

Information Item:
Metropolitan Council Environmental Services
2019-2024 Capital Program

Jeannine Clancy, Assistant General Manager, Technical Services

Rene Heflin, Manager, Plant Engineering

Adam Gordon, Manager, Interceptor Engineering

Environment Committee: May 28, 2019





Overview



Plant Program

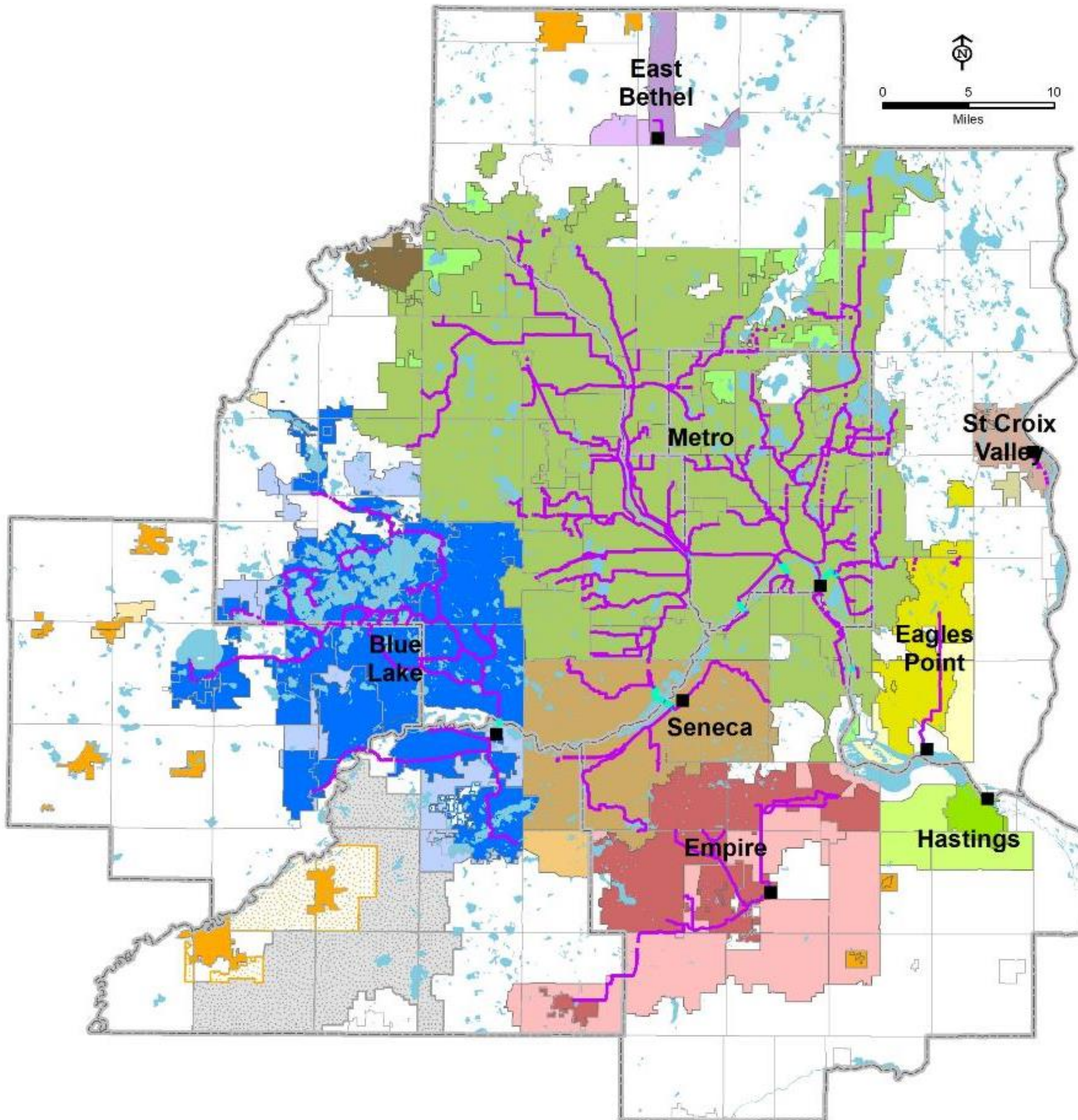


Interceptor Program





Metropolitan Council Environmental Services



Protects public health and safety



Protects the environment



Fosters the economic growth of the region

WHO WE SERVE

7-county Twin Cities Metro Area
110 communities
2,700,000+ people

OUR FACILITIES

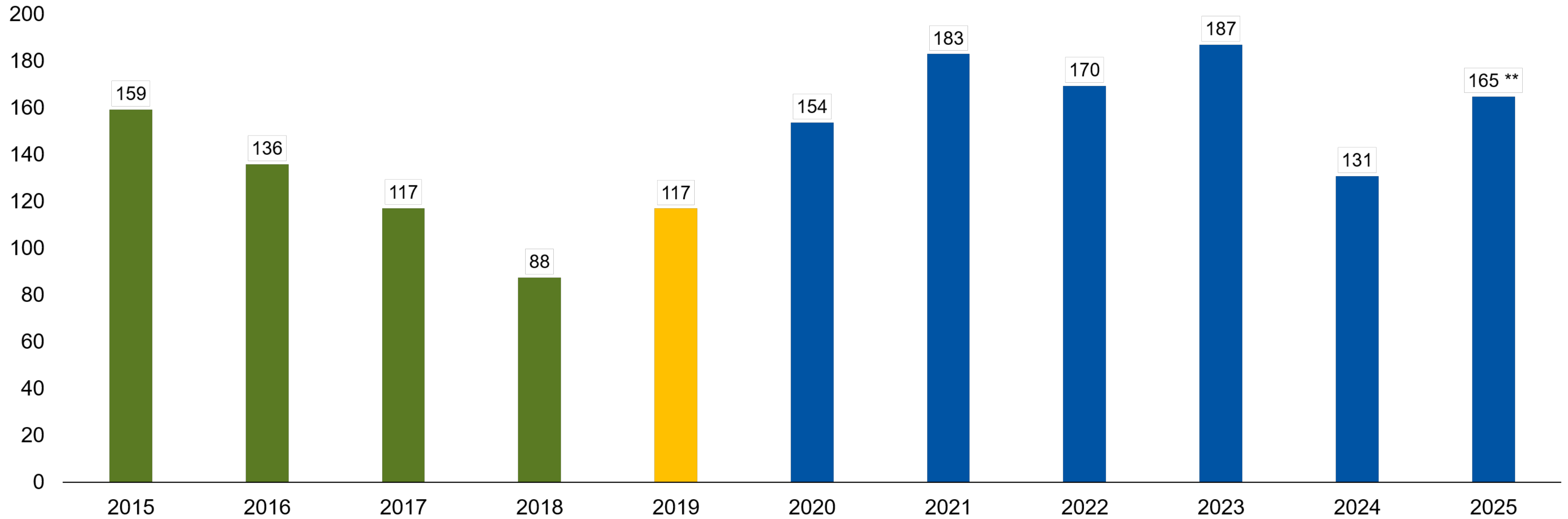
8 wastewater treatment plants
610 miles of interceptors
250 million gallons per day (avg)

OUR ORGANIZATION

600+ employees
\$7 billion in valued assets
\$150 million / year capital program

Project Timing and Costs

2015 – 2025 Cash Flow



- Actual
- Estimated
- Projected

Total Capital Improvement Program (2020 – 2025) = \$990 Million

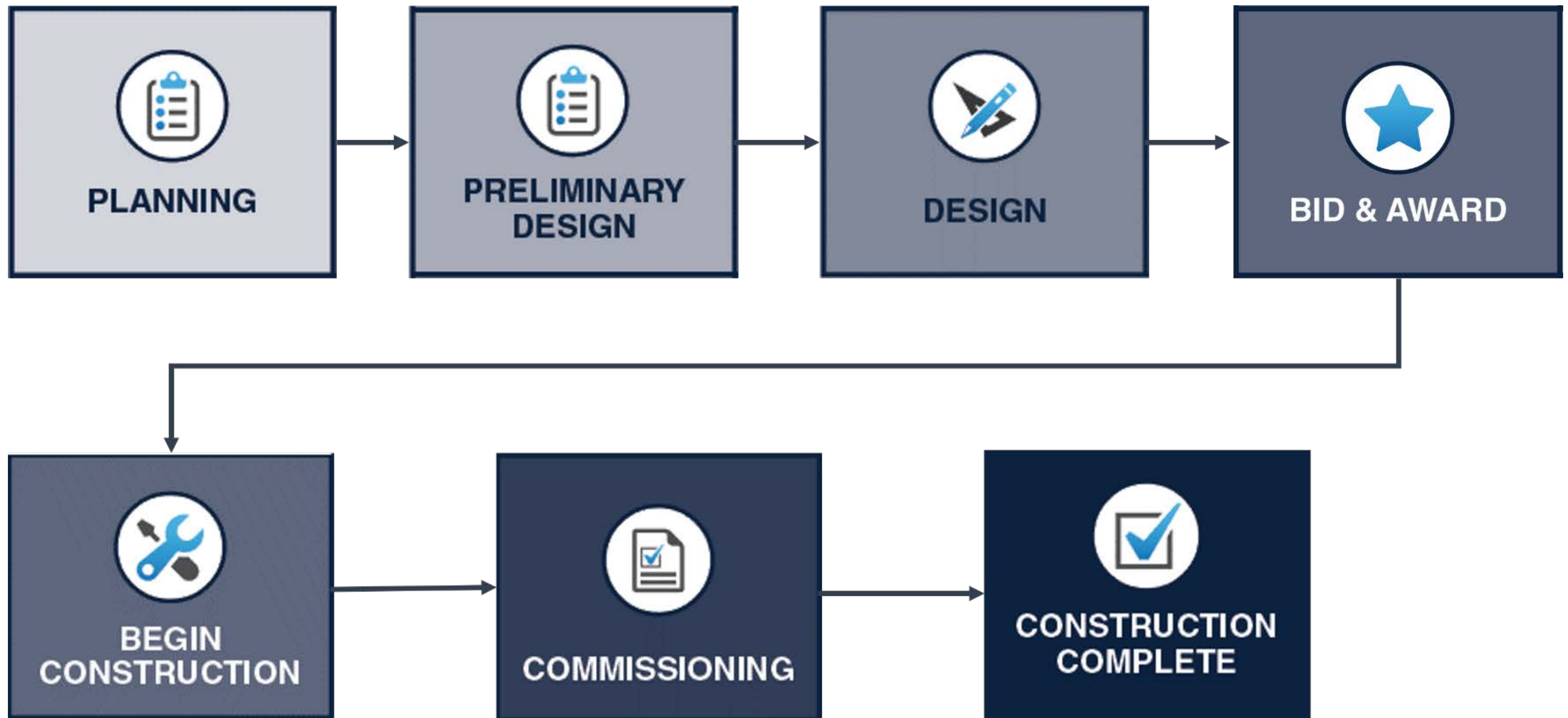
** pending CIP development

Customer Level of Service



MCES Customer Level of Service is the foundation upon which we operate.

Capital Program




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.

2019 Capital Program Breakdown, by Objective



Preserve Assets

Rehabilitate & replace assets to preserve value & performance



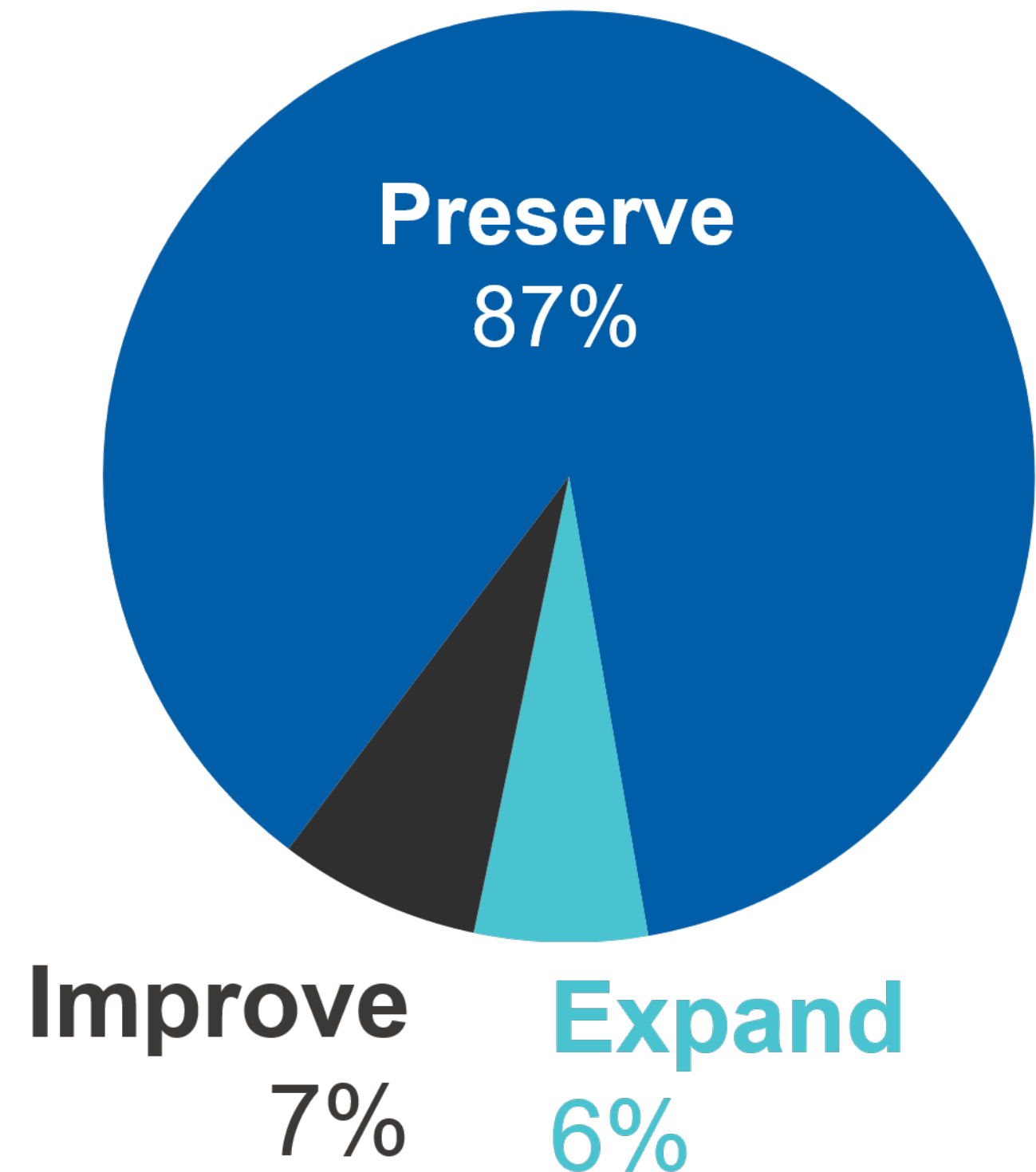
Meet Capacity Needs

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



87% 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

Capital Program: Drivers



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



Pay-As-You-Go (PAYGO)

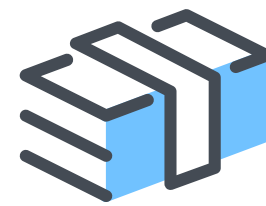
Funds dedicated to paying for some capital expenses with current revenue

2019: \$9M in funds

2019 Current Project Status



43 Projects Under Construction or in the Commissioning Phase



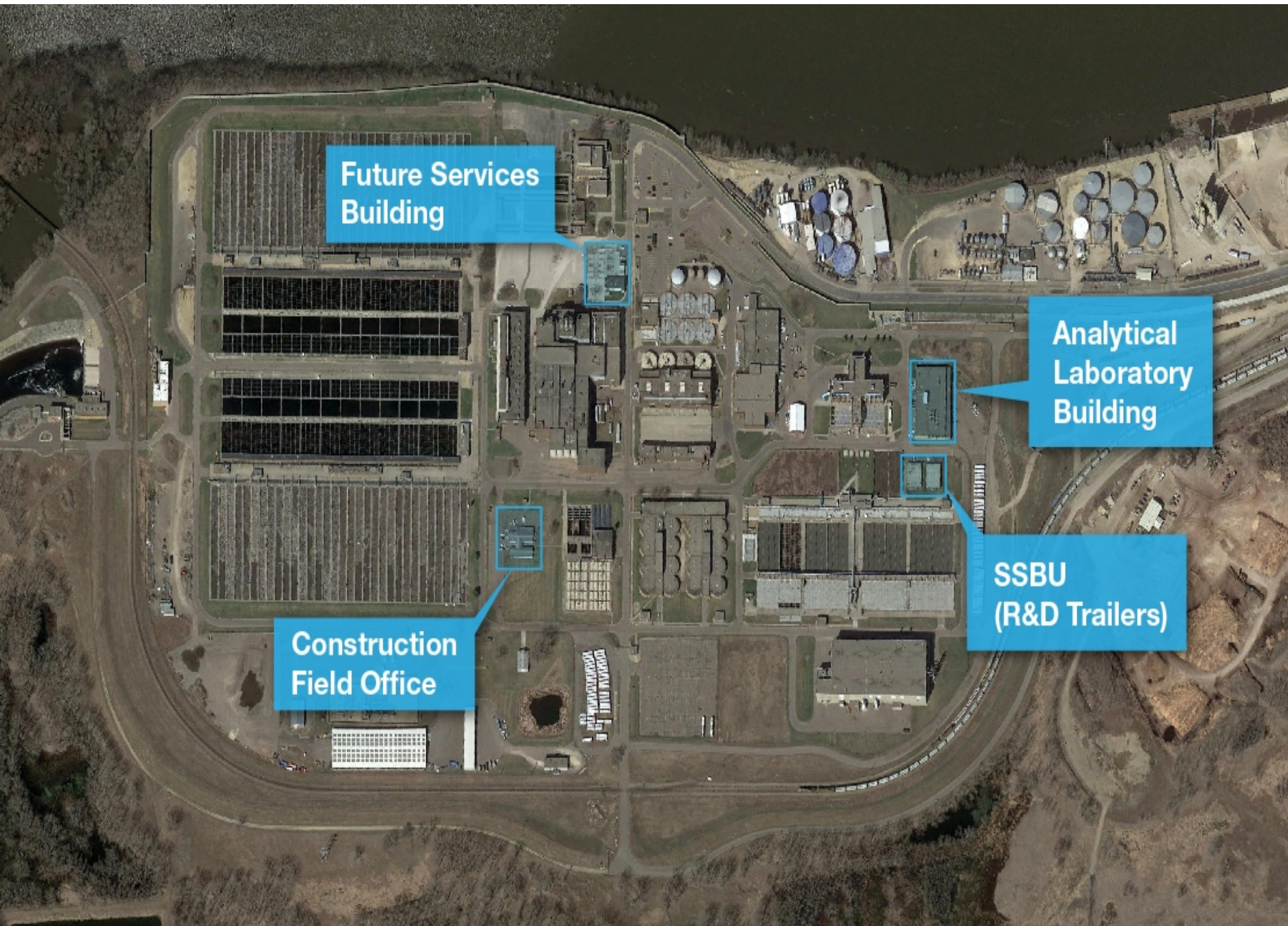
Projects range in value From \$500K to \$25M.

Major Plant Projects

East Bethel Water Reclamation Facility



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



2020



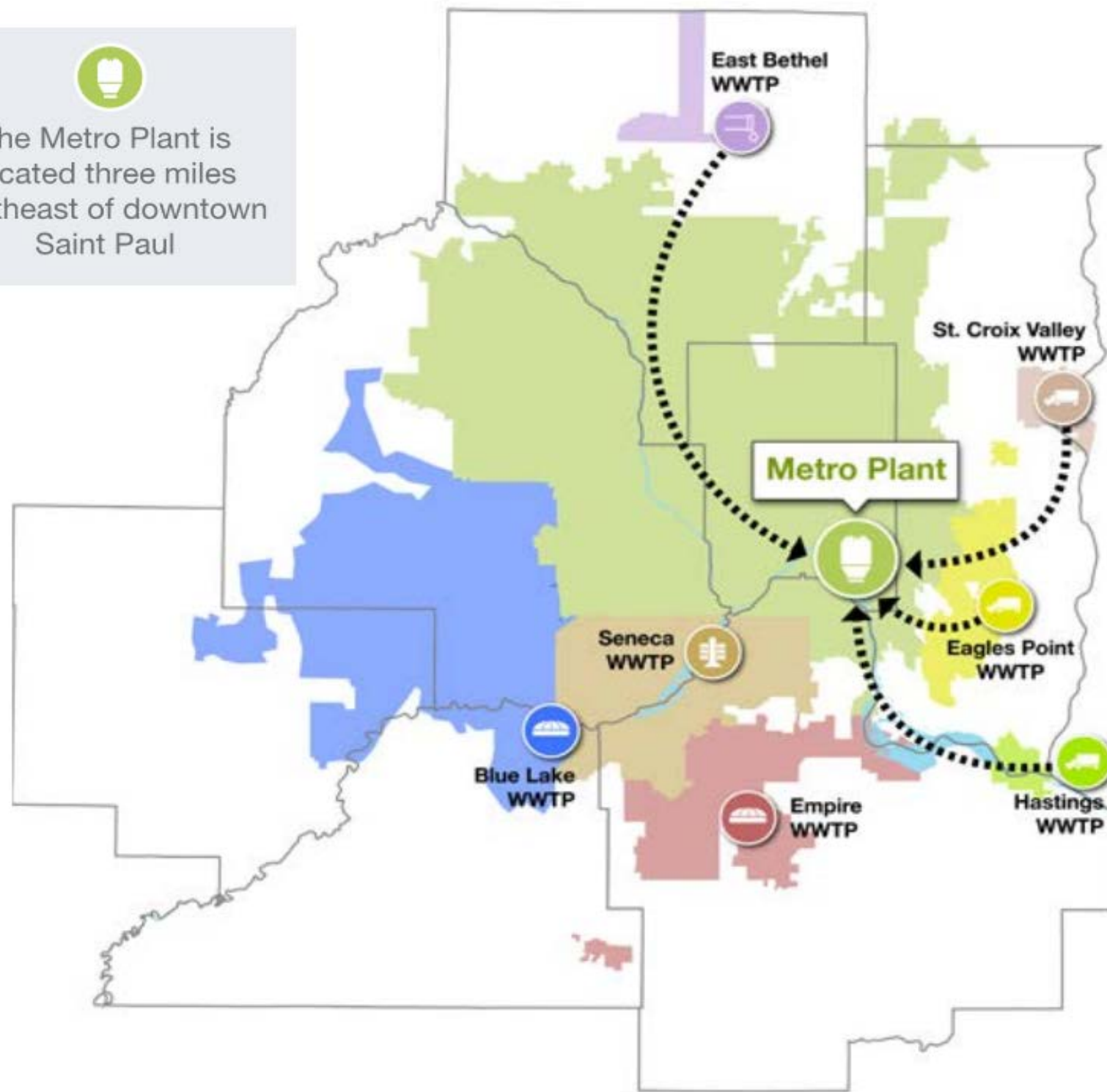
2021

Select Engineer/Prelim Design

Construction

Metro Plant Solids Management Improvements


The Metro Plant is located three miles southeast of downtown Saint Paul



Objectives/Goals

- **Preserve Existing Wastewater Treatment Plant Infrastructure**
Planned renewal projects will require extended downtime of the existing incinerators.
- **Serve Regional Population Growth**
500,000 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

\$150 million

RENEWAL PROJECT

\$30 million

The Metro Plant processes 75% of the region's wastewater solids including solids from four other treatment plants.



Rogers WWTF Acquisition Crow River WWTP Construction

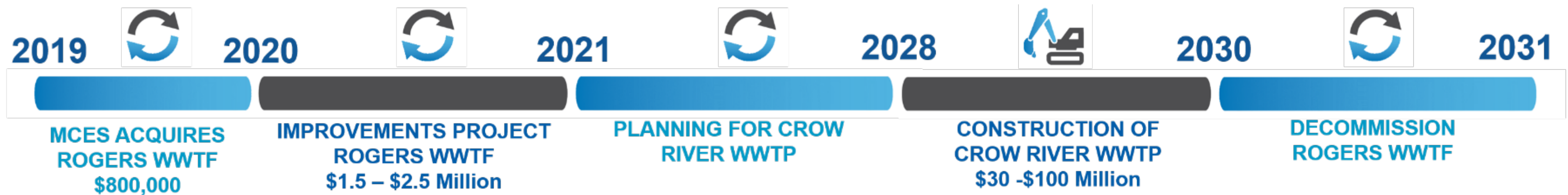


Objectives/Goals

- **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



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”

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



Design

2018

2019



2021

Construction (\$9M)

Phase 2

2014



Design

2020

2021



2023

Construction (\$10M)



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

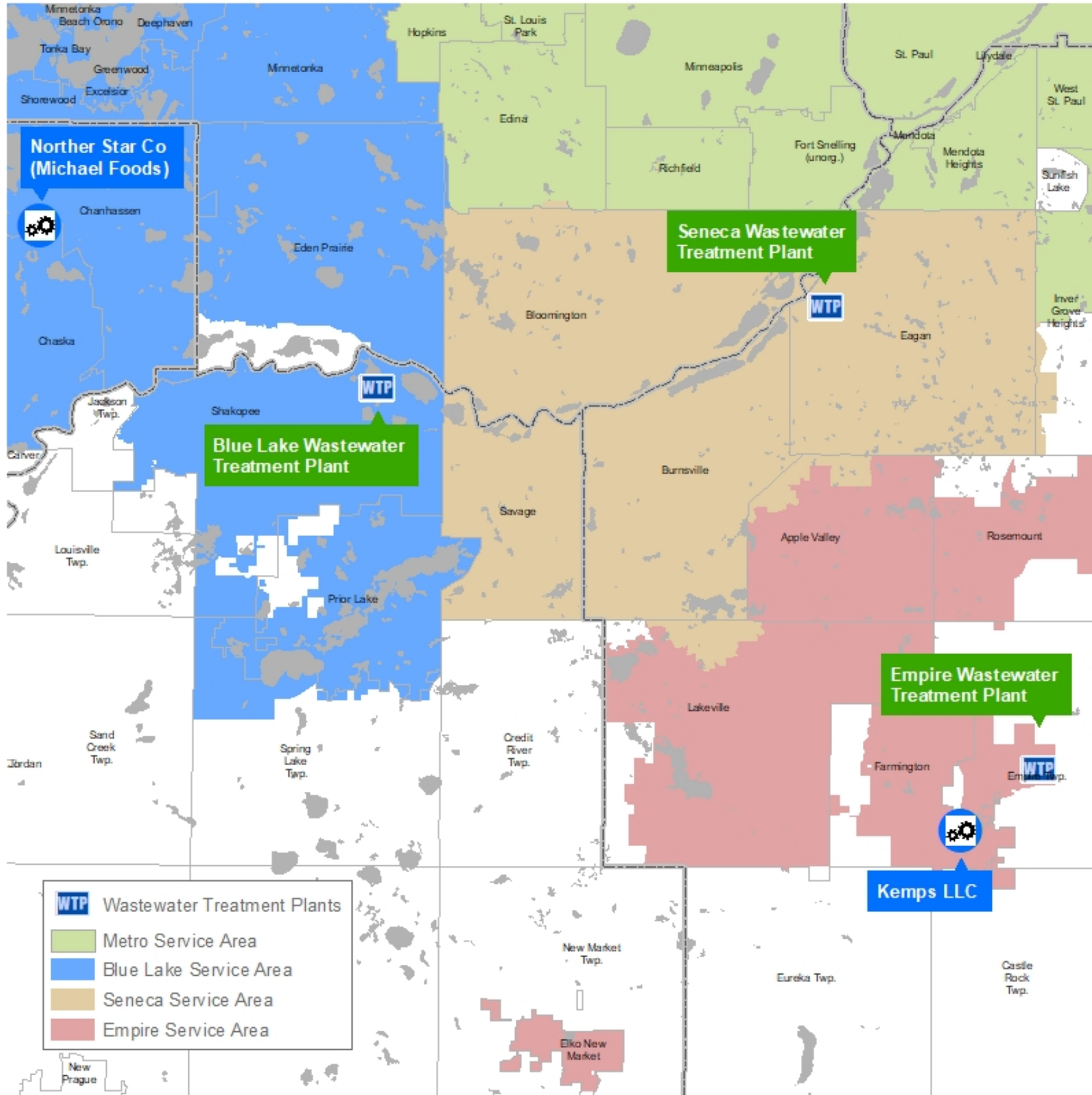


Schedule





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



Jun 2019

Dec 2020



Blue Lake/Northern Star (\$11M)

Dec 2020



Empire/Kemps (\$1M)

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

Aug 2016



Jul 2018

Jan 2019



Jul 2020

Planning/Design

Construction

Part 2

Aug 2016



Jul 2019

Nov 2019



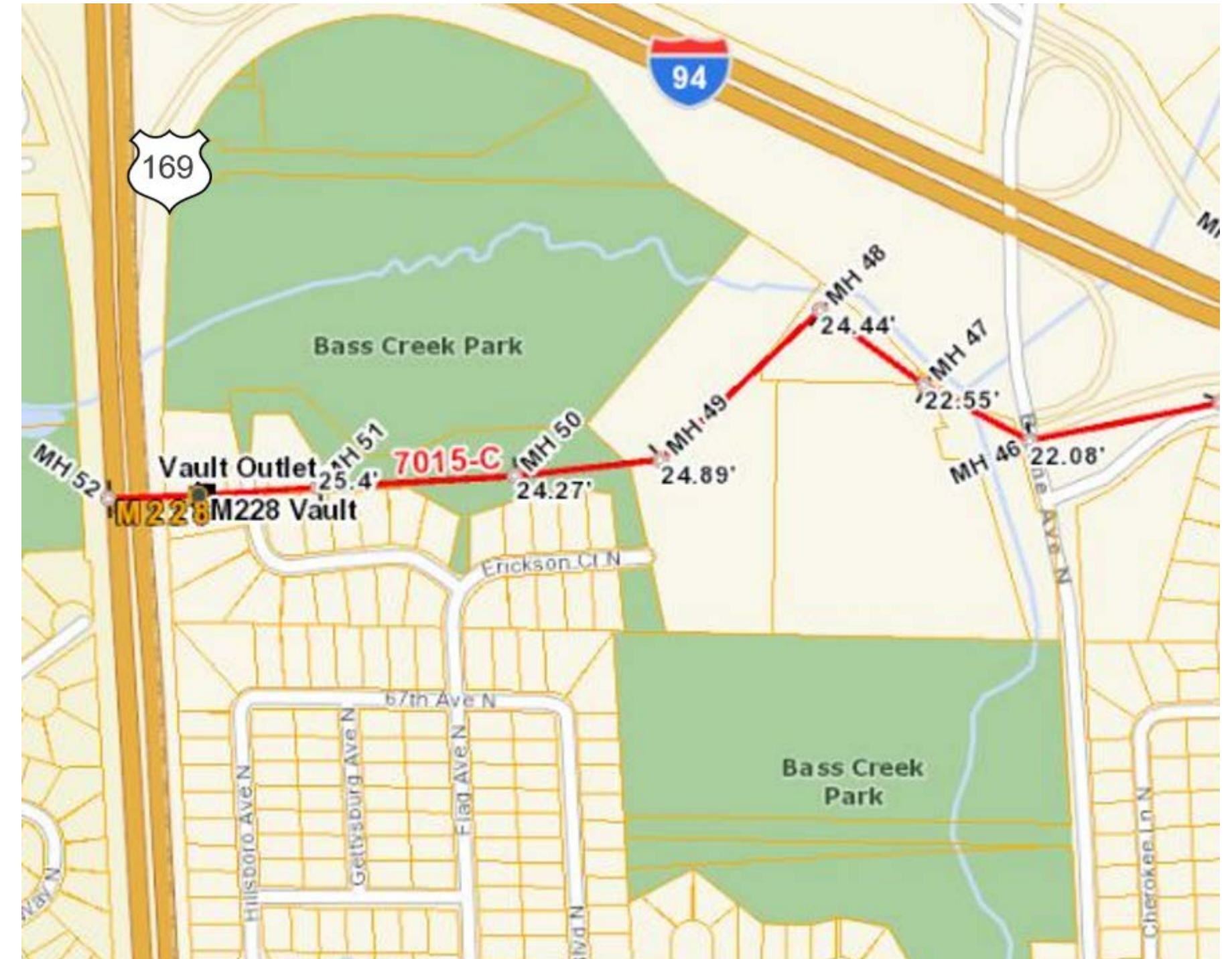
Apr 2022

Planning/Design

Construction

Replacement Meter Vault M228

Typical



Objectives/Goals

- Condition
- Accessibility and safety improvements
- Cost Allocation



Schedule

Jun 2016



Jul 2019

Jan 2020



Dec 2020

Planning/Design

Construction

Interceptor 1-MN-344 Tunnel and Emergency Relief Structure ERS04



Objectives/Goals

- Condition
- Regulatory compliance



Schedule

Jan 2014



Jan 2019

Sept 2019



Jul 2022

Planning/Design

Construction

Coon Rapids L34 Improvements



Objectives/Goals

- Condition
- Reliability



Schedule

Sep 2015



Oct 2018

Jun 2019

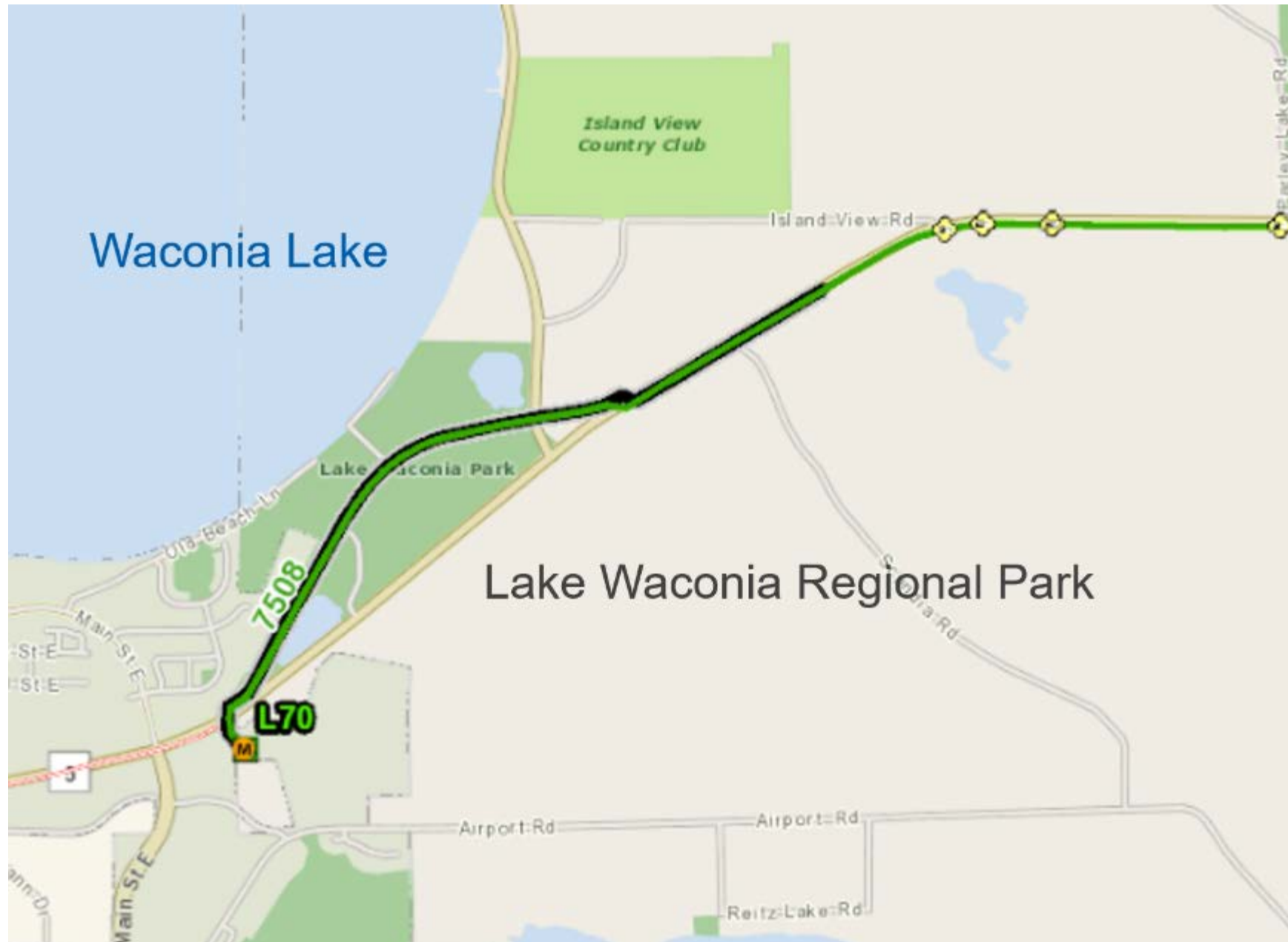


Dec 2020

Planning/Design

Construction

Waconia Forcemain 7508 Phase 2 Replacement



Typical Construction



Objectives/Goals

- Condition
- Capacity for Planned Growth
- Coordination with local partners



Schedule

Jun 2017



Apr 2019

Sep 2019



Dec 2020

Planning/Design

Construction

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



Objectives/Goals

- Condition
- Efficiency
- Capacity for Planned Growth
- Coordination with local partners



Schedule

Jan 2019



Dec 2019

May 2020



May 2021

Planning/Design

Construction

Questions

Jeannine Clancy, Assistant General Manager, Technical Services
651-602-1210
jeannine.clancy@metc.state.mn.us

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

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

