Welcome!

**Fridley Lift Station**  
**Virtual Public Hearing**

December 17, 2020

You are muted and your video is disabled upon entry. Please utilize the “chat” function (bottom menu bar) if you want to submit comments or questions at this time.

The public hearing will start at 4:00 p.m. Music is playing. If you do not hear music, please check your audio settings.
Fridley Lift Station (L32A)

Tim Wedin, Assistant Manager, Interceptor Engineering
Wastewater Planning & Capital Project Delivery
Metropolitan Council Environmental Services
Introductions

• **Peter Lindstrom**  
  Metropolitan Council Member District 10  
  Chair, Environment Committee

• **Tim O’Donnell**  
  Metropolitan Council Environmental Services (MCES)  
  Senior Information Coordinator and Project Citizen Liaison

• **Tim Wedin**  
  MCES Assistant Manager  
  Interceptor Engineering

• **Jeny Baroda**  
  MCES Principal Engineer  
  Interceptor Engineering

• **Ashley Osteraas & Angela Klein**  
  Zan Associates (MCES Project Communications)
Public Hearing Purpose

• Summarize the proposed Fridley Area Lift Station project and explain alternative approaches that we evaluated

• Answer your questions

• Receive your comments for the public record
Comment Period

• Draft Facility Plan report available for review at:
  o Fridley City Hall, 7071 University Avenue NE, Fridley
  o Brooklyn Park City Hall, 5200 85th Avenue N, Brooklyn Park
  o Anoka County Library – Mississippi Library, 410 Mississippi Street NE, Fridley
  o Hennepin County Library – Brooklyn Park Library, 8500 W Broadway Avenue, Brooklyn Park

• Metropolitan Council Website:
  metrocouncil.org/sewerconstruction/fridley
Comment Period (Cont.)

- Submit comments no later than **5 p.m. on Monday, December 28, 2020**
- Submit comments to **Tim O'Donnell at Metropolitan Council Environmental Services**, 390 Robert Street North, Saint Paul, MN 55101-1805
  - Email comments to: public.info@metc.state.mn.us
  - Record comments on: Metropolitan Council Public Comment Line at 651-602-1500
  - Send TTY comments to 651-291-0904
Public Notices & Schedule

Nov 15, 2020  Star Tribune notice
Dec 4, 2020  Postcard notice mailed
Dec 2020  Email invitations & social media posts
Dec 17, 2020  Public hearing
Jan/Feb 2021  Metropolitan Council adoption of Facility Plan
Mar 2021  Submit Plan to Minnesota Pollution Control Agency (MPCA) with application for Clean Water Revolving Fund Project Priority List
Agenda

Welcome and Introductions

Presentation

- About MCES
- Facility Plan and Definitions
- Project Background and Drivers for the Project
- Different Alternatives Evaluated
- Proposed Cost Estimates, Limitations and Recommendations for each alternative

Next Steps

Public Comments and Questions
Metropolitan Council Environmental Services

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
$7 billion in valued assets

OUR ORGANIZATION
600+ employees
250 million gallons per day (avg)
$150 million / year capital program
What is a Facility Plan?

MCES Facility Plan

This document is a prerequisite to qualify for financing through the Minnesota Public Facilities Authority. The project is funded by using utility fees. The MCES Facility Plan:

- Summarizes the current state of the existing MCES wastewater sewer system
- Identifies the need for rehabilitating existing facilities or constructing new facilities
- Determines the potential environmental impacts of new facilities
- Evaluates alternatives and recommends a course of action

Facility Plan Schedule

- Fall 2020: Facility Plan Development
- Nov 10, 2020: Open House
- Dec 17, 2020: Facility Hearing
- Early 2021: Final Facility Plan
Definitions

Wastewater Sewer System
A system of underground pipes that carries wastewater (or sewage) away from buildings. Cities operate their own local wastewater sewer systems within a community. MCES operates the regional wastewater sewer system that carries wastewater from city systems to our treatment plants, similar to how a freeway system carries regional traffic.

MCES Interceptor
The large underground pipes that make up the regional sewer system. These pipes can be either gravity pipes or forcemains.

Gravity Pipe
A sloped pipe that carries wastewater downhill (by gravity) without mechanical assistance.

Forcemain
A pipe that carries wastewater being pumped (or forced) uphill, as opposed to wastewater flowing by gravity.

Flow Meter
A device MCES uses to measure the quantity of wastewater a customer (city) sends to the regional sewer system, similar to how a city water meter measures water usage in a home.

Lift Station
A lift station or pumping station pumps wastewater from low points in the sanitary sewer system to higher points allowing the flow to be carried by regional gravity pipes to the wastewater treatment plant.

Siphon
Pipes that convey flow beneath low lying areas such as rivers, utilities, or other obstructions.
Project Location

- **Existing Lift Station L32**
  - Located in Brooklyn Park at 7700 Mississippi Lane North

- **Proposed Lift Station L32A**
  - 6900 E River Road in Fridley, on MCES property which previously was the site of Camp Lockeslea
  - Located across the Mississippi River from the existing lift station
Existing Conditions

- L32 (Brooklyn Park) is 50 years old
- Components such as the structure, piping, and controls show signs of deterioration, requiring replacement
- Failures at the lift station have resulted in back-ups of wastewater into neighboring homes
- There are odor complaints due to inability to address air flow at the current facility
- Lift station is almost at full capacity with the existing flow conditions
## Existing and Future Flow

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Day Flow</th>
<th>Peak Day Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MGD</td>
<td>MGD</td>
</tr>
<tr>
<td>2016*</td>
<td>16.55</td>
<td>38.4</td>
</tr>
<tr>
<td>2019*</td>
<td>17.28</td>
<td>26.93</td>
</tr>
<tr>
<td>2040</td>
<td>25</td>
<td>48</td>
</tr>
<tr>
<td>Ultimate</td>
<td>34</td>
<td>67</td>
</tr>
</tbody>
</table>

Note: *from metered data

Current L32 Peak Capacity – 43 MGD
Drivers for the Project

The existing lift station is 50 years old and has reached the end of its useful life.
Condition assessments have documented structural, mechanical, and electrical deficiencies which has led to system failures – Backups and odor issues.

The lift station is almost to its full pumping capacity.

L32 does not have sufficient capacity to serve the current and future needs of the area.
Overall System Analyses

Upstream System Capacity Analysis
• Enough capacity in the pipe for future flow

Downstream System Capacity Analysis
• No capacity concerns
Spill Prevention Analysis

- MCES Design Guidelines recommends 60 min response time under peak flows
  - Additional 30 min response time recommended for ultimate flow

- Spill prevention items analyzed
  - In-line storage
    - Two new small submersible pump station
  - Independent pumping system for additional response time
  - Additional resiliency addition – split wet well system, redundant pumps, automatic bar screen and grinders, etc.

<table>
<thead>
<tr>
<th>Peak Flows</th>
<th>Available Storage with Existing System</th>
<th>Response Time with Existing System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Flows (38 MGD)</td>
<td>1.4 MG</td>
<td>53 minutes</td>
</tr>
<tr>
<td>2040 Flows (48 MGD)</td>
<td>~1.3 MG</td>
<td>41 minutes</td>
</tr>
<tr>
<td>Ultimate Flows (67 MGD)</td>
<td>1.1 MG</td>
<td>24 minutes</td>
</tr>
</tbody>
</table>
### Alternatives Evaluated

<table>
<thead>
<tr>
<th>No Change</th>
<th>Replace</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Do nothing</td>
<td>• Replace the lift station with a new larger lift station on the existing site in Brooklyn Park</td>
<td>• Construct a new larger lift station on the east side of the river in Fridley</td>
</tr>
</tbody>
</table>
Alternative 1 - Do Nothing

• Keep existing lift station the same size without any upgrades

• Limitations
  o Lift station will continue to deteriorate
  o Require excessive maintenance in the future
  o Eventually lead to failure, back-up in residential basements and overflow/spill into the environment and Mississippi River

• Not a recommended option
  o Does not address environmental health and safety hazards, such as spills
  o Does not meet MCES customer level of service goals
  o Not recommended per MCES policy of providing continued and best customer services to the communities they serve
Alternative 2 – New Lift Station on the West Side

This alternative includes:

- Construct a new larger pump station to meet future flow and resiliency needs
- Independent pump system inside the new lift station
- Two new submersible lift stations
- Other resiliency additions
- Upgrades to the existing odor control system
- Maintain operation of existing lift station while constructing a new facility.
  - The existing lift station will be demolished once the new lift station is in operation
Alternative 2 – West Side Property Layout Constraints

This layout shows the setback constraints from the street and neighboring houses with building new lift station on the site.
### Alternative 2 – Estimated Projected Construction Cost

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New pump station</td>
<td>$19,200,000</td>
</tr>
<tr>
<td>2</td>
<td>Addition of 2 new smaller submersible pump station</td>
<td>$1,560,000</td>
</tr>
<tr>
<td>3</td>
<td>Dedicated pumps at lift station</td>
<td>$1,800,000</td>
</tr>
<tr>
<td>4</td>
<td>Odor control upgrades</td>
<td>$240,000</td>
</tr>
<tr>
<td>5</td>
<td>Property Acquisition + Temporary easements</td>
<td>$960,000</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>$23,760,000</strong></td>
</tr>
<tr>
<td></td>
<td><strong>22% Engineering and Administration</strong></td>
<td><strong>$5,227,200</strong></td>
</tr>
<tr>
<td></td>
<td><strong>30% Construction Contingency</strong></td>
<td><strong>$7,128,000</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Project Cost (in 2020-dollar amount)</strong></td>
<td><strong>$36,115,200</strong></td>
</tr>
</tbody>
</table>
Alternative 2 – Limitations and Recommendations

• Limitations
  o Need to keep existing lift station in operation during construction - limiting the available space on site
  o Additional property acquisition is required for new lift station + temporary easements for staging
  o Construction difficulties due to depth – sheeting may be required to protect neighboring properties and street
  o Adequate screening may not be possible – due to space limitations

• Not a recommended option
  o Space constraints due to set back requirements from the river, bluffs, streets and neighboring properties
  o Challenging to build a new lift station while keeping the exiting lift station in operation
  o Require purchasing additional property near the site
Alternative 3 – New Lift Station on the East Side

This alternative includes:

• East Side Facilities
  o New pump station to meet future flow and resiliency needs
  o Independent pump system + other resiliency additions
  o Odor control system
  o Flow meter station

• West Side Facilities
  o Control building
  o Siphon structure/headhouse
  o Odor control structure
  o Two new small submersible lift stations

• River crossing
  o Rehabilitate the two existing forcemains
East Side Facilities – Conceptual Plan

150' set back from river

150' set back from right of way
West Side Facilities – Conceptual Plan

- Street & Utility Easement
- MCES Property Limits

- Proposed Temporary Diversion Structure w/Access Hatch
- Control Building
- Generator
- Proposed Siphon Structure w/Access Hatch
- Brookdale Dr Easement

Mississippi Ln
River Crossing – Upgrade Two Existing Forcemains
## Alternative 3 – Estimated Projected Construction Cost

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New pump station (8-pump circular foundation)</td>
<td>$20,400,000</td>
</tr>
<tr>
<td>2</td>
<td>Addition of 2 new smaller submersible pump station</td>
<td>$1,560,000</td>
</tr>
<tr>
<td>3</td>
<td>Dedicated pumps at lift station</td>
<td>$1,800,000</td>
</tr>
<tr>
<td>4</td>
<td>New odor control system on East Side</td>
<td>$360,000</td>
</tr>
<tr>
<td>5</td>
<td>Flow metering</td>
<td>$36,000</td>
</tr>
<tr>
<td>6</td>
<td>Siphon system</td>
<td>$6,900,000</td>
</tr>
<tr>
<td>7</td>
<td>Odor control system modification on West side</td>
<td>$120,000</td>
</tr>
<tr>
<td>8</td>
<td>River Crossing forcemain pipe rehab</td>
<td>$2,400,000</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>$33,576,000</strong></td>
</tr>
<tr>
<td></td>
<td>22% Engineering and Administration</td>
<td><strong>$7,386,720</strong></td>
</tr>
<tr>
<td></td>
<td>30% Construction Contingency</td>
<td><strong>$10,072,800</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Project Cost (in 2020-dollar amount)</strong></td>
<td><strong>$51,035,520</strong></td>
</tr>
</tbody>
</table>
Alternative 3 – Limitations and Recommendations

• Limitations
  o Construction challenges due to vicinity of river and depth required for construction
  o Highest construction cost

• Recommended option
  o Large open space: 22-acre property, big enough for new lift station and all other requirements
  o No additional easements required for construction
  o Large space will allow for adequate screening of the facility from its neighbor
  o Provide sustainable long-term solution for conveying wastewater in the region
  o Lift station structures will be designed for 67 MGD and other mechanical and electrical equipment be designed for interim capacity of 48 MGD
Existing MCES Lift Station Examples in Residential Area

MCES will work to develop a facility that architecturally integrates into the neighborhood.

L 27 - Hopkins

L 73 - Woodbury

L 60 – Long Lake

L 71 - Chaska

L 76 - Champlin
Information Included in the Report

• Background information and past studies done to date
• Detailed analyses and comparison of alternatives
• Environmental Review of Fridley Site
  ○ Wetland delineation
  ○ Archeological and historic sites
  ○ Environmental Assessment Worksheet (EAW)
• Geotechnical report for Fridley Site
• Project delivery schedule
Financing

• MCES Project Financing
  o Loan from the Minnesota Public Facilities Authority
  o Below market-rate loans used to finance eligible projects which helps keep wastewater rates low
  o Paid for through existing municipal and industrial wastewater rates.
Total Cost and Rate Impacts

- **MCES project funding: Public Facilities Authority (PFA) loans (20-year term)**
- Loans for these projects are paid from two funding sources:
  - Municipal Wastewater Charges (MWC): This is the MCES portion of your sewer bill.
  - Sewer Availability Charge (SAC): This is a one-time charge for new connections.
- **Impact to rates from $51.04 million in loans***:
  - $1.38 = amount included in the annual sewer billing per household ($188 annual average MCES wholesale rate charged to communities).
  - $64.08 = amount paid per year (for 20 years) from the SAC fund per new household connection (or equivalent).

*This project is included in MCES capital improvement plan, so loan payments are already built into future increases to MWC and SAC rates. These figures show the relative impact on rates and how the project will be paid for over time.*
Design-Phase Considerations

Engineering studies will investigate:

- Construction method
- Odor control mitigation
- Design of lift station
- Physical and conceptual model of the new lift station and odor control system
- Architectural design
- Coordination with local entities and stakeholders
- Set back requirements from bluffs, river, streets and neighboring properties
- Permits requirements by different regulatory agencies
- Site restoration on new lift station site
Next Steps

- **Dec 28, 2020**  
  Due date for written comments on draft Facility Plan

- **Jan/Feb 2021**  
  Metropolitan Council Adoption of Facility Plan

- **Mar 2021**  
  Submit Plan final Facility Plan to Minnesota Pollution Control Agency (MPCA) with application for Clean Water Revolving Fund Project Priority List

Project Schedule

- **Early 2021**  
  Final Facility Plan

- **2021**  
  Design

- **2023**  
  Construction

- **2023**

- **2026**
Public comments and questions

- Participants will be muted during the presentation
- To ask questions or provide comments:
  - Computer, Smartphone and Tablet Users:
  - Use the Chat box to type in questions and comments
Public comments and questions

Use the raise hand function to be unmuted and speak aloud. Select the ‘Raise Hand’ option inside the “Participants” panel from the right-hand side of the screen.
Comment Period

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Project Contacts

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**Phone**
(763) 520-8650

**Email**
info@fridleyarealiftstation.com

Visit our project website for more information and to sign up to receive our project email updates.
Thank you for participating in our public hearing