2021 MCES Customer Workshop for Microbreweries and Breweries
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 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

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

2012
- Microbrewery program begins
- Summer intern
  - Surveys sent
  - List generated
  - Inspections
  - Grab samples

2013
- Summer intern
  - More Surveys & Inspections
  - Sampling Projects
  - General Permit created
  - Permitting criteria established
  - Permits issued
  - Permit fees established

2014
- More surveys sent
- Issued more permits
- Permit fee invoices

2015
- Production-based charge implemented
- Initial customer meetings

2016
- Production-based charge developed
- Initial customer meetings

2017
- First invoices sent
- Report Form instructions developed
- Alcohol & Tobacco Tax & Trade Bureau (TTB) report required

2018/2019
- Stream Application Process
- Issue New General Permits
- Renew General Permits
- Electronic Reporting
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
- Your MCES Engineer
- Brewer's Guild
  https://MNcraftbrew.org/member-resources/
- MnTAP
  https://MNTap.umn.edu/industries/