

# Program 8092 – Minneapolis Interceptor System Rehabilitation – Phase 2



Photo collage including 4<sup>th</sup> Street tunnel repairs and the inside of a tunnel constructed in the 1930s.

## Description

This program includes facility planning and new projects to address aging infrastructure within or contributory to the City of Minneapolis. Potential projects include:

- Interceptor 1-MN-303 Pipe-in-Pipe Rehabilitation
- Interceptor 1-MN-320 Improvements

## Purpose and justification

Interceptors in Minneapolis were constructed as early as 1891 and included tunnels constructed in the 1930s to intercept the old, combined sewers. Additional planning work is required to both identify projects needed to address capacity and to repair existing facilities. These projects will be prioritized into the future CIP.

## Program location

The active projects within this program are in the following Council districts: 5, 6, 7, and 8

## Active projects in program

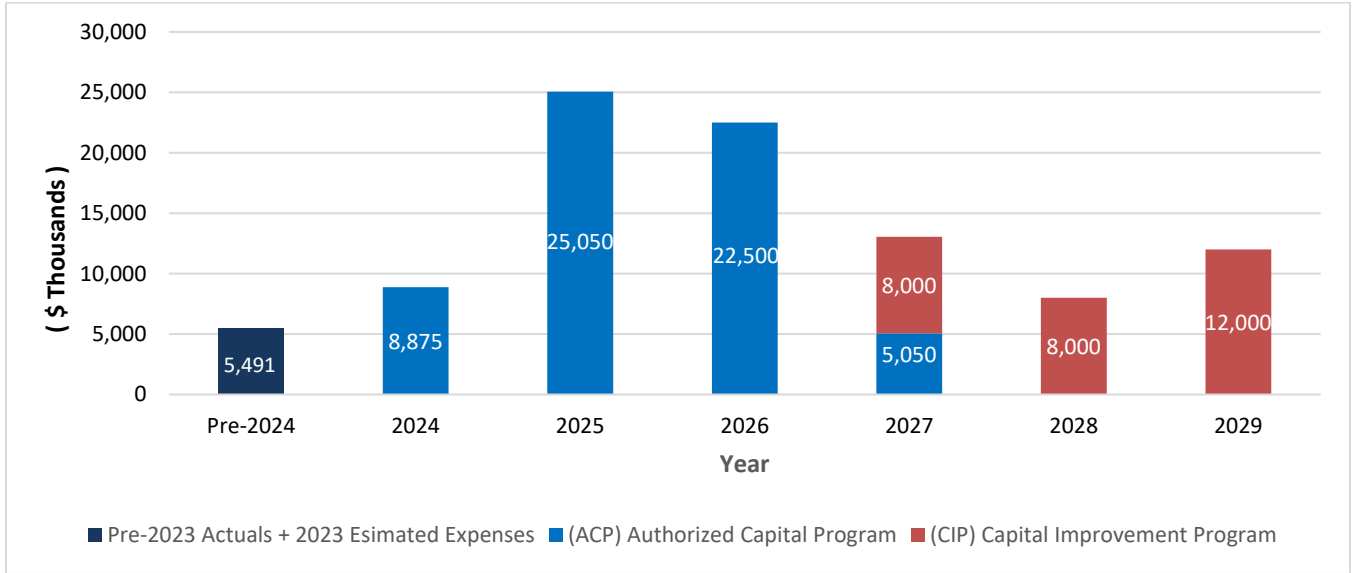
Project Number	Project Title
809200	Minneapolis Interceptor Rehabilitation Phase 2 (Parent Project) –Facility Planning
809205	Interceptor 1-MN-320 Improvements
809208	1-MN-345 Rehabilitation
809210	Minneapolis Sandstone Tunnel Evaluation
809211	1-MN-303 Pipe-in-Pipe Rehabilitation
809213	1-MN-310 Rehab between 23rd and 33rd Avenue North
809214	1-MN-310 Rehabilitation – Phase 1
8092XX	1-MN-346 Rehabilitation – Phase 2

### Environmental Services 2024 through 2029 Capital Program

- Authorized Capital Program (ACP): \$66,966,305
- Capital Improvement Plan (CIP): \$28,000,000

### Estimated program cash flow from 2024 through 2029

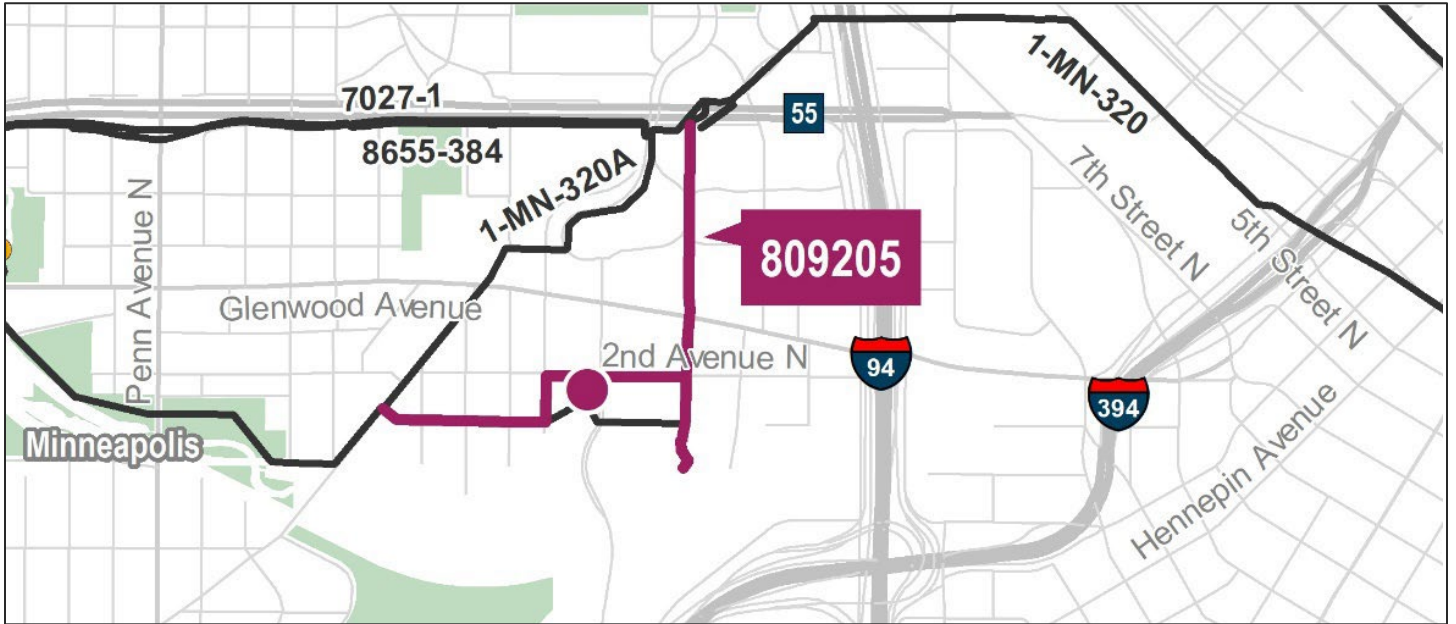
Note: the ACP is the total amount of all past and present authorizations including pre-2024 expenses.



**Interceptor 1-MN-320 Improvements**  
Program family 8092

Project #809205

Project location: Council district #7, City of Minneapolis



Map of Project #809205 location south of Highway 55 and west of I-94 in Minneapolis

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

A Draft Facility Plan recommends the construction of a lift station that serves flows coming into the Currie Avenue portion of 1-MN-320 and a realignment of the portion of 1-MN-320 along Dupont Avenue.

**Project need**

This interceptor, originally constructed in 1888, is in poor condition. In addition, the poor grades and likely settlement of the old interceptor causes solids accumulation in the pipe and results in odors.



Planning: 2021



Design: 2022 through 2023



Construction: 2023 through 2025

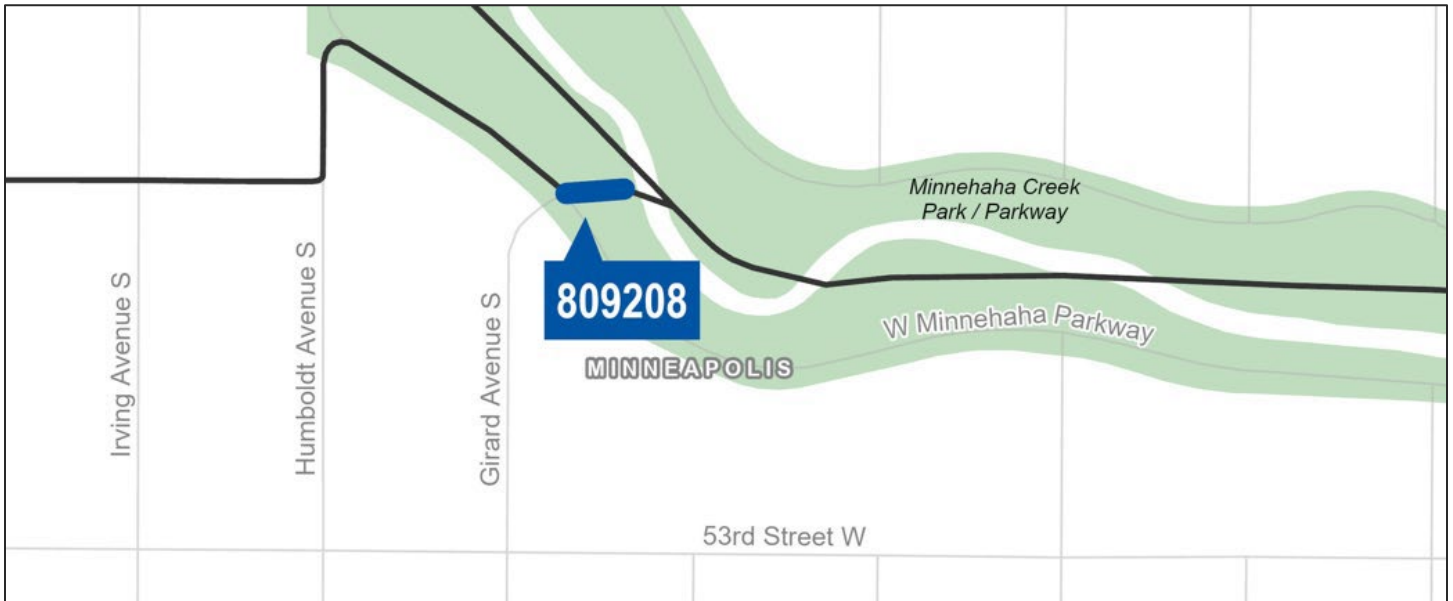
**Financial analysis**

2024 cash flow:	\$300,000
Current ACP:	\$16,315,000
2024 through 2029 cash flow:	\$13,900,000
Total project cost:	\$16,315,000

**1-MN-345 Rehabilitation**  
Program family 8092

**Project #809208**

Project location: Council district #5, City of Minneapolis, Crossing of Minnehaha Creek at Girard Avenue South



Map of Project #809208 location west of Minnehaha Creek Parkway in Minneapolis

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

ES will construct a temporary conveyance around the creek crossing and CIPP line the pipe.

**Project need**

Condition assessment showed an unlined section of Interceptor 1-MN-345 under the Minnehaha Creek in Minneapolis in poor condition. The project is needed to minimize the potential for pipe failure and the release of wastewater to the environment.



Planning: 2022 through 2023



Design: 2023

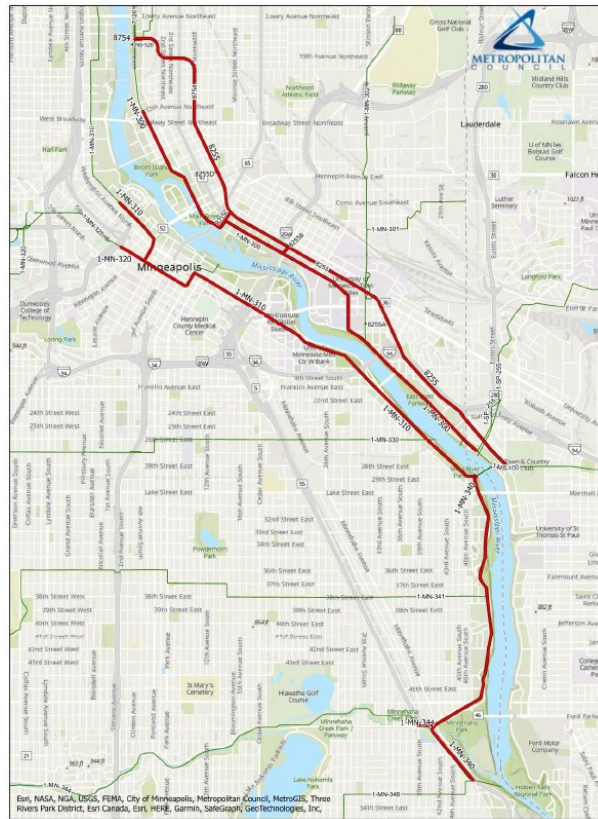


Construction: 2025 through 2026

**Financial analysis**

2024 cash flow:	\$50,000
Current ACP:	\$1,680,000
2024 through 2029 cash flow:	\$1,600,000
Total project cost:	\$1,680,000

Project location: Council districts #6 and 7, City of Minneapolis, generally paralleling the Mississippi River



**Map of Project #809210 location along the Mississippi River in Minneapolis**

**Project type**  
 Condition Assessment

**Objectives**  
 Asset Preservation

**Scope**  
 Complete cave inspections on 1-MN-310 and 1-MN-340 and prepare inspection plans for 2024.

**Project need**  
 There is a risk of sandstone eroding over time from over the top of constructed tunnels through natural ground behavior. Condition assessments are needed to minimize the potential for pipe failure.



Planning: 2022 through 2023



Design: 2023



Construction: 2025 through 2026

**Financial analysis**

2024 cash flow:	\$350,000
Current ACP:	\$6,850,000
2024 through 2029 cash flow:	\$15,350,000
Total project cost:	\$18,850,000





# 1-MN-310 Rehabilitation Between 23rd and 33rd Avenue North

Program family 8092

Project #809213

Project location: Council district #7, City of Minneapolis



Map of Project #809213 location south of Lowry Avenue and east of I-94 in Minneapolis

## Project type

Interceptor Improvements

## Objectives

Asset Preservation

## Scope

Line 5,000 feet of 1-MN-310 from 34th Avenue North to 22nd Avenue North and rehabilitate 20 maintenance holes.

## Project need

Interceptor 1-MN-310 is adjacent to the proposed Upper Harbor Terminal project in Minneapolis. Recent CCTV inspection has identified Condition 4 deterioration between 34th and 22nd Avenues North. The project schedule will be coordinated to limit impacts on future development in the area.



Planning: 2020



Design: 2020 through 2023



Construction: 2023 through 2025

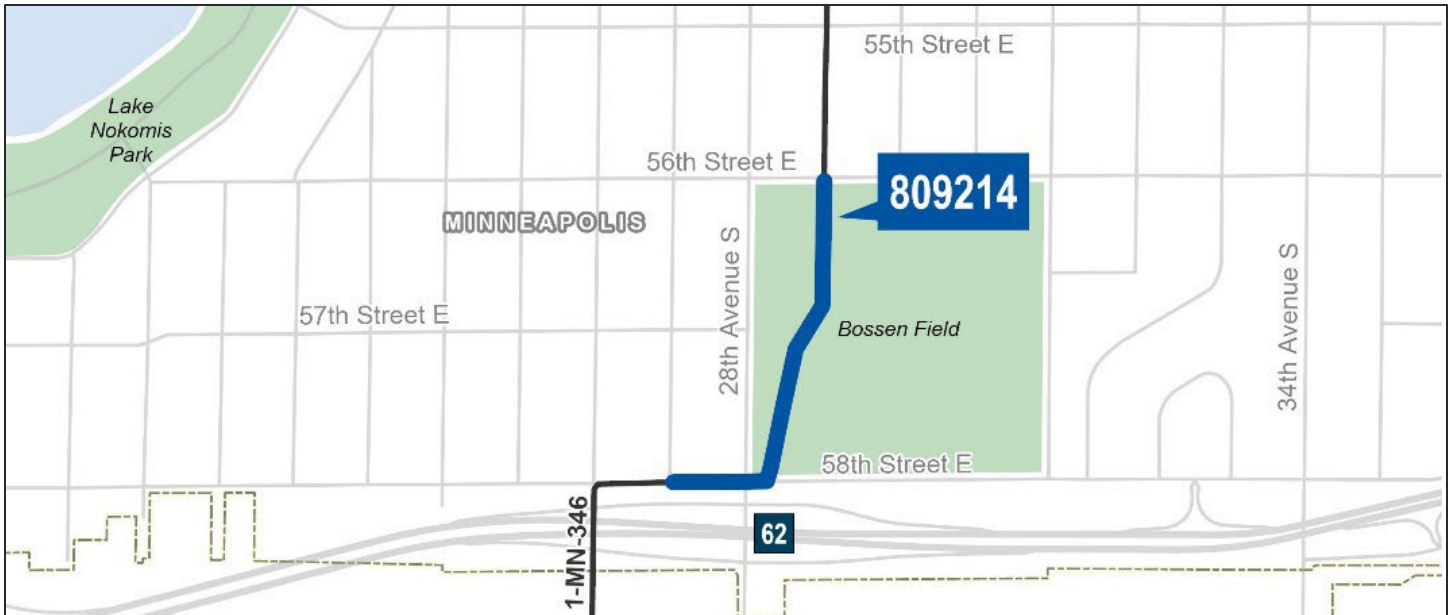
## Financial analysis

2024 cash flow:	\$500,000
Current ACP:	\$12,700,000
2024 through 2029 cash flow:	\$12,550,000
Total project cost:	\$12,700,000

**1-MN-346 Rehabilitation – Phase 1**  
Program family 8092

**Project #809214**

Project location: Council district #6, Cities of Minneapolis and Richfield, north side of the airport to the north side of Bossen Field



Map of Project #809214 location north of Highway 62 in Richfield and Minneapolis

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

Rehabilitate the existing Condition 5 pipe between Bossen Field and 53rd Street East or replace it.

**Project need**

Methane gases are likely entering Interceptor 1-MN-346 through surrounding fill materials. High methane concentrations have been found at structures along Bossen Field park and upstream to Meter M130. The interceptor was identified as being in poor condition in previous assessment. Lining the interceptor will preserve the pipe and minimize gases from entering the sewer potentially causing hazardous conditions.



Planning: 2022



Design: 2023



Construction: 2024 through 2025

**Financial analysis**

2024 cash flow:	\$1,850,000
Current ACP:	\$3,461,000
2024 through 2029 cash flow:	\$3,250,000
Total project cost:	\$3,450,000



# 1-MN-346 Rehabilitation – Phase 2

Program family 8092

Project #8092XX

Project location: Council district #6, Cities of Minneapolis and Richfield



Map of Project #8092xx along 53<sup>rd</sup> Street East in Minneapolis

### Project type

Interceptor Improvements

### Objectives

Asset Preservation and System Expansion

### Scope

A study is underway to determine whether a new interceptor pipe should replace the existing 1-MN-346 interceptor or divert flow through a parallel pipe to increase capacity and reduce maintenance.

### Project need

Hydraulic modeling conducted by ES in partnership with Edina indicate future capacity issues. A sag between 54th and 56th Streets along 1-MN-346 has been problematic for maintenance with grease buildup and limits the capacity of the pipe.



Planning: 2023



Design: 2024



Construction: 2025 through 2026

### Financial analysis

2024 cash flow:	\$250,000
Current ACP:	\$3,820,000
2024 through 2029 cash flow:	\$9,250,000
Total project cost:	\$9,325,000