

## Program 8095 – South Area Interceptor Improvements



The construction of a new outfall structure for the Bloomington siphon in Eagan

### Description

The interceptor systems in Apple Valley, Eagan, Farmington, Lakeville, Savage, and other south area communities need rehabilitation and/or replacement as well as expansion to serve growth. This program will rehabilitate existing interceptor facilities, including gravity sewers, and forcemains, and will analyze system needs to accommodate growth.

### Purpose and justification

The program provides for improvements to the interceptor system that serves the south area. This includes work that will rehabilitate deteriorated interceptors in this area.

### Program location

The active projects within this program are in the following Council districts: 4, 15, and 16

### Active projects in program

Project Number	Project Title
809500	South Area Improvements (Parent Project)
809510	Shakopee Interceptor Odor Improvements

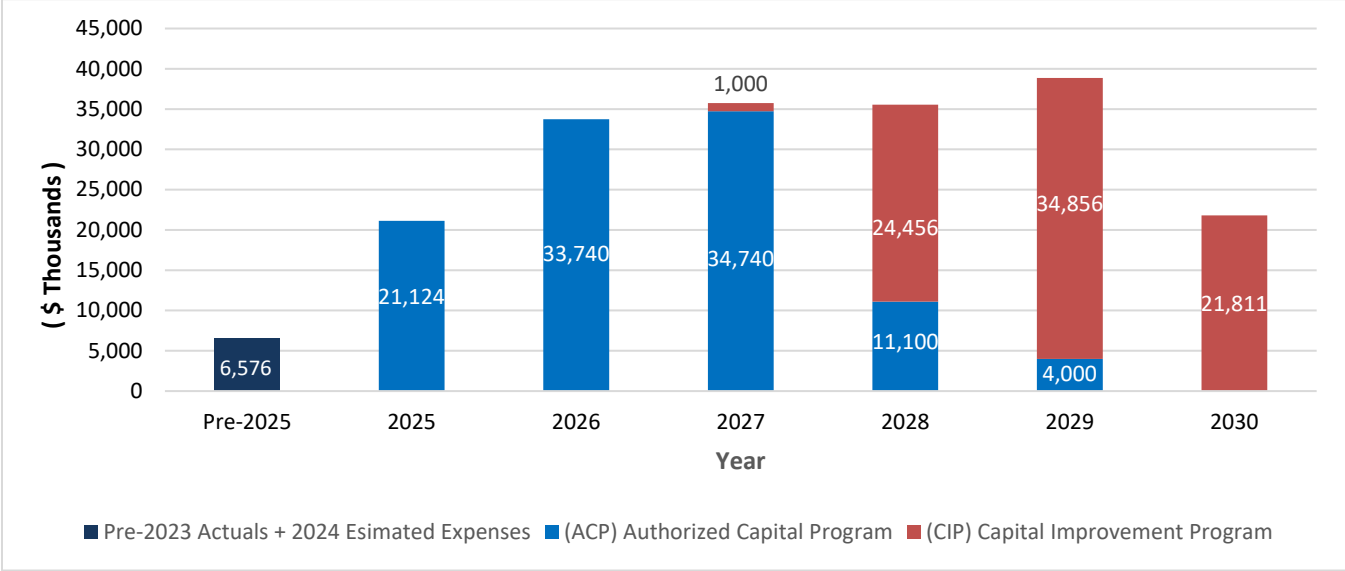
Project Number	Project Title
809512	1-MH-401 Rehabilitation
809513	7031-9003 Siphon Outlet Improvements
809515	Woodbury 1-WO-500 Improvements
809516	Burnsville Interceptor 3-BV-39
809518	MnDOT Robert Street Reconstruction 1-SP-230/M-058
809519	Interceptor 3-BV-35 Rehabilitation Site 1
809521	Burnsville 3-BV-35 Site 2 Rehabilitation
809523	Interceptor 7111A & Siphon 7102-2 Rehabilitation

**Environmental Services 2025 through 2030 Capital Program**

- Authorized Capital Program (ACP): \$111,208,922
- Capital Improvement Plan (CIP): \$82,123,000

**Estimated program cash flow from 2025 through 2030**

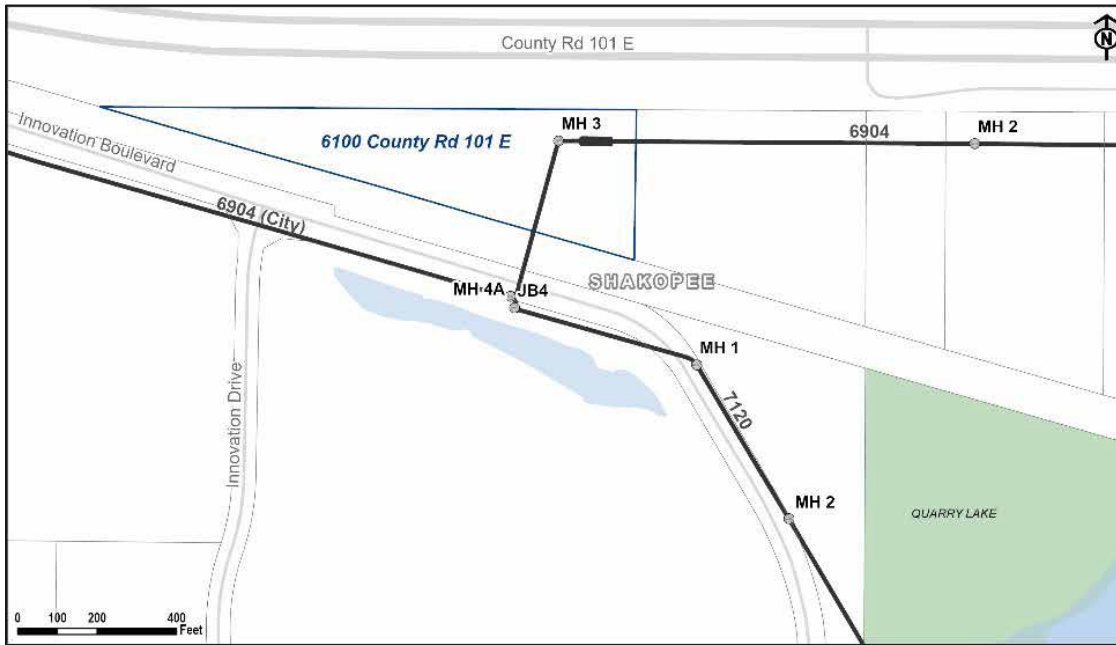
Note: the ACP is the total amount of all past and present authorizations including pre-2025 expenses.



**Shakopee Interceptor Odor Improvements**  
**Program family 8095**

**Project #809510**

Project location: Council district #4, City of Shakopee, 9206 and 7120; pipe that runs along Highway 169



Map of project #809510 north of Innovation Boulevard and south of County Road 101 East in Shakopee.

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

Project work will include construction of ventilation and odor treatment facilities.

**Project need**

Very high hydrogen sulfide generation in interceptors 7120, 9206, and 6904 has led to corrosion and odors. A siphon located along interceptor 6904 creates an air dam, forcing sewer air to escape to the surface and impacting surrounding properties with odor. Hydrogen sulfide concentration within the interceptors at this location is at dangerous levels creating a safety issue for inspections and cleaning work.



Planning: 2020 through 2023



Design: 2023 through 2024



Construction: 2024 through 2026

**Financial analysis**

2025 cash flow:	\$400,000
Current ACP:	\$1,561,000
2025 through 2030 cash flow:	\$8,900,000
Total project cost:	\$9,500,000

**1-MH-401 Rehabilitation**  
**Program family 8095**

**Project #809512**

Project location: Council District #14, Cities of Saint Paul, Mendota Heights, and Lilydale.



Map of Project #809512 near I-35E and Crosby Farm Regional Park

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

Facility rehabilitation will occur in multiple phases including cured-in-place pipe (CIPP) lining of the siphon segments in the “stray current zone”, inspection and repair of other siphon segments downstream of the headhouse and under the Mississippi River as needed, and improving the head and tail houses. Installation of a new siphon is also being evaluated.

**Project need**

The 1-MH-401 facility consists of three 4,400-foot siphons, 12-, 16-, and 20 inches in diameter; a head house with control valves; a tail house with mag meters; and 1,200 feet of 30-inch x 72-inch gravity sewer downstream of the tailhouse that discharges into Interceptor 1-SP-250. The 12-inch siphon experienced a catastrophic failure in 2023 in an area potentially prone to corrosion from stray currents. It was repaired under Emergency Declaration in 2024 using a “Bullet Liner”. Shortly after the 12-inch siphon was repaired, the 20-inch siphon stopped taking flow, and sinkholes developed in the same area when the 20-inch siphon was dewatered for inspection. The facility is currently operating with only the 12-inch and 16-inch siphons serviceable and the condition of the 16-inch siphon suspect. A rehabilitation project is required to restore reliability and capacity to the entire system and avoid wastewater releases to the environment.



Planning: 2023 through 2025



Design: 2025 through 2026



Construction: 2027 through 2029

**Financial analysis**

2025 cash flow:	\$1,000,000
Current ACP:	\$15,755,000
2025 through 2030 cash flow:	\$34,500,000
Total project cost:	\$49,624,000



**7031-9003 Siphon Outlet Improvements**  
**Program family 8095**

**Project #809513**

Project location: Council district #15, City of Eagan, Between L13 (located at 3725 Nicols Road) and the Bloomington Siphon Outlets (at 3740 Nicols Road).



Map of project 809513 location on Nicols Road in Eagan.

**Project type**

Forcemain and Siphon Improvements

**Objectives**

Asset Preservation

**Scope**

Phase I of the construction was completed under Project 819026: clear trees, relocate utilities, and install temporary conveyance. Phase II of the construction is being completed under Project 809513 over two winter construction seasons, and includes rebuilding the south junction structure, maintenance holes, slip-lining pipe, replacement of forcemain, and inspection of the siphons crossing the Minnesota River.

**Project need**

During inspection of the 7031/9003 Siphon Outlet Structures, Project 819010, severe corrosion was identified in the South Junction Structure and Maintenance hole 1. The 7030 forcemain between L13 and the Siphon Outlet Structure was constructed of 30-inch pre-stressed circular concrete pipe (PCCP) in 1972. PCCP Pipe of this installation year has a high rate of failure in corrosive environments. The pipe runs along the west side of Nicols Road through the Nicols Calcareous Fen, a unique type of wetland that supports many threatened or endangered plant species.



Planning: 2022 through 2023



Design: 2023 through 2024



Construction: 2025 through 2026

**Financial analysis**

2025 cash flow:	\$4,534,000
Current ACP:	\$7,100,000
2025 through 2030 cash flow:	\$2,345,000
Total project cost:	\$7,100,000

**Woodbury 1-WO-500 Improvements**  
**Program family 8095**

**Project #809515**

Project location: Council district 13, Cities of Woodbury and Oakdale



Map of the project 809515 location in Woodbury, Maplewood and St. Paul.

**Project type**  
 Study

**Objectives**  
 Asset Preservation and System Expansion

**Scope**  
 Metropolitan Council Environmental Services (ES) owns and operates 1-WO-500 in the cities of Woodbury, Maplewood, and Saint Paul. The interceptor potentially has capacity Issues from the crossing of I-94 at the Oakdale border to Ruth Street North in Saint Paul. The primary objective of this project is to improve system reliability by increasing the capacity of the interceptor. The planning phase will include hydraulic modeling and a desktop and field evaluation of the existing facility conditions.

**Project need**  
 The loss of service capacity in 1-WO-500 could cause environmental impacts from a spill or restrain future development.



Planning: 2025



Design: 2026



Construction: TBD

**Financial analysis**

2025 cash flow:	\$100,000
Current ACP:	\$2,108,000
2025 through 2030 cash flow:	\$11,000,000
Total project cost:	\$11,000,000

**Burnsville Interceptor 3-BV-39**  
**Program family 8095**

**Project #809516**

Project location: Council district #16, City of Burnsville



Map of Project #809520 Site 1 location from Frontage Road South across I-35W to near Cliff Road East in Burnsville

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

Rehabilitation of 8,560 feet of interceptor pipe and 30 maintenance structures.

**Project need**

Routine gravity interceptor CCTV inspections have identified four interceptor sites in the South Interceptor Service Area that have failed pipes or pipes that will likely fail in the next 5 years. The facilities are in need of rehabilitation.



Planning: 2023



Design: 2024



Construction: 2025 through 2026

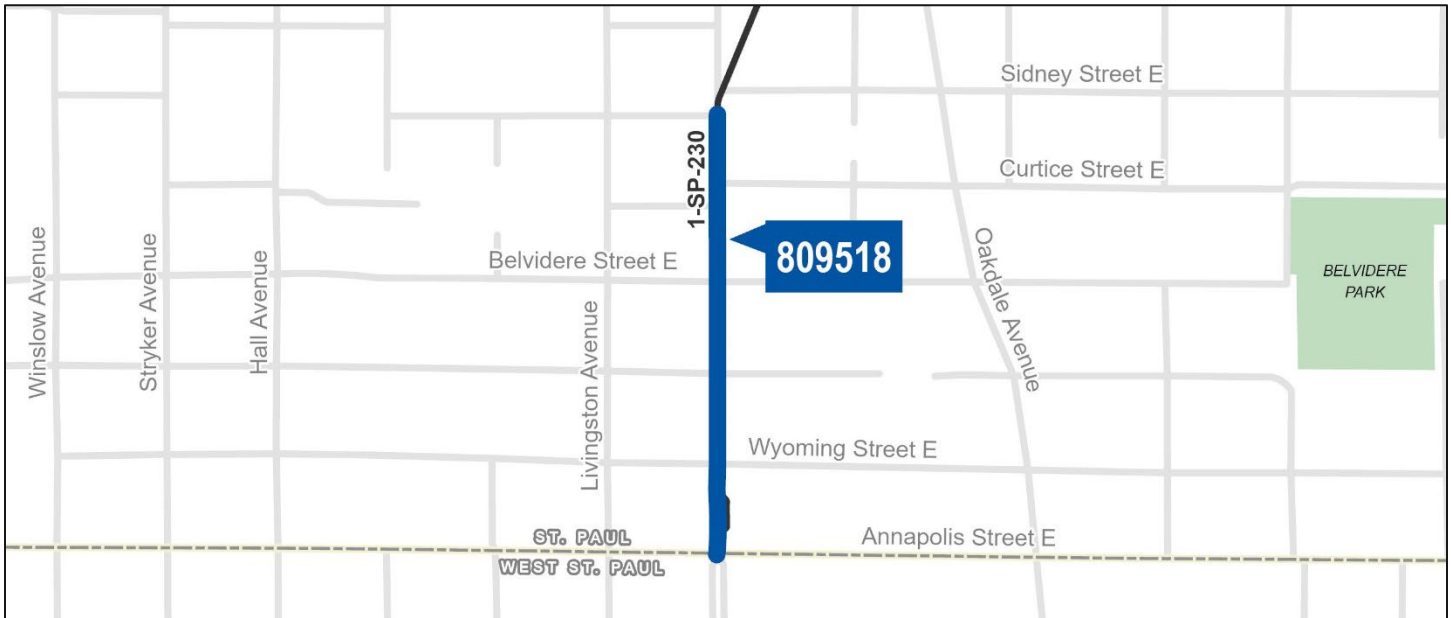
**Financial analysis**

2025 cash flow:	\$300,000
Current ACP:	\$0
2025 through 2030 cash flow:	\$14,700,000
Total project cost:	\$15,000,000

**MnDOT Robert Street Reconstruction 1-SP-230/M-058**  
**Program family 8095**

**Project #809518**

Project location: Council district #13 and 15, Cities of Saint Paul and West St. Paul



Map of project #809518 – location in Saint Paul's West Side

**Project type**

Interceptor and Meter Improvements

**Objectives**

Asset Preservation and Quality Improvements

**Scope**

The scope of work on this project will include rehabilitation of 2,500 linear feet of 42-inch brick pipe, 11 maintenance structures, and meter vault and flume improvements.

**Project need**

MnDOT's Robert Street Reconstruction project between Annapolis Street East and Kellogg Boulevard overlaps a portion of interceptor 1-SP-230 and M-058. Condition assessments show fair to poor condition assets in the vicinity. This project will extend the useful life of interceptor facilities in the MnDOT right-of-way beyond the construction 20-year no-dig moratorium.



Planning: 2025



Design: 2025 through 2026



Construction: 2027 through 2028

**Financial analysis**

2025 cash flow:	\$200,000
Current ACP:	\$700,000
2025 through 2030 cash flow:	\$3,400,000
Total project cost:	\$3,400,000



**Interceptor 3-BV-35 Rehabilitation Site 1**  
**Program family 8095**

**Project #809519**

Project location: Council district #16, City of Burnsville



Map of Project #809520 Site 2 south of the eastern portion of Black Dog Lake and Site 3 along Cliff Road.

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

Sites 2 and 3 of the South Area Improvements. This project includes rehabilitation of 2,740 feet of interceptor pipe and associated maintenance structures as needed.

**Project need**

Interceptor 3-BV-35 was constructed in 1964. CCTV inspection showed two segments to be conditions 4 and 5 and in need of rehabilitation or replacement. The upstream segment from MH-172 to MH-170 includes approximately 800 feet of 18-inch reinforced concrete pipe (RCP). The downstream segment between MH-85 and the 7030 discharge includes 1,200 feet of 12-inch vitreous clay pipe (VCP) and 740 feet of 18-inch VCP.



Planning: 2023



Design: 2024



Construction: 2025 through 2026

**Financial analysis**

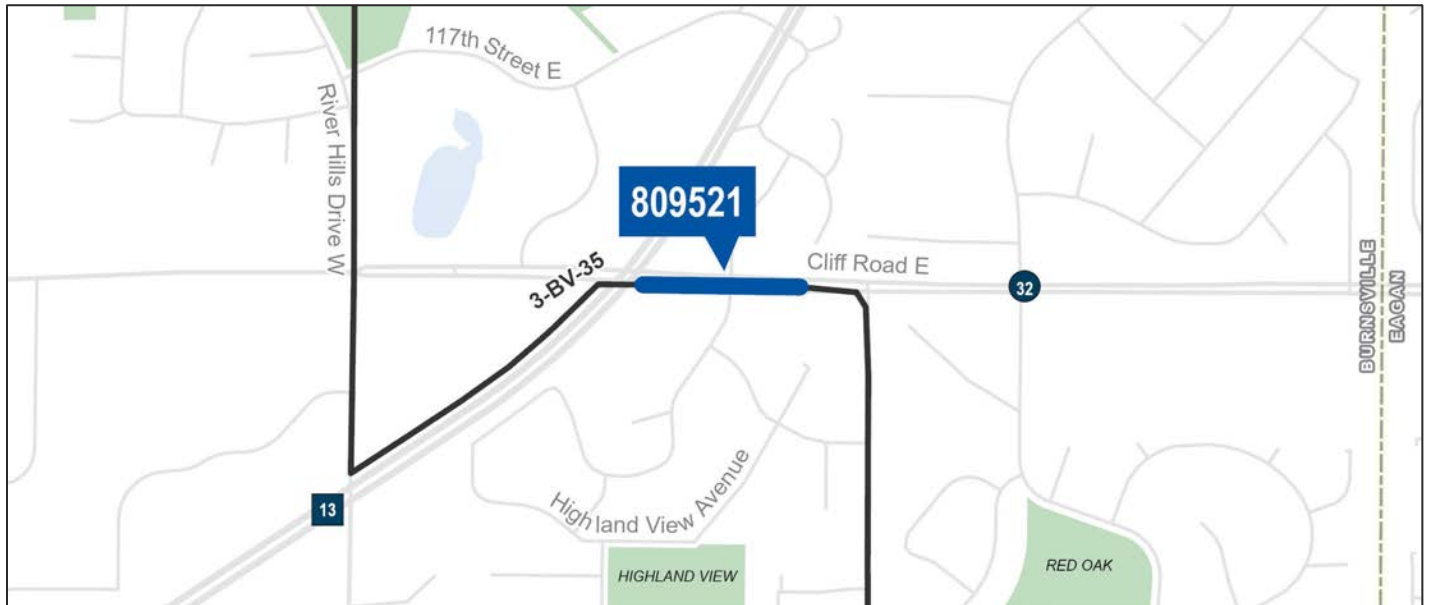
2025 cash flow:	\$50,000
Current ACP:	\$1,216,000
2025 through 2030 cash flow:	\$2,400,000
Total project cost:	\$2,400,000

# Burnsville 3-BV-35 Site 2 Rehabilitation

Program family 8095

Project #809521

Project location: Council district #16, City of Burnsville.



Map of project #809521 located along Cliff Road near Highway 13 in Burnsville

### Project type

Interceptor Rehabilitation

### Objectives

Asset Preservation

### Scope

3-BV-35 Site 2 includes the approximately 800-foot segment from maintenance hole (MH)-170 to MH-1 along Cliff Road. MH-1 is a drop MH with one 8-inch City of Burnsville connection from the south. MH-2 is a drop MH with one 9-inch City of Burnsville connection from the north.

Site 2 construction will include a single temporary conveyance pipe routed on the south side of Cliff Road and underneath Highway 13. Site 2 construction will include traffic control around the construction area and restoration of disturbed areas.

### Project need

Approximately 800 linear feet of 18-inch reinforced concrete pipe (RCP) pipe was installed in 1964 and was rated 4 (poor) during the 2022 condition assessment.



Planning: 2023



Design: 2024 through 2025



Construction: 2025 through 2026

### Financial analysis

2025 cash flow:	\$100,000
Current ACP:	\$1,950,000
2025 through 2030 cash flow:	\$2,100,000
Total project cost:	\$2,100,000

**Interceptor 7111A & Siphon 7102-2 Rehabilitation**  
 Program family 8095

**Project #809523**

Project location: Council district #15, City of Inver Grove Heights, 7102-2 and 7111A



Map of Project #809523 Site 4 south of Heritage Village Park in Inver Grove Heights.

**Project type**

Interceptor Improvements

**Objectives**

Asset Preservation

**Scope**

Site 4 of the South Area Improvements. This project includes rehabilitation of 555 feet of interceptor pipe and associated maintenance structures.

**Project need**

CCTV inspection showed the segment between the 7102-2 Turning Chamber and 7111A discharge to 7111-1 and 2 at maintenance hole (MH) 212 to be conditions 4 and 5. The turning structure is in very poor to failing condition, as is the tail of the siphon pipes. Other structures associated with these pipes are in poor condition and will need replacement.



Planning: 2023



Design: 2024



Construction: 2025 through 2026

**Financial analysis**

2025 cash flow:	\$200,000
Current ACP:	\$1,121,000
2025 through 2030 cash flow:	\$8,100,000
Total project cost:	\$8,103,000