Metropolitan Council Environmental Services
2020-2025 Capital Program

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2019 Effective Utility Management Workshop
WSB Office, Minneapolis
August 28, 2019

Agenda

- Overview
- Plant Program
- Interceptor Program
**WHO WE SERVE**
7-county Twin Cities Metro Area
110 communities
2,700,000+ people

**OUR FACILITIES**
9 wastewater treatment plants
610 miles of interceptors
250 million gallons per day (avg)

**OUR ORGANIZATION**
600+ employees
$7 billion in valued assets
$150 million / yr capital program

**Project Timing and Costs**

Cash Flow 2014 - 2025

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Estimated</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>$159</td>
<td></td>
<td></td>
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<tr>
<td>2016</td>
<td>$136</td>
<td></td>
<td></td>
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<tr>
<td>2017</td>
<td>$117</td>
<td></td>
<td></td>
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<tr>
<td>2018</td>
<td>$108</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>$116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>$158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>$166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>$173</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>$180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>$173</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>$154</td>
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Total Capital Program (2020 – 2025) = $1,003 Million
MCES Customer Level of Service is the foundation upon which we operate.

Capital Program

BEGIN CONSTRUCTION  →  COMMISSIONING  →  CONSTRUCTION COMPLETE

PLANNING  →  PRELIMINARY DESIGN  →  DESIGN  →  BID & AWARD
Capital Program: Principles

PARTNERSHIP

1. Treat customers and stakeholders respectfully
2. Leave the community with something better than they had prior to our project.
3. Plan and coordinate project with other public infrastructure work.
4. Keep every promise made during planning, design, and construction.
5. Communicate in a manner as consistent as possible with each community’s protocol.

2020 Capital Program Breakdown, by Objective

- **Preserve Assets**: Rehabilitate & replace assets to preserve value & performance
- **Meet Capacity Needs**: Expand system capacity through plant expansions & interceptor extensions
- **Improve Quality**: of service by responding to more stringent regulations, reusing wastewater, increasing system reliability, & conserving and generating energy

82% of CIP will be spent on asset preservation.
Capital Program: Drivers

### Business Process Improvement
- Increase staff efficiency
- Increase staff effectiveness

### Infrastructure Coordination
- Coordinate interceptor projects with other planned infrastructure projects by governmental units

### Environmental Sustainability
- Energy conservation/recovery
- Wastewater reuse
- Water conservation
- Resource recovery

### Customer Service
- Service extension
- Metering (cost allocation)
- Odor control

### Performance Assessment
- Safety
- Reliability
- Capacity
- Efficiency
- Quality

### Condition Assessment
- Physical condition
- Equipment obsolescence
Capital Program: Sources of Funds

Public Facilities Authority (PFA) Loans
- $45 million annual loan
- 1.5% interest rate discount
- 2018: $45M loan

Council General Obligation Bonds
- The Council sells general obligation bonds. The Council has a AAA bond rating and receives low interest rates
- 2019: $11M in funds

Pay-As-You-Go (PAYGO)
- Funds dedicated to paying for some capital expenses with current revenue
- 2019: $11M in funds

2019 Current Project Status

- 43 Projects Under Construction or in the Commissioning Phase
- Projects range in value from $500K to $25M.
Major Plant Projects

- Assemble work groups in close proximity to improve efficiency and effectiveness
- Discontinue use of rental space and temporary trailers
- Design the Services Building to accommodate industrial & community customers
- Enhance the Metro Plant entrance to integrate Council’s Mission/Vision/Values

Services and Analytical Laboratory Buildings Project

**Objectives/Goals**

- Assemble work groups in close proximity to improve efficiency and effectiveness
- Discontinue use of rental space and temporary trailers
- Design the Services Building to accommodate industrial & community customers
- Enhance the Metro Plant entrance to integrate Council’s Mission/Vision/Values

**Schedule**

- 2019: Select Engineer/Prelim Design
- 2020: Construction
- 2021:
From MCES 2040 Water Resources Policy Plan, Urban Area Wastewater Service Policy:

"Acquire wastewater treatment plants from suburban communities outside the current service area, based upon request through the comprehensive plan and comprehensive sewer plan process, after soliciting customer input and conducting a public hearing on the request."

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## Rogers WWTF Acquisition

### Crow River WWTP Construction

#### Objectives/Goals

- **Extend Life of Existing Wastewater Treatment Facility Infrastructure**
  
  City of Rogers requested MCES acquire their WWTF. MCES will use existing capacity in Rogers WWTF until Crow River WWTP can be built.

- **Serve Regional Population Growth**
  
  NW Hennepin County is growing rapidly. A new regional facility is needed to free interceptor capacity for downstream communities.

#### Schedule & Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
<th>Cost Range (M)</th>
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</thead>
<tbody>
<tr>
<td>2019</td>
<td>MCES Acquires Rogers WWTF</td>
<td>$800,000</td>
</tr>
<tr>
<td>2020</td>
<td>Improvements Project Rogers WWTF</td>
<td>$1.5 – $2.5 M</td>
</tr>
<tr>
<td>2021</td>
<td>Planning for Crow River WWTP</td>
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</tr>
<tr>
<td>2022</td>
<td>Construction of Crow River WWTP</td>
<td>$10 – $15 M</td>
</tr>
<tr>
<td>2023</td>
<td>Decommission Rogers WWTF</td>
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## Solids Management Assistance

#### Objectives/Goals

- **Utilize wastewater residual solids as fertilizer and soil conditioner**
- **Access private sector knowledge of marketing and development on a local and national level**

#### Scope

- Distribute Blue Lake Fertilizer Pellets
- Manage Empire Land Application Sites
- Develop Beneficial Uses for Metro Ash

#### Schedule

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<tr>
<th>Year</th>
<th>Description</th>
<th>Cost ($)</th>
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</thead>
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<tr>
<td>2021</td>
<td>Distribute Blue Lake Fertilizer</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>Access private sector knowledge</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>Utilize wastewater residual solids</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>Access private sector knowledge</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>Develop Beneficial Uses for Metro Ash</td>
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</table>
The Metro Plant processes 75% of the region’s wastewater solids including solids from four other treatment plants.

Objectives/Goals

• Preserve Existing Wastewater Treatment Plant Infrastructure
  Planned renewal projects will require extended downtime of the existing incinerators.

• Serve Regional Population Growth
  50,000 new residents in the Metro Plant service area in the Twin Cities by 2050.

Schedule & Cost

2019 2021 2024 2027

IMPROVEMENTS PROJECT $20 million
FOURTH INCINERATOR $190 million
RENEWAL PROJECT $20 million

Empire Solids Improvements

Objectives/Goals

• Increase solids digestion and pad storage capacity.
• Add combined heat/power system to convert digester gas to electricity.
• Renew boiler system

Schedule  Planning  |  2012 - 2013

Phase 1
2014  2018  2019  2021
Design  Construction ($3M)

Phase 2
2014  2020  2021  2023
Design  Construction ($10M)
Industrial Waste Pretreatment Incentive Program (IPIP) a private-public partnership

Objectives/Goals
Pretreat wastewater to retain system capacity and provide economic benefit for the region.
Planned projects will reduce organic loading to Blue Lake (25%) and Empire (30%).

Schedule & Cost

<table>
<thead>
<tr>
<th>Project</th>
<th>Start Date</th>
<th>End Date</th>
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</thead>
<tbody>
<tr>
<td>Blue Lake/Northern Star</td>
<td>Jun 2019</td>
<td>Dec 2020</td>
</tr>
<tr>
<td>Empire/Kemps</td>
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Provides low interest loans to Michael Food & Kemps for capital financing.

Major Interceptor Projects

Typical Construction

Temporary Conveyance Pipes
Brooklyn Park – Champlin Interceptor Renewal

Objectives/Goals

- Condition
- Coordination with partners

Schedule

Part 1
- August 2016: Planning/Design
- July 2018: Construction
- January 2019: Planning/Design
- July 2020: Construction

Part 2
- August 2016: Planning/Design
- July 2019: Construction
- November 2019: Planning/Design
- April 2022: Construction

Replacement Meter Vault M228

Objectives/Goals

- Condition
- Accessibility and safety improvements
- Cost Allocation

Schedule

- June 2016: Planning/Design
- July 2019: Construction
- January 2020: Planning/Design
- December 2020: Construction
Interceptor 1-MN-344 Tunnel and Emergency Relief Structure ERS04

Objectives/Goals
- Condition
- Regulatory compliance

Schedule
- Jan 2016: Planning/Design
- Jan 2019
- Sept 2019: Construction
- Jul 2022

Coon Rapids L34 Improvements

Objectives/Goals
- Condition
- Reliability

Schedule
- Sep 2015: Planning/Design
- Oct 2018
- Jun 2019: Construction
- Dec 2020
Waconia Forcemain 7508 Phase 2 Replacement

Objectives/Goals
- Condition
- Efficiency
- Capacity for Planned Growth
- Coordination with local partners

Schedule
- Planning Design: Jun 2017, Apr 2019, Sep 2019
- Construction: Dec 2020

Orono Area Lift Station & Force Main Improvements (L46 and L49)

Objectives/Goals
- Condition
- Efficiency
- Capacity for Planned Growth
- Coordination with local partners

Schedule
- Planning Design: Jan 2019, Dec 2019, May 2020
- Construction: May 2021
Questions

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