Welcome!

Liquid Waste Hauler Customer Workshop

April 6, 2021 10:00 AM – 11:30 AM
Agenda

10:00 am – 11:15 am: Workshop

- Welcome & Meeting Logistics
- MCES Pretreatment Program Overview
- Empire Wastewater Treatment Plant Overview
- Finance & Budget
- Accepted Liquid Waste Types
- Permit Types and Low Impact Permit
- Disposal Sites and Updates
- Online Reporting & Excel Load Tracking Program
- MCES Webpage & Communications
- Customer Portal Demonstration/Feedback

11:15 am – 11:30 am: Feedback, Questions & Answers
Meeting Logistics

• We are recording this meeting and will post on our website for future viewing

• Please use the Q&A window to ask questions and offer feedback during the workshop
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
  - 90 Liquid Waste Haulers
  - 518 Standard Discharge Permittees
  - 94 Special Discharge Permittees
  - 213 General Discharge Permittees
  - 874 Dental Clinics in the Amalgam Recovery Program
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
Empire Wastewater Treatment Plant - Overview

Angella Craft

Business Unit Manager – Empire WWTP
Empire Plant – Service Area

Empire treats 11 million gallons/day

Communities Served

Empire Township, Farmington, Rosemount, Elko / New Market, and Portions of Apple Valley and Lakeville
Empire Plant - General Info

• Built in 1979
• Current design capacity = 24 MGD
• Current typical flowrate = 11 MGD
• Staffed 24/7
• Exceptional compliance with many permits (NPDES, Stormwater, Title D Air, MPCA Biosolids, Hazardous Waste, etc)
• 5 MW Solar garden
  – Produces adequate power for 60 % of plant load
  – Enough power for 870 homes (11% of Farmington homes)
Preliminary Treatment
Secondary Treatment

ANOXIC/ANAEROBIC BASINS

FLOW SPLITTER BOX
ANAEROBIC BASINS

RETURN ACTIVATED SLUDGE (RAS)

ISOLATION VALVES

SUBMERSIBLE MIXERS

FROM PRIMARY CLARIFIER & GRAVITY THICKENER OVERFLOW

FLOW SPLITTER BOX TO AERATION BASIN

TO AERATION BASINS

FROM EQUALIZATION BASIN
Secondary Treatment

AERATION BASINS

AUTOMATED AIR FLOW CONTROL VALVE

DO PROBE

MANUAL AIR FLOW CONTROL VALVES

CHANNEL TO FLOW SPLITTER BOX TO FINAL CLARIFIER

FERRIC CHLORIDE FEED

FROM ANOXIC/ANAEROBIC BASINS

FINE BUBBLE CERAMIC DIFFUSERS

TO FINAL CLARIFIER 1.2 TO FINAL CLARIFIER 3.4 TO SPLITTER BOX FOR FINAL CLARIFIERS 5-8
Secondary Treatment
Disinfection
Anaerobic Digestion
Sludge Dewatering
Land Application
Finance

Ned Smith

Director, Pretreatment & Finance
2021 Sources – $321M

- Municipal Wastewater Charges 75%
- Industrial Waste Charges 5%
- Sewer Availability Charge (SAC) 18%
- Other 1%

- 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
Load Charges include 3 components

1. Strength Component
   - Based on methodology similar to the strength charge equation except hauled waste is assumed to have a set strength
     - Collar County and Standard load charge: 10,000 mg/L for both TSS and COD
     - Portable toilet waste: 20,000 mg/L for COD, 10,000 mg/L for TSS

2. Volume Component
   - Based on MCES Municipal Wastewater Charge

3. Facilities Component
   - The operating, maintenance and debt service cost for facilities built for receiving hauled liquid waste
## 2021 Load Charges

Load Charges (per 1,000 gallons) paid by liquid waste haulers for septage, leachate and other hauled wastes discharged to approved MCES disposal sites.

<table>
<thead>
<tr>
<th>Charge Type</th>
<th>2021 Rate</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Load Charge</td>
<td>$60.24</td>
<td>0</td>
</tr>
<tr>
<td>Holding Tank Rate</td>
<td>$11.29</td>
<td>0</td>
</tr>
<tr>
<td>Portable Toilet Waste Rate</td>
<td>$77.46</td>
<td>0</td>
</tr>
<tr>
<td>Collar County Load Charge</td>
<td>$75.24</td>
<td>0</td>
</tr>
<tr>
<td>Industrial Load Charge**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Total Suspended Solids (TSS)</td>
<td>$0.413</td>
<td>0</td>
</tr>
<tr>
<td>2. Chemical Oxygen Demand (COD)</td>
<td>$0.2065</td>
<td>0</td>
</tr>
</tbody>
</table>

** Plus $15 per 1,000 gallons for out-of-region haulers
Accepted Liquid Waste Types

Tim Rothstein
Principal Engineer
Tim.Rothstein@metc.state.mn.us
Domestic Waste

- Septage – Septic tank with drain field
- Holding Tank – Sealed tank
Commercial Waste

- Portable Toilet
- Restaurant Grease Trap
- Flammable Waste Trap/Sand Trap
- Commercial Holding Tank
Industrial Waste

All loads that do not meet the definition of a domestic or commercial waste

Require sampling and analysis, written approval

- Industrial Waste
- Landfill Leachate
- Groundwater/Surface Water
Out-of-Service Area (OSA) Waste

Domestic & Commercial Waste

- Restaurant Grease
- Collar Counties

<table>
<thead>
<tr>
<th>Chisago</th>
<th>Polk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodhue</td>
<td>Rice</td>
</tr>
<tr>
<td>Isanti</td>
<td>St Croix</td>
</tr>
<tr>
<td>LeSueur</td>
<td>Sherburne</td>
</tr>
<tr>
<td>McLeod</td>
<td>Sibley</td>
</tr>
<tr>
<td>Nicollet</td>
<td>Wright</td>
</tr>
<tr>
<td>Pierce</td>
<td></td>
</tr>
</tbody>
</table>
OSA Industrial Waste

- Upfront, non-refundable application fee of $300
- Sample analysis required
- OSA Attachment
  - Must list two non-MCES disposal options
Liquid Waste Hauler Permits

Laura Engen
Principal Engineer
Laura.Engen@metc.state.mn.us
Liquid Waste Hauler (LWH) Permits

The Purpose of the Liquid Waste Hauler Program:

- To Regulate the Discharge of Hauled Liquid Wastes into the Metropolitan Disposal System
- To Designate Approved Disposal Sites for Discharge of Hauled Liquid Wastes (Access Controlled Disposal Sites)
- To Collect Equitable Loads Charges for the Waste Discharged

In summary, the LWH Permit allows LWH Hauler to use MCES Approved Disposal Sites for the discharge of approved wastes and MCES to recover costs associated with treating these wastes.

90 Active LWH Permits (2021)
LWH Permits

- 3 Year Permit Cycle
- Semi-Annual &/or Quarterly Reporting Requirements
- Waste Definitions
- Disposal Site Use Rules
- General & Specific Permit Conditions
- List of Approved Trucks

Permit Documents Sent Electronically & All Reports Completed through the Electronic Reporting System
Low Impact LWH Permit

A Low Impact LWH Permit is Currently Under Development:

- LWH Permittees discharging less than 50,000 gallons/year & for future applicants needing a Contingency Permit
- 3 Year Permit Cycle (no change)
- Annual Reporting Requirement
- Reduced Annual Permit Fee
- Approximately 20 LWH Permittees Fit into Criteria
- Projected Implementation: Mid-2021
- Notification will be sent out Permittees
Liquid Waste Receiving (LWR) Sites

Bob Golden, Assistant Manager, Field Monitoring & Response
Laura Engen, Principal Engineer
Isaac Raser, ABUM Interceptor Operations

We Ain’t Haulin’ Milk.
LWR Site Locations

- Fridley LWR
- Blue Lake LWR
- Metro LWR
- Empire LWR
Metro LWR
Located at the Metropolitan WWTP in St. Paul, MN

- **Controlled Access:** 70’ Truck Scale, Card Readers, & Traffic Control Signs
- **6 Discharge Holes**
  - 2 discharge holes dedicated to MCES Trucks only
  - 2 discharge holes with yellow piping for landfill leachate
- **2 Water Cabinets**
- **Driver’s Lounge & Restroom**
- **2020 Discharge Volume** = 45,000,000 Gallons
  - **Loads** = 15,000 Loads (60-92 Loads/day)
- **2021 Repair Projects** - walkway, pipe leak
Spring River Level Projections

**MISSISSIPPI RIVER AT ST. PAUL**

Universal Time (UTC)

Latest observed value: 4.84 ft at 6:00 AM CDT 6-Apr-2021. Flood Stage is 14 ft

Graph Created (6:45AM Apr 6, 2021)  
- Observed  
- Forecast (issued 9:47AM Apr 5)

STPMS(plotting HGIR.G) "Gage 0" Datum: 683.77"

Observations courtesy of USGS (05331000)
Typical Flooding Preparations

- Metro not expected to close based on stream gage levels
  - When St Paul Gage is at 9 ft, Metro begins taking action
  - When hits about 17 ft, Childs Road is closed
  - LWH’s rerouted to 3rd & Commercial

- Communication - GovDelivery, Postings at LWR
Flooding - Temporary Road for Employees
Past Flooding on Childs Road (Metro Plant)
Empire LWR

Located at the Empire WWTP in Empire Township, MN

- **Controlled Access:** Security Guard
- **2 Discharge Holes**
- **Types of Waste Accepted:** Domestic Waste, Holding Tank Waste and Portable Toilet Waste
- **Water Cabinet**
- **No Restroom Facility Available**
- **Haulers required to complete Receipts at Security**
- **2020 Discharge Volume = 6,000,000 Gallons**
  - **Loads = 2,300 loads**
Blue Lake LWR

Located at the Blue Lake WWTP in Shakopee, MN

- **Controlled Access**: Card Readers Control Entrance & Exit
- **50’ Truck Scale & Traffic Control Signs** – Net Weight Converted into Volume
- **2 Discharge Holes** – Discharge goes directly into the influent pipe to the Plant
- **Water Cabinet** – For Clean-up Purposes
- **Pavement Deicing System** – Push Button Activation
- **No Restroom Facility Available**
- **2020 Discharge Volume** = 23,300,000 Gallons
  **Loads** = 12,500 Loads
Fridley LWR
Located in Business Park in Fridley, MN

- Tributary to the Metro WWTP
- Wastewater Pretreated Prior to Discharge to MCES’ Interceptor
- Disposal Site Access: Security Guard
- 2 Indoor Discharge Sites: Couple Up Connections
- Card Reader Controlled Discharge
- Volume Measurement: Magnetic Flow Meters
- Water available in bay for cleanup
- Restroom Available
- 2020 Discharge Volume = 8,760,000 Gallons
  Loads = 4,200 loads
Fridley Liquid Waste Receiving (Lakeside Unit)
Fridley LWR (Continued)

- Facility maintenance
- Changes we’ve been making at the facility
- Shared Use Agreement with City of Fridley
- Possible future upgrades
Any Feedback or Questions?
COVID-19 Procedures

- MCES takes COVID very seriously
  - Prevent the spread of COVID-19 in the workplace and to our customers
  - Reduce the risk of disruption to our essential services
  - Support employee well-being
- Masks are required onsite
- Please practice social distancing
- Truck sampling will be starting up again
- Please notify us if your employee tests positive and has had contact with any of our staff
Online Reporting & Communications

Matthew Michealis
Engineer
Matthew.michealis@metc.state.mn.us
Industrial Online Reporting System (IORS)

- The MCES IORS launched June 30, 2016
- Online reporting became mandatory as of 2/1/2019
- Use to submit discharge reports and permit renewal applications
- Must attach log sheets or summary and detail files from the Excel Load Tracking Program

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

- Easy to use and provides value to LWHs
- Uniform method to record and report LWH load volumes
- Organizes information to match the flow of data entry for online reporting
- 20 haulers installed this program

Contact Dave Rude at dave.rude@metc.state.mn.us for installation
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
LIQUID WASTE HAULER PROGRAM
Regulating Disposal of Hauled Domestic, Commercial, and Industrial Wastes

MCES is charged with the collection and treatment of wastewater in the Twin Cities metropolitan area in order to preserve and protect the environment. MCES owns and operates nine wastewater treatment plants and over 600 miles of sewer pipe that convey wastewater from communities to our treatment plants. The wastewater treated at these plants must meet strict environmental standards to ensure that receiving waters are kept clean.

Purpose of the Liquid Waste Hauler (LWH) Program
- To regulate sewage and other hauled liquid wastes discharged to the Metropolitan Disposal System
- To designate and approve adequate facilities for disposal
- To collect equitable load charges for the waste discharged

Permit required to discharge approved liquid wastes at MCES facilities
Liquid Waste Haulers that want to use MCES Liquid Waste Receiving facilities to discharge approved domestic, commercial, and industrial wastes must obtain a permit through the Industrial Waste & Pollution Prevention Section.

Haulers must complete and submit an MCES Liquid Waste Hauler Permit Application along with the first year’s permit fee (see Rates & Fees). Domestic sewage haulers must first obtain a Subsurface Treatment System (STS) license from the Minnesota Pollution Control Agency.

What permitted LWHs must do to comply with the program
1. Fulfill all permit requirements and conditions
2. Comply with all disposal facility rules and requirements
3. Enroll in the MCES Industrial Online Reporting System (IORS)
4. Submit quarterly or semi-annual reports via IORS: How to submit your discharge report (PDF), or video guide (YouTube)
5. Pay annual permit fees and load charges as assessed; Rates & Fees

More resources
- Liquid Waste Hauler permit process (PDF)
- Accepted waste types and description (PDF)
- MCES Liquid Waste Receiving facilities (PDF)
- Service area and facility map (PDF)
Other Communication

- Transaction Emails (optional)
- 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!
Customer Portal Demo

Ricky Arora, Manager, Performance Excellence & Analytics
Dave Rude, Business Analyst 2
Customer Portal

We want to build a secure page specifically for you.
What do you want to see?
Any Feedback or Questions?
Thank You!