



Welcome

INDUSTRIAL WASTE CUSTOMER WORKSHOP

April 22, 2021 at 9:00 AM – 10:30 AM

Agenda

9:00 am – 10:05 am: Workshop

- Welcome & Workshop Logistics
- Finance and Budget
- MCES Pretreatment Program Overview and Updates
- MCES Wastewater Monitoring of SARS-CoV-2
- Chloride Update
- 2021 Local Limits Study
- Online and Electronic Reporting
- Communications/IWPP Website

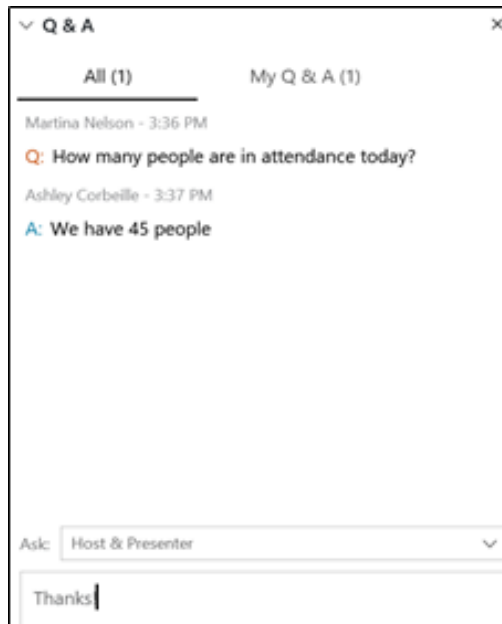
10:05 am – 10:20 am: Michelle Gage: MnTAP Services and Resources for Industry

10:20 am – 10:30 am: Time for Feedback and Q&A (and throughout workshop)

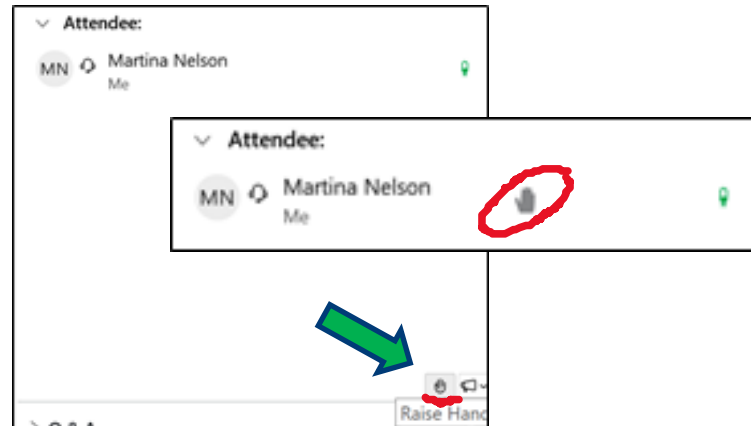
Workshop Logistics

This workshop will be recorded and posted on our website

You can communicate with hosts, presenters and panelists using the Chat and/or Q&A Windows



You can raise and lower your **hand** to speak. Our host will then unmute you and call on you to speak.



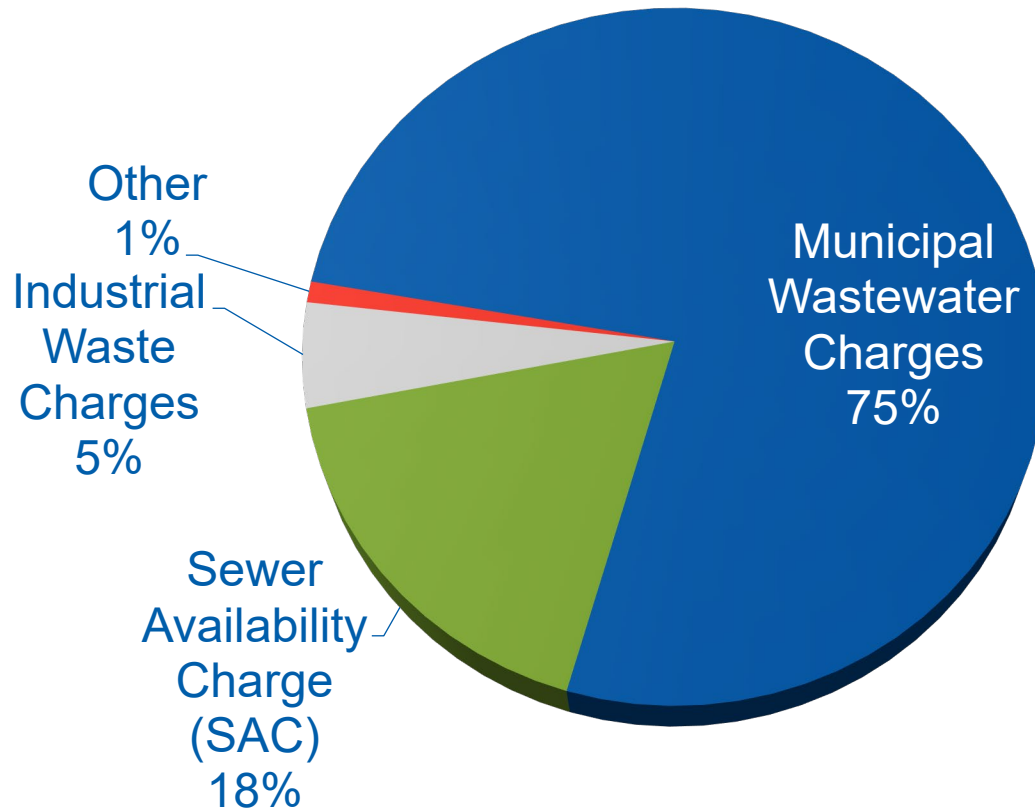
Finance

Ned Smith, *Director, Pretreatment & Finance*

ned.smith@metc.state.mn.us



2021 Sources – \$321M



- Fee for service
- No state funds to run Metropolitan Disposal System
- MCES expenses only (no other Met Council expenses)

**Other includes State Appropriations (grants), Investment Earnings, and Other Misc. Revenue*

Strength Charges & Permit Fees

- Fees for treatment costs for industrial wastewater with more pollutants than residential wastewater
- Charged in \$ per pound of excess strength
 - Chemical Oxygen Demand (COD) over 500 mg/L
 - Total Suspended Solids (TSS) over 250 mg/L
- Based discharge volume and excess COD and TSS
- Permit fees are billed annually

Charge Type	2021 Rate	Prelim 2022	% Increase
Total Suspended Solids (TSS) Rate	\$0.2600	\$0.2720	4.6%
Chemical Oxygen Demand (COD) Rate	\$0.1300	\$0.1360	4.6%
Permit Fee (Standards & Generals)	\$475-\$10,550	\$475-\$10,925	3.6%

Service Availability Charge

- “Connection fee” pays for capacity in the system
- Metropolitan Council charges SAC directly to local governments for initial connections to the system, if a business grows, or the property use changes
- One SAC unit is equivalent to 274 gallons of discharge per day
- SAC collected helps to pay debt for expansion and rehabilitation of wastewater infrastructure

Charge Type	2021 Rate	Prelim 2022	% Increase
Service Availability Charge (SAC) Rate	\$2,485	\$2,485	0%

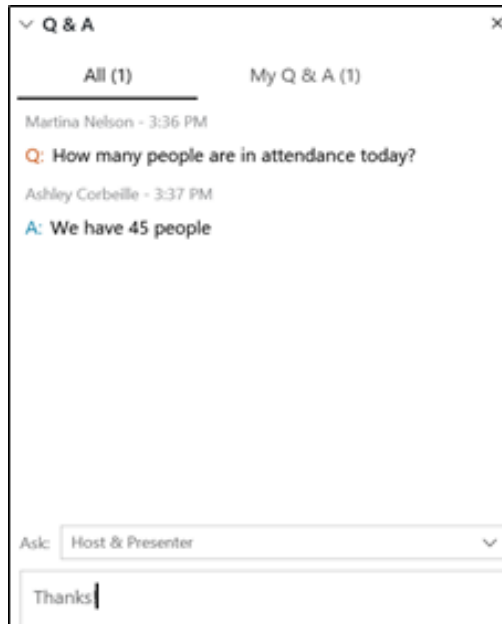
Industrial Capacity Charge (ICC)

- Alternative fee charged directly to permitted industrial users for any volume that exceeds the permitted industrial user's ICC threshold at each reporting period
- **Can pay ICC in lieu of increasing your SAC baseline**
- Rate charged per 1,000 gallons of discharge over the SAC baseline
- Does not increase the facility's SAC baseline
- Designed to help businesses with volume fluctuations

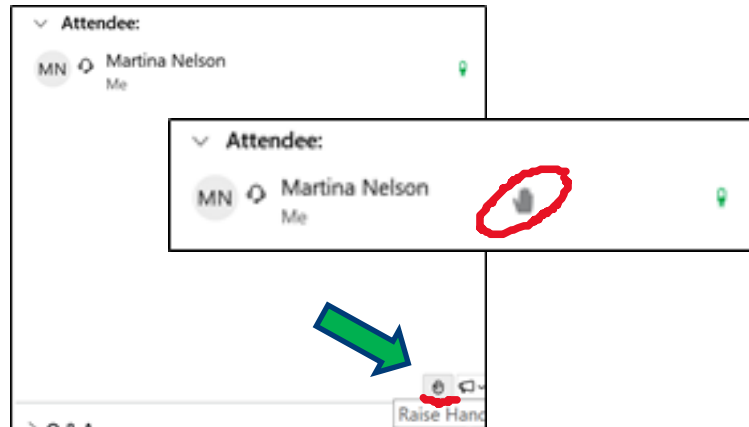
Charge Type	2021 Rate	Prelim 2022	% Increase
Industrial Capacity Charge (ICC) Rate	\$2.18	\$2.21	1.4%

Any Questions or Feedback?

Please use the Q/A Panel



Raise your hand and we will unmute you



Pretreatment Program Overview & Updates

Bob Nordquist, *Industrial Waste Manager*

bob.nordquist@metc.state.mn.us



Industrial Waste & Pollution Prevention



- We serve the Twin Cities Region of ~3 million people
- We serve 110 communities connected to our system
- We administer 915 active industrial discharge permits
 - 518 Standard Discharge Permits
 - 90 Special Discharge Permits
 - 94 Liquid Waste Hauler Permits
 - 213 General Discharge Permits
 - 874 Dental Clinics

MCES Performance Awards

Platinum Awards Given for 2019 Compliance

8 years		10	Metro
12 years		13	Empire
14 years	Blue Lake	8	Eagles Point
28 years		1	St Croix Valley Calumet, Chicago, IL
29 years		1	Hastings Ocean County, NJ
	30 years – Ames, IA		31 years – Hanover, NJ

Gold Awards Received for 2019

Seneca – 3-years

Rogers – 1-year

East Bethel – 1-year

Clean Water Regulation

- Clean Water Act / 40 CFR Part 403
 - Categorical Standards
 - General Pretreatment Regulations
- EPA Region 5
 - Delegated to Minnesota PCA
 - Approval of Local Pretreatment Programs
- MCES Approved Pretreatment Program
 - Waste Discharge Rules
 - Local Limits

Effects of COVID-19 on MCES

- Prevent the spread of COVID-19
- Reduce the risk of disruption of essential services
- Alternate sampling and inspection methods
- Liberal due date extension policy
- Minimal financial impacts in 2020
 - All city, SAC, and industrial revenues met expectations
 - Slight increase in leave expense since vacation use dropped
- Please notify us if your employee tests positive and has had contact with our staff

MCES Wastewater Monitoring of SARS-CoV-2

Steve Balogh, PhD, Principal Research Scientist
Steve.Balogh@metc.state.mn.us

IWPP Customer Workshop: April 2021



MCES Wastewater Monitoring

Why wastewater?

RNA signal in wastewater should lead the clinical case signal; maybe by up to 6 days

Wastewater might provide an earlier indication of trends in disease prevalence in the service area

We are here



MCES Wastewater Monitoring



MCES Timeline:

April 2020

- Began weekly monitoring at Metro
- Biobot/MIT project

May-July 2020

- Explored options for working with University partners

August-September 2020

- Built a new lab in MCES R&D

October 2020

- Developed analytical method

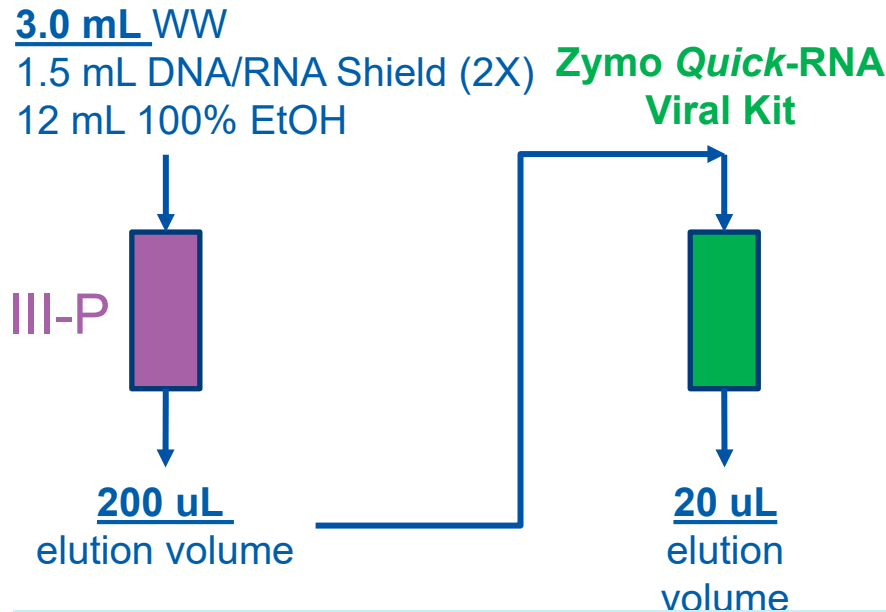
November 2020-present

- Daily sampling at Metro

MCES Wastewater Monitoring

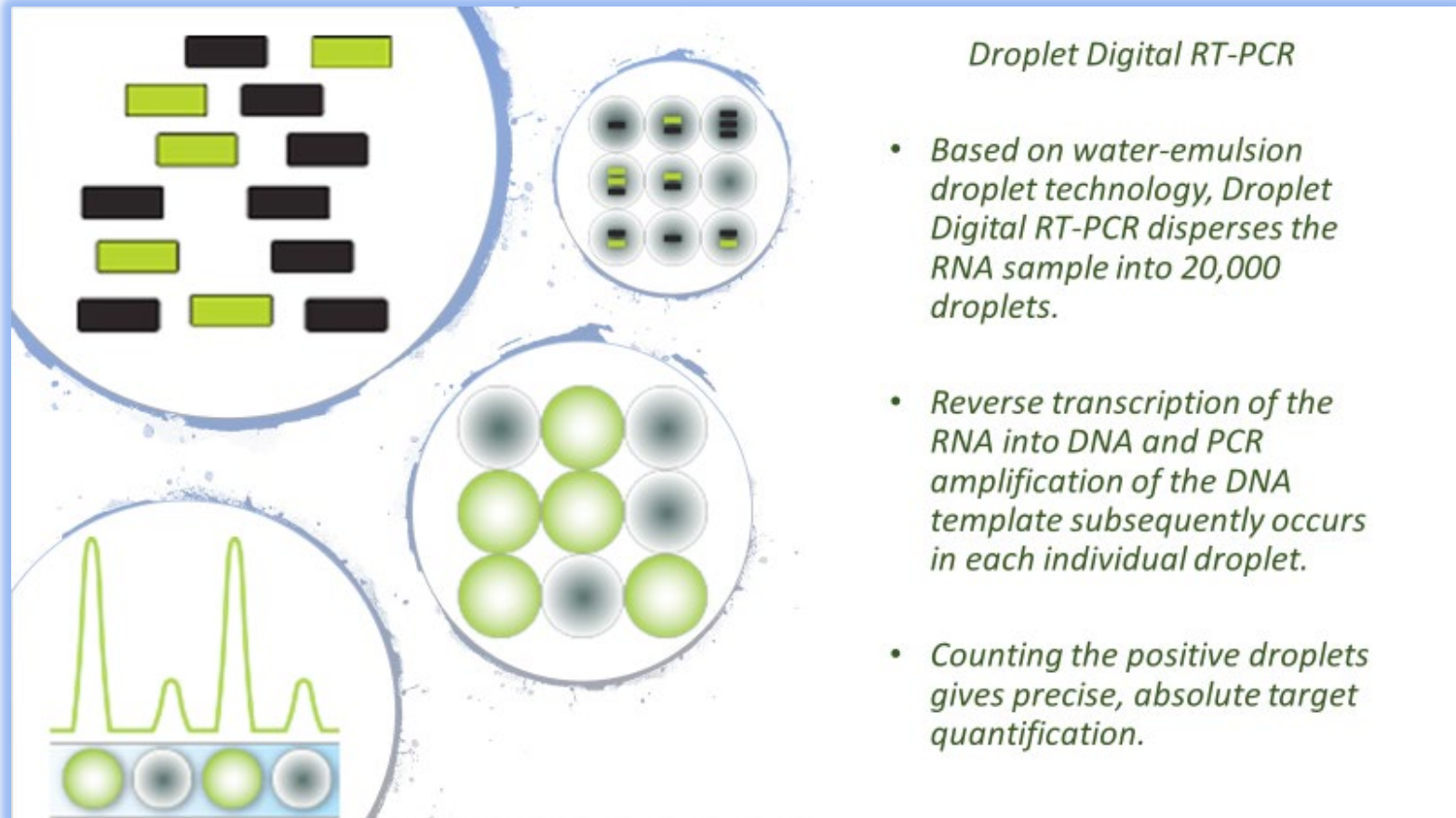
RNA extraction method: III-P/ZV:

- Use Zymo III-P column to process large WW volume (3.0 mL)
- Then process III-P eluate with Zymo Viral kit to concentrate the RNA by 10X

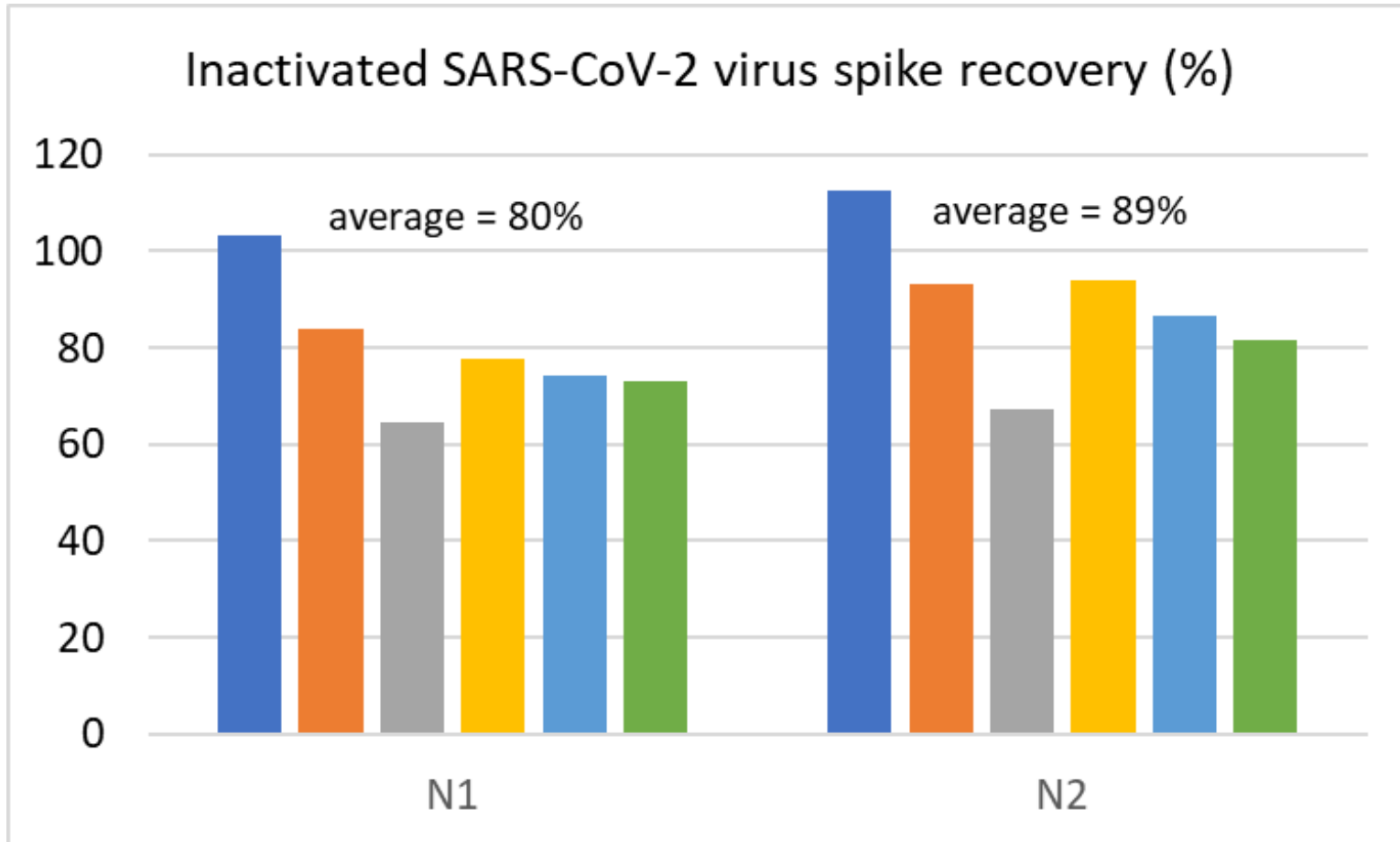


Concentration factor = $3000 \text{ uL WW} / 20 \text{ uL} = 150$

MCES Wastewater Monitoring



MCES Wastewater Monitoring

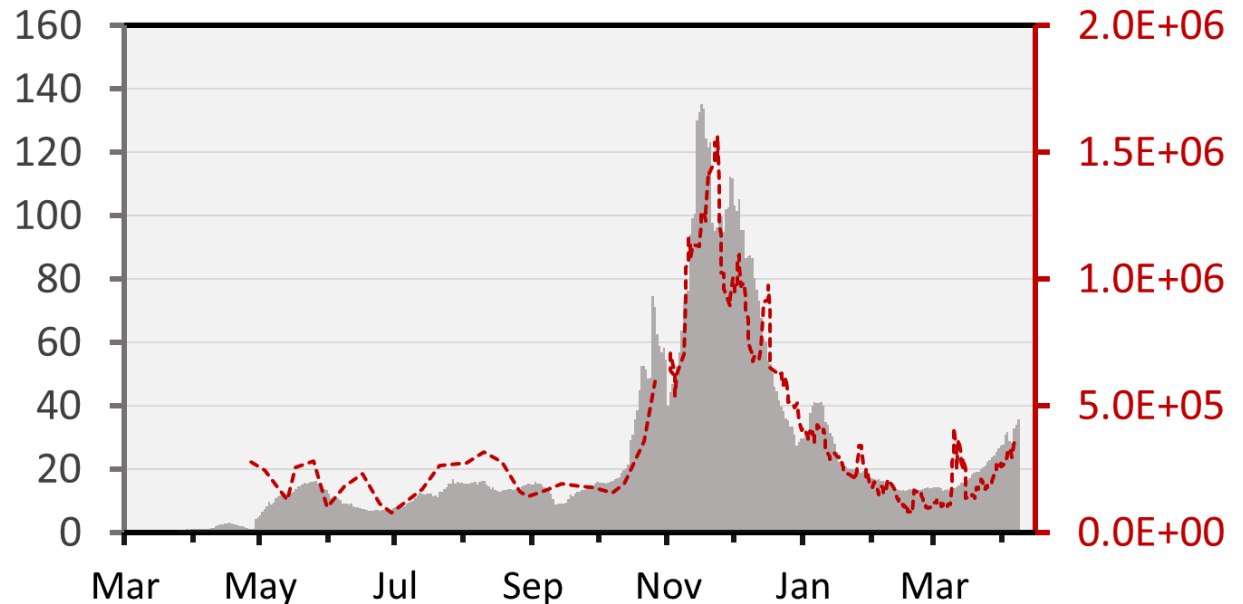


MCES Wastewater Monitoring

MCES Wastewater Monitoring

Metro-Area COVID-19
Clinical Cases/100,000 people

Metro Plant SARS-CoV-2
RNA concentration
(copies/L)



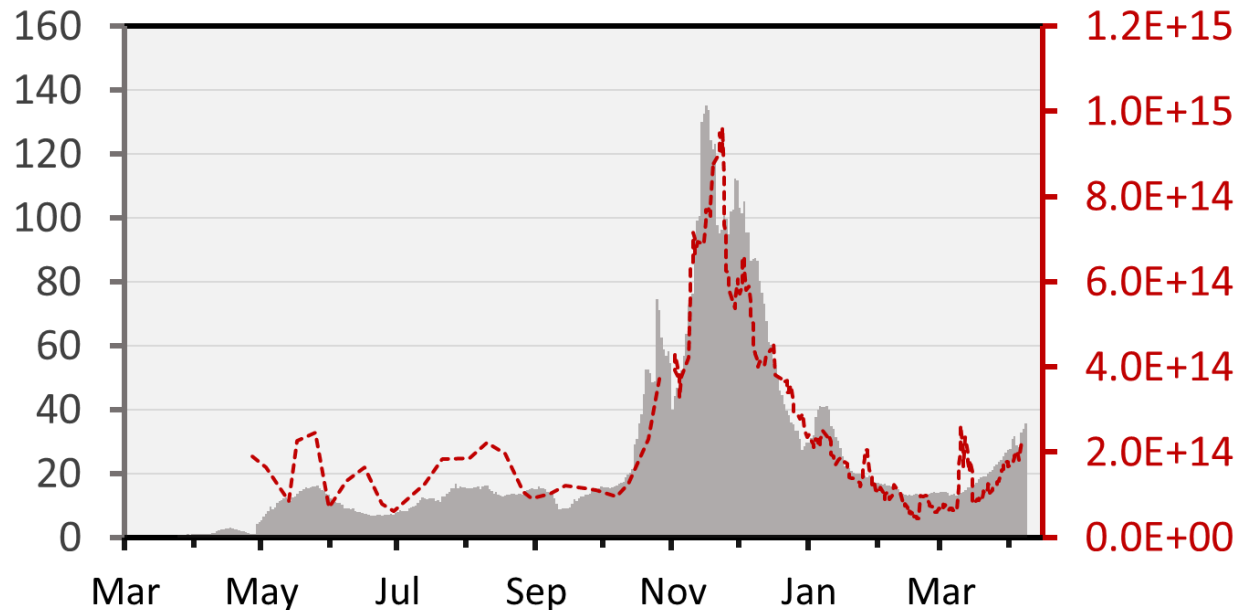
- RNA concentration is the average of N1 and N2 gene concentrations
- RNA concentration trend lines and clinical case data are 7-day moving averages
- Data through the end of October is from Biobot
- Data since November is from MCES/R&D

MCES Wastewater Monitoring

MCES Wastewater Monitoring

Metro-Area COVID-19
Clinical Cases/100,000 people

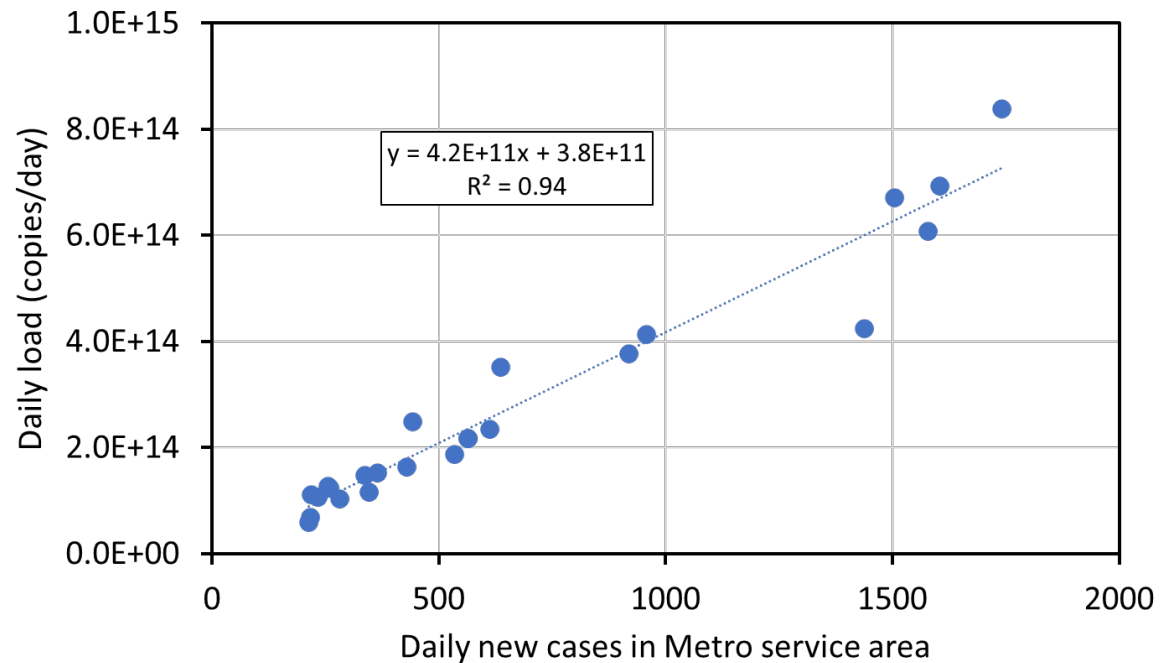
Metro Plant SARS-CoV-2
RNA Daily Influent Load
(copies/day)



- RNA load is based on the average of N1 and N2 gene concentrations
- RNA load trend lines and clinical case data are 7-day moving averages
- Data through the end of October is from Biobot
- Data since November is from MCES/R&D

MCES Wastewater Monitoring

Metro Plant influent SARS-CoV-2 daily load
vs daily new cases in the sewered service area;
weekly mean values, 11/5/2020 - 4/7/2021

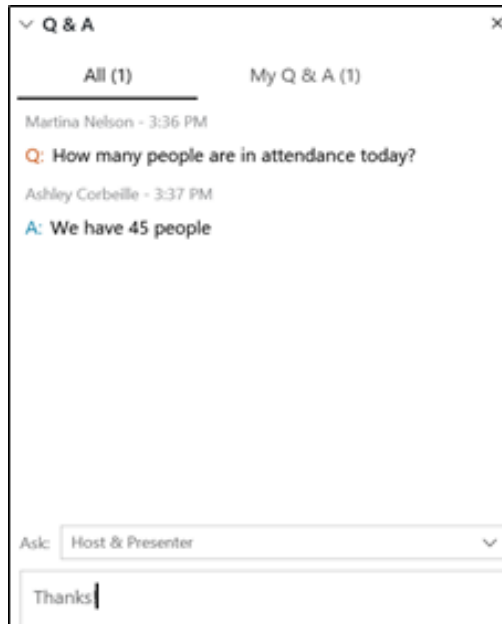


MCES Wastewater Monitoring

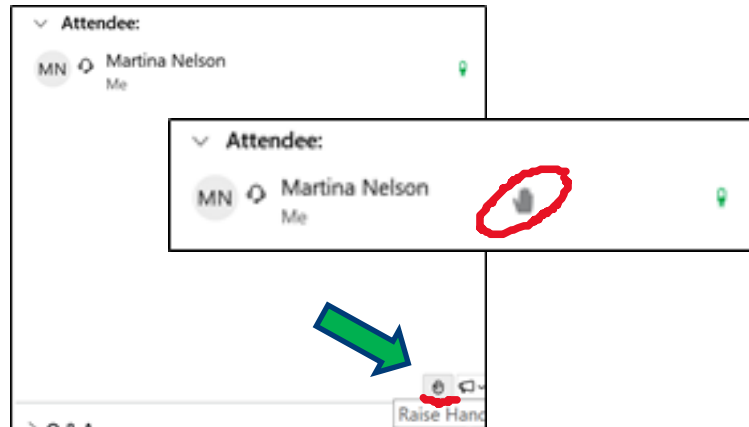
- *We can accurately measure SARS-CoV-2 RNA concentrations in wastewater entering MCES treatment plants*
- *RNA concentrations and loads track with new clinical COVID-19 case counts over time*
- *The data may be useful to public health authorities, especially when case numbers are low*
- *New variants of the virus can be detected in wastewater, providing early warning of their presence*

Any Questions or Feedback?

Please use the Q/A Panel



Raise your hand and we will unmute you



MCES Industrial Waste Program: Chloride

Dave Brown, Principal Engineer

dave.brown@metc.state.mn.us

Brian Davis, Senior Engineer

brian.davis@metc.state.mn.us



MCES Concerns about Chloride

Regulatory
Compliance

Urban Lake &
Stream Water
Quality
Challenges

Wastewater
Reuse

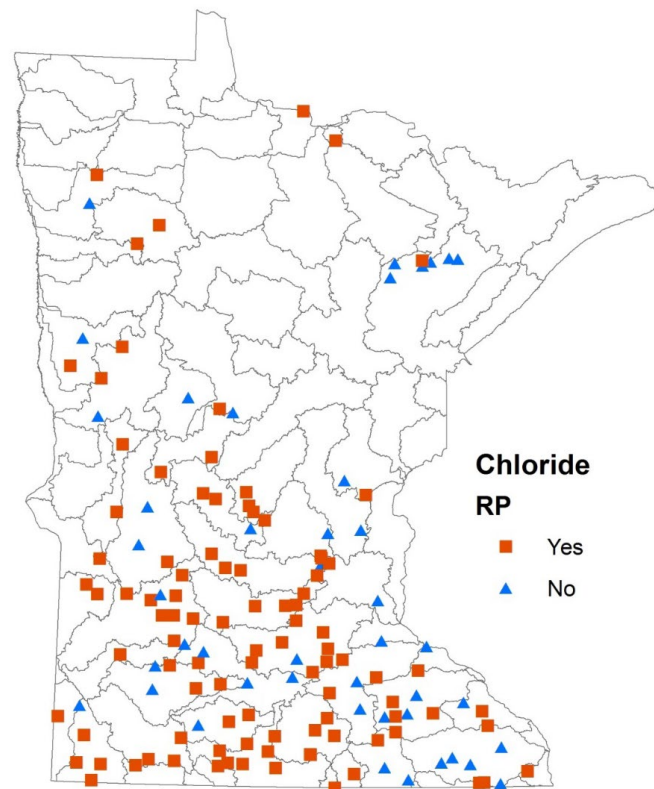
MPCA's Chloride Standard:

Greatest Impact in Greater Minnesota WWTPs

MPCA's Chloride Standard

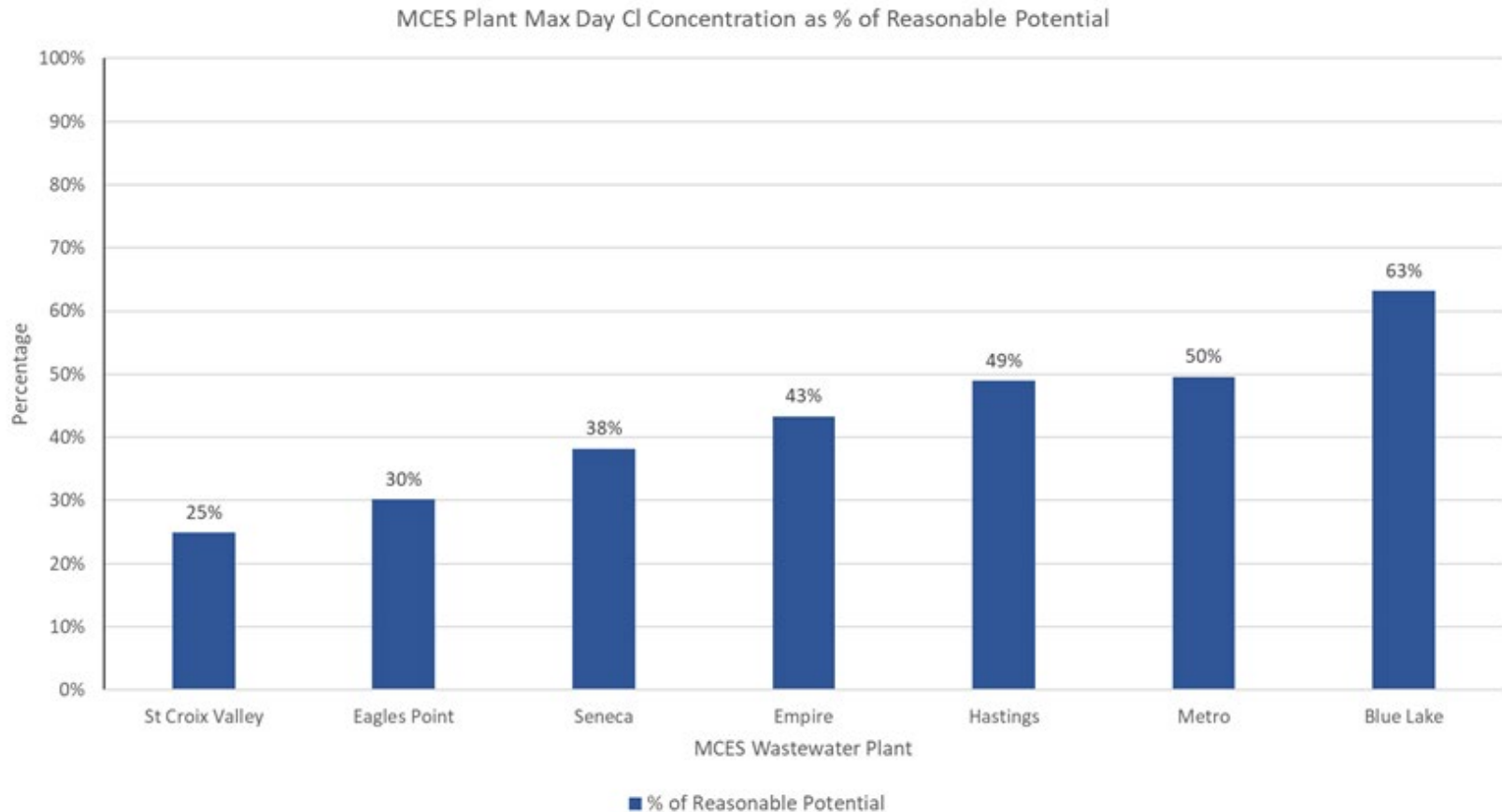
Type	Magnitude
Chronic	230 mg/L
Acute	860 mg/L
Final Acute Value	1720 mg/l

RP = Reasonable potential to exceed chloride water quality standard. Greatly influenced by receiving water flow/volume



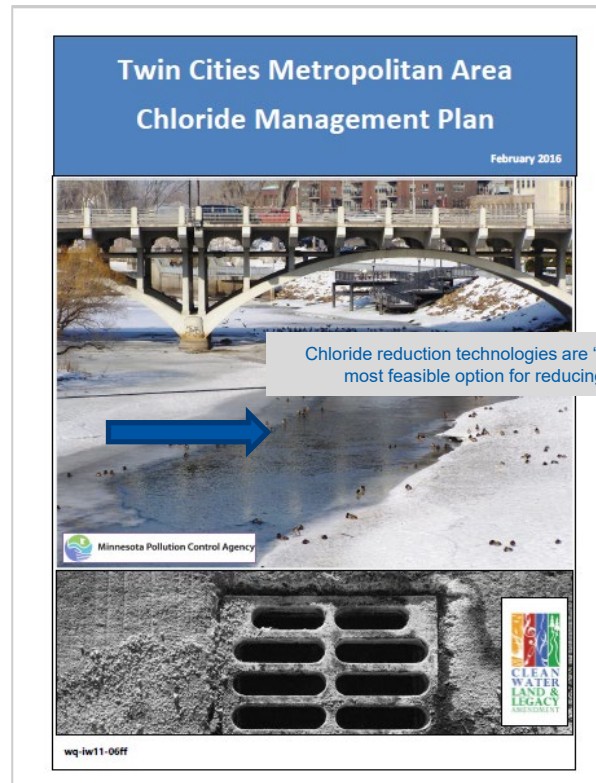
Source: MPCA

MCES WWTP Discharges Well Below Trigger for Exceeding Chloride Standard - *



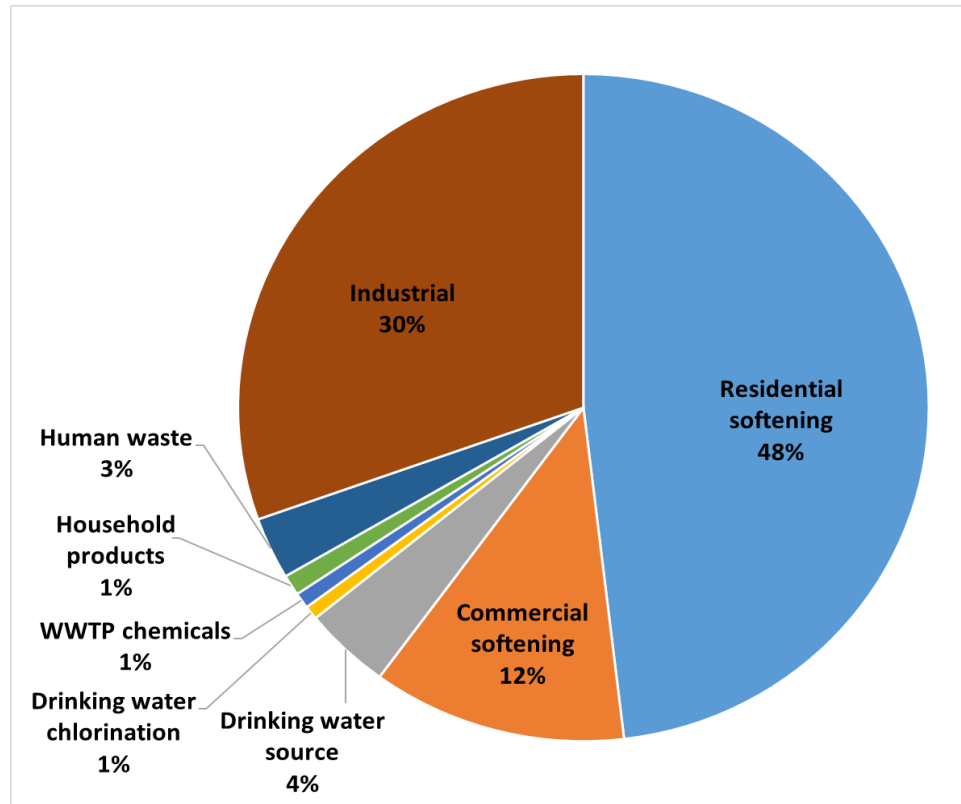
* - Rogers WWTP permit: Required to develop and implement a Chloride Reduction Plan.

Cost of Chloride Reduction at WWTPs: \$\$\$\$



Chloride Sources in MCES WWTP Discharges

- Residential softening (48%)
- Industrial discharges (30%)
- Commercial softening (12%)



Info Source: *Internal Chloride Team Final Report*. Metropolitan Council, January 2019. Table 5.1

Understanding Industrial Chloride Sources

- Chloride sampling: gather and analyze data about chloride sources
- Site visit checklist: gather information about industrial softening

Moving Forward

- **No chloride permit limit at MCES WWTPs**
 - However, Rogers plant permit requires a chloride reduction plan
- **No chloride permit limits anticipated in foreseeable future**
 - Depends on WQS not being lowered, which is possible
- **MCES committed to working with partners**
 - Internal chloride team: chartered to work on solutions
 - Collaborate: reach out to stakeholders to gather information and develop solutions
 - Draw on past experiences solving costly, complex water quality challenges

Two Approaches

Attempt to treat chloride at MCES WWTPs:

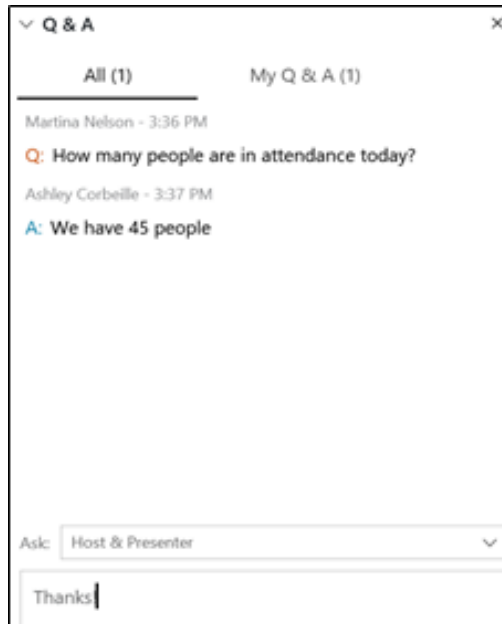
- Cost and technologically infeasible for MCES' larg WWTPs
- Results in a concentrated brine waste with no feasible disposal option

OR

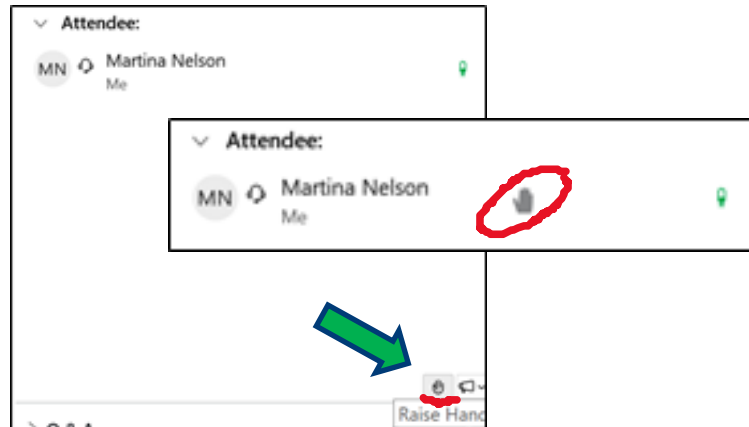
MCES and region's communities, watersheds, and industries work together to reduce chloride at the source

Any Questions or Feedback?

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Raise your hand and we will unmute you



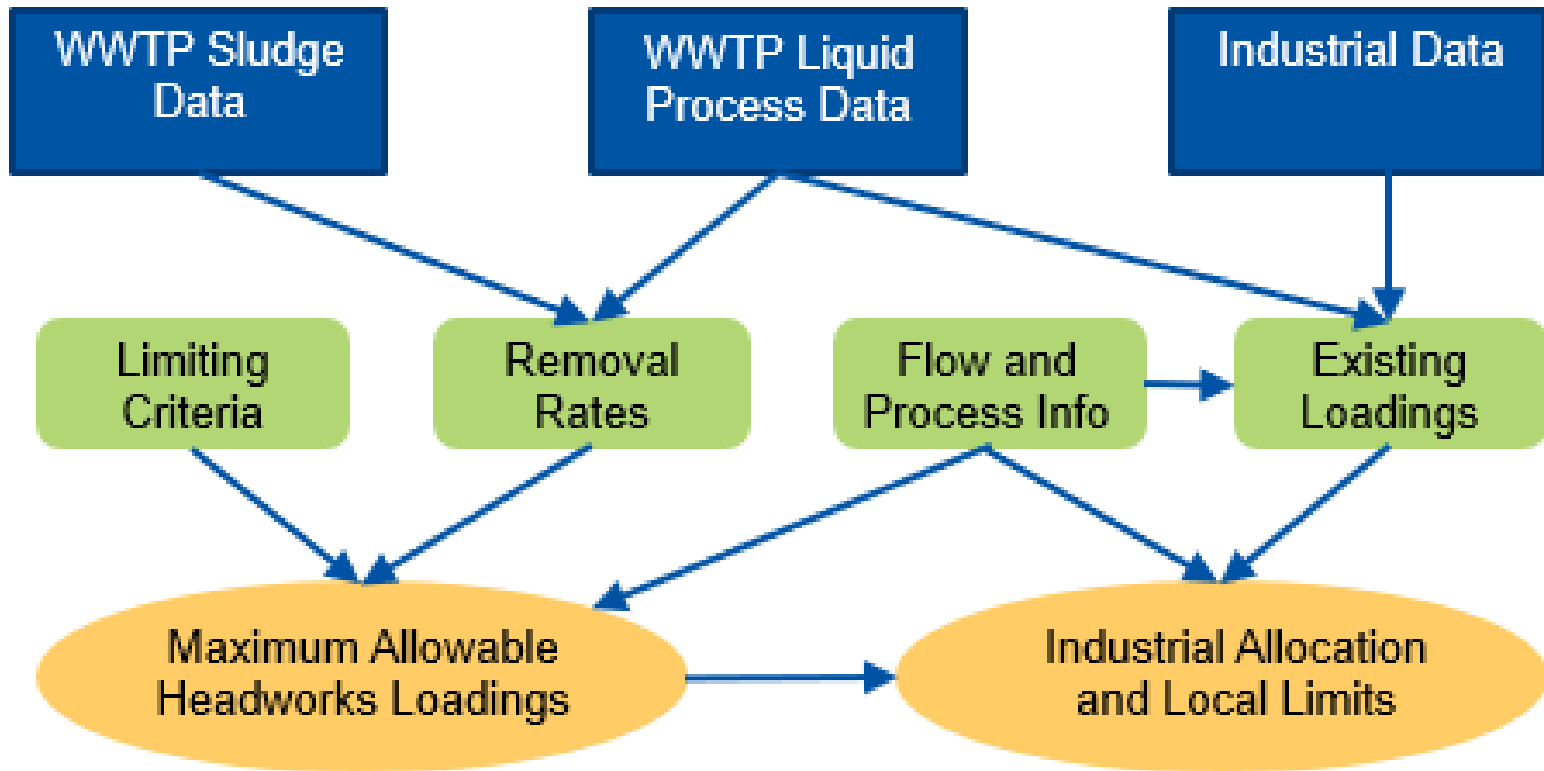
2021 Local Limits Study

Andrew Wiatros, *Principal Engineer*

andrew.wiatros@metc.state.mn.us



Local Limits Evaluation Process



Limiting Criteria



Emissions from incineration



NPDES and SDS Permit Limits



Worker Health and Safety



Reuse and Water Quality Standards

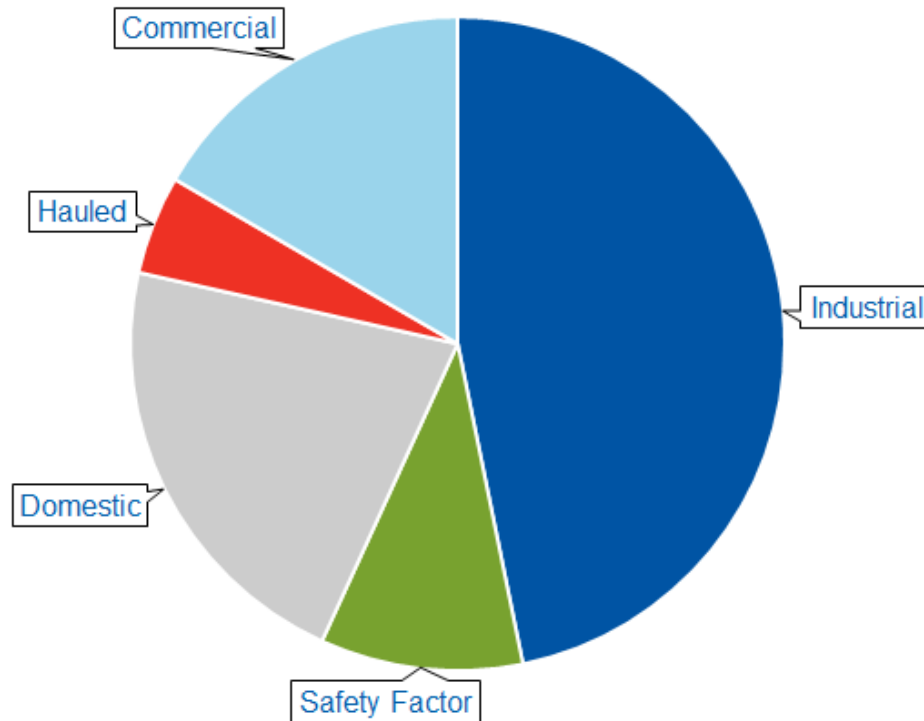


Land Application



Process Inhibitors

Maximum Allowable Headworks Loading Distribution



Online Reporting & Communications

Tina Nelson, Assistant Manager, Data Management & Revenue
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OPEN CHANNEL NEWS
News bulletin from Metropolitan Council Environmental Services

August 2020 Issue # 18

Metropolitan Council Environmental Services (MCES) is one of the divisions of the Metropolitan Council, a regional public agency serving the seven-state metropolitan area. The mission of MCES is to provide wastewater services and targeted planning to ensure sustainable waste quality and water supply for the region.

The Industrial Waste & Pollution Prevention (IWPP) Division of MCES regulates and monitors over 800 industrial customers discharging to the sewer system. Our goal is to ensure compliance with local and federal regulations and reduce the amount of pollution entering the wastewater collection system. The IWPP Division also responds to sewer-related spills and community sewer problems. These functions protect MCES and the community against environmental damage, protect efficiency, operating personnel, and the environment.

In this Issue

- MCES holds wastewater rate increase to 2% for 2021
- Protecting public health and water quality 365 days a year
- Annual requirement reminder: Commencing ring process changes in your industry
- Pre-audit health screenings and marks required at MCES facilities
- GDSS: current support and training
- View Microtunnelling and Liquid Waste Transfer Program webpages
- Aggregated Metals Figures - IWPP segment notes
- New longlead rates after 14-plus years
- Meet IWPP's new environmental scientist - Anna Prokes
- Wastewater Partner Survey - Industrial Waste Reduction
- 2021 Industrial User rates and fees
- Let's stay connected!

MCES holds wastewater rate increase to 2% for 2021

The regional municipal wastewater charge and industrial user rates and fees will rise only 2% overall in 2021.

"When we started our budget planning in February, we were committed to our promise to keep the annual increase to less than 4% through 2021," said Ned Smith, director of Finance and Revenue for MCES. "We were looking at 3.7% for 2021, and then the pandemic hit, and we knew that our customers would be facing budgetary challenges. So, we made some adjustments to see what is likely to be a tough year as 2021."

To hold the increase to 2%, MCES will transfer additional funds from the Sewer Availability Charge (SAC) reserve fund to help pay directly for capital improvements, as well as draw \$2 million from our general reserve fund.

The per-unit SAC, the second largest source of revenue for the regional wastewater treatment system, is proposed to remain flat for the seventh consecutive year.



The Rosemount WTP station is part of a network of wastewater pipes, pumping and lift stations, and wastewater treatment plants operated by MCES. We collect and treat wastewater for 120 communities in the metro area.

Continue with SAC reserve fund to avoid charges

MCES Industrial Online Reporting



Welcome to the MCES Industrial Online Reporting System!

The MCES Industrial Online Reporting System offers the convenience of submitting required paper reports and permit renewal applications electronically to Industrial Waste & Pollution Prevention staff, which is faster, more efficient and less burdensome for both eligible facilities and MCES. This system follows EPA guidelines established in its electronic reporting rule, CROMERR (Cross-Media Electronic Reporting Rule). It supports the following features:

- Establish a user account to manage your required submittals online;
- Submit permit renewal applications;
- Submit Reporting Period Information and Sampling Results SMRs;
- Submit compliance monitoring data required by enforcement actions issued by MCES;
- Submit Annual Statements for the Amalgam Recovery Program;
- Monitor the processing status of your online submittals;
- Receive e-mail notifications regarding the processing of your online submittals;
- Receive e-mail alerts for upcoming reporting obligations; and
- Track historical versions of all online submittals.

If you need assistance, please contact the MCES Industrial Online Reporting Coordinator at 651-602-4789 or via email at MCESIndustrialOnlineReporting@metc.state.mn.us

Public Login

User name

Password

Login

[Create a new account](#)

[Forgot your login user name or password?](#)

Release Date: November 22, 2019
Version: 4.0019.1122.22093

GoOnline uses Adobe Reader for some online document viewing. Please click the following link to install Adobe Reader Plug-in software.

 **Get ADOBE READER**

Industrial Online Reporting System (IORS)



- The MCES IORS launched June 30, 2016
- Online reporting became mandatory as of 2/1/2019
- Use to submit self-monitoring reports and permit renewal applications

We welcome feedback on the IORS. Email us at:
MCESIndustrialOnlineReporting@metc.state.mn.us

IORS Training & Support




- Training by requests over phone or Microsoft Teams
- Training materials available on the [IORS Homepage](#)
- IORS Support Team is available to help you!
 - Monday – Friday from 8 AM to 4 PM
 - MCESIndustrialOnlineReporting@metc.state.mn.us

Communication - IWPP Website

<https://metro council.org/IndustrialWaste/>

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WASTEWATER & WATER	+
Services	-
Wastewater Treatment	+
> Industrial Waste	-
Dental Office	
Discharge Permits	+
Rates & Fees	
Online Reporting	
Spill Reporting	
Water Quality Management	+
Interceptor Conveyance	

INDUSTRIAL WASTE

Industrial waste is any solid, liquid, or gaseous substance disposed of in a public sewer in the metropolitan area resulting from a business activity.

The Industrial Waste & Pollution Prevention (IWPP) Section of the Metropolitan Council Environmental Services Division regulates and monitors industrial discharges to the sewer system to ensure compliance with local and federal regulations. The IWPP Section also responds to sewer-related spills and community sewer problems. These functions protect MCES and community collection/treatment facilities, process efficiency, and operating personnel and the environment.

IWPP Section staff issue Industrial Discharge Permits to industrial users of the Metropolitan Disposal System (public sanitary sewers). Currently, approximately 900 permits are in effect. Permittees are required to conduct self-monitoring and submit reports to the IWPP Section on a routine basis. These reports are one means of determining compliance with the MCES Waste Discharge Rules.

Compliance determinations are also made through monitoring by the IWPP Section. The U.S. Environmental Protection Agency (EPA) requires MCES to inspect and monitor significant industrial users at least once per year. MCES' laboratory performs approximately 22,000 analyses per year for industrial monitoring conducted by the IWPP Section at about 400 industrial facilities.

Rates & fees

QUICK LINKS

- [Open Channel News](#)
- [Customer Workshops](#)
- [Industrial Waste Forms](#)
- [Laboratory/Consultant List \(PDF\)](#)
- [Permitted Hauler List \(Excel\)](#)

CONTACT US

[Contact staff \(PDF\)](#)

IWPP office

Metro 94 Business Center
455 Etna St. N, Suite 27
St. Paul, MN 55106-5849
Phone: 651.602.4703
Fax: 651.602.4730

Hours:
M-F 7:00 a.m. to 4:30 p.m.

Mailing Address

MCES - IWPP



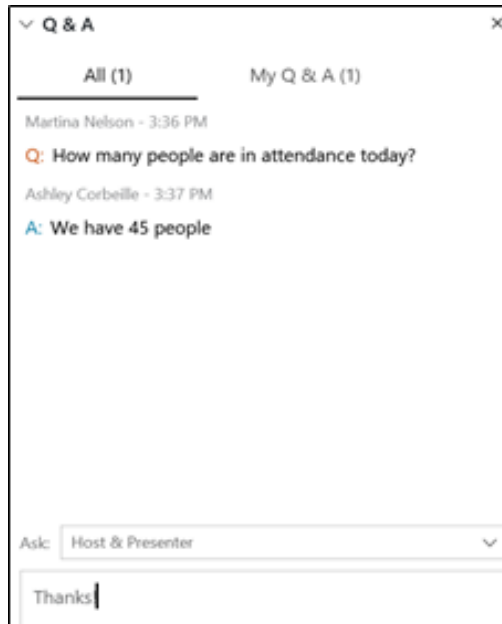
Other Communication



- Open Channel News
- GovDelivery
 - METC@public.govdelivery.com
 - Report Due Dates
 - Workshops and Trainings
 - Disposal Site Notifications
 - NOT SPAM!!
 - We send important information via the GovDelivery email.
Please add to your contacts so you do not miss out!

Any Questions or Feedback?

Please use the Q/A Panel



Raise your hand and we will unmute you

