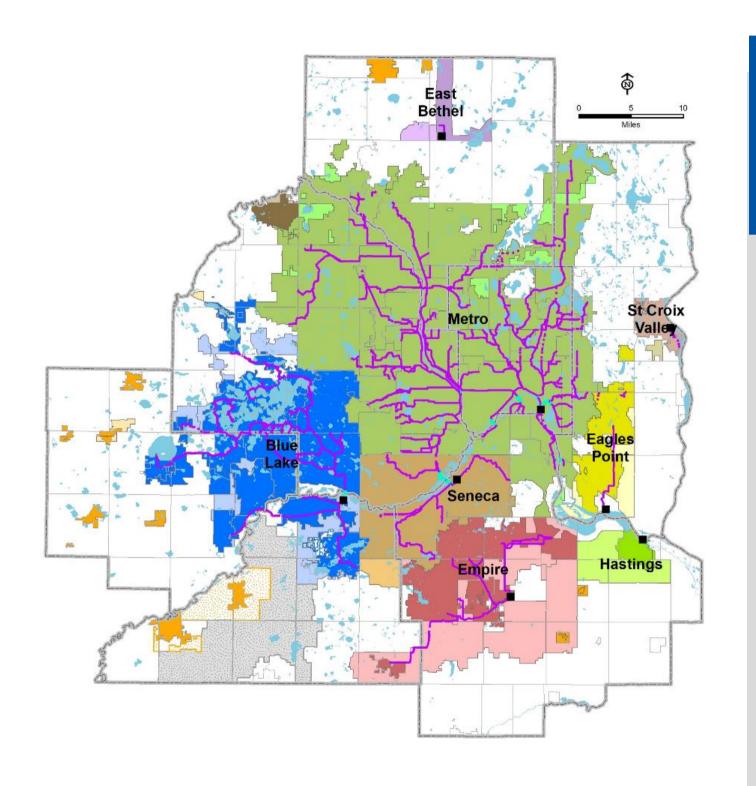
# Minnehaha Park Area Regional Sewer Improvements Project: Regulator R04 & 1-MN-344 Tunnel Rehabilitation

Jeannine Clancy, Assistant General Manager, Technical Services Chad Davison, Project Manager, Interceptor Engineering



## MCES Wastewater System





Protects
Public Health
and Safety



Protects the Environment



Fosters the Economic Growth of the Region

#### WHO WE SERVE

7 County Twin Cities Metro Area110 Communities2,700,000 + People

#### **OUR FACILITIES**

9 Wastewater Treatment Plants610 Miles of Interceptors250 Million Gallons Per Day (Avg)

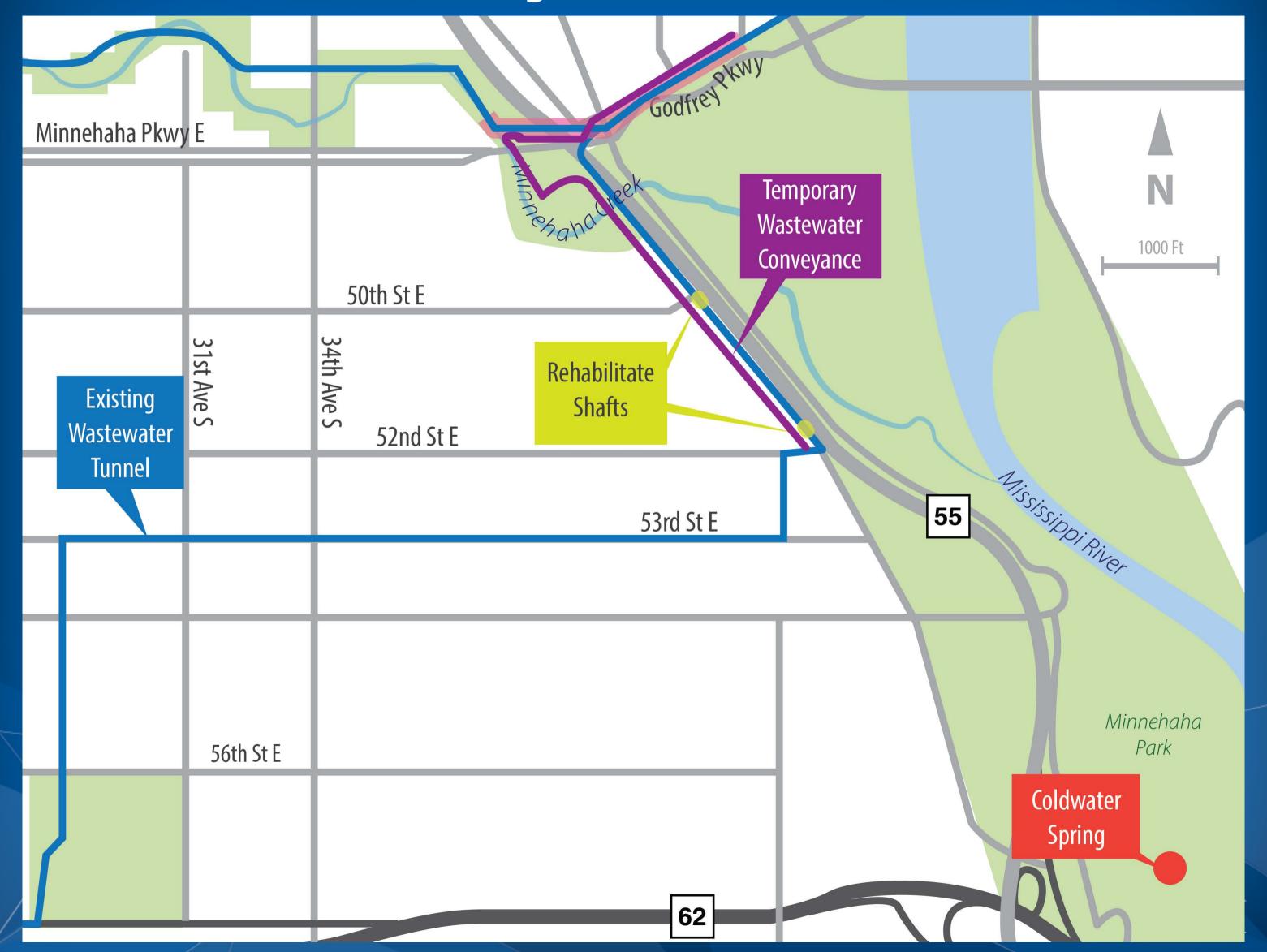
#### **OUR ORGANIZATION**

600 + Employees\$7 Billion In Valued Assets\$150 Million Annual Capital Program

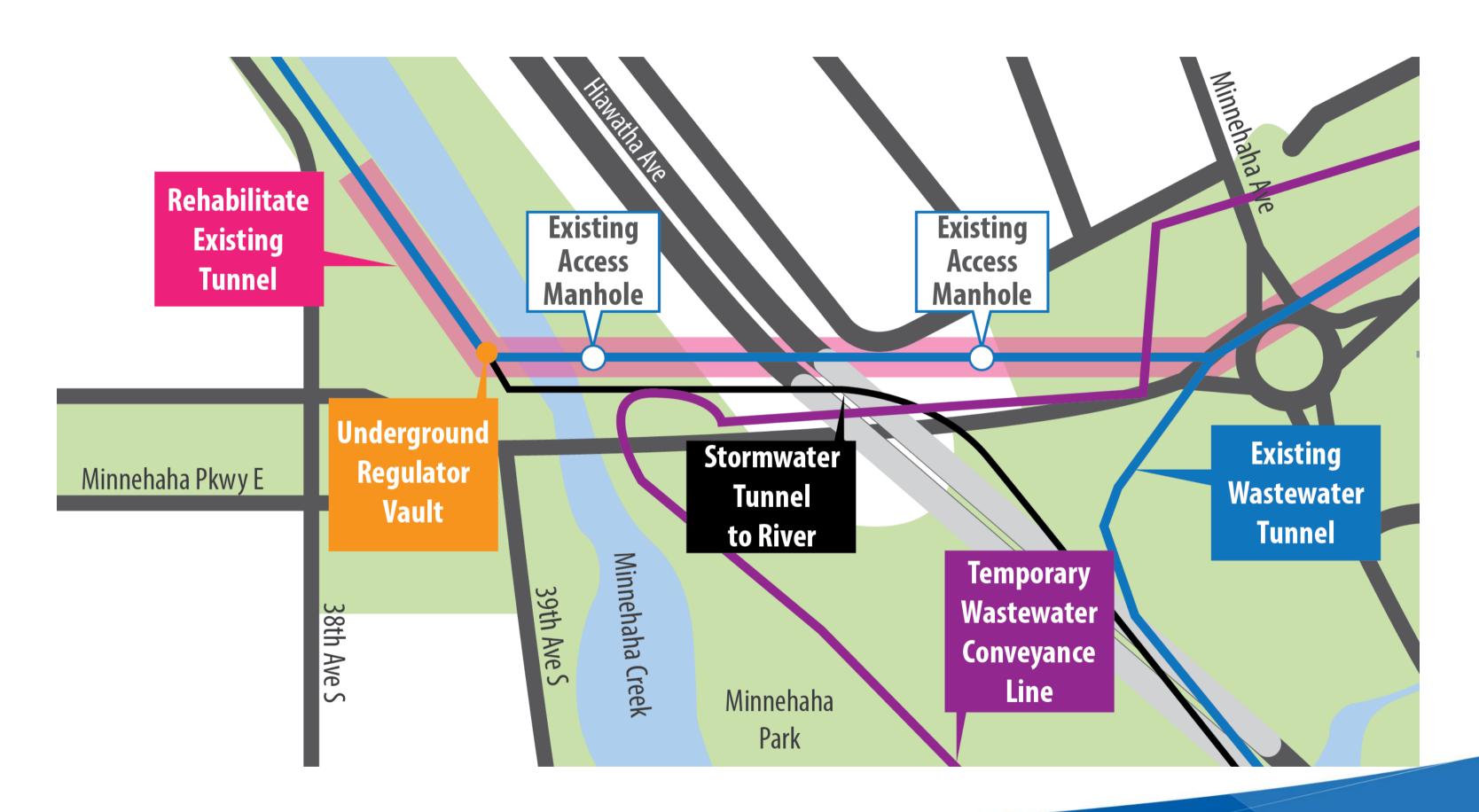
MCES Serves ~ 50% of the State's Population



## Project Area



## Project Area





## Project Drivers

- Extensive corrosion damage to interceptor and regulator
- Sewer sediment removal to recover system capacity
- Improve controls of Emergency Relief Structure 04
- Improve system reliability



# Project History and Public Consultation

- Facility Plan dated February 2013 identified and recommended a new regulator and new sanitary tunnel
- Public comments received expressed concern that excavation and dewatering of the limestone could impact groundwater flow to Coldwater Spring



## Design Goals

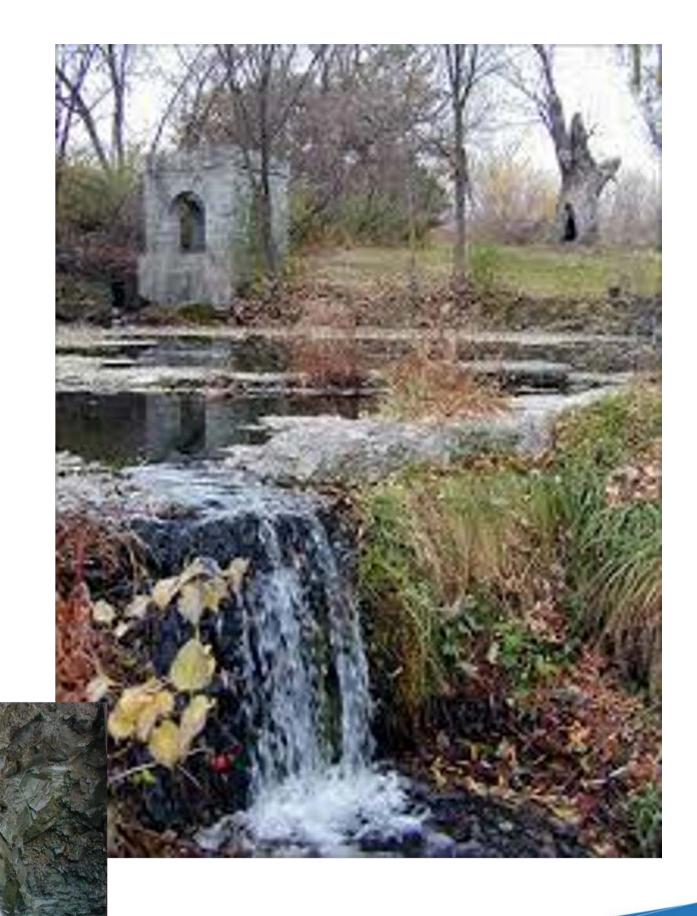
- Avoid impacts to significant cultural, historic and environmental resources
  - Coldwater Spring
  - Minnehaha Creek
  - Minnehaha Falls
  - Longfellow House
- Regional Bike Trail
- Park Access



## Coldwater Spring

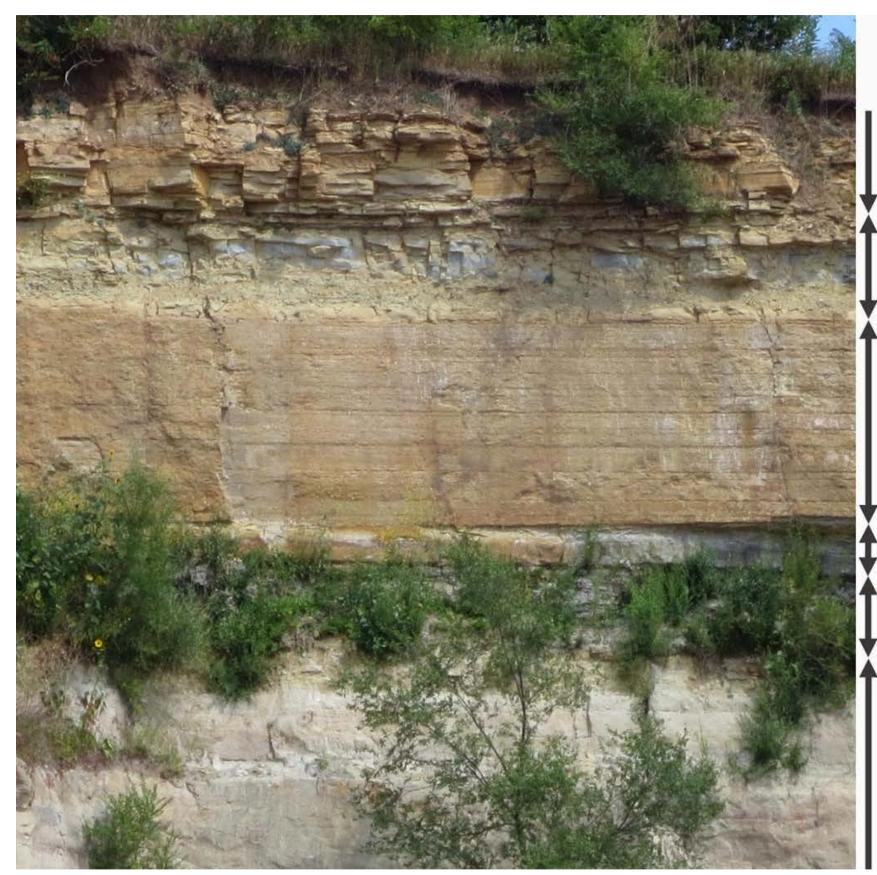
- Located 1.2 miles SE of the project area
- Historically, culturally, and spiritually significant site
- On National Register of Historic Places

 Protected by Federal and State Law





## Bluff Edge Along Shepard Rd



Magnolia Member

**Hidden Falls Member** 

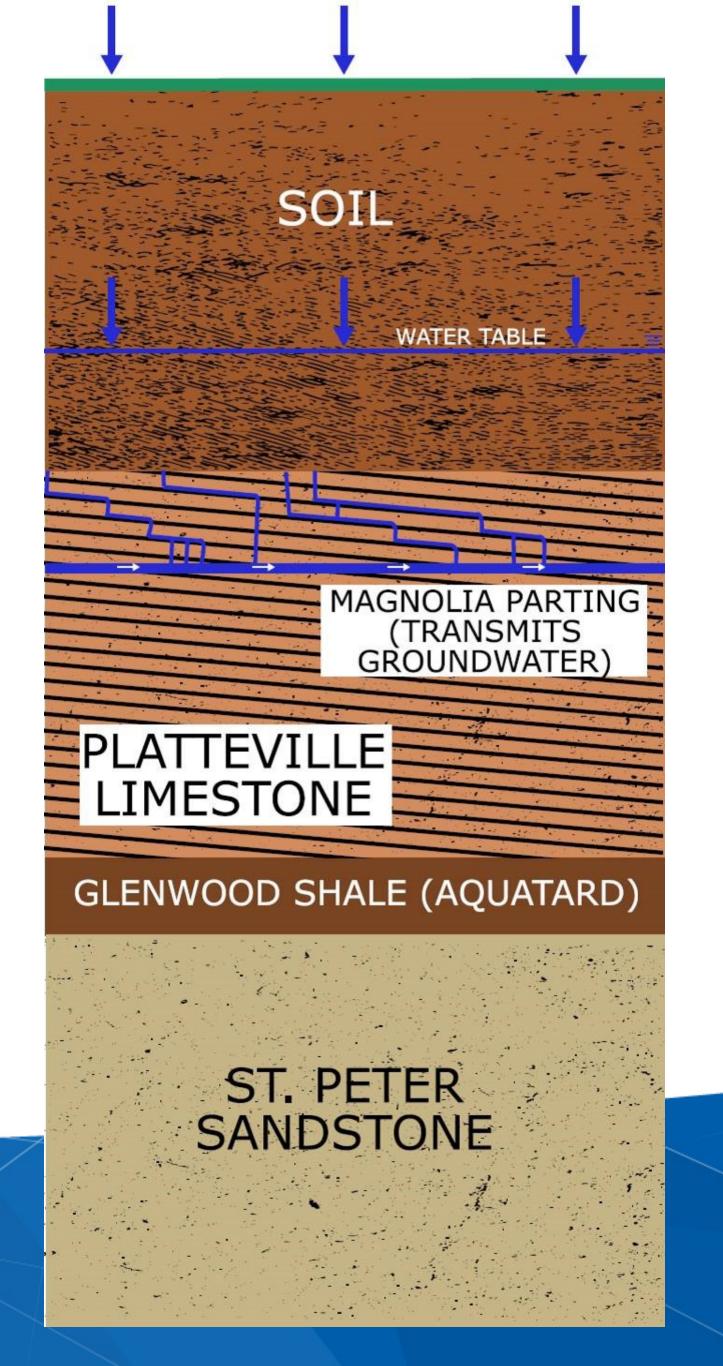
Mifflin Member

Pecatonica Member
Glenwood Formation

St. Peter Sandstone

Platteville Formation







## Rehabilitation Project

- Concerns about even minimal impacts resulted in additional analysis of water flows
- Project changed from reconstruction to rehabilitation of existing tunnel and structures
- No dewatering in limestone layer
- MCES is committed to avoiding impacts to Coldwater Spring
- National Park Service will monitor Coldwater Spring water flow Monday-Friday during sewer rehabilitation

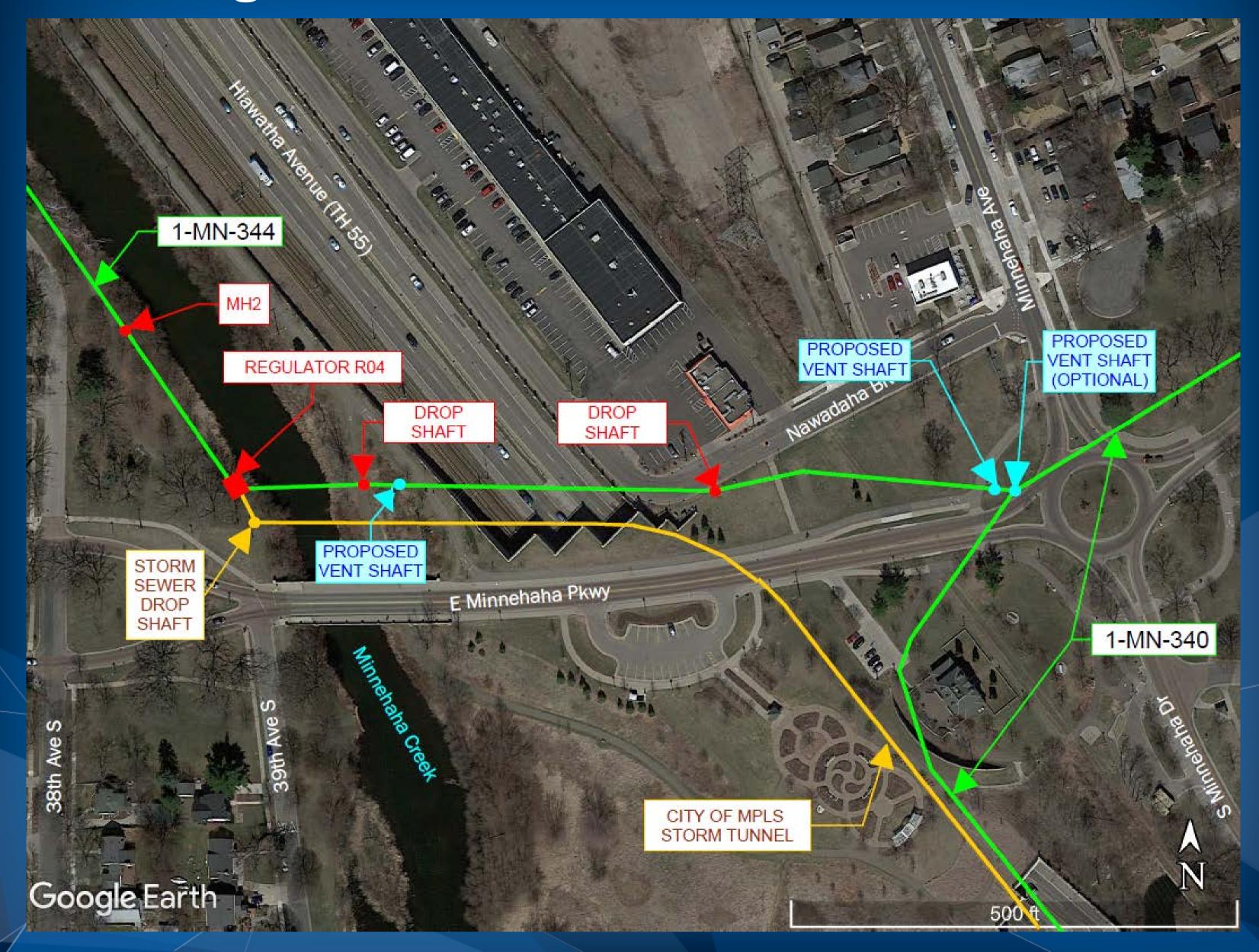


## Project Scope

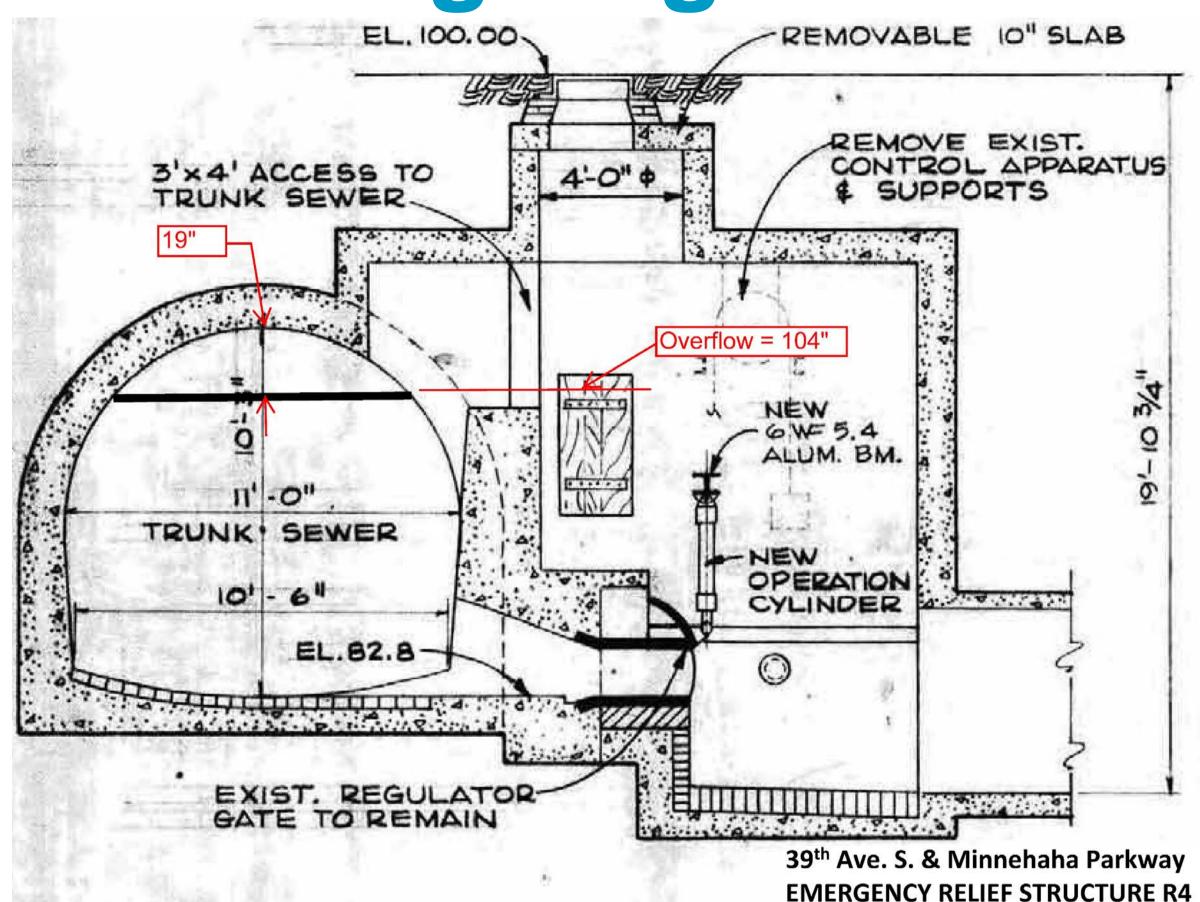
- Tunnel rehabilitation under Minnehaha Creek and Hiawatha Ave
  - Safe construction access through existing shafts
  - Two ventilation shafts for worker safety
- Rehabilitate regulator R04 structure
  - Provisions for future gate if required
- Rehabilitate two drop shafts adjacent to Hiawatha Ave
  - Structural improvements needed to repair corroding maintenance holes
- Clean existing 1-MN-340 interceptor
  - Improve pipe capacity



### Regulator R04 & 1-MN-344 Tunnel



## Existing Regulator 04

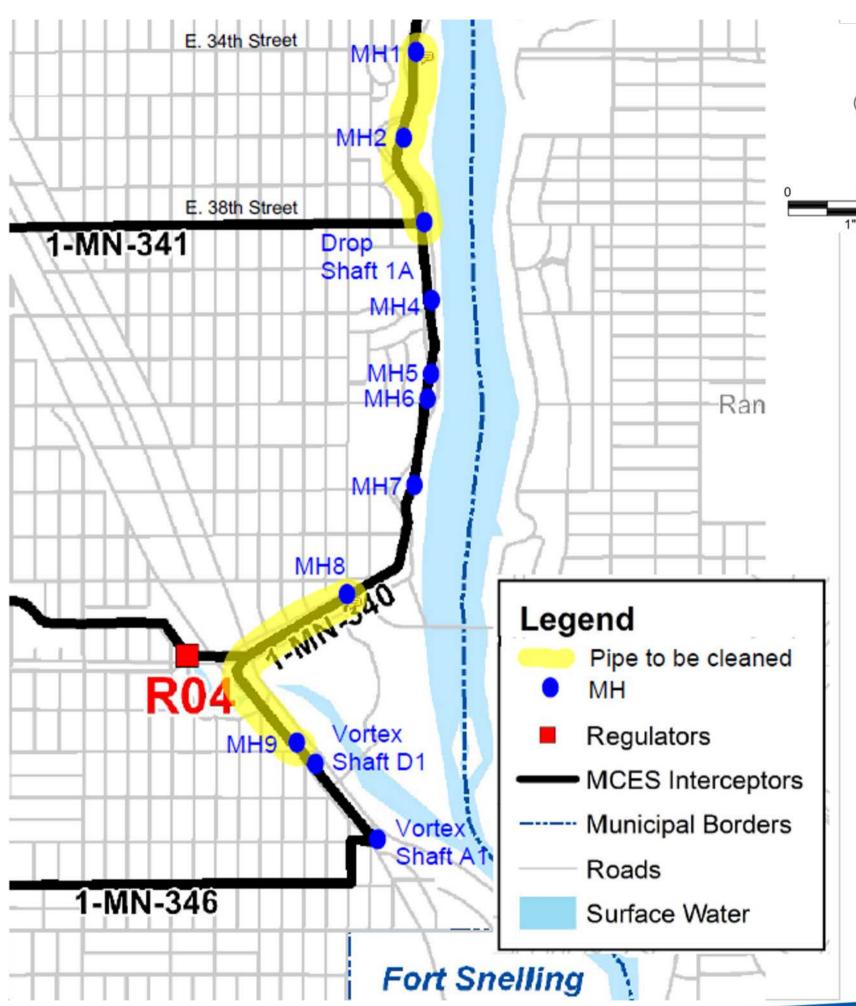




### Vortex Shafts A1 & D1 Locations



### 1-MN-340 Interceptor Cleaning Locations







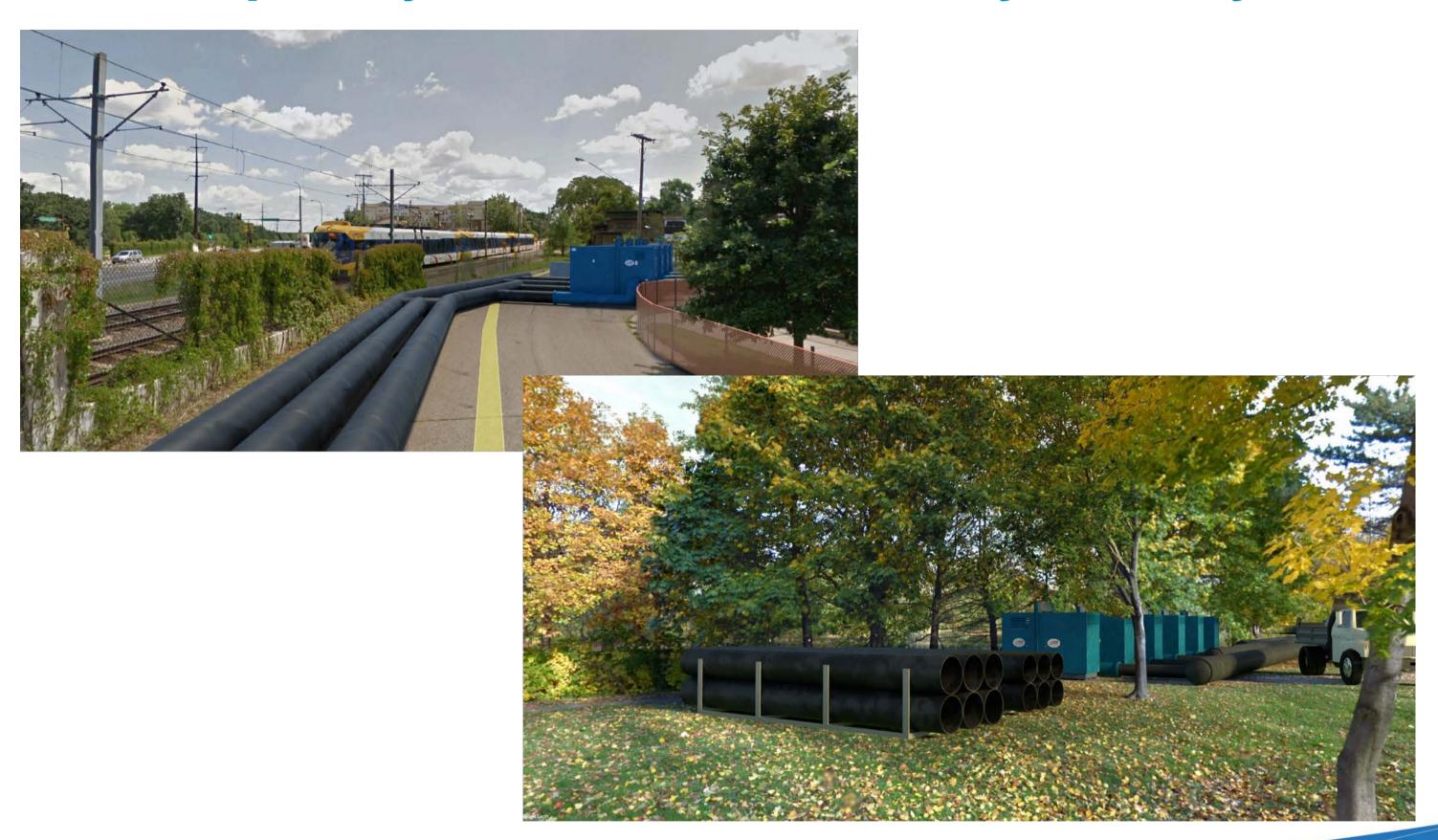
### Temporary Wastewater Conveyance System



- 24", 30", & 36"
   diameter (DIA) pipe
- 24 hour security monitoring planned
- Northern temporary conveyance (orange)- 2 year duration
- Southern temporary conveyance (purple)- 1 year duration



### Temporary Wastewater Conveyance System



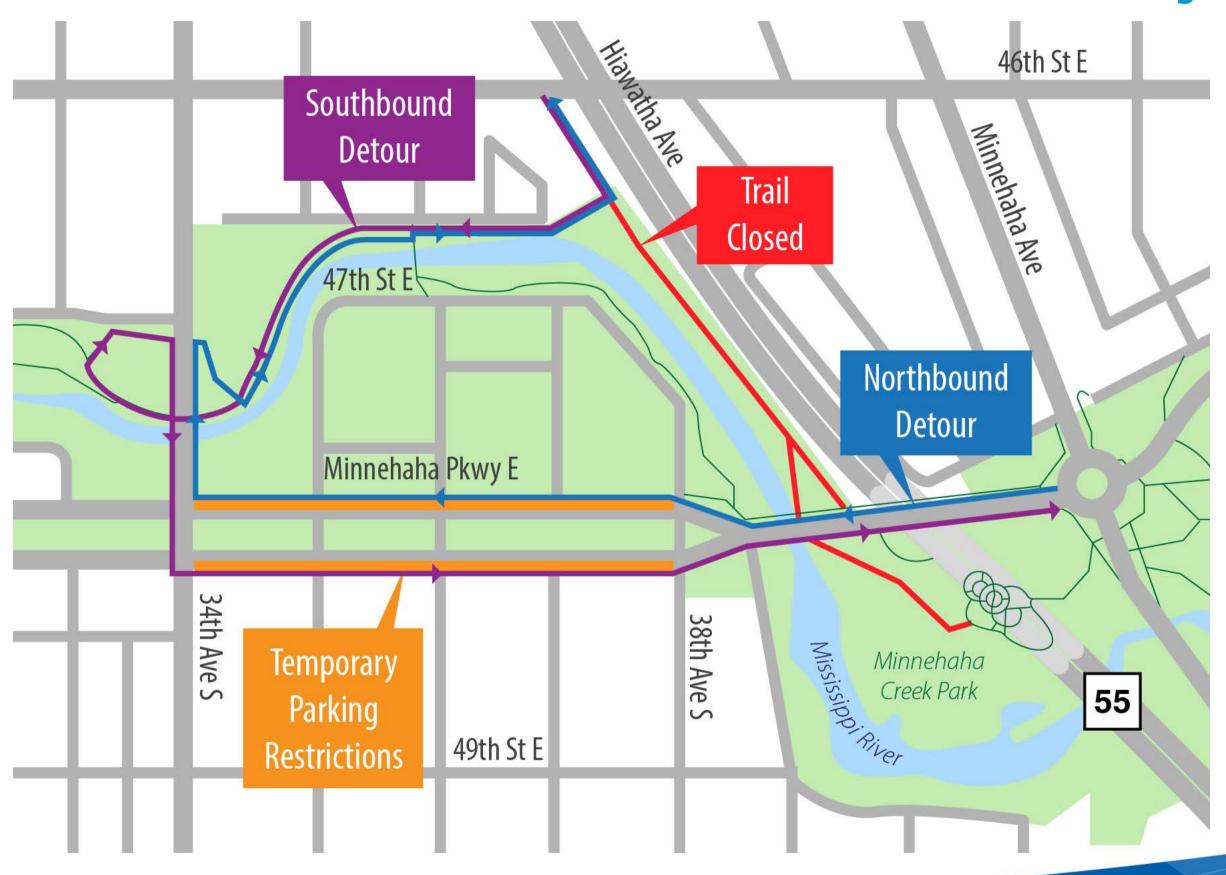


# Traffic Impacts Minimized By Tunneling Under Minnehaha Ave And Cross-streets





### Bike Trail Detour for Duration of Project





### **Tree Removal and Protection**





## Other Potential Impacts/Mitigation

- Odor Requirements for contractors in construction specifications
- Appearance Underground facilities and site restoration
- Noise & dust Work with contractor, City, and Minneapolis Parks and Recreation Board (MPRB) to minimize
- Haul routes Work with the City of Minneapolis
- Storm water run-off Best management practices;
   Minnehaha Creek Watershed District (MCWD) permit
- Wetlands Located along Minnehaha Creek buffer



### **Project Construction Schedule**

TASKS	CONTRACT DATES
Bid Phase Activities	March 2019 – May 2019
Contractor Bid Award	June 12, 2019
Contractor Notice to Proceed	July 2019
Construction Start	September 2019 *
Construction Completion	July 2021

<sup>\*</sup>Pending contractor schedule submittal



### Communications & Engagement

- Final Design: April-May 2018
  - Mailing to tribes, community organizations, businesses, and residents
  - Presentations to neighborhood groups and City Council
  - Public open house and public hearing
- Pre-construction: June-Sept 2019
  - Mailing to tribes, agencies, community organizations, and residents
  - Full Metropolitan Council update on project July 2019
  - Public open house in August
  - Presentations to neighborhood groups

August 5 – Longfellow Community Council

August 7 – Nokomis East Neigh Association

Sept. 9 – Standish Ericsson Neigh Association



### Communications & Engagement

- Construction: Sept 2019 to Fall 2021
  - Ongoing, regular communications to tribes, residents, businesses, and park/trail users about impacts
  - Site signs or site wraps
  - Open houses and park pop-ups



### **Total Cost and Funding Sources**

- Project awarded to Lametti and Sons, Inc. for \$18,506,300.00
- MCES project financing: Public Facilities Authority (PFA) loans
- Loans paid by regional wastewater fees



### Questions

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**Project Hotline and Email** 

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**Project Website** 

www.metrocouncil.org/sewerconstruction/Minnehaha

