

Information Item: 2021 Capital Program

Jeannine Clancy, Assistant General Manager, Wastewater Planning and Capital Project Delivery

Kyle Colvin, Manager, Wastewater Planning and Community Programs

Adam Gordon, Manager, Interceptor Engineering

Rene Heflin, Manager, Plant Engineering

Environment Committee: October 13, 2020



Agenda



Program Overview



Wastewater System Planning



Treatment Plant Projects



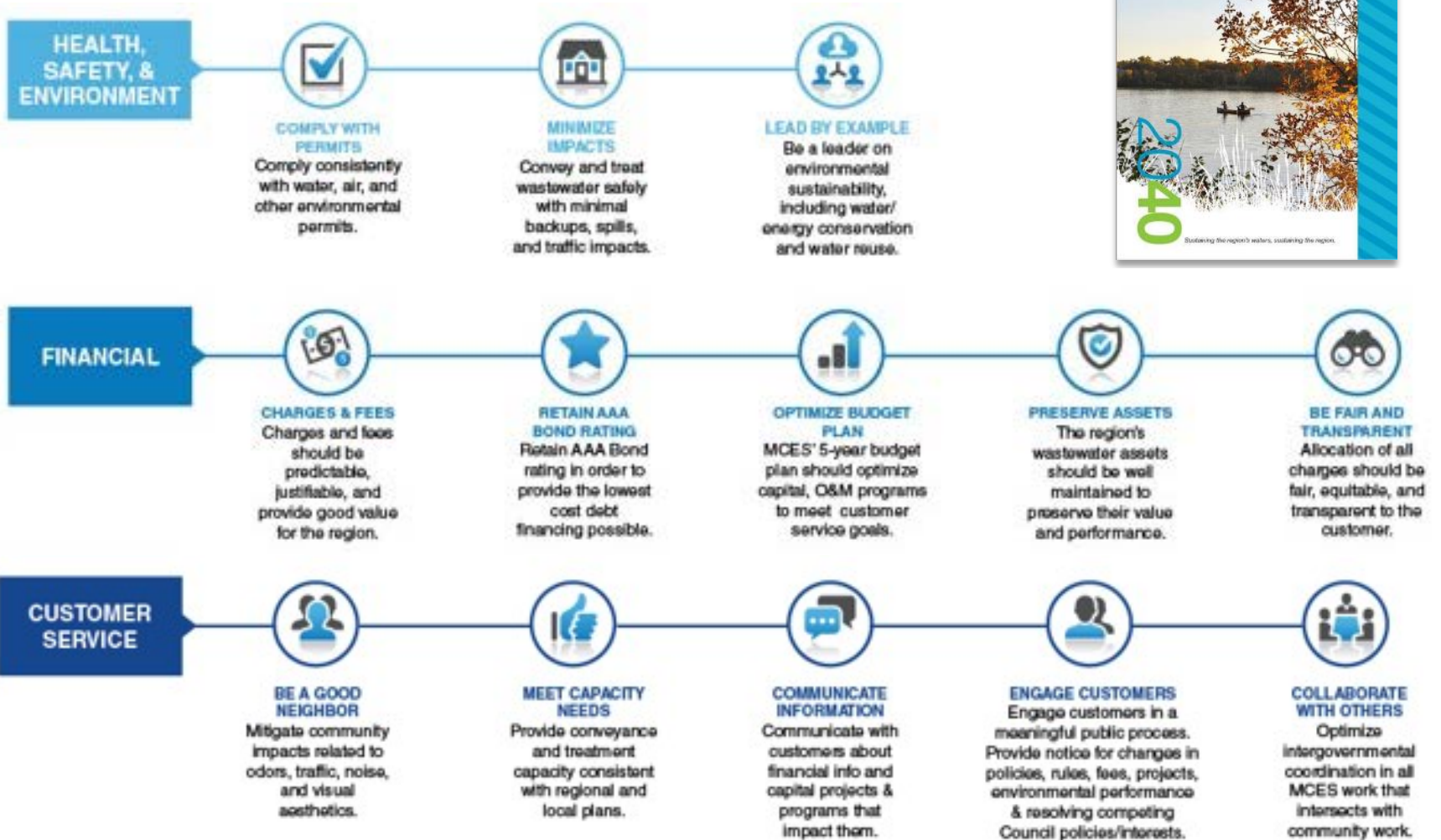
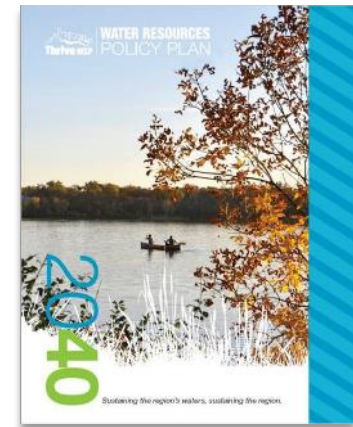
Interceptor Projects



Program Overview

Jeannine Clancy, Assistant General Manager, Wastewater Planning and Capital Project Delivery

Customer Level of Service



Water Resources Policy Plan and the Customer Level of Service are the foundation for the Capital Program.

Capital Program Definitions

Capital Program

Authorized Capital Program (ACP)

Multi-year authorization from Council to spend on projects where funding has been secured.



Capital Improvement Program (CIP)

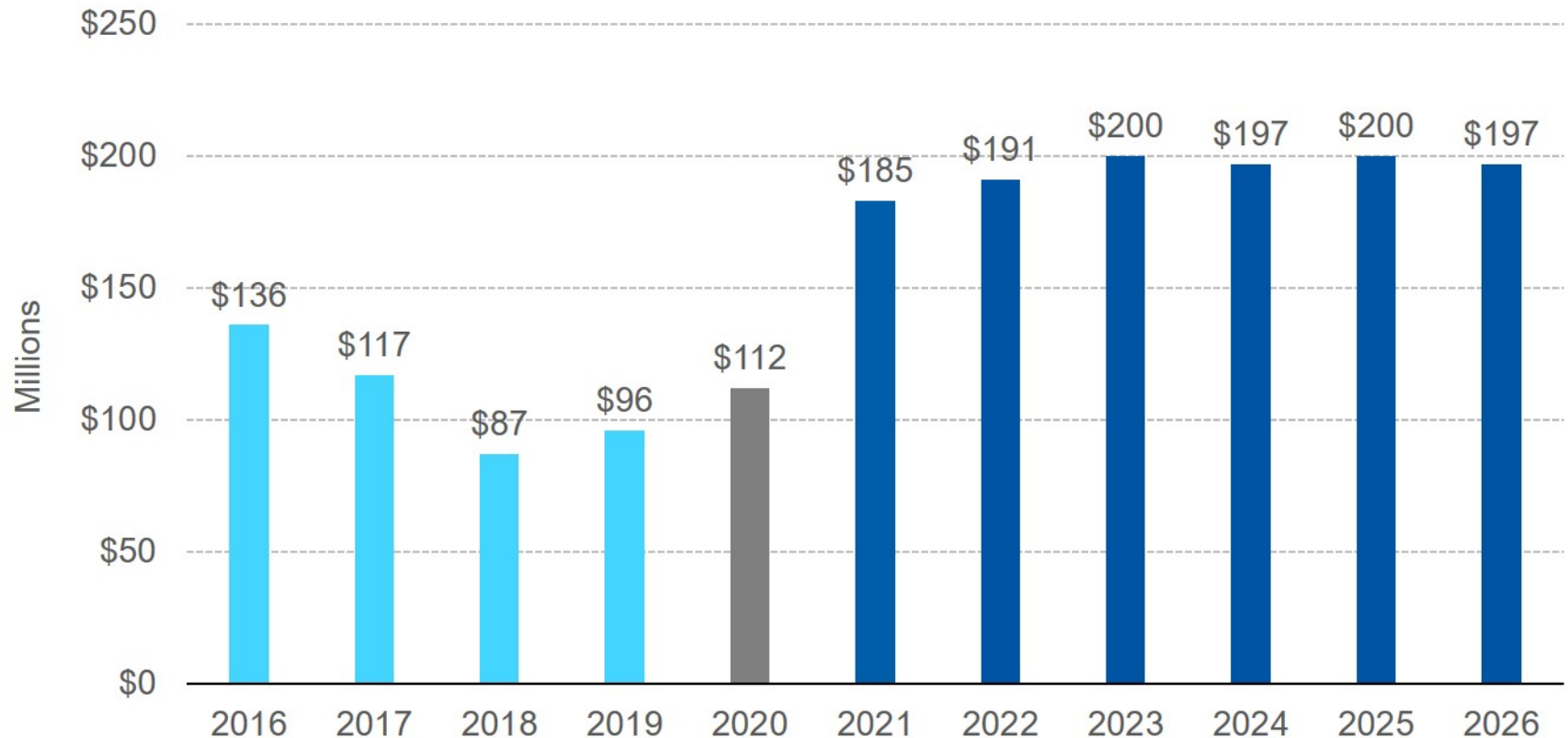
6-year capital investment plan where funding sources identified. Council has not authorized to proceed.



Capital Budget

Amount from Authorized Capital Program that Council approves to be spent in upcoming year (2021).

Project Timing and Costs Cash Flow: 2016 to 2026



- Actual
- Estimated
- Projected

Total Capital Program
(2021-2026) = \$1,480 Million

Capital Program: Sources of Funds



Public Facilities Authority (PFA) Loans

\$50 million annual loan and 1.5% interest rate discount

2021: Dependent on Legislature Passing Bonding Bill



Council General Obligation Bonds

The Council sells general obligation bonds. The Council has a AAA bond rating and receives low interest rates

2021: \$50 - \$100M (est.)



Pay-As-You-Go (PAYGO)

Funds dedicated to paying for some capital expenses with current revenue

2021: \$11 Million

Summary of Authorized Capital Program (ACP) Changes

Current Authorizations:

\$1,000,185,537

Adjustments: Existing Projects

-\$6,785,710

New Projects

+\$222,399,000

Closed Projects

-\$183,128,303

Proposed 2021 Authorization

\$1,032,670,524



Capital Program ACP Objectives



Preserve Assets

Rehabilitate and replace assets to preserve value and performance



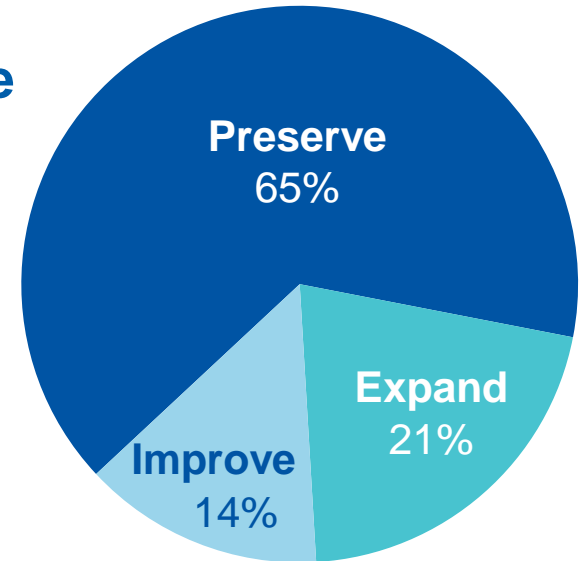
Meet Capacity Needs

Expand system capacity through plant expansions and interceptor extensions or improvements

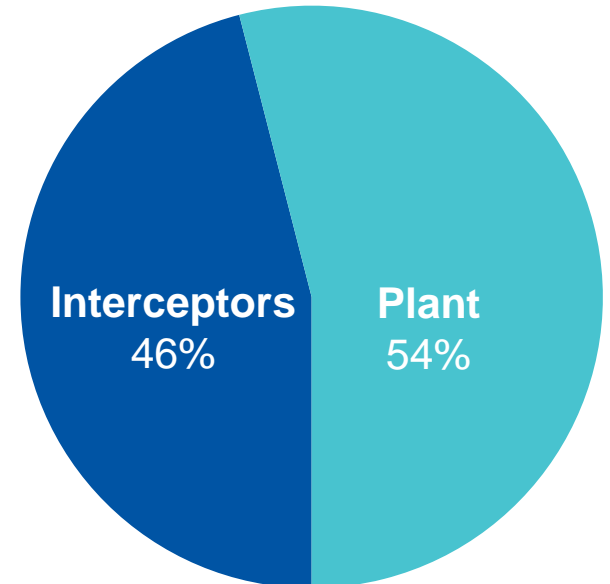


Improve Quality of service by responding to more stringent regulations, reusing wastewater, increasing system reliability, and conserving and generating energy

Objective



Type



Proposed 2021 Capital Program



Wastewater System Planning

Kyle Colvin, Manager, Wastewater Planning and Community Programs



Statutory Authority to Require and Review Local Comprehensive Sewer Plans for Regional System Conformance:

Statute 473.175, Subd 1:

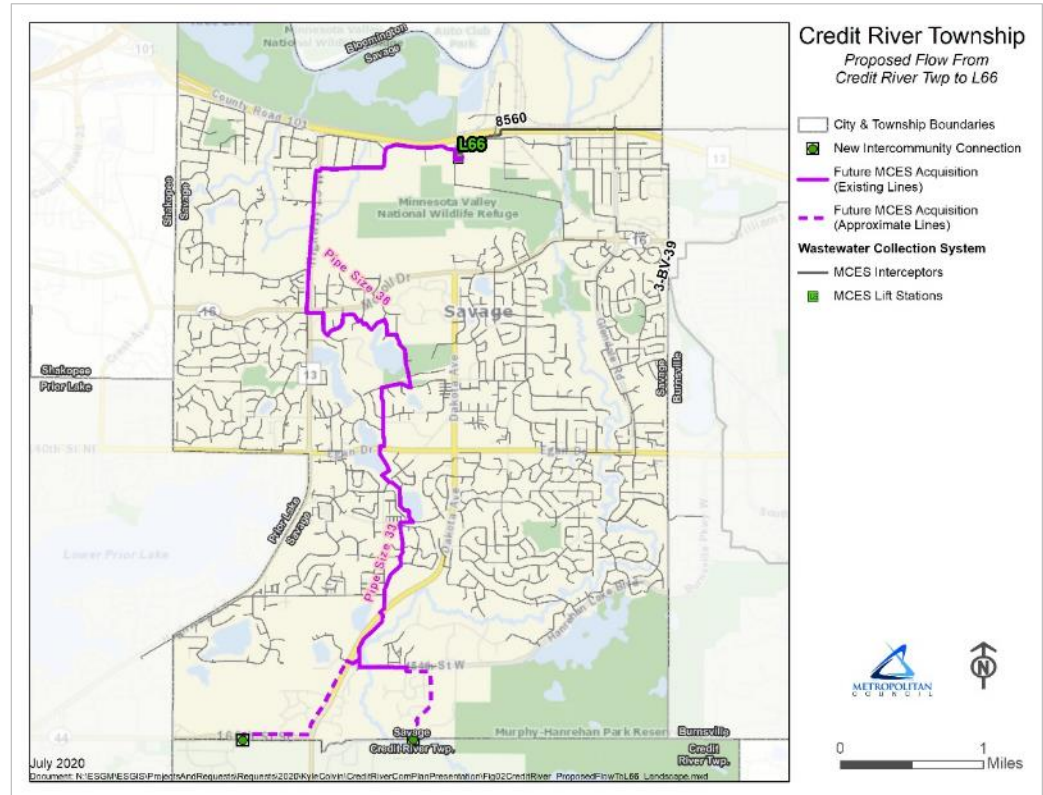
- To review local comprehensive plans to determine compatibility with each other and conformity with metropolitan system plans.
- Require a local governmental unit to modify any comprehensive plan if the plan is more likely than not to have a substantial impact on or contain a substantial departure from metropolitan system plans.

Statute 473.513:

- Construction of new sewers or substantial alterations or improvements of existing sewers, shall not be undertaken by any local government unit unless said project is found to be in accordance with its comprehensive plan as approved by the Council.
- The Council shall review all local Minnesota Pollution Control Agency permit applications for alterations or improvements to its disposal system for consistency with the local comprehensive sewer plan as approved by the Council.

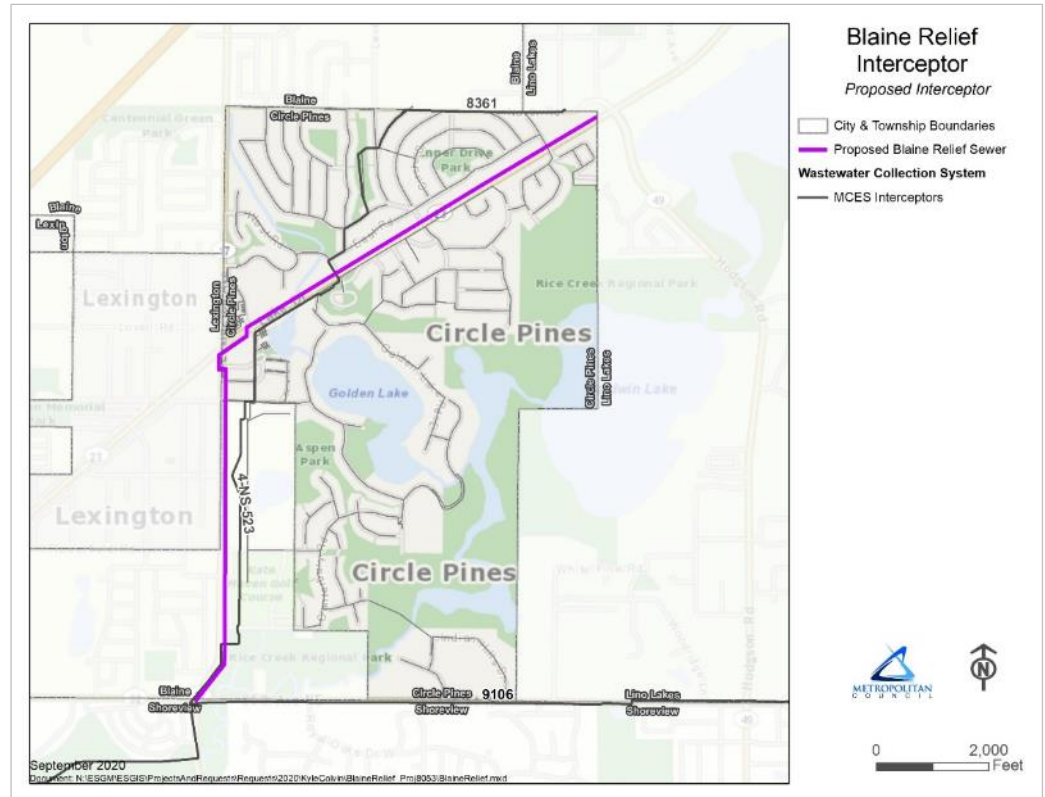
Future Acquisition of Savage Trunk Sewer as Regional Interceptor

- Northern portion of Township currently in the Long-Term Service Area (LTSA), post 2040
- Wastewater System Plan to be revised to reflect Township's request for service by 2023
- Since the 1960's Savage has included capacity in trunk system to provide service to the Township
- Approximately 8.5 miles of Savage trunk sewer to be acquired by MCES
- Planning activity included in 2021-2026 Capital Program



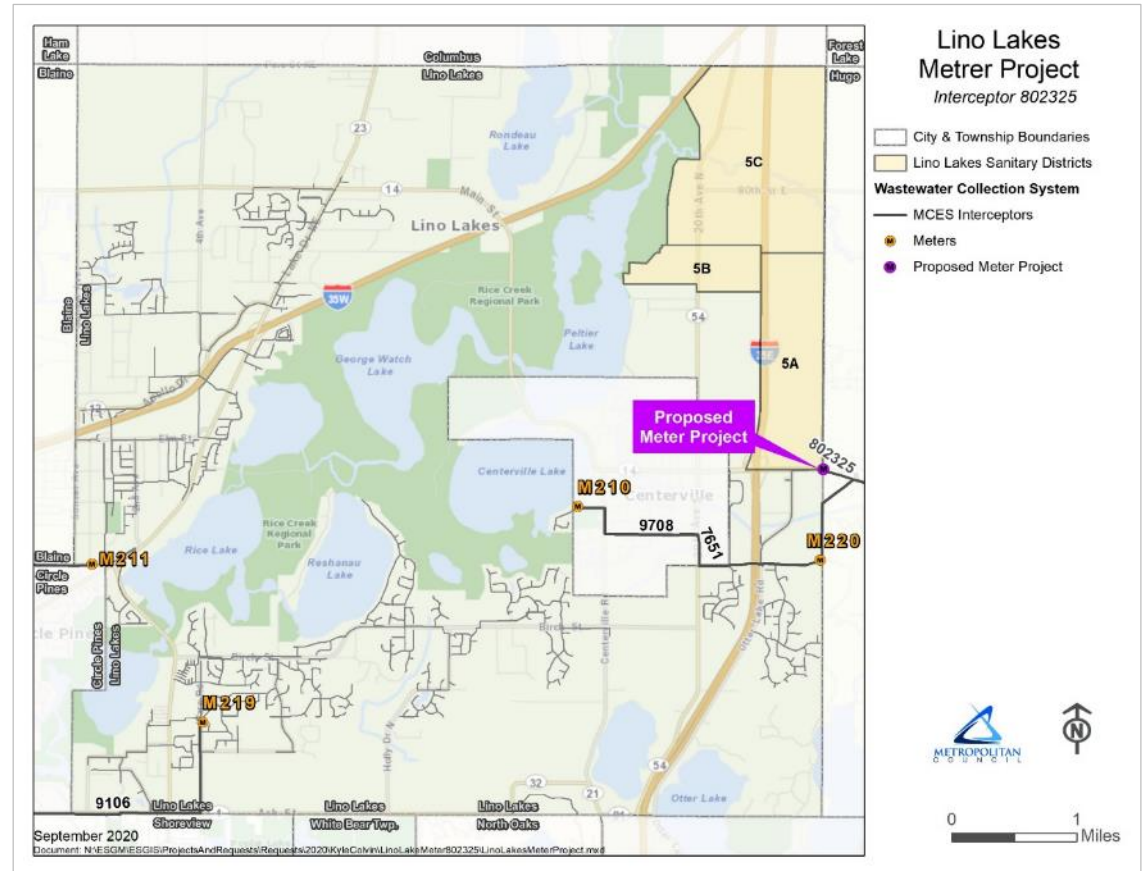
Construction of Blaine Relief Interceptor

- New 2.7 mile 36-inch interceptor
- Service to Lino Lakes providing capacity relief to existing interceptor
- Originally programmed for construction in 2008 and delayed due to economic down-turn
- Lino Lakes 2008 Comprehensive Sewer Plan (CSP) did not identify immediate need for additional capacity
- Lino Lakes 2018 CSP identifies growth in western part of city and need for additional regional capacity



Lino Lakes New Meter Improvement (District 5)

- Lino Lakes 2018 CSP identifies new growth area within northeastern area of City
- Service to be provided through interceptor 802325
- New meter required to measure wastewater flow generated within new service area



Treatment Plant Projects

Rene Heflin, Manager, Plant Engineering

Metropolitan WWTP Secondary Renewal



✔ Objectives/Goals

- Preserve wastewater infrastructure
- Reduce aeration system energy use
- Improve process efficiency and support facility permit compliance

✔ Scope

- Replace 340,000 aeration diffusers
- Rehabilitate gates, valves, and miscellaneous equipment
- Enhance aeration controls

📅 Schedule



Metro Plant Electrical Renewal Program



Transformer Upgrade
Phase 1



Compressor Motor Rehab
Phase 2



Substation Building Rehab
Phase 3



Arc Flash Risk Reduction



Objectives/Goals



Preserve Wastewater Treatment Plant Infrastructure

Identified electrical gear at Metro is at the end of its useful service life and needs replacement



Optimize and Improve Performance

Reduce maintenance costs, improve process monitoring, and increase electrical reliability



Schedule

2017



2019



2021



2023

Phase 1 Construction

\$7.2 Million

Phase 2 Construction

\$6.1 Million

Phase 3 Construction

\$38.9 Million

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

Schedule

2019



2021



2021

Planning/Design

Construction

\$20 Million

Metro Solids Renewal & Improvements



Project Objectives/Goals

Preserve Wastewater Treatment Plant Infrastructure



The existing system does not have capacity to treat the wastewater solids while completing renewal work.

Serve Regional Population Growth



500,000 new residents are expected in the Metro Plant Service area by 2050



Schedule

2019



2021



2024



2027

RENEWAL & IMPROVEMENTS PROJECT
\$20 million

FOURTH INCINERATOR
\$150 million

RENEWAL PROJECT
\$30 million

This project will ensure reliability of existing solids processing facilities until the fourth incinerator is operational in 2024.

Empire Solids Improvements



Objectives/Goals

Phase 1

- Increase biosolids pad storage capacity
- Renew boiler system

Phase 2

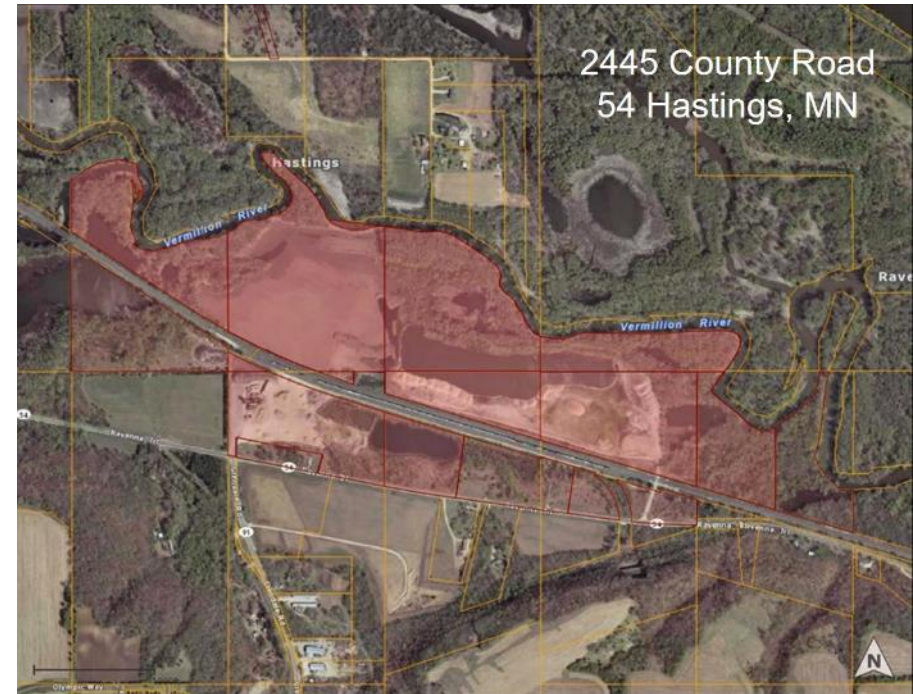
- Increase solids digestion capacity
- Add combined heat/power system



Schedule



Planning for New Hastings WWTP



✓ Objectives/Goals

- Provide adequate wastewater treatment plant capacity
- Develop capital replacement schedule based on financial analysis

📅 Schedule



Rogers WWTF Modifications

Crow River WWTP Construction



Project Objectives/Goals

Extend Life of Existing Wastewater Treatment Facility Infrastructure

MCES acquired the City of Rogers WWTF July 1, 2019. MCES will use existing capacity in Rogers WWTF until Crow River WWTP is built in 2030.

Serve Regional Population Growth

NW Hennepin County is growing rapidly. A new regional facility is needed to free interceptor capacity for downstream communities.



Schedule



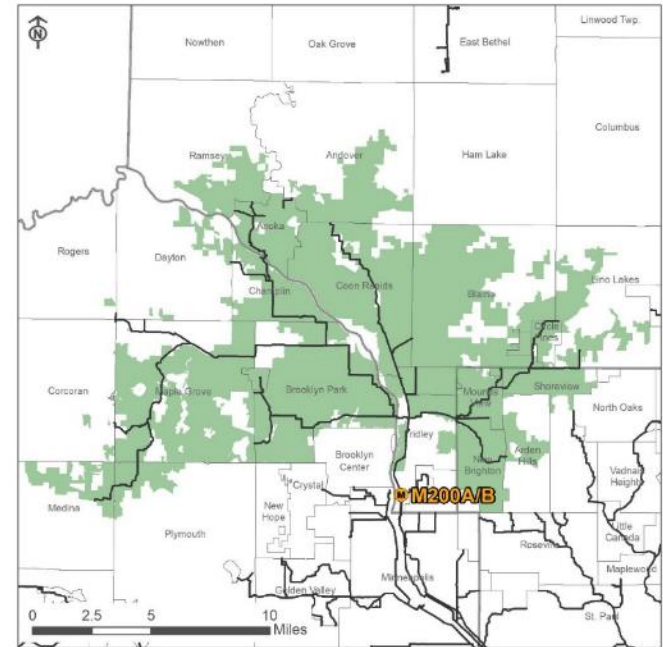
Interceptor Projects

Adam Gordon, Manager, Interceptor Engineering

Northwest Area Interceptor Improvements

Planning Scope:

- Assess capacity constraints and condition issues
- Determine ultimate service area (e.g. Elm Creek interceptor and new Crow River plant)
- Screen alternatives for potential river crossings and lift stations
- Prioritize future projects
- Develop implementation schedule and costs



Objectives/Goals

- Address condition deficiencies
- Capacity for planned growth
- Coordination with local partners



Schedule



Feb 2020



Dec 2024

Jan 2025



Dec 2029

Planning/Design

Construction

\$40 Million

New Lift Station L32A



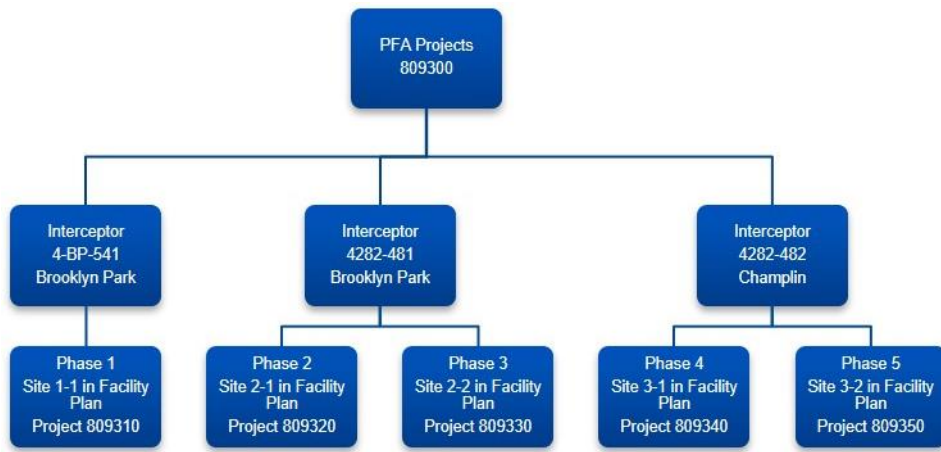
Objectives/Goals

- Replace deteriorated facility
- Increase capacity for planned growth
- Improve efficiencies and system reliability

Schedule



Brooklyn Park – Champlin Interceptor Renewal Program



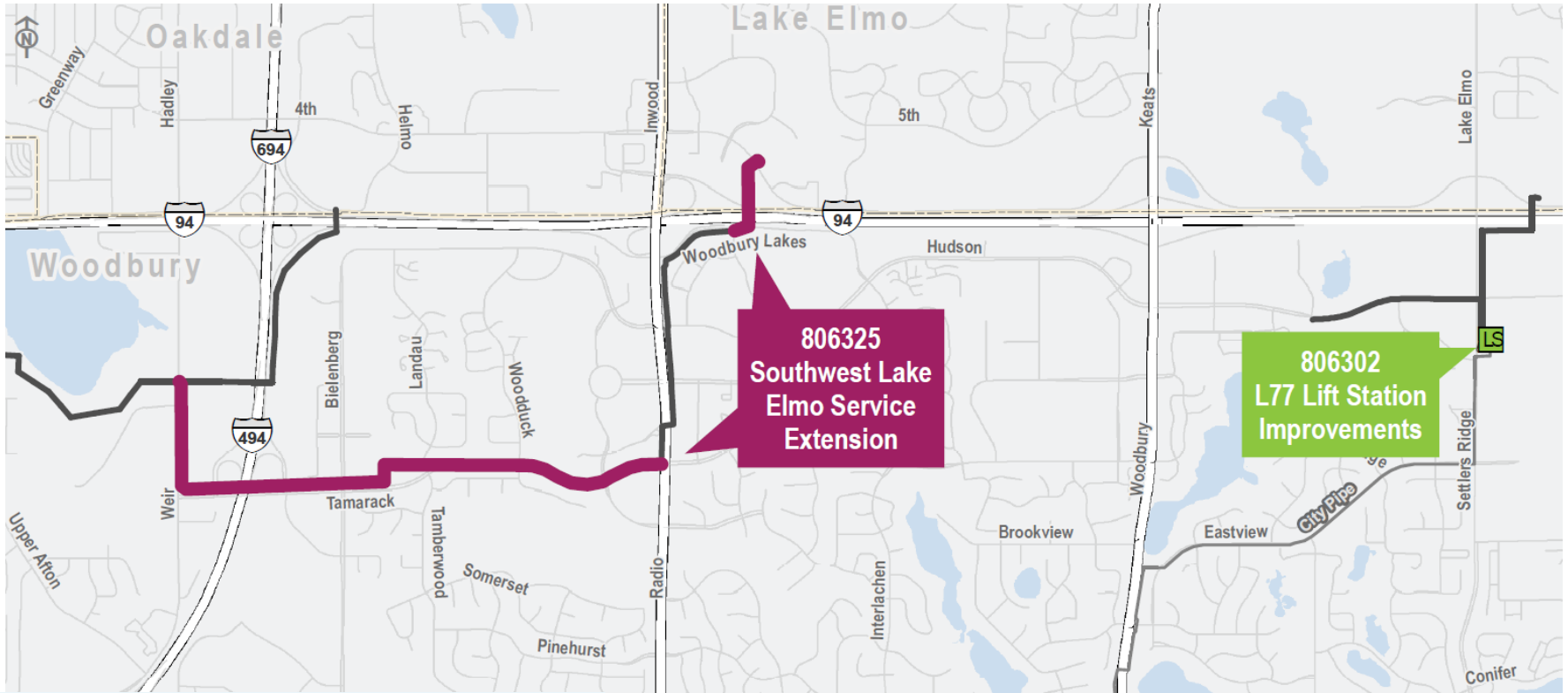
Objectives/Goals

- Condition-driven rehabilitation due to age and corrosion related damage
- Rehabilitation of pipes and maintenance holes in five different phases
- Improve efficiencies & system reliability

Schedule



East Area Interceptor Improvements



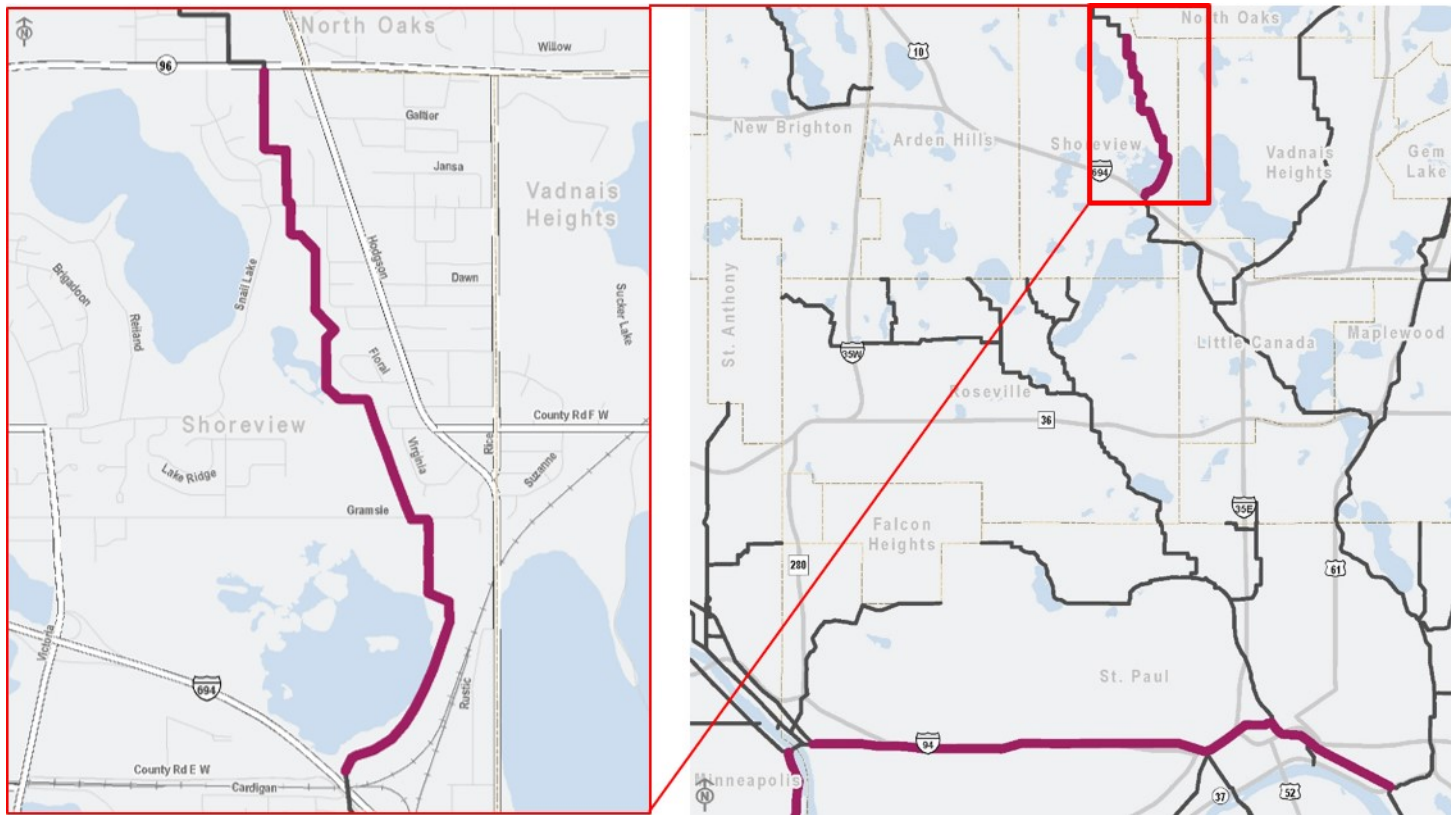
Objectives/Goals

- System extension
- Capacity improvements to accommodate growth

Schedule



St. Paul Interceptor System Rehabilitation



Objectives/Goals

- Asset preservation
- Condition-driven rehabilitation

Schedule



Regional Maintenance Facility Expansion Project



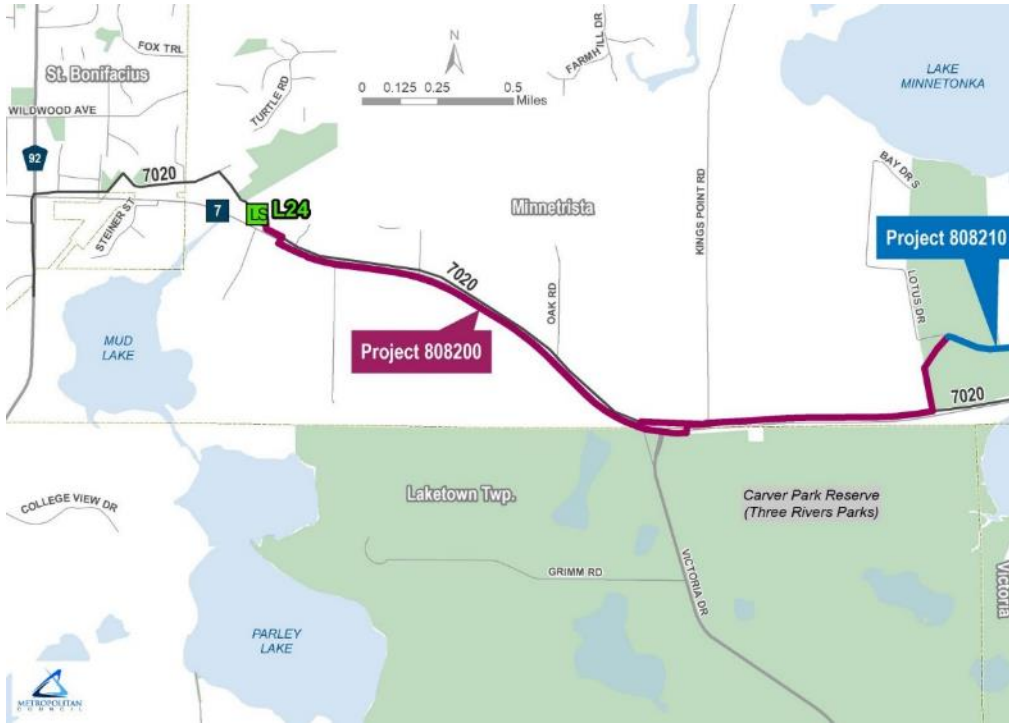
Objectives/Goals

- Adequate space for existing and future staff, visitors, and Air Quality and CFO
- Upgrade HVAC system
- Provide provisions for Emergency Operation Center

Schedule



L24 Lift Station and Forcemain 7020 Replacement



Project Goals

- Address condition deficiencies
- Capacity for planned growth
- Coordination with local partners

Schedule



Hopkins System, East Isles Forcemain Replacement



Project Goals

- Address condition deficiencies
- System reliability

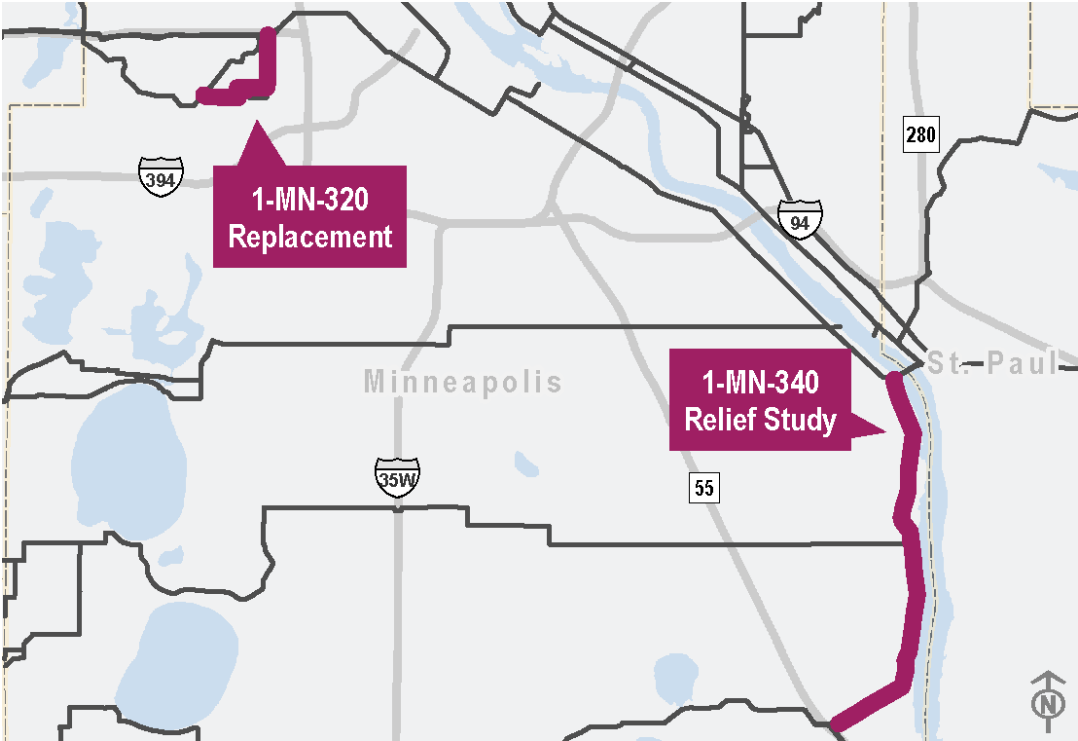
Schedule



Minneapolis Interceptor System Improvements

Facility Planning for Minneapolis Interceptors

- Relief Study for 1-MN-340
- Replacement of 1-MN-320
- Condition assessment and capacity requirements



Project Goals

- Address Condition Deficiencies
- System Reliability

Schedule



Capital Program Schedule

Aug 12



Division Level
Budget
Presentation

Aug 26



Adoption of
Preliminary
Unified Operating
Budget and Levies

Oct 13



MCES
Presentation to
Environment
Committee

Oct 14



Division Level
Capital
Program
Presentation

Oct 28



Adoption of
Public
Comment
Draft Budgets

Dec 9



Adoption of
Final 2020
Budgets and
Levies

Questions

Jeannine Clancy, Assistant General Manager, Wastewater Planning and Capital Project Delivery
651-602-1210
jeannine.clancy@metc.state.mn.us

Kyle Colvin, Manager, Wastewater Planning and Community Programs
651-602-1151
kyle.colvin@metc.state.mn.us

Adam Gordon, Manager, Interceptor Engineering
651-602-4503
adam.gordon@metc.state.mn.us

Rene Heflin, Manager, Plant Engineering
651-602-1077
rene.heflin@metc.state.mn.us

