

# 2021 MCES Customer Workshop for Microbreweries and Breweries

March 3, 2021



# Agenda

- Welcome, Workshop Logistics and Introductions
- Overview of MCES Microbrewery Program
  - History of Microbrewery Program & Permit Criteria
  - Explanation of Fees and Charges
  - Minnesota Legislative Relief for 2020 MCES Fees and Charges
  - Completing your Annual SMR

# Agenda - continued

- Presentations:
  - Reducing Wastewater and Improving Recycling Efforts at August Schell Brewery
  - Experimental System for Distributed Resources Recovery from Brewery Wastewater
- Sharing Experiences and Question/Answer Period

# Meeting Logistics

- This workshop will be recorded and available soon on <https://MetCouncil.org/IndustrialWaste/CustomerWorkshop>
- Ask your questions in the Chat box
- If you prefer, you can text your question anonymously to 651-279-5705
- After the workshop, your questions can be sent to [Karalynn.Marr@metc.state.mn.us](mailto:Karalynn.Marr@metc.state.mn.us) with the subject line: Brewery Workshop Question



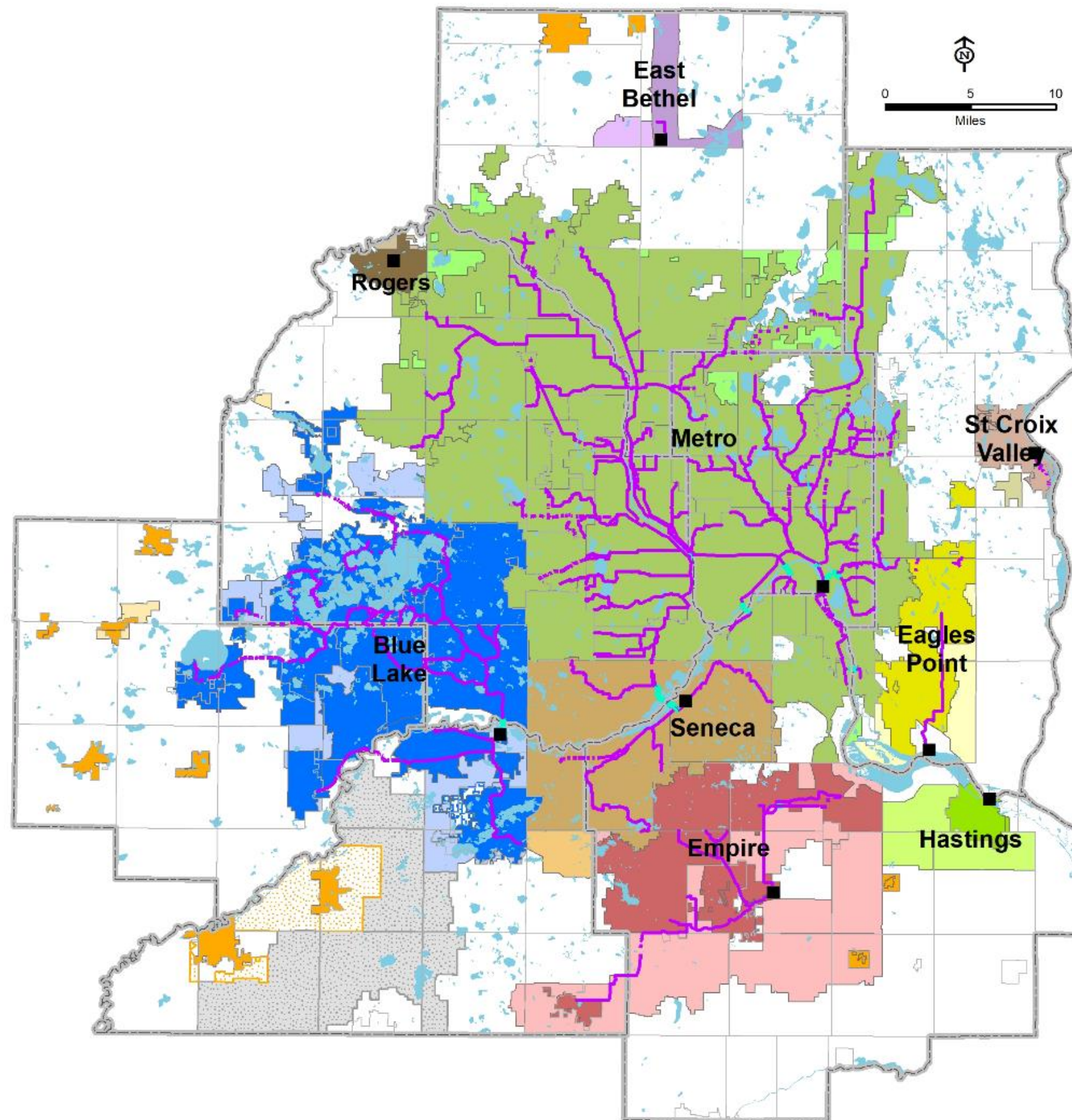
# Introductions

- Bob Nordquist, IW Manager
- Ned Smith, MCES Finance Director
- Laura Engen, Principal Engineer
- Nanette Geroux, Senior Engineer
- Nanette Ewald, Senior Program Coordinator
- Matthew Michaelis, Engineer





# MCES Wastewater System



Protects public  
health and  
safety



Protects the  
environment



Fosters the  
economic growth  
of the region

## WHO WE SERVE

7-county Twin Cities Metro Area

110 communities

2,700,000+ people

## OUR FACILITIES

9 wastewater treatment plants

640 miles of interceptors

250 million gallons per day (avg)

## OUR ORGANIZATION

600+ employees

\$7 billion in valued assets

\$150 million / yr capital program

MCES Serves ~50% of the State's Population



# 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

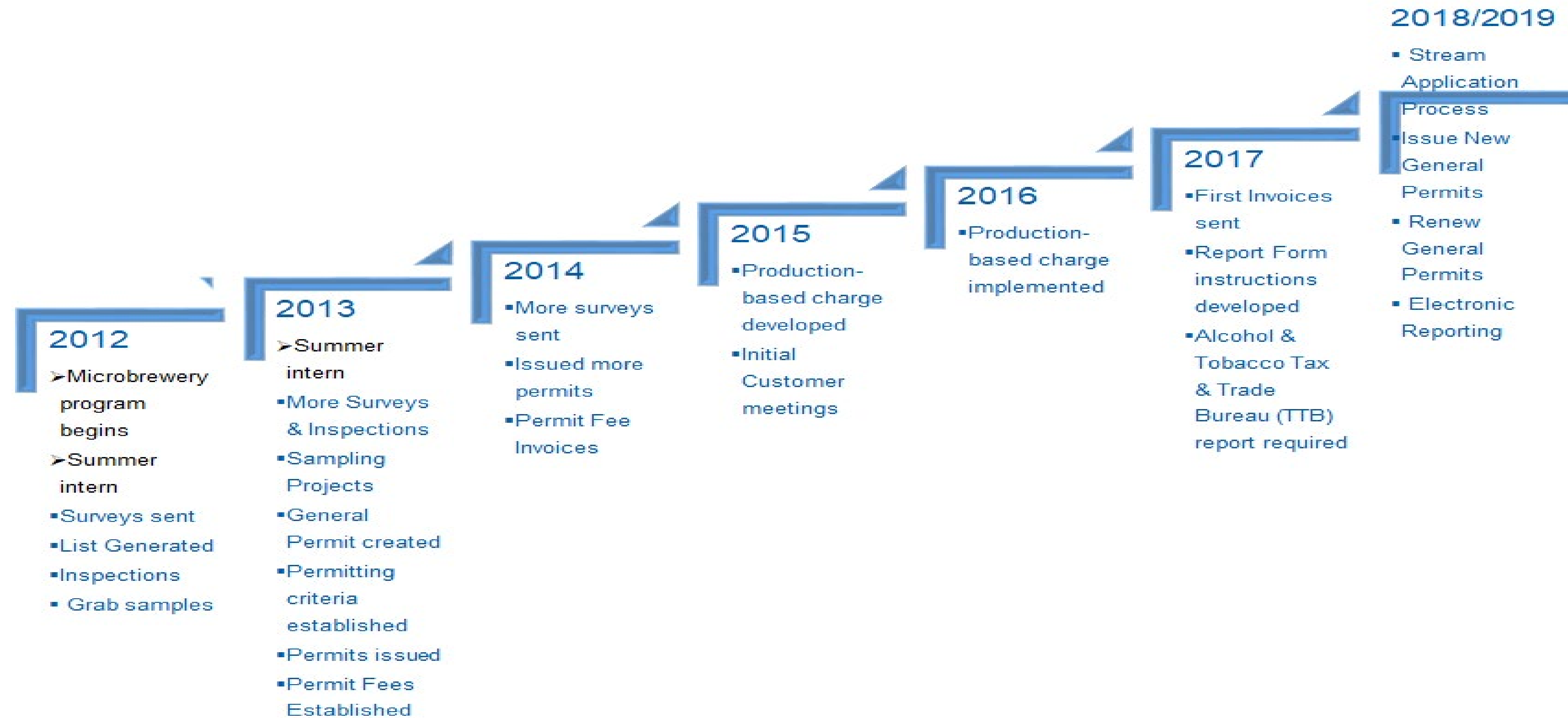


# Overview of MCES Microbrewery Program





# Microbrewery Program Timeline of Events



# Why Permit Microbreweries?

- **High Strength Wastewater**
  - COD >500 mg/L
    - Typical range 5,000 – 20,000 mg/L
- **Potential pH Issues**
  - Local pH limits 5.0 - 11.0 S.U.
- **Grain & Yeast Disposal**
- **Potential for rapid increase in Production**
- **Growing number of Microbreweries**



# 2021 Permitted Breweries

MN Dept of Revenue Report:

96 Breweries in Twin Cities Area

- 6 Breweries on Standard Permit
- 52 Microbreweries on General Permit
- 4 Microbrewery Permits in process
- 12 New Microbrewery Applications
- 28 unpermitted Microbreweries discharge <500 bbls/year

# Permit Thresholds

- No Permit Needed: <500 BBLs/year
- **General Permit:** >500 BBLs/year and <1,000,000 gallons/year
- **Standard Permit :** >1,000,000 gallons/year
- MN Dept of Revenue Annual Report used to search for unpermitted breweries and check production



# Why Have Microbrewery General Permits?

- Newly established small businesses
  - Reduce administrative burden
  - Reduce permit fees
- Difficult to sample
  - Few accessible sampling locations
  - Irregular/low volume discharges
- Similar discharge characteristics
- Common Best Management Practices

# General Discharge Permits

- 5-year permit duration
- No sampling required
- Best Management Practices (BMPs)
- Annual reporting required
- Annual Permit Fee (\$475)
- Production Based Strength Charge  
2021 Rate = \$0.815/bbl



# Standard Discharge Permits

- 3-year duration
- Annual permit fees \$1,075 - \$10,550
- Sampling & Reporting requirements
  - (1 – 4 times per year)
- Significant Industrial Users (SIUs)
  - Over 25,000 gallons/day of industrial discharge

# Changes from General to Standard Permit

- Permit fee increases
- Approved sampling point
- Routine sampling required
- Permit cycle reduced to 3 years
- MCES facility inspections & MCES monitoring
- Wastewater Strength Charges
- Meters required
- pH adjustment systems



# Financial Overview – Total MCES

- MCES is a 100% fee-funded utility
  - All operating and debt expenses are covered by user fees
  - No public monies are used to operate the Metropolitan Disposal System (MDS)
  - No wastewater fees are used for any other purpose (e.g., transit, housing, parks, etc.)
  - Not a tax: it is a usage fee
- 2021 Financial Overview:
  - \$255M in municipal wastewater fees
  - \$15.5M in Industrial fees: strength, permits, etc, (5%)
  - \$157M debt service
  - \$165M operating expense

# Four Charges for Industrial Customers

- Permit Fee – annual, flat fee
- Strength Charge – quarterly charge for excess use of treatment system
  - Chemical Oxygen Demand (COD)
  - Total Suspended Solids (TSS)
- Sewer Availability Charge (SAC)
  - “Connection fee” pays for capacity in the system
  - Charged at start-up, and every 5 years (if flow merits)
  - Can “rent” SAC annually: Industrial Capacity Charge (ICC)
- Volume Charge – monthly/quarterly, charge for treatment of wastewater, based on usage volume



# Minnesota Legislature Relief for 2020 MCES Fees and Charges

- For Breweries reporting 20,000 BBLs or less
  - 2020 Permit Fees
    - Invoiced in April of 2020
  - 2020 Strength Charges
    - Invoiced in 2021 based on 2020 self-monitoring reports
    - Up to \$2,000 Relief

# Completing your Annual Self-Monitoring Report

- Electronic reporting
- Water meters
- TTB Submittals
- Acceptable deductions for water loss to evaporation and spent grain
- ICC impacts from omitted deductions



# Electronic Reporting

- MCES On-Line Reporting System (IORS)
- Mandatory since 2019
- Account Enrollment
- Account Use
- Historical submittals
- Reporting Instructions
- Required Attachments

# Water Meters

- Incoming
  - City or Well
  - Process / Brewhouse
- Deduct
  - Lawn
- Outgoing

# Alcohol and Tobacco Tax and Trade Bureau (TTB) Reports

- Monthly
  - Quarterly
  - Annual
- 
- MN Dept of Revenue Report
- 
- Production Records



# Acceptable Deductions

- Water Used in Product:
  - TTB Reports
  - Production Records
- Deduct Meters:
  - Lawn
- Calculated Losses:
  - Evaporative
  - Water in Spent Grain
  - Other (patio cleaning)

# Reporting and Industrial Capacity Charge (ICC) Impacts

- Annual report
- How it's calculated
- Why it matters...\$\$\$
  - Cost or Savings

# Resources

- MCES Industrial Waste Webpage  
<https://metro council.org/Wastewater-Water/Services/Industrial-Waste.aspx>
- Your MCES Engineer
- Brewer's Guild  
<https://Mncraftbrew.org/member-resources/>
- MnTAP  
<https://MnTap.umn.edu/industries/>