	$4,146	$146	$24,056	$74,946
$91,000	$94,350	$105,000	$61,000	$80,000	$17,500	$778,850
$383,098	$380,917	$356,739	$372,639	$359,896	$252,668	$3,405,463
($3,523)	$11,540	($8,817)	($16,852)	($25,964)	$54,735	$43,287
$379,560	**$392,457**	**$347,922**	**$355,787**	**$333,932**	**$307,404**	**$3,448,750**
$112,331	$86,493	$94,424	$127,696	$110,233	$30,866	$880,443
$41,699	$45,533	$4,700	$5,453	$6,472	$22,268	$264,328
$70,625	$98,299	$85,842	$48,973	$41,984	$68,375	$537,656
$26,034	$22,507	$21,980	$22,034	$19,054	$23,343	$458,623
$250,690	$252,832	$206,946	$204,156	$177,743	$144,851	$2,141,050
$33,120	$33,054	$27,757	$27,742	$24,862	$24,862	$307,683
$41,492	$35,029	$25,727	$25,048	$18,022	$11,863	$377,997
$1,689	$1,688	$1,688	$1,687	$1,687	$0	$15,200
$24,246	$32,411	$39,298	$45,581	$53,008	$57,138	$280,037
$408	$2,025	$3,632	$3,711	$4,891	$9,649	$24,315
$27,915	$35,419	$42,874	$47,861	$53,718	$58,840	$302,468
$128,870	$139,625	$140,976	$151,631	$156,189	$162,352	$1,307,700
$379,560	$392,457	$347,922	$355,787	$333,932	$307,404	$3,448,750
$39,795	$28,255	$37,072	$53,924	$79,888	$25,153	$25,153
						20%
3.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
$1.42	$1.46	$1.50	$1.55	$1.59	$1.64	
$1,359,935	$1,526,464	$1,614,839	$1,706,371	$1,851,045	$1,799,968	
1.47%	1.62%	1.68%	1.74%	1.85%	1.76%	

Uses of Funds

The Capital Budget funds capital expenditures and disbursements in four project-related capital expenditure accounts and debt service. The District defines a capital expenditure and disbursement as the costs of acquiring, purchasing, adding to, leasing, planning, designing, constructing, extending, and improving all or any part of a sewerage system and of paying principal, interest or premiums on any indebtedness incurred for these purposes. In 2023, the District plans to spend $135.2 million on capital projects. This represents a 21.5 percent increase from the 2022 budgeted level of $111.2 million. Of the total 2023 capital budget, the District will spend $50.5 million on Water Reclamation Facilities; $27.1 million on Conveyance Projects; $13.2 million on Watercourse and Flood Management Projects; and $44.4 million on Other Projects and Programs. Debt service for principal and interest payments on District bonds and State Clean Water Fund Program loans decreases by 0.8 percent from 2022 budgeted level, to $97.0 million.

Capital Projects and Capital Programs

Capital projects include any of several activities which are integrally related to and may result directly in the creation of or modifications to a District asset. Such activities include, but are not limited to, feasibility studies, facilities planning studies, engineering and design studies and plans, and actual construction. A single project may consist of one or more of these activities and may or may not include construction.

A capital program, on the other hand, is a program that provides funding to the municipalities the District serves so that the municipality may do work that is mutually beneficial to both entities. The District administers several capital programs that provide funding for municipal work that benefits the District's system, some of which include municipal cost reimbursement programs.

Project Identification

The District uses a project numbering system and these project numbers are used throughout the budget. In order to facilitate the use of the new software some existing projects have been renumbered and are identified as such in the project descriptions.

Project Descriptions For each project with anticipated expenditures in 2023, there is a description included in this document. Each of these projects also includes a table with summary information indicating the start and finish dates. Note that these dates represent the achievement of a major milestone, such as substantial completion, and funds may be included after these dates for close-out or other activities.

Inflation and Cost Estimates All projects listed in the 2023 Capital Budget reflect current (2022) dollars, with an escalation factor of 5 percent. This increase is lower than the current rate of inflation and was selected based on the uncertainty inherent in project cost projections. The total project cost includes all estimated costs for activities to complete a single project. Depending on the total project cost, the inflationary impact may appear as a significant dollar increase. Inflation assumptions are included as a capital expenditure for each capital account in the years 2023-2032 to provide a reflection of overall expenditures to be financed in the out-years of the long-range financing plan. The methodology used is seventy-five percent of projected increases in the Consumer Price Index, although comparisons were made to other indices including the Engineering News-Record index for construction costs. This approach recognizes that a significant amount of project expenditures are committed in prior years. Moreover, project scope and schedule changes in out-years allow a degree of flexibility in the estimates. The 2023 Capital Budget includes each capital project's total project cost in a table with each project description. The policy provides emphasis on project expenditure control for the total project cost. Projects in the financing plan have been included based on current cost and scope estimates. As these projects progress through their project life cycle, refinements are made to cost and scope.

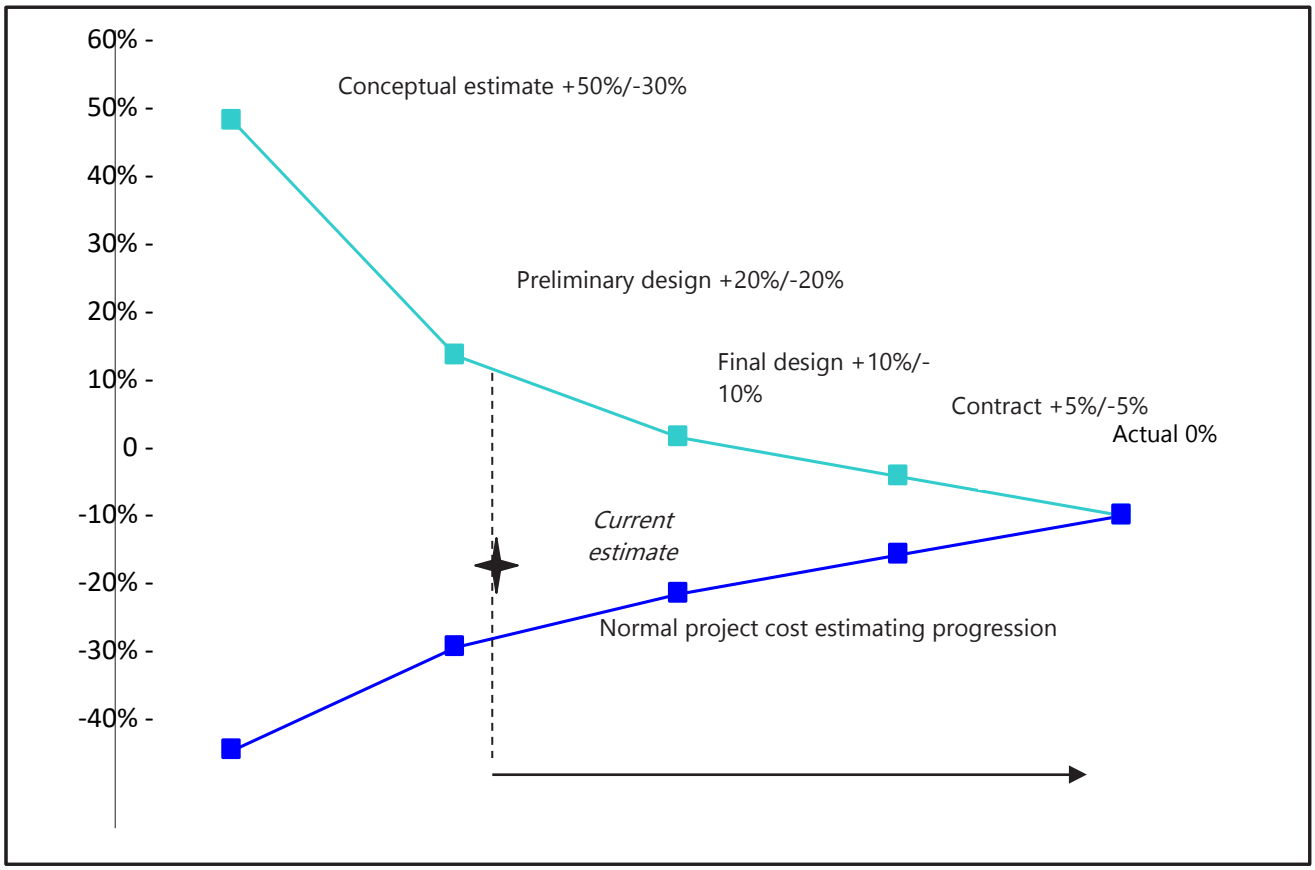
An individual project's total project cost may also increase as inflationary impacts are accounted for in future budget requests. A project's stage in its life cycle will determine the impact of inflation. As an example, a project that is under

construction has an inflation factor built into the construction contract, whereas a project under design will likely have cost increases solely associated with inflation of labor and material costs. The overall cost of the Capital Improvement Program will not be impacted by this annual adjustment, as noted above, inflation is accounted for in total in each capital account, not by project. The current stage of a project within its life cycle is indicated by a basis of estimate. Each project in the Capital Improvement Program uses a basis of estimate, as defined below.

CE – Conceptual Estimate IP – In Progress Estimate PE – Preliminary Engineering Estimate
BE – Bid / Award Estimate DE – Design Estimate

As projects move through the project life-cycle, cost estimates become more refined. Cost estimates for capital projects can change dramatically for a variety of reasons. A project may be conceived in a facilities plan or by District staff with an initial cost estimate. As the project is further defined, the cost estimate may change as refinements are made, actual quantities of materials needed for the project are determined, and site conditions are more thoroughly investigated. Even after construction contracts are awarded actual construction costs may change through contract modifications for differing site conditions, contaminated soils, and field conditions that are different than anticipated in the design. Industry standards for a conceptual estimate, for example, indicate that the final construction amount may be 50 percent higher or 30 percent lower that the estimate. As the project is more developed, the cost estimates become more accurate. After the construction award is made, the average project's final cost may be between plus or minus 5 percent of the original estimated total project cost, including the amount of the construction contract award.

Project Life Cycle Impact on Total Project Cost Estimate
Expenditure Estimate Phase Fluctuation

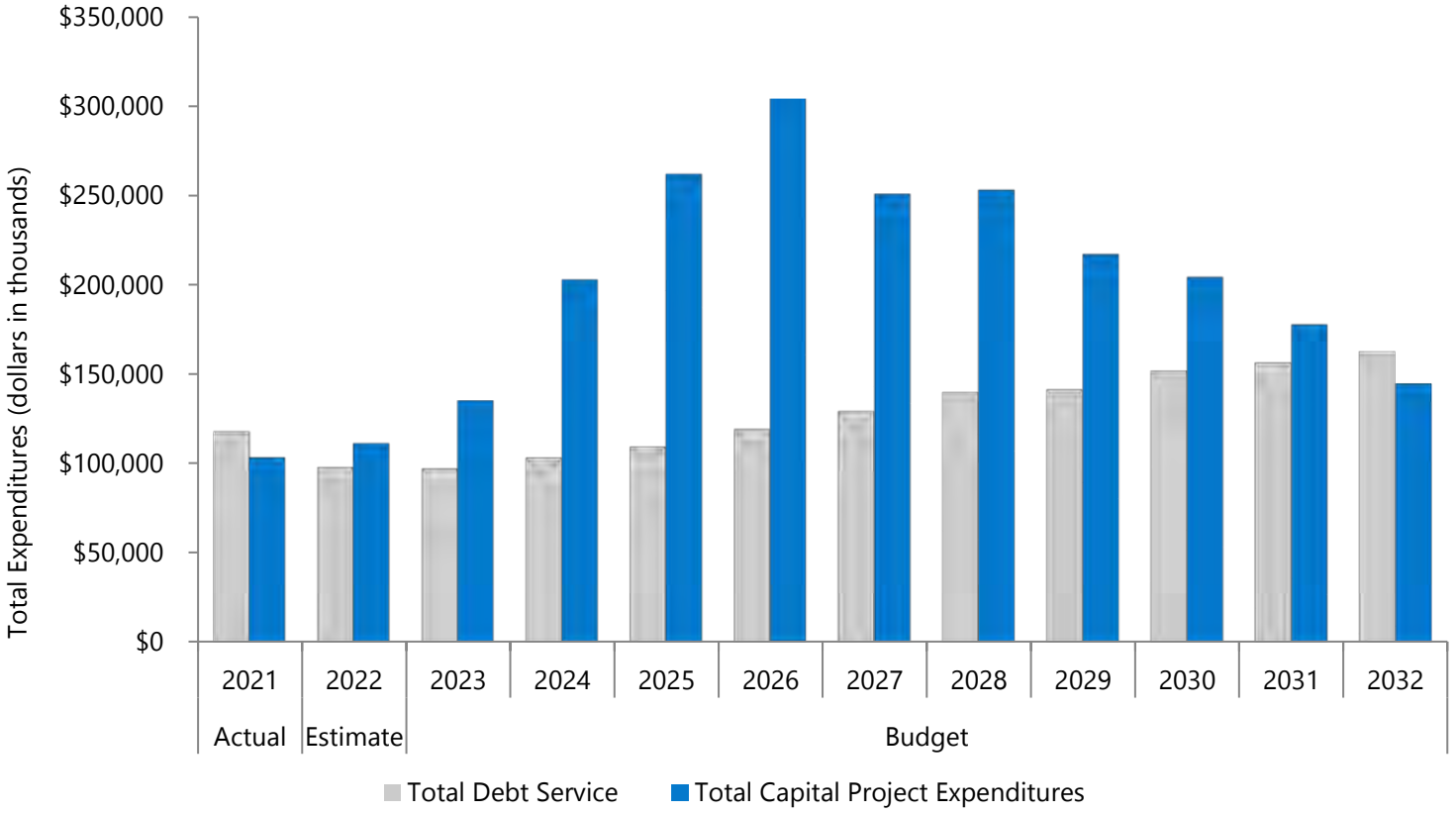


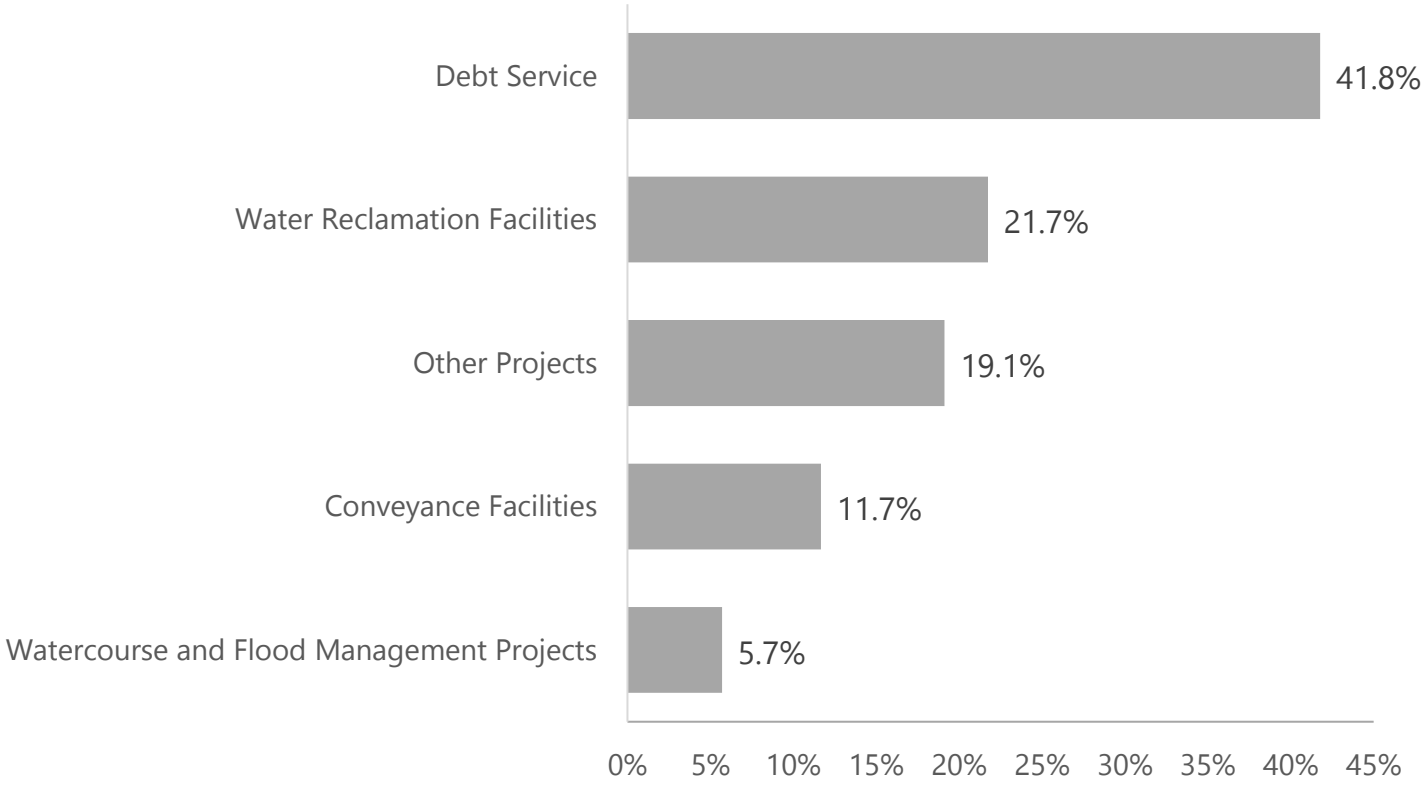
Debt Service

For each District-issued general obligation bonds, notes, or low-interest loan from the Clean Water Fund Program, State law requires the District to levy an irrepealable, direct annual tax in an amount sufficient to pay the principal and interest on the bonds, notes, or loans for the following year. The tax levy needed to fund the debt service may be reduced in any year by the amount of any surplus money in the Debt Service Fund available to pay debt service. Gross debt service to be paid in 2023 is estimated to be $97.0 million.

For more information about Debt service, please refer to the *Debt Service* section in the Capital Budget.

Total Uses of Funds
2023 – 2032 Capital Improvement Program And Debt Service
$3,448,750,000





Outreach activities help local residents engage in MMSD projects.

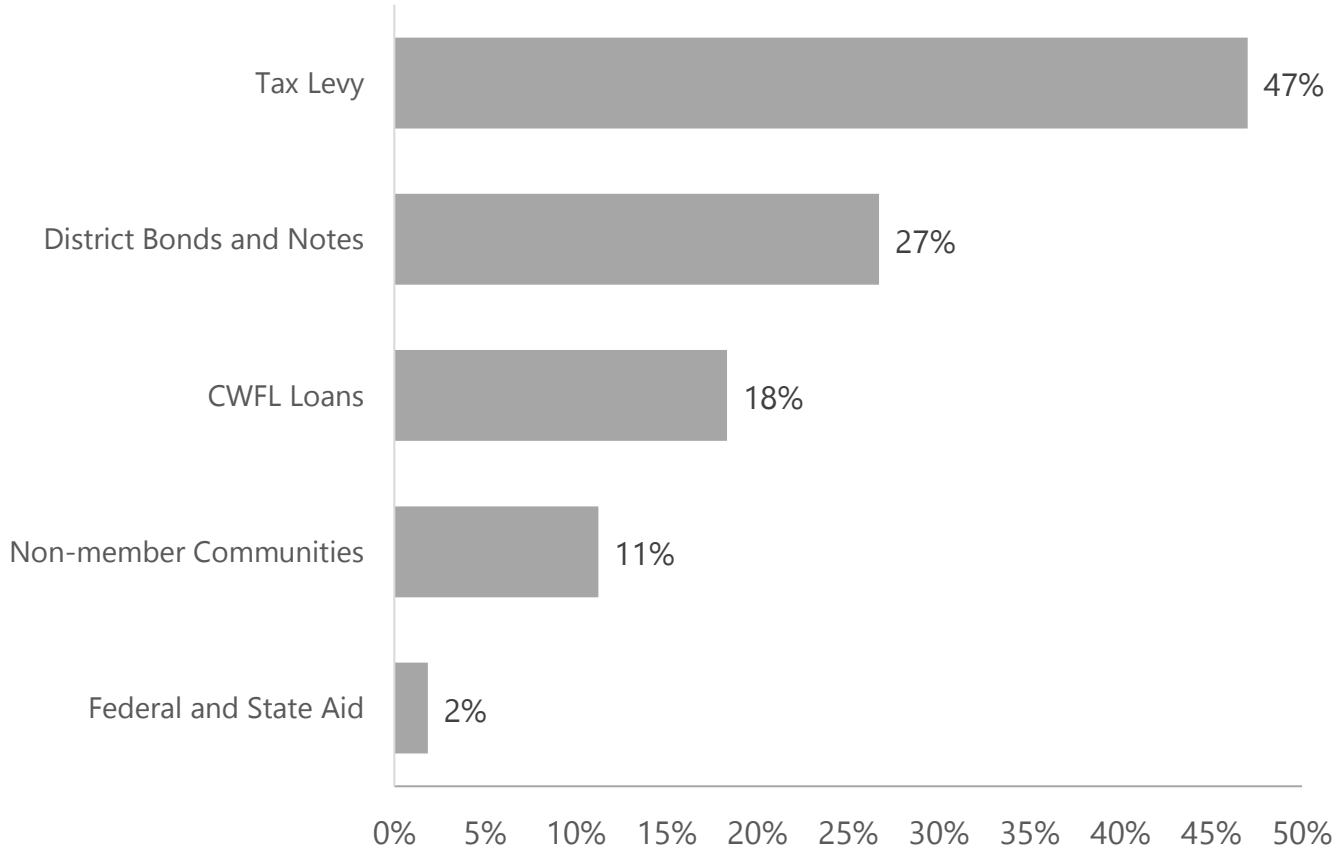
Capital Sources of Funds/Revenues

The District uses a variety of sources to fund the capital program with an objective 20 percent average cash financing of project expenditures over the ten-year financing plan, and outstanding debt no more than 2.5 percent of equalized property value for member communities.

The District's primary source of revenue is the tax levy. Other sources of funding and revenue for the Capital Budget include:

- Non-member billings
- Federal and State Aid
- Interest and other income
- Loans
- Bonds
- Debt Service Sinking Fund and Other Available Funds

Total Sources of Funds
2023 – 2032 Long-Range Financing Plan
$3,448,750,000



Tax Levy

Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
Tax Levy	$102,873	$105,948	**$109,126**	$6,264	3.0%

The tax levy is the main source of revenue for the capital program and is used to finance the acquisition, extension, planning, design, construction, adding to or improvement of land, waters, property, or facilities for sewerage purposes, and to pay principal and interest on bonds, notes, or loans as provided in the fiscal year capital budget. The tax is levied upon all taxable property in the District (as equalized for State purposes), pursuant to Sec. 200.55(6), Stats., a non-repealable, direct annual tax in an amount sufficient to pay the principal of and interest on the District-issued bond or notes or low-interest loans from the Clean Water Fund Program for the following year. The District's tax levy is carried on to the tax roll of each city, town, or village wholly or partially within the boundaries of the District and collected in addition to all other taxes and in the same manner and at the same time, all as provided by law and in addition to all other State taxes. In any given year, the amount of any surplus funds in the Debt Service Fund available to pay debt service is used to reduce the tax levy.

In 2023, the tax levy is $109.1 million, a 3.0 percent increase from the 2022 budgeted level. The tax levy results in a tax rate of $1.36; a decrease of $0.13 per $1,000 of equalized value from $1.49 per $1,000 for 2022. The decrease in the tax rate is driven by changes in District equalized value. The equalized value of the District's members increased by approximately 12.48 percent, resulting in a decrease in the tax rate by 8.73 percent.

Non-member Billings

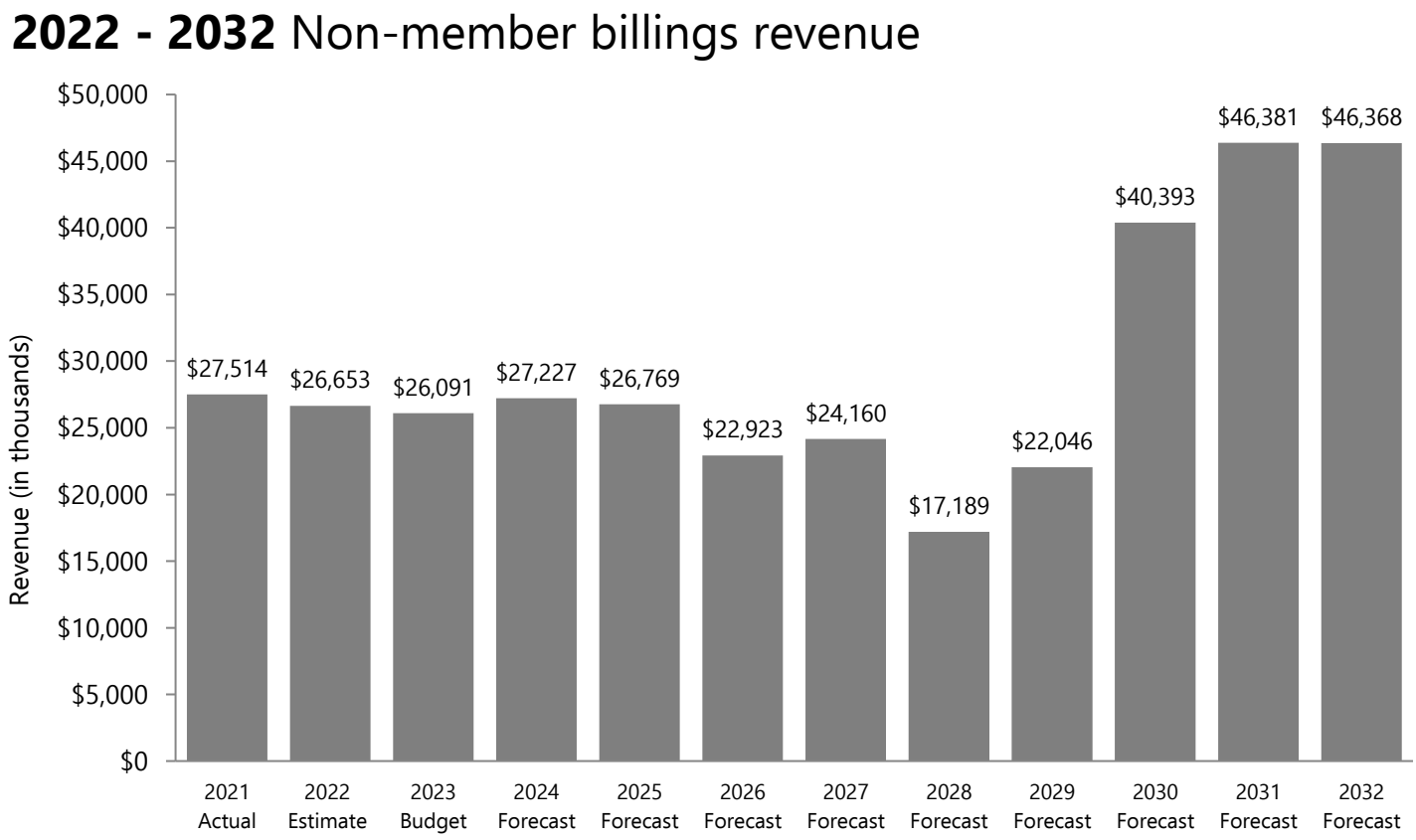
Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
Non-member billings	$27,514	$26,705	**$26,091**	($614)	-2.3%

Non-member billings come from ten communities outside the District's legal boundary but within the District's service area. Non-member communities are billed a capital charge in place of levying a property tax. Non-member communities receive a billing rate credit for watercourse and flood management projects to which those communities are not tributary. In September 2017, the Commission approved a policy change to allow financial billing credits to non-member communities that opt out of the District's green infrastructure (GI) program.

In 2023, non-member billings are budgeted at approximately $26.0 million, a decrease of $614,000 or 2.3 percent from the 2022 budgeted level.

Non-member communities receive a billing rate credit for watercourse and flood management expenditures to which those communities are not tributary. Ten municipalities have opted out of District green infrastructure programs, and if a municipality elects that option, then the District does not spend money on green infrastructure in that municipality and the municipality also receives a green infrastructure credit. Once a non-member municipality opts out of the District's green infrastructure initiatives and requests the green infrastructure credit, it will remain in effect until the non-member municipality requests to opt back in. On an annual basis a non-member municipality may elect to opt back in. Once a municipality opts back in, it cannot opt back out in future years.

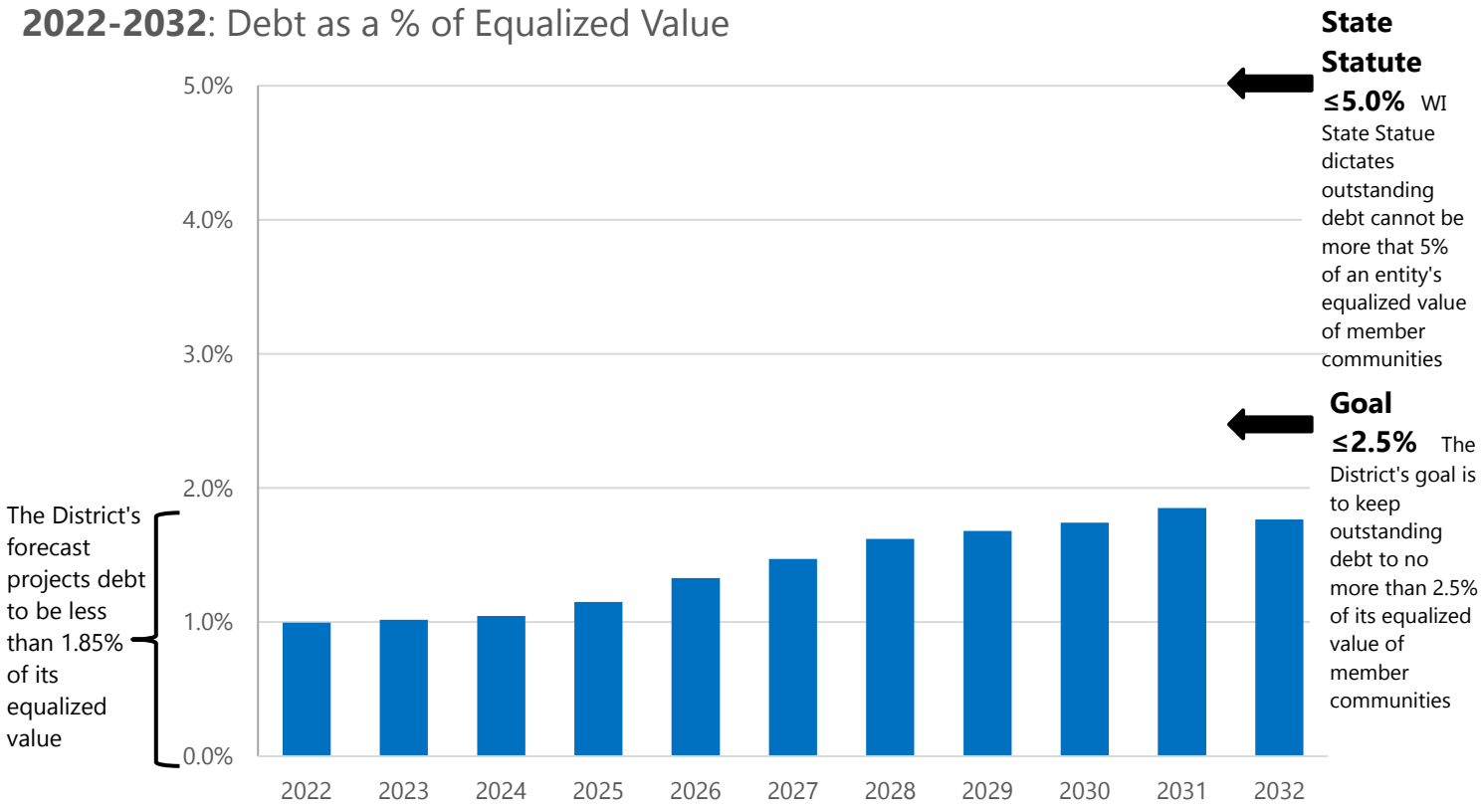
The chart below shows non-member billings and the impact of the watercourse credit and green infrastructure credit estimate. As watercourse expenditures on non-tributary watercourses or green infrastructure program expenditures decrease at the end of the forecast period, the estimated credit also decreases and increases overall non-member billings. See *Watercourse and Flood Management* and *Other Projects* capital account sections for further detail.



District Bonds & Notes

Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
District Bonds & Notes	$49,866	$50,000	**$62,000**	$12,000	24.0%

Per Commission Policy 1-73.18, Debt Policy, the District intends to keep outstanding general obligation debt to 2.5%, or 50 percent of the limit prescribed by the State of Wisconsin Statute, Section 67.03 which has a limit of 5 percent of the equalized valuation of the taxable property within the District. Also, the District shall maintain debt funding levels consistent with its credit objectives and long-range financing plan. The District typically issues 20-year, level payment, long-term debt in the form of its own general obligation bonds or notes.



In 2020, District General Obligation debt was Climate Bond certified. The District can use this designation for bonds issued through the end of 2023 for eligible project work. The District is the second wastewater agency and fourth overall to receive the climate bond designation. This is more stringent than a general green bond designation and demonstrates the District's commitment to its goal of ensuring clean water.

In 2023, the District plans to issue $62 million in new bonds and an additional $726.9 million from 2024 through 2032.

Loans

Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
Loans	$18,915	$24,095	**$42,555**	$18,460	76.6%

Debt sold directly to the State of Wisconsin will be used when the District undertakes capital projects that are eligible to receive below-market rate loans from the State of Wisconsin Clean Water Fund Program, established under section 144.21 and 144.2415 of Wisconsin Statutes, that provides low-interest loans for the construction of wastewater treatment works, non-point source pollution projects and estuary projects. In addition, and situationally contingent, the District may use other sources of loans that may provide zero or reduced-rate benefits for certain projects, such as energy efficiencies.

In 2023, the District expects to receive approximately $42.6 million from State Clean Water Fund Program loans to fund capital projects and an additional $824.7 million from 2024 through 2032.

Interest and Other Income

Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
Interest and Other	$595	$22	**$1,052**	$1,030	4619.0%

The District earns interest by investing its available cash balance. Per Commission Policy 1-73.17, Investment Policy, the District may invest funds in accordance with all District policies, State statutes, and Federal regulations to achieve preservation of capital and protection of investment principal, sufficient liquidity levels, appropriate levels of diversification, and attachment of a market rate of return no less than the Local Government Investment Pool Fund. The investment of available funds is budgeted at 1.50 percent.

Other income may include revenues from the sale of capital assets, or project-specific payments from private or public sources.

Federal and State Aid and Grants

Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
Federal and State Aid and Grants	$3,955	$3,044	**$4,279**	$1,235	40.6%

The District seeks grant opportunities from a variety of federal and state sources to fund capital projects.

In 2023, the District expects to receive approximately $2.3 million in state aid for tax exempt computers and personal property tax exemption and $2.0 million principal forgiveness from the State of Wisconsin Clean Water Fund Load program.

Water Infrastructure Financing and Innovation Act (WIFIA) Loan

Source of Funds (in thousands)	2021 Actual	2022 Budget	**2023 Budget**	Change from 2022 Budget	% Change from 2022
WIFIA Loan	$0	$902	**$0**	($902)	-100.0%

The District is pursuing a Water Infrastructure Financing and Innovation Act loan as part of the 2022 budget process. This loan would account for the financing of 49 percent of eligible expenditures for the Wilson Park Creek, Kinnickinnic River, and the Dredged Materials Management Facility (DMMF) projects. The remaining 51 percent is funded by District General Obligation bonds. In 2023, the District expects to receive approximately $0 in WIFIA loan reimbursements.

Debt Service Sinking Funds

In accordance with section 67.11 (1) of the Wisconsin Statutes the District is required to establish and maintain a debt service fund for the payment of principal and interest on bonds and notes used in financing its capital improvements program. The District maintains a separate account for each of its own outstanding debt issues and one account for debt obtained through the State of Wisconsin Clean Water Fund Loan Program.

Annually, State law requires the District to levy an irrepealable tax sufficient in amount to pay the principal and interest on the debt as it comes due in the following year. Taxes collected from this levy are placed into the debt service fund account and used to pay the annual debt service. The required tax levy may be abated, or reduced, in any year by the fund balance available in the Debt Service Fund. Earnings from the investments in the debt service fund accounts, remain, until used, a part of the debt service fund accounts.

Money shall not be withdrawn from a debt service fund and used for any purpose other than the purpose for which the fund was created until that purpose has been accomplished. After all of the outstanding debt has been paid and retired, any balance in any debt service fund account may be transferred out and used as directed by the Commission.

The source of funds for the District's Debt Service Fund are as follows:

- funds raised by taxation for the purpose of making principal and interest payments on District obligations,
- the premium on District issued bonds/notes that have been sold above par value and accrued interest,
- all moneys accruing to the borrowed money fund which are not needed, and which obviously cannot be needed for the purpose for which the money was borrowed,
- funds from working capital for the purpose of abating the annual tax levy for purposes of the subsequent fiscal year. State law requires the District to levy an irrepealable, direct annual tax in an amount sufficient to pay the principal of and interest on the bonds or notes for the following year for each District-issued bond or low interest loan from the Clean Water Fund Program. The required tax levy may be abated by the transfer of working capital or reduced, in any year by the surplus fund balance available in the Debt Service Fund.

Gross debt service to be paid in 2023 for tax supported obligations is estimated to be $95,308,543. Gross debt service is reduced by estimated surplus funds in the Debt Service Fund, resulting in net debt service of $92,983,920. As a result of the tax levy of $109,126,440 exceeding the net debt service, no requested transfer from working capital is required to abate the levy.

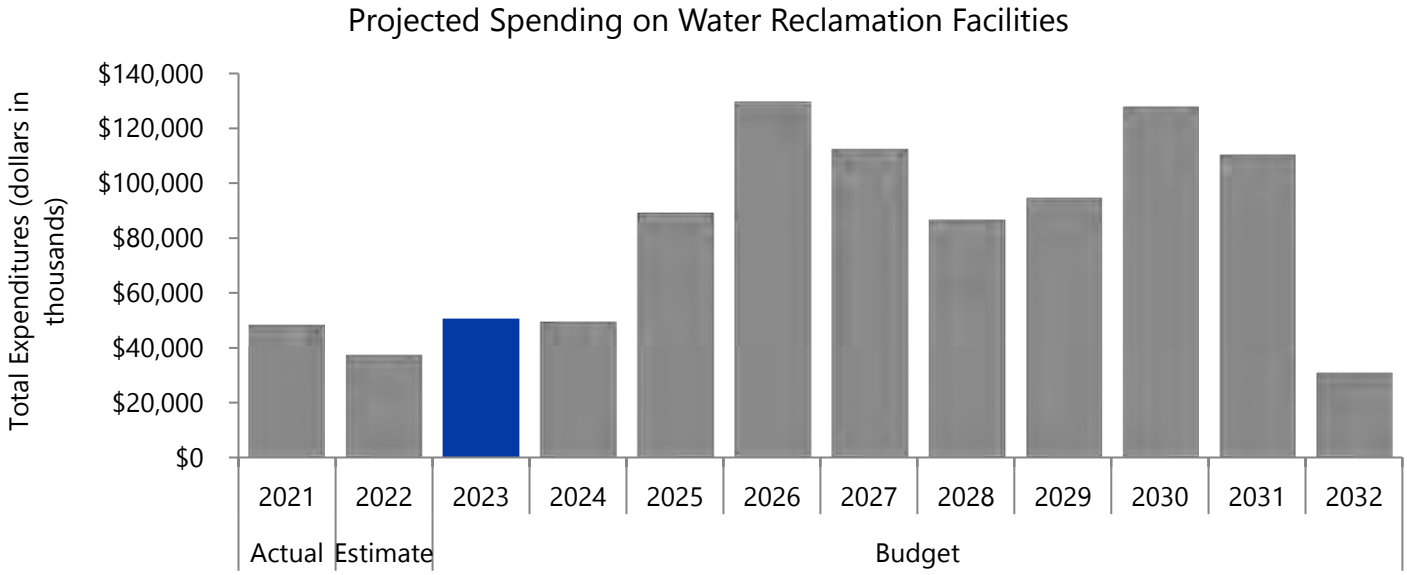
Calculation of Transfer from Working Capital to Debt Service Fund to Fund General Obligation Debt Service

	Gross Debt Service	Less Surplus in Debt Service Fund	Net Debt Service
General Obligation Bonds and Notes	$35,215,650	$4,013,221	$31,202,429
Clean Water Fund Loans	$58,266,893	$0	$58,266,893
New General Obligation Bonds and Notes	$1,318,000	$0	$1,318,000
New Clean Water Fund Loans	$506,000	$0	$506,000
Total Debt Service Sinking Fund	$95,308,543	$4,013,221	$92,983,920
Intergovernmental Loan - Ryan Creek*	$1,690,598		
Total Debt Service	**$96,997,141**		
Less Tax Levy (3.0% increase from prior year)			$109,126,440
Transfer from Working Capital			$0

*This loan is not secured with pledge of tax levy

Water Reclamation Facilities

The District operates two water reclamation facilities through a contract with Veolia Water Milwaukee. The facilities provide sewage treatment services for 18 cities and villages within the District's legal boundary and to all or parts of 10 municipalities outside Milwaukee County.



Jones Island Water Reclamation Facility

Located on a peninsula in the Milwaukee harbor, the Jones Island Water Reclamation Facility is the oldest operating activated sludge plant in the country. Because of its historic leadership in wastewater treatment, the facility has been designated a National Historic Civil Engineering Landmark by the American Society of Civil Engineers and has been placed on the National Register of Historic Places. The plant was originally constructed in 1925, with a capacity of 85 million gallons per day (MGD). After expansions in 1935 and 1952, the treatment capacity increased to 200 MGD. With the completion of the Water Pollution Abatement Program (WPAP) in 1994, the daily maximum design flow at Jones Island for full secondary treatment is 300 MGD. The peak (hourly) design capacity for full secondary treatment is approximately 330 MGD; but the facility can convey and treat 390 MGD when process blending is implemented. Average daily flows to the plant from 2017-2021 were approximately 108 MGD.

Wastewater treatment at Jones Island consists of primary treatment, secondary treatment, disinfection, and solids processing. In the primary treatment phase, wastewater is held in large circular tanks called clarifiers to allow heavier solids to settle to the bottom and lighter solids to float to the top. Primary solids are sent via the interplant solids pipeline to South Shore for anaerobic digestion. After primary treatment, the water flows to the secondary or biological activated sludge process that uses bacteria and other microorganisms to consume soluble pollutants in the water. The wastewater then flows to the secondary clarifiers where the biosolids are removed for the production of Milorganite®, an organic fertilizer. In the disinfection process, clear water is chlorinated to kill any harmful bacteria. Before being discharged to Lake Michigan, any remaining chlorine is removed by adding a neutralizing chemical to ensure no fish toxicity.

South Shore Water Reclamation Facility

Located to the south of Jones Island in Oak Creek, the South Shore Water Reclamation Facility was constructed in 1964 as a primary treatment facility with a capacity of 60 MGD. The plant was expanded in 1974, to include secondary treatment, phosphorus removal, and nitrification to remove ammonia. The design capacity of South Shore is 265 MGD Maximum Day and 300 MGD Peak Hour. Current average daily flows to the plant are approximately 93 MGD, mostly from the southern and western portions of the District service area. Sludge generated by the South Shore treatment process is either pumped via the interplant solids pipeline to Jones Island for processing into Milorganite® or sent to digesters at South Shore for anaerobic digestion. The digestion process destroys up to 50 percent of the solids and produces methane gas used to provide electricity for the plant.

Interplant & Landfill Gas Pipelines

An interplant solids pipeline connects the Jones Island and South Shore Water Reclamation Facilities and is used to transport biosolids between the two facilities for processing. The landfill gas pipeline is responsible for transporting landfill gas from its source to the Jones Island Facility for use. The use of landfill gas is in place of natural gas and provides the District reductions in the emissions of greenhouse gases.

The 2023 Capital Budget includes $50.5 million for work on various water reclamation facility projects. Please refer to project detail on the following pages for information on each project's purpose, scope, cost estimate and impact on the O&M budget. Most projects in the Water Reclamation Facilities section of the capital budget support the SDGs #6 and 7. The icons highlight the projects that directly state the purpose of the project is to improve water quality or clean energy.

Jones Island Water Reclamation Facility

Primary Treatment

Primary treatment at Jones Island involves preliminary and primary treatment of incoming wastewater. Preliminary treatment removes large and untreatable material such as wood, rags, sand, and grit. Next, the preliminary-treated water is collected in large tanks, called primary clarifiers, which allows heavier solids to settle to the bottom of the tanks and lighter solids to float to the top. The goal of the process is to effectively remove material that can damage downstream equipment and solids that cannot be treated biologically.

ID #:	Name:	Phase	Start	Finish	Cost
J01013	Preliminary Facility Electrical Upgrade	Design	Feb-19	Nov-20	$705,211
		Construction	Mar-21	Oct-23	$5,615,902
		Post-Constr.	Nov-23	Apr-24	$8,887
		Total			$6,330,000
		Previously Approved Total			$6,295,000
		Increase/(Decrease)			$35,000

Project Description

The purpose of this project is to design and construct electrical system upgrades to replace the existing systems in the preliminary treatment facility due to updated design standards. This project will replace electrical equipment in the facility that is over 30 years old and is nearing the end of its useful service life, and replace all building lighting with light emitting diode (LED) technology to save energy. The project scope includes upgrades to the Influent Wet Well Area, Influent Operating Area, Low Level Pump Drive Area, Ramp Area, High Level Pump Drive Area and Screenings Area. The increase in total project cost is due to an increase in staff labor. The project may result in decreased energy costs to the operating budget once the new, more efficient lights are installed.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
J01025	High- & Low-Level Screw Pump Replacement	Design	Feb-19	Jul-19	$37,515
		Construction	Sep-19	Dec-22	$3,743,045
		Post-Constr.	Feb-23	May-23	$5,387
		Total			$3,785,947
		Previously Approved Total			$3,785,947
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to ensure the integrity and capacity of the Jones Island influent pumping system. Influent capacity constraints impact the ability to meet the District's WPDES overflow goals and potentially permit limits. The project scope includes design and construction for the removal and replacement of all four low level screw pumps and four of the five high level screw pumps (one high level screw pump was recently removed and replaced), including upper and lower bearings. There is no change to total project cost. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J01028	Primary Clarifier Drive Improvements	Design	Apr-20	Jul-21	$274,466
		Construction	Oct-21	Aug-24	$2,571,234
		Post-Constr.	Oct-24	Jan-25	$7,500
		Total			$2,853,200
		Previously Approved Total			$2,802,482
		Increase/(Decrease)			$50,718

Project Description

The purpose of this project is to improve the reliability of the primary clarification equipment by preventing wastewater intrusion into the drive mechanism or oil wash-out which both lead to premature drive failure. The project scope includes design and construction for the rehabilitation or replacement of the primary clarifier drive mechanisms for the eight primary clarifiers at the JIWRF. The scope includes raising the drive mechanisms, clarifier bridge and associated equipment approximately 12 inches. The final elevation of the clarifier drive will be determined during design. Design will evaluate whether existing drive replacement or rehabilitation is more cost effective. The change in total project cost is due to updated cost estimates for construction and labor since the project duration increased. No significant operating budget impact is expected.

Jones Island Water Reclamation Facility

Secondary Treatment

After the solids are removed in Primary Treatment, wastewater flows to the secondary or biological activated sludge process. In this process, primary treated effluent and return activated sludge are mixed (mixed liquor), and large amounts of air are pumped into this mixture to permit bacteria and other microorganisms to consume soluble oxygen-demanding pollutants in the water. The pollutants are broken down to mainly cell mass, carbon dioxide and water. This mixed liquor is then routed through the secondary settling basins where the biological solids settle.

ID #:	Name:	Phase	Start	Finish	Cost
J02012	Aeration System Improvements	Prelimin. Eng.	Jun-15	Apr-21	$122,282
		Design	Jun-22	Jan-24	$288,836
		Construction	Jun-24	Oct-25	$911,725
		Post-Constr.	Jun-25	Nov-27	$6,096
		Total			$1,328,939
		Previously Approved Total			$1,328,939
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to improve the efficiency of the JI aeration system by reducing overall air requirements while maintaining adequate mixing and treatment. The project scope consists of the design and construction of improvements to reduce energy consumption in the aeration system. Improvements may include modifications to the diffusers in the aerated channels and aeration basins, addition of dissolved oxygen and/or ammonia probes for automated air flow control, or other types of changes to reduce energy usage. There is no change in total project cost. This project is expected to reduce operating budget costs because of the reduced energy usage.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
J02015	Aeration Basin Concrete Rehabilitation	Design	Mar-20	Jul-21	$314,549
		Construction	Oct-21	Dec-23	$4,183,343
		Post-Constr.	Jan-24	Apr-24	$10,128
		Total			$4,508,020
		Previously Approved Total			$4,508,020
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to extend the life of the aeration basins, increase worker safety, reduce the risk of air diffuser damage due to falling concrete, and to rehabilitate deteriorating assets. The scope of this project includes design and construction to rehabilitate the deteriorating concrete walkways, interior areas (walls and floors), and concrete that supports the handrails of the walkways of Jones Island East Plant Aeration Basins 1, 2, 3, 4, 5, 8, 16, and 19. Rehabilitation consists of concrete surface and crack repairs, steel reinforcement repair/replacement, removing deteriorated portions of the concrete walls, and constructing in-kind replacement. The project will reuse the existing handrail. There is no change in total project cost. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J02016	Process Air Compressor Replacement	Design	Jul-23	Jul-24	$1,152,000
		Construction	May-25	Sep-26	$5,925,000
		Post-Constr.	Oct-26	Oct-26	$253,000
		Total			$7,405,000
		Previously Approved Total			$0
		Increase/(Decrease)			$7,405,000

Project Description

The overall purpose of this project is to provide a reliable and energy efficient Process Air Compressor system at JIWRF for 20-years post-construction. The project scope includes evaluating process air compressors 2, 3, and 4 and determining the best replacement solution. Once a solution is identified, the construction phase will replace the three process air compressors. This is a new project. The impact on the operating budget is that newer, replaced equipment will need less maintenance than older, used equipment.

This project supports the UN SDG #7.

Jones Island Water Reclamation Facility

Advanced Treatment

The biologically treated water enters the final treatment process in preparation for discharge into Lake Michigan. During this process, sodium hypochlorite is used to disinfect the water. Disinfection is the selective destruction of disease-causing organisms including bacteria, viruses, and amoebic cysts. After chlorination, sodium bisulfite is fed into the waste stream to remove any chlorine residuals. Chlorine removal is necessary to ensure fully treated water is not toxic to fish. This fully treated wastewater, or plant effluent, is discharged into Lake Michigan.

ID #:	Name:	Phase	Start	Finish	Cost
J03006	Disinfection Process Improvements	Design	Dec-22	Sep-24	$859,384
		Construction	Dec-24	Dec-26	$18,952,616
		Post-Constr.	Feb-27	Apr-27	$25,000
		Total			$19,837,000
		Previously Approved Total			$18,940,000
		Increase/(Decrease)			$897,000

Project Description

The purpose of this project is to design and construct a reliable, sustainable, cost-effective disinfection process relative to the new E.coli WPDES limits effective in 2024. Initial evaluations have determined that current disinfection methods (sodium hypochlorite), may not be a cost-effective or reliable method to meet the new E.coli limit. The design and construction of a new system is anticipated to provide that reliability while reducing the overall cost of treatment. The project scope includes the design and construction of a new disinfection process at JI. For the purposes of this project, it was assumed to be a UV disinfection system for flows up to 150 MGD, and sodium hypochlorite for flows above 150 MGD to be consistent with Alternate 3 from the 2050 FP. The change in total project cost is due to inflation. The improvements are anticipated to reduce the cost of treatment, therefore reducing operating costs.

Jones Island Water Reclamation Facility

Solids Processing

Biosolids are removed in the primary and secondary clarifiers and must be further processed and disposed of for beneficial reuse. The Jones Island Dewatering & Drying (D&D) Facility uses a state-of-the-art process for waste solids to produce an environmentally safe fertilizer, Milorganite®, which is marketed for public use. Milorganite® is composed of a blend of biosolids (sludge) from both Water Reclamation Facilities.

The solids processing includes these individual processes necessary for Milorganite®: blending, thickening, dewatering, drying, warehousing, and shipping. Blending is the process of mixing the biosolids from different sources to form a uniform consistency for the downstream thickening units. Thickening and dewatering both minimizes the moisture content of the biosolids. After dewatering, biosolids are dried in a rotary drying unit. The dried biosolids go through a screening process to size the product to Milorganite® specifications. The Milorganite® is then stored in silos before shipping to customers or to the contracted packaging facility. Much like any production process, there are leftover materials or scrap. The leftover dried sludge from the production of Milorganite® must be disposed of or reused.

ID #:	Name:	Phase	Start	Finish	Cost
J04035	Greens Grade Train Replacement and Redundant Train Evaluation	Design	Jun-18	Nov-19	$826,324
		Construction	Feb-20	Jul-22	$4,762,061
		Post-Constr.	Jul-22	Dec-23	$15,602
		Total			$5,604,000
		Previously Approved Total			$5,604000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to address Milorganite® Greens Grade classification and Product Train equipment that is in need of replacement, and to provide a reliable Greens Grade classification system, with redundancy as necessary, to meet supply needs. Greens Grade is a finer sized product screened from the Classic sized product. The project scope includes design and construction of replacement Greens Grade classification and Product Train equipment that has reached the end of its useful service life. The scope for final design and construction is a single Greens Grade train, a crossover conveyor to feed the new Greens Grade train from either north or south side First Stage Classification, and replacement of Product Train conveyor equipment. There is no change in total project cost. The project may result in additional Greens Grade product that can be sold to increase Milorganite® net revenue for the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
J04037	Thickened Sludge Improvements	Prelimin. Eng.	Oct-15	Feb-16	$3,913
		Design	Jun-18	Dec-21	$757,313
		Construction	Jul-20	Sep-24	$3,278,432
		Post-Constr.	Nov-24	May-25	$25,042
		Total			$4,064,700
		Previously Approved Total			$3,888,914
		Increase/(Decrease)			$175,786

Project Description

The purpose of this project is to identify and implement cost-effective sludge thickening improvements to achieve 4 percent total solids blended sludge feed to the belt filter presses (BFP) in the JIWRF Dewatering and Drying (D&D) Facility. This project will also improve the reliability and efficiency of the thickened activated sludge (TAS), waste activated sludge (WAS) receiving, and blended waste activated sludge pumping systems. The project scope includes design and construction to add a fifth gravity belt thickener, a fifth TAS pump, and two blended WAS pumps. The project will also make polymer system improvements by repurposing the ferric chloride storage tank in the Thickening Building to polymer storage and supply ferric chloride to the Thickening Building from the existing storage system in the Dewatering & Drying Facility or the Pickle Liquor Storage Facility; replace the polymer transfer and feed pumps; and replace the polymer mixers. The project will replace the existing 4" TAS flow and density meters with 6" flow and density meters to reduce the TAS pump discharge pressure. Finally, the project will add an 8" density meter on the existing redundant blended sludge pipeline. The increase in total project cost is due to increase in staff labor costs. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J04038	D&D Dryers Guillotine Gate Replacement	Design	Sep-19	Nov-20	$444,304
		Construction	Mar-21	Jan-24	$3,086,229
		Post-Constr.	Jan-24	Jun-24	$11,916
		Total			$3,542,450
		Previously Approved Total			$3,534,543
		Increase/(Decrease)			$7,907

Project Description

The purpose of the project is to replace aged equipment associated with the dryer waste heat isolation gates and supply valves at the D&D facility. The gates and supply valves isolate and modulate the waste heat supplied to the dryers. Additionally, the gates allow for a safe entry into the dryers, while the control valves are used for temperature control. The waste heat guillotine gates and control valves have been in operation for over 25 years and have both experienced operational problems from start-up. The gates have experienced seal, actuator and bearing problems leading to failure to close properly, and the control valves have experienced wear and spring failures. The valves also periodically stick when called to open. Furthermore, the control valve actuators are obsolete, so parts are difficult to obtain. The project scope includes the design and construction of the replacement of the twelve waste heat supply valves and twelve isolation gates. The increase in total project cost is de minimus. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J04060	Sludge Cake Transport & Feed Conveyors Replacement	Design	Feb-18	Jul-19	$526,839
		Construction	Oct-19	Dec-22	$3,873,466
		Post-Constr.	Apr-23	Oct-23	$13,694
		Total			$4,414,000
		Previously Approved Total			$4,404,500
		Increase/(Decrease)			$9,500

Project Description

The purpose of this project is to improve the reliability of solids processing equipment in the D&D Facility and minimize dryer outages. The scope includes replacing six sludge cake transport belt conveyors, six sludge cake feed belt conveyors, belt wash water pumps, and other associated equipment. All of the belt conveyors, originally installed in 1992, have ongoing issues with corrosion and worn belt scrapers, belts, rollers, bearings, and pulleys. Continued reliability of sludge cake handling equipment is critical to allow the processing and removal of solids from the plant treatment process. Unreliable sludge cake conveying equipment increases the risk of safety incidents due to dryers quickly heating up, the risk of increased cost of processing solids, and risks to permit compliance. The project will also replace equipment to improve the ability to measure the amount of sludge cake entering the dryers. The project scope includes modification of the dryer product temperature control system to incorporate the sludge cake measurement system. The change in total project cost is de minimus. The project will reduce costs to the operating budget by providing corrective and preventative maintenance savings which, since 2009, have totaled approximately $440,000.

ID #:	Name:	Phase	Start	Finish	Cost
J04061	D&D PLC 5 Upgrades	Design	Feb-19	Dec-20	$699,848
		Construction	Sep-19	Apr-26	$6,129,152
		Post-Constr.	Jun-26	Nov-26	$10,000
		Total			$6,839,000
		Previously Approved Total			$6,740,000
		Increase/(Decrease)			$99,000

Project Description

The purpose of this programmable logic controller (PLC) replacement project is to maintain control system reliability and to avoid equipment downtime in the D&D Facility. The improvements will allow for continued processing of biosolids, which is critical to meeting permit conditions. The original equipment manufacturer no longer provides replacement parts for the existing PLC equipment, and replacement parts are limited on the open market and are costly to procure. The scope of the project includes replacement of 66 PLC-5s in the D&D Facility with newer model PLCs. Associated hardware that is compatible with the new control platform will also be replaced. The functionality of the existing control platform will be replicated in the new platform, with some safety-related enhancements. The increase in total project cost is due to an increase in construction contractor labor. Equipment that does not qualify for capital funding will be funded from the operating budget; those components are estimated to total $182,000.

ID #:	Name:	Phase	Start	Finish	Cost
J04064	Chaff System Improvements	Prelimin. Eng.	May-19	Jul-21	$735,624
		Design	Jul-23	May-25	$1,674,177
		Construction	Feb-23	Oct-28	$17,330,238
		Post-Constr.	Oct-28	Apr-29	$5,761
		Total			$19,745,800
		Previously Approved Total			$15,893,840
		Increase/(Decrease)			$3,851,960

Project Description

The purpose of this project is to ensure reliable biosolids processing and Milorganite® production capabilities, improve the reliability of air pollution control equipment for each dryer, minimize dryer outages, and maintain compliance with the air permit. The project scope includes the design and construction of the improvements to the chaff systems; new ductwork of a smaller diameter to minimize dust settling in the horizontal ductwork; modifications to quench chamber drains; modifications to prevent moisture accumulation in the recycle system; and replacing the dryer exhaust duct header. The increase in total project cost is due to adding scope to the project to investigate reasons for moisture build-up. The project is anticipated to reduce maintenance costs with the newer ductwork replacing older ductwork.

ID #:	Name:	Phase	Start	Finish	Cost
J04065	D&D First Stage Classification Equipment Replacement	Design	Jul-18	Nov-19	$592,304
		Construction	Feb-20	Sep-23	$6,978,262
		Post-Constr.	Oct-23	Jan-24	$5,734
		Total			$7,576,300
		Previously Approved Total			$7,345,660
		Increase/(Decrease)			$230,640

Project Description

The purpose of this project is to ensure reliability of first stage classification equipment. The project scope includes the design and construction of replacement equipment. The first stage classification system includes the equipment that classifies Milorganite® based on the diameter of the bead size that is developed in the dryer process. Oversized product is milled down and returned to the dryers. Undersized product must be sent back to the dryers to grow larger bead sizes. The first stage classification equipment is the only method by which undersized and oversized bead sizes are separated from the Classic sized product. The increase in total project cost is due to an increase in construction costs. The project may have a positive impact on the operating budget as this project may lead to increased Milorganite® production, resulting in increased sales and higher revenues.

ID #:	Name:	Phase	Start	Finish	Cost
J04070	Milorganite® Facilities Improvements Phase V	Design	Apr-19	Dec-23	$578,709
		Construction	Jun-19	Mar-24	$1,737,592
		Post-Constr.	Oct-24	Jan-25	$5,899
		Total			$2,322,200
		Previously Approved Total			$1,599,000
		Increase/(Decrease)			$723,200

Project Description

To be sold as a commercial fertilizer, Milorganite® must meet standards set forth by regulatory agencies, including the United States Environmental Protection Agency (USEPA), the Wisconsin State Department of Natural Resources (WDNR), and other state regulatory agencies. These standards include using a method that demonstrates pathogen destruction. The USEPA and WDNR, while indicating that Milorganite® is a safe product, identified some concerns regarding the District's current method for demonstrating compliance with certain technical regulatory standards. The purpose of this project is to demonstrate to regulatory agencies satisfaction that the District meets these technical standards, while continuing to make the same safe Milorganite® product, and to replace dryer recycle system components that have reached the end of their useful service life. The project scope includes design and construction to upgrade diversion gates, isolation gates and associated chutes on the following screw conveyors: main recycle, dryer discharge, recycle bin feed, and wet recycle. The increase in total project cost is due to increase in scope to include replacing four dryer discharge chutes that were corroded and an increase in construction estimates.

ID #:	Name:	Phase	Start	Finish	Cost
J04072	Milo Transport and Silo Storage Equipment Replacement	Design	Apr-20	Dec-21	$707,111
		Construction	May-22	Mar-25	$12,732,456
		Post-Constr.	Apr-25	Oct-25	$7,433
		Total			$13,447,000
		Previously Approved Total			$13,447,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to ensure the reliability and efficiency of Milorganite® conveyance and storage equipment in the Dewatering & Drying (D&D) and Milorganite® storage facilities. The equipment is original to the building and has reached the end of its useful life. The scope of this project includes preliminary design (alternative analysis), final design, and construction for replacement of Milorganite® conveyance equipment between the Dewatering & Drying (D&D) Facility product coolers and the Milorganite® storage facility, including two product weigh belts and weigh scales; two product bucket elevators, two product storage transfer conveyors, and two product storage feed conveyors; four day bin cone liners, level instruments and temperature instrument; all associated inlet and discharge chutes, dust collection plenums, ductwork, and slide gates; four product transporters, all-dense phase pneumatic piping, 14 silo fill valves, 14 silo purge valves, 14 silo dust valves, seven transport diverter valves; 14 temperature probes, 14 level probes, two purge fans, 14 draw-off valves and 14 vibrators; removing the abandoned conditioning air system in the Milorganite® Storage Facility; replacing the undersized plant air supply header between the Thickening Building and the D&D Facility with a larger pipe; replacing two silo dust blowers, motors, and VFDs. There is no change to total project costs. The project may have a positive impact on the operating budget as this project may lead to increased Milorganite® production, resulting in increased sales and higher revenues.

ID #:	Name:	Phase	Start	Finish	Cost
J04074	Milorganite® Packaging Facility	Prelimin. Eng.	Oct-19	Oct-21	$613,534
		Design	Mar-22	Jan-24	$2,445,324
		Construction	Jun-24	Dec-26	$46,646,998
		Post-Constr.	Jan-27	Jun-27	$29,144
		Total			$49,735,000
		Previously Approved Total			$39,423,000
		Increase/(Decrease)			$10,312,000

Project Description

The purpose of this project is to provide a new Milorganite® packaging facility where the space and operations are directly controlled by the District for the packaging and distribution of Milorganite®. The scope includes site analysis, building design and construction, as well as packaging equipment procurement and installation. The increase in total project cost is due to an increase in estimated construction costs after completing the preliminary engineering phase. Once the facility is constructed, the project may reduce costs to the operating budget by reducing the cost to package Milorganite®.

ID #:	Name:	Phase	Start	Finish	Cost
J04075	Dewatering & Drying Belt Filter Press Overhauls at JI WRF	Design	Nov-20	Oct-22	$102.000
		Construction	Oct-22	Feb-26	$12,465,550
		Post-Constr.	Feb-26	Jul-26	$5,500
		Total			$12,573,000
		Previously Approved Total			$3,272,500
		Increase/(Decrease)			$9,300,500

Project Description

The purpose of this project is to ensure the reliability and capacity of the D&D facility by overhauling the belt filter presses (BFPs) which dewater sludge before it passes to the dryers. The scope of this project includes major overhauls of 23 of the 24 BFPs because one press has already been overhauled. The scope also includes the following work on each of the 24 BFPs: local control panel upgrades, replacement of worn components of the polymer system, removal of surface corrosion and recoating of sludge feed and discharge piping, repair of damaged structural steel supporting the press, and recoating the structural steel with paint. The increase in total project cost is due to adding scope, such as the replacement of some structural steel and sludge feed and drain piping, replacement of the BFP wash water system for each BFP, and replacement of some hydraulic oil containment structures, as well as inflation. The project may reduce operation and maintenance costs because the new equipment may require less maintenance than older equipment.

ID #:	Name:	Phase	Start	Finish	Cost
J04076	Compressed Air System Upgrade	Design	Sep-22	Apr-24	$489,000
		Construction	Jul-24	Jul-26	$2,436,000
		Post-Constr.	Aug-26	Mar-27	$6,000
		Total			$2,931,000
		Previously Approved Total			$1,632,000
		Increase/(Decrease)			$1,299,000

Project Description

The purpose of this project is to restore the reliability of the plant air system, increase system efficiency, and reduce energy consumption. The project scope includes design and construction of improvements to the JIWRF plant air compressor system located in the Thickening Building 256, the Dewatering & Drying Building 258 and the Milorganite® Storage Facility Building 259. The improvements include replacing nine existing compressors and their ancillary systems, installing a central compressor control system, and installing a compressed dry air storage tank. The scope also includes removing two abandoned compressors systems in the Chemical Unloading Facility Building 243. The increase in total project cost is due to increase in scope to replace the compressors in building 259. The improvements that reduce energy use may be eligible for a Focus on Energy incentive funding. The project may reduce operating costs with the reduced energy consumption.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
J04077	Odor Control Equalization & Blend Facility	Design	Oct-22	Jun-24	$351,457
		Construction	Oct-24	Jan-26	$1,240,402
		Post-Constr.	Feb-26	Jun-26	$9,341
		Total			$1,601,200
		Previously Approved Total			$1,173,000
		Increase/(Decrease)			$428,200

Project Description

The purpose of this project is to efficiently treat odors produced by the Equalization and Blend (E&B) Facility at JI. The project scope includes the design and construction to add a new primary treatment stage for Equalization and Blend (E&B) tank air emissions; a new scrubber located upstream of the existing carbon adsorption system serving the E&B tanks; building addition to house the scrubber with lighting, heating and ventilation; odorous air piping to connect the scrubber to the existing system; and associated electrical, instrumentation and controls work. The increase in total project cost is due to an increase in construction costs. The project may result in additional maintenance costs with the additional equipment.

Jones Island Water Reclamation Facility

General Projects

Projects grouped into this category are projects that do not fit into the other water reclamation processes. The types of projects can be associated with:

- Energy Distribution – electrical generation and distribution, hot water and steam generation, and distribution and
- process air generation
- Buildings and Grounds Improvements – capital improvements to non-process buildings and other
- improvements such as roads and utilities
- Nonspecific Instrumentation and Control
- Cost associated with litigation for non-current capital projects
- All other nonspecific items

ID #:	Name:		Cost
J06056	Turbine Extended Service Agreement	Total	$22,487,822
		Previously Approved Total	$14,661,332
		Increase/(Decrease)	$7,826,490

Project Description

The purpose of this project is to improve the reliability of the plant electrical system and minimize the financial impact associated with landfill gas turbine outages. The landfill gas turbines are designed to generate and provide power to the plant electrical distribution system and minimize the amount of power purchased from We Energies, providing District rate payers a significant annual savings. The scope of this project is the capital portion, 75 percent of the total cost of an eleven-year contract with Solar Turbines Inc., which will complete engine and major engine component replacement on the District's three landfill gas turbines. The O&M portion of the agreement covers: routine maintenance, washing, and inspection services; remote monitoring of engine operating parameters and diagnostic evaluation of the parameters to detect abnormal conditions and address them early; repairs and parts replacement; unlimited unscheduled visits; and unlimited technical support. The increase in total project cost is due to an extension of the duration of the agreement by one year and refining the cost estimates to reflect known, fixed costs.

ID #:	Name:	Phase	Start	Finish	Cost
J06061	Dryer Conversion for Additional LFG	Prelimin. Eng.	Jan-14	Mar-17	$293,623
		Design	Oct-15	May-18	$942,660
		Construction	May-19	Apr-22	$6,903,235
		Post-Constr.	Oct-22	Oct-23	$7,700
		Total			$8,147,338
		Previously Approved Total			$8,147,338
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to reduce energy costs and help the District achieve its 2035 Vision for energy independence. The project scope includes design and construction to convert four Milorganite® dryer burners to use landfill gas (LFG) as well as natural gas (NG) and replace NG control valves and NG burner equipment on the other eight dryers not converted to also use LFG. The project scope includes new combustion controls for all twelve dryers, including new programmable logic controllers and operator interface panels. The project also will help ensure compliance with meeting Class A biosolids/WPDES permit and air permit requirements through changes to the Milorganite® product temperature monitoring system. There is no change in total project cost. The project is expected to reduce energy costs in the operating budget with the increased use of landfill gas, a lower-cost fuel option.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
J06066	Power System Improvements	Prelimin. Eng.	May-14	Jun-19	$450,199
		Design	May-19	Sep-20	$192,956
		Construction	Oct-17	Aug-22	$1,625,710
		Post-Constr.	Sep-22	Apr-24	$114,381
		Total			$2,380,000
		Previously Approved Total			$2,345,000
		Increase/(Decrease)			$35,000

Project Description

The purpose of this project is to improve power reliability by identifying and addressing causes of significant power interruptions and outages at JI. Recently, there have been several instances of faults or abnormalities in the power distribution system, which have caused major power outages in the plant, leading to disruptions in the treatment process. Power outages hold risks of permit violations, plant upsets, and multiple safety risks. The project scope includes design and construction of the following: replacement of protective relays in three main 13,200-volt switchgear lineups; a new connection between the Solar Turbine black start generator and the Powerhouse and GE turbine gas compressor to enable the GE turbine to black start on natural gas; and power monitors in each of the three ISS pump VFDs. The increase in total project cost is due to an increase in scope to complete an ISS pump VFD evaluation. The project is expected to reduce energy costs in the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
J06073	Harbor Siphons Area Settlement Mitigation	Construction	Jan-17	Dec-25	$162,500
		Post-Constr.	Dec-25	May-26	$7,500
		Total			$170,000
		Previously Approved Total			$170,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to mitigate issues associated with settlement in the area of the former Harbor Siphons project on Jones Island. Thawing of a freeze wall installed on Jones Island to facilitate construction of the Harbor Siphons project (C07010) is expected to be ongoing for the next 20+ years and is causing settlement of District assets in the immediate project area and beyond. The scope of this project is to detect and mitigate settlement issues as they arise. This includes mitigating electrical duct bank, influent pipe, and meter vault settlement issues as well as additional funding to mitigate as of yet unknown asset settlement which is expected to occur in the future. There is no change to total project costs. The impact on the operating budget is unknown at this time.

ID #:	Name:	Phase	Start	Finish	Cost
J06075	2018 JI Capital Equipment Rehabilitation/Replacement	Construction	Dec-17	Dec-24	$17,411,910
		Total			$17,411,910
		Previously Approved Total			$16,366,645
		Increase/(Decrease)			$1,045,265

Project Description

The purpose of this project is to provide an efficient mechanism to repair or replace various rolling stock and equipment at Jones Island that meet the criteria for capital budget financing but do not require extensive cost and schedule management. The project scope will vary each year as existing projects are completed and new projects are added. Current active and anticipated spending includes several equipment replacements within the Dewatering and Drying Building as well as turbine building control room switchgear replacement. The change in total project cost is due to increased equipment requirements projected. As older equipment is replaced with newer equipment, reliability is increased and the maintenance costs and downtime of the newer equipment should decrease.

ID #:	Name:	Phase	Start	Finish	Cost
J06076	Turbine Waste Heat Expansion Joint 12 & 13 Replacement	Design	Mar-18	Dec-18	$101,213
		Construction	Feb-19	Oct-19	$472,752
		Post-Const.	Nov-19	Sep-23	$152,935
		Total			$726,900
		Previously Approved Total			$697,300
		Increase/(Decrease)			$29,600

Project Description

The purpose of this project is to restore the integrity and reliability of the waste heat system between the JIWRF gas turbines and the Milorganite dryers. The District uses turbines at JIWRF to generate electricity for plant use and waste heat for use in drying biosolids. The turbine waste heat is conveyed through a large, 11-foot diameter stainless-steel duct system from the Powerhouse to the Dewatering and Drying Facility where biosolids are dried to produce Milorganite®. The waste heat system includes several expansion joints to allow the stainless-steel duct to expand or contract as it heats or cools. In June 2016, waste heat duct expansion joint 1EJ-12 failed causing turbine waste heat gases to be released into the Powerhouse. The District performed a temporary repair of this joint and later performed an engineering evaluation to determine the cause of the failure. The engineering evaluation revealed that, due to a combination of exposure to extreme temperatures and movement outside its design parameters, the waste heat ducting twisted and separated from expansion joint 1EJ-12. Inspection of the waste heat duct system during the engineering evaluation revealed that expansion joint 1EJ-13 is in poor condition and is susceptible to failure. Expansion joint failure creates a safety issue and requires that the waste heat system be shut down until repairs are made. Another expansion joint failure would lead to additional costs for temporary repairs, plus the cost to purchase natural gas to dry Milorganite® instead of using waste heat. The scope of this project consists of designing and installing replacements to waste heat duct expansion joints 1EJ-12 and 1EJ-13. The scope includes modification of duct supports adjacent to the expansion joints 1EJ-12 and 1EJ-13 to allow the duct to expand and contract consistently when it heats or cools. The increase in total project cost is due to additional costs for District labor in post-construction. No significant impact to the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
J06081	Replace MCCs and LCUS-P Phase 1	Design	Sep-20	Mar-23	$683,065
		Construction	Jul-23	Sep-26	$8,294,765
		Post-Constr.	Sep-26	Nov-26	$10,171
		Total			$8,988,000
		Previously Approved Total			$8,890,000
		Increase/(Decrease)			$98,000

Project Description

An MCC is an electric device that allows for safe distribution of power and control of individual pieces of equipment. Each MCC consists of circuit breakers, motor starters, and controllers, all located in cubicles surrounded by a steel enclosure. The purpose of this project is to replace the obsolete electrical equipment with new equipment to reduce the risk of failure and power outages at JIWRF. The equipment included in the scope of this project is more than 30 years old and has reached or exceeded the expected useful service life. The equipment age and limited availability or lack of replacement parts puts these MCCs at an increased risk of power supply failure. The scope of this project will replace 31 Motor Control Centers (MCCs), Load Center Unit Substation - Powerhouse (LCUS-P), and the GE Turbine Gas Compressor Motor Control Substation (GCMCS). Some MCCs will be replaced with new MCCs, while others will be replaced with new switchboards as the existing MCCs no longer contain any starters or other motor control equipment. The increase in total project cost is due to an increase in labor costs. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
J06082	Flood Resiliency Improvements	Prelimin. Eng.	Apr-20	Aug-20	$35,917
		Design	Jul-21	Sep-22	$312,744
		Construction	Jan-23	Nov-24	$1,565,000
		Post-Constr.	Dec-24	Mar-25	$5,039
		Total			$1,918,700
		Previously Approved Total			$1,588,150
		Increase/(Decrease)			$330,550

Project Description

The purpose of the project is to reduce risk of damage to JIWRF assets and ensure worker access and safety within JIWRF as a result of lake/river flooding. The scope includes design and construction of temporary flood barriers to address low water entry points at two doors and one garage door all located on the southwest of the Chemical Unloading Facility. The increase in total project cost is due to an increase in design and construction costs. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J06083	HVAC System Improvements - Bldgs. 234, 235, 243, & 256	Design	Jul-21	Mar-24	$619,150
		Construction	Jul-24	Sep-25	$6,673,376
		Post-Constr.	Dec-25	Aug-26	$14,674
		Total			$7,307,200
		Previously Approved Total			$2,279,000
		Increase/(Decrease)			$5,028,200

Project Description

The purpose of this project is to ensure the heating, ventilation and air conditioning (HVAC) systems included in this project adequately and efficiently heat, condition, and ventilate the buildings and areas they serve. The existing HVAC assets have reached the end of their useful service life and have recurring operational issues. The project scope includes design and construction to replace HVAC equipment and controls in the buildings. The design will evaluate the HVAC demands in each building to confirm the replacement equipment is sized appropriately. The increase in total project cost is due to an increase in project scope to evaluate and replace additional equipment. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J06084	W3 & W4 System Modifications	Design	Jan-21	Dec-21	$232,623
		Construction	Jun-22	Dec-23	$1,679,377
		Post-Constr.	Feb-24	Aug-24	$3,000
		Total			$1,915,000
		Previously Approved Total			$1,915,000
		Increase/(Decrease)			$0

Project Description

The purpose of the project is to maintain the supply of non-contact cooling water (NCCW) for the Powerhouse, Landfill Gas Turbine Facilities and Process Air Compressors, to ensure proper operation and viability of the District's energy production facilities. The project will also maintain the reliability of the Plant Drain Pump system. The project scope includes design and construction of improvements to eliminate river water as a source of non-contact cooling water (NCCW) and only use plant effluent water (W3) as a source of NCCW for the Powerhouse, Landfill Gas Turbine Facilities and the Process Air Compressors. The improvements include removing the cooling water pumps and strainers, replacing Plant Drain Pumps number 1 and 2, and replacing all three plant drain pump VFDs in the North Utility Pump Station (NUPS); removing the sodium bisulfate system in the Powerhouse; improving the connection supplying W3 to the NCCW system; and providing piping to return NCCW to the influent well in the Preliminary Treatment Facility. River water will continue to be used for fire protection purposes. There is no change to total project cost. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J06085	Administrative/Maintenance Space Planning Analysis	Planning	Jan-21	Mar-23	$750,000
		Total			$750,000
		Previously Approved Total			$750,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to create a capital investment plan for aging buildings at JIWRF such that the repair and replacement of these buildings can be done in an efficient manner. This project scope will provide a comprehensive plan for the administrative facilities at JIWRF that takes into consideration the holistic needs of the facility will provide the best-value investment as opposed to replacing buildings due to condition alone. There is no change in total project cost. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J06086	Building Roof Replacement Phase 4	Design	Nov-23	Nov-24	$97,000
		Construction	Feb-25	Oct-25	$247,000
		Post-Constr.	Dec-25	Mar-26	$11,500
		Total			$355,500
		Previously Approved Total			$0
		Increase/(Decrease)			$355,500

Project Description

The purpose of this project is to restore the life expectancy of roofs at the JIWRF and ensure on-going protection of buildings and their internal assets from precipitation. The scope includes design and construction for roofs of three buildings: 237 (Pickle Liquor Facility), 288 (Electrical Motor Control Building), and 298 (Fire Protection Foam Building). This is a new project. The new roofs should require less maintenance than the older, replaced roofs, decreasing costs to the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
J06089	Flow Meter Replacement	Design	Nov-20	Jan-23	$105,000
		Construction	Jan-23	Oct-23	$2,239,000
		Post-Constr.	Oct-23	Nov-23	$5,000
		Total			$2,349,000
		Previously Approved Total			$2,349,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to ensure reliable availability of flow data used for regulatory reporting and process purposes by providing new, updated, reliable equipment. The scope includes replacing the nine flow meters located in large diameter pipes that have been in service for 25 to 30 years and have reached the end of their service lives. Seven of the flow meters are already magnetic flow meters that will be replaced in kind. The other two are clamp-on flow meters that will be upgraded to magnetic flow meters to improve accuracy and reliability. The flow meters have procurement periods of approximately six months each and significant plant capacity reductions will be required to install each meter. There is no change in total project cost. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
J06090	Clarifier Cathodic Protection Upgrades at JI WRF	Design	May-21	Dec-23	$40,000
		Construction	Jan-23	Jan-26	$1,965,000
		Post-Constr.	Jan-26	Mar-26	$5,000
		Total			$2,010,000
		Previously Approved Total			$1,930,000
		Increase/(Decrease)			$80,000

Project Description

The purpose of this project is to ensure the integrity and capacity of the primary and secondary clarification systems at the JIWRF by preventing future corrosion of the submerged metal components of the clarifiers. The project scope includes the design and construction of upgrades to the cathodic protection systems of all primary and secondary clarifiers at JIWRF. The increase in total project cost is due to inflation. There is no anticipated operating budget impact.

ID #:	Name:	Phase	Start	Finish	Cost
J06093	GE Frame 5 Gas Turbine No.1 Major Overhaul	Construction	Nov-22	Jun-23	$2,100,491
		Total			$2,100,491
		Previously Approved Total			$0
		Increase/(Decrease)			$2,100,491

Project Description

The purpose of this project is to ensure the reliability of the GE Frame 5 Gas Turbine to ensure the District has a reliable source of back-up power to the landfill gas turbines. The project scope is to perform a complete major overhaul of the GE-1 Frame 5 turbine and generator. This is a new project. No significant operating budget impact is expected.

ID #:	Name:		Cost
J99003	Operator Contribution to CIP	Ten-Year Forecast Total	$250,000

Project Description

The operating contract with VWM includes provisions for VWM to participate in current and planned District capital projects. The scope of this project includes VWM work in reviewing the annual capital budget, reviewing and creating requests for new projects, attending meetings, and participation in the implementation of capital projects. Operator Contribution to Capital Improvement Program accounts do not have an approved total project cost. The 2023 expenditures are budgeted at $50,000; the ten-year long-range financing plan includes $250,000. No significant operating budget impact is expected.

South Shore Water Reclamation Facility

Primary Treatment

Primary treatment involves preliminary and primary treatment of influent flows. Preliminary treatment removes large and untreatable material such as wood, rags, sand, and grit. Primary treatment then collects the preliminary-treated water in large tanks, called clarifiers, to allow heavier solids to settle to the bottom of the tanks and lighter solids to float to the top. The goal of the process is to effectively remove material that can damage downstream equipment and most solids that cannot be treated biologically.

ID #:	Name:	Phase	Start	Finish	Cost
S01013	Primary Clarification System Improvements	Design	Mar-21	Jun-24	$2,000,748
		Construction	Sep-24	Mar-29	$64,501,282
		Post-Constr.	May-29	Oct-29	$18,270
		Total			$66,520,300
		Previously Approved Total			$15,704,938
		Increase/(Decrease)			$50,815,362

Project Description

The purpose of this project is to replace the primary clarification system for Primary clarifiers 1-16 to maximize BOD and TSS removal as recommended by the 2050 Facilities Plan. The existing clarifier mechanisms are at or near the end of their useful service life. The scope of the project includes design and construction of a reliable primary clarification system capable of enhanced removal of organic matter from the influent. The change in total project cost is due to increased construction cost estimates for a filtration alternative. No significant operating budget impact is expected.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
S01015	Grit Equipment Replacement	Design	Sep-20	Jan-24	$937,128
		Construction	Apr-24	Sep-26	$7,432,508
		Post-Constr.	Dec-26	Oct-27	$27,364
		Total			$8,397,000
		Previously Approved Total			$5,695,000
		Increase/(Decrease)			$2,702,000

Project Description

The purpose of this project is to ensure the integrity and capacity of the preliminary treatment grit handling process by replacing deteriorating assets. The project scope includes design and construction of the grit handling system replacement at the Preliminary Treatment Facility. The scope includes replacement of the following equipment: seven screenings washer systems, seven grit belt conveyors, two grit screenings conveyors, one belt screenings conveyor, six grit slurry cups, and two winches for the grit load out containers. During preliminary design, the capacity of the replacement handling equipment will be confirmed based on operating history, information from the blending capacity analysis performed under project S02008, and near-term recommendations from the 2050 Facilities Plan. The change in total project cost is due to increased consultant and construction cost estimates and an extended design schedule. No significant operating budget impact is expected.

South Shore Water Reclamation Facility

Secondary Treatment

After removal of the solids, the primary-treated water flows to the secondary or biological activated sludge process. This process, called aeration, pumps large amounts of air into the water to permit bacteria and other microorganisms to consume soluble oxygen-demanding pollutants in the aerated water. The pollutants are broken down to mainly cell mass, carbon dioxide, and water. Prior to the introduction of air, an iron salt (pickle liquor or ferric chloride) is added to the water for phosphorus removal. The biologically treated flow is again routed through the secondary clarifier settling basins where the biological solids and the phosphorus precipitate settle and the liquid overflows to the next water reclamation process.

ID #:	Name:	Phase	Start	Finish	Cost
S02008	SS Capacity Improvements	Planning	Mar-10	Dec-10	$13,200
		Prelimin. Eng.	Feb-12	Jul-17	$1,648,000
		Design	Oct-16	Jan-21	$993,878
		Construction	May-19	May-24	$4,274,649
		Post-Constr.	Jul-24	Aug-25	$22,273
		Total			$6,952,000
		Previously Approved Total			$6,888,000
		Increase/(Decrease)			$64,000

Project Description

This project supports the UN SDG #6.

The purpose of this project is to cost-effectively increase the capacity of SS to reduce the risk of sanitary sewer overflows (SSOs), combined sewer overflows (CSOs), and basement backups, a major goal of the 2035 Vision. The District can reduce these risks in many different ways, including increasing wet weather treatment capacity at SSWRF. One relatively low-cost way to increase this capacity is by implementing blending. Blending at SSWRF means routing some wastewater that has gone through preliminary and primary treatment around the secondary treatment process and combining it back with wastewater that has received preliminary, primary, and secondary treatment. The wastewater that is routed around the secondary treatment process does so through a blending conduit. After the wastewater has been combined, it is chlorinated and dechlorinated before being discharged into Lake Michigan. This blended effluent must meet all effluent water quality requirements under the District's Wisconsin Pollutant Discharge Elimination System permit and blending can only be performed under certain permit conditions. The scope includes completing the preliminary engineering work of the preliminary and secondary hydraulic improvement projects recommended in the SS Capacity Analysis report (from project S06014). The scope includes design and construction of clarifier skirt and baffle modifications in all the front secondary clarifiers, leveling and replacing front secondary clarifier weirs, aeration basin modifications, and other secondary treatment improvements. The scope includes preliminary engineering, design and construction of improvements to increase hydraulic capacity through Preliminary and Primary Treatment up to 375 MGD, with all units in service. The increase in total project cost is due to refined cost estimates. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S02013	Aeration Galleries RAS Header Piping Rehab	Design	Feb-16	Feb-20	$627,775
		Construction	Oct-17	Mar-22	$7,430,719
		Post-Constr.	Jan-23	Jun-23	$6,506
		Total			$8,065,000
		Previously Approved Total			$8,065,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to ensure the integrity of the secondary treatment process by replacing return activated sludge (RAS) piping to the aeration basins. The project scope is to design and construct replacement RAS suction and discharge header piping located in Aeration Buildings 316 and 317, branch piping, fittings, valves, and components between the RAS discharge header and each of the 28 aeration basins. Due to age and corrosion, sections of piping and components have required significant corrective action. If RAS piping and components are unable to provide service to the aeration basins, then plant capacity will be reduced, which may result in permit violations. Leakage into open gallery areas could result in worker safety issues. The project scope includes adding two RAS pumps for system redundancy. There is no change to total project cost. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S02014	Secondary Clarifier Idling Control	Planning	Oct-15	May-18	$23,364
		Design	Jun-31	Apr-32	$119,643
		Construction	Jun-32	Mar-33	$409,629
		Post-Constr.	Apr-33	Aug-33	$8,365
		Total			$561,000
		Previously Approved Total			$546,000
		Increase/(Decrease)			$15,000

Project Description

The purpose of this project is to automate the ability to idle the SSWRF back secondary clarifier batteries 5 and 6 during periods of dry weather flow. Currently, plant operations use manual stop logs to isolate batteries 5 and 6, which is time consuming, prevents regular use, and cannot be used during winter. The scope of this project is to evaluate, design, and construct a system to automate the ability to idle back secondary clarifier batteries 5 and 6. The increase in total project cost is due to inflation. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S02015	Aeration System Upgrade	Planning	Nov-19	Feb-20	$40,547
		Design	Jul-20	Oct-22	$2,121,629
		Construction	Jul-23	Aug-29	$69,975,846
		Post-Constr.	Jan-30	Jan-32	$22,978
		Total			$72,161,000
		Previously Approved Total			$47,419,000
		Increase/(Decrease)			$24,742,000

Project Description

The purpose of this project is to ensure ongoing ability of the secondary treatment process to fully treat wastewater and maintain WPDES permit compliance; help minimize energy consumption in the aeration process; extend the life of the aeration basins; increase worker safety; and reduce risk of air diffuser damage due to falling concrete. The project scope includes design and construction for the removal and replacement of the aeration diffusers and piping in all 28 aeration basins. The scope includes basin cleaning, removal of the existing ceramic plate containers and diffusers, removal of the existing membrane diffusers, removal of concrete false floors, and installing new membrane diffuser systems and one selector zone in each basin. The scope also includes the removal and replacement of the top portion of the concrete walls on select aeration basins, the removal of the existing hand railing, and either re-galvanizing it or replacing it with aluminum. Electrical conduits and associated conductors embedded in the existing concrete walls will be replaced as needed. The increase in total project cost is due to a change in construction contractor cost estimates to account for inflation, labor shortages and supply chain issues. The impact on the operating budget is unknown.

ID #:	Name:	Phase	Start	Finish	Cost
S02017	Process Air Header Improvements	Prelimin. Eng.	Apr-20	Feb-23	$701,000
		Design	Oct-23	Oct-24	$337,000
		Construction	Feb-25	Dec-26	$2,581,000
		Post-Constr.	Feb-27	Jun-27	$10,000
		Total			$3,629,000
		Previously Approved Total			$972,000
		Increase/(Decrease)			$2,657,000

Project Description

The purpose of the project is to ensure the integrity of the SSWRF aeration system. A loss of the aeration piping system, which is an integral part of the activated sludge process, can impact plant capacity and effluent quality, and the ability to meet the District's WPDES effluent permit limits. The project scope includes design and construction to replace the four active 30-inch blower discharge pipe branches from the Blower Generator Building (Bldg. 326) to the 90-inch air header, to replace the 30-inch blower discharge pipe expansion joints inside Building 326, and to replace the 16-inch branch pipe feeding from the air header to Aeration Basin. The increase in total project cost is due to an increase in the estimated construction cost from the consultant. The impact on the operating budget is unknown.

ID #:	Name:	Phase	Start	Finish	Cost
S02018	RAS Pumps Replacement	Prelimin. Eng.	Nov-20	Nov-21	$102,435
		Design	Jul-22	Mar-24	$530,712
		Construction	Jun-24	Aug-26	$1,872,599
		Post-Constr.	Oct-26	Jul-27	$10,753
		Total			$2,516,500
		Previously Approved Total			$2,236,000
		Increase/(Decrease)			$280,500

Project Description

The purpose of the project is to maintain the integrity and improve reliability of the RAS pumping system. Many pumps have reached the end of their useful lives and do not operate as efficiently as originally designed. Failure of one or more RAS pumps may impact effluent quality and the ability to meet the District's WPDES effluent permit limits. The project scope includes hydraulic analysis, design, and construction to replace as many as eight RAS pumps. The RAS system will be hydraulically modeled, with an alternatives analysis to design replacement pumps that operate efficiently and reliably within the system. The increase of total project cost is due to inflation as well as an increase in District labor. No significant operating budget impact is anticipated.

South Shore Water Reclamation Facility

Advanced Treatment

The biologically treated wastewater enters the final treatment process in preparation for discharge into Lake Michigan. Here, sodium hypochlorite is used to disinfect the treated water. Disinfection is the selective destruction of disease-causing organisms including bacteria, viruses, and amoebic cysts. After chlorination, sodium bisulfite is mixed with the chlorine treated water to remove any chlorine residuals. Removal of chlorine is necessary to ensure no fish toxicity. The water reclamation process is complete, and the fully treated water meets all U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources requirements. Plant effluent is then discharged into Lake Michigan.

ID #:	Name:	Phase	Start	Finish	Cost
S03004	Effluent Pump MCC and VFD Upgrade	Design	May-20	Jun-21	$181,878
		Construction	Sep-21	Sep-22	$849,741
		Post-Constr.	Dec-22	Apr-23	$40,381
		Total			$1,072,000
		Previously Approved Total			$1,072,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to replace the obsolete motor control centers (MCCs), reduced voltage soft starters, and related equipment with new equipment to reduce the risk of a plant capacity reduction due to loss of effluent pumping capacity. The MCCs included in the scope of this project have exceeded their expected useful service life. The equipment age and limited availability or lack of replacement parts puts these MCCs at an increased risk of power supply failure. Replacing these reduced voltage soft starters with VFDs will allow all effluent pumps to run at variable speed, will provide operational flexibility to balance run hours, and will reduce the number of pump starts and stops when plant flows change, which can ultimately extend the effluent pump and motor service life. The Automatic Transfer Switches (ATS) and power panels are in poor condition and replacement will increase their life and reliability. Vestibule separation will change the Effluent Pump Station and electrical room rating from "Class I, Division 2" to "Unclassified" per NFPA 820. There is no change to total project cost. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S03005	Disinfection Process Improvements	Design	May-23	Sep-24	$840,000
		Construction	Dec-24	Dec-26	$20,119,000
		Post-Constr.	Feb-27	Apr-27	$25,000
		Total			$20,984,000
		Previously Approved Total			$20,030,616
		Increase/(Decrease)			$953,384

Project Description

The purpose of this project is to design and construct a reliable, sustainable, cost-effective disinfection process relative to the new E.coli WPDES limits effective in 2024. Initial evaluations have determined that current disinfection methods (sodium hypochlorite), may not be a cost-effective or reliable method to meet the new E.coli limit. Design and construction of a new system is anticipated to provide that reliability while reducing the overall cost of treatment. The project scope includes the design and construction of a new disinfection process at SS. For the purposes of this project, it was assumed to be a UV disinfection system for flows up to 150 MGD, and sodium hypochlorite for flows above 150 MGD to be consistent with Alternate 3 from the 2050 FP. The change in total project cost is due to inflation. The improvements are anticipated to reduce the cost of treatment, therefore reducing the costs to the operating budget.

South Shore Water Reclamation Facility

Solids Processing

The waste activated sludge from South Shore's secondary clarifiers is pumped to dissolved air flotation thickening, and then to Jones Island for Milorganite® production. Biosolids from the primary clarifiers are pumped to the anaerobic digesters. Anaerobic digestion is used to stabilize the biological activity and reduce the biosolids volume. The volatile organics in the bio-solids are converted to gas by bacteria that live and grow in the anaerobic environment and destroy up to 30 percent of the solids. Gas produced by this process fuels engines and heats the digesters. Once treated, the stabilized solids are either sent to JI or conditioned with chemicals and thickened with a centrifuge or gravity belt thickener. The thickened sludge may be pumped to Jones Island for Milorganite® production or dewatered into a filter cake and is disposed of in a licensed landfill.

ID #:	Name:	Phase	Start	Finish	Cost
S04010	Thickening Process Capacity Enhancements	Prelimin. Eng.	Jul-15	Dec-17	$77,338
		Design	Jan-22	Jan-24	$526,628
		Construction	Jun-24	Dec-25	$2,383,309
		Post-Constr.	Feb-26	Aug-26	$9,825
		Total			$2,997,100
		Previously Approved Total			$4,679,000
		Increase/(Decrease)			($1,681,900)

Project Description

The purpose of this project is to increase solids handling capacity at the South Shore Water Reclamation Facility (SSWRF), and to improve the ventilation and odor control systems for Building 359. The project scope includes preliminary engineering to evaluate the cost-effectiveness of primary sludge pumping and recuperative thickening to improve the average solids concentration in the primary sludge as well as design and construct improvements to the ventilation and odor control systems for Building 359, and removing all remaining decommissioned centrifuge systems from Building 359. The decrease in total project cost is due to a revised scope based on the results of the Preliminary Technology Comparison study. No significant operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S04029	Digester Mixing II	Design	Jun-23	Aug-24	$793,048
		Construction	Dec-24	Jul-26	$7,468,901
		Post-Constr.	Sep-26	Mar-27	$13,051
		Total			$8,275,000
		Previously Approved Total			$4,619,000
		Increase/(Decrease)			$3,656,000

Project Description

The purpose of this project is to increase the effective volume and performance of the SSWRF anaerobic digestion system, as recommended by the District's Biosolids Advanced Facilities Plan, in response to increase future loadings and primary sludge production. The scope of this project includes design and construction to provide new mixing systems for Anaerobic Digesters 9 and 11, and to covert one storage digester to an active digester. The increase in total project cost is due to inflation and the increased scope to convert one storage digester to an active digester. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S04034	High Strength Waste Mixing Improvements	Design	Aug-23	Mar-25	$68,694
		Construction	Jul-25	Sep-26	$291,763
		Post-Constr.	Oct-26	Mar-27	$5,943
		Total			$366,400
		Previously Approved Total			$359,000
		Increase/(Decrease)			$7,400

Project Description

The purpose of this project is to reduce energy costs and help the District achieve energy independence. This project will improve the high strength waste (HSW) mixing system at South Shore WRF, if new, higher solids HSW sources are found or performance monitoring of the existing system demonstrates improvements are needed. The existing system may not adequately mix HSW from higher solids sources available and acceptable to the District. The existing system was built assuming only low-solids, high COD HSW would be accepted. The District's experience with the HSW market shows available and acceptable sources are limited to higher solids HSW like those delivered by Insinkerator. Restricting HSW to only low-solids wastes compatible with the existing mixing system could eliminate HSW at South Shore WRF. Mixing system improvements would allow the District to effectively handle available HSW from more sources. The project scope consists of design and construction of improvements to the high strength waste (HSW) mixing system. The improvements will add either pump and nozzle mixing or large bubble mixing. The project scope includes all mechanical, electrical, instrumentation and control work related to the improvements. The impact to the operating budget is unknown at this time. The change in total project cost is de minimus.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
S04035	Digester 6 & 8 Mixer Replacement	Design	Oct-18	Feb-20	$149,514
		Construction	Jun-20	Jan-22	$3,109,274
		Post-Constr.	Aug-22	May-23	$11,212
		Total			$3,270,000
		Previously Approved Total			$3,270,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to replace eight mixers in anaerobic Digesters 6 and 8 at SSWRF and complete all associated work to ensure adequate mixing. The project scope includes replacement of the digester mixers with linear motion mixers, installation of two new pressure relief/flame arrestor valves, removal and disposal of sludge, cleaning, and related structural, mechanical, electrical and control work. There is no change to total project cost. No impact to the operating budget is anticipated.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
S04037	Pyrolysis Evaluation	Planning	Feb-22	Oct-24	$576,131
		Total			$576,131
		Previously Approved Total			$0
		Increase/(Decrease)			$576,131

Project Description

The purpose of this project is to determine if pyrolysis is an effective mitigation strategy for removing per- and polyfluoroalkyl substances (PFAS) from biosolids. Pyrolysis is the heating of an organic material, such as biomass, in the absence of oxygen. The project scope is to conduct research on the ability for pyrolysis to remove PFAS from biosolids by evaluating existing processes, byproducts, and any needed capital improvements. This project is a breakout from project M03091. The impact on the operating budget is unknown.

ID #:	Name:	Phase	Start	Finish	Cost
S04038	Digester Capacity Restoration	Design	Apr-22	Nov-24	$167,000
		Construction	Jun-22	Feb-26	$7,553,326
		Post-Constr.	Feb-26	Jun-26	$6,890
		Total			$7,727,216
		Previously Approved Total			$0
		Increase/(Decrease)			$7,727,216

Project Description

The purpose of this project is to ensure the reliability and capacity of the digesters to store sludge, digest sludge, and produce digester gas as part of the SSWRF solids storage and handling process. The scope includes removing and dewatering material remaining in digesters 1-5, 7, and 9-12 after it is drained by Veolia, and then restoring the capacity of the digesters by removing built up debris and rehabilitating internal piping, equipment, and structures. This is a new project. The project is anticipated to reduce operating costs by increasing the capacity and efficiency of the digesters.

ID #:	Name:	Phase	Start	Finish	Cost
S04039	Gravity Thickening & Acid Phase Digestion	Design	Oct-23	Nov-25	$2,086,620
		Construction	Feb-26	Jul-28	$20,813,041
		Post-Constr.	Jul-28	Aug-28	$10,339
		Total			$22,910,000
		Previously Approved Total			$0
		Increase/(Decrease)			$22,910,000

Project Description

This project supports the UN SDG #7.

The purpose of this project is to increase anaerobic digestion capacity at SSWRF. Expanding the capacity of the digesters will mitigate risk associated with inadequate capacity, increase the ability to produce more renewable energy as digester gas, and reduce energy use by reducing the digested sludge mass. The scope of this project includes the design and construction of two new processes for SSWRF, gravity thickening and acid phase digestion. This is a Biosolids Advanced Facilities Plan recommended project. The existing anaerobic digestion process is experiencing operational issues related to the lack of digestion capacity. Primary sludge mass is expected to increase after the South Shore primary treatment project (S01013) is constructed. Primary sludge will also increase if future loadings increase. Gravity thickening Jones Island and South Shore primary sludge, combined with a two-phase anaerobic digestion system, consisting of acid phase digesters followed by the existing conventional mesophilic digesters, will increase the digestion capacity and performance. This project will increase production of renewable energy and reduce the rate of energy used to process biosolids, providing the District the opportunity to meet the 2035 Vision. This is a new project. This project is anticipated to reduce operating costs with the reduction in energy use.

ID #:	Name:	Phase	Start	Finish	Cost
S04040	Dewatering and Drying Facility	Prelimin Eng.	Jan-23	Nov-24	$1,060,000
		Design	Jul-25	Jun-27	$14,760,000
		Construction	Sep-27	Oct-31	$155,720,000
		Post-Constr.	Jul-28	Aug-28	$30,000
		Total			$171,570,000
		Previously Approved Total			$0
		Increase/(Decrease)			$171,570,000

Project Description

The purpose of this project is to address physical mortality, level of service, and economic risks. The existing JI Dewatering and Drying facility (JI D&D) was commissioned in 1994, and the mechanical and electrical components are in need of replacement. The structural aspects are in good condition. The existing dryers are an obstacle relative to accomplishing the District 2035 Vision Goals, but they cannot be replaced with a new technology without significantly interfering with the production of Milorganite®. To minimize total cost, the project scope is to design and construct a new smaller drying facility at SS. This is a new project. The new facility may result in increased Milorganite® production by reducing waste, which may result in increased revenue for the operating budget. Upon completion, this project will allow the District to isolate half of the JI D&D while maintaining Milorganite® production allowing major improvements to take place to reduce energy use and waste, while reusing existing structures to minimize cost.

South Shore Water Reclamation Facility

General Projects

Projects grouped into this category are projects that do not fit into the other reclamation facility processes. The types of projects can be associated with:

- Energy Distribution – electrical generation and distribution, hot water and steam generation and distribution, digester gas distribution, and process air generation
- Buildings and Grounds Improvements – capital improvements to non-process buildings and other improvements such as roads and utilities
- Nonspecific Instrumentation and Control
- Costs associated with litigation with non-current capital projects
- All other nonspecific items

Projects included in the budget in this area will improve operations, most notably in the upgrade of the instrumentation and control equipment that will help better control the water reclamation process and make use of existing capacity.

ID #:	Name:	Phase	Start	Finish	Cost
S06038	2018 SS Capital Equipment Rehabilitation/Replacement	Construction	Jan-18	Dec-24	$14,993,556
		Total			$14,993,556
		Previously Approved Total			$17,993,556
		Increase/(Decrease)			($3,000,000)

Project Description

The purpose of this project is to provide an efficient mechanism to repair or replace various rolling stock and equipment at South Shore that meet the criteria for capital budget financing but do not require extensive cost and schedule management. The project scope will vary each year as existing projects are completed, and new projects are added. The decrease in total project cost is due to a planned equipment purchase no longer being needed. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
S06040	SS Network Optimization	Design	Oct-17	Apr-18	$2,851
		Construction	May-18	Dec-23	$440,961
		Total			$443,812
		Previously Approved Total			$443,812
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to update the supervisory control and data acquisition (SCADA) network servers and switch equipment to current technology, and improve control system reliability, performance, and ease of use. The servers and switches have reached the end of their useful service life. The scope of the project is to replace SCADA network servers and switches at South Shore WRF with new hardware and install enclosures to protect network switches from corrosive air environments. There is no change in total project cost. No impact on the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S06042	SS WRF Odor Assessment	Planning	Jan-23	Jul-24	$505,000
		Total			$505,000
		Previously Approved Total			$400,000
		Increase/(Decrease)			$105,000

Project Description

The purpose of this project is to provide a capital improvement plan to identify projects that will mitigate odor complaints related to SSWRF. The scope of the project is to identify odor sources at SS through odor recognition testing and odor source sampling to build an air dispersion model of the facility and prioritize odor sources to be mitigated. The project will develop odor mitigation alternatives for the sources and deliver a capital improvement plan of recommended projects. The increase in total project cost is due to inflation. No impact on the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
S06047	Power System Improvements	Prelimin. Eng.	Nov-21	Mar-24	$253,000
		Design	Sep-21	Apr-22	$128,771
		Construction	Sep-22	Mar-24	$395,229
		Post-Constr.	Mar-24	May-24	$7,000
		Total			$784,000
		Previously Approved Total			$567,000
		Increase/(Decrease)			$217,000

Project Description

The purpose of this project is to improve the reliability of the power distribution system at SSWRF. This project will improve the efficiency of data collection and analysis when an electrical event occurs on the main power distribution system at SSWRF. The project scope includes preliminary engineering for a relay coordination study and generator controls evaluation. The study and evaluation will include the protective relay settings and generator controls in Buildings 326 and 388. Preliminary engineering includes services to implement the relay setting updates recommended by the relay coordination study. The construction will consist of new satellite antennas, remote telemetry units, real-time automation controllers and a computer workstation for synchronization and data logging. The increase in total project cost is due to increased cost estimates. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
S06048	Building Roof Replacement Phase 5	Design	Dec-23	Nov-24	$310,000
		Construction	Feb-25	Dec-25	$1,636,000
		Post-Constr.	Feb-26	May-26	$11,000
		Total			$1,957,000
		Previously Approved Total			$0
		Increase/(Decrease)			$1,957,000

Project Description

The purpose of this project is to restore the life expectancy of roofs at the SSWRF. The project scope includes design and construction for the roofs for Buildings 303, 309, 311, 339, 359, and 399. This is a new project. The newly replaced roofs will likely require less maintenance than the existing roofs.

ID #:	Name:	Phase	Start	Finish	Cost
S06050	HVAC System Improvements in Bldgs. 378 and 380	Design	May-22	May-24	$425,085
		Construction	Dec-24	Sep-26	$2,983,215
		Post-Constr.	Dec-26	Jul-27	$17,000
		Total			$3,425,300
		Previously Approved Total			$1,755,000
		Increase/(Decrease)			$1,670,300

Project Description

The purpose of this project is to ensure Building 378 and Building 380 have heating, ventilation, and air conditioning (HVAC) systems that adequately heat, condition, and ventilate the building, reduce HVAC energy usage, and improve the HVAC level of service to building occupants. The project scope includes design and construction to replace heating, ventilation, and air conditioning (HVAC) equipment at the Administration Building (Building 378) and Maintenance Building (Building 380) of the South Shore Water Reclamation Facility (SSWRF). The design phase will evaluate the existing HVAC equipment, HVAC controls (see discussion below), HVAC demands of the building, and develop alternatives for replacement of the HVAC equipment. Additionally, an Energy Audit will be conducted to determine if additional HVAC energy efficiency measures can be implemented to assist in achieving the District's goal of reducing energy use and carbon footprint. Based on the potential changes to the HVAC system ductwork, the project may also involve the replacement of the acoustical drop ceiling and lens covers for the existing lighting fixtures. The increase in total project cost is due to an increase in construction costs as well as increase in project scope to include building 380. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
S06053	W3 Flushing Water System Fire Flow	Design	Oct-23	Sep-26	$315,000
		Construction	Mar-27	May-28	$1,551,000
		Post-Constr.	Aug-28	Feb-29	$14,000
		Total			$1,880,000
		Previously Approved Total			$0
		Increase/(Decrease)			$1,880,000

Project Description

The purpose of this project is to improve needed fire flows to all lower site facilities at SSWRF. The modeled fire flows show that several facilities on the southern end of the SSWRF do not have the required fire flows. The project scope includes design and construction to improve fire flows to the southern portion of the lower site of the SSWRF including identifying and evaluating alternatives, such as booster pumps, additional fire hydrants and W3 distribution pipe improvements. This is a new project. Once new fire hydrants are installed, the District will maintain them with funding from the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
S06054	SS Feeder, LCUS, and MCC Replacements	Design	Jan-23	Nov-25	$723,000
		Construction	Mar-26	Sep-27	$14,397,000
		Post-Constr.	Oct-27	Oct-27	$10,000
		Total			$15,130,000
		Previously Approved Total			$0
		Increase/(Decrease)			$15,130,000

Project Description

The purpose of this project is to replace obsolete electrical equipment with new equipment to reduce the risk of failure and power outages. The project scope includes design and construction to replace LCUS-3, LCUS-4, 303-MDP-1, 303-MDP-2, 29 MCCs, and 42 feeder cables to MCCs at SSWRF. Some MCCs will be replaced with new MCCs, while others may be replaced with new switchboards where the existing MCCs no longer contain any starters or other motor control equipment, and some may be removed. The LCUSs and MDPs will be replaced in kind. The cables will be replaced with consideration for future loads. This is a new project. No significant operating budget impact is expected.

ID #:	Name:		Cost
S99003	Operator Contribution to CIP	Ten-Year Forecast Total	$200,000

Project Description

The operating contract with VWM includes provisions for VWM to participate in current and planned District capital projects. The scope of this project includes VWM work in reviewing the annual capital budget, reviewing and creating requests for new projects, attending meetings, and participation in the implementation of capital projects. Operator Contribution to Capital Improvement Program accounts do not have an approved total project cost. The 2023 expenditures are budgeted at $50,000; the ten-year long-range financing plan includes $200,000. No significant operating budget impact is expected.

Interplant Pipeline

A 12-mile pipeline that connects the Jones Island and South Shore water reclamation facilities allows the transfer of sludge between the water reclamation facilities. This interplant pipeline aids in the production of Milorganite® because waste activated sludge and digested sludge can be conveyed to Jones Island where Milorganite® is produced. The primary sludge from Jones Island can be either sent to digestion or to South Shore solids handling facilities then to either farm fields or sanitary landfills for final disposal outside of the plant.

ID #:	Name:	Phase	Start	Finish	Cost
P01005	Interplant Pipeline Improvements - Phase II	Design	Apr-16	Oct-21	$1,851,566
		Construction	Feb-17	Dec-25	$27,788,126
		Post-Constr.	Mar-26	Sep-26	$8,108
		Total			$29,647,800
		Previously Approved Total			$29,647,800
		Increase/(Decrease)			$0

Project Description

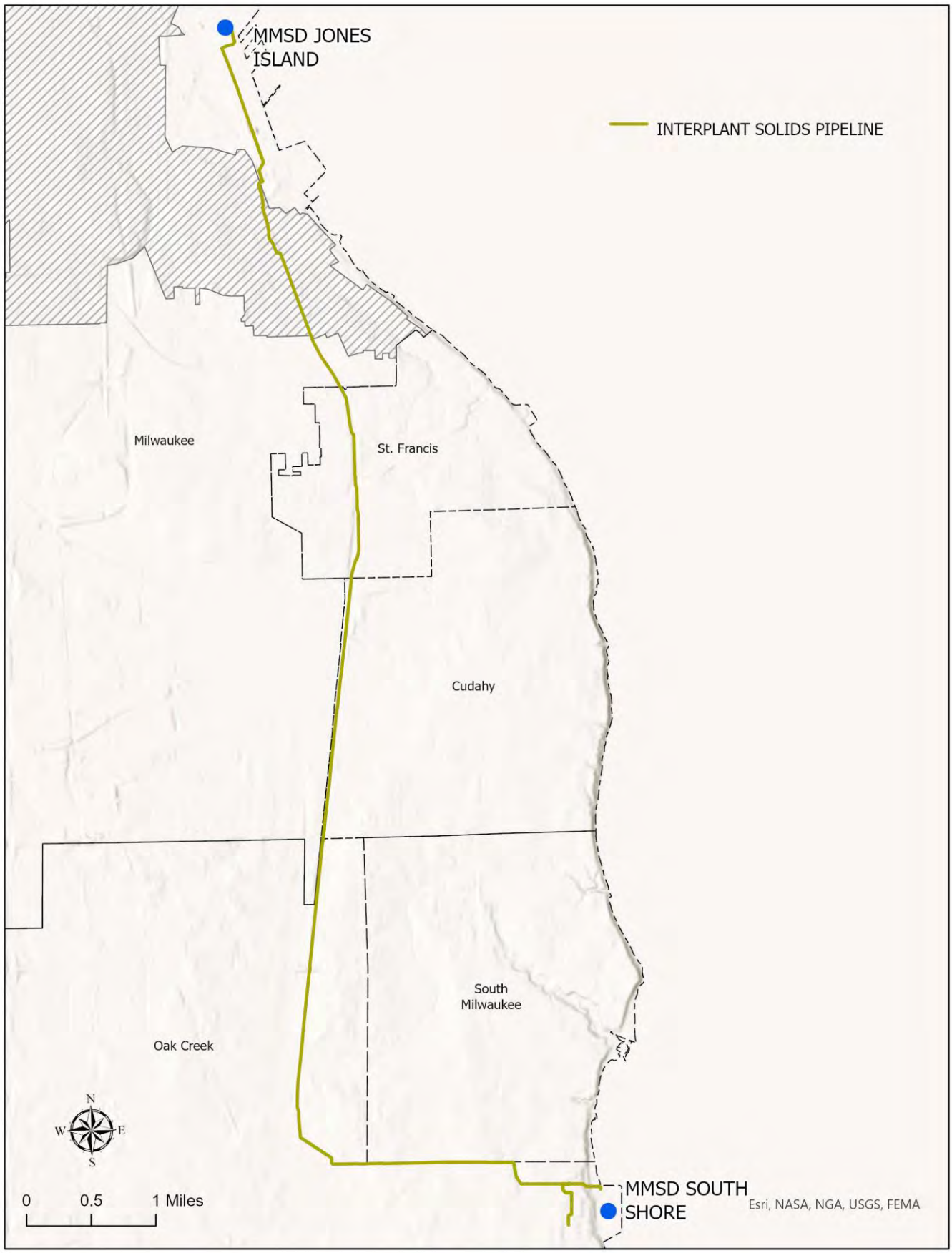
The interplant solids (IPS) system consists of two pump stations and four pipelines that allows transfer of solids between Jones Island and South Shore for the purpose of maximizing Milorganite® production, bio-gas production and other bio-solids environmentally sustainable recycling methods. The purpose of this project is to ensure capacity and operational flexibility for solids transfer between Jones Island and South Shore for maximizing Milorganite® and digester gas production. The IPS system is over 20 years old and much of its support equipment has reached the end of is useful life. This project will replace key system components such as pumps, motors, variable frequency drives, magnetic flow meters, valves, and piping at the Jones Island Pump Station, the South Shore Pump Station and the valve vaults located between the two facilities. The project will also restore the cathodic protection system for the IPS pipelines along their entire length between the two water reclamation facilities. Cathodic protection is used to minimize corrosion of buried infrastructure. The project will also restore capacity and reduce energy consumption of the IPS system by increasing the pump capacity and reducing the pump pressure by cleaning and pigging the IPS pipelines. There is no change to the total project cost. No operating budget impact is anticipated at this time.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
P01006	Replace IPS Pipes within South Shore WRF Property	Design	Feb-19	Apr-20	$431,729
		Construction	Sep-20	Dec-21	$6,343,276
		Post-Constr.	Jan-23	Dec-23	$9,494
		Total			$6,784,500
		Previously Approved Total			$6,784,500
		Increase/(Decrease)			$0

Project Description

The purpose of the project is to ensure the continued use of the Interplant Solids Pipeline on the South Shore Water Reclamation Facility property. The Interplant Solids Pipeline at SSWRF has experienced several breaks in recent years due to severe external corrosion. Replacement of the pipelines is necessary to reduce the risk and frequency of pipeline breaks. The project scope includes design and construction to replace the pipelines. There is no change to total project costs. No operating budget impact is anticipated at this time.


MMSD JONES ISLAND
INTERPLANT SOLIDS PIPELINE
Milwaukee
St. Francis
Cudahy
South Milwaukee
Oak Creek
N
W
E
S
0
0.5
1 Miles
MMSD SOUTH SHORE
Esri, NASA, NGA, USGS, FEMA

Landfill Gas Pipeline

ID #:	Name:	Phase	Start	Finish	Cost
P02004	Landfill Gas System - Metro Landfill	Design	Jul-16	Apr-26	$1,191,981
		Construction	Sep-26	Dec-27	$9,104,766
		Post-Constr.	Jan-20	Oct-28	$13,253
		Total			$10,310,000
		Previously Approved Total			$9,910,000
		Increase/(Decrease)			$400,000

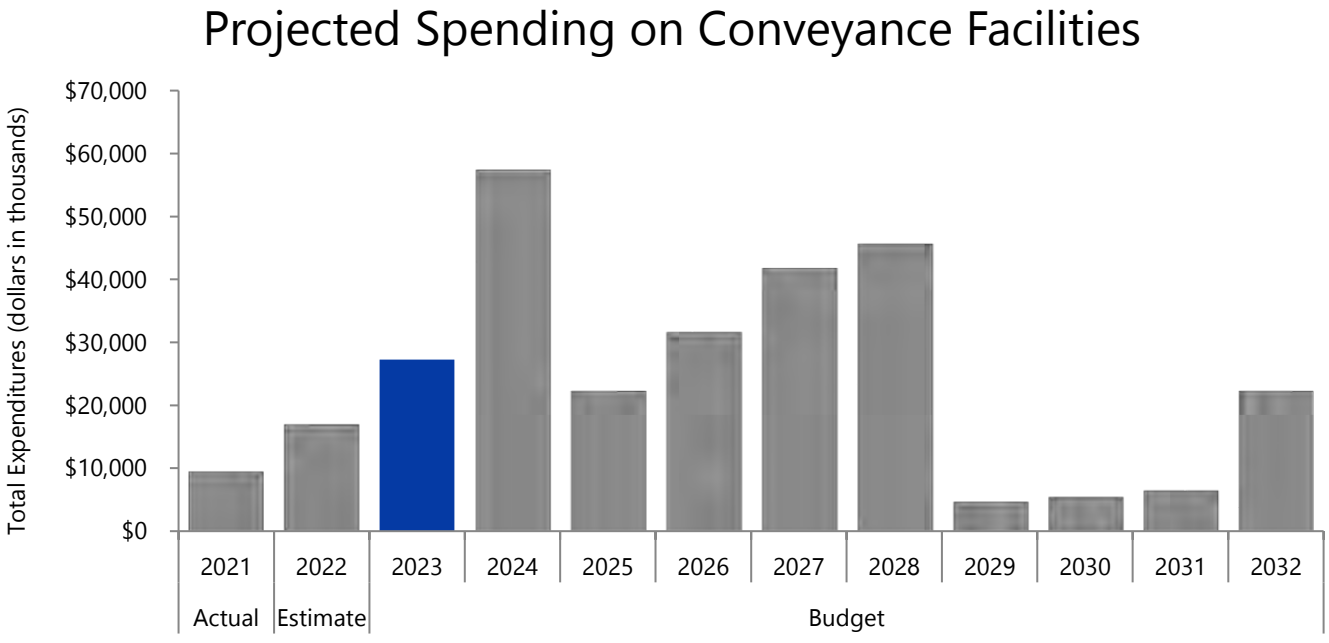
Project Description

The purpose of the project is to treat gas from the Waste Management Metro Landfill and deliver it to the District's landfill gas (LFG) pipeline for use at JIWRF. LFG is a source of energy for producing electricity for plant purposes and heat to produce Milorganite® at JIWRF. LFG is a renewable fuel, and its use at Jones Island in place of natural gas results in operational cost savings and an overall reduction in greenhouse gases. The project is expected to increase MMSD's ability to use more landfill gas, a lower cost option, therefore lowering MMSD's energy costs in the operating budget. Project scope includes design, construction and startup of a new landfill gas (LFG) pre-treatment facility at Metro Landfill, pipeline to convey the Metro LFG to the existing treatment system at Emerald Park Landfill, and improvements to increase the capacity of the treatment system at Emerald Park Landfill, to fully treat the Metro LFG before delivery to the District's LFG pipeline. The increase in total project cost is due to inflation.

This project supports the UN SDG #7.

Conveyance

The District owns and operates an extensive system of sanitary sewers used to collect, convey, and in some cases, store wastewater originated by local sewer systems. The local sewer systems are operated and maintained by governments within the District and those contracted with the District. Wastewater generated from households and businesses flows to the local systems, is collected by the District's system, and is conveyed to the District's two Water Reclamation Facilities. The budget divides the District's conveyance system into three components: the Metropolitan Interceptor Sewer System, the Inline Storage System, and the Central Control System.



Metropolitan Interceptor Sewer System

The District's Metropolitan Interceptor Sewer (MIS) system, a network of sanitary sewers, is operated and maintained through a contract with Veolia Water Milwaukee (VWM). The purpose of the MIS system is to intercept wastewater from local sanitary and combined sewer systems within the service area. Wastewater within the MIS system is subsequently conveyed to either the Jones Island or South Shore Water Reclamation Facilities. The MIS system is divided into seven subsystems for purposes of flow monitoring analysis and system control. In the combined sewer area where both sanitary and storm water systems are combined, the MIS subsystem consists of a high-level and a low-level sewer system. The low-level system provides service to the low-lying areas along the Milwaukee, Menomonee, and Kinnickinnic rivers. Flow in both high and low-level systems is conveyed by gravity to either of two siphon chambers (East Erie Street or East Bruce Street) and is then conveyed via a double-barreled siphon to a wet well at Jones Island. Flows can also be diverted between some subsystems for conveyance to either Jones Island or South Shore. Moreover, some flows can be diverted to the Inline Storage System, a large storage facility underground. Diversion of flow between subsystems is accomplished by manually operating gates and flow diversion devices or by operator initiation from the District's Central Control System.

Inline Storage System

The Inline Storage System (ISS), or Deep Tunnel System, consists of 21.4 miles of tunnels 300 feet underground and can store up to 432 million gallons of wastewater. The cornerstone of the Water Pollution Abatement Program (WPAP), the ISS became fully operational in 1994. The Northwest Side Relief Sewer (NWSRS) went on-line in early 2006. This storage tunnel is 7.1 miles long, 20 feet in diameter and adds 89 million gallons of storage capacity to the existing system, for a total of 494 million gallons. The ISS and NWSRS store peak wastewater flows that temporarily exceed the capacity of either the Water Reclamation Facilities or the MIS system. The system is designed to substantially reduce the number of bypasses and the discharge of untreated or partially treated wastewater into Lake Michigan and area streams.

During wet weather periods, the MIS system surcharges when the hydraulic capacity of the system has been reached. When this happens, pressure causes the flow to seek a free outfall. Under the original MIS system design, this outfall (also referred to as an overflow) flowed into area rivers and Lake Michigan. Since completion of the WPAP, when the system becomes surcharged the near-surface collector system conveys excess flows to the ISS via a series of 24 drop shafts. The ISS system was designed to eliminate overflows from the separated sewer area and to greatly reduce overflows in the combined sewer area. The ISS was designed to capture most, but not all, of the flows caused by extreme wet weather events.

Central Control System

Using continuous and intermittent monitors, flows within the MIS system and the local sewer system are monitored. Continuous monitors are permanently installed in over 300 locations and primarily use a wireless communication system to transmit data back to the District's Central Control System. Intermittent monitors are temporarily installed and rely on field crews to retrieve the data. Along with monitoring flow data, the Central Control System allows remote operation of the conveyance system. A single operator can divert flow from one subsystem to another, from one water reclamation facility to another or to the ISS. The goal of the Central Control System is to ensure that water reclamation facility and conveyance capacity is utilized in the most efficient manner.

The 2023 Capital Budget includes $29.1 million for work on various conveyance projects. Please refer to project detail on the following pages for information on the project purpose, scope, cost estimate and impact on the O&M budget. Most projects in the Conveyance Facilities section of the capital budget support the SDGs #6. The icons highlight the projects that directly state the purpose of the project is to improve water quality.

Subsystem 1 – South Shore Main Branch

Metropolitan Interceptor Sewer System

Subsystem 1 is located in the southern part of Milwaukee County. While some areas of Subsystem 1 can be diverted to either the Jones Island or South Shore Water Reclamation Facilities, a majority of flows are tributary to South Shore. Municipalities that discharge to Subsystem 1 are the cities of Cudahy, Franklin, Greenfield, Milwaukee, Oak Creek, St. Francis, and West Allis, and Village of West Milwaukee.

ID #:	Name:	Phase	Start	Finish	Cost
C01006	150" MIS Preliminary Engineering	Prelimin. Eng.	Feb-20	Mar-23	$1,530,858
		Total			$1,530,858
		Previously Approved Total			$1,530,858
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to minimize risk exposure by assessing the condition of the 144-inch and 150-inch pipes. The project scope consists of the multi-sensor condition assessment of the 144" and 150" monolithic concrete sewers beginning at MH32004 (S. 60th St and W. Grant St.) and ending at SSWRF. There is no change to total project cost. No impact to the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
C01007	South Howell Ave MIS Relief	Design	Apr-23	May-25	$1,121,000
		Construction	Dec-25	Jan-27	$15,490,000
		Post-Construction	Mar-27	Jun-27	$14,000
		Total			$16,625,000
		Previously Approved Total			$0
		Increase/(Decrease)			$16,652,000

Project Description

The purpose of the project is to improve the hydraulics of district sewers in South Howell Ave to reduce the risk of sanitary sewer overflows at BS0101 and reduce risks of basement backups. The project scope includes the design and construction of a new relief in South Howell Ave. This is a new project. No impact to the operating budget is anticipated.

This project supports the UN SDG #6.

Subsystem 2 – Southwest Branch

Metropolitan Interceptor Sewer System

Subsystem 2 is located on the south side of the planning area and its flows are tributary to South Shore. The communities discharging to this subsystem are the cities of Franklin, Greenfield, Milwaukee, Muskego, New Berlin, Oak Creek and West Allis, the villages of Caledonia, Greendale, and Hales Corners.

ID #:	Name:	Phase	Start	Finish	Cost
C02009	W. College Ave MIS Rehabilitation and Hydrogen Sulfide Mitigation	Planning	Jan-19	Oct-20	$516,804
		Prelimin. Eng.	Sep-23	Jan-25	$130,906
		Design	Jan-25	Mar-26	$187,626
		Construction	Jun-26	Oct-26	$395,353
		Post-Constr.	Dec-26	Mar-27	$5,674
		Total			$1,236,362
		Previously Approved Total			$1,085,935
		Increase/(Decrease)			$150,427

Project Description

The purpose of this project is to reduce the odors and hydrogen sulfide levels in the MIS in W. College Avenue and develop a protocol for hydrogen sulfide issues throughout the MIS system. Mitigating hydrogen sulfide in the MIS reduces odors, corrosion, and potential health risks. The project scope also includes design and construction for a hydrogen sulfide mitigation system for the MIS in W. College Avenue from W. Forest Home Avenue to S. Root River Parkway. The increase in total project cost is due to refined estimates. No significant impact on the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
C02010	Franklin Muskego Force Main Rehabilitation	Prelimin. Eng.	Nov-19	Jun-23	$654,920
		Design	Feb-24	Apr-25	$407,000
		Construction	Oct-25	Jan-27	$1,663,000
		Post-Constr.	Feb-27	Jun-27	$15,000
		Total			$2,739,920
		Previously Approved Total			$2,739,920
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to provide for continued and reliable services of the Franklin/Muskego force main by extending its useful life. The scope of this project includes preliminary engineering, design and construction of rehabilitation and replacement of the Franklin/Muskego Force Main to address corrosion issues. The preliminary engineering phase will complete investigative digs where sections of the force main will be excavated, removed, and replaced or repaired at locations of pipe anomalies identified during a previous nondestructive investigation. There is no change to total project cost. No impact to the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
C02012	10th Avenue MIS Lateral Reconstruction	Design	Apr-19	Jul-22	$50,131
		Construction	Nov-22	Apr-23	$79,223
		Post-Constr.	Apr-23	May-23	$5,990
		Total			$135,344
		Previously Approved Total			$135,344
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to restore five 6-inch lateral crossings and one 8-inch City of Oak Creek sewer crossing over an MIS to their original vertical alignments. The sewers that cross above the 27-inch MIS have sags in them. The scope of this project is to produce an MMSD-designed plan set to relay portions of up to five house laterals and one 8-inch diameter municipal main. There is no change to total project cost. No impact to the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
C02013	Oak Creek Southwest MIS Extension	Prelimin. Eng.	Jan-21	May-21	$5,568
		Design	May-23	Oct-25	$1,124,032
		Construction	Jul-26	May-28	$14,527,000
		Post-Constr.	Sep-28	May-29	$8,000
		Total			$15,664,600
		Previously Approved Total			$14,622,825
		Increase/(Decrease)			$1,041,775

Project Description

The purpose of this project is to provide sanitary sewer service to undeveloped areas of the sanitary sewer service area (SSSA) as requested by the City of Oak Creek and the City of Franklin. The project scope includes the design and construction of a new Metropolitan Interceptor Sewer (MIS) in S 27th Street, from the end of the existing MIS at W. Oakwood Road, south to the Racine County line. The change in total project cost is due to inflation and updated cost estimates. The impact on the operating budget is that additional sewer pipes will need to be maintained.

ID #:	Name:	Phase	Start	Finish	Cost
C02014	MIS Rehabilitation of Pipe 42406	Prelimin. Eng.	Nov-22	Oct-23	$157,600
		Design	May-26	Jan-27	$99,425
		Construction	Apr-27	Feb-28	$297,680
		Total			$554,705
		Previously Approved Total			$0
		Increase/(Decrease)			$554,705

Project Description

The purpose of this project is to reduce the risk of failure for the 54-inch diameter MIS, segment 42406, and to reduce the risk of backups by restoring the original pipe capacity of the MIS. The project scope includes a condition assessment of a 912 foot long, 54-inch diameter MIS, segment 42406, and to restore the pipe to its original condition. This is a new project. No impact to the operating budget is anticipated.

Subsystem 3 – Northwest Branch

Metropolitan Interceptor Sewer System

Subsystem 3, serving the western part of the service area can have most of its flow diverted to either water reclamation facility. A small portion of the area is tributary to South Shore only. Municipalities that discharge to Subsystem 3 are the cities of Brookfield, Mequon, Milwaukee, New Berlin, Wauwatosa, and West Allis; and the villages of Butler, Elm Grove, Germantown, and Menomonee Falls.

ID #:	Name:	Phase	Start	Finish	Cost
C03013	Oklahoma Ave MIS Capacity Improvements	Design	Sep-22	Apr-24	$804,527
		Construction	Oct-24	Dec-25	$10,278,973
		Post-Constr.	Feb-26	May-26	$13,500
		Total			$11,097,000
		Previously Approved Total			$11,097,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to reduce the risk of sanitary sewer overflows (SSOs) and basement backups within the City of Milwaukee caused by MIS system capacity limitations. The project scope includes design, construction, and post construction phases to address conveyance capacity issues of the 21-inch diameter MIS (2,050 linear feet) and the 39-inch special section MIS to Passive Diversion Structure 3302 (500 linear feet). There is no change to total project cost. No operating budget impact is anticipated at this time.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
C03014	Greenfield Park & Underwood Creek Pump Stations Upgrades	Design	Jun-22	Dec-23	$530,774
		Construction	Apr-24	Mar-26	$4,456,226
		Post-Constr.	Jun-26	Aug-26	$13,000
		Total			$5,000,000
		Previously Approved Total			$4,826,000
		Increase/(Decrease)			$174,000

Project Description

The purpose of this project is to rehabilitate the Underwood Creek and Greenfield Park Pump Stations to ensure continued reliable operation of the pump stations. The scope of this project includes the design and construction for the rehabilitation, replacement, or upgrade of the equipment and systems at Pump Stations PS0301 (Greenfield Park Pump Station) and PS0302 (Underwood Creek Pump Station). Equipment and systems included in this project include mechanical (pumps, valves, air compressor systems, seal water systems, surge system, slide gates, and bar screens), electrical (lighting, switchboards, VFDs, RVSSs, pump motors, MCCs, and back-up generator), and instrumentation and control (I&C) (flow metering equipment and control panels). These assets have reached the end of their original service life. The increase in total project cost is due to additional scope being added. No operating budget impact is anticipated at this time.

Subsystem 4 – Northeast Branch

Metropolitan Interceptor Sewer System

Subsystem 4 is located in the central and northeast parts of the planning area. Some flows in Subsystem 4 can be diverted to either water reclamation facility. Flow that cannot be diverted is tributary to South Shore. Municipalities served by Subsystem 4 are the cities of Glendale, Mequon, Milwaukee, Wauwatosa and West Allis; and the villages of Bayside, Brown Deer, Fox Point, River Hills, and Thiensville.

ID #:	Name:	Phase	Start	Finish	Cost
C04005	Martha Washington/Highlands MIS Improvements	Prelimin Eng.	Aug-09	Aug-13	$123,371
		Design	Nov-22	Mar-25	$989,567
		Construction	Oct-25	Jun-27	$4,799,000
		Post-Constr.	Aug-27	Feb-28	$7,862
		Total			$5,919,800
		Previously Approved Total			$5,266,533
		Increase/(Decrease)			$653,267

Project Description

The purpose of the project is to rehabilitate the Martha Washington Highlands area MIS and develop a cost-effective recommendation to provide another 50 years of reliable sewer service. The goal of the project is to extend the service life of the project area MIS, reduce ongoing operation and maintenance costs, address excessive wet weather infiltration and inflow (I/I) within the system, and eliminate redundancies within the MIS system in the project area. The scope is to design and construct the rehabilitation or replacement of MIS segments in the Martha Washington Highlands area to address poor structural conditions and I/I issues. The increase in total project cost is due to inflation as well as an increase in construction costs. No significant operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
C04010	Mill/Green Bay/Green Tree MIS Relief	Planning	Jan-16	Jun-19	$1,345,031
		Design	Jul-20	Jun-24	$2,128,617
		Construction	Sep-24	Dec-28	$58,346,352
		Post-Constr.	Dec-28	Apr-29	$64,000
		Total			$61,884,000
		Previously Approved Total			$51,036,968
		Increase/(Decrease)			$10,847,032

Project Description

The purpose of this project is to reduce the risk of SSOs and provide conveyance relief to the 72-inch MIS from West Green Tree Road and North River Road to West Mill Road and North Sydney Place. In both 2014 and 2015, overflows occurred while the ISS was available for inflows from this area. The overflows are an indication that enough development has occurred to cause a need for conveyance enhancement or relief of the 72-inch MIS. The scope of this project includes a hydraulic evaluation to determine a solution that will address the 72-inch MIS, as well as other known conveyance issues on the northeast side of the District's service area. Cost estimates for this project were based on conveyance relief for 8,300 linear feet of 48-inch sewer and twelve manholes with depths between 20 and 50 feet. The increase in total project cost is due to revised construction estimates. No significant operating budget impact is expected.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
C04013	Brown Deer Road Sewer	Design	Sep-20	Feb-22	$384,300
		Construction	May-22	Jul-23	$3,155,540
		Post-Constr.	Aug-23	Nov-23	$11,500
		Total			$3,551,340
		Previously Approved Total			$3,551,340
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to reduce the risk of basement backups in the Village of Bayside by replacing a deep and undersized MIS that experiences frequent surcharging. The scope of the project includes the design and construction of approximately 600 feet of new 27-inch sanitary sewer, abandonment of approximately 600 feet of existing 15-inch PVC MIS, reconnecting sewer laterals serving three houses and two businesses, three new cast-in-place manholes, and one new monitoring manhole. All properties served by the Brown Deer Road Sewer are in the Village of Bayside. Upon completion of this project, ownership of the sewer will be transferred to the Village of Bayside. There is no change to total project cost. It is anticipated that this project will decrease maintenance costs for the District once the ownership of the sewer transfers to the Village of Bayside.

Constructing box culvert on 27th Street

Subsystem 5 – North Side High Level Branch

Metropolitan Interceptor Sewer System

Subsystem 5 is located in the northeastern part of Milwaukee County. Most of this subsystem's flows are tributary to Jones Island. Flow from River Hills and portions of Glendale can be diverted to South Shore. Municipalities discharging within Subsystem 5 are the cities of Glendale, Mequon, and Milwaukee; and the villages of Brown Deer, River Hills, Shorewood, and Whitefish Bay.

ID #:	Name:	Phase	Start	Finish	Cost
C05041	CMIS - Basin H PCB Remediation and Rehabilitation	Design	Jan-06	Aug-23	$1,708,818
		Construction	Nov-06	Feb-27	$14,925,017
		Post-Constr.	Feb-24	Jun-24	$39,174
		Total			$16,673,010
		Previously Approved Total			$16,552,220
		Increase/(Decrease)			$120,790

Project Description

The purpose of the project is to reduce the risk of a sanitary sewer overflow due to the failure of the Basin H MIS and provide a cost-effective service life of an additional 50 years or more. The project scope is to design and implement rehabilitation of the MIS located in Basin "H" of the Central MIS sewer system. The MIS runs roughly adjacent to the Milwaukee River from Auer Avenue to Hampton Avenue northward and from Auer Avenue to Milwaukee Street southward. This project includes removing, treating, and disposing of poly chlorinated biphenyl (PCB) contaminants, CCTV inspecting the Basin H MIS, and rehabilitating sewer segments and manholes to provide additional 50-years of service life. The increase in total project cost is due to refined cost estimates. There is no operating budget impact expected.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
C05051	Edgewood MIS/NSC Extension	Prelimin. Eng.	Jan-17	May-18	$46,280
		Design	May-19	May-21	$1,222,558
		Construction	Sep-21	May-23	$10,545,218
		Post-Constr.	Jun-23	Oct-23	$11,743
		Total			$11,825,800
		Previously Approved Total			$11,616,971
		Increase/(Decrease)			$208,829

Project Description

The purpose of this project is to reduce the risk of water in basement issues within the Village of Shorewood and City of Milwaukee. This project will improve hydraulic conditions at the connection between local sewers (Shorewood and Milwaukee) to District Facilities. The green infrastructure (GI) component will be a contributor to helping the District meet its 2035 Vision goal of capturing 740 million gallons of water every time it rains, which will reduce water pollution and improve our rivers and Lake Michigan. The project's scope includes the design and construction of approximately 2,250 feet of 72-inch diameter near surface collector (NSC) sewer in East Edgewood Avenue, including diversion structures and manhole structures. The project's scope also includes the final design and construction of GI in Shorewood's River Park. The increase in total project cost is due to increased costs for the design and construction phases. No significant operating budget impact is expected.

72-inch diameter sewer to install as part of the project.

ID #:	Name:	Phase	Start	Finish	Cost
C05055	N. 35th and Roosevelt Improvements	Planning	Dec-18	Jan-20	$129,575
		Design	Mar-21	Dec-22	$1,062,026
		Construction	Mar-23	Apr-25	$15,335,976
		Post-Constr.	Apr-25	Jul-25	$11,000
		Total			$16,538,577
		Previously Approved Total			$14,032,766
		Increase/(Decrease)			$2,505,811

Project Description

The purpose of this project is to reduce the risk of SSOs at N. 35th Street and West Roosevelt Drive. The project scope includes a planning study to determine recommendations for design and construction of improvements to the MIS System. Based on the planning study, the project includes the design and construction of a new MIS sewer in West Roosevelt Drive, new local connection sewers and MIS abandonment to reduce the occurrence of SSOs. The change in total project cost is due to an increase in construction costs. No significant operating budget impact is expected.

This project supports the UN SDG #6.

Subsystem 6 – South Side High Level Branch

Metropolitan Interceptor Sewer System

Subsystem 6 is located in the southern half of Milwaukee County. Some areas of Subsystem 6 can be diverted to either the Jones Island or South Shore Water Reclamation Facilities. Some areas are tributary only to Jones Island and some only to South Shore. Municipalities that discharge to Subsystem 6 are the cities of Cudahy, Greenfield, Milwaukee, St. Francis, and West Allis, and the Village of West Milwaukee.

ID #:	Name:	Phase	Start	Finish	Cost
C06022	Conveyance Structures Improvements	Design	Mar-20	Apr-21	$179,737
		Construction	Jul-21	Nov-22	$776,220
		Post-Constr.	Dec-22	Mar-23	$14,043
		Total			$970,000
		Previously Approved Total			$1,030,000
		Increase/(Decrease)			($60,000)

Project Description

The purpose of this project is to provide reliable conveyance system operations, including flow diversions during various flow conditions and as needed for maintenance or construction activities by improving three underground flow control structures. The project scope includes evaluation, design and construction to rehabilitate and improve two maintenance gate structures: structure 60803, located in S 7th St and W Scott St, and structure 60801, located in S 4th St and W Scott St. Additionally, the project scope includes evaluation, design and construction to lower the concrete weir in structure 85048, 13th and Clybourne, and install a stop log system. The decrease in total project cost is due to refined cost estimates. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
C06023	VA Grounds MIS Relocation	Design	May-21	Jan-23	$543,100
		Construction	Apr-22	Jun-24	$3,308,700
		Post-Constr.	Aug-24	Nov-24	$16,200
		Total			$3,868,000
		Previously Approved Total			$2,655,000
		Increase/(Decrease)			$1,213,000

Project Description

The purpose of this project is to relocate the existing 24" MIS within the VA grounds. The goal of the project is to provide a sewer that is not located under VA facilities, is easy to access and maintain, maintains existing hydraulic capacity, and provides 100-years of service life. The project scope includes design and construction of approximately 1,720 feet of 24-inch diameter MIS in a new alignment. This new MIS will replace an existing 24-inch diameter MIS that will be abandoned per this project (approximately 600 feet). The increase in total project cost is due to updated construction cost estimates. No significant impact to the operating budget is expected.

Subsystem 7 – Low Level Branch

Metropolitan Interceptor Sewer System

Subsystem 7 in the east central portion of Milwaukee County consists of the combined sewer service area of Milwaukee and some scattered separate sanitary sewer areas surrounding it. These flows are tributary to Jones Island only. The Municipalities discharging to Subsystem 7 are the cities of Milwaukee and St. Francis and the Village of West Milwaukee.

ID #:	Name:	Phase	Start	Finish	Cost
C07035	Mitchell Park PCB Sewer Improvements	Prelimin. Eng.	Jan-23	May-23	$100,000
		Design	Sep-24	Mar-26	$482,000
		Construction	Jul-26	Feb-28	$3,042,000
		Post-Constr.	Apr-28	Dec-29	$6,000
		Total			$3,630,000
		Previously Approved Total			$3,630,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to reduce risks associated with PCB contaminated sediment that remains in an unused section of 48-inch brick near surface collector in Mitchel Park. The scope of this project is to design and implement a PCB mitigation method of either removing or cap in place PCB contaminated sediments. There is no change in total project cost. No significant impact to the operating budget is expected.

ID #:	Name:	Phase	Start	Finish	Cost
C07037	South Shore Force Main Assessment	Prelimin. Eng.	Aug-17	Dec-21	$1,045,731
		Design	Nov-24	Mar-26	$360,000
		Construction	Jul-26	Aug-27	$1,409,269
		Post-Constr.	Sep-27	Sep-27	$30,000
		Total			$2,845,000
		Previously Approved Total			$1,082,310
		Increase/(Decrease)			$1,762,690

Project Description

The purpose of this project is to investigate the South Shore Force Main pipe to determine the condition of the force main and perform necessary rehabilitation as needed. The force main was installed in the 1980s and had never been inspected. The project scope includes an investigation of pipe wall thickness, assessment of rates of corrosion or other forms of degradation of pipe strength, and recommendations of actions to be taken. Based on the investigations and condition assessment, the project includes the design and construction to rehabilitate the force main to provide additional service life. The increase in total project cost is due to the addition of design and construction phases to the project. No significant impact to the operating budget is expected.

General Interceptor Sewer System

Metropolitan Interceptor Sewer System

Projects grouped in this category are projects that benefit the overall Interceptor Sewer System or cannot be attributed to a single subsystem.

ID #:	Name:	Phase	Start	Finish	Cost
C98044	MIS Abandonment in Various Locations	Design	Jan-13	Dec-25	$54,313
		Construction	Jan-13	Dec-25	$1,849,648
		Total			$1,903,961
		Previously Approved Total			$1,534,634
		Increase/(Decrease)			$369,597

Project Description

The purpose of this project is to reduce the total length of sewers that the District is responsible for by abandoning sewers that are no longer necessary. Abandoning unnecessary MIS segments reduces infiltration and inflow entering the District's system, maintenance costs associated with these sewers, and the likelihood of overflows. The reconstruction costs associated with the abandonments and the locations qualify the work to be funded as part of the capital budget. The project is expected to reduce operating costs because there will be fewer sewers to maintain and operate. The increase in total project cost is due to extending the schedule to 2025.

ID #:	Name:	Phase	Start	Finish	Cost
C98047	Access Hatch Covers	Design	Jan-12	Jul-24	$160,000
		Construction	Jan-12	Dec-24	$3,600,100
		Total			$3,760,100
		Previously Approved Total			$3,600,000
		Increase/(Decrease)			$160,100

Project Description

The purpose of this project is to restore the structural integrity of the conveyance facility assets and ensure the safety of the public. The project scope is the on-going design and construction for replacement of deteriorated access hatches throughout the conveyance system. Hatch covers are typically installed to provide access to conveyance assets, such as sluice gates, flap gates, and adjustable weirs, for maintenance and monitoring. The increase in total project cost is due to inflation. There is no operating budget impact expected.

ID #:	Name:	Phase	Start	Finish	Cost
C98052	Miscellaneous Sewer Rehab	Design	Jan-15	Dec-24	$115,051
		Construction	Apr-25	Sep-25	$318,877
		Post-Constr.	Sep-25	Jan-26	$4,990
		Total			$438,919
		Previously Approved Total			$438,919
		Increase/(Decrease)			$0

Project Description

Approximately 75 miles of MIS have been identified that currently function primarily as local municipal sewer. Discussions with the appropriate municipalities regarding the transfer of these sewers from the District to the local municipality are ongoing. Bringing these sewer segments up to at least a National Association of Sewer Service Companies (NASSCO) 3 rating would allow the municipality some assurance that the segments should have at least another 20 years of service life and allow the District to transfer these sewers from District-ownership to the municipality. The scope includes addressing all identified NASSCO 4 and 5 defects in the segments of MIS that may have ownership transferred to a local municipality. This effort is being coordinated with the District's Asset Management Program (AMP). When sewers receive condition ratings of 4 or 5, the AMP develops plans to rehabilitate or replace the sewers. There is no change in total project cost. The project is expected to reduce the costs to the operating budget by reducing the number of sewers owned and serviced by the District.

ID #:	Name:	Phase	Start	Finish	Cost
C98055	Conveyance Equipment Replacement	Construction	Jan-17	Jan-25	$4,054,961
		Total			$4,054,961
		Previously Approved Total			$3,104,861
		Increase/(Decrease)			$950,100

Project Description

The purpose of the project is to provide budgeted funding for conveyance system equipment replacements. Project scope includes replacing equipment that has reached the end of its useful life. Projects are generally replacement in nature and do not need significant design that would cause the work to be managed as a stand-alone capital project. The increase in total project cost is due to additional scope such as replacing gates being added. No significant operating budget impact is expected from this project.

ID #:	Name:	Phase	Start	Finish	Cost
C98061	Assess Condition of CSO Piping	Planning	Oct-22	Dec-22	$97,000
		Prelimin. Eng.	Jan-23	Aug-24	$3,574,747
		Total			$3,671,747
		Previously Approved Total			$97,000
		Increase/(Decrease)			$3,574,747

Project Description

The purpose of this project is to determine the condition of MMSD's outfalls. The scope includes the planning and preliminary engineering phases to perform condition assessments for outfall pipe sections between the diversion structure (or other flow control structure) and the outfall at the receiving water. The increase in total project cost is due to adding scope to perform condition assessment analysis on the outfall pipes. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
C98063	MIS Siphons Preliminary Engineering	Prelimin. Eng.	Sep-20	Sep-24	$1,900,761
		Total			$1,900,761
		Previously Approved Total			$1,900,761
		Increase/(Decrease)			$0

Project Description

The purpose of this new project is to assess the condition of siphons consisting of cast iron or concrete pipe and built before the 1940s. This assessment is the first step in the reconstruction or rehabilitation of the sewers. The scope of this project includes multiple assessments of the pipe condition and sedimentation within the pipe. The assessment will determine the structural condition of the pipe, risk for collapse, and recommend whether rehabilitation or reconstruction is needed. There is no change in total project cost. The operating budget impact is unknown at this time.

ID #:	Name:	Phase	Start	Finish	Cost
C98064	MIS Infiltration	Planning	Nov-21	Apr-24	$450,675
		Total			$450,675
		Previously Approved Total			$250,675
		Increase/(Decrease)			$200,000

Project Description

The purpose of this project is to plan for capital improvements that will reduce infiltration and inflow in the MIS. The scope includes identifying technologies to implement to reduce infiltration and inflow. The increase in total project cost is due to increased scope to identify technologies to address structural defects. No impact on the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
C98065	Separate Sewer Outfall Abandonment	Design	Sep-23	Jun-24	$85,000
		Construction	Sep-24	Jul-25	$308,500
		Post-Constr.	Jul-25	Oct-25	$6,500
		Total			$400,000
		Previously Approved Total			$0
		Increase/(Decrease)			$400,000

Project Description

The purpose of this project is to reduce the risk of sanitary sewer overflows. The scope of this project includes the design and construction for the decommissioning and abandonment of eight Sanitary Sewer Outfall sites. MMSD's WPDES permit from the WDNR does not permit sanitary sewer overflows. The SSO Elimination Study (C98060) found that the eight sites included in this project do not provide additional protection from basement backups or exceedance of critical elevations. The MIS is able to maintain the existing level of service with the SSO sites abandoned. There is a higher chance of surface water entering the conveyance system at these sites. This is a new project. The project is anticipated to reduce operating costs because the District will no longer have to maintain decommissioned assets.

ID #:	Name:	Phase	Start	Finish	Cost
C98066	H2S High Priority Sites	Prelimin. Eng.	Jan-23	Oct-24	$1,340,000
		Total			$1,340,000
		Previously Approved Total			$0
		Increase/(Decrease)			$1,340,000

Project Description

The purpose of this project is to address the risk of pipe collapsing due to hydrogen sulfide (H2S) deterioration. Hydrogen sulfide is known to cause corrosion in sewer systems which deteriorate the pipe condition. The five priority sites are known for experiencing high levels of hydrogen sulfide, which can corrode concrete pipe. This project will provide information to make decisions on sewer improvement projects. The project scope includes conducting a multi-sensor condition assessment and creating a capital improvement plan for rehabilitating the pipe. This is a new project. The impact on the operating budget is unknown.

ID #:	Name:	Phase	Start	Finish	Cost
C98067	Gate Replacement	Construction	Apr-23	Mar-24	$1,502,000
		Post-Constr.	Jun-24	Nov-24	$8,000
		Total			$1,510,000
		Previously Approved Total			$0
		Increase/(Decrease)			$1,510,000

Project Description

The purpose of this project is to restore the reliable operation of conveyance structure isolation gates. The project scope consists of construction to replace nine sluice gates and one gate stem at four conveyance locations. This is a new project. The new equipment should require less maintenance than the older equipment, which means fewer expenses for the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
C98068	Rehabilitation of Individual Pipe Segments	Design	Jan-23	Dec-30	$350,000
		Construction	Jan-23	Dec-30	$1,636,500
		Post-Constr.	Jun-24	Dec-30	$6,000
		Total			$1,992,500
		Previously Approved Total			$0
		Increase/(Decrease)			$1,992,500

Project Description

The purpose of this project is to rehabilitate individual pipe segments within the conveyance system to reduce the risk of pipe failures, SSOs, sinkholes, reduced capacity, and infiltration. The scope of this project includes design and construction for the rehabilitation of individual pipe segment defects within the District's conveyance system. This is a new project. The project is anticipated to reduce the costs to the operating budget because new, replaced pipe segments likely require less ongoing maintenance than older segments in need of rehabilitation.

ID #:	Name:		Cost
C99002	Operator Contribution to CIP	Ten-Year Forecast Total	$300,000

Project Description

The operating contract with VWM includes provisions for VWM to participate on current and planned District capital projects. The purpose of this project is to support that effort. The scope of this project includes VWM work in reviewing the annual Capital Budget, reviewing and creating requests for new projects, attending meetings, and participation in the implementation of capital projects.

ID #:	Name:		Cost
C99004	Allowance for DOT Reimbursements	Ten-Year Forecast Total	$517,605
		Total	$517,605
		Previously Approved Total	$232,858
		Increase/(Decrease)	$284,747

Project Description

The purpose of this project is to provide a source of funding for MMSD assets located within WISDOT right-of-way when relocation is required. This project represents the District's share of costs associated with WisDOT relocation of MMSD assets located within WisDOT right-of-way in the Zoo Interchange Project. The change in total project cost is due to the additional year of the program in 2029.

Inline Storage System

Combined Sewer Overflow Structures

Combined Sewer Overflow (CSO) Structures are used when flows exceed storage, conveyance, and treatment system capacity. When the system is filled to capacity, it is designed to overflow into Milwaukee-area rivers and Lake Michigan. Therefore, these structures only become necessary in an extreme wet weather event. During such an event, rainwater enters the system at a greater rate than the system design. To avoid an immediate public health issue of wastewater in basements and system damage, excess flows are allowed to discharge from the Inline Storage System and the MIS system via the CSO Structures.

ID #:	Name:	Phase	Start	Finish	Cost
I03011	Outfall Backflow Prevention	Design	Nov-19	Mar-22	$252,496
		Construction	May-22	Apr-23	$1,008,159
		Post-Constr.	May-23	Aug-23	$8,900
		Total			$1,269,555
		Previously Approved Total			$1,269,555
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to prevent river water and I/I from entering the Inline Storage System (ISS) and Metropolitan Interceptor Sewer (MIS) system. This reduces energy costs, overflow, and basement backup risks. The project scope includes design and construction of backflow prevention devices, river sediment dredging, and outfall improvements at Combined Sewer Overflow (CSO) locations to prevent river water from entering MMSD's sewer systems. There is no change to total project cost. The operating budget impact is not known at this time.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
I05002	CSO 195 Relocation	Design	May-21	Oct-22	$852,900
		Construction	Feb-23	Apr-24	$14,780,100
		Post-Constr.	Jun-24	Oct-24	$13,000
		Total			$15,646,000
		Previously Approved Total			$5,668,600
		Increase/(Decrease)			$9,977,400

Project Description

The purpose of the project is to relocate the existing Combined Sewer Outfall (CSO) 195 so that a new Dredged Material Management Facility can be built as part of the EPA Milwaukee Estuary Area of Concern clean up. The scope of this project includes the design and construction of approximately 1,530 feet of double 78-inch by 90-inch box combined sewer, one manhole and the associated outfall, and the design and construction for abandoning approximately 1,000 feet of double 78-inch by 90-inch box combined sewer, an existing manhole and CSO 195. The increase in total project cost is due to revised construction cost estimates. The operating budget impact is not known at this time.

ID #:	Name:	Phase	Start	Finish	Cost
I06001	NS12 Collector System Improvements	Prelimin. Eng.	Jan-16	Apr-17	$172,509
		Design	Jun-17	Nov-22	$2,061,844
		Construction	May-23	Feb-25	$25,288,947
		Post-Constr.	Feb-25	Aug-25	$18,000
		Total			$27,541,300
		Previously Approved Total			$22,610,554
		Increase/(Decrease)			$4,930,746

Project Description

The purpose of this project is to reduce the risk of combined sewer overflows (CSO) and wastewater discharged to grade, all related to the NS12 collector system. The improvements were recommended as part of the root cause analysis for CSO145. This project will help prevent future unintended CSOs and surface flooding as a result of blown manhole covers. The scope of this project will include the construction of two new structures and various manholes, 2,589 feet of 84-inch pipe in tunnel, 528 feet of double 10-foot by 6-foot box culvert, and level and flow monitoring equipment. The increase in total project cost is due to an increase in the construction cost estimate. No significant operating budget impact is expected from this project.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
I98007	ISS Ventilation & Odor	Planning	Jan-23	Jan-26	$500,000
		Total			$500,000
		Previously Approved Total			$0
		Increase/(Decrease)			$500,000

Project Description

The purpose of this project is to assess the ISS infrastructure to better understand the relationship between ISS operations and odor complaints, establish a risk score associated with odors, and develop a plan to mitigate identified odor issues. The project scope includes the procurement of professional services to evaluate existing ventilation and odor mitigation assets for the Inline Storage System (ISS). The work includes odorous air sampling, inspection of assets, air dispersion modeling, alternative analysis of mitigation strategies, and production of recommendations in a capital improvement plan. This is a new project. No significant operating budget impact is expected from this project.

Central Control System

Conveyance System Central Control

The Central Control System allows remote operation of the conveyance system. The system design and operation are focused on maximizing the effectiveness and efficiency of storing and conveying wastewater to the Water Reclamation Facilities to avoid surcharging. A single operator uses incoming flow data and software-produced data to determine if flow should be diverted from one Metropolitan Interceptor Sewer (MIS) subsystem to another or to the ISS.

ID #:	Name:	Phase	Start	Finish	Cost
K01012	Conveyance SCADA Upgrade	Prelimin. Eng.	Nov-13	Jan-15	$112,212
		Design	Jun-15	Mar-18	$1,464,784
		Construction	Mar-16	Oct-21	$6,429,785
		Post-Constr.	Oct-21	Mar-24	$78,414
		Total			$8,085,195
		Previously Approved Total			$8,085,195
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to upgrade the conveyance Supervisory Control and Data Acquisition (SCADA) communication system that has reached the end of its useful service life. This project will provide a more reliable, flexible, and expandable system with lower life cycle cost. The project scope is to evaluate alternatives, design, and construct the replacement SCADA system. The conveyance SCADA system allows a single operator to use incoming flow data and software-produced data to determine if flow should be diverted from one MIS subsystem to another or to the ISS. There is no change in total project cost. The operating budget is impacted by future equipment replacement costs.

ID #:	Name:	Phase	Start	Finish	Cost
K01015	Flow Monitoring System Evaluation for I/I Billing	Planning	Nov-21	Apr-26	$1,200,000
		Total			$1,200,000
		Previously Approved Total			$1,200,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to determine the cost to enact a third billing method for addressing inflow and infiltration (I/I) in the overall system. This third billing method would measure the I/I from each municipality and bill the municipalities accordingly. No additional costs would be incurred by the municipalities or ratepayers, current budgets would be redistributed to three budgets. Funds from this billing method would be allocated to reduce I/I throughout the system. The project scope includes a planning level study to determine the impacts of implementing a third billing structure to allocate for Inflow and Infiltration. There is no change to total project cost. The impact on the operating budget is unknown but anticipated to increase operating costs by adding meters in certain areas.

ID #:	Name:	Phase	Start	Finish	Cost
K01016	Predictive Forecasting for Automatic Wet Weather Ops System	Planning	Nov-22	Jun-24	$512,000
		Total			$512,000
		Previously Approved Total			$0
		Increase/(Decrease)			$512,000

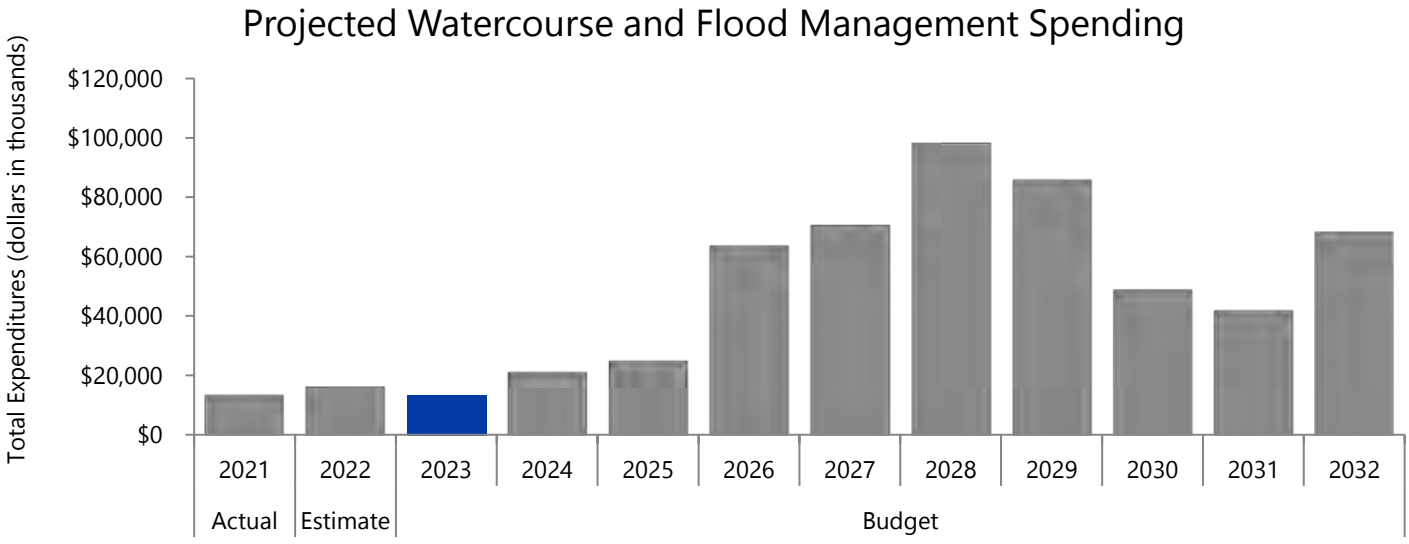
Project Description

The purpose of this project is to reduce risk of CSOs and SSOs by optimizing the operation of the ISS during wet weather. The prediction of the VRSSI will simplify decision making during wet weather operations. The scope of this project is to evaluate and select a technology to develop a VRSSI prediction. This is a new project. No significant operating budget impact is expected from this project.

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

Watercourse and Flood Management

There are six watersheds within the District's service area: Kinnickinnic River, Lake Michigan Tributary Drainage, Menomonee River, Milwaukee River, Oak Creek, and Root River. The District has discretionary authority to take actions to reduce flood risks along watercourses. To manage these efforts, the District develops watercourse management plans, which will achieve benefits in addition to reduced flood risks. These benefits include reduced risks to public health and safety, improved opportunities for access to and use of riparian areas, reduced sewerage system inflow and infiltration, green infrastructure, and improved habitat in riparian areas.



Flooding can result in significant threats to public health and safety and damage public and private property. Often the means to reduce flood risks cannot be effectively undertaken by individuals and are most effectively completed by looking at solutions on a watershed basis. As a regional agency, the District is the most appropriate entity to address watershed issues that involve multiple municipalities. The District's authority to reduce the risk of flooding is in Wis. Stats., sec. 200.31(1).

Because watershed boundaries do not necessarily follow municipal boundaries, reducing the risk of flooding requires looking at the watershed as a whole.

In the mid-1980s, the District requested that the Southeastern Wisconsin Regional Planning Commission (SEWRPC) recommend watercourses for District action. In response, SEWRPC prepared both a policy plan and a system plan. Considerations favoring District action were (1) the watershed included multiple municipalities, (2) the watershed had a potential for significant harm from the regional flood, and (3) the watershed had a history of investment by the District's predecessors. The goal was to separate issues that should be addressed locally from issues that needed regional action. In 2001, the District codified the recommendations in MMSD Rules, Chapter 13. Chapter 13 lists the watercourses where the District may take action. Municipalities may petition the District's Commission to add watercourses to the list. District action is discretionary and limited to abating the most severe floods. Listing does not guarantee any particular level of protection. Notably, municipalities are responsible for abating smaller floods and flooding associated with watercourses that are not listed.

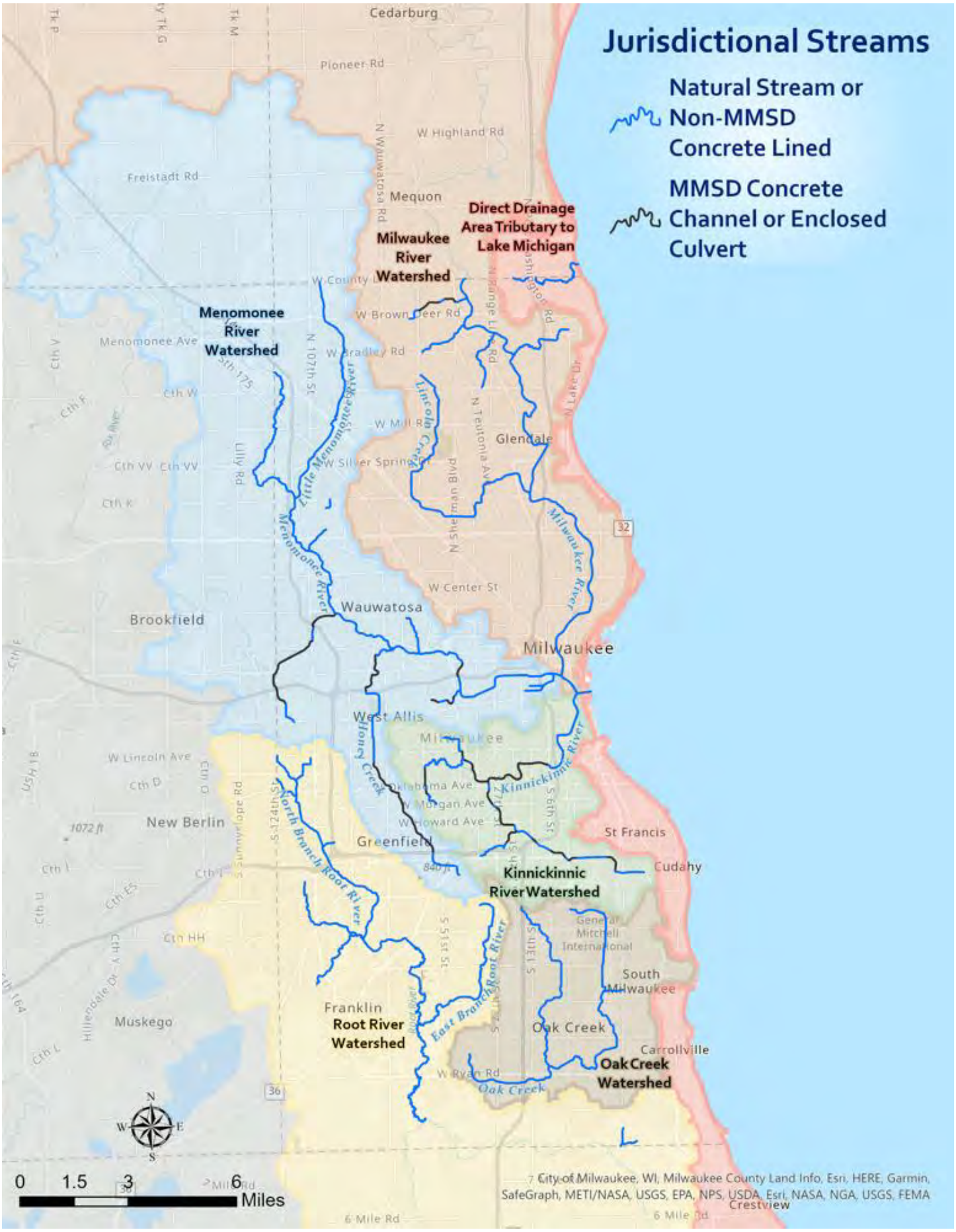
In 1998, the District and local municipalities began the planning process for the development of an updated Watercourse System Management Plan. Flood abatement alternatives have been developed for each of the six watersheds. Phase I of the planning process incorporated the results of past planning efforts such as the 1990 Watercourse System Plan developed by the SEWRPC as well as new technical information on land use, peak stormwater flows, estimated damages, and other hydrologic and hydraulic information.
The process has solicited input from affected municipalities and other stakeholders, including the Wisconsin Department of Natural Resources (WDNR), the Wisconsin Department of Transportation, Milwaukee County, SEWRPC, and environmental groups. Meetings with stakeholders in each watershed focused on data gathering, problem identification, and the development and prioritization of potential structural and nonstructural alternatives for flood management. Phase I was completed in 2000. Phase II of the process has allowed area residents to comment on the design and location of recommended structural and nonstructural flood management measures. In addition, the District established a Watercourse Policy Advisory Group to recommend policy on the District's responsibility relating to flood management. Recommendations were reported to and approved by the Commission in April 1998 regarding the relationship between municipal stormwater management and District flood management activities, funding responsibilities, procedures for project prioritization, and policies for potential interim projects and riparian management.

The 2023 Capital Budget includes $13.2 million for work on various watercourse projects. Please refer to project detail on the following pages for information on each project's purpose, scope, cost estimate, and impact on the O&M budget.

Most projects in the Watercourse and Flood Management section of the capital budget support the SDGs # 6 and 14. The icons highlight the projects that directly state the purpose of the project is to improve water quality or habitat.

The District has spent approximately $485.9 million since 1995 on removing structures from the floodplain and concrete on District-owned concrete-lined channels. The District plans to spend another $606.3 million in order to make the watersheds safer and to reduce the risk of flooding. Below is a table showing the District's involvement on each of the six watersheds.

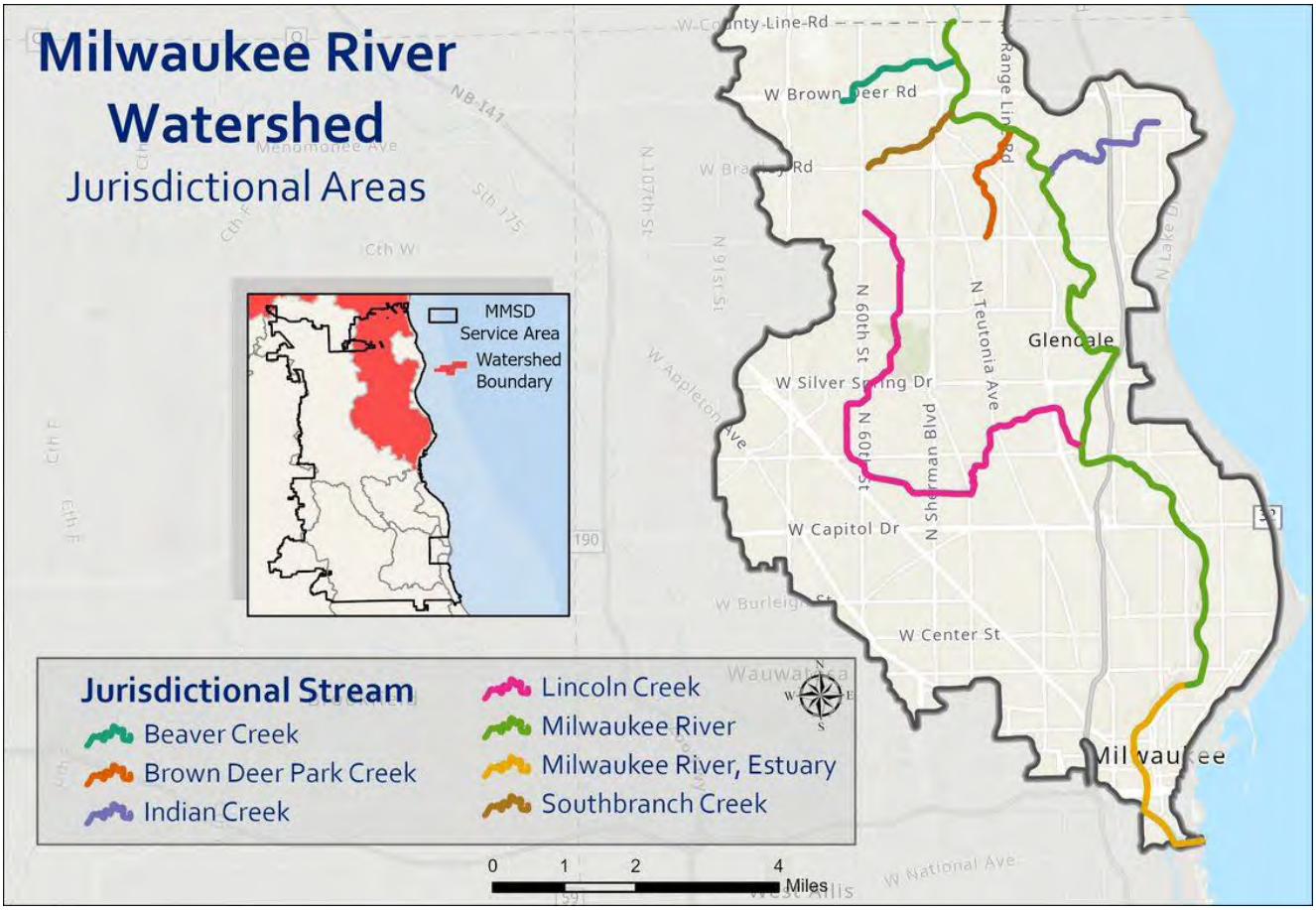
	1995-2022			**2023 - Future**		
Watershed	Spending (in millions)	# of structures no longer in the floodplain	Miles of concrete lined channel removed	Spending (in millions)	# of structures remaining in the floodplain	Miles of concrete lined channel to be removed
Milwaukee River	$161.2	2,098	1.9	$43.4	545	0
Lake Michigan	$0.5	0	0	$6.2	11	0
Menomonee River	$237.9	278	2.1	$213.8	170	10.4
Kinnickinnic River	$65.0	53	0.4	$336.6	680	8.4
Root River	$14.2	98	0	$0.3	14	0
Oak Creek	$7.1	3	0	$6.0	3	0
Total	**$485.9**	**2,530**	**4.4**	**$606.3**	**1,423**	**18.8**


Jurisdictional Streams
Natural Stream or Non-MMSD Concrete Lined
MMSD Concrete Channel or Enclosed Culvert
Direct Drainage Area Tributary to Lake Michigan
Milwaukee River Watershed
Menomonee River Watershed
Kinnickinnic River Watershed
Root River Watershed
Oak Creek Watershed
Cedarburg
Mequon
Glendale
Brookfield
Wauwatosa
Milwaukee
West Allis
New Berlin
Greenfield
St Francis
Cudahy
South Milwaukee
Oak Creek
Carrollville
Franklin
Muskego
Crestview
Little Menomonee River
Menomonee River
Milwaukee River
Lincoln Creek
Honey Creek
Kinnickinnic River
North Branch Root River
East Branch Root River
Oak Creek
0 1.5 3 6 Miles
City of Milwaukee, WI, Milwaukee County Land Info, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Milwaukee River Watershed

The Milwaukee River Watershed drains an area of about 700 square miles within Fond du Lac, Dodge, Sheboygan, Ozaukee, Washington, and Milwaukee counties. The Milwaukee River is nearly 100 miles in length, although only a 13-mile reach of the mainstream from the Milwaukee County boundary at County Line Road downstream to the former North Avenue Dam located 1,000 feet south of East North Avenue is under District jurisdiction. Approximately 25 percent of the watershed is developed, mainly within Milwaukee County.

In addition to the Milwaukee River mainstem, the District also has jurisdiction over the following Milwaukee River tributaries: Lincoln Creek, Southbranch Creek, Indian Creek, Beaver Creek, and Brown Deer Park Creek. Preliminary engineering estimates there are 543 structures remaining in the one percent annual probability floodplain of the Milwaukee River mainstem and tributaries.



ID #:	Name:	Phase	Start	Finish	Cost
W10001	Milwaukee River Flood Mgt	Planning	Jan-04	Dec-27	$702,162
		Prelimin. Eng.	Jan-21	Jan-36	$52,338,838
		Total			$53,041,000
		Previously Approved Total			$50,639,272
		Increase/(Decrease)			$2,401,728

Project Description

The purpose of this project is to reduce the risk of flooding to structures along the Milwaukee River within the District's jurisdiction. The project scope consists of planning and engineering to develop and implement flood risk reduction in jurisdictional areas of the Milwaukee River in Milwaukee County. The current project costs reflect the flood risk reduction for approximately 384 remaining structures by floodproofing, elevation, or acquisition. The increase in total project cost is due to inflation and updated labor costs. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
W10004	Milwaukee River Habitat Enhancement - AOC	Planning	Nov-17	Jan-20	$163,368
		Design	Dec-20	Dec-23	$1,611,127
		Construction	Apr-24	May-25	$6,490,407
		Post-Constr.	Nov-24	Jun-27	$184,164
		Total			$8,449,066
		Previously Approved Total			$8,355,113
		Increase/(Decrease)			$93,953

Project Description

The purpose of this project is to identify solutions to fish passage, recreational low-flow issues, and sediment accumulation for the area of the Milwaukee River between Capitol Drive and Silver Spring Drive. The project scope includes preliminary engineering, design, and project construction to meet WDNR Milwaukee Estuary Area of Concern (AOC) metrics for delisting. The District's role will be to assist with data collection and inventory, work with external organizations and the public to develop alternatives, develop contract documents of a recommended plan, and implement habitat and fish passage projects at Lincoln Park and Estabrook Falls. The increase in total project cost is due to an agreement on the funding of the work by WDNR for the District implementation of the AOC projects. No significant operating budget impact is expected.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W11030	North 30th Street Corridor Wet Weather Relief - East	Design	Jun-14	Oct-16	$3,765,818
		Construction	Mar-16	Jan-19	$11,084,548
		Post-Constr.	Jan-19	Jan-24	$290,634
		Total			$15,141,000
		Previously Approved Total			$15,161,929
		Increase/(Decrease)			($20,929)

Project Description

The 30th Street Industrial Corridor North is defined as an area bounded by West Townsend Street, West Hampton Avenue, North 27th Street, and North 41st Street in the City of Milwaukee. Flooding has historically caused significant disruption to the operation of District facilities and significant property damage in this area. The purpose of the 30th Street Corridor Wet Weather Relief project is to reduce the risk of flooding in this area by constructing three stormwater basins along with storm sewer system improvements into and out of the basins as outlined in the 30th Street Corridor Stormwater Study report (February 2014). The project scope includes design and construction of two of three planned stormwater detention basins along the 4200 and 4400 blocks of N. 30th Street in the City of Milwaukee, the related piping connecting the basins in N. 30th Street, and discharge piping to existing storm infrastructure in W. Roosevelt Drive and N. 27th Street. The decrease in total project cost is due to refined post-construction cost estimates. The operating budget is not known at this time.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
W11031	North 30th Street Corridor Wet Weather Relief - West	Design	Oct-15	Apr-24	$7,305,232
		Construction	Jun-16	Jul-29	$56,398,377
		Post-Constr.	Apr-18	Oct-34	$795,391
		Total			$64,499,000
		Previously Approved Total			$39,230,000
		Increase/(Decrease)			$25,269,000

Project Description

The purpose of the project is to reduce the risk of flooding in the area bounded by West Townsend Street, West Hampton Avenue, North 27th Street, and North 41st Street in the City of Milwaukee thereby reducing the risk of wet weather issues including reducing the volume of combined sewer overflows and reducing the incidence of sanitary sewer overflows. The scope is to plan, design, and construct the third of three stormwater basins along with storm sewer system improvements. The first two basins were completed through companion project W11030. The scope includes constructing one stormwater basin along with conveyance system improvements west of the railroad tracks on the former Bee Bus Lines property. The increase to total project cost is due to increased scope as well as an increase in construction costs. The operating budget is not known at this time.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
W13002	Indian Creek Improvements	Planning	Oct-16	Mar-23	$174,232
		Prelimin. Eng.	Nov-23	Apr-25	$136,468
		Total			$310,700
		Previously Approved Total			$314,460
		Increase/(Decrease)			($3,760)

Project Description

The purpose of this project is to develop alternatives to reduce the risk of flooding to structures along Indian Creek. Over 100 potential structures may be added due to Wisconsin DNR preliminary updated floodplain mapping. The new WDNR regulatory floodplain is currently at the draft milestone stage and will become effective when it is finalized, which is anticipated to happen at the end of 2023. The project scope is to perform a preliminary engineering study to obtain recommended alternatives to reduce the risk of flooding from Indian Creek. The decrease in total project cost is de minimis. No operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
W15001	Beaver Creek Flood Management	Prelimin. Eng.	Jan-20	Mar-23	$428,932
		Design	Jun-21	Jan-34	$8,674,319
		Total			$9,103,251
		Previously Approved Total			$3,068,251
		Increase/(Decrease)			$6,035,000

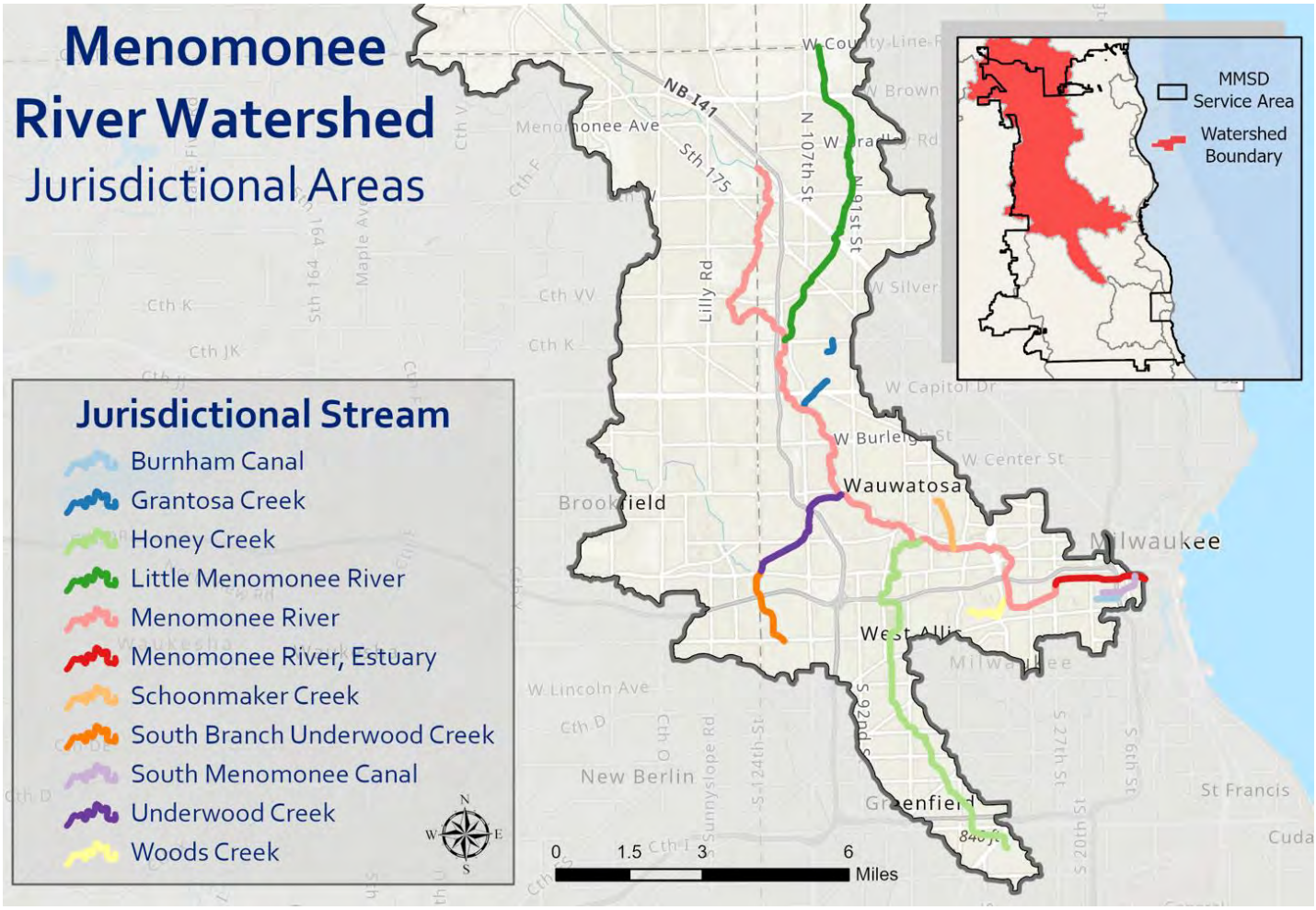
Project Description

The purpose of this project is to reduce risk to structures within the Beaver Creek floodplain and develop flood risk reduction recommendations for those structures. The project scope includes preliminary engineering and design phases to reduce flood risk to 12 structures within the Beaver Creek floodplain, a tributary to the Milwaukee River. Flood risk has been reduced on one of the 11 structures to date. MMSD will provide technical support and review to the Village of Brown Deer, who is likely to lead the majority of the flood risk reduction efforts. These efforts could include voluntary floodproofing or voluntary acquisition and building removal. The increase in total project cost is due to updated cost estimates for additional voluntary property acquisitions. The operating budget impact is unknown at this time.

This project supports the UN SDG #6.

Menomonee River Watershed

The Menomonee River Watershed drains an area of approximately 136 square miles. Communities in this watershed include the cities of Brookfield, Greenfield, Mequon, Milwaukee, New Berlin, Wauwatosa, West Allis and the villages of Butler, Elm Grove, Germantown, Greendale, Menomonee Falls, and West Milwaukee. Most of the lower two-thirds of the watershed are nearly fully developed in Milwaukee, Wauwatosa, West Allis, Elm Grove, and Brookfield. Significant developable land still exists in Mequon, Menomonee Falls, and Germantown. Major tributaries to the Menomonee River within Milwaukee County include Underwood Creek, Honey Creek, Grantosa Creek, Little Menomonee River, Woods Creek, South Branch of Underwood Creek, and Schoonmaker Creek. There are an estimated 127 structures within the one percent annual probability floodplain. Completed projects have removed 277 structures from the one percent annual probability floodplain.



ID #:	Name:	Phase	Start	Finish	Cost
W20018	Concordia Avenue	Prelimin. Eng.	Apr-12	Sep-22	$217,513
		Design	Mar-15	May-30	$3,843,515
		Construction	Apr-16	Feb-34	$1,057,403
		Total			$5,118,431
		Previously Approved Total			$5,093,431
		Increase/(Decrease)			$25,000

Project Description

The purpose of the project is to reduce the flood risk for 12 structures identified in a draft 1 percent annual probability floodplain in the vicinity of the Menomonee River Parkway and W. Concordia Ave. The project scope consists of voluntary acquisition or voluntary floodproofing for each of the identified structures. The District is working with the City of Wauwatosa to evaluate the alternatives (voluntary acquisition or voluntary floodproofing) for each structure. The project budget reflects funding for voluntary acquisition and deconstruction of each structure. The increase in total project cost is due to inflation. The operating budget impact is unknown at this time.

ID #:	Name:	Phase	Start	Finish	Cost
W20028	Western Milwaukee Phase 2B	Design	Oct-17	Aug-22	$9,251,326
		Construction	May-23	Sep-26	$44,070,019
		Post-Constr.	Apr-26	May-32	$1,044,655
		Total			$54,366,000
		Previously Approved Total			$43,680,989
		Increase/(Decrease)			$10,685,011

Project Description

The purpose of this project, along with projects W20017, W20027, and W20029, is to protect an estimated 62 structures from the one percent annual probability floodplain along the Menomonee River in the Western Milwaukee corridor. These projects are a component of the Phase II Watercourse Management Plan for the Menomonee River Watershed, which identified overbank flooding in the vicinity of West State Street on the west side of Milwaukee. The project scope is to design and construct a continuation of the floodplain levee and floodwall along West State Street, east from the N. 59th and State Pump Station to at least the existing east end of the levee on the east side of the former Central Redi-Mix property. The increase in total project cost is due to increased inflation costs as well as additional scope added. Additional O&M funding will be required for vegetation maintenance after the five-year maintenance schedule post-construction (estimated as of 2026) occurs. This project will add additional levee and floodwall lengths to the District's infrastructure which will require inspection and maintenance, starting no earlier than 2023.

ID #:	Name:	Phase	Start	Finish	Cost
W20029	Western Milwaukee Real Estate & Environmental Assessment	Design	Apr-14	Nov-36	$7,532,021
		Construction	Apr-14	Nov-20	$7,215
		Post-Constr.	Jul-14	Dec-24	$10,264
		Total			$7,549,500
		Previously Approved Total			$7,516,299
		Increase/(Decrease)			$33,201

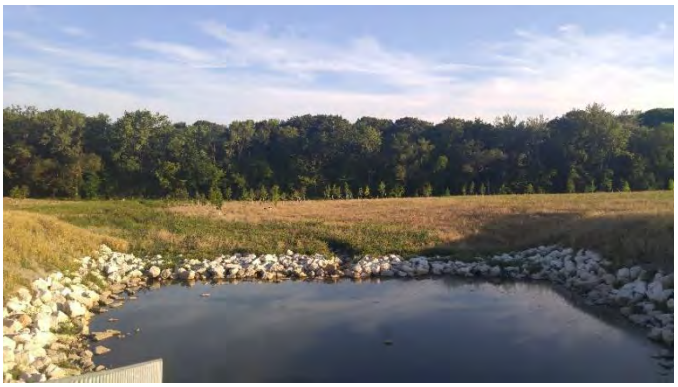
Project Description

The purpose of this project is to provide support to the Western Milwaukee and Hart Park projects, both of which provide protection for impacted structures from the 1 percent annual probability flood along the Menomonee River. These projects are a component of the Phase II Watercourse Management Plan for the Menomonee River Watershed, which revealed overbank flooding in the vicinity of West State Street on the west side of Milwaukee and the east side of Wauwatosa. The scope of this project includes land acquisition, floodproofing, demolition and environmental services. The increase in total project cost is due to inflation. No operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
W20033	Menomonee River Levee System Accreditation	Prelimin. Eng.	Nov-20	Oct-22	$1,327,715
		Design	Jan-22	Dec-23	$3,014,608
		Construction	Jul-24	Jun-27	$8,614,282
		Post-Constr.	Jun-27	Jan-32	$164,395
		Total			$13,148,000
		Previously Approved Total			$11,282,750
		Increase/(Decrease)			$1,865,250

Project Description

The purpose of the project is to obtain FEMA levee system accreditation for the Hart Park/Western Milwaukee levee system along the Menomonee River. The project includes reviewing levee system criteria for the Valley Park levee for consistency and updating the criteria if needed. The project will then design the improvements that will be identified in the study, and construct the identified improvements. The project will also provide levee inspection and review of construction standards or proposed projects that could impact the levee in an effort to document the review process of construction requests impacting the levee which will support long term protection of the levee and on-going levee accreditation documentation. The project will develop, submit, and follow up with FEMA through the FEMA levee accreditation submittal, review, and approval process. The increase in total project cost is due to increased scope added to the construction phase. The project will also create other supporting documents required under 44 CFR 65.10. The increase in total project cost is due to updated cost estimates. No operating budget impact is anticipated.



ID #:	Name:	Phase	Start	Finish	Cost
W20034	Sewer Rehabilitation for FEMA Levee Accreditation	Design	Oct-21	Jul-25	$1,600,000
		Construction	Dec-25	May-27	$10,008,000
		Post-Constr.	May-27	Oct-27	$36,000
		Total			$11,644,000
		Previously Approved Total			$6,407,000
		Increase/(Decrease)			$5,237,000

Project Description

The purpose of this project is to rehabilitate gravity and pressure (siphoned) storm and sanitary sewers that currently penetrate the Hart Park and Western Milwaukee Levee System through spot repairs or CIPP lining to satisfy FEMA accreditation requirements for certification of the levee system. The objective of the project is to apply asset management principles to existing District and municipal storm and sanitary sewers in order to ensure the structural integrity of flood mitigation structures along the Menomonee River. The project scope includes design and construction of repairs and rehabilitation to various MMSD, Milwaukee County Parks, and City of Wauwatosa storm and sanitary sewers that penetrate or pass through the Hart Park and Western Milwaukee levee system. The increase in total project cost is due to an increase in construction bid cost as well as an on-call construction expense.

ID #:	Name:	Phase	Start	Finish	Cost
W21006	Phase II - Underwood Creek Reach 1	Design	Sep-13	Dec-16	$1,293,806
		Construction	Oct-16	Oct-18	$5,734,668
		Post-Constr.	Oct-18	Feb-24	$268,084
		Total			$7,296,557
		Previously Approved Total			$7,296,557
		Increase/(Decrease)			$0

Project Description

The purpose of the project is to reduce public safety risk, provide wetland mitigation, improve aquatic habitat, and to satisfy WDNR and USACE requirements for the Milwaukee County Grounds Floodwater Management Facility project. The project scope includes the design and construction of removing approximately 4,400 linear feet of concrete channel liner on Underwood Creek from Canadian Pacific Railway Bridge to the confluence with the Menomonee River, and replacing it with a bioengineered channel. Bioengineering is the combination of biological, mechanical, and ecological concepts to control erosion and stabilize soil through the use of vegetation or a combination of vegetation and constructed materials. The project will construct a series of pools and riffles in a low-flow channel to enhance the natural functions of Underwood Creek. The project also includes reconstructing channel in areas where the riparian floodplain was lowered to recreate a more aesthetic and natural watercourse corridor. The project maintains the current level of flood management. The District will partner with USACE who will finance 65 percent of the project costs, up to a maximum contribution of $10 million. There is no change in total project cost. In the first five years after construction is complete, the contactor is responsible for vegetation maintenance and establishment; after the fifth year, the District is responsible for maintaining the grounds which will impact the operating budget.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W21007	Underwood Creek Reach 2 - CR	Prelimin. Eng.	Jan-15	Dec-23	$6,281,824
		Design	Sep-27	May-30	$1,331,716
		Construction	Sep-30	Oct-33	$14,259,598
		Post-Constr.	Oct-33	Sep-38	$86,881
		Total			$21,960,019
		Previously Approved Total			$21,960,019
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to reduce public safety risk and improve aquatic habitat of segments of the Underwood Creek upstream of Mayfair Road to approximately the Milwaukee/Waukesha County line. The project scope includes a feasibility study of 6,700 lineal feet of Underwood Creek that will recommend how to best remove the concrete channel lining and rehabilitate the area. This project will provide the District with a data-intensive study of this segment of the streams with 50 percent of the cost covered by the USACE. Additionally, it is the first necessary step in the determination of whether there is federal interest in the project. If this is the case, then the USACE will provide 65 percent of the total project design and construction costs for the Underwood Creek Reach 2 project. There is no change in total project cost. No significant operating budget impact is expected.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W24004	Honey Creek Reach 4 - CR	Prelimin. Eng.	Nov-20	Mar-30	$1,239,927
		Design	Sep-30	Feb-33	$58,973
		Construction	Apr-33	Feb-36	$0
		Post-Constr.	May-36	Jul-41	$0
		Total			$1,298,900
		Previously Approved Total			$12,473,800
		Increase/(Decrease)			($11,174,900)

Project Description

The purpose of the project is to improve public safety, improve aquatic and riparian habitat conditions, and restore the expected life of approximately 8,500 feet of Honey Creek from W. Arthur upstream to W. Morgan Avenue. The project scope includes concrete removal and naturalized channel restoration of approximately 8,500 feet of Honey Creek from W. Arthur upstream to W. Morgan Avenue. The scope also includes preliminary engineering to reduce the risk of flooding to 11 structures from West Oklahoma Avenue upstream to West Morgan Avenue, and 30 structures in the McCarty Park area associated with debris accumulated on the trash rack at the entrance to the downstream Honey Creek culvert. The decrease in total project cost is due to a decrease in scope to remove the construction and post-construction phases until an alternative is known. No significant operating budget impact is expected.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W24005	Honey Creek Watercourse Mgmt. Plan	Prelimin. Eng.	Dec-09	Apr-23	$341,494
		Total			$341,494
		Previously Approved Total			$326,894
		Increase/(Decrease)			$14,600

Project Description

The purpose of the project is to identify any structures along Honey Creek that may be at risk of flooding and to restore the channel to a more natural condition. This project scope consists of updating an existing planning study to incorporate recently revised SEWRPC floodplain maps. This updated planning study will identify flooding areas within the District's jurisdiction, provide a recommended alternative that will remove approximately 12 structures from the floodplain and incorporate channel rehabilitation, and perform a construction cost estimate of the recommended alternative. The increase in total project cost is due to inflation. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
W24007	Honey Creek Reach 1 Concrete Removal Menomonee River to Fairview Ave	Design	Jun-22	Nov-25	$1,213,963
		Construction	Feb-26	Nov-28	$4,903,363
		Post-Constr.	Dec-28	Mar-34	$117,674
		Total			$6,235,000
		Previously Approved Total			$5,917,000
		Increase/(Decrease)			$318,000

Project Description

This project supports the UN SDG #14.

The purpose of this project is to improve the riparian and aquatic habitat of Honey Creek Reach 1 and improve safety by slowing down the flow velocities during extreme rain events. The concrete channel liner within the project reach was installed in 1967, and is approaching the end of its useful life. The project scope includes replacing approximately 3,900 linear feet of the District-owned concrete lined channel from W. Wisconsin Avenue upstream to W. Fairview Avenue extended with a more naturalized channel. It also includes constructing a more naturalized channel on approximately 1,050 feet of County-owned concrete channel and approximately 3,700 feet of heavily eroding County-owned unlined channel from Wisconsin Avenue downstream to the Menomonee River. This is a USACE Partnership project with the Feasibility Phase located in Project W24006. The increase in total project cost is due to additional admistrative expenses, labor costs, and technical support during USACE design. Any impacts on the operating budget are expected to not begin before 2025, and would be ongoing site maintenance costs.

ID #:	Name:	Phase	Start	Finish	Cost
W24010	State Fair Culvert Preliminary Engineering and Phase 1	Prelimin. Eng.	May-20	Jul-21	$172,345
		Design	Jan-22	Jul-23	$487,335
		Construction	Mar-24	Jan-26	$12,028,720
		Post-Constr.	May-26	Jan-27	$15,000
		Total			$12,703,400
		Previously Approved Total			$10,314,700
		Increase/(Decrease)			$2,388,700

Project Description

The purpose of this project is to extend the useful life of deteriorated assets, reduce the risks of surface subsidence, and ensure the culverts retain the capacity and capability to convey stormwater flows. The project scope consists of a preliminary engineering phase to investigate the condition and rehabilitation of the State Fair Culverts. The project scope also includes the design and construction for the rehabilitation of Northeast Parking Lot and Infield-Center segments (Phase 1) of elliptical corrugated metal pipe culverts that convey Honey Creek through the Wisconsin State Fair Park. In total, this project will rehabilitate approximately 9,500 linear feet of culverts. The increase in total project cost is due to increased construction and labor costs. This project will have no direct operating budget impact but resulting projects could result in reduced maintenance costs for repairs to deteriorating corrugated metal pipes.

ID #:	Name:	Phase	Start	Finish	Cost
W28001	Schoonmaker Creek	Planning	Dec-13	Apr-24	$321,477
		Prelimin. Eng.	Feb-26	Apr-28	$783,050
		Design	Oct-29	May-31	$1,158,071
		Construction	Sep-31	Sep-33	$8,318,765
		Post-Constr.	Nov-33	Jan-35	$115,636
		Total			$10,698,000
		Previously Approved Total			$10,620,000
		Increase/(Decrease)			$78,000

Project Description

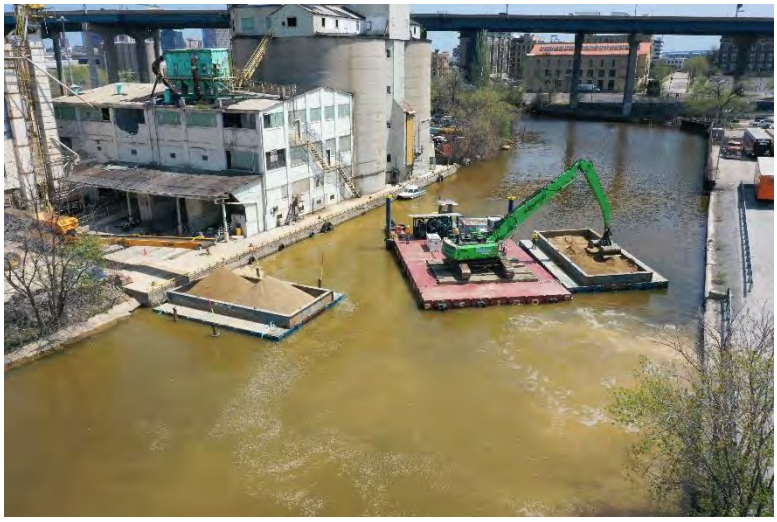
The purpose of the project is to reduce the risk of flooding for structures and roadways within the Schoonmaker Creek watershed. The District assumed jurisdiction of Schoonmaker Creek for flood abatement purposes. Forty-six structures are within the one percent annual probability floodplain. The project scope is to evaluate and recommend solutions to resolve stormwater drainage issues and out of bank flooding that can be implemented by the municipalities and the District, and the design and construction of the recommended solution. The change in total project cost is due to refined labor cost estimates. There is no anticipated operating budget impact.

ID #:	Name:	Phase	Start	Finish	Cost
W29002	Burnham Canal	Design	Jul-12	Jan-25	$1,375,610
		Construction	Dec-21	Dec-26	$8,212,736
		Post-Constr.	Dec-26	Jan-32	$268,274
		Total			$9,856,620
		Previously Approved Total			$8,432,070
		Increase/(Decrease)			$1,424,550

Project Description

The purpose of this project is to transform the Burnham Canal into a wetland to reduce the risk of exposure to existing contaminated sediments, improve aquatic and wildlife habitat, improve water quality, and provide recreational and educational opportunities. The scope consists of filling the Burnham Canal (from the I-43/I-94 overpass to the west end of the canal) to cap existing contaminated sediments and restore 6.7 acres of wetlands. The west half of the canal is a Superfund site due to contaminated sediments, and Miller Compressing Co. (MCC) is the responsible party. The EPA has issued a Record of Decision for MCC to install a cap over the contaminated sediment. The District and MCC have entered into an agreement whereby MCC would install the cap as well as the additional material to create the wetland base between S. 11th Street and the west end of the canal. The project design was performed by USACE with funding for the local cost share provided by the Fund for Lake Michigan. The District worked with WDNR to obtain GLRI funding from the EPA for the construction of the base of the wetland east of S. 11th Street and in September 2018 the WDNR received $4 million in grant funding for the project. The WDNR and the District have entered into an agreement to use the funding to pay the District's labor and expenses necessary to construct the wetland base. The District and WDNR will continue to work to secure EPA funding for the final construction of the wetland. The increase in total project cost is due to an increase to construct the wetland base. Once the project is complete, ongoing monitoring of the cap functionality and wetland maintenance will be funded from the O&M budget.

This project supports the UN SDG #14.

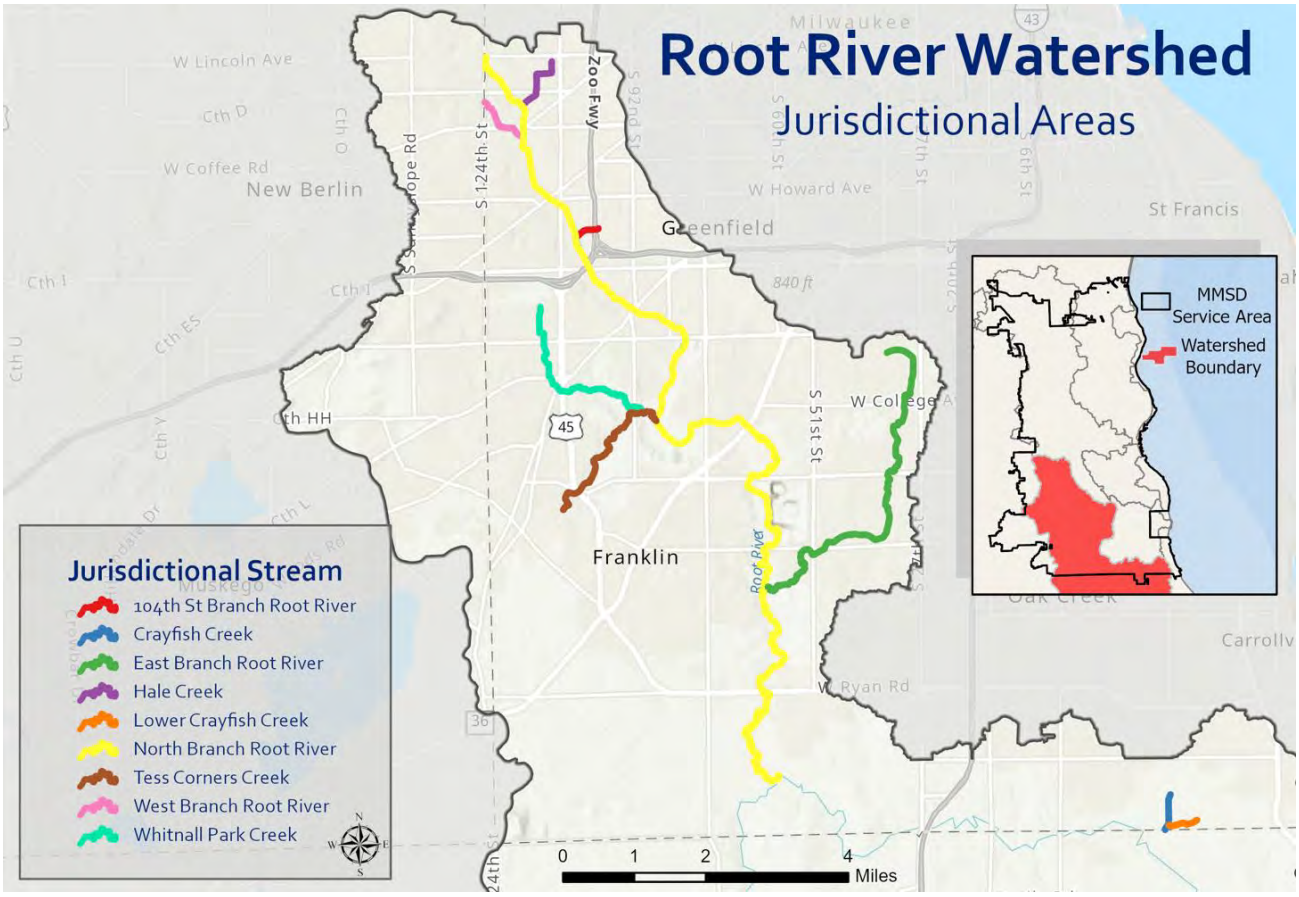


Placing fill for the wetland base at Burnham Canal.

Root River Watershed

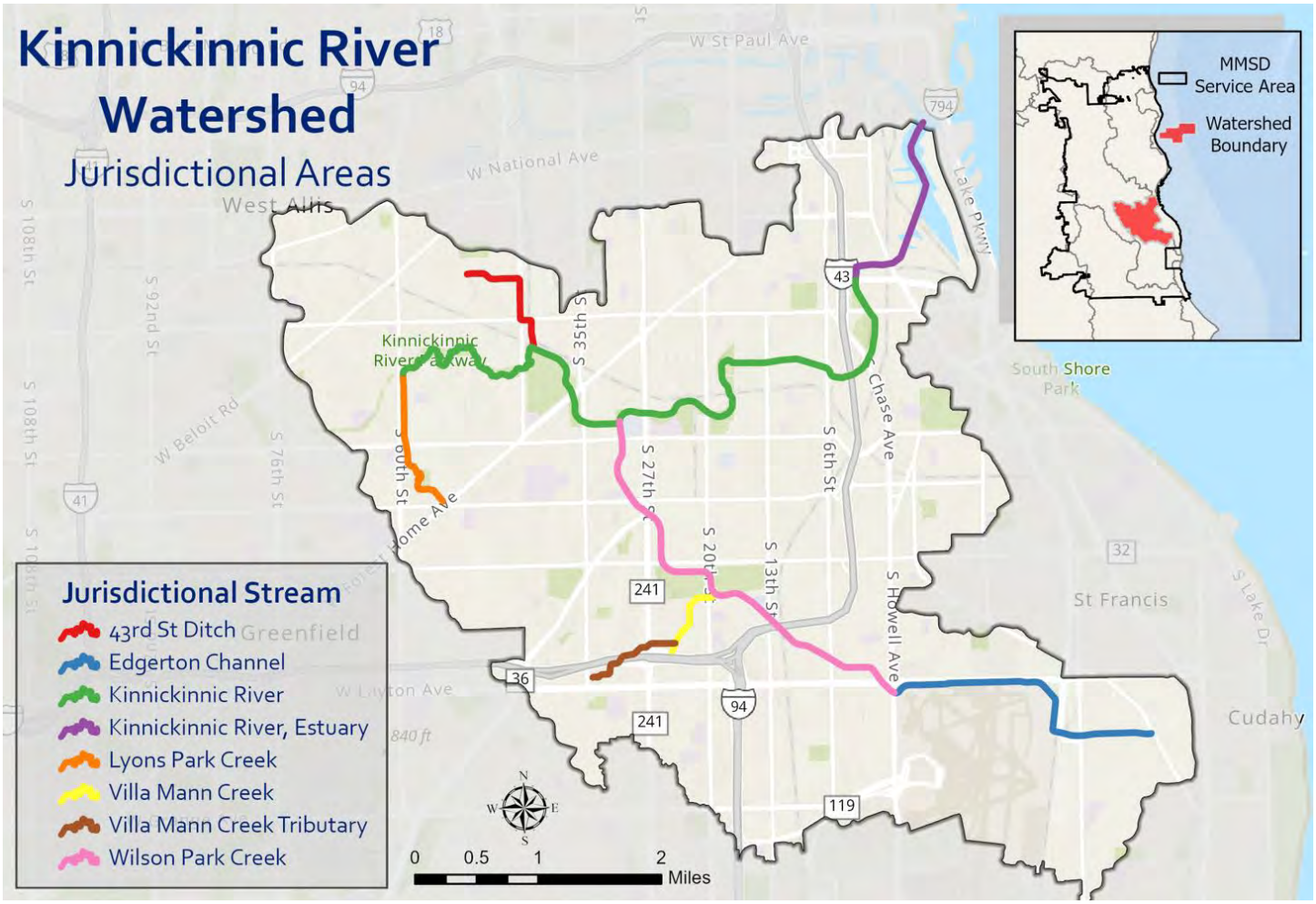
The Root River Watershed drains an area of about 197 square miles. Approximately 72 square miles are within the District and District service area. There are 59 square miles within Milwaukee County, 32 are within the City of Franklin, six within the City of Greenfield, one within the City of Milwaukee, eight within the City of Oak Creek, three within the City of West Allis, five within the Village of Greendale, and three within the Village of Hales Corners. There are 13 square miles within Waukesha County, nine within the City of New Berlin and four within the City of Muskego. According to 1990 SEWRPC land use data, approximately 80 percent of the upper watershed located within Milwaukee County and Waukesha County is currently developed, with significant developable land remaining in the communities of Franklin, Oak Creek, New Berlin, and Muskego. There are an estimated 16 structures currently identified as remaining within the one percent probability floodplain. Completed projects have removed 98 structures from the one percent probability floodplain.

There are no active projects in 2023.



Kinnickinnic River Watershed

The Kinnickinnic (KK) River Watershed drains an area of about 26 square miles. There are six major streams in the watershed, all of which are under District jurisdiction: the KK River, Lyons Park Creek, Wilson Park Creek, South 43rd Street Ditch, Villa Mann Creek, and Villa Mann Creek Tributary. The watershed has a significant number of miles of concrete lined channels and there are an estimated 680 structures currently located within the one percent annual probability floodplain. Completed projects have removed 53 structures from the one percent annual probability floodplain. Projects funded in 2023 will help further reduce the risk of flooding to properties in the KK River Watershed.



ID #:	Name:	Phase	Start	Finish	Cost
W40002	KK River Real Estate Decon./Demo. & Pulaski Park	Prelimin. Eng.	Oct-06	Dec-23	$8,564,709
		Design	Jul-14	Feb-18	$14,944,716
		Construction	May-18	Nov-20	$14,576,755
		Post-Constr.	Nov-20	Nov-25	$638,819
		Total			$38,725,000
		Previously Approved Total			$38,579,624
		Increase/(Decrease)			$145,376

Project Description

The purpose of this project is to reduce the flood risk for approximately 300 structures located in the one percent annual probability floodplain between S. 6th Street and S. 16th Street and improve public safety and aquatic and riparian habitat along 1,700 feet of the Kinnickinnic River within Pulaski Park. The project scope includes the acquisition and removal of 83 residential structures. The properties are needed to widen the channel cross section from 60 ft. to 200 ft. The wider channel will improve the passage of flood flows through this section and reduce the risk of flooding to the 300 homes and businesses within the adjacent neighborhood. The design and construction of the reconstructed channel as well as associated bridge and utility work is included in the project scope for W40012. The project scope also includes replacing the concrete lined channel in Pulaski Park with a more naturalized channel design and providing flood storage. Both the channel and the flood storage were constructed within Milwaukee County's Pulaski Park. The District and County developed an agreement for the project. As part of the agreement, the District replaced park features impacted by the reconstruction of the KK River channel and flood storage areas. These include a pedestrian bridge, basketball courts, playground, trails, and other natural areas. The project scope includes the design and construction of these improvements. The increase in total project cost is due to an increase in labor. Impacts to the operating budget will be minimal. The O&M cost to currently maintain the concrete channel will be slightly reduced with the future maintenance of the natural riparian vegetation.

ID #:	Name:	Phase	Start	Finish	Cost
W40007	KK River Reach 3 – CR	Prelimin. Eng.	Nov-12	Oct-31	$7,069,215
		Design	Mar-32	May-33	$678,789
		Construction	Aug-33	Jun-34	$3,966,889
		Post-Constr.	Apr-30	Apr-35	$145,700
		Total			$11,860,593
		Previously Approved Total			$11,860,593
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to reduce flood risk on the Kinnickinnic (KK) River for St. Luke's Hospital and over 20 structures located in the 1 percent annual probability floodplain in the vicinity of S. 31st Street and W. Manitoba Ave. The project scope is to remove concrete channel lining and replace it with natural channel design and increase the hydraulic capacity of the W. KK River Parkway Bridge east of S. 31st Street. The concrete lining is 60 years old and is reaching the end of its useful life. For the channel naturalization work, the District will partner with USACE who will finance 65 percent of the project costs, up to a maximum contribution of $10 million. There is no change in total project cost. The operating budget impact is not known at this time.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W40009	Jackson Park	Design	Dec-18	Mar-26	$10,725,326
		Construction	Jul-26	Dec-29	$41,647,900
		Post-Constr.	Jan-30	Nov-34	$291,774
		Total			$52,665,000
		Previously Approved Total			$44,515,435
		Increase/(Decrease)			$8,149,565

Project Description

The purpose of this project is to reduce flood risk on the KK River as well as mitigate increased flood flows from proposed recommendations for the KK River, Lyons Park Creek, and the S. 43rd Street Ditch projects. Over 350 residential and commercial structures are in the one percent annual probability floodplain within the project areas. The project's purpose is to also improve public safety and aquatic and riparian habitat conditions. The project scope consists of acquiring properties, relocating the businesses and removing the structures from the property; creating flood storage, lowering and reshaping parkland and recreational fields, and dredging the lagoon to lower the water surface elevation. The District and Milwaukee County entered into an agreement in May 2020 which defines the improvements the District will construct in Jackson Park. The increase in total project cost is due to increases in the design and construction contract cost estimates and increases to District design and construction labor costs. Impacts to the operating budget will be minimal. The O&M cost to currently maintain the concrete channel will be slightly reduced with the future maintenance of the natural riparian vegetation.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W40010	KK River Watershed	Prelimin. Eng.	Jul-17	Mar-27	$6,875,000
		Total			$6,875,000
		Previously Approved Total			$6,127,358
		Increase/(Decrease)			$747,642

Project Description

The purpose of this project is to refine recommendations that are ultimately expected to reduce flood risk to over 660 residential and commercial structures located in the one percent annual probability floodplain. The project scope consists of two preliminary engineering studies. The first preliminary engineering study refines the Kinnickinnic River Watershed Flood Management Plan recommendations for Jackson Park and the 43rd Street Ditch. The second preliminary engineering study refines the Kinnickinnic River Watershed Flood Management Plan recommendations on Wilson Park Creek (except between W. Layton Avenue and the Canadian Pacific Railway located east of South 13th Street), Villa Mann Creek and Lyons Park Creek. The increase in total project cost is due to an increase in labor costs. The impact on the operating budget is not known at this time.

ID #:	Name:	Phase	Start	Finish	Cost
W40011	KK River I-94 to Becher	Prelimin. Eng.	May-15	Mar-23	$17,176,389
		Total			$17,176,389
		Previously Approved Total			$496,204
		Increase/(Decrease)			$16,680,185

Project Description

The purpose of the project is to reduce the flood risk for 19 commercial, industrial, and residential structures located in the updated one percent annual probability floodplain in the vicinity of S. 1st Street and E. Lincoln Ave. The project scope consists of voluntary acquisition or voluntary floodproofing for each of the identified structures. The District is working with the City of Milwaukee to evaluate the alternatives (voluntary acquisition or voluntary floodproofing) for each structure. The increase in total project costs reflects adding funding for voluntary acquisition/deconstruction of each structure. The operating budget impact is unknown at this time.

This project supports the UN SDGs #6 and 14.

ID #:	Name:	Phase	Start	Finish	Cost
W40012	KK River - 6th to 16th St.	Design	Jul-21	Apr-25	$7,626,427
		Construction	Jun-25	Dec-28	$38,952,053
		Post-Constr.	Dec-28	Nov-33	$313,520
		Total			$46,892,000
		Previously Approved Total			$44,692,927
		Increase/(Decrease)			$2,199,073

Project Description

The purpose of the project is to reduce flood risk on the KK River for approximately 300 residential and commercial structures located in the one percent annual probability floodplain between S. 6th Street and S. 16th Street. The project also improves public safety and improves aquatic and riparian habitat conditions. The project scope consists of the design and construction of a wider channel corridor from a width of 60 feet to approximately 200 feet within the project area. The wider channel will improve the passage of flood flows and allow the project to replace over 4,000 linear feet of District-owned concrete channel lining with a more naturalized channel between S. 6th Street to S. 16th Street. The project will modify City-owned bridges and utilities to create the wider channel section. In addition, the District is acquiring and removing 83 homes under Project W40002 to create the wider channel. The increase in total project cost is due to an increase in labor as well as the cost to relocate a 24-inch-high pressure gas main. The impact on the operating budget would take effect five years after construction is complete and the vegetation is established.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W41001	Lyons Park Creek Flood Management	Prelimin. Eng.	Jan-11	Dec-24	$234,978
		Design	May-03	Oct-31	$981,792
		Construction	Feb-32	May-33	$14,425,307
		Post-Constr.	Oct-33	Aug-38	$139,923
		Total			$15,782,000
		Previously Approved Total			$15,306,791
		Increase/(Decrease)			$475,209

Project Description

The purpose of the project is to reduce flood risk on the Lyons Park Creek for 66 residential and commercial structures located in the 1 percent annual probability floodplain and reduce roadway flood depths on two major arterial roads: W. Oklahoma Avenue and S. 60th Street. The purpose also includes improving aquatic and riparian habitat along 3,000 feet of concrete channel. The project components improve the conveyance efficiency of the flood flows through the project area. The project scope consists of increasing the culvert capacity under S. 57th Street, W. Stack Drive, and W. Cleveland Avenue (all owned by the City of Milwaukee), and increasing the capacity of an existing City of Milwaukee culvert under Oklahoma Ave by adding two bypass culverts. The increase in total project cost is due to inflation. There is no operating budget impact.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
W41003	Lyons Park Creek Streambank Stabilization	Design	Aug-18	Sep-20	$213,603
		Construction	Dec-20	Jan-23	$623,916
		Post-Constr.	Feb-23	May-25	$23,781
		Total			$861,300
		Previously Approved Total			$812,644
		Increase/(Decrease)			$48,656

Project Description

The purpose of this project is to make needed improvements to a streambank segment on District-owned riparian land along Lyons Park Creek, tributary to the Kinnickinnic River in the City of Milwaukee at the upstream jurisdictional limit of Lyons Park Creek (W. Forest Home Avenue and W. Morgan Avenue). An approximate 100-foot streambank segment on this District-owned land is eroding. The increase in total project cost is due to increased labor costs. The District will be responsible for maintaining the vegetation once the project is complete; the maintenance will be funded from the operating budget.

This project supports the UN SDG #15.

ID #:	Name:	Phase	Start	Finish	Cost
W42003	43rd Street Ditch Reach 1 - CR	Design	Feb-23	Oct-26	$1,581,162
		Construction	Feb-27	Jan-30	$38,977,197
		Post-Constr.	Feb-30	Jan-35	$117,444
		Total			$40,675,802
		Previously Approved Total			$29,225,052
		Increase/(Decrease)			$11,450,750

Project Description

The purpose of the project is to reduce flood risk on the 43rd Street Ditch for 13 commercial structures located in the one percent annual probability floodplain and reduce roadway flood depths at the intersection of two major arterial roads: W. Lincoln Avenue and S. 43rd Street. The project will also provide flood storage to reduce flood risk downstream on the KK River where over 300 residential and commercial structures are located in the one percent annual probability floodplain. The increase in total project cost is due to increased construction costs. Maintenance costs are expected to begin in 2031.

This project supports the UN SDGs #14 and 15.

ID #:	Name:	Phase	Start	Finish	Cost
W45002	Wilson Park Creek Reach 3	Prelimin. Eng.	Sep-08	Nov-16	$1,946,311
		Design	Sep-18	Dec-26	$4,168,323
		Construction	Feb-22	May-29	$26,442,464
		Post-Constr.	Jun-23	Aug-34	$463,702
		Total			$33,020,800
		Previously Approved Total			$29,644,000
		Increase/(Decrease)			$3,376,800

Project Description

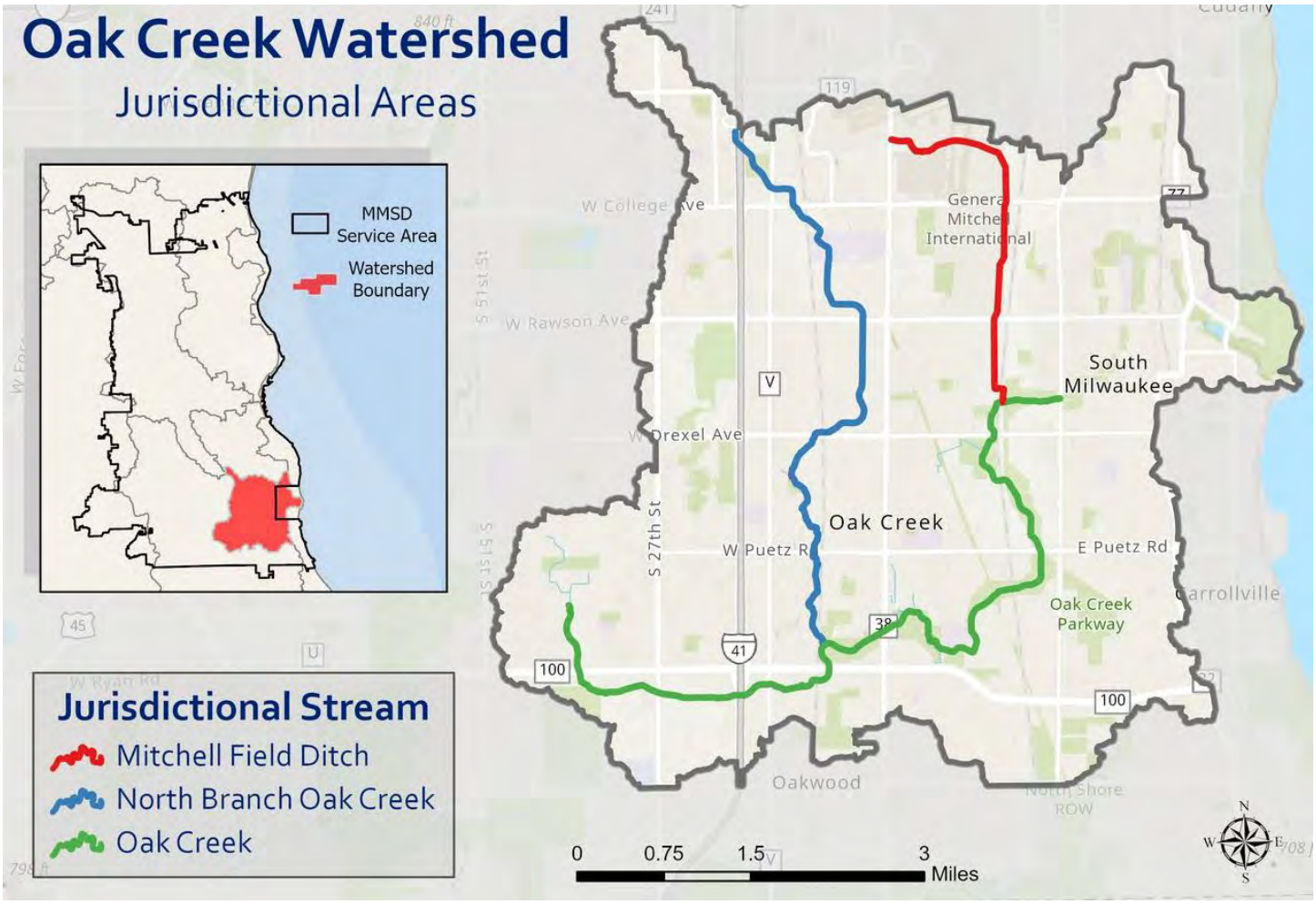
This project supports the UN SDGs #14 and 15

The purpose of the project is to reduce flood risk on Wilson Park Creek in the vicinity of S. 6th Street and W. Armour Avenue for over 60 residential and commercial structures located in the one percent annual probability floodplain. The project replaces 2,800 linear feet of concrete channel lining with a more naturalized channel. The scope also includes the planning, design and construction of a 210-acre-foot (or 69 million gallon) flood storage basin in open land behind Alro Steel facilities (formerly Central Steel & Wire), and increasing the capacity of the culverts at S. 5th Street and at S. 6th Street. The increase in total project cost is due to an increase in labor and construction costs. No significant operating budget impact is expected.

Construction of the flood storage basin.

Oak Creek Watershed

The Oak Creek Watershed drains an area of about 28 square miles. Approximately 64 percent of the area is within the City of Oak Creek, 9 percent in the City of Franklin, 4 percent in the City of Cudahy, 10 percent in the City of Milwaukee, 1 percent in the City of Greenfield, and 12 percent in the City of South Milwaukee. An estimated 6 structures are within the one percent annual probability floodplain with all but three structures already removed through voluntary acquisition.



ID #:	Name:	Phase	Start	Finish	Cost
W50005	Oak Creek Flood Management – Flood Proofing/Acquisition	Planning	Apr-09	Jun-23	$327,455
		Design	Oct-12	Jan-31	$8,730,546
		Total			$9,058,000
		Previously Approved Total			$8,857,000
		Increase/(Decrease)			$201,000

Project Description

The purpose of this project is to reduce the risk of flood damage to six structures within the one percent probability floodplain. The project scope consists of the design and construction of voluntary floodproofing or voluntary acquisition of the remaining structures including two commercial structures and one residential structure. The increase in total project cost is due to inflation. No significant operating budget impact is expected.

ID #:	Name:	Phase	Start	Finish	Cost
W50006	Oak Creek Watershed Restoration Plan	Planning	Oct-15	Mar-23	$349,057
		Prelimin. Eng.	Oct-15	Dec-23	$3,096
		Total			$352,153
		Previously Approved Total			$351,153
		Increase/(Decrease)			$1,000

Project Description

The purpose of this project is to conduct a study to yield data needed to plan and implement future improvements to the watershed area. The project scope is to support SEWRPC in developing a restoration plan for the Oak Creek watershed. The restoration plan will focus on areas such as water quality, recreational access and use, habitat conditions, and targeted stormwater drainage and flooding issues. The increase in total project is de minimus. The operating budget impact is not known at this time.

This project supports the UN SDG #14.

Lake Michigan Drainage Watershed

The only tributary in the Lake Michigan Drainage area under District jurisdiction is Fish Creek that drains an area of about five square miles. Approximately 55 percent is within the City of Mequon, 25 percent is within the Village of Bayside, and 20 percent is within the Village of River Hills. An estimated 11 structures are within the one percent probability floodplain.

ID #:	Name:	Phase	Start	Finish	Cost
W61003	Fish Creek Flood Management - I-43 Expansion	Prelimin. Eng.	Aug-21	May-23	$500,000
		Total			$500,000
		Previously Approved Total			$475,000
		Increase/(Decrease)			$25,000

Project Description

The purpose of this project is to reduce the risk of flooding along Fish Creek in the Village of Bayside while protecting an environmentally sensitive stream corridor downstream. The scope of the project consists of conducting a preliminary engineering study of Fish Creek to mitigate for current and future anticipated flood risks associated with additional runoff expected from Wisconsin Department of Transportation interstate expansion plans. The increase in the total cost is due to an increase in labor costs. No operating budget impact is anticipated at this time.

General Watercourse Projects

Projects grouped into this category are projects that do not fit into the various watersheds. The types of projects can be associated with various studies for planning future watercourse projects; projects that protect or restore natural drainage to prevent future flooding; all other nonspecific items. Projects funded in 2023a will also identify and map floodplains.

ID #:	Name:	Phase	Start	Finish	Cost
W91001	Phase II Corridor & SEWRPC Studies	Planning	Dec-99	Jan-01	$34,232
		Prelimin. Eng.	Mar-01	Jan-24	$2,758,743
		Design	Dec-99	Apr-00	$14,023
		Total			$2,806,998
		Previously Approved Total			$2,806,998
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to develop tools that will assist the District in removing structures from the one percent probability floodplain. The project scope consists of developing a Corridor Study involving compilation of historic and existing inventory information on all the major streams within the District's Service Area. The floodplain mapping is used by District staff and municipalities as they plan projects and reduce flood risk. The maps will assist in identifying flooding problem areas within Milwaukee County and will help in setting funding priorities. The project is being completed by SEWRPC staff. There is no change in total project cost. No significant operating budget impact is expected.

ID #:	Name:		Cost
W97004	Greenseams® Phase 2	Ten-Year Forecast Total	$4,326,631

Project Description

The purpose of this project is to purchase and restore lands with water absorbing hydric soils, which help to manage stormwater, reduce the risk of future flooding problems, and support the District's capital flood management investments. Benefits of this program include protecting natural wetlands, riparian corridors, and wooded properties as a cost-effective way to keep water on the land where it falls as well as conserving the natural functionality of wetlands and floodplains.

This project supports the UN SDG #15.

The project scope is to acquire land intended to assist in the prevention of future flooding issues and expands existing corridors protecting linear greenways along or tributary to jurisdictional waterways. The District either purchases or acquires conservation easements for privately owned parcels consisting of hydric soils in order to prevent these properties from being developed. The project, which includes the Menomonee River, Root River, Oak Creek, and Milwaukee River watersheds, will support activities to research, identify, acquire, maintain, preserve, and defend natural flood storage on lands within the greater Milwaukee metropolitan area. Since the program began, a total of 5,075 acres have been preserved. The District works collaboratively with non-profits, land trusts, governmental agencies, and municipal staff to identify properties in high priority areas, pool resources together, and to contact landowners. Some of these partners are able to own and become the steward of these properties, saving the District time and maintenance costs.

The Greenseams® Program is a capital program and does not have an approved total project cost. The 2023 expenditures are budgeted at $2,179,311; the ten-year long-range financing plan includes $4.3 million. In 2025-2027 project expenditures will shift to be in W97006 and include $1.74 million for each year. In terms of operating budget impact, Greenseams® is a capital program which supports the District's capital infrastructure by reducing the risk of flooding and keeping excess water out of the District's conveyance system. Consequently, the District's capital expenditures on the program generally do not result in significant changes to the current level of O&M expenditures as properties are often transferred from the District to local governments or land trusts to own and manage. When transferring properties, the District always obtains a permanent conservation easement to ensure that they continue to help reduce flood risk and preserve the capacity and long-term cost-effective operation of the District's system in perpetuity.

ID #:	Name:	Phase	Start	Finish	Cost
W97005	Working Soils and MRWCP 2021-2026	Planning	Nov-20	Dec-26	$8,403,626
		Total			$8,403,626
		Previously Approved Total			$8,403,626
		Increase/(Decrease)			$0

Project Description

This project supports the UN SDG #15.

In April 2020, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Regional Conservation Partnership Program awarded the District and partners a second cost-share allocation of $7.5 million to continue and scale watershed conservation work through 2026. The purpose of this project is to continue the Working Soils® Program and collaborative work initiated in 2016 (in project W97003). In collaborative cooperation with the Milwaukee River Watershed Conservation Partners (MRWCP), MMSD's Working Soils® Program will support the acquisition of approximately 15 agricultural easements across 1,500 acres by 2026. The District anticipates receiving $2.4 million from NRCS as cost-share reimbursement after the District has paid for each easement. The MMSD Working Soils® Program staff work with agricultural landowners to place voluntary, permanent easements on undeveloped, private properties along streams, hydric soils, and wetlands in areas expected to have major growth in the next 20 years. This flood management program helps to build and connect priority environmental corridors, in coordination with the District's Greenseams® program. Because the Working Soils® agricultural conservation easements remain privately owned and managed, there is no impact on the operating budget. There is no change in total project cost.

ID #:	Name:	Phase	Start	Finish	Cost
W98006	Reforestation and Wetland Restoration Program	Planning	Jun-22	Jul-32	$11,000,000
		Total			$11,000,000
		Previously Approved Total			$2,000,000
		Increase/(Decrease)			$9,000,000

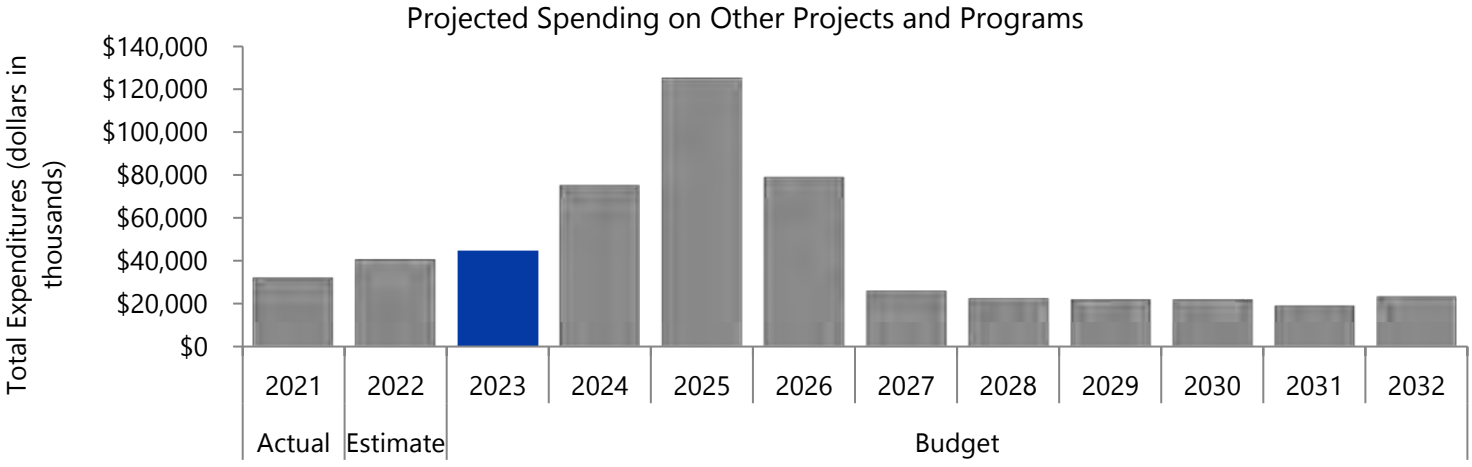
Project Description

The purpose of this project is to identify and implement large scale natural flood management strategies that work to mimic the natural hydrologic process. The scope of this project is to plant six million trees and restore or enhance 4,000 acres of wetlands in the Greater Milwaukee Watersheds (Milwaukee, Kinnickinnic, Menomonee, Oak Creek, Root River, and direct drainage to Lake Michigan). The work is supported by a 2022 Congressional Community Project Funding award of $800,000. This project was created by Commission action 22-106-7 in June of 2022. The increase in total project cost is due to additional years of the program in the ten-year financial plan. The impact on the operating budget is unknown at this time.

Other Projects and Programs

Other Projects is a budgetary grouping of projects that supports overall District planning, management, and infrastructure assets and investments. These projects typically precede design and construction work, providing a solid foundation for future projects in the Water Reclamation Facilities, Conveyance Facilities, and Watercourse Projects capital program groups.

The 2023 Capital Budget includes $44.4 million for work on Other Projects. Please refer to project detail on the following pages for information on each project's purpose, scope, cost forecast, and impact on the O&M budget.



Facilities Management

Facilities Management capital projects are those projects that are related to providing structural upgrades or replacements at District headquarters, Central Laboratory, and other land and building assets.

ID #:	Name:	Phase	Start	Finish	Cost
M01032	N. 44th Street Property Restoration (Miller Park Area)	Design	Jan-19	Mar-27	$488,680
		Construction	Jun-27	Jan-29	$1,638,354
		Post-Constr.	Feb-29	Jan-32	$72,965
		Total			$2,199,999
		Previously Approved Total			$2,199,999
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to rehabilitate an existing MMSD property adjacent to the Menomonee River, returning it to a more natural state, thus improving riparian habitat. The scope of the project includes demolition of an aging District building (completed in 2019), remediation of environmental contamination issues, and riparian habitat improvements. There is no change in total project cost. The operating budget impact is not known at this time.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
M01037	HQ and Lab Facility Improvements	Design	Jan-19	Apr-21	$424,066
		Construction	Jul-19	Sep-23	$5,034,021
		Post-Constr.	Sep-23	Nov-23	$5,277
		Total			$5,463,363
		Previously Approved Total			$5,123,363
		Increase/(Decrease)			$340,000

Project Description

The purpose of this project is to address several capital improvements needed at the District's headquarters and laboratory buildings. Due to the age of the buildings, some structures and equipment need to be replaced as continued maintenance is not as effective as a replacement. In 2023, the scope includes updating the mechanicals and interior controllers of the elevator units in the MMSD Headquarters, replacing the industrial dishwasher in the Laboratory, and replacing the Laboratory cabinetry and countertops. The increase in total project cost is due to increased scope of work to include the Lab improvements in 2023. Replacing older equipment at the end of the useful life with new equipment should reduce the maintenance costs to the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
M01040	13th Street Upgrades	Design	Jul-20	Jun-21	$224,324
		Construction	Jul-21	Oct-22	$1,060,895
		Post-Constr.	Dec-22	Apr-23	$12,500
		Total			$1,297,719
		Previously Approved Total			$1,307,719
		Increase/(Decrease)			($10,000)

Project Description

The purpose of this project is to upgrade the various systems at 13th Street while addressing the concerns of the Water Quality staff. The project scope includes updating the locker room HVAC system. The decrease in total project cost is de minimus. Replacing older HVAC equipment at the end of the useful life with new equipment should reduce the maintenance costs to the operating budget.

This project supports the UN SDG #13.

ID #:	Name:	Phase	Start	Finish	Cost
M01042	District Rolling Stock	Construction	Jun-20	Dec-26	$910,000
		Total			$910,000
		Previously Approved Total			$910,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to replace multiple vehicles for District operations at the Jones Island and South Shore Water Reclamation Facilities, for field monitoring work, and overall District operations. The District owns a variety of vehicles, many of which qualify for capital funding. The scope of the project is to replace District vehicles/rolling stock that qualify for capital funding. There is no change in total project cost. Vehicles are maintained as part of the Veolia operating contract.

ID #:	Name:	Phase	Start	Finish	Cost
M01043	KK River Trash Wheel - Drive Access	Design	Nov-20	Nov-23	$40,000
		Construction	Feb-22	Dec-23	$62,000
		Total			$102,000
		Previously Approved Total			$102,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to support the removal of river debris by allowing access to District property for storage and removal by others of collected floating debris as well as providing winter storage space of the trash wheel. The scope of the work includes design and construction of an approximately 100-foot driveway access and a concrete pad from the entrance drive on MMSD property at 2122 S. 4th Street to the Kinnickinnic River. The new driveway will allow for the removal of floating debris collected by the operation of a trash wheel in the Kinnickinnic River. The trash wheel will be owned and operated by other organizations. There is no change in total project cost. The driveway may result in additional maintenance costs as the District will be responsible for maintaining the driveway.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
M01044	HQ and Lab Buildings Remodel	Design	Jan-23	Apr-24	$350,000
		Construction	Sep-24	Apr-26	$2,144,000
		Post-Constr.	Apr-26	Apr-26	$6,000
		Total			$2,500,000
		Previously Approved Total			$2,500,000
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to address workforce and office space needs at the District headquarters and laboratory buildings. Over the last several years, several office remodels have occurred when staffing levels increased of arrangements needed to be changed. Working within the confines of existing space to meet staffing levels increased or arrangements needed to be changed. Working within the confines of existing space to meet staffing needs has resulted in many inefficiencies throughout the headquarters and laboratory buildings. In 2023, the project will begin Phase I to reconfigure and reestablish the location of the Commission meeting room, modify office configurations where the previous Commission meeting room is located, and update the configuration of the lobby and reception area. There is no change in total project cost. No operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
M01045	Pelagos Slip Modifications at HQ Dock	Design	Oct-22	Feb-23	$17,000
		Construction	Apr-23	Oct-23	$115,900
		Post-Constr.	Oct-23	Nov-23	$2,500
		Total			$135,400
		Previously Approved Total			$0
		Increase/(Decrease)			$135,400

Project Description

The purpose of the project is the reduce the risk associated with boarding and deboarding the Pelagos from the District Headquarters boat dock. The project scope includes the in-house design and construction for the replacement of the existing fixed dock section along the south face of the MMSD Headquarters dock slip with a new floating dock system. This is a new project. Once the new floating dock system is installed, the District will maintain it with funds from the operating budget.

The District's research vessel, the Pelagos.

ID #:	Name:	Phase	Start	Finish	Cost
M01046	Digital Signages	Design	Jan-23	Mar-23	$5,000
		Construction	May-23	Jun-23	$95,000
		Total			$100,000
		Previously Approved Total			$0
		Increase/(Decrease)			$100,000

Project Description

As part of the District's educational outreach programming, the purpose of this project is to provide public information including notifications of extreme wet weather events and daily programming of water related messages. The scope is to construct a kiosk that is solar powered and internet based and allows for integration with the water alert program. This is a new project. Once the new kiosk is installed, the District will maintain it with funds from the operating budget.

Facilities Planning

Facilities Planning is an ongoing process addressing all District facilities. The process includes: 1) evaluation of data reflective of system conditions before and after major system upgrades to validate the performance expectations of previous facility improvements, 2) data collection to provide a consistent time series of data adequate for evaluation of system performance, and 3) modeling and evaluation of the real-time operation of the systems constructed under a Facilities Plan. Ultimately, recommendations made under a facilities plan must be evaluated on an on-going basis to determine if and when facilities plan-identified projects should be built as planned and timed. In the future, asset management will be instrumental in determining how and when facilities plan-recommended projects are designed and constructed.

The District's capital improvement program is primarily driven by a facilities plan that is formalized and published roughly every ten years. Once the plan is approved, staff routinely analyze and evaluate the plan to ensure that the recommendations and projects are current. The development of the plan requires ongoing data collection and analysis as well as staff resources. Activities funded in the 2022 Capital Budget will identify and plan future improvements to District facilities.

ID #:	Name:	Phase	Start	Finish	Cost
M03109	Energy Plan for MMSD Facilities	Prelimin. Eng	May-20	Jun-23	$800,000
		Total			$800,000
		Previously Approved Total			$800,000
		Increase/(Decrease)			$0

Project Description

The purpose of the project is to provide an update to the comprehensive plan for MMSD to meet the Energy Goals in the 2035 Vision and the UN SDGs. While analyzing the District's current energy portfolio, the update will provide recommendations for new and improved assets or operating strategies to meet the energy goals. The recommendations will result in new capital projects to improve the District's energy efficiency and to require energy conservation and efficiency in non-energy projects. There is no change in total project cost. Recommendations that do not qualify for capital funding will be funded from the operating budget.

This project supports the UN SDG #7.

ID #:	Name:	Phase	Start	Finish	Cost
M03110	NFPA 820 WRF Evaluation	Planning	Feb-21	Jun-23	$615,300
		Total			$615,300
		Previously Approved Total			$615,300
		Increase/(Decrease)			$0

Project Description

National Fire Protection Association (NFPA) 820 is the standard for fire protection in wastewater treatment and collection facilities and provides general provisions for construction, ventilation, and electrical installation in wastewater collection systems and liquid and solids treatment processes and facilities. The purpose of this project is to determine how to bring District WRF buildings into compliance with State statutes or NFPA 820, and to determine the actual impact of the tunnel connectivity to the NFPA classifications for various buildings. This planning study will build on the 2011 NFPA Compliance Study and recommend capital improvements for cost-effective methods for bringing critical facilities into compliance with either NFPA 820 or Wisconsin State statutes for protection from explosion due to hazards in wastewater treatment processes. The study will also look at building connectivity to the tunnels and the ratings of connected buildings to the tunnels. There is no change in total project cost. No impact on the operating budget is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
M03111	Corridor Study Phase VI	Planning	Nov-20	Dec-25	$4,198,135
		Total			$4,198,135
		Previously Approved Total			$4,096,103
		Increase/(Decrease)			$102,032

Project Description

The Corridor Study - Phase VI is a cooperative water quality research effort between MMSD and the United States Geological Survey (USGS) that will continue to expand research from previous phases and respond to new areas of interest as identified by regulation, facilities planning, and Executive Director requests. Phase VI will focus on ecology, restoration evaluation, stream health, polycyclic aromatic hydrocarbon trends in stream sediment, streamflow, enhanced coordination for public outreach, PFAS surveillance, green infrastructure, microplastics, trace organics, optical properties of water, pathogens, water quality trends, nutrient trends, and other needs identified as the study progresses. The increase of total project cost is due to additional scope to do ecological monitoring to support the District and US Army Corps projects on the KK River and Honey Creek. No impact on the operating budget is anticipated.

This project supports the UN SDG #14.

ID #:	Name:	Phase	Start	Finish	Cost
M03112	Instrumentation & Control Planning	Planning	Sep-21	Jul-24	$1,035,000
		Total			$1,035,000
		Previously Approved Total			$985,000
		Increase/(Decrease)			$50,000

Project Description

The purpose of this project is to develop a plan to maintain and improve the reliability, functionality and security of the District's instrumentation, control and physical site security equipment. The scope will provide a comprehensive long-term instrumentation and controls capital improvement plan for the JIWRF, SSWRF, and Conveyance instrumentation and control systems through the year 2035. The increase in total project cost is due to updated cost estimates. The impact on the operating budget is unknown at this time.

ID #:	Name:	Phase	Start	Finish	Cost
M03114	Discovery World Water Exhibit	Planning	Jan-21	Aug-25	$450,000
		Total			$450,000
		Previously Approved Total			$450,000
		Increase/(Decrease)			$0

Project Description

As part of the District's educational outreach programming, the purpose of this project is to provide an improved hands-on learning opportunity for students throughout the service area on all things water. A collaboration between MMSD and a host of water-centric partners will design and construct an exhibit to enhance the general public's knowledge on water systems. The project scope is to provide funding for the construction of the exhibit. There is no change in total project cost. No operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
M03116	Ad Hoc Research 2022-2026	Planning	Jan-22	Dec-26	$1,550,000
		Total			$1,550,000
		Previously Approved Total			$1,500,000
		Increase/(Decrease)			$50,000

Project Description

The purpose of this project is to evaluate and pilot technologies. The project is a continuation of M03091 Ad Hoch Water Quality Studies. Research projects funded in this project are capital-eligible and result from planning projects or are pursued in order to support the District's 2035 Vision, Strategic Plan, operational needs, or regulatory requirements. Specific focus areas included in this scope are, but not limited to, energy and resource recovery, real-time data instrumentation and controls for enhanced process control, climate change mitigation, emerging contaminant analysis and mitigation, and wet-weather management. The increase in total project cost is due to additional scope for lab support. No operating budget impact is anticipated.

ID #:	Name:	Phase	Start	Finish	Cost
M03117	Monitoring for Capital Project Development and Support - Phase II	Planning	Jan-22	Dec-26	$17,248,000
		Total			$17,248,000
		Previously Approved Total			$0
		Increase/(Decrease)			$17,248,000

Project Description

The purpose of this project is to provide the data and analyses that the District currently uses for the capital improvement program and facilities planning improvements. This is a new project and a continuation of the work completed in M03098. There is no impact to the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
M03119	Impacts of 1000-year Flood	Planning	Jan-23	Dec-26	$350,000
		Total			$350,000
		Previously Approved Total			$0
		Increase/(Decrease)			$350,000

Project Description

The purpose of this project is to understand flood risk impacts on the District’s asset systems, including the ability to convey and treat wastewater. The scope includes conducting a planning study of the impacts of the 1000-year storm within the District service area. This is a new project. There is no impact to the operating budget.

Capital Reimbursement Programs

ID #:	Name:	Phase	Start	Finish	Cost
M10004	PPI/I Implementation Phase 2 (Labor)	Prelimin. Eng	Jan-18	Jan-29	$11,334,585
		Construction	Jul-18	Feb-25	$3,648,361
		Post-Constr.	Jan-27	Mar-27	$16,821
		Total			$14,999,767
		Previously Approved Total			$14,420,500
		Increase/(Decrease)			$579,267

Project Description

To assist with meeting the District 2035 Vision objectives, the purpose of this project is to provide District staff, in-kind, and consultant support for infiltration and inflow (I/I) work completed on private property through municipality procured contracts, District procured contracts and District contracted residential plumbing contractors for individual residential property owners funded by District project M10005, M10006, and M10007. Through project scope for M10004, District staff manages and administrates the Private Property Infiltration and Inflow (PPII) Reduction program. Management and administration consist of work plan review, funding agreement drafting and routing, processing municipal reimbursement requests, drafting and revising program policy, stakeholder and public communication/outreach, budget management, project evaluation, results reporting, data collection, and engineering support. The increase in total project cost accounts for District staff projections and consultant contracts through the long-range financing plan. There is no operating budget impact.

ID #:	Name:		Cost
M10005	Post 2050 FP PPI/I Approach	Ten-Year Forecast Total	$50,000,000

Project Description

The purpose of this project is to provide a funding mechanism for municipalities to complete infiltration and inflow (I/I) reduction work on private property to reduce the risk of basement backups, SSOs, and CSOs. The municipalities may use the funding for planning, design, investigation, and construction/remediation to mitigate private property sources of I/I. Expenses for actual work completed by the municipalities that is consistent and compliant with the District Policy as revised in April 2022, will be reimbursed through this project to the limits of the cumulative municipal allocations. Project scope for M10005 facilitates and manages the funding of infiltration and inflow (I/I) reduction work on private property (PP) through annual allocations to the 28 satellite municipalities as defined in the program policy. Program annual municipal allocations for the Private Property I/I (PP I/I) program are based on the preceding year's equalized value of each municipality. PP I/I is a capital program and does not have an approved total project cost. The ten-year long-range financing plan includes $50 million. There is no operating budget impact.

This project supports the UN SDG #6.

ID #:	Name:	Phase	Start	Finish	Cost
M10006	PPII Research and Development	Prelimin. Eng	Oct-22	Jul-24	$166,657
		Design	Jul-24	Nov-24	$891,204
		Construction	Apr-25	May-30	$2,111,640
		Post-Constr.	May-30	Jun-35	$374,444
		Total			$3,543,946
		Previously Approved Total			$3,543,946
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to identify, develop, and implement new means and methods for implementing private property infiltration and inflow projects. The first ten years (2011-2020) of the PPI/I Program have demonstrated that the District is in the best position from the perspectives of program risk, oversight, and experience to research and evaluate new products and strategies for investigation, design, and construction of I/I reduction projects on private property. The project provides for District staff and contracted consultant services to research existing products and methods used in other programs nationally and globally but not yet tried at MMSD. Solutions will also be sought out for issues and challenges that have arisen through the District program for which there appears to be no existing product or strategy. Project scope for M10006 will plan, design, and construct pilot projects to reduce infiltration and inflow (II) from private property (PP) sources through innovative technologies, means, and/or methods that currently do not exist in the industry or exist but have not been proven in the region. There is no change in total project cost. There is no operating budget impact

This project supports the UN SDG #6.

ID #:	Name:		Cost
M10007	PPI/I Residential (Pipe Check)	Ten-year Forecast	$5,000,000

Project Description

This purpose of this project is to provide funding for the Annual Residential Property Funding Allocation (ARFA), or more commonly known as Pipe Check, to the residents of the 28 municipalities within the MMSD service area. Pipe Check funding is allocated to a municipality each year based on the previous year's equalized value formula. Pipe Check is a capital program and does not have an approved total project cost. The long-range financing plan includes $5 million. This project scope will provide funding to the residents of the 28 municipalities within the MMSD service area to individually complete infiltration and inflow (I/I) reduction work on private property.

This project supports the UN SDG #6.

Workforce & Business Development Resource Program

ID #:	Name:		Cost
M04004	Workforce & Business Development Resource Program 2022-2026	Ten-year forecast	$1,741,447

Project Description

The Workforce & Business Development Resource Program consists of four program components: pre-apprenticeship training and placement, consulting and construction management training, business development training, and the Regional Internships in Science and Engineering (RISE) program for college students. The scope will continue to integrate this program with the long-term needs of the District's ten-year capital improvement program. The Workforce & Business Development Resource Program does not have an approved total project cost. The 2023 expenditures are budgeted at $447,688; the ten-year long-range financing plan includes $1,741,447.

Information Technology Systems

ID #:	Name:	Phase	Start	Finish	Cost
M06011	Information Technology Software Systems	Prelimin. Eng	Jan-16	Jan-23	$1,302,435
		Total			$1,302,435
		Previously Approved Total			$1,302,435
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to fund the acquisition of new software systems. The scope includes systems that are identified annually based on changing conditions, changing needs, and the rapid pace of technology change. In 2023, the project will replace the core infrastructure for security cameras and badge readers at the end of their useful life. There is no change in total project cost. New systems will increase O&M costs as new systems will be maintained with funding from the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
M06016	ERP Implementation	Construction	Feb-20	Jan-23	$11,151,204
		Total			$11,151,204
		Previously Approved Total			$10,873,617
		Increase/(Decrease)			$277,587

Project Description

The purpose of this project is to procure and implement a new enterprise resource management (ERP) system for the District. An ERP system is a collection of modules or services to help an organization manage its financials, human resources, procurement, and other centralized functions. The project scope includes implementing a new system, including the conversion of data; development of business processes, workflows, reports, and forms; and integrations with other District software systems such as eBuilder. District staff selected the Oracle system for human capital management and enterprise resource management. The operating budget impact includes the annual licensing fee for the Oracle software and training software totaling $300,000 per year.

ID #:	Name:	Phase	Start	Finish	Cost
M06018	ITS Equipment Replacement 2022 - 2026	Planning	Jan-22	Dec-26	$451,580
		Total			$451,580
		Previously Approved Total			$431,580
		Increase/(Decrease)			$20,000

Project Description

The purpose of this project is to provide a mechanism to replace and purchase various minor information technology equipment that meets the criteria for capital funding but do not require extensive cost and schedule management. The project scope will vary each year as existing items are completed, and new items are added. The increase of total project cost is due to inflation. The project may impact the operating budget by purchasing new equipment or systems that need to be maintained.

ID #:	Name:	Phase	Start	Finish	Cost
M06019	CMMS Implementation	Planning	May-23	Sep-25	$2,520,000
		Total			$2,520,000
		Previously Approved Total			$0
		Increase/(Decrease)			$2,520,000

Project Description

The purpose of this project is to provide a single Computer Maintenance Management System (CMMS) that manages all of MMSD's asset systems. The selected CMMS will replace the CMMS systems currently used and owned by Veolia, and will provide improved data management of maintenance and inspection activities for asset systems that are not currently being consistently managed within a structured database. The project scope includes procurement of a single CMMS. This is a new project. Once the new system is implemented, training and any licensing fees will be paid for in the operating budget.

CMMS software systems help plan for preventative maintenance, maintain adequate spare parts inventory levels, complete maintenance task scheduling and planning, and achieve regulatory compliance. Over the past ten years, the District has made a significant effort to increase its asset management efforts. Proactively managing assets can help the District plan for the future and replace assets appropriately rather than prematurely or once an asset has failed. The District manages 23,115 conveyance and water reclamation facility assets.

Financial Planning

ID#:	Name:		Cost
M07002	Financial Planning	Ten-Year Forecast Total	$6,206,273

Project Description

The purpose of this project is to reduce the cost of debt issuance for the capital budget through:

- Favorable bond ratings,
- An appropriate mix of borrowing and cash financing, with at least 20 percent cash financing of project expenditures over the ten-year plan,
- Below-market rate loans from the State Clean Water Fund Program, and
- Capture of grant funds.

The project scope aims at specialized financial planning services to support the District's objective of limiting the proportion of the regional economy needed to finance capital projects. The 2023 Capital Budget will fund financial planning efforts performed by internal staff and outside consultants as the District prepares for a competitive bond sale, grant and loan applications and reimbursement requests, and lobbies for favorable funding legislation. The 2023 Capital Budget includes the ten-year long-range financing plan to the year 2032. Financial planning provides funding for internal staff time and outside professional services necessary to obtain financing for capital projects, including:

- Bond Counsel
- Escrow Trustee
- Lobbying Activities for Grant Legislation & Award Arbitrage Rebate Calculation
- Financial Advisor
- Rating Agencies
- Clean Water Fund Program Application & Closeout
- Bond Registrar
- Grant Applications

The financial planning account does not have an approved total project cost because it is an ongoing capital project support program. The 2023 expenditures are budgeted at $1,595,512; the ten-year long-range financing plan includes $6,206,273. There is no significant operating budget impact.

Risk Management Program

ID #:	Name:		Cost
M09002	Risk Management for Capital Program	Ten-Year Forecast Total	$3,317,823

Project Description

The purpose of the program seeks to reduce the risk of losses associated with the District's Capital Improvement Program. The program scope of the District's Risk Management Program includes the following elements:

- Contractual requirements with consultants and contractors to ensure specified amounts and types of insurance coverage for each design and construction contract. The District has contracted with its insurance broker to monitor compliance with contract insurance requirements.
- The purchase of insurance by the District to address the potential for losses in excess of limits required from contractors and consultants, including professional liability insurance and environmental liability insurance.
- Construction safety program, including construction contractor requirements and oversight by District staff and safety professionals.
- A District Consultant Activity Review Committee to identify, analyze, and determine costs of incidences of deficient work products prepared by consultants.

The Risk Management for Capital Program does not have an approved total project cost because it is an ongoing construction support program. The 2023 expenditures are budgeted at $664,279; the ten-year long-range financing plan includes $3,317,823. Costs of the Risk Management Program are allocated to capital projects on the basis of construction contract expenditures. There is no significant operating budget impact.

General Other Projects

ID #:	Name:	Phase	Start	Finish	Cost
M98001	Milwaukee Estuary AOC Dredged Material Management Facility (DMMF)	Design	Oct-21	May-23	$4,089,000
		Construction	Sep-23	Sep-26	$151,720,000
		Post-Constr.	Oct-26	Dec-26	$50,000
		Total			$155,859,000
		Previously Approved Total			$98,291,439
		Increase/(Decrease)			$57,567,561

Project Description

The purpose of this project is to construct a Dredged Material Management Facility (DMMF) to manage material from the Milwaukee Estuary Area of Concern (AOC), Port of Milwaukee projects, and MMSD projects. The scope is to create a facility to provide safe, secure containment for 1.9 million cubic yards of sediment removed from the Milwaukee, Menomonee, and Kinnickinnic Rivers, as well as the inner and outer harbors of the Milwaukee Bay as part of the Milwaukee Estuary Area of Concern cleanup efforts. Removing the contaminated sediment will help to remediate impairments in the Milwaukee Estuary Area of Concern including restrictions on dredging activities, fish tumors or other deformities, bird or animal deformities or other reproductive problems, restrictions on fish and wildlife consumption, and degradation of benthos. In addition, space within the DMMF will be reserved for the Port of Milwaukee to place material dredged for commercial navigation purposes and for the District to place soil and materials that have been excavated as part of District watercourse projects. The space for the DMMF is on submerged land of Lake Michigan owned by the City of Milwaukee. The DMMF will be owned and operated by the Port of Milwaukee. The scope of the project includes preliminary design, final design, regulatory permitting, bidding, and construction of the facility. The Wisconsin Department of Natural Resources (DNR) and Port of Milwaukee are funding partners. The DNR has agreed to provide funding of the final design. The increase in total project cost is due increased construction costs including increased steel costs, a change in the style of the containment system, and additional walls on the west and south sides of the facility. There is no operating budget impact.

District staff engage the public by offering site tours for upcoming and ongoing projects. The DMMF is a new concept for the area and educating the public we serve helps garner support.

ID #:	Name:		Cost
M99001	Allowance for Cost & Schedule Changes	Ten-Year Forecast Total	$46,450,388

Project Description

The purpose of this account is to provide a source of funds to address unanticipated contract changes and changes in project cash flows. By planning for the payment of these expenditures, this account supports the District's goal of maintaining a stable tax rate over the planning horizon. Commission policy requires the Allowance for Cost and Schedule Changes to be funded at no less than two percent and no greater than five percent of capital expenditures. The Allowance for Cost and Schedule Changes in the ten-year plan is budgeted at two percent per year.

Green Infrastructure Projects

ID #:	Name:	Phase	Start	Finish	Cost
G98002	Fresh Coast Green Solutions Phase 2	Planning	Dec-17	Jan-24	$3,240,578
		Total			$3,240,578
		Previously Approved Total			$3,240,578
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to plan, design, and provide related support for individual capital-eligible green infrastructure strategies and wider implementations that help keep stormwater out of the combined and separate sewer systems, reducing the volume and frequency of combined and sanitary sewer overflows and basement backups during significant storms and helping to improve water quality. The project supports the District's 2035 Vision and the goals of the Private Property Infiltration and Inflow (PPI/I) Reduction program. There is no change in total project cost. The project may impact the operating budget as the project results in additional GI to maintain.

This project supports the UN SDGs #6, 13 and 15.

ID #:	Name:	Phase	Start	Finish	Cost
G98004	Fresh Coast Implementation Phase 2	Planning	Jan-18	Jan-25	$13,685,326
		Total			$13,685,326
		Previously Approved Total			$14,885,326
		Increase/(Decrease)			($1,200,000)

Project Description

The purpose of this project is to provide stormwater capture and infiltration at targeted levels, keeping stormwater out of sanitary and combined sewers and reducing the risk of basement backups and sewer overflows. The green infrastructure installations completed through this project will be large scale, cost more than $25,000, have a minimum of a ten-year conservation easement, and demonstrate progress toward implementing the MMSD's Regional Green Infrastructure Plan. The scope of the project is to provide capital-eligible projects with cost-share partnership funding. The decrease in total project costs is due to canceled projects no longer needing the money. The impact on the operating budget is not known at this time.

This project supports the UN SDGs #6, 13 and 15.

ID #:	Name:		Cost
G98005	Green Solutions Phase 2	Ten-Year Forecast Total	$50,000,000

Project Description

The purpose of this project is to help the District meet its 2019 Wisconsin Pollutant Discharge Elimination System (WPDES) permit goal to capture 50 million gallons of stormwater over five years via green infrastructure by incentivizing municipalities within the District to implement green infrastructure. The project scope is to provide a funding mechanism to municipalities for green infrastructure projects with a minimum value of $25,000 within the District GI service area that elect to continue in the green infrastructure program. The funding is annually allocated to those municipalities based on equalized value. The project is also consistent with the District's 2035 Vision and Regional Green Infrastructure Plan. Green Solutions is a capital program and does not have a total project cost. The 2023 budget includes $5 million and the ten-year forecast includes $50 million. The District's capital expenditures on the program do not result in an operating budget impact as the resulting improvements are not operated or maintained by the District, but instead help to preserve the capacity and long-term cost-effective operation of the District's system.

This project supports the UN SDGs #6, 13 and 15.

ID #:	Name:	Phase	Start	Finish	Cost
G98011	Alternative Project Delivery / Community-Based GI	Planning	Apr-19	Aug-24	$29,933,042
		Total			$29,933,042
		Previously Approved Total			$29,930,500
		Increase/(Decrease)			$2,542

Project Description

The purpose of this project is to pilot an approach to meet the 2035 Vision and Regional Green Infrastructure Plan goals of installing 740 million gallons of GI capture capacity within the District's GI service area. Additionally, the District's WPDES permit GI goal is to achieve an additional 50 million gallons of GI capacity in the District's service area by 2024. The project scope includes planning, design, construction, and maintenance of GI within the District's GI service area. Through this project, a consultant will develop a plan of approach to scale up GI implementation within the combined and separated sewer areas. This project will result in building 11.2 million gallons or more of GI. The increase in total project cost is for updated labor estimates. The operating budget impact is not known at this time.

ID #:	Name:	Phase	Start	Finish	Cost
G98012	Urban Tree System to Address Climate Change	Planning	May-20	Dec-22	$595,462
		Post-Constr.	Mar-23	Oct-24	$5,000
		Total			$600,462
		Previously Approved Total			$600,462
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to achieve the goals of the District's 2035 Vision by planting stormwater trees to provide stormwater management, create urban tree canopies, reduce the urban heat island effect, and sequester carbon to offset greenhouse gas emissions from the District's activities. There is no change in total project cost. The impact on the operating budget is that the District will have additional green infrastructure to maintain.

ID #:	Name:	Phase	Start	Finish	Cost
G98013	National Fish & Wildlife Foundation Funding Partnership	Planning	Dec-19	Dec-24	$1,292,643
		Total			$1,292,643
		Previously Approved Total			$1,292,643
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to meet the District's 20235 Vision wile leveraging external funding to implement green infrastructure. The porject scope includes developing a multi-year partnership with the National Fish and Wildlife Foundation (NFWF) to fund and accelerate the implementation of GI within the District's GI Service Area by leveraging funds from multiple nongovernmental organizations and foundations to implement GI. There is no change in total project cost. Ther is no significant operating budget impact.

ID #:	Name:	Phase	Start	Finish	Cost
G98015	Strategic GI Implementation	Planning	Jul-19	Oct-24	$1,839,274
		Total			$1,839,274
		Previously Approved Total			$1,839,274
		Increase/(Decrease)			$0

Project Description

The purpose of this project is to install green infrastructure in the combined sewer area to help meet the District's 2035 Vision goals. The green infrastructure installations completed through this project will be large scale, cost more than $25,000, and have a minimum of a ten-year conservation easement. There is no change in total project cost. There is no significant impact to the operating budget.

ID #:	Name:	Phase	Start	Finish	Cost
G98022	Fresh Coast Green Highways	Design	Nov-21	Apr-23	$440,00
		Construction	Jan-23	Feb-26	$2,100,000
		Post-Constr.	Oct-23	Oct-28	$10,000
		Total			$2,550,000
		Previously Approved Total			$5,000,000
		Increase/(Decrease)			($2,450,000)

Project Description

The purpose of this project is to continue GI implementation to meet the 2035 Vision and Regional GI Plan goals of installing 740 million gallons of GI capture capacity within the District's service area. Additionally, the District's WPDES permit GI goal is to achieve an additional 50 million gallons of GI capacity in the MMSD service area by 2024. The project scope includes planning, design, and construction of green infrastructure within the MMSD's GI service area. The maintenance of the green infrastructure to be installed would be managed by municipal partners where the GI projects are located. The project plans to partner with local municipalities and the WisDOT with work occurring underneath freeway overpasses. The decrease in total project cost is due to a transfer of funds to project G98025. There is no anticipated operating budget impact.

ID #:	Name:	Phase	Start	Finish	Cost
G98023	Fresh Coast Protection Partnership Phase II	Planning	Nov-21	Aug-31	$22,000,000
		Total			$22,000,000
		Previously Approved Total			$52,000,000
		Increase/(Decrease)			($30,000,000)

Project Description

The purpose of this project is to continue ramping up GI implementation to meet the 2035 Vision and Regional GI Plan goals of installing 740 million gallons of GI capture capacity within the District's service area. Additionally, the District's WPDES permit GI goal is to achieve an additional 50 million gallons of GI capacity in the MMSD service area by 2024. The Executive Director requested to reduce the contract from $50,000,000 to $20,000,000 to reduce the overall burden on the capital budget as inflation is increasing prices for projects across the District.

ID #:	Name:	Phase	Start	Finish	Cost
G98024	Fresh Coast Implementation 2023-2027	Planning	Jan-23	Jan-28	$9,800,000
		Total			$9,800,000
		Previously Approved Total			$0
		Increase/(Decrease)			$9,800,000

Project Description

The purpose of this project is to continue the work from project G98004 and provide stormwater capture and infiltration at targeted levels, keeping stormwater out of sanitary and combined sewers and reducing the risk of basement backups and sewer overflows. The green infrastructure installations completed through this project will be large scale, cost more than $25,000, have a minimum of a ten-year conservation easement, and demonstrate progress toward implementing the MMSD's Regional Green Infrastructure Plan. The scope of the project is to provide capital-eligible projects with cost-share partnership funding. This is a new project. The impact on the operating budget is not known at this time.

ID #:	Name:	Phase	Start	Finish	Cost
G98025	Mineral Street Overpass	Design	Feb-23	Jan-24	$400,000
		Construction	Apr-24	Jan-25	$2,090,000
		Post-Constr.	Jan-25	Jan-30	$10,000
		Total			$2,500,000
		Previously Approved Total			$0
		Increase/(Decrease)			$2,500,000

Project Description

The purpose of this project is to continue GI implementation to meet the 2035 Vision and Regional GI Plan goals of installing 740 million gallons of GI capture capacity within the District's service area. Additionally, the District's WPDES permit GI goal is to achieve an additional 50 million gallons of GI capacity in the MMSD service area by 2024. The project scope includes planning, design, and construction of green infrastructure within the MMSD's GI service area. The maintenance of the green infrastructure to be installed would be managed by municipal partners where the GI projects are located. The project plans to partner with local municipalities and the WisDOT with work occurring underneath freeway overpasses. This is a new project and funding for this project is transferred from project G98022. There is no anticipated operating budget impact.

ID #:	Name:	Phase	Start	Finish	Cost
G98026	2024 Fresh Coast Green Highways	Design	Dec-22	Jan-25	$550,000
		Construction	Apr-25	Dec-25	$2,275,000
		Post-Constr.	Dec-25	Mar-31	$10,000
		Total			$2,835,000
		Previously Approved Total			$0
		Increase/(Decrease)			$2,835,000

Project Description

The purpose of this project is to continue GI implementation to meet the 2035 Vision and Regional GI Plan goals of installing 740 million gallons of GI capture capacity within the District's service area. Additionally, the District's WPDES permit GI goal is to achieve an additional 50 million gallons of GI capacity in the MMSD service area by 2024. The project scope includes planning, design, and construction of green infrastructure within the MMSD's GI service area. The maintenance of the green infrastructure to be installed would be managed by municipal partners where the GI projects are located. The project plans to partner with local municipalities and the WisDOT with work occurring underneath freeway overpasses. This is a new project and a continuation of the work in project G98022. There is no anticipated operating budget impact.

MMSD green infrastructure partnership funding makes green space including bioswales (above) and outdoor classrooms (below) possible. Teaching youth about the importance of water and water management strategies help engage the next generation of water stewards.

Debt Service

The Wisconsin State Statutes allow the District to finance capital improvements through the issuance of debt instruments, including general obligation bonds and notes; bond anticipation notes; and revenue bonds and notes. The District is evaluating new debt sources, such as the Water Infrastructure Financing and Innovation Act and the use of Taxable debt for future years. As these sources are evaluated and included, additional information on debt service will be included.

Issuance of bonds and notes require a vote of at least two-thirds of all Commissioners except in the case of emergency borrowing which requires a vote of three-fourths of all Commissioners.

The debt financing strategy focuses on managing the District's debt capacity, operating the District in a fiscally prudent manner, and contributing to the stability and growth of the region's tax base and customer base, by maintaining or improving the District's bond rating.

The District's debt policy seeks to ensure the maintenance of sound debt position and the protection of the District's credit quality. The District's debt policy provides an appropriate balance between establishing limits on the debt program and providing sufficient flexibility to respond to unforeseen circumstances and new opportunities. Key limits in the debt policy include:

- The District's intent to keep outstanding general obligation debt to no more than 2.5 percent of its equalized property value of member communities.
- The District's intent to cash finance at least 20 percent of project expenditures over the ten-year financing plan.
- No more than 15 percent of its outstanding general obligation bonds in variable rate form.
- Advance refunding for economic savings to be undertaken only when net present value savings of at least 2 percent.

In 2020, the District was the fourth in the country and the second wastewater treatment agency to issue a Certified Climate Bond. In acknowledgement of its financial management and planning strength, the District continues to receive strong credit ratings. In April 2022, Standard & Poor's Ratings Services affirmed the District's AA+ credit rating with a stable outlook. The rating report cited the District's large, diversified, and growing property tax base, sound financial management, strong liquidity, and rapid debt amortization in affirming the AA+ rating which has remained unchanged since 1997. Also, in April 2022, Moody's Investors Service affirmed its credit rating Aa1. Moody's report noted that the District's Aa1 rating reflects "financial operations are strong, supported by proactive management and unlimited revenue raising flexibility." Since July 2007, Fitch Ratings has rated the District as a AAA credit, most recently affirming the AAA rating in April 2022.

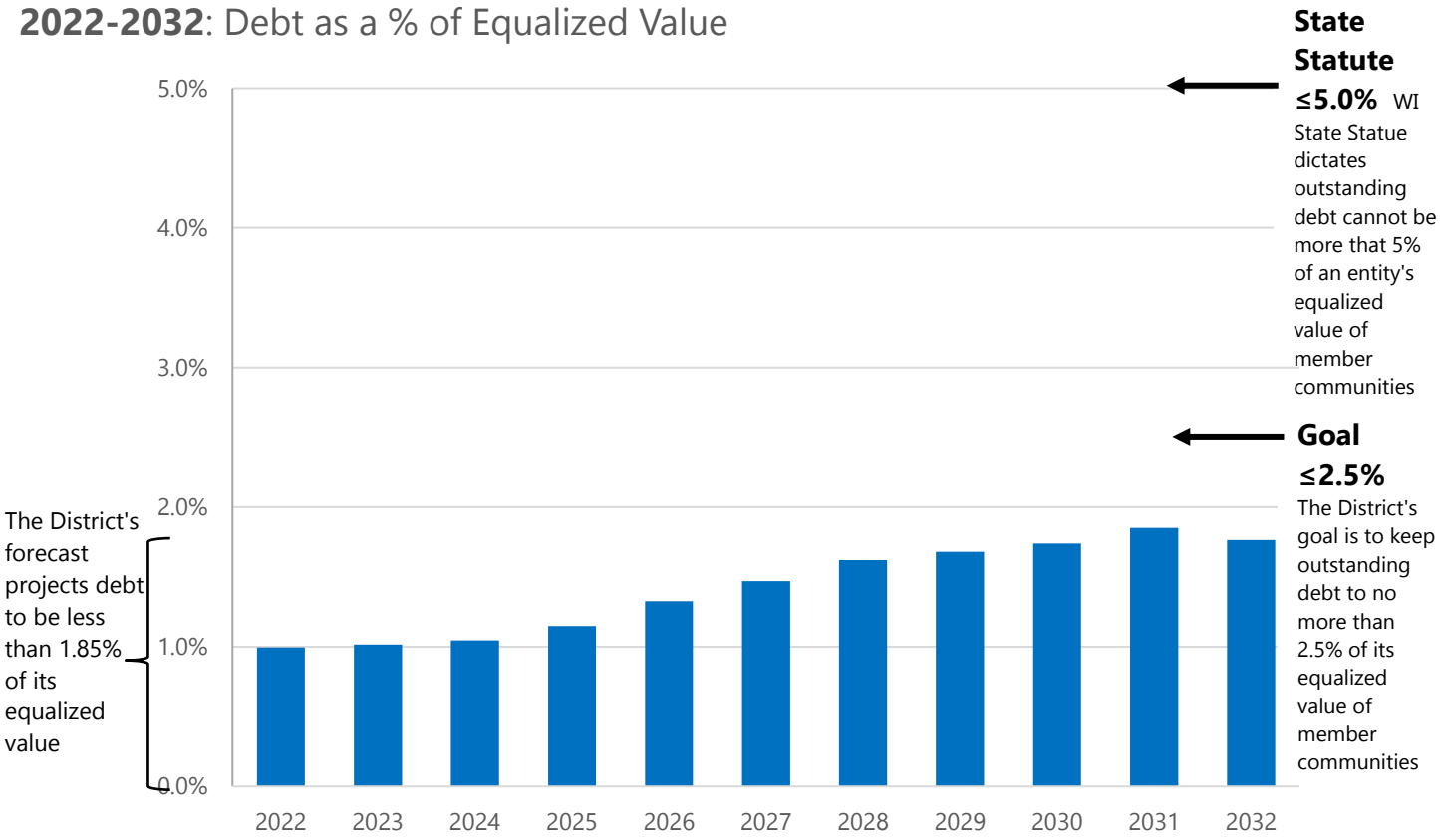
As of August 31, 2022, the District has $742.9 million of general obligation debt outstanding.

	Principal Amount ($0)	True Interest Cost (%)
District Bonds	$379.0	0.718 – 2.939%
Clean Water Fund Program Loans	$363.9	1.485 - 4.953%
Total	$742.9	

The District is subject to a statutory debt limit of 5% of equalized value in the Wisconsin Statutes Section 67.03 but District policy further limits this to 2.5%. The District's performance is well below the legal and self-imposed limits.

2022 Equalized Valuation (Estimate)	$85,368,718,800	100.00%
Statutory Debt Limit Rate		5.00%
Statutory Debt Limit	$4,268,435,940	
General Obligation Debt Outstanding at August 31, 2022	$742,911,294	0.87%
Legal Debt Margin	$3,525,524,646	

The District's Long-Range Financing Plan includes the estimate for outstanding debt at year-end 2023 at $868.3 million and 1.02% of equalized value, rather than the current level as shown on the prior page. As seen in the table below, the District achieves its goals in each year of the plan.

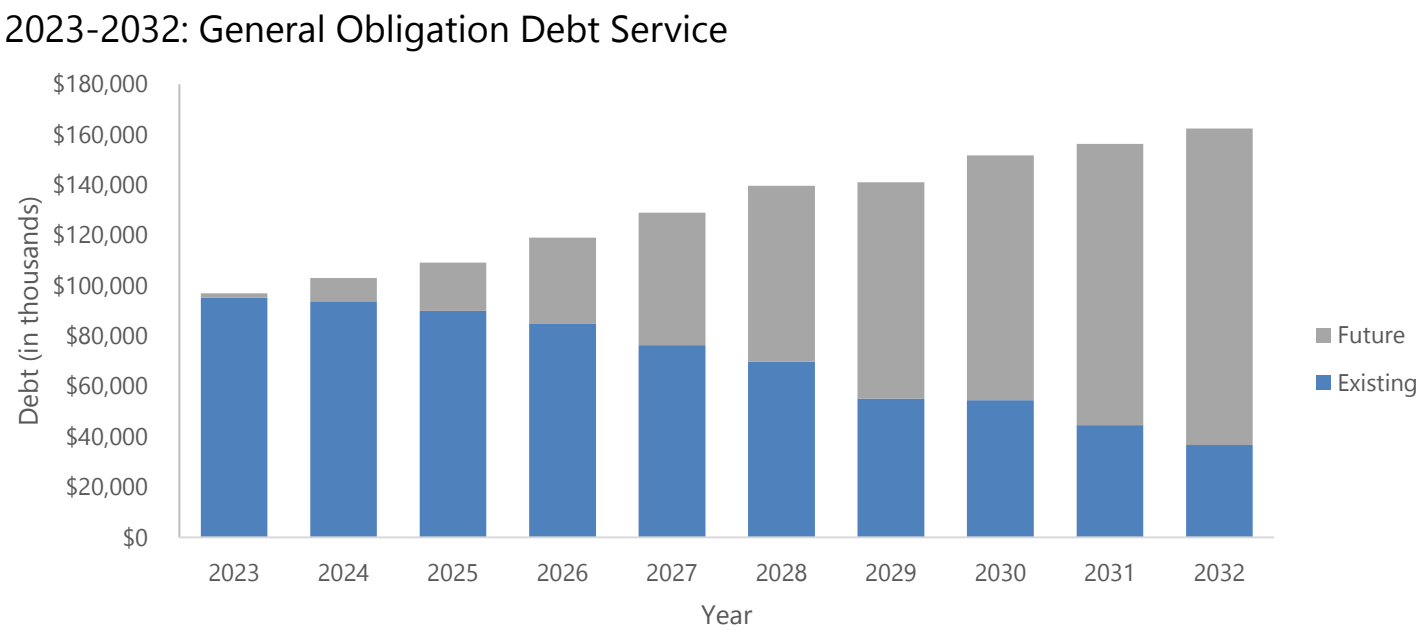


Debt service schedules for the District's existing debt and projected debt, are summarized in the table below. Total debt service payments in 2023 are budgeted at $97.0 million, of which $1.7 million is for an Intergovernmental Loan not secured by a pledge of tax levy. $95.3 million is for debt service on District general obligation bonds and Clean Water Fund Loan program, both of which are secured by a pledge of tax levy. In 2023, the tax levy of $109.1 million fully covers the $95.3 million debt service, thus no tax levy abatement is required. In 2023, the District plans to issue $62.0 million of general obligation debt and plans to receive an additional $42.6 million in low-interest loan funds from the State of Wisconsin Clean Water Fund Program.

District General Obligation Bonds

District bonds supplement other revenue sources to fund the Capital Improvement Program. District bonds are used primarily to finance projects with a total project cost less than $2 million dollars and projects in the Watercourse/Flood Management capital account or other capital studies which are not eligible for a Clean Water Fund Loan or Clean Water Fund Loan rate subsidy. The District has historically issued 20-year bonds and planned bonds assume a 20-year issuance.

The chart below depicts total debt service payments further broken down by existing debt service and the incremental projected debt service for any new debt beginning in 2023, as anticipated in the Long-Range Financing Plan.



This project represents the budget year's repayment obligation of this funding. Timely principal and interest payments are critical in maintaining the District's bond rating. This project funds payments to holders of District bonds for principal and interest coming due in 2023. Seven District-issued general obligation bond series are currently outstanding. The District typically finances a major portion of its Capital Improvement Program with 20-year, level payment, long-term debt in the form of either its own general obligation bonds or low-interest Clean Water Fund Program loans from the State of Wisconsin.

In 2023, the District plans to issue a 20-year general obligation bond with a face value of $62,000,000. The true interest cost of this issue is estimated to be 4.25 percent. The proceeds will be used to finance one year of capital project spending that cannot be or is not efficient to finance through the Clean Water Fund Loan program.

Budgeted debt service in 2023 for District issue general obligation bonds is as follows:

District Bonds 2023 Net Debt Service
All amounts in thousands

Series	Gross Debt Service	Less Debt Service Fund	Net Debt Service
2015A	$8,083	$0	$8,083
2015C	$5,270	$0	$5,270
2017A	$5,345	$0	$5,345
2020A	$4,944	$1,325	$3,619
2020D	$2,969	$0	$2,969
2021A	$3,177	$1,222	$1,955
2022A	$5,428	$1,466	$3,961
New Bond	$1,318	$0	$1,318
Total	$36,534	$4,013	$32,520

Note, totals may not add due to rounding. *Net Debt Service may differ from actual debt service payments due to interest earned on unused bond proceeds, premiums proceeds, premiums received, or discounts provided.

Estimated debt service requirements in the ten-year plan for District-issued bonds, including $778.9 million of new bonds projected to be issued through 2032 are as follows:

District Bonds Debt Service Schedule
All amounts in thousands

Year	Total
2023	$36,533
2024	$40,368
2025	$43,545
2026	$51,784
2027	$61,113
2028	$68,551
2029	$70,710
2030	$75,682
2031	$78,659
2032	$83,781
Total	**$610,725**

Note, totals may not add due to rounding. Net debt service may differ from actual debt service payments due to interest earned or unused bond proceeds, premium proceeds, premiums received, or discounts provided.

Clean Water Fund Program Loans

Clean Water Fund Program loans are a funding source for most major conveyance and water reclamation facility capital projects. This project represents the budget year's repayment obligation of this funding to the State of Wisconsin. Timely principal and interest payments are critical in maintaining the District's bond rating.

The Clean Water Fund Program, established under section 144.21 and 144.2415 of Wisconsin Statutes, provides low-interest loans for the construction of wastewater treatment works, non-point source pollution projects and estuary projects, for which the program provides a subsidized interest rate that is currently 55% of a published State of Wisconsin general obligation rate. Each loan is for a period of 20 years with principal payment beginning within 12 months after the expected date of project completion.

Since the beginning of the loan program in 1991, the District has received 141 loan awards totaling $1.405 billion at interest rates ranging from 1.485 to 4.953 percent. Projects for compliance maintenance receiving State fiscal year 2022 funding are eligible for loans at 55 percent of the Clean Water Fund Program market interest rate. This project provides payments to the State of Wisconsin in 2023 for financial assistance received under the Clean Water Fund Program.

2023 Clean Water Fund Program

All Amounts in Thousands

Gross Debt Service	$58,773
Less Debt Service Fund	$0
Total	$58,773

*Net Debt Service may differ from actual debt service payments due to interest earned on unused bond proceeds, premiums received, or discounts provided.

In 2023, the District expects to receive $42.6 million in project expense reimbursements from low-interest, 20-year loans from the Clean Water Fund Program. Estimated debt service requirements for Clean Water Fund Program loans, including disbursements from new loans projected to be received through 2032 are as follows:

Clean Water Fund Loan Debt Service Schedule

All amounts in thousands

Year	Total
2023	$58,773
2024	$60,985
2025	$63,873
2026	$65,540
2027	$65,738
2028	$67,440
2029	$65,025
2030	$70,630
2031	$71,030
2032	$69,001
Total	**$658,034**

Note, Totals may not add due to rounding. Net debt service may differ from actual debt service payments due to interest earned on unused bond proceeds, premiums proceeds, premiums received, or discounts provided.

Intergovernmental Loan

In 2010, the District entered into an Intergovernmental Cooperation Agreement with the City of Franklin to design, construct, and finance the Ryan Creek Interceptor which will ultimately become an asset of the District. The City of Franklin has received a Clean Water Fund Program loan of $24.6 million at 2.46 percent for the project.

The District's obligation is to make payments to the City of Franklin, beginning in 2015, which will equal the total principal and interest on the CWFP loan. The CWFP loan will be paid off in 2031. Ownership of the Ryan Creek Interceptor will transfer to the District at that time. No significant operating budget impact is expected. Debt service payments to the City of Franklin are as follows:

Intergovernmental Loan with City of Franklin

All Amounts in Thousands

Year	Total
2023	$1,691
2024	1,690
2025	1,690
2026	1,689
2027	1,689
2028	1,688
2029	1,688
2030	1,687
2031	1,687
2032	0
Total	**$15,200**

NOTE: Totals may not add due to rounding

Water Infrastructure Financing and Innovation Act (WIFIA) Loan

In late December of 2021, the District intends to enter into a master agreement for a series of three WIFIA loans. These loans will finance 49 percent of expenditures related to a series of projects incorporated in the Capital Improvement Plan. The projects include work on the Kinnickinnic River Watershed, the Milwaukee River Watershed, and a Dredged Materials Management Facility (DMMF). These projects will provide flood management relief, water quality improvements, and improvements to public health.

Unlike a traditional general obligation bond where all the proceeds of the issue are received upon closing, the WIFIA program is a reimbursement-based program similar to the Clean Water Fund Loan Program. In the WIFIA loan, principal and interest do not accrue until draws or reimbursement requests are received. The WIFIA program also provides a deferred debt service payment schedule. The 2023 Capital Budget assumes a five-year deferral, and the District anticipates that such a deferral will be incorporated into the final terms and loan package. Upon the closing of each loan, an estimated repayment schedule will be incorporated into future budgets. The actual amortization schedules will depend on actuals draws made by the District on each loan.

Glossary of Acronyms and Terms

ACFR	Annual Comprehensive Financial Report
AMP	Asset Management Program
ACE	Army Corps of Engineers
BOD	Biochemical Oxygen Demand
BMPs	Best Management Practices
CIP	Capital Improvements Program
CMAR	Compliance Maintenance Annual Report
CMOM	Capacity, Maintenance, Operation and Management
CNG	Compressed Natural Gas
CSO	Combined Sewer Overflow
D&D	Drying and Dewatering Facility
DNR	Department of Natural Resources
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GAAP	Generally Accepted Accounting Principals
GFOA	Government Finance Officers Association
GI	Green Infrastructure
GIS	Geographic Information System
GBT	Gravity Belt Thickener
H2S	Hydrogen Sulfide
HHW	Household Hazardous Waste
I/I	Infiltration and Inflow
I&C	Instrumentation and Control System
IPS	Interplant Solids System
ISS	Inline Storage System (Deep Tunnel)
IWPP	Industrial Waste Pretreatment Program
LEED	Leadership in Energy and Environmental Design
LFG	Landfill Gas
LID	Low Impact Development
LIMS	Laboratory Information Management Systems
MBE	Minority Business Enterprise
MCRR	Material Capital Repair and Replacement
MGD	Million Gallons per Day
MIS	Metropolitan Interceptor Sewer System
MMSD	Milwaukee Metropolitan Sewerage District
NACWA	National Association of Clean Water Agencies
NRCS	Natural Resources Conservation Service
NS	North Shore Interceptor

NPDES	National Pollution Discharge Elimination System
NWSRS	Northwest Side Relief Sewer
PCB	Poly Chlorinated Biphenyl
PPII	Private Property Infiltration and Inflow
QA/QC	Quality Assurance and Quality Control
RAS	Return Activated Sludge
SEWRPC	Southeastern Wisconsin Regional Planning Commission
SSO	Sanitary Sewer Overflow
SWMBE	Small, Women-, or Minority-Owned Business Enterprise
SWWT	Southeastern Wisconsin Watershed Trust
TAT	Technical Advisory Team
TAS	Thickened Activated Sludge
TMDL	Total Maximum Daily Loads
TSS	Total Suspended Solids
USACE	United States Army Corps of Engineers
VFD	Variable Frequency Drive
VWM	Veolia Water Milwaukee
WAS	Waste Activated Sludge
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
WPAP	Water Pollution Abatement Program
WPDES	Wisconsin Pollutant Discharge Elimination Systems
WRF	Water Reclamation Facilities

Abatement: The measures taken to reduce or eliminate pollution or the tax levy.

Acre-Foot: A term used in measuring the volume of water that is equal to the quantity of water required to cover 1 acre, 1 foot deep; 43,560 cubic feet. Storage volumes are usually expressed in acre-feet.

Accrual Basis of Accounting: A method of accounting in which revenues are recorded when measurable and earned, and expenses are recognized when a good or service is used.

Activated Sludge (AS): The interaction of microorganisms, wastes, and oxygen to form sludge. Activation takes place during the aeration process.

Activated Sludge Process: A biological process that removes pollutants by breaking down organic matter in raw sewage and converting it into sludge. AS process is the form of secondary treatment used by the District.

Ad Valorem Tax: A tax levied according to the value of the property, merchandise, etc., being taxed.

Agri-Life®: An anaerobically digested, organic sludge formerly produced at the South Shore Water Reclamation Facility. It is injected into farmland as a soil conditioner and is also reprocessed into Milorganite®.

Amortization: The action or process of reducing or paying off a debt with regular payments.

Anaerobic Digestion: The process by which sludge is stabilized by biological action in a temperature-controlled, oxygen-free (anaerobic) environment (digesters). The stabilized sludge is injected into farmland as a soil conditioner (Agri-Life®). The digester gas resulting from the biological action provides energy to run the South Shore plant.

Appropriation: A sum of money or total of assets devoted to a special purpose.

Audit: An official inspection of an individual's or organization's accounts, typically by an independent body.

Average Flow: Average quantity of wastewater entering the treatment system over a given period of time.

Balanced Budget: A budget in which current revenues equal current expenditures.

Biochemical Oxygen Demand (BOD): A measure of the amount of oxygen used up in the anaerobic decomposition of organic matter. The BOD test utilizes the oxygen from air dissolved in water and reflects treatability or stage of decomposition. It gives a direct measurement of the strength of wastewater, usually expressed in mg/l (milligrams per liter).

Bio-swale: Landscape designed to remove silt and pollution from surface runoff water.

Bond: A written promise to repay debt on a specific date in the future, along with payment of a specified amount of interest at predetermined intervals while the debt is outstanding.

Budget: An estimate of income and expenditure for a set period of time.

Bypass: A flow relief device by which sanitary sewers, intercepting sewers or main sewers can discharge a portion or all of their flow, by gravity, into a receiving body of surface water to alleviate surcharging of intercepting or main sewers.

Capacity assurance, Maintenance, Operation and Management (CMOM): A program where the District works with the 28 communities in its service area to control the degradation of the sewer systems and curtail infiltration and inflow.

Capital Budget: A planned schedule of projects that acquire or improve land, waters, property or facilities to enhance sewerage services in the District's service area.

Capital Expenditure: The costs of acquiring, purchasing, adding to, leasing, planning, designing, constructing, extending, and improving all or any part of a sewerage system and of paying principal, interest or premiums on any indebtedness incurred for these purposes. To be a capital expenditure project costs must be greater than or equal to $25,000, with a service life of ten or more years and must represent an identifiable addition to facilities or extend the service life of existing facilities. Equipment replacement costs must be greater than or equal to $25,000 and a service life greater than 20 years.

Capital Improvements Program (CIP): A long-range plan of the District for the construction rehabilitation and replacement of the District-owned and operated infrastructure.

Channelization: The artificial enlargement or realignment of a stream channel.

Chlorination: Chlorine is added to the reclamation facility effluent before it is discharged into Lake Michigan to kill most of the bacteria.

Clean Water Fund Loan: This program provides low-interest loans for the construction of wastewater treatment facilities, nonpoint source pollution projects, and estuary projects.

Clearwater: Water entering the sanitary sewer system through infiltration or inflow. It reduces the sewer system capacity to carry sanitary sewage.

Coarse Screening: First step in preliminary treatment, which removes debris from the wastewater by screening.

Collection and Transportation System: A series of sewers, manholes, pumping facilities, and force mains, which carry wastewater from residences, commercial establishments, public buildings, institutions, and industrial plants. It terminates at a reclamation facility. Bypasses are considered a part of this system.

Collector Sewers: That portion of the collection and transportation system, which gathers wastewater from individual buildings and transports it through a network of sanitary sewers to interceptor sewers.

Combined Sewers: Sewers that carry both, sewage and stormwater runoff.

Compliance Maintenance Annual Report (CMAR): The CMAR is a score card that evaluates collection and treatment system performance in different categories. Each category is scored and graded. The results from each category are then combined into an overall grade.

Compressed Natural Gas (CNG): A fossil fuel substitute for gasoline, Diesel fuel, and propane. CNG is an alternative to gasoline that is made by compressing natural gas to less than 1 percent of its volume at standard atmospheric pressure. It consists mostly of methane, and is odorless, colorless, and tasteless. It is drawn from domestically drilled natural gas wells or in conjunction with crude oil production.

Conveyance System: The system of sewers designed and operated to intercept and carry sewage from local government collection systems to the water reclamation facility.

Datalogger: An electronic device that records data over time or in relation to location. The District uses dataloggers to collect continuous groundwater level measurements at 30-minute increments.

Debt Service: Payments of interest and principal on bonds or other long-term borrowing.

Deep Tunnel: A major project of the Water Pollution Abatement Program that consisted of constructing 28.5 miles of tunnels 300 feet underground and designed to minimize sewer overflows. (Also see Inline Storage System)

Depreciation: A measure of the decrease in value of an asset over a specific period of time.

Design Flow: Average quantity of wastewater, which a water reclamation facility is designed to handle, expressed in millions of gallons per day (MGD).

Dewatering: Any process that removes water from sludge, i.e., vacuum filtering, centrifuging, decanting, heat-drying, etc. The term is also used to describe the removal of groundwater during sewer construction projects.

Dissolved Oxygen: Oxygen dissolved in water (as opposed to gaseous oxygen which occurs in water only as bubbles), available for respiration by most aquatic organisms.

District: The area that is provided water reclamation services by the Milwaukee Metropolitan Sewerage District.

Drop Shaft: A vertical shaft used to get wastewater from the surface to the Inline Storage System.

Dryer Cyclone: The Dryer Cyclone is a piece of equipment used as part of the Milorganite® process to remove dust particles from the dryer exhaust.

Easements: A right to obtain access to property; can be temporary or permanent.

Effluent Discharge: (1) A liquid which flows out of a containing space; (2) Sewage, water or other liquid, partially or completely treated, or in its natural state, flowing out of a reservoir, basin or reclamation facility, or part thereof.

Effluent Limitations: The maximum amount of a pollutant that a point source may discharge into a water body. They may allow some or no discharge at all, depending on the specific pollutant to be controlled and the water quality standards established for the receiving waters.

Enterprise Fund: Utilized to account for operations that are financed and operated in a manner similar to private sector enterprises where the cost of providing services to the general public is recovered primarily through user charges.

Environmental Assessment: The aspect of the facility planning process and resulting report analyzing environmental, social, and economic implications of the proposed alternatives.

Environmental Protection Agency (EPA): The federal agency responsible for regulating water quality and the Federal Clean Water Act.

Equipment Replacement Fund: In accordance with Wisconsin Department of Natural Resources requirements, a reserve fund established by the District equal to 5 percent of the asset value of District equipment with a value over $25,000 and useful life between 10 and 20 years.

Extraterritorial Communities: Communities outside the Milwaukee Metropolitan Sewerage District boundaries that receive contracted service from the District.

Fecal Coliforms: Euteric bacteria, primarily Eschericia coli, found in fecal matter and used as indicators of the presence of pathogenic bacteria.

Filter Cake: Sludge that has been dewatered in the vacuum filters and is ready for heat drying into Milorganite®; it has a water content of 86 percent and looks like wet cardboard.

Fine Screening: Final step of preliminary treatment at Jones Island, which removes fine particles and debris such as hair and cigarette butts not caught in coarse screening.

Fiscal Year: The time period designated by the District signifying the beginning and ending period for recording financial transactions.

Floodplain: Land which may be covered by flood water during the 1% annual probability flood event. It includes the floodway and the floodfringe, and may include other designated floodplain areas for regulatory purposes.

Floodwall: A concrete or masonry embankment built to restrain the flow of water of a river bank and protect land from flooding.

Full-time Equivalent: A unit that indicates the workload of an employed person (or student) in a way that makes workloads or class loads comparable across various contexts.

Fund: A sum of money or other resources whose principal or interest is set apart for a specific objective.

Fund Balance: The difference between a fund's assets and its liabilities. Portions of the fund balance may be reserved for various purposes, such as contingencies or encumbrances.

Geographic Information System (GIS): An organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.

Green Infrastructure: An adaptable term used to describe an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspirate, and recycle stormwater runoff.

Green alleys, streets, and parking lots: Green alleys, streets and parking lots are typically in the public right-of-way and can provide a combination of different benefits designed to channel, infiltrate and evapotranspire rainwater. They include permeable pavement, sidewalk planters, landscaped medians and bio-swales, inlet restrictors, greenways and trees, and can also take advantage of recycled materials.

Green Roofs: Green roofs (also known as eco-roofs) are either partially or completely planted with vegetation growing in soil (or a growing medium) to hold rainwater. They can be planted in waterproof trays or on top of a waterproof barrier, and can be intensive (like a rooftop park) or extensive (relatively lightweight). They function for stormwater management purposes when they are lush and green as well as when they are dormant.

Greenways: Greenways include riparian and non-riparian buffer zones and strips that store and drain stormwater runoff into the ground naturally. As vegetated strips that help to infiltrate and evapotranspire both rainwater and snow melt, they can be placed along bike paths, sidewalks, riverbanks, and streets. They can be planted in native vegetation, in mowed grass, and as gardens.

Heat Drying: Final step in the production of Milorganite®. Rotary drum dryers tumble-dry filter cake into a dry granular product that can be packaged. Heat drying destroys pathogens in the sludge (filter cake).

Hydrogen Sulfide: A colorless gas with the characteristic foul odor of rotten eggs. It is heavier than air, very poisonous, corrosive, flammable, and explosive. It results from the bacterial breakdown of organic matter in the absence of oxygen, such as in sewers.

Impervious Areas: Any pavement or structural element including, but not limited to, roofs and paved roads, driveways, and parking lots, that prevents rain, surface water runoff, or melting snow from infiltrating into the ground below. Lack of infiltration can increase surface runoff and contribute to flood risk and pollutant transport.

Industrial Cost Recovery: A provision in the 1972 Federal Water Pollution Control Act (FWPCA) that requires industries to pay back to the federal government the extra capital costs that their discharges impose on municipal treatment plants. (The 1977 Clean Water Act established an 18-month moratorium on Industrial Cost Recovery).

Infiltration/Inflow (I/I): Total quantity of water entering a sewer system. Infiltration means entry through such sources as defective pipes, pipe joints, connections or manhole walls. Inflow signifies discharge into the sewer system through service connections from such sources as area or foundation drainage, springs and swamps, storm waters, street wash waters, or sewers.

Influent: The wastewater entering the reclamation facility.

Inline Storage System (ISS): The Inline Storage System (ISS) provides relief to the Metropolitan Interceptor Sewer (MIS) system during extreme wet weather periods by allowing excess flows from the MIS to be diverted to the ISS in both the

separate sewer area and the combined sewer service areas. The excess flow is stored in the ISS until reclamation facility capacity is available. (Also see Deep Tunnel)

Instrumentation & Control (I&C): Equipment used to monitor and control wastewater treatment processes such as flows, dissolved oxygen levels, valve positions, and equipment operations.

Interceptor: A sewer that carries sanitary waste that is built by the District. These are large sewers that collect wastewater from local trunk sewers and convey it to the water reclamation facility.

Intergovernmental Cooperation Council (ICC): Comprises 19 communities located within Milwaukee County. The mayors and village presidents meet on a monthly basis to discuss topics of common interest and regional concern.

Laboratory Information Management System (LIMS): An automated system used by the District's Central Laboratory, Industrial Waste and Water Quality Research departments to manage data including test scheduling, case log-in, worksheets, instrument interfaces, reporting, research, test results, and dispersion of the results to designated areas.

Lateral: That part of the horizontal piping of a drainage system which extends from the end of a building drain and which receives the building discharge and conveys it to the sewer system.

Lift Station: A facility in a sewer system consisting of a receiving chamber, pumping equipment, and associated drive and control devices which collect and lift wastewater to a higher elevation when the continuance of the sewer at reasonable slopes would involve excessive trench depths; or that collects and raises wastewater through the use of force mains from areas too low to drain into available sewers.

Milwaukee 7 (M7): Milwaukee 7, launched in September 2005, was formed to create a regional, cooperative economic development platform for the seven counties of southeastern Wisconsin: Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha. Its mission is to attract, retain and grow diverse businesses and talent.

Metropolitan Interceptor Sewers (MIS): Portion of the collection and transportation system, which receives wastewater from collector sewers from conveyance to the point of treatment and are owned and maintained by the Milwaukee Metropolitan Sewerage District. An interceptor sewer is designed to have a limited number of connections for receiving wastewater from the collector sewer system.

Milorganite®: An organic nitrogen fertilizer (6-2-0) produced from waste-activated sludge at the Jones Island plant that is an excellent lawn and turf, non-burning, slow-release fertilizer.

Minority Business Enterprise: An independent business concern that is at least 51 percent owned and controlled by minority members, that has undergone a pre-certification process that enables it to receive enhanced consideration on bids and proposals it submits to MMSD.

Native Landscaping: The use of native plant species that can tolerate the drought and flooding cycles of an area. Native plants are those that evolved in a particular area and are adapted to local climate conditions.

Nonpoint Source Pollutants: Pollutants which do not enter the water from any discernible, confined and discrete conveyance but rather wash off, run off or seep from broad areas of land.

North Shore Interceptor (NS): That portion of the Inline Storage System that connects to the Crosstown Interceptor and proceeds north to West Hampton and then west to North 51st Street. Other drop shafts (NS 4, 5, 12, etc.) connect to the NS.

NS – 4, 5, 12, etc.: Drop shafts connecting to North Shore Interceptor.

Operations and Maintenance (O&M) Budget: Annual budget for activities related to controlling, operating, managing, and maintaining the sewerage system.

Overflow: A flow relief device by which sanitary sewers, intercepting sewers or main sewers can discharge a portion or all of their flow, by gravity, into a receiving body of surface water to alleviate surcharging of intercepting or main sewers.

Peak Flow: The maximum volume of effluent expected to enter a treatment system over a given time period. Treatment systems are designed based on an estimate of the rate of peak flow to average flow for different segments of the system.

Phosphorus Removal: Excess phosphorus in Lake Michigan can kill off fish life by stimulating the growth of excess algae. A small amount of iron sulfate (pickle liquor) is added to the wastewater. The iron combines chemically with the phosphorus and settles into the sludge that is removed.

Pickle Liquor (Iron Sulfate): A chemical waste from local industries that is used to remove phosphorus from wastewater.

Point Source Pollutants: Those that enter the water from any discernible, confined, and discrete conveyance such as a sewer pipe, culvert, tunnel, or other channel.

Pollution Prevention Initiative (P2): Within the Industrial Waste Pretreatment Program, a point source control system that involves the elimination of hazardous material inputs, improvements to in-production processes, and the "closed looping" of residual streams.

Porous Pavement: Porous pavement can reduce and infiltrate surface runoff through its permeable surface into a stone or filter media below. Runoff percolates into the ground, is conveyed offsite as part of a stormwater system, or is collected and contained for future use. Porous pavement can be asphalt, concrete or pavers, but differs from traditional pavement because it excludes fine material and instead provides pore spaces that store and pass water.

Preliminary Treatment: The first stage of wastewater treatment that removes debris, sand, grit, and fine particles through use of bar screens, grit changes, and sedimentation tanks.

Pretreatment: Any process used by local industries to reduce pollution load before wastewater is introduced into a main sewer system or delivered to a reclamation facility.

Primary Treatment: The process following preliminary treatment at the reclamation facilities that allows solids to settle, thicken, and be removed. Primary effluent goes on to secondary treatment. The sludge is removed for processing by anaerobic digestion.

Pumping Station: A relatively large sewage pumping installation designed not only to lift sewage to a higher elevation but also to convey it through force mains to gravity flow points located relatively long distances from the pumping station.

Rain Barrel: A barrel that collects and stores rainwater from a rooftop to use later for lawn and garden watering.

Rain Gardens: Gardens that are watered by collected or pooled stormwater runoff, slowly infiltrating it into the ground along root pathways. They are typically planted with wildflowers and deep-rooted native vegetation, which helps infiltrate rain channeled to them from roofs, driveways, yards and other impervious surfaces.

Rainwater Harvesting: Rainwater harvesting encompasses the capture and storage of rainwater. It also includes the ability to reuse stored rainwater for appropriate uses, primarily gardening and lawn watering. Harvesting not only includes the collection systems, but also the rain barrels and cisterns used to store the water.

Red Circle Rate: A pay rate that is above the maximum range assigned to the job grade. Employees are usually not eligible for additional pay increases until the range maximums exceed the individual pay rate.

Relief Sewer: A sewer added to convey projected flow in excess of the flow that the existing sewer can effectively carry.

Sanitary Sewers: Sewers that are designed to carry only domestic or commercial sewage.

Secondary Treatment: Biologically removes dissolved solids and pollutants from the water by means of the activated sludge process.

Separated Sewer: A sewer system where sanitary sewers carry domestic and commercial sewerage and stormwater is carried in a separate sewer.

Service Area: The area served by the District's wastewater treatment system.

Sewage: Sewage refers to the wastewater flow from residential, commercial, and industrial establishments, which flows through the pipes to a reclamation facility.

Sewerage: Sewerage refers to the system of sewers and physical facilities employed to transport, treat, and discharge sewage.

Sinking Fund: A fund used solely for paying debt service on general obligation bonds or notes. General obligation bonds and notes include a pledge of tax levies to be deposited into a debt service sinking fund as provided in Section 67.11 of Wisconsin Statutes. Any interest earned on monies placed in the sinking fund stays within the fund.

(Inverted) Siphon: A pressure pipeline created when a gravity pipeline is crossing under an obstruction by dropping sharply, then running horizontally, and finally rising again causing a continuous flow.

Sludge: The accumulated settled solids deposited from sewage or industrial wastes, raw or treated, in tanks and basins, and containing more or less water forming a semi-liquid mass.

Small Business Enterprise (SBE): Those businesses that adhere to guidelines of U.S. Small Business Administration that are afforded special opportunities, when feasible.

Solids: The particulates contained in, or removed from wastewater (debris, sand and grit, sludge). Also, a synonym for sludge in cases where it can be reused in some beneficial way, i.e., Milorganite®, Agri-Life®.

Solids Processing: After secondary treatment, the solids (sludge) are processed prior to being recycled. At Jones Island, the processing involves vacuum filtering (dewatering) and heat drying into Milorganite®. At South Shore, the solids (sludge) are anaerobically digested into Agri-Life®.

Solids Utilization: Solids that can be recycled. At Jones Island, solids are converted into Milorganite®; at South Shore into Agri-Life®.

Southeastern Wisconsin Regional Planning Commission (SEWRPC): The advisory regional plan commission serving Milwaukee, Ozaukee, Racine, Kenosha, Washington, Walworth, and Waukesha counties. The commission is made up of 21 Commissioners, three from each of the seven counties. SEWRPC is not a state agency. It is responsible for producing the Area-wide Water Quality Management Plan.

Southeastern Wisconsin Watershed Trust (SWWT): This is a voluntary, non-taxing partnership of independent government units, special purpose districts, other organizations, and individuals to achieve cooperation and collaboration within Greater Milwaukee Watersheds.

Storm Sewer: A conduit that collects and transports rain and snow runoff back to the surface water. In a separate sewerage system, storm sewers are entirely separate from those carrying domestic and commercial wastewater.

Stormwater Best Management Practices (BMPs): Any practices that reduce the adverse impacts of stormwater runoff.

Stormwater Rule: A region-wide effort to manage future flooding in southeastern Wisconsin that will manage the volume and rate of stormwater runoff from new development and redevelopment so that peak flows in a watershed do not increase downstream flooding.

Stormwater Trees: Stormwater trees can hold rainwater on their leaves and branches, infiltrate it into the ground, absorb it through root systems and evapotranspire it to the atmosphere.

SWOT Analysis: A strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a plan. It involves specifying the project's objective and identifying the internal and external factors that will help or inhibit achieving that objective.

Technical Advisory Team (TAT): A cooperative effort with District staff and members of the 28 communities served by the District. The group also includes representatives of the realtors and builders associations, the Wisconsin Department of Natural Resources, Milwaukee County, and the Southeastern Wisconsin Regional Planning Commission. Provides advisory level input for the development MMSD projects, programs, and initiatives.

Total Suspended Solids (TSS): Small particles of solids pollutants in sewage that contribute to turbidity and that resist separation by conventional wastewater treatment means.

2050 Facilities Plan: A plan that identifies system capital improvements necessary for wastewater, conveyance, treatment, and watercourse management needs through 2050.

User Charges: Fees levied upon residential, commercial, and industrial users of a wastewater treatment system based upon the volume and characteristics of the waste.

User Class Codes: Certified Commercial; Non-Certified Industrial; Certified Industrial; Waste Strength Certified Industrial. These codes are used in compiling information for a pretreatment program for the industrial user.

Waste Activated Sludge (WAS): Settled, activated sludge that is not returned to the process to "seed" incoming wastewater but is drawn off "wasted." At Jones Island, WAS is heat dried to produce Milorganite®.

Waste Load Allocations: Distribution of total "pollutant load" permitted on a particular water body among the various dischargers to that water body.

Watercourse System Maintenance Plan: System-wide plan that will monitor all watercourses within District jurisdiction to: (1) provide coordination on elements of maintenance; (2) establish a single agenda; and (3) promote safe and environmentally secure watercourses. Monitoring will be conducted on a cyclical basis, following a significant flow, and following receipt of a request. Determination will be made if action is required and, if so, who the responsible party is to undertake the action.

Water Pollution Abatement Program (WPAP): A major program from 1977 to 1996 that repaired and expanded the entire metropolitan area wastewater conveyance and treatment system.

Watershed: The contributing land area confined by topographic divides that drain into a lake or river. Also called catchment area, drainage area, or river basin, and expressed in acres or square miles.

Wetlands: Areas that have soils that are inundated or saturated for part of the year or for the entire year, and are also known as bogs, marshes, and swamps. Under federal definition, the inundation or saturation of soil in a wetland is at a frequency and duration to sufficiently support a prevalence of vegetation typically adapted for life in saturated soils. Wetlands allow rainwater to pool and slowly infiltrate into the ground, but are also seeps that provide water at the ground surface.

Wisconsin Pollution Discharge Elimination System (WPDES): Used by the DNR to regulate sewers and wastewater treatment plants.

Woman-owned Business Enterprise: A business that is 51% owned, operated or controlled by women.

Working Capital: The capital of an organization that is used in its day-to-day trading operations, calculated as the current assets minus the current liabilities.

Pay Grades and Compensation

All staff positions are classified by a pay grade in the table below. Pay grade assignments consider the job content and skill set needed for each job classification. The District strives to maintain a skilled and competitive workforce; thus, the District also considers the local market data and pay rates when determining pay grades.

Prior to May 1, 2016, the District had one bargaining unit, AFSCME Local 366. The Wisconsin Employment Relations Commission (WERC) made permanent the rule requiring unions to annually recertify their status as the representative for general municipal employees. In 2016, Local 366 members voted not to request a vote for recertification. Effective May 1, 2016, MMSD employees represented by ASFCME Local 366 became non-represented employees.

In 2017, the Commission approved a single compensation plan that covers all classifications of positions at the District, with pay grades ranging from pay grade 4 to pay grade 21. As recommended by the District's compensation consultant, Carlson Dettmann, the 2023 Operations and Maintenance Budget applies a structural adjustment as of 1/1/2023 of 2.0 percent and a 4.0 percent merit based on satisfactory or above performance.

2023 Pay Grades 4-21

Pay Grade	Minimum	Midpoint	Maximum
21	$212,840.80	$250,453.94	$300,567.25
20	$176,015.97	$207,097.48	$248,539.50
19	$154,056.20	$181,196.22	$217,457.99
18	$140,992.96	$165,880.69	$199,101.87
17	$129,055.85	$151,803.92	$182,209.75
16	$118,244.89	$139,078.51	$166,894.22
15	$108,222.23	$127,366.64	$152,817.45
14	$99,213.09	$116,780.91	$140,092.04
13	$91,104.87	$107,208.70	$128,605.40
12	$83,784.95	$98,537.41	$118,244.89
11	$77,028.10	$90,654.42	$108,785.30
10	$70,946.93	$83,447.11	$100,114.01
9	$65,316.23	$76,802.87	$92,118.40
8	$60,248.59	$70,834.32	$85,023.71
7	$55,631.41	$65,428.84	$78,492.08
6	$44,707.83	$52,590.82	$63,063.94
5	$38,851.89	$45,721.36	$54,843.11
4	$33,784.25	$39,752.81	$47,748.41

Workforce development opportunities in the water sector.

Budget Policies

The District is in compliance with the following financial policies.

District Financial Policy		District Compliance
1-15.01 Operation and Maintenance Budget	✓	The Executive Director, with Policy, Finance, and Personnel Committee approval, establishes a calendar for public hearings and the Commission's review of the proposed Operation and Maintenance Budget. In 2022, a summary of the 2023 proposed budget was available for public inspection at least 15 days prior to the public hearing. A notice of the public hearing was also published as a display notice at least 15 days prior to the public hearing. Over the summer, the Policy, Finance, and Personnel Committee reviewed the proposed budget and received the recommendations of the Finance Division. The Policy, Finance, and Personnel Committee made recommendations to the Commission for adoption.
1-15.02 Capital Budget	✓	In September 2022, as part of the proposed budget, the Executive Director submitted to the Commission the following for Commission Action: a. Total Project Costs b. Capital Budget c. Long-Range Financing Plan
1-15.08 Reserves	✓	Operating and Maintenance Reserves 1. The District's Equipment Replacement Fund is in compliance with policy requirements. 2. The District's User Charge Stabilization Fund is in compliance with policy requirements. Capital Reserves 1. The District's Debt Service Fund is in compliance with policy requirements. Working Capital Over the summer, as part of the determination of user charge billings and capital funding, the District assessed and budgeted necessary adjustments to the specific working capital levels, considering fund balances, investments, and cash flow requirements. Contingency Accounts For the O&M budget, the Unallocated Reserve is budgeted within the policy range of 2.0% to 3.5% of net division expenditures. For the Capital budget, the allowance for cost and schedule changes account is budgeted within the policy range of 2.0% to 5% of the current year's of total budgeted project expenditures.
1-73.18 Debt Policy	✓	The District's outstanding general obligation debt is within the policy limit of 50 percent (2.5 percent) of the limit prescribed by law (5 percent) of the equalized valuation of the taxable property within the District.

Annual Budget

Fiscal Year: The fiscal year of the Milwaukee Metropolitan Sewerage District begins on January 1 of each year and ends on December 31 of that year. The fiscal year is both the accounting and the budget year.

Enterprise Fund: The District prepares its financial statements on an enterprise fund basis. Generally Accepted Accounting Principles (GA AP) require state and local governments to use the enterprise fund to account for "business-type activities" – activities similar to those found in the private sector. Business-type activities include services primarily funded through user charges. The National Council of General Accounting Standards (NCGAS) defines the purpose of enterprise funds as: "…to account for operations (a) that are financed and operated in a manner similar to private business enterprises —where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes."

Within the Enterprise Fund, District expenditures are funded within two adopted budgets: an Operations & Maintenance Budget and a Capital Budget. The O&M Budget and the Capital Budget are funded differently.

Balanced Budget: It is required that the Milwaukee Metropolitan Sewerage District annually adopt a balanced budget in which District revenues and other sources of funds equal District expenditures and other uses in both the operating and capital budgets for the fiscal year. The District achieves this for the Operations & Maintenance Budget by offsetting total division expenditures and all other operating expenditures with funds from user charge billings, the User Charge Stabilization Fund, budget surpluses applied, and any other operating income. The District's Capital Budget achieves this by offsetting total project expenditures and net debt service with tax levy income, non-member billings, use of available funds on hand, and all other capital income.

Budget Adoption

The Executive Director, with approval of the Policy, Finance, and Personnel Committee, shall establish a calendar for public hearings and the Commission's review of the proposed budget. A summary of the proposed budget is made available for public inspection at least 15 days prior to the public hearing. (Commission Policy 1-15.01)

Operations & Maintenance Budget: The Executive Director shall present annually a recommended detailed budget of operating and maintenance expenditures and estimated revenue for the ensuing calendar year. These recommendations will be presented to the Policy, Finance, and Personnel Committee which will review and make recommendations to the Commission for adoption. Commission action is required to authorize the adoption of the annual Operations & Maintenance Budget (majority vote) (Commission Policy 1-15.01).

Capital Budget: The Executive Director shall annually submit to the Commission the following:

A. Total Project Costs – A list of all projects new to the current budget year with the estimated costs to complete each project, as well as a list of all existing projects that have changes in previously granted total project cost. Commission action on the Total Project Costs is the policy setting mechanism, not an authorization to expend funds.

B. Capital Budget – The annual financing plan for the current year's anticipated capital account expenditures. Commission action on the Capital Budget sets the level of taxing and other sources of funds for the current year's capital expenditures and authorizes staff to expend funds for the current year.

C. Long-Range Financing Plan – The six-year plan identifies anticipated sources of funds for anticipated capital expenditures in each year of the six-year plan. It will also include a summary of actual revenues and

expenditures for the preceding calendar year and an estimate of revenues and expenditures based on the first six months (or most current actual data) for the current calendar year. Commission action on the Capital Financing Plan approves the financial plan for out-years capital financing and capital expenditures for the planning purposes only; it does not set the level of taxing and other sources of funds or capital expenditures in subsequent years. (Commission Policy 1-15.02)

Commission action is required to authorize the adoption of the annual Capital Budget (majority vote). (Commission Policy 1-15.02)

The Commission has the authority to amend both the Executive Director's Operations & Maintenance and Capital Budgets at adoption. (Commission Policy 1-15.09)

Budget Amendments

New Projects: Commission action is required to authorize the addition of a new project not authorized in the adopted annual Capital Budget. The resolution presented to the Commission for approval must describe the project, identify the estimated amounts to be spent in the current year and over the life of the project, and identify the amounts to be transferred from other project(s) or from working capital to fund the new project. If funds are transferred between projects within the same project group (capital account) without increasing total authorized spending in that account, then a simple majority vote is required. If funds are transferred between project groups (capital accounts), or from working capital, then a two-thirds vote is required in accordance with state law. (Commission Policy 1-15.02)

Carryovers: Carryover of unexpended funds authorized in the Operations & Maintenance Budget to the next fiscal year is permitted with the approval of the Commission as an amendment to the Budget. The Executive Director shall present annually in April a list of funds budgeted in the previous fiscal year recommended for a carryover to the next fiscal year. The list shall include the following information: cost center, account, dollar amount recommended for carryover, purpose of expenditure, summary explanation of reason(s) funds remain unexpended, and summary of continuing need for goods or services to be procured. Operations & Maintenance funds may not be carried over more than one fiscal year. (Commission Policy 1-15.04)

Budget Transfers

The Office of Management & Budget will maintain both the Operations & Maintenance and Capital Budgets by monitoring expenditure levels and evaluating requests for all budget transfers to ensure compliance with Commission policies.

Operations & Maintenance Budget: The Executive Director shall ensure that the annual expenditures of each of the operating divisions do not exceed the total funds budgeted for that division. When it is apparent that the total division budget for any of the divisions will be exceeded, a request for a fund transfer shall be brought to the Commission prior to an overrun. The total division budget for a division includes all monies budgeted for all cost centers within that division. Budget overruns in one division may not be used to offset overruns in another division without approval of the Commission. (Commission Policy 1-15.01)

Capital Budget: Commission action (two-thirds vote) is required to authorize the approval of amendments increasing the total authorized annual spending in the Capital Budget. (Commission Policy 1-15.02)

Within the limits of authority delegated by this or other Commission policy or action, the Executive Director may, without further Commission approval during the budget year, execute contract amendments and adjust project allocations within a single capital account to fund such amendments and to respond to actual project cash flows, provided that total spending in the affected capital account, as approved by the Commission, is not exceeded. (Commission Policy 1-15.02).

Budget Reserves

Operating Reserves: Operating reserves are funds that have been segregated to meet legal requirements and/or have been segregated at the discretion of the Commission and are available only to the Operations & Maintenance Budget. (Commission Policy 1-15.08)

Equipment Replacement Fund: In accordance with the Wisconsin Administrative Code section NR-128.03 (18), the District is required to maintain an Equipment Replacement Fund (ERF) that will be funded specifically from user charges. User charges collected for the ERF are required to be maintained in a separate and distinct fund. The ERF will be used to fund replacement equipment and maintained at a level no less than five percent of the historical cost of all equipment with a cost greater than $25,000 and a service life greater than 10 years and up to 20 years.

User Charge Stabilization Fund: The User Charge Stabilization Fund (UCSF) was established to offset volatility in annual user charge billings and rate changes. The UCSF is maintained as a separate and distinct fund, and, within the fund, the balance is classified by the District's four user charge billing parameters. Interest earned on the savings is to remain in the fund. In accordance with the District's objective of maintaining stable user charge billings, the UCSF will be maintained at a level no less than 2.5 percent of the current year's revenues (refer to policy 1-15.08). Contributions to and withdrawals from the fund may be made by Commission action through the annual budget process.

Capital Reserves: Capital Reserves are funds that have been segregated to meet legal requirements and/or have been segregated at the discretion of the Commission and are available only to the Capital Budget. (Commission Policy 1-15.08)

Debt Service Funds: In accordance with section 67.11(1) of the Wisconsin Statutes, the District is required to establish and maintain a debt service fund for the payment of principal and interest on bonds and notes used in financing its capital improvement program. The District maintains a separate account for each of its own outstanding debt issues and one account for debt obtained through the State of Wisconsin Clean Water Fund Loan Program.

Annually, the District will levy an irrepealably tax sufficient to pay the principal and interest on the debt as it comes due in the following year. Taxes collected from this levy are placed into the debt service fund account and used to pay the annual debt service. Earnings from the investments in the debt service fund accounts remain until used as part of the debt service fund accounts.

Money shall not be withdrawn from a debt service fund and used for any purpose other than the purpose for which the fund was created until that purpose has been accomplished. After all the outstanding debt has been paid and retired, any balance in any debt service fund account may be transferred out and used as directed by the Commission. (Commission Policy 1-15.08)

Working Capital

The District needs unreserved cash balances as working capital to pay routine and non-routine operating and capital expenses. Annually as part of the determination of user charge billings and capital funding, the District will assess and budget as necessary any adjustments to the specific working capital levels, considering fund balances, investments, and cash flow requirements.

Operating: The District shall attempt to maintain a working capital balance between 60 to 90 days of expenditures with a target of 75 days. (Commission Policy 1-15.08)

Capital: The District shall attempt to maintain a working capital balance between 90 to 150 days of expenditures with a target of at least 90 days. (Commission Policy 1-15.08)

Contingency Accounts

Contingency accounts in both the Operations & Maintenance and Capital Budgets are used to ensure that adequate funds are available for unforeseen circumstances.

Operating: The District shall annually fund an Unallocated Reserve. Recommended changes regarding contingency accounts allow funding at a level within a range between 2.0 percent and 3.5 percent of net division expenditures. (Commission Policy 1-15.08)

Capital: To ensure that there are adequate funds for cost and schedule changes, unforeseen projects, and other unexpected circumstances, the Capital Budget shall fund an Allowance for Cost and Schedule Changes maintained within a range between 2.0 percent and 5.0 percent of the current year's total budgeted project expenditures.

Debt

Limitations: Per Commission Policy 1-73.18, the District intends to keep outstanding general obligation debt within 50 percent (2.5 percent) of the limit prescribed by law (5 percent) and at levels consistent with its credit objectives and long-range financing plan goal of 20 percent cash financing. Annual debt service requirements anticipated in the long-range plan are funded from the tax levy and other revenues, including available funds on hand.

Types: The District has authority under Section 200.55 of the Wisconsin Statutes to finance capital improvements through the issuance of debt instruments, including:

- General obligation bonds and promissory notes;
- Bond anticipation notes; and
- Revenue obligation bonds and notes

Even though the District also has authority to issue revenue obligations, the District shall issue general obligation bonds and notes to finance the capital improvements program, unless staff can demonstrate to the Commission that other, statutorily authorized debt instruments provide the District with a financial advantage.

Maturity of Debt: Staff shall utilize the following considerations in structuring debt maturities:

- long-range financing objectives;
- the useful life of the project assets to be financed; and
- a fair allocation of project costs to current and future customers benefiting from the project.

Fixed and Variable Rate Debt: The District intends to issue debt on a fixed-rate basis. Staff, however, may propose that the District issue securities that pay a variable rate of interest determined in accordance with a pre-determined formula or that results from a periodic remarketing of the securities, consistent with State law and covenants of pre-existing bonds, and depending on market conditions. The District will have no more than 15 percent of its outstanding general obligation bonds in variable-rate form.

Credit Objectives: The District will seek to maintain or improve its current credit rating with Moody's Investors Service (Aa1), Standard & Poor's (AA+), and Fitch Investors Service (AAA). The District will strive to maintain good relations with the rating agencies, routinely communicating with the rating agencies and keeping them informed of significant developments that could affect the District's credit rating.

In order to achieve its credit rating objective, the District recognizes the need to integrate debt policy with its ten-year capital improvements program and long-range financing plan. The District will also consider the debt issuance plans of other governmental units located within the District's boundary as provided in Section 200.55 (7) of the Wisconsin Statutes.

The following objectives for the District's capital improvement program and financing plan will be used to maintain debt service requirements at affordable levels and enhance the credit quality of the District:

- At least 20% of project expenditures shall be cash financed over the 10-year financing plan.
- Changes to the annual tax levy throughout the long-range plan shall be limited to amounts that are necessary, affordable, and allow for tax levy stability into the future.
- Responsible drawdown of accumulated reserve funds in a manner that does not cause destabilizing annual fluctuations in the tax levy.
- Flexibility to fund future expenditures necessary to fulfill the District's responsibilities.

Approval of Sale: Commission approval of the debt sale shall comply with the affirmative vote requirements of Section 200.27 (2) of the Wisconsin Statutes and Commission Policy 1-15.02, "Capital Budget."

Selection of Outside Financial Consultants: The Controller shall be responsible for establishing a solicitation and selection process for securing outside professional services necessary to develop and implement the District's debt program. Selection of outside financial advisors, bond counsel, and underwriters and other service providers will comply with District procurement policies and state law. Section 200.57 (2) of the Wisconsin Statutes requires the Commission to attempt to ensure that 5 percent of the total funds expended for financial advisory services and investment analysis shall be expended for the services of minority financial advisors.

Refundings: Periodic reviews of outstanding debt will be undertaken to determine refunding opportunities. Refunding will be considered (within federal tax law constraints) if and when there is a net economic benefit of the refunding or the refunding is essential in order to update covenants essential to operations and management.

In general, advance refundings for economic savings will be considered when net present value (NPV) savings of at least 2 percent of the refunded debt can be achieved. Current refundings that produce NPV savings of less than 2 percent will be considered on a case-by-case basis. Advance refundings with less than 2 percent savings may be considered when the Commission determines that there is a compelling public policy or long-range financing policy objective.

Dedicated staff are essential to the MMSD mission to protect public health and the environment.

Water Reclamation Facilities

Jones Island

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Primary Treatment	J01013	Preliminary Facility Electrical Upgrade	$1,456,023	$3,001,663	$1,813,619	$41,116	$17,578
	J01019	JI Force Main Assessment	$595,408	$54,268	$0	$59,430	$185,361
	J01021	Grit Basin Equipment Replacement	$2,546,368	$7,970	$0	$0	$0
	J01024	Harbor Siphon Structures & Adjacent Asset Mods	$21,133,446	$74,793	$0	$0	$0
	J01025	High- & Low-Level Screw Pump Replacement	$2,235,151	$1,545,409	$5,387	$0	$0
	J01027	Primary Clarification, Sludge and Scum Pumping	$137,099	$169,011	$0	$0	$0
	J01028	Primary Clarifier Drive Improvements	$263,262	$289,702	$1,292,793	$1,005,163	$2,279
	J01030	Odor Control Preliminary Treatment Facility	$0	$0	$13,808	$261,590	$521,228
Secondary Treatment	J02012	Aeration System Improvements	$127,843	$74,647	$174,163	$317,338	$628,536
	J02013	East Plant RAS Header and Pump Replacement	$1,814,285	$2,481	$0	$0	$0
	J02015	Aeration Basin Concrete Rehabilitation	$297,986	$1,873,108	$2,278,010	$58,916	$0
	J02016	Process Air Compressor Replacement	$0	$75,000	$691,377	$477,625	$2,799,792
Advanced Treatment	J03006	Disinfection Process Improvements	$0	$26,256	$361,756	$361,756	$1,195,597
Solids Processing	J04035	Greens Grade Train Replacement & Redundant Train Eval	$3,974,507	$1,618,724	$10,770	$0	$0
	J04037	Thickened Sludge Improvements	$858,560	$2,109,735	$983,410	$83,685	$29,310
	J04038	D&D Dryers Guillotine Gate Replacement	$963,528	$682,103	$1,859,172	$37,648	$0
	J04057	Dryer Exhaust Duct Header Replacement	$20,502	$2,526	$0	$0	$0
	J04060	Sludge Cake Transport & Feed Conveyors Replacement	$3,085,777	$1,283,341	$44,882	$0	$0
	J04061	D&D PLC 5 Upgrades	$1,870,361	$1,775,931	$1,601,891	$877,328	$553,943
	J04064	Chaff System Improvements	$483,220	$223,644	$935,671	$2,981,917	$93,587
	J04065	D&D First Stage Classification Equipment Replacement	$4,378,916	$1,963,969	$1,232,439	$976	$0
	J04066	Milorganite Dust Suppressant System Upgrades	$993,654	$61,650	$0	$0	$0
	J04067	D&D South Cake Loadout System	$826,501	$35,297	$0	$0	$0
	J04070	Milorganite Facilities Improvements Phase V	$530,259	$124,378	$1,161,667	$504,161	$1,735
	J04072	Milo Transport & Silo Storage Equipment Replacement	$623,453	$2,414,733	$4,807,851	$4,732,836	$868,126
	J04073	D&D Dust Collection System	$381,097	$116,903	$0	$0	$0
	J04074	Milorganite Packaging Facility	$582,555	$780,172	$1,362,766	$6,289,105	$20,373,012
	J04075	Dewatering & Drying Belt Filter Press Overhauls at JI	$44,182	$65,219	$4,080,858	$4,136,039	$4,136,039
	J04076	Compressed Air System Upgrade	$1,400	$305,582	$175,021	$166,727	$2,123,869
	J04077	Odor Control Equalization & Blend Facility	$0	$57,994	$178,356	$167,779	$1,144,102
	J04079	Dryer Train Overhaul & Upgrades	$0	$0	$487,050	$654,247	$654,247
	J04080	Phase 2 MCC Replacement D&D	$0	$0	$48,337	$632,867	$303,090
	J04081	D&D HVAC Upgrade	$0	$0	$320,962	$431,143	$296,859

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$0	$0	$0	$0	$0	$6,330,000	J01013
$324,732	$0	$0	$0	$0	$0	$0	$0	$1,219,200	J01019
$0	$0	$0	$0	$0	$0	$0	$0	$2,554,338	J01021
$0	$0	$0	$0	$0	$0	$0	$0	$21,208,239	J01024
$0	$0	$0	$0	$0	$0	$0	$0	$3,785,947	J01025
$0	$0	$0	$0	$0	$0	$0	$0	$306,110	J01027
$0	$0	$0	$0	$0	$0	$0	$0	$2,853,200	J01028
$3,084,458	$3,451,006	$446,609	$0	$0	$0	$0	$0	$7,778,700	J01030
$4,168	$2,244	$0	$0	$0	$0	$0	$0	$1,328,939	J02012
$0	$0	$0	$0	$0	$0	$0	$0	$1,816,766	J02013
$0	$0	$0	$0	$0	$0	$0	$0	$4,508,020	J02015
$3,361,206	$0	$0	$0	$0	$0	$0	$0	$7,405,000	J02016
$8,774,420	$8,695,942	$421,273	$0	$0	$0	$0	$0	$19,837,000	J03006
$0	$0	$0	$0	$0	$0	$0	$0	$5,604,000	J04035
$0	$0	$0	$0	$0	$0	$0	$0	$4,064,700	J04037
$0	$0	$0	$0	$0	$0	$0	$0	$3,542,450	J04038
$0	$0	$0	$0	$0	$0	$0	$0	$23,028	J04057
$0	$0	$0	$0	$0	$0	$0	$0	$4,414,000	J04060
$159,546	$0	$0	$0	$0	$0	$0	$0	$6,839,000	J04061
$520,635	$6,646,376	$7,857,241	$3,508	$0	$0	$0	$0	$19,745,800	J04064
$0	$0	$0	$0	$0	$0	$0	$0	$7,576,300	J04065
$0	$0	$0	$0	$0	$0	$0	$0	$1,055,304	J04066
$0	$0	$0	$0	$0	$0	$0	$0	$861,798	J04067
$0	$0	$0	$0	$0	$0	$0	$0	$2,322,200	J04070
$0	$0	$0	$0	$0	$0	$0	$0	$13,447,000	J04072
$0	$0	$0	$0	$0	$0	$0	$0	$498,000	J04073
$20,318,245	$29,144	$0	$0	$0	$0	$0	$0	$49,735,000	J04074
$110,664	$0	$0	$0	$0	$0	$0	$0	$12,573,000	J04075
$155,818	$2,584	$0	$0	$0	$0	$0	$0	$2,931,000	J04076
$52,970	$0	$0	$0	$0	$0	$0	$0	$1,601,200	J04077
$4,595,614	$12,360,632	$12,360,632	$7,707,044	$60,535	$0	$0	$0	$38,880,000	J04079
$3,020,243	$2,831,594	$2,075,870	$0	$0	$0	$0	$0	$8,912,000	J04080
$864,732	$5,698,355	$5,293,949	$0	$0	$0	$0	$0	$12,906,000	J04081

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
General Jones Island	J06032	JI Geotechnical Structural Analysis	$556,865	$163	$0	$0	$0
	J06050	JI I&C Improvements	$1,718,741	$15,666	$0	$0	$0
	J06056	Turbine Extended Service Agreement	$10,571,968	$1,470,880	$1,510,367	$1,215,608	$2,097,569
	J06061	Dryer Conversion for Additional LFG	$7,661,258	$480,112	$5,968	$0	$0
	J06066	Power System Improvements	$1,642,260	$604,844	$118,470	$14,426	$0
	J06068	JI & SS Network Optimizations	$665,626	$144,274	$11,806	$0	$0
	J06073	Harbor Siphons Area Settlement Mitigation	$62,620	$19,922	$20,079	$20,373	$39,618
	J06075	2018 JI Capital Equipment Rehabilitation/Replacement	$6,226,517	$5,648,016	$1,807,819	$3,729,559	$0
	J06076	Turbine Waste Heat Expansion Joint 12 & 13 Replcmnt	$620,715	$73,028	$33,157	$0	$0
	J06078	JI WRF Odor Assessment	$366,595	$8,892	$0	$0	$0
	J06081	Replace MCCs and LCUS-P Phase 1	$466,372	$188,309	$160,076	$531,076	$4,043,976
	J06082	Flood Resiliency Improvements	$181,831	$190,404	$1,125,248	$417,626	$3,592
	J06083	HVAC System Improvements Bldgs 234, 235, 243, & 256	$149,446	$216,876	$209,577	$420,516	$6,292,251
	J06084	W3 & W4 System Modifications	$154,512	$560,090	$1,067,473	$132,925	$0
	J06085	Administrative/Maintenance Space Planning Analysis	$125,270	$448,398	$176,331	$0	$0
	J06086	Building Roof Replacement Phase 4	$0	$0	$11,462	$89,539	$242,689
	J06087	2025-2029 JI Capital Equipment Replacement	$0	$0	$0	$0	$1,736,024
	J06089	Flow Meter Replacement	$6,498	$122,530	$2,219,972	0	0
	J06090	Clarifier Cathodic Protection Upgrades at JI WRF	$2,368	$19,813	$22,358	$705,510	$1,256,198
	J06093	GE Frame 5 Gas Turbine No. 1 Major Overhaul	$0	$2,656	$2,097,835	$0	$0
	J99003	Operator Contribution to CIP	$0	$50,000	$50,000	$50,000	$50,000

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$3,580	$12,040	$588,591	$66,985	$299,376	$1,527,600	J06032
$0	$0	$0	$0	$0	$0	$0	$0	$1,734,407	J06050
$1,791,431	$1,845,000	$1,963,868	$21,132	$0	$0	$0	$0	$22,487,822	J06056
$0	$0	$0	$0	$0	$0	$0	$0	$8,147,338	J06061
$0	$0	$0	$0	$0	$0	$0	$0	$2,380,000	J06066
$0	$0	$0	$0	$0	$0	$0	$0	$821,706	J06068
$7,387	$0	$0	$0	$0	$0	$0	$0	$170,000	J06073
$0	$0	$0	$0	$0	$0	$0	$0	$17,411,910	J06075
$0	$0	$0	$0	$0	$0	$0	$0	$726,900	J06076
$0	$0	$0	$0	$0	$0	$0	$0	$375,487	J06078
$3,598,191	$0	$0	$0	$0	$0	$0	$0	$8,988,000	J06081
$0	$0	$0	$0	$0	$0	$0	$0	$1,918,700	J06082
$18,534	$0	$0	$0	$0	$0	$0	$0	$7,307,200	J06083
$0	$0	$0	$0	$0	$0	$0	$0	$1,915,000	J06084
$0	$0	$0	$0	$0	$0	$0	$0	$750,000	J06085
$11,811	$0	$0	$0	$0	$0	$0	$0	$355,500	J06086
$1,738,879	$1,733,864	$1,708,094	$1,732,295	$1,752,374	$1,778,203	$320,268	$0	$12,500,000	J06087
0	0	0	0	0	0	0	0	$2,349,000	J06089
$3,754	$0	$0	$0	$0	$0	$0	$0	$2,010,000	J06090
$0	$0	$0	$0	$0	$0	$0	$0	$2,100,491	J06093
$50,000	$50,000	$0	$0	$0	$0	$0	$0	$300,000	J99003

South Shore

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Primary Treatment	S01009	Scum System Improvements	$661,298	$53,369	$0	$0	$0
	S01013	Primary Clarification System Improvements	$379,089	$652,528	$625,581	$397,736	$906,364
	S01015	Grit Equipment Replacement	$351,038	$438,426	$147,664	$1,883,949	$3,247,181
Secondary Treatment	S02008	SS Capacity Improvements	$3,426,455	$1,793,610	$1,309,040	$409,839	$13,057
	S02013	Aeration Galleries RAS Header Piping Rehab	$7,108,663	$873,134	$83,204	$0	$0
	S02014	Secondary Clarifier Idling Control	$23,348	$16	$0	$0	$0
	S02015	Aeration System Upgrade	$985,491	$1,183,674	$172,628	$379,066	$4,781,018
	S02017	Process Air Header Improvements	$419,906	$504,211	$642,500	$577,281	$577,281
	S02018	RAS Pumps Replacement	$83,020	$189,015	$306,250	$151,941	$1,678,837
Advanced Treatment	S03003	Post-Secondary Capacity Improvements	$2,484,295	$279,705	$0	$0	$0
	S03004	Effluent Pump MCC and VFD Upgrade	$193,701	$826,802	$51,496	$0	$0
	S03005	Disinfection Process Improvements	$0	$25,655	$353,466	$353,466	$1,399,322
Solids Processing	S04010	Thickening Process Capacity Enhancements	$157,108	$177,854	$268,318	$725,043	$1,489,223
	S04012	Plate and Frame Press Upgrade	$735,289	$11,769	$0	$0	$0
	S04029	Digester Mixing II	$0	$10,874	$394,098	$417,165	$4,406,930
	S04034	High Strength Waste Mixing Improvements	$0	$0	$11,208	$49,203	$107,094
	S04035	Digester 6 & 8 Mixer Replacement	$2,814,398	$449,884	$5,718	$0	$0
	S04036	Bldg. 383 HVAC Replacement	$584,794	$96,506	$0	$0	$0
	S04037	Pyrolysis Evaluation	$0	$112,452	$223,431	$223,431	$16,818
	S04038	Digester Capacity Restoration	$0	$656,644	$2,978,556	$2,429,256	$1,396,920
	S04039	Gravity Thickening & Acid Phase Digestion	$0	$0	$902,828	$940,762	$253,617
	S04040	Dewatering and Drying Facility	$0	$0	$575,729	$511,528	$2,655,722

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$0	$0	$0	$0	$0	$714,667	S01009
$27,131,867	$34,378,223	$1,885,754	$163,159	$0	$0	$0	$0	$66,520,300	S01013
$2,302,583	$26,160	$0	$0	$0	$0	$0	$0	$8,397,000	S01015
$0	$0	$0	$0	$0	$0	$0	$0	$6,952,000	S02008
$0	$0	$0	$0	$0	$0	$0	$0	$8,065,000	S02013
$0	$0	$0	$0	$0	$119,643	$205,664	$212,329	$561,000	S02014
$29,805,671	$29,658,135	$4,712,349	$376,628	$94,408	$11,352	$580	$0	$72,161,000	S02015
$577,281	$330,541	$0	$0	$0	$0	$0	$0	$3,629,000	S02017
$99,610	$7,827	$0	$0	$0	$0	$0	$0	$2,516,500	S02018
$0	$0	$0	$0	$0	$0	$0	$0	$2,764,000	S03003
$0	$0	$0	$0	$0	$0	$0	$0	$1,072,000	S03004
$9,344,290	$9,072,794	$435,007	$0	$0	$0	$0	$0	$20,984,000	S03005
$179,554	$0	$0	$0	$0	$0	$0	$0	$2,997,100	S04010
$0	$0	$0	$0	$0	$0	$0	$0	$747,058	S04012
$3,040,174	$5,760	$0	$0	$0	$0	$0	$0	$8,275,000	S04029
$186,098	$12,797	$0	$0	$0	$0	$0	$0	$366,400	S04034
$0	$0	$0	$0	$0	$0	$0	$0	$3,270,000	S04035
$0	$0	$0	$0	$0	$0	$0	$0	$681,300	S04036
$0	$0	$0	$0	$0	$0	$0	$0	$576,131	S04037
$265,840	$0	$0	$0	$0	$0	$0	$0	$7,727,216	S04038
$6,825,037	$9,531,700	$4,456,056	$0	$0	$0	$0	$0	$22,910,000	S04039
$11,860,339	$326,229	$774,468	$23,230,610	$71,130,508	$60,487,408	$17,459	$0	$171,570,000	S04040

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
General South Shore	S06019	Replace W3 Flushing Water Pumps	$1,310,377	$3,162	$0	$0	$0
	S06027	Tunnels Concrete Rehabilitation	$3,742,301	$84,824	$0	$0	$0
	S06038	2018 SS Capital Equip Rehabilitation / Replacement	$5,231,097	$5,579,098	$2,752,007	$1,431,353	$0
	S06040	SS Network Optimization	$289,756	$51,847	$64,690	$37,518	$0
	S06042	SS WRF Odor Assessment	$0	$0	$194,366	$310,634	$0
	S06047	Power System Improvements	$42,954	$328,447	$388,554	$24,045	$0
	S06048	Building Roof Replacement Phase 5	$0	$0	$21,863	$287,969	$1,547,255
	S06049	2025-2029 SS Capital Equipment Replacement	$0	$0	$0	$0	$2,500,000
	S06050	HVAC System Improvements in Bldgs 378 & 380	$11,312	$59,436	$315,488	$66,844	$291,136
	S06053	W3 Flushing Water System Fire Flow	$0	$0	$10,390	$75,914	$133,778
	S06054	SS WRF Feeder, LCUS, and MCC Replacements	$0	$0	$149,243	$573,672	$86
	S06055	Secondary Clarifier Batteries 1-4 Walkways Replacment	$0	$59,309	$86,595	$216,070	$1,051,070
	S99003	Operator Contribution to CIP	$0	$50,000	$50,000	$50,000	$0
Interplant Pipeline							
Interplant Pipeline	P01005	Interplant Pipeline Improvements - Phase II	$17,669,765	$2,832,730	$698,206	$3,227,662	$4,374,346
	P01006	Replace IPS Pipes w/in SSWRF Property	$6,551,414	$217,270	$15,817	$0	$0
Energy Pipeline	P02003	LFG Pipeline Pigging Station	$2,550,319	$11,786	$0	$0	$0
	P02004	Landfill Gas System - Metro Landfill	$193,226	$48,775	$97,734	$97,886	$97,817
General Reclamation Facility Projects							
Allowance for Plant Rehabilitation	J99001	Allowance for Plant Rehabilitation	$0	$0	$0	$0	$0
	J99004	Allowance for D&D Rehabilitation	$0	$0	$0	$1,000,000	$1,000,000
	S99001	Allowance for Plant Rehabilitation	$0	$0	$0	$0	$0
Inflation	J99005	Inflation	$0	$0	$0	$591,533	$2,001,173
	S99004	Inflation	$0	$0	$0	$201,889	$1,093,054
	P99004	Inflation	$0	$0	$0	$66,511	$180,675

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$0	$0	$0	$0	$0	$1,313,539	S06019
$0	$0	$0	$0	$0	$0	$0	$0	$3,827,125	S06027
$0	$0	$0	$0	$0	$0	$0	$0	$14,993,556	S06038
$0	$0	$0	$0	$0	$0	$0	$0	$443,812	S06040
$0	$0	$0	$0	$0	$0	$0	$0	$505,000	S06042
$0	$0	$0	$0	$0	$0	$0	$0	$784,000	S06047
$99,913	$0	$0	$0	$0	$0	$0	$0	$1,957,000	S06048
$2,500,000	$2,466,578	$2,506,468	$2,506,739	$20,215	$0	$0	$0	$12,500,000	S06049
$2,641,281	$39,803	$0	$0	$0	$0	$0	$0	$3,425,300	S06050
$99,232	$211,962	$1,344,624	$4,100	$0	$0	$0	$0	$1,880,000	S06053
$7,202,706	$7,204,293	$0	$0	$0	$0	$0	$0	$15,130,000	S06054
$1,247,456	$9,800	$0	$0	$0	$0	$0	$0	$2,670,300	S06055
$50,000	$50,000	$0	$0	$0	$0	$0	$0	$250,000	S99003
$845,092	$0	$0	$0	$0	$0	$0	$0	$29,647,800	P01005
$0	$0	$0	$0	$0	$0	$0	$0	$6,784,500	P01006
$0	$0	$0	$0	$0	$0	$0	$0	$2,562,105	P02003
$97,590	$97,377	$97,263	$97,225	$97,217	$97,186	$113,412	$9,077,292	$10,310,000	P02004
$3,000,000	$3,000,000	$7,000,000	$5,000,000	$5,000,000	$5,000,000	$10,000,000	$0	$38,000,000	J99001
$0	$5,000,000	$5,000,000	$3,000,000	$3,000,000	$5,000,000	$10,000,000	$0	$33,000,000	J99004
$0	$4,000,000	$3,000,000	$0	$0	$21,000,000	$10,000,000	$0	$38,000,000	S99001
$3,394,758	$4,232,623	$4,592,829	$2,203,750	$1,460,829	$2,122,876	$75,550	$65,562	$20,741,483	J99005
$3,990,339	$4,313,889	$3,550,688	$8,362,201	$15,053,700	$14,010,565	$42,643	$46,499	$50,665,467	S99004
$57,700	$8,027	$10,123	$12,266	$14,455	$16,683	$22,126	$1,987,876	$2,376,442	P99004

Conveyance
Metropolitan Interceptor Sewer

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Subsystem 1 - Branch	C01006	150" MIS Preliminary Engineering	$625,342	$905,101	$414	$0	$0
	C01007	South Howell Avenue MIS Relief	$0	$0	$13,446	$773,199	$339,388
Subsystem 2 - Southwest Branch	C02009	W. College Ave MIS Rehabilitation & H2S Mitigation	$554,781	$142	$61,745	$31,042	$124,380
	C02010	Franklin Muskego Force Main Rehabilitation	$174,996	$447,570	$77,244	$264,899	$176,395
	C02011	Force Main Greenfield Park Rehabilitation Project	$2,170,389	$8,873	$0	$0	$0
	C02012	10th Avenue MIS Lateral Reconstruction	$21,981	$33,104	$80,258	$0	$0
	C02013	Oak Creek Southwest MIS Extension	$5,512	$56	$48,156	$73,052	$943,400
	C02014	MIS Rehabilitation of Pipe 42406	$0	$4,143	$153,457	$0	$3,265
Subsystem 3 - Northwest Branch	C03013	Oklahoma Ave MIS Capacity Improvements	$0	$148,582	$477,220	$846,821	$8,274,227
	C03014	Greenfield Park & Underwood Creek Pump Stations Upgrades	$16,508	$194,688	$319,604	$98,863	$4,345,753
Subsystem 4 - Northeast Branch	C04005	Martha Washington/Highlands MIS Improvements	$147,912	$55,507	$131,299	$624,244	$208,112
	C04010	Mill/Green Bay/Green Tree MIS Relief	$2,000,571	$510,415	$676,859	$450,662	$488,480
	C04013	Brown Deer Road Sewer	$319,361	$584,519	$2,647,460	$0	$0
Subsystem 5 - North Side High Relief	C05041	CMIS - Basin H PCB Remediation and Rehabilitation	$2,972,138	$5,027,718	$6,927,501	$114,148	$27,315
	C05051	Edgewood MIS/NSC Extension	$1,302,851	$10,427,864	$95,085	$0	$0
	C05053	River Road MIS & Glendale Sewer	$85,906	$4,954	$3,149	$3,149	$3,149
	C05055	N. 35th and Roosevelt Improvements	$264,292	$929,422	$401,456	$11,034,605	$3,908,802
Subsystem 6 - South Side High Relief	C06022	Conveyance Structures Improvements	$214,109	$742,143	$13,748	$0	$0
	C06023	VA Grounds MIS Relocation	$114,323	$379,293	$2,445,004	$929,381	$0
Subsystem 7 - Low Level	C07035	Mitchell Park PCB Sewer Improvements	$0	$0	$113,070	$334,525	$134,405
	C07037	South Shore Force Main Assessment	$1,043,464	$2,267	$0	$124,815	$223,357

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$0	$0	$0	$0	$0	$1,530,858	C01006
$11,688,769	$3,810,199	$0	$0	$0	$0	$0	$0	$16,625,000	C01007
$460,077	$4,196	$0	$0	$0	$0	$0	$0	$1,236,362	C02009
$1,578,418	$20,399	$0	$0	$0	$0	$0	$0	$2,739,920	C02010
$0	$0	$0	$0	$0	$0	$0	$0	$2,179,262	C02011
$0	$0	$0	$0	$0	$0	$0	$0	$135,344	C02012
$86,624	$627,399	$13,825,679	$54,721	$0	$0	$0	$0	$15,664,600	C02013
$96,160	$262,881	$34,799	$0	$0	$0	$0	$0	$554,705	C02014
$1,350,151	$0	$0	$0	$0	$0	$0	$0	$11,097,000	C03013
$24,584	$0	$0	$0	$0	$0	$0	$0	$5,000,000	C03014
$1,968,887	$2,781,519	$2,321	$0	$0	$0	$0	$0	$5,919,800	C04005
$7,463,204	$24,949,720	$25,289,560	$54,529	$0	$0	$0	$0	$61,884,000	C04010
$0	$0	$0	$0	$0	$0	$0	$0	$3,551,340	C04013
$1,367,719	$236,471	$0	$0	$0	$0	$0	$0	$16,673,010	C05041
$0	$0	$0	$0	$0	$0	$0	$0	$11,825,800	C05051
$3,149	$3,149	$3,149	$3,149	$1,895,583	$607,850	$403,427	$56,641,236	$59,661,000	C05053
$0	$0	$0	$0	$0	$0	$0	$0	$16,538,577	C05055
$0	$0	$0	$0	$0	$0	$0	$0	$970,000	C06022
$0	$0	$0	$0	$0	$0	$0	$0	$3,868,000	C06023
$1,283,130	$1,758,314	$2,090	$4,466	$0	$0	$0	$0	$3,630,000	C07035
$114,516	$1,336,581	$0	$0	$0	$0	$0	$0	$2,845,000	C07037

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
General Interceptor Sewer System	C98044	MIS Abandonment	$1,372,326	$115,079	$246,493	$85,261	$84,802
	C98047	Access Hatch Covers	$2,726,232	$427,075	$322,890	$283,903	$0
	C98048	Gravity Overflow Conversion to Pump Overflow	$57,936	$0	$0	$0	$0
	C98052	Miscellaneous Sewer Rehab	$22,340	$27,411	$84,737	$40,737	$262,356
	C98055	Conveyance Equipment Replacement	$826,727	$2,325,534	$702,200	$200,501	$0
	C98056	Conveyance System Modeling Software Improvements	$2,086,358	$246,714	$343,738	$0	$0
	C98061	Assess Condition of CSO Piping	$827	$140,978	$2,127,388	$1,402,555	$0
	C98062	2025-2029 Conveyance Capital Equip Replacement	$0	$0	$0	$0	$400,000
	C98063	MIS Siphons Preliminary Engineering	$56,605	$505,929	$900,209	$438,019	$0
	C98064	MIS Infiltration	$0	$105,189	$345,485	$0	$0
	C98065	Separate Sewer Outfall Abandonment	$0	$0	$55,084	$130,192	$214,724
	C98066	Condition Assessment of H2S High Priority Sites	$0	$0	$83,429	$1,201,973	$54,598
	C98067	Gate Replacement	$0	$0	$649,105	$860,895	$0
	C98068	Rehabilitation of Individual Pipe Segments	$0	$0	$360,201	$50,322	$34,353
	C98069	Rehabilitation of Three Intercepting Structures	$0	$0	$0	$36,883	$72,163
Inline Storage System							
CSO Structures	I03008	CSO102 Rehabilitation - Humboldt	$703,007	$4,811	$0	$0	$0
	I03011	Outfall Backflow Prevention	$226,236	$788,936	$254,383	$0	$0
	I05002	CSO 195 Relocation	$190,799	$550,654	$4,321,137	$10,583,410	$0
	I06001	NS12 Collector System Improvements	$1,851,053	$343,658	$1,098,694	$24,191,632	$56,263
	I98007	ISS Ventilation & Odor	$0	$0	$76,760	$211,269	$210,813
General Control System							
Conveyance System Central Control	K01012	Conveyance SCADA Upgrade	$7,740,681	$308,156	$29,212	$7,146	$0
	K01015	Flow Monitoring System for I/I Billing	$1,251	$79,077	$110,464	$405,111	$565,712
	K01016	Predictive Forecasting Automatic Wet Weather Ops System	$0	$25,671	$171,142	$171,142	$144,045
General Conveyance							
General Conveyance	C99002	Operator Contribution to CIP	$0	$50,000	$50,000	$50,000	$50,000
Allowance for Conveyance	C99001	Allowance for Future Conveyance Rehab Projects	$0	$0	$0	$0	$0
	C99004	Allowance for DOT Reimbursements	$1,052,889	$71,220	$75,000	$75,000	$75,000
Inflation	C99003	Inflation	$0	$0	$0	$1,122,587	$865,580

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$0	$0	$0	$0	$0	$1,903,961	C98044
$0	$0	$0	$0	$0	$0	$0	$0	$3,760,100	C98047
$0	$0	$0	$0	$0	$0	$0	$0	$57,936	C98048
$1,340	$0	$0	$0	$0	$0	$0	$0	$438,919	C98052
$0	$0	$0	$0	$0	$0	$0	$0	$4,054,961	C98055
$0	$0	$0	$0	$0	$0	$0	$0	$2,676,810	C98056
$0	$0	$0	$0	$0	$0	$0	$0	$3,671,747	C98061
$400,000	$400,000	$400,000	$400,000	$0	$0	$0	$0	$2,000,000	C98062
$0	$0	$0	$0	$0	$0	$0	$0	$1,900,761	C98063
$0	$0	$0	$0	$0	$0	$0	$0	$450,675	C98064
$0	$0	$0	$0	$0	$0	$0	$0	$400,000	C98065
$0	$0	$0	$0	$0	$0	$0	$0	$1,340,000	C98066
$0	$0	$0	$0	$0	$0	$0	$0	$1,510,000	C98067
$34,353	$34,353	$34,353	$251,210	$1,193,355	$0	$0	$0	$1,992,500	C98068
$159,794	$173,063	$2,097	$0	$0	$0	$0	$0	$444,000	C98069
$0	$0	$0	$0	$0	$0	$0	$0	$707,818	I03008
$0	$0	$0	$0	$0	$0	$0	$0	$1,269,555	I03011
$0	$0	$0	$0	$0	$0	$0	$0	$15,646,000	I05002
$0	$0	$0	$0	$0	$0	$0	$0	$27,541,300	I06001
$1,158	$0	$0	$0	$0	$0	$0	$0	$500,000	I98007
$0	$0	$0	$0	$0	$0	$0	$0	$8,085,195	K01012
$38,385	$0	$0	$0	$0	$0	$0	$0	$1,200,000	K01015
$0	$0	$0	$0	$0	$0	$0	$0	$512,000	K01016
$50,000	$50,000	$0	$0	$0	$0	$0	$0	$300,000	C99002
$1,500,000	$2,000,000	$4,000,000	$2,000,000	$500,000	$4,000,000	$10,000,000	$0	$24,000,000	C99001
$75,000	$75,000	$75,000	$67,605	$0	$0	$0	$0	$1,641,714	C99004
$1,820,658	$3,175,554	$1,864,256	$1,864,256	$1,864,256	$1,864,256	$1,864,256	$1,864,256	$18,169,969	C99003

Watercourse and Flood Management

Milwaukee River Watershed

			Prior	2022 Estimate	2023 Forecast	2024 Forecast	2025 Forecast
Milwaukee River	W10001	Milwaukee River Flood Mgt	$353,182	$66,092	$18,699	$18,803	$39,664
	W10002	Estabrook Dam Removal	$2,497,434	$69,601	$21,716	$0	$0
	W10004	Milw River Habitat Enhancement AOC	$739,992	$292,734	$676,100	$3,683,396	$2,925,121
Lincoln Creek	W11030	E - North 30th St Corridor - East	$14,961,032	$82,097	$94,440	$3,431	$0
	W11031	W - North 30th St Corridor - West	$8,187,320	$1,160,582	$1,275,341	$859,986	$1,061,160
Indian Creek	W13002	Indian Creek Improvements	$97,418	$8,913	$72,315	$106,303	$25,752
Beaver Creek	W15001	Beaver Creek Flood Management	$1,478,837	$854,354	$20,360	$20,549	$20,378
Milwaukee River Lake Estuary	W16001	Milwaukee River Lake Estuary Study	$0	$0	$0	$21,116	$289,325

Menomonee River Watershed

Menomonee River - Main Stem	W20018	Concordia Avenue	$740,147	$10,283	$3,717	$0	$0
	W20028	Western Milwaukee Phase 2B	$7,343,867	$1,656,119	$1,169,431	$2,438,412	$20,610,057
	W20029	W. Milw Real Estate & Envir Assessment	$757,444	$19,501	$30,534	$10,632	$7,127
	W20031	Menom River Estuary Study	$291,060	$10	$0	$0	$0
	W20033	Menom River Levee System Accreditation	$372,292	$3,077,198	$852,815	$536,389	$1,049,296
	W20034	Sewer Rehab for FEMA Levee Accreditation	$28,972	$485,919	$568,336	$532,526	$19,005
Underwood Creek	W21006	Phase II - Underwood Creek Reach 1	$7,189,953	$41,670	$63,551	$1,383	$0
	W21007	Underwood Creek Reach 2	$850,098	$48,664	$68,180	$44,720	$44,720
South Branch Underwood Creek	W22001	Underwood Creek S. Branch, Reach 1	$0	$0	$0	$0	$0
	W22002	Underwood Creek S. Branch, Reach 2	$0	$0	$0	$0	$0
Honey Creek	W24002	Honey Creek Reach 6 - CR	$0	$0	$0	$0	$0
	W24003	Honey Creek Reach 5 - CR	$0	$0	$0	$0	$0
	W24004	Honey Creek Reach 4 - CR	$82,444	$513,296	$46,617	$27,678	$85,023
	W24005	Honey Creek Watercourse Mgmt. Plan	$275,659	$35,735	$30,101	$0	$0
	W24007	Honey Creek Reach 1 - Menom River to Fairview	$63,201	$148,626	$171,588	$406,075	$433,495
	W24010	State Fair Culvert Prelim Eng and Phase 1	$202,027	$218,019	$239,634	$272,870	$11,514,667
	W24011	State Fair Culvert Rehabilitation Phase 2	$0	$0	$0	$4,326	$185,828

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$213,974	$596,262	$482,081	$889,818	$3,958,629	$9,003,254	$9,026,759	$28,373,784	$53,041,000	W10001
$0	$0	$0	$0	$0	$0	$0	$0	$2,588,751	W10002
$84,284	$47,439	$0	$0	$0	$0	$0	$0	$8,449,066	W10004
$0	$0	$0	$0	$0	$0	$0	$0	$15,141,000	W11030
$22,413,936	$28,793,271	$317,240	$311,493	$24,992	$24,992	$24,992	$43,695	$64,499,000	W11031
$0	$0	$0	$0	$0	$0	$0	$0	$310,700	W13002
$20,174	$20,128	$20,125	$171,534	$51,370	$315,365	$2,341,585	$3,768,493	$9,103,251	W15001
$52,172	$0	$0	$0	$0	$0	$0	$0	$362,613	W16001
$0	$0	$16,783	$997,218	$1,614,225	$1,189,238	$252,495	$294,325	$5,118,431	W20018
$20,198,291	$205,841	$198,997	$198,997	$198,997	$142,285	$4,705	$0	$54,366,000	W20028
$0	$0	$0	$0	$91,694	$1,137,012	$1,137,012	$4,358,545	$7,549,500	W20029
$0	$0	$0	$0	$0	$0	$0	$0	$291,070	W20031
$4,801,851	$2,313,928	$35,937	$35,937	$35,937	$35,937	$483	$0	$13,148,000	W20033
$4,594,874	$5,414,368	$0	$0	$0	$0	$0	$0	$11,644,000	W20034
$0	$0	$0	$0	$0	$0	$0	$0	$7,296,557	W21006
$44,720	$104,725	$1,102,295	$5,294,761	$145,045	$3,165,048	$10,512,230	$534,813	$21,960,019	W21007
$0	$0	$167,605	$224,757	$1,430,892	$196,379	$6,799,881	$9,150,385	$17,969,900	W22001
$0	$0	$0	$0	$0	$0	$0	$14,337,685	$14,337,685	W22002
$0	$0	$0	$0	$21,507	$266,691	$101,801	$0	$390,000	W24002
$0	$0	$0	$0	$18,940	$308,020	$37,041	$0	$364,000	W24003
$63,348	$5,548	$5,548	$327,054	$84,043	$5,548	$5,548	$47,205	$1,298,900	W24004
$0	$0	$0	$0	$0	$0	$0	$0	$341,494	W24005
$190,756	$4,458,656	$245,774	$22,448	$22,448	$22,448	$22,448	$27,035	$6,235,000	W24007
$255,179	$1,004	$0	$0	$0	$0	$0	$0	$12,703,400	W24010
$276,434	$125,976	$6,604,919	$3,887,618	$2,898	$0	$0	$0	$11,088,000	W24011

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Schoonmaker Creek	W28001	Schoonmaker Creek	$300,692	$6,867	$10,593	$3,325	$0
Menomonee River Lake Estuary	W29001	Menomonee River Lake Estuary Study	$0	$0	$0	$0	$0
	W29002	Burnham Canal	$908,430	$5,479,198	$132,746	$235,412	$196,412
Root River Watershed							
Root River West Branch	W34002	Phase 2 Root River W. Branch Flood Mgmt Study	$0	$0	$0	$0	$38,802
Whitnall Park Creek	W35003	Lower Whitnall Park Creek Flood Mgt II	$0	$0	$0	$0	$0
Hale Creek	W39002	Hale Creek Flood Management	$0	$0	$0	$0	$0
Kinnickinnic River Watershed							
Kinnickinnic River	W40002	KK River Real Estate Decon./Demo. & Pulaski Park	$37,251,386	$983,980	$182,580	$161,410	$145,644
	W40007	KK River Reach 3 - CR	$993,392	($159,331)	$45,263	$126,325	$240,165
	W40009	Jackson Park	$7,301,133	$3,757,876	$354,558	$850,666	$966,567
	W40010	KK River Watershed	$2,836,962	$936,943	$18,187	$78,886	$427,003
	W40011	KK River I-94 to Becher	$470,085	$37,662	$641	$0	$50,000
	W40012	KK River - 6th to 16th St.	$288,666	$1,547,325	$541,098	$4,886,458	$587,217
	W40013	KK River - Railroad to 27th St.	$0	$0	$0	$20,739	$89,012
	W40014	KK River - 43rd St. Bridge Replacement	$0	$0	$0	$0	$0
	W40016	KK River Sewer Modifications	$724,135	$4,932,647	$1,218	$0	$0
	W40018	KK River AOC Improvements	$0	$0	$0	$0	$21,283
Lyons Creek	W41001	Lyons Park Creek Flood Management	$316,829	$43,638	$0	$0	$0
	W41003	Lyons Park Creek Streambank Stabilization	$270,405	$546,267	$30,723	$11,809	$2,095
43rd Street Ditch Creek	W42003	43rd Street Ditch Reach 1	$0	$16,066	$50,106	$160,553	$690,357
Villa Mann Creek	W43003	Villa Mann Creek Tributary Culvert Improvement	$0	$0	$0	$0	$0
Wilson Park Creek	W45002	Wilson Park Creek Reach 3 - CR	$3,666,054	$5,511,084	$1,212,635	$191,974	$131,981
	W45003	Wilson Park Creek Reach 2 - CR	$0	$0	$0	$0	$0
	W45004	Wilson Park Creek Reach 4 - CR	$0	$0	$0	$0	$69,730
	W45005	Wilson Park	$0	$0	$0	$0	$0
	W45006	Point Loomis Culverts Rehabilitation	$0	$0	$0	$71,390	$90,610

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$155,282	$474,780	$157,110	$320,114	$753,242	$379,882	$7,083,117	$1,052,995	$10,698,000	W28001
$0	$0	$0	$0	$31,595	$14,466	$0	$0	$46,061	W29001
$2,640,124	$52,831	$52,831	$52,831	$52,831	$52,831	$142	$0	$9,856,620	W29002
$7,984	$5,966	$0	$0	$0	$0	$0	$0	$52,752	W34002
$0	$52,464	$71,048	$0	$0	$0	$0	$0	$123,512	W35003
$0	$106,702	$38,023	$0	$0	$0	$0	$0	$144,725	W39002
$0	$0	$0	$0	$0	$0	$0	$0	$38,725,000	W40002
$300,297	$317,760	$1,494,065	$2,907,935	$823,937	$47,968	$482,543	$4,240,272	$11,860,593	W40007
$272,196	$1,410,385	$11,922,070	$10,537,776	$418	$51,831	$202,661	$15,036,864	$52,665,000	W40009
$1,839,328	$722,096	$15,597	$0	$0	$0	$0	$0	$6,875,000	W40010
$0	$0	$0	$64	$22,237	$733,072	$3,610,856	$12,251,770	$17,176,389	W40011
$1,083,185	$14,764,346	$22,883,801	$64,045	$64,045	$64,045	$64,045	$53,726	$46,892,000	W40012
$371,172	$964,248	$847,580	$1,245,883	$667,387	$983,481	$99,376	$27,333,123	$32,622,000	W40013
$0	$0	$0	$0	$228,432	$521,173	$1,449,588	$303,383	$2,502,576	W40014
$0	$0	$0	$0	$0	$0	$0	$0	$5,658,000	W40016
$494,224	$764,952	$304,099	$7,612,239	$9,489,401	$31,367	$31,367	$81,199	$18,830,130	W40018
$0	$0	$0	$3,120	$339,197	$523,888	$37,344	$14,517,984	$15,782,000	W41001
$0	$0	$0	$0	$0	$0	$0	$0	$861,300	W41003
$693,249	$703,213	$11,266,487	$26,128,356	$871,287	$23,793	$23,793	$10,048,544	$40,675,802	W42003
$0	$0	$0	$0	$459,862	$318,966	$3,228,126	$115,046	$4,122,000	W43003
$80,181	$179,451	$12,651,249	$8,838,075	$121,014	$121,014	$121,014	$195,075	$33,020,800	W45002
$0	$12,005	$214,696	$1,951,089	$670,839	$91,667	$2,554,423	$37,934,459	$43,429,177	W45003
$306,916	$332,562	$85,885	$4,495,290	$3,951,538	$98,392	$98,392	$246,693	$9,685,397	W45004
$17,845	$93,031	$894,243	$2,182,168	$1,558,232	$1,296,288	$20,152	$35,618,783	$41,680,742	W45005
$0	$0	$0	$70,460	$312,471	$1,347,860	$1,182,709	$0	$3,075,500	W45006

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Oak Creek Watershed							
Oak Creek - Main Stem	W50005	Oak Creek Flood Mgmt Floodproofing/Acquisition	$2,800,856	$101,598	$12,625	$11,544	$11,544
	W50006	Oak Creek Watershed Restoration Plan	$322,850	$24,285	$5,017	$0	$0
Lake Michigan Drainage Watershed							
Fish Creek	W61002	Fish Creek Flood Acquisitions	$21,624	$2,822	$0	$0	$0
	W61003	Fish Creek Flood Management - I-43 Expansion	$2,531	$279,928	$202,733	$14,808	$0
General Watercourse Projects							
System Improvement Plan - Phase II	W91001	Phase II Corridor & SEWRPC Studies	$2,731,155	$30,795	$41,583	$3,465	$0
General Watercourse Projects	W96001	Fresh Coast Implementation	$6,897,566	$121,921	$0	$0	$0
	W97003	Greater Milw Regional Conservation Partnership Prgm	$4,139,955	$1,126	$0	$0	$0
	W97004	Green Seams Phase 2 2018-2024	$5,616,184	$556,264	$2,179,311	$2,147,320	$0
	W97005	Working Soils and MRWCP 2021-2026	$246,834	$2,387,309	$1,049,000	$1,215,000	$2,610,000
	W97006	Green Seams Phase 3 (2025 - 2030)	$0	$0	$0	$0	$1,740,000
	W98005	USACE Comprehensive Plan	$0	$104,497	$45,503	$0	$0
	W98006	Reforestation and Wetland Restoration Program	$0	$846,854	$1,693,709	$1,693,709	$1,693,709
Inflation	W99002	Inflation	$0	$0	$0	$345,318	$966,566

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$269,861	$269,165	$11,544	$2,713,803	$2,855,294	$166	$0	$0	$9,058,000	W50005
$0	$0	$0	$0	$0	$0	$0	$0	$352,153	W50006
$0	$0	$0	$0	$0	$0	$0	$0	$24,446	W61002
$0	$0	$0	$0	$0	$0	$0	$0	$500,000	W61003
$0	$0	$0	$0	$0	$0	$0	$0	$2,806,998	W91001
$0	$0	$0	$0	$0	$0	$0	$0	$7,019,487	W96001
$0	$0	$0	$0	$0	$0	$0	$0	$4,141,081	W97003
$0	$0	$0	$0	$0	$0	$0	$0	$10,499,079	W97004
$895,483	$0	$0	$0	$0	$0	$0	$0	$8,403,626	W97005
$1,740,000	$1,740,000	$1,740,000	$1,740,000	$1,740,000	$0	$0	$0	$10,440,000	W97006
$0	$0	$0	$0	$0	$0	$0	$0	$150,000	W98005
$1,693,709	$1,693,709	$1,684,603	$0	$0	$0	$0	$0	$11,000,000	W98006
$3,664,971	$5,362,468	$9,247,333	$9,616,716	$11,257,717	$6,954,671	$18,018,091	$28,724,596	$94,158,447	W99002

Other Projects

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Green Infrastructure	G98002	Fresh Coast Green Solutions Phase 2	$2,188,705	$538,762	$348,243	$164,868	$0
	G98004	Fresh Coast Implementation Phase 2	$5,062,816	$3,541,336	$2,847,897	$2,205,872	$27,404
	G98005	Green Solutions Phase 2	$10,312,646	$5,000,000	$5,000,000	$5,000,000	$5,000,000
	G98011	Alternative Project Delivery / FCPP	$7,830,758	$14,326,598	$5,628,766	$625,720	$389,220
	G98012	Urban Tree System to Address Climate Change	$88,052	$420,558	$73,778	$18,073	$0
	G98013	NFWF Funding Partnership	$831,595	$420,694	$20,204	$20,149	$0
	G98015	Strategic GI Implementation	$323,985	$465,787	$984,824	$64,802	($44)
	G98022	Fresh Coast Green Highways	$16,286	$275,525	$781,776	$682,715	$682,715
	G98023	Fresh Coast Protection Partnership Phase II	$2,471	$73,756	$1,077,535	$5,217,085	$7,958,385
	G98024	Fresh Coast Implementation 2023-2027	$0	$0	$140,551	$141,311	$3,141,311
	G98025	Mineral Street Overpass	$0	$36,550	$197,051	$2,171,286	$64,886
	G98026	2024 Fresh Coast Green Highways	$0	$50,256	$270,945	$228,798	$2,198,695

Facilities Planning

Facilities Improvements	M01007	KK River Flushing Station Improvements	$597,657	$0	$0	$0	$0
	M01032	N. 44th Street Property Restoration	$194,248	$25,234	$21,817	$19,763	$29,165
	M01037	HQ and Lab Facility Improvements	$3,586,602	$571,847	$1,304,915	$0	$0
	M01040	13th Street Upgrades	$370,677	$905,764	$21,278	$0	$0
	M01042	District Rolling Stock	$145,402	$311,169	$120,906	$110,851	$110,851
	M01043	KK River Trash Wheel - Drive Access	$11,698	$14,784	$75,519	$0	$0
	M01044	HQ and Lab Buildings Remodel	$0	$86,574	$172,830	$193,467	$1,999,611
	M01045	Pelagos Slip Modifications at HQ Dock	$0	$8,561	$126,839	$0	$0
	M01046	Digital Signages	$0	$5,000	$95,000	$0	$0
Continuous Facilities Planning	M03091	Ad Hoc Water Quality Studies 2017-2021	$445,904	$240,625	$4,171	$0	$0
	M03107	WRF Master Model	$97,915	$224,097	$12,015	$0	$0
	M03109	Energy Plan for MMSD Facilities	$222,943	$373,865	$203,193	$0	$0
	M03110	NFPA 820 WRF Evaluation	$20,896	$527,518	$66,887	$0	$0
	M03111	Corridor Study Phase VI	$264,906	$1,362,382	$846,198	$822,230	$899,723
	M03112	Instrumentation & Control Planning	$7,127	$239,744	$773,736	$14,393	$0
	M03113	WRF Disinfection Assessment	$53,527	$1,111,697	$2,810	$0	$0
	M03114	Discovery World Water Exhibit	$0	$0	$77,628	$225,606	$146,765
	M03116	Ad Hoc Research 2022-2026	$0	$245,909	$577,420	$309,184	$309,184
	M03117	Monitoring for Capital Proj Devlpmnt Phase II	$0	$1,604,153	$3,632,728	$3,847,945	$3,974,468
	M03119	Impacts of 1000-Year Flood	$0	$0	$14,308	$335,692	$0

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$0	$0	$0	$0	$0	$0	$0	$0	$3,240,578	G98002
$0	$0	$0	$0	$0	$0	$0	$0	$13,685,326	G98004
$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$0	$65,312,646	G98005
$389,220	$389,220	$353,542	$0	$0	$0	$0	$0	$29,933,042	G98011
$0	$0	$0	$0	$0	$0	$0	$0	$600,462	G98012
$0	$0	$0	$0	$0	$0	$0	$0	$1,292,643	G98013
($44)	($35)	$0	$0	$0	$0	$0	$0	$1,839,274	G98015
$107,345	$1,996	$1,642	$0	$0	$0	$0	$0	$2,550,000	G98022
$6,058,385	$711,285	$197,535	$247,535	$262,535	$167,535	$25,954	$0	$22,000,000	G98023
$3,141,311	$3,141,311	$94,207	$0	$0	$0	$0	$0	$9,800,000	G98024
$24,182	$1,983	$1,983	$1,983	$96	$0	$0	$0	$2,500,000	G98025
$50,874	$29,295	$1,926	$1,926	$1,926	$357	$0	$0	$2,835,000	G98026
$0	$0	$265,574	$2,779,812	$2,039,361	$467,323	$7,385,307	$3,130,955	$16,665,989	M01007
$197,234	$143,248	$1,527,237	$16,631	$12,249	$12,249	$922	$0	$2,199,999	M01032
$0	$0	$0	$0	$0	$0	$0	$0	$5,463,363	M01037
$0	$0	$0	$0	$0	$0	$0	$0	$1,297,719	M01040
$110,822	$0	$0	$0	$0	$0	$0	$0	$910,000	M01042
$0	$0	$0	$0	$0	$0	$0	$0	$102,000	M01043
$47,517	$0	$0	$0	$0	$0	$0	$0	$2,500,000	M01044
$0	$0	$0	$0	$0	$0	$0	$0	$135,400	M01045
$0	$0	$0	$0	$0	$0	$0	$0	$100,000	M01046
$0	$0	$0	$0	$0	$0	$0	$0	$690,700	M03091
$0	$0	$0	$0	$0	$0	$0	$0	$334,027	M03107
$0	$0	$0	$0	$0	$0	$0	$0	$800,000	M03109
$0	$0	$0	$0	$0	$0	$0	$0	$615,300	M03110
$2,695	$0	$0	$0	$0	$0	$0	$0	$4,198,135	M03111
$0	$0	$0	$0	$0	$0	$0	$0	$1,035,000	M03112
$0	$0	$0	$0	$0	$0	$0	$0	$1,168,034	M03113
$0	$0	$0	$0	$0	$0	$0	$0	$450,000	M03114
$108,303	$0	$0	$0	$0	$0	$0	$0	$1,550,000	M03116
$4,188,706	$0	$0	$0	$0	$0	$0	$0	$17,248,000	M03117
$0	$0	$0	$0	$0	$0	$0	$0	$350,000	M03119

			Prior	2022 Estimate	2023 Budget	2024 Forecast	2025 Forecast
Capital Reimbursement Programs	M10004	PPI/I Implementation Phase 2 (Labor)	$4,903,407	$1,943,037	$2,241,530	$2,607,440	$1,343,722
	M10005	Post 2050 FP PP/II Approach	$277,385	$5,000,000	$5,000,000	$5,000,000	$5,000,000
	M10006	PPII Research and Development	$4,517	$37	$77,277	$154,155	$844,005
	M10007	PPII Residential	$147,350	$2,681,650	$1,000,000	$1,000,000	$1,000,000
Workforce & Business Development Resource Program	M04002	WDTP 2017-2021	$1,334,375	$499,921	($117)	($117)	($117)
	M04003	Fresh Coast Fresh Start	$280,866	$3,321	$0	$0	$0
	M04004	WDTP 2022-2026	$0	$758,553	$447,688	$741,241	$526,295
Financial Planning	M07002	Financial Planning	$2,593,420	$1,157,292	$1,595,512	$1,808,238	$719,689
Risk Management	M09002	Risk Management Program	$2,408,467	$412,728	$664,279	$664,279	$664,279
General Other Projects							
Information Technology Improvements	M06011	Information Technology Software Systems	$1,078,873	$222,927	$635	$0	$0
	M06016	ERP Implementation	$5,402,042	$3,721,103	$2,028,059	$0	$0
	M06018	ITS Equipment Replacement 2022 - 2026	$0	$23,777	$81,714	$105,587	$105,377
	M06019	CMMS Implementation	$0	$525	$686,768	$1,089,927	$742,763
Allowance	M99001	Allowance for Cost & Schedule Changes	$0	$1,665,392	$2,944,358	$3,839,278	$5,406,241
General	M98001	Milwaukee Estuary AOC DMMF	$224,808	$1,815,233	$2,104,994	$31,217,968	$119,514,948
	M99002	Operator Contribution to CIP	$0	$50,000	$50,000	$50,000	$50,000
Inflation	M99003	Inflation	$0	$0	$0	$4,267,888	$2,378,070

2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	Future Forecast	Total	Project Number
$895,392	$905,061	$158,893	$1,287	$0	$0	$0	$0	$14,999,767	M10004
$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$62,013,972	M10005
$541,914	$506,440	$502,503	$498,542	$58,063	$136,326	$128,195	$91,971	$3,543,946	M10006
$1,000,000	$1,000,000	$0	$0	$0	$0	$0	$0	$7,829,000	M10007
($116)	$0	$0	$0	$0	$0	$0	$0	$1,833,831	M04002
$0	$0	$0	$0	$0	$0	$0	$0	$284,186	M04003
$26,224	$0	$0	$0	$0	$0	$0	$0	$2,500,000	M04004
$719,689	$717,561	$645,583	$0	$0	$0	$0	$0	$9,956,985	M07002
$664,279	$660,708	$0	$0	$0	$0	$0	$0	$6,139,018	M09002
$0	$0	$0	$0	$0	$0	$0	$0	$1,302,435	M06011
$0	$0	$0	$0	$0	$0	$0	$0	$11,151,204	M06016
$105,926	$29,200	$0	$0	$0	$0	$0	$0	$451,580	M06018
$17	$0	$0	$0	$0	$0	$0	$0	$2,520,000	M06019
$6,835,736	$5,393,025	$4,978,123	$4,654,711	$5,881,809	$4,492,136	$2,024,970	$4,016,627	$52,132,407	M99001
$981,050	$0	$0	$0	$0	$0	$0	$0	$155,859,000	M98001
$50,000	$50,000	$0	$0	$0	$0	$0	$0	$300,000	M99002
$2,709,771	$2,359,498	$3,778,040	$3,778,040	$3,778,040	$3,778,040	$3,778,040	$3,778,040	$34,383,467	M99003

MMSD
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