

Metropolitan Council Environmental Services

Wastewater Services and Integrated Planning

2019 Performance Report



METROPOLITAN
COUNCIL

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OUR MISSION

Provide wastewater services and integrated planning to ensure sustainable water quality and water supply for the seven-county Twin Cities metropolitan region.

OUR VISION

Be a valued leader and partner in water sustainability.

OUR VALUES

EXCELLENCE: encourage innovation and continuous improvement, and strive for outstanding performance.

INCLUSIVENESS: recognize that everyone has something to contribute toward the organization's success.

INTEGRITY: meet high ethical standards, building trust, and be transparent to stakeholders.

RESPECT: listen and encourage understanding and honesty in how we treat each other.

COMMITMENT: further the mission, meet customer needs, and be an engaged and accountable workforce.

ABOUT US

Metropolitan Council Environmental Services (MCES) is a division of the Metropolitan Council, the regional policy-making body, planning agency, and provider of essential services for the Twin Cities metropolitan region. It fosters efficient and economic growth for a prosperous region.

Our work is guided by the Council's long-range plan, *Thrive MSP 2040*, and by the 2040 Water Resources Policy Plan—an integrated approach for wastewater, water supply and surface water management.

96.8 billion
gallons of wastewater
treated in 2019

WASTEWATER COLLECTION AND TREATMENT SYSTEM

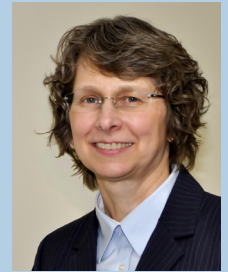
We own, operate, and maintain the Twin Cities metro regional wastewater collection and treatment system which includes:

- 634 miles of regional sanitary sewers
- 224 metering stations
- 61 lift stations
- 9 treatment facilities

The system collects and treats an average of 250 million gallons per day (MGD); almost 70% of this is processed at the Metropolitan Plant. The total amount of wastewater treated in 2019 was 96.8 billion gallons.

OUR PURPOSE

In 1938 the Metropolitan “Metro” Plant in Saint Paul began operating. It was the first treatment plant on the Mississippi River and remains one of the largest in the country to this day (pictured in 1937).



Leisa Thompson
General Manager

Wastewater treatment has come a long way in 80 years. Our 2015-2020 Strategic Vision is a blueprint to help us incorporate and follow an integrated approach of planning for and treating water resources.

After eight decades, our commitment to protecting human health and the environment, and to supporting economic growth, remains steadfast.

This report is a snapshot within our long history, of our achievements in 2019.



SUSTAINABLE COMMUNITIES

We and our partners work to conserve and use our region's groundwater and surface water in ways that:

- protect public health
- support economic growth and development
- maintain habitat and ecosystem health
- provide recreational opportunities that are essential to the region's quality of life

ENERGY REDUCTION, RECOVERY AND CONSERVATION

Our industry relies heavily on technology, and energy use is a major expense, at almost \$15 million per year.

Through energy conservation and renewable energy use, we've reduced air emissions and lowered operating costs—savings that are passed onto our customers.

WATER RESOURCES MANAGEMENT

Our work last year included:

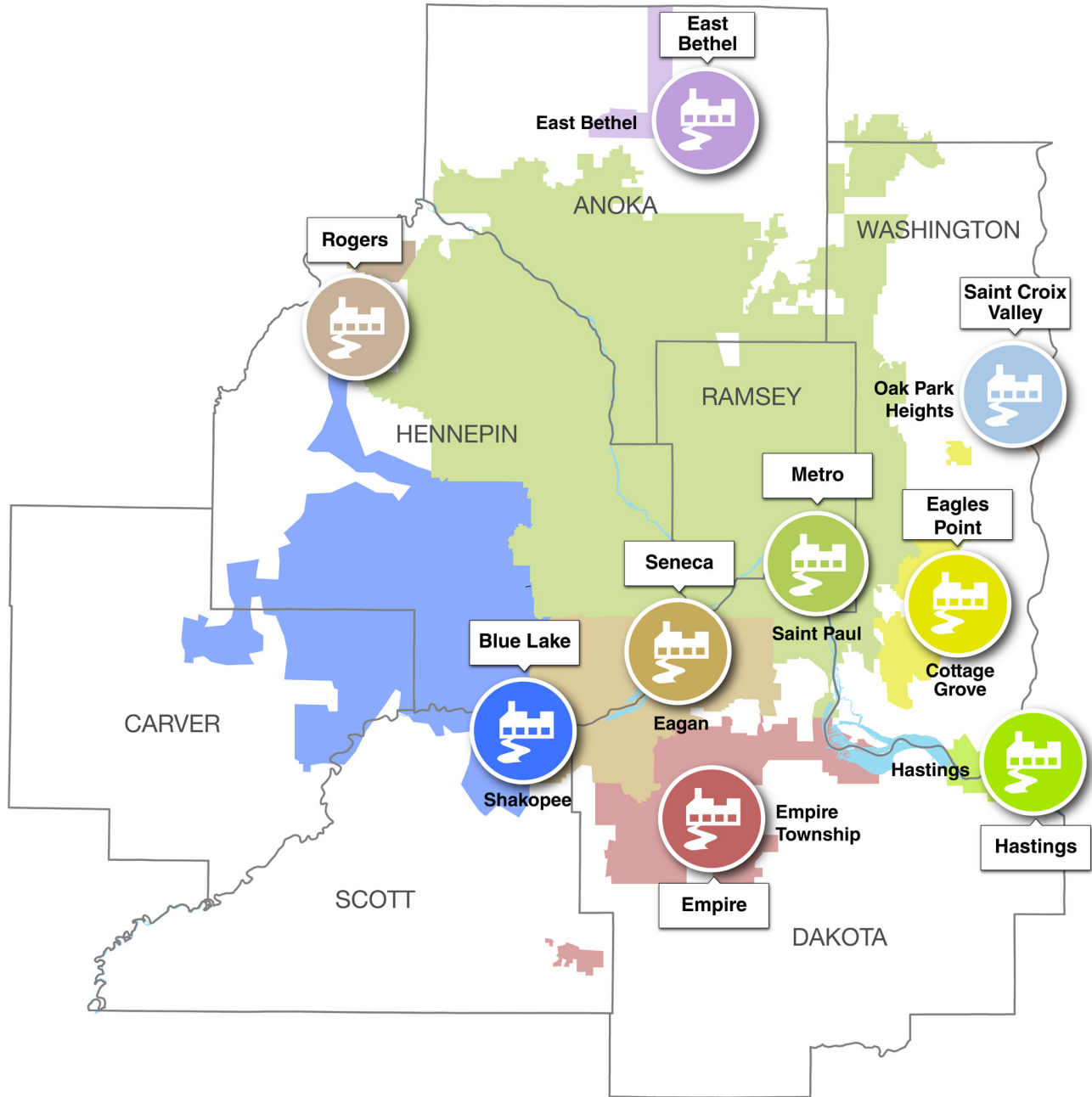
- Completed a study with the Minnesota Board of Water and Soil Resources to allocate watershed-based funding.
- Led training sessions for metro-area water monitoring and assessment professionals about regional water quality and quantity, and water management.
- Monitored 166 lakes, 20 tributary streams, 17 sites on the Minnesota, Mississippi, and St. Croix Rivers.

EFFICIENCY AND CONSERVATION GRANTS

We awarded \$787,100 in grants to 40 local governments for projects that will increase water efficiency and decrease demand on aquifers. We also awarded \$489,787 in grants for 7 stormwater redevelopment projects that use best practices such as reuse.



WASTEWATER SERVICE AREA



WHO WE WORK WITH

CUSTOMERS are the 110 communities which are home to 2.7 million residents; 900 industrial permit holders; and the 33 watershed management districts and organizations we serve.

STAKEHOLDERS have an interest in our work such as government agencies and regulators.

PARTNERS advise, guide and help develop environmental policies, review budgets, address water-related concerns, and increase public education.



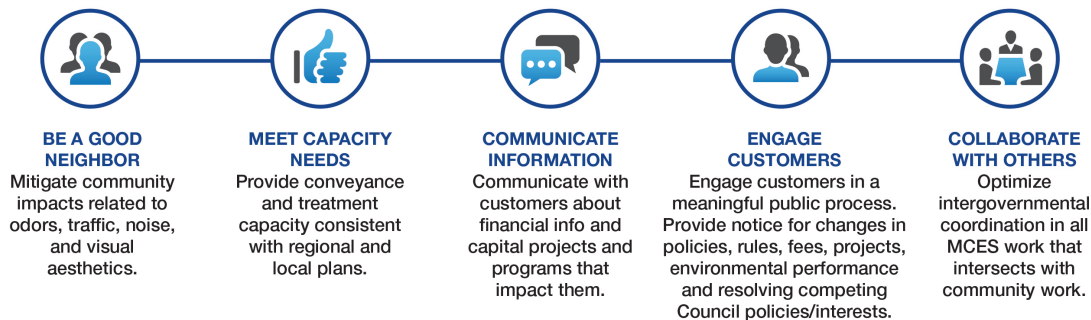
WORKGROUPS are communities, industries and other community associations that collectively address potential and ongoing water issues.

COLLABORATIONS include studies, projects and programs that identify key water issues and solutions. We also co-facilitate public education events such as the annual Children's Water Festival.

CUSTOMER SERVICE

To strengthen customer relationships and to deliver valued services, we are proactive, accessible, responsive, respectful, and transparent.

We strive to meet five measures: be a good neighbor, meet capacity needs, communicate information, engage customers, and collaborate with others.



PERFORMANCE AWARDS

Our treatment plants have outstanding performance while complying with clean water discharge permits.

PROTECTING WATER QUALITY IN MINNESOTA

The Minnesota Pollution Control Agency (MPCA) is an environmental regulator that monitors environmental quality and enforces environmental regulations, develops statewide policy, and supports environmental education.

The MPCA's annual Wastewater Treatment Facility Award recognizes utilities for outstanding performance protecting water quality in Minnesota. In 2019 eight of our plants and staff were among the 334 award recipients including some of the Blue Lake Plant staff at the ceremony (pictured with MPCA Deputy Commissioner Peter Tester).

PERFECT DISCHARGE PERMIT COMPLIANCE

The National Association of Clean Water Agencies (NACWA) is a national leader in legislative, regulatory and legal advocacy on clean water issues. NACWA partners with hundreds of wastewater treatment facilities of all sizes throughout the U.S.

The annual NACWA Peak Performance Award recognizes wastewater treatment facilities with consecutive years of perfect discharge permit compliance.

Our compliance record spans almost three decades and is one of the top three highest in the nation. Six of our plants earned a Platinum Award for five or more consecutive years (through 2018 and awarded in 2019).



NACWA PLATINUM AWARDS

28
years

Hastings Plant

27
years

St. Croix Valley Plant

13
years

Blue Lake Plant

13
years

Eagles Point Plant

11
years

Empire Plant

7
years

Metro Plant

INNOVATIVE PARTNERSHIPS

Strong partnerships ensure our purpose of protecting human health and the environment while supporting economic growth. Some partnerships are below.

INDUSTRIAL PRETREATMENT INCENTIVE PROGRAM (IPIP)

Our 900 permitted industrial customers discharge wastewater that requires extra treatment steps. This costs more and is taxing on the system. Through IPIP, companies install pretreatment equipment at their facilities to reduce this waste from entering the system. Two companies finished the installation phase last year.

LANDSPREADING

We process nutrient-rich solids removed from wastewater at the Empire Plant. In the spring and fall, we apply the dried biosolids to farmland, mostly in Dakota County, to fertilize the fields. More than 20,000 tons are applied annually at no cost to the property owners.

COMMUNITY SOLAR GARDEN

We participate in Xcel Energy's Community Solar program. We subscribe to more than 30 megawatts of solar capacity across the region – which annually generates enough electricity to power more than 4,000 households a year. We save about \$300,000 a year on our power bills through this collaboration.

RENEWABLE ENERGY

We have a memorandum of understanding with Xcel Energy to work toward purchasing 100% of our electricity from renewable sources by 2040. Xcel is working on options to get us to the 60% level within the next two years.

TEACHER EXTERNSHIP

We work with local schools and educators to increase students' interest in science, technology, engineering and math (STEM), and to introduce students to STEM career options in the wastewater industry.

CITIZEN-ASSISTED MONITORING PROGRAM

Volunteers monitor designated lake sites by collecting surface water samples, measuring water temperature and clarity, and reporting weather and lake conditions (with help from their sponsors).



SUSTAINABLE SERVICES

We will ensure a high-performing organization, including an engaged and innovative workforce that is competent, motivated, and diverse with opportunities to continuously improve.

OUR EMPLOYEES

Our 633 employees work at many locations across the seven-county metro area. They perform a variety of duties to support the wastewater collection and treatment system that operates 24 hours a day, 7 days a week, 365 days a year.

Types of jobs include administrative specialist, construction manager, electrician, engineer, environmental scientist, GIS specialist, interceptor service worker, lab tech, machinist/mechanic, pipefitter, plant operator, and technology support specialist.

BARGAINING UNITS

633 employees are represented by:

- 272 American Federation of State, County and Municipal Employees (AFSCME)
- 158 International Union of Operating Engineers
- 74 Metropolitan Council Management Association
- 52 International Association of Machinists and Aerospace Workers
- 32 International Brotherhood of Electrical Workers
- 21 Non-represented
- 7 International Union of Painters and Allied Trades
- 2 United Association of Pipefitters



WASTEWATER TREATMENT FACILITIES



BLUE LAKE

LOCATION: Shakopee

MGD CAPACITY: 32

COMMUNITIES SERVED: 31

INTERCEPTOR MILES: 129

PROCESS: advanced secondary with chlorination/dechlorination

DISCHARGES TO: Minnesota River



EAGLES POINT

LOCATION: Cottage Grove

MGD CAPACITY: 10

COMMUNITIES SERVED: 3

INTERCEPTOR MILES: 10

PROCESS: advanced secondary with UV disinfection

DISCHARGES TO: Mississippi River



EAST BETHEL

LOCATION: East Bethel

MGD CAPACITY: 0.41

COMMUNITIES SERVED: 1

INTERCEPTOR MILES: 6

PROCESS: advanced secondary with membrane filtration and dual disinfection

DISCHARGES TO: land application basins



EMPIRE

LOCATION: Empire Township

MGD CAPACITY: 24

COMMUNITIES SERVED: 6

INTERCEPTOR MILES: 40

PROCESS: advanced secondary with UV disinfection

DISCHARGES TO: Mississippi River



ROGERS

LOCATION: Rogers

MGD CAPACITY: 1.6

COMMUNITIES SERVED: 1

PROCESS: oxidation ditch with UV disinfection

DISCHARGES TO: Crow River

HASTINGS

LOCATION: Hastings

MGD CAPACITY: 2.34

COMMUNITIES SERVED: 1

PROCESS: advanced secondary with chlorination/dechlorination

DISCHARGES TO: Mississippi River



ST. CROIX VALLEY

LOCATION: Oak Park Heights

MGD CAPACITY: 4.5

COMMUNITIES SERVED: 3

INTERCEPTOR MILES: 2

PROCESS: advanced secondary with UV disinfection

DISCHARGES TO: St. Croix River

METROPOLITAN

LOCATION: Saint Paul

MGD CAPACITY: 251

COMMUNITIES SERVED: 67

INTERCEPTOR MILES: 389

PROCESS: advanced secondary with chlorination/dechlorination

DISCHARGES TO: Mississippi River



SENECA

LOCATION: Eagan

MGD CAPACITY: 34

COMMUNITIES SERVED: 8

INTERCEPTOR MILES: 46

PROCESS: advanced secondary with chlorination/dechlorination

DISCHARGES TO: Minnesota River

WORKING AT MCES

An engaged, innovative and diverse workforce is vital to our organization's success, which we ensure through outreach, recruitment and retention.



WORKFORCE PLAN

More than 20% of our employees are eligible for retirement

now or within the next five years.

Our 2016-2020 Workforce Plan addresses the challenges of succession planning, diverse candidate recruitment, and employee retention.



LEADERSHIP DEVELOPMENT

We team with other EPA Region

5 wastewater utilities on a six-month leadership development program.

Participants review industry-specific scenarios and visit each other's locations. Six employees completed the program in 2019.



HIRING PROCESS

We led an equity effort to reduce hiring bias, which is often

subconscious and difficult to recognize.

A team worked with hiring managers to review job postings, minimum job requirements, and candidate screening methods.



OUTREACH

To reach under-represented people in our customer

communities, we host career-focused facility tours, career panels, and info sessions and interviews.

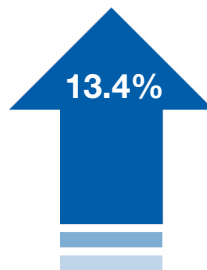
Career panels are held onsite and students can ask employees about job requirements and responsibilities, what they most like about their job, career advice and more. We won a Governor's Better Government Award for one of our school partnerships.



DIVERSITY

It's essential that our workforce represents the diverse

communities we serve, as outlined in *Thrive* and in our 2015-2020 Strategic Vision.



We increased our workforce diversity to 13.4% from 9.9% in 2015.



RECOGNITION

To increase job satisfaction and employee retention,

we redesigned our employee recognition program. The feedback has been positive.

In 2019, employees earned 47 Keystone Awards (high achievement) and 250 WATER (peer to peer) Awards. We received a Governor's Better Government Award for the program's innovation and creativity.

SAFETY

Safety of the people we serve and our employees and is our highest priority for our capital, operation, and maintenance programs. Our commitment to safety is focused on three measures: minimize impacts, comply with permits, and lead by example.

Safety measures in 2019 resulted in decreased:

- Recordable Incidents are down to 16 from 19 in 2018
- Lost-time Incidents are down to 6 from 7 in 2018
- Days Away (from work) are down to 284 from 413 in 2018



SUSTAINABLE INFRASTRUCTURE

We ensure reliable, affordable wastewater infrastructure that provides the best long-term regional value.

We invest almost \$130 million a year to preserve the wastewater infrastructure: pipes, lift stations, metering stations and treatment plant equipment. About \$100 million is used for interceptor pipe rehabilitation and lift station renovation.

The entire collection and treatment system has an estimated \$7 billion replacement value.

ASSET MANAGEMENT

Asset Management helps our departments and business units work together to focus limited resources through good planning and risk-based decision-making. We continually improve best practices to maintain our high level of service and to reduce costs.

In 2019, we:

- Continued rollout of the asset management system, developed the plan process, and created plans for critical facility process systems at several treatment plants
- Implemented mobile computing for GIS
- Integrated asset information between GIS and enterprise asset management system
- Developed and implemented the Risk Management Assessment and Mitigation Planning process
- Developed and implemented an Asset Information and Data Integrity process
- Drafted the Reliability Engineering program to meet facility needs

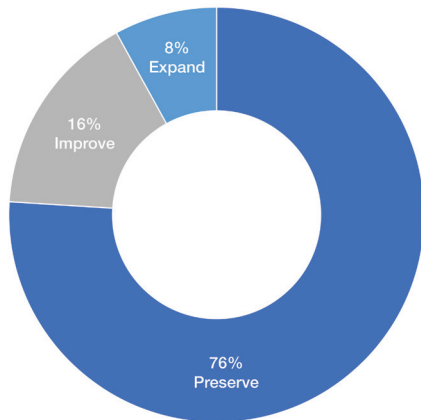


CAPITAL IMPROVEMENT PROGRAM

To meet the region's current and future needs, we make investments through the capital improvement program (CIP). The CIP is prepared, reviewed, and approved annually, and adjusted as needed. Capital expenditures were about \$110 million in 2019.

PROGRAM OBJECTIVES

- 76% Preserve and rehabilitate existing wastewater infrastructure
- 16% Improve quality of service by responding to more stringent regulations, reusing wastewater, increasing system reliability, and conserving and generating energy
- 8% Expand system capacity through plant expansions and interceptor extensions



Find more capital program information on our website under “Wastewater & Water,” and “Projects.”



2019 CAPITAL PROJECTS

Funding for rehabilitation projects comes from our capital improvement program (CIP). The CIP is prepared, reviewed, and approved every year to allow for new programs and/or plan adjustments.

Some capital projects are needed to meet increasingly stringent water and air quality regulations, and to expand the system capacity for regional growth needs. Capital projects typically span five years or more.

SEWER CONSTRUCTION

Brooklyn Park	Mound
Burnsville	Mounds View
Champlin	Richfield
Chanhassen	Roseville
Chaska	Saint Paul
Fridley	Shakopee
Golden Valley	Shoreview
Maplewood	St. Bonifacius
Minneapolis	Vadnais Heights
Minnetonka	Waconia
Mnetrista	White Bear Lake

TREATMENT PLANTS

Blue Lake
Eagles Point
Metro
Rogers
Seneca
St. Croix Valley

LIFT STATIONS

Bloomington
Brooklyn Park
Coon Rapids
Corcoran
Hopkins
Shorewood
Woodbury



PROJECT SPOTLIGHT: ROGERS PLANT

Our long-range planning includes construction of a new regional treatment plant to serve the growing western Hennepin County area.

In 2018, the City of Rogers formally requested we acquire their 60-year-old plant, citing the need for both expanded capacity and capital investment to meet regulatory requirements. In 2019, we acquired and assumed operation of the Rogers Plant.

The new Crow River Plant, planned for 2030, will:

- be built on property owned by MCES
- serve the City of Rogers, and portions of the Cities of Corcoran and Dayton
- have an initial treatment capacity of 3 MGD, with the expansion capacity of 6 MGD

We will continue to run the Rogers Plant over the next 10 years, then decommission it once the new Crow River plant begins operating.



FINANCES

We keep our rates low. Wastewater fees are about \$24 a month per household—40% less than other large U.S. wastewater utilities, according to NACWA.

Our three largest sources of revenue are:

MUNICIPAL WASTEWATER CHARGE (MWC)

We charge our customer communities for sewer service; they pay based on volume of wastewater treated.

SEWER AVAILABILITY CHARGE (SAC)

We charge our customer communities when properties first connect to the system, and when properties expand or change causing more demand on the system.

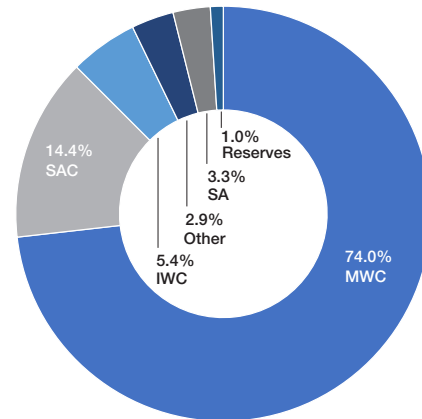
INDUSTRIAL WASTE CHARGES (IWC)

900 industries have permits to discharge wastewater that needs additional treatment steps. Additional fees depend on types of service(s) provided.

EXCEPTIONAL CREDIT RATING

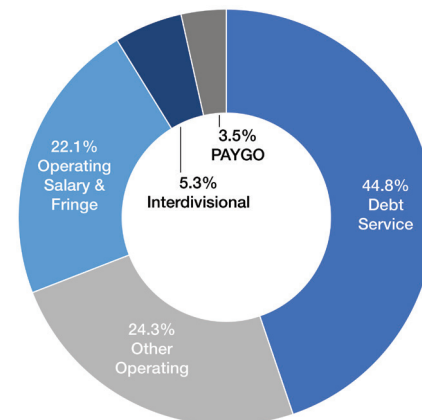
We received the highest credit rating (AAA bonding) from S&P Global Ratings and Moody's Corporation.

2019 SOURCES: \$310.7 MILLION



\$227.4	Municipal Wastewater Charges (MWC)
\$44.3	Transfer from (SAC)
\$16.5	Industrial Waste Charges (IWC)
\$10.3	State Appropriations (SA)
\$9.0	Other Misc. Revenue
\$3.2	Use of Reserves

2019 USES: \$310.7 MILLION



\$139.0	Debt Service
\$75.6	Other Operating Costs
\$68.7	Operating Salary & Fringe
\$16.4	Interdivisional Charges
\$11.0	PAYGO (used for capital expenditures)

COUNCIL LEADERSHIP

METROPOLITAN COUNCIL MEMBERS

Chair	Charlie Zelle		
District 1	Judy Johnson	District 9	Raymond Zeran
District 2	Reva Chamblis	District 10	Peter Lindstrom
District 3	Christopher Ferguson	District 11	Susan Vento
District 4	Deb Barber	District 12	Francisco J. Gonzalez
District 5	Molly Cummings	District 13	Chai Lee
District 6	Lynnea Atlas-Ingebretson	District 14	Kris Fredson
District 7	Robert Lilligren	District 15	Phillip Sterner
District 8	Abdirahman Muse	District 16	Wendy Wulff

ENVIRONMENTAL SERVICES EXECUTIVE TEAM

Leisa Thompson	General Manager
Jeannine Clancy	Assistant General Manager, Technical Services
Craig Edlund	Manager, Asset Management
Karen Neis	Director, MCES Administration
Sam Paske	Assistant General Manager, Environmental Quality Assurance
Larry Rogacki	Assistant General Manager, Support Services
	Acting Assistant General Manager, Wastewater Treatment Services
Ned Smith	Director, MCES Finance & Revenue
Dan White	Director, Maintenance & Security



390 Robert Street N
Saint Paul, MN 55101-1805
P: 651-602-1000 / TTY: 651-291-0904
metro council.org