

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

New program additions

Category	Details
Scope	Coordination/relocation and rehabilitation of over 8,400 feet of 18 to 27-inch interceptor pipe.
Assets	8560, 3-BV-39, 7112
Communities	Savage, Burnsville, Rosemount
Added budget	\$49,500,000
Construction years	2026 through 2031

Active projects in program

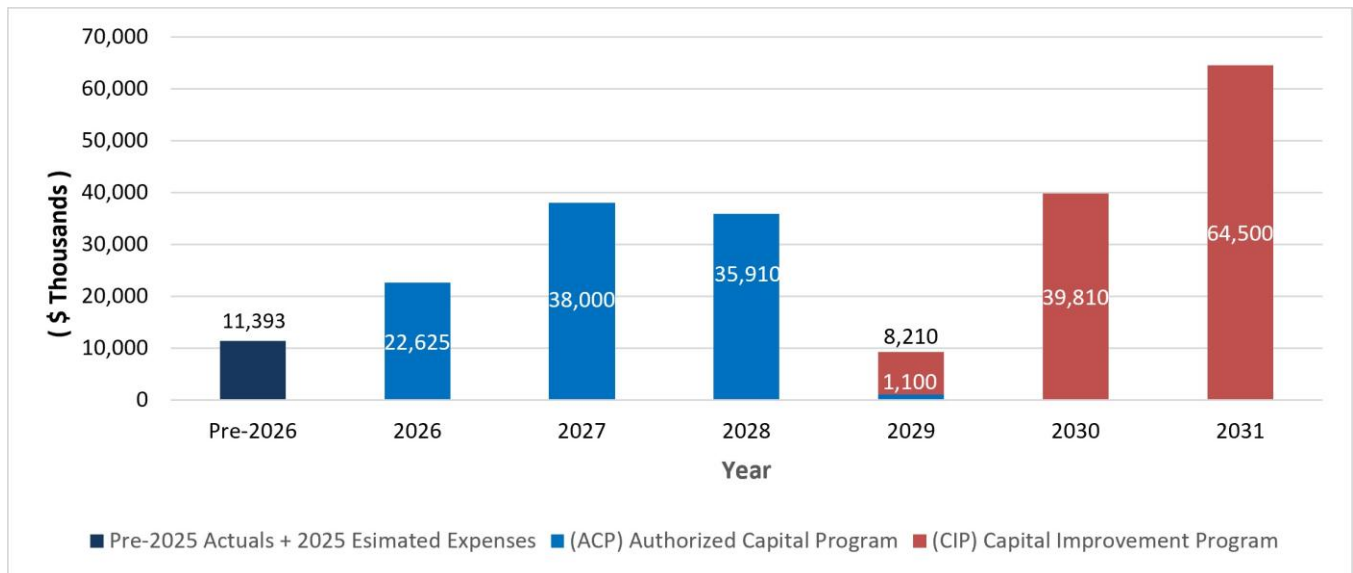
Project Number	Project Title
809500	South Area Improvements (Parent Project)
809510	Shakopee Interceptor Odor Improvements
809512	1-MH-401 Rehabilitation Emergency Repair – Phases 2 and 3
809513	7031-9003 Siphon Outlet Improvements
809515	Woodbury 1-WO-500 Improvements
809516	Burnsville Interceptor 3-BV-39
809517	9701 & 9208 Maintenance Hole Improvements
809518	MnDOT Robert Street Reconstruction 1-SP-230/M058
809519	Interceptor 3-BV-35 Rehabilitation Site 1
809521	Burnsville 3-BV-35 Site 2 Rehabilitation
809522	Interceptor 8560 Relocation
809523	Interceptor 7111A & Siphon 7102-2 Rehabilitation
809526	1-MH-401 River Crossing

Environmental Services 2026 through 2031 Capital Program

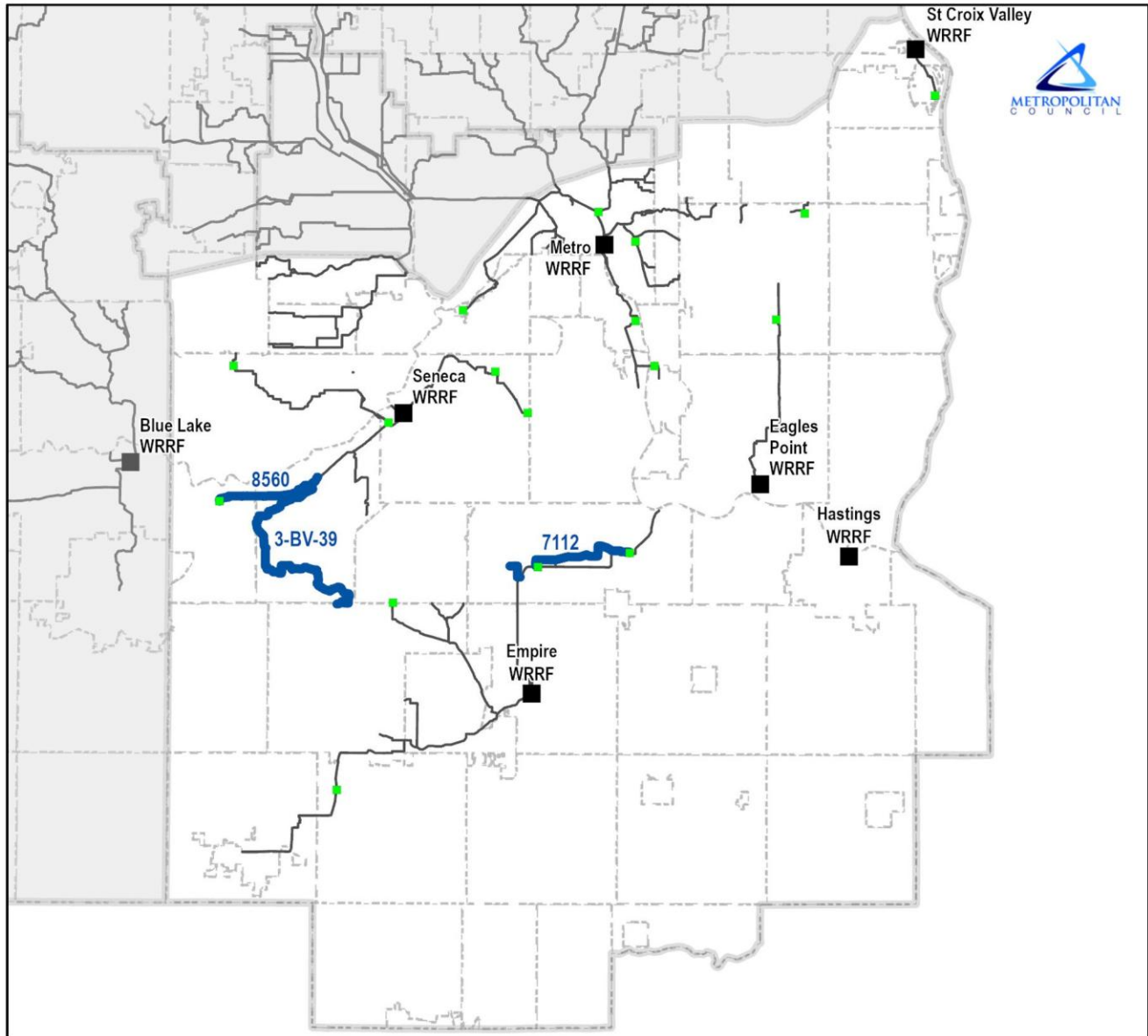
- Authorized Capital Program (ACP): \$109,028,176
- Capital Improvement Plan (CIP): \$112,520,000

Estimated program cash flow from 2026 through 2031

Note: the ACP is the total amount of all past and present authorizations including pre-2026 expenses.



South Area Program Map – New Projects



South Service Area Capital Improvement Projects (CIP)

MCES Wastewater Treatment System

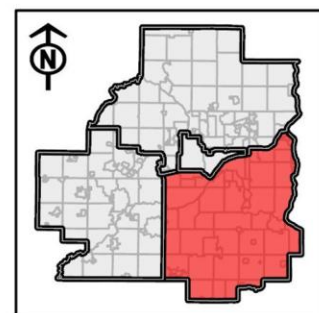
- Lift Stations
- Water Resource Recovery Facilities (WRRF)

- Interceptors
- Interceptors with CIP

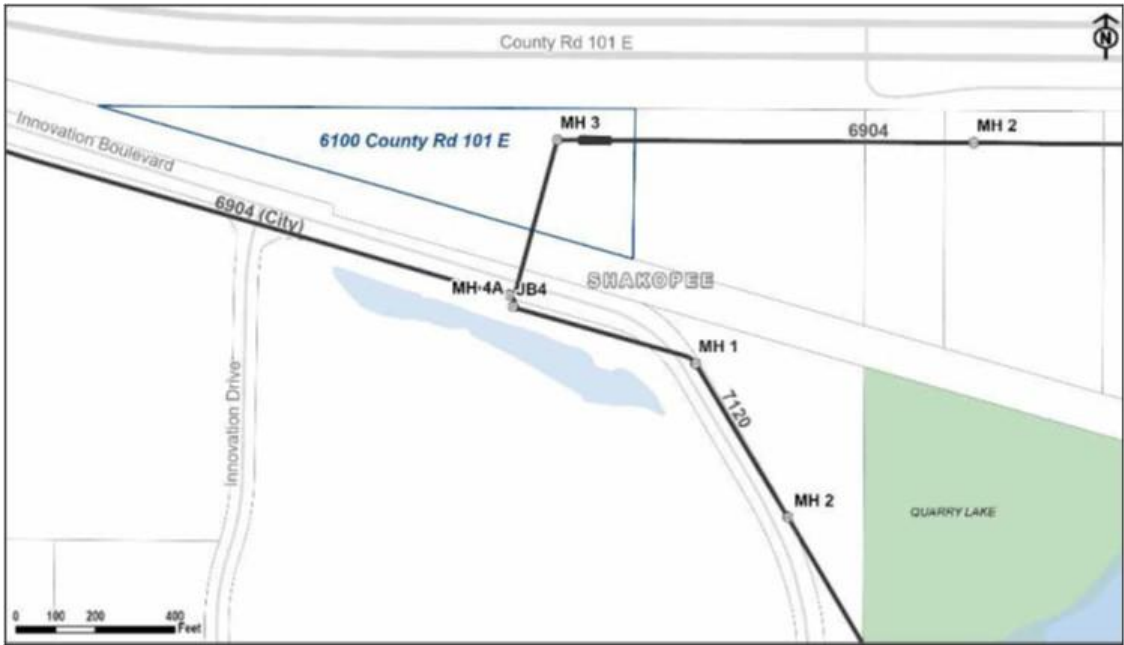
Boundaries

- Community
- Service Area

0 3 6 9 12 Miles



Project location: Council district #4, City of Shakopee



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

Project type
Interceptor Improvements

Objectives
Asset Preservation, Quality Improvement

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: 2026 through 2028

Financial analysis	
2026 cash flow:	\$1,500,000
Current ACP:	\$9,510,500
2026 through 2031 cash flow:	\$8,500,000
Total project cost:	\$9,411,000

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
Phase 2 work includes restoration of wetland areas on the north side of the river. Phase 3 work includes installation of a temporary conveyance system to pump water over the I-35E bridge while a new river crossing is designed and constructed under a different project.

Project need
The facility is currently operating with one operable siphon and one partially blocked siphon. 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



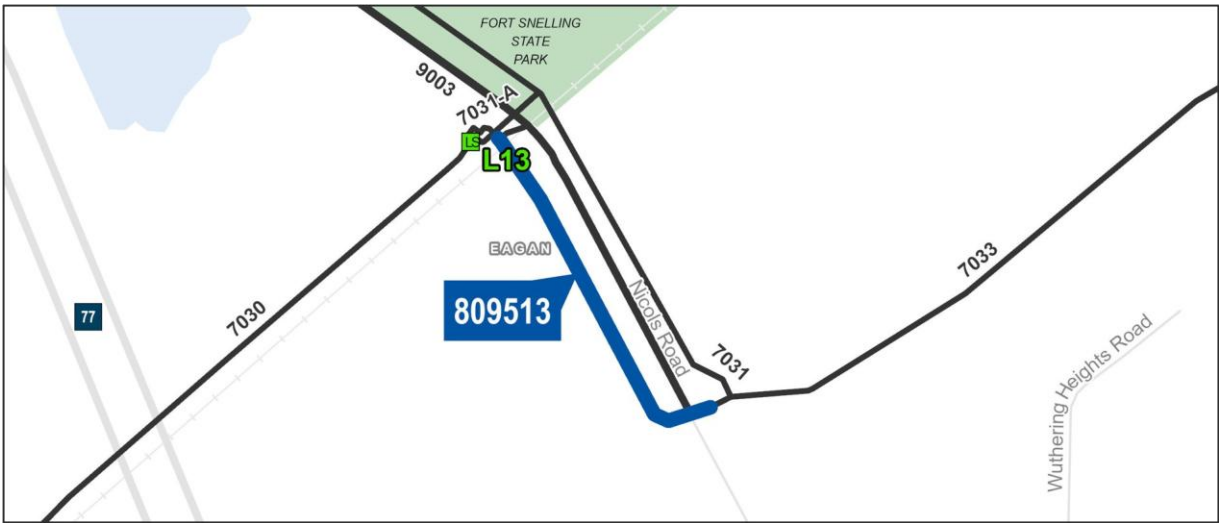
Construction: 2027 through 2029

Financial analysis	
2026 cash flow:	\$5,000,000
Current ACP:	\$15,755,000
2026 through 2031 cash flow:	\$48,500,000
Total project cost:	\$49,624,000

7031-9003 Siphon Outlet Improvements
Program family 8095

Project #809513

Project location: Council district #15, City of Eagan



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, and relocation of the forcemain from the Nicols Calcareous Fen to Nicols Road.

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 2027

Financial analysis

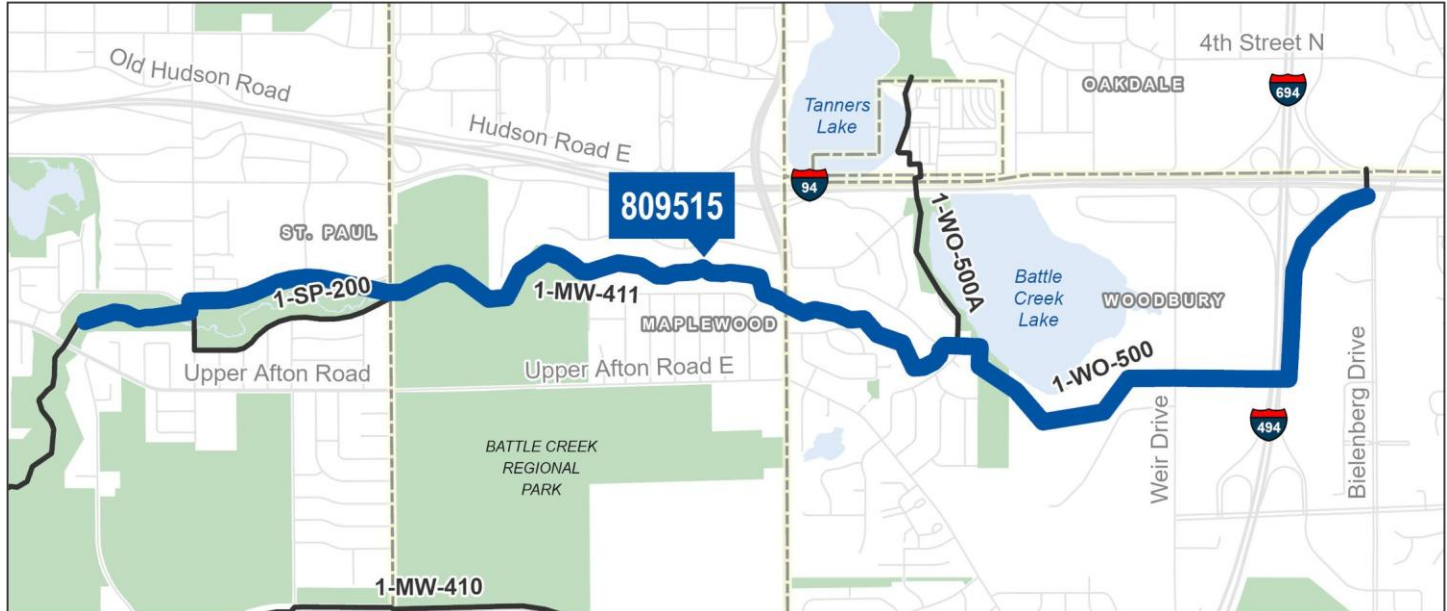
2026 cash flow:	\$2,000,000
Current ACP:	\$7,100,000
2026 through 2031 cash flow:	\$2,500,000
Total project cost:	\$7,100,000

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 Saint 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

2026 cash flow:	\$2,000,000
Current ACP:	\$2,107,500
2026 through 2031 cash flow:	\$10,900,000
Total project cost:	\$11,000,000

Project location: Council district #16, City of Burnsville



Map of Project #809516 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



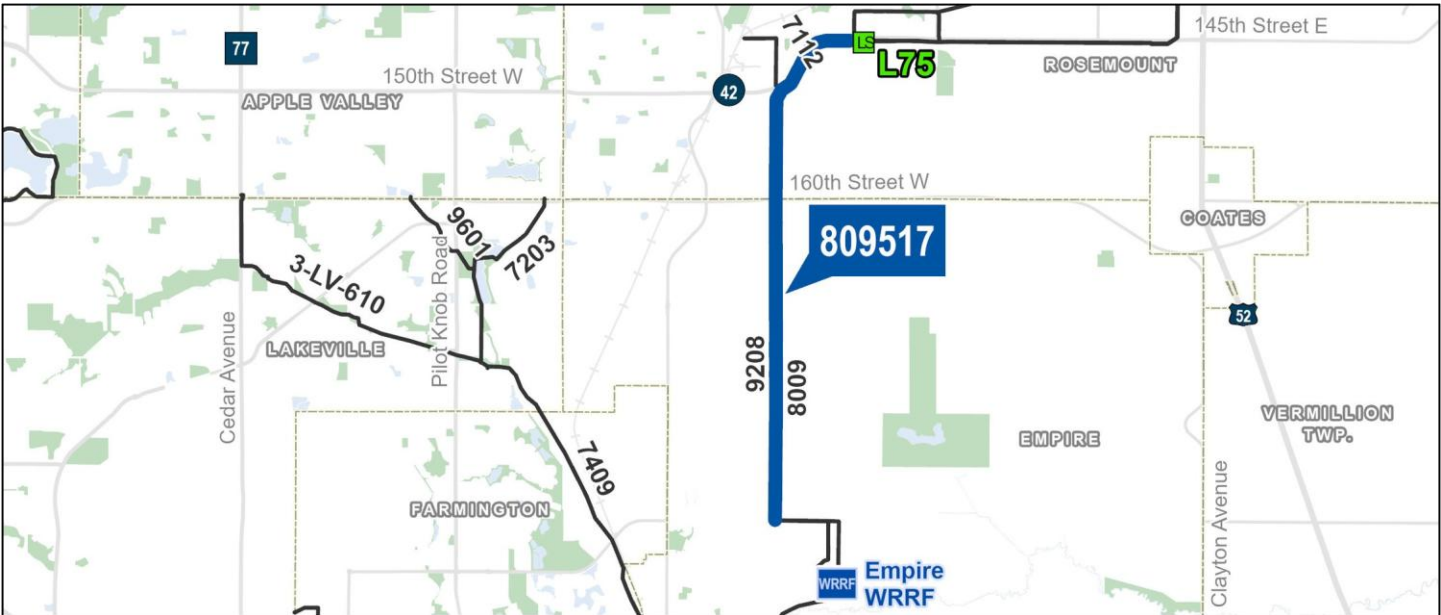
Construction: 2025 through 2026

Financial analysis	
2026 cash flow:	\$700,000
Current ACP:	\$2,398,000
2026 through 2031 cash flow:	\$14,700,000
Total project cost:	\$15,000,000

9701 & 9208 Maintenance Hole Improvements
Program family 8095

Project #809517

Project location: Council district 12 and 16, Cities Cottage Grove, Empire Township, and Rosemount



Map of Project 809517

Project type
Interceptor

Objectives
Asset Preservation

Scope
Bring approximately 70 buried maintenance holes up to grade.

Project need
Maintenance holes need to be accessible to allow routine inspection and repairs if necessary.



Planning: 2025



Design: 2026

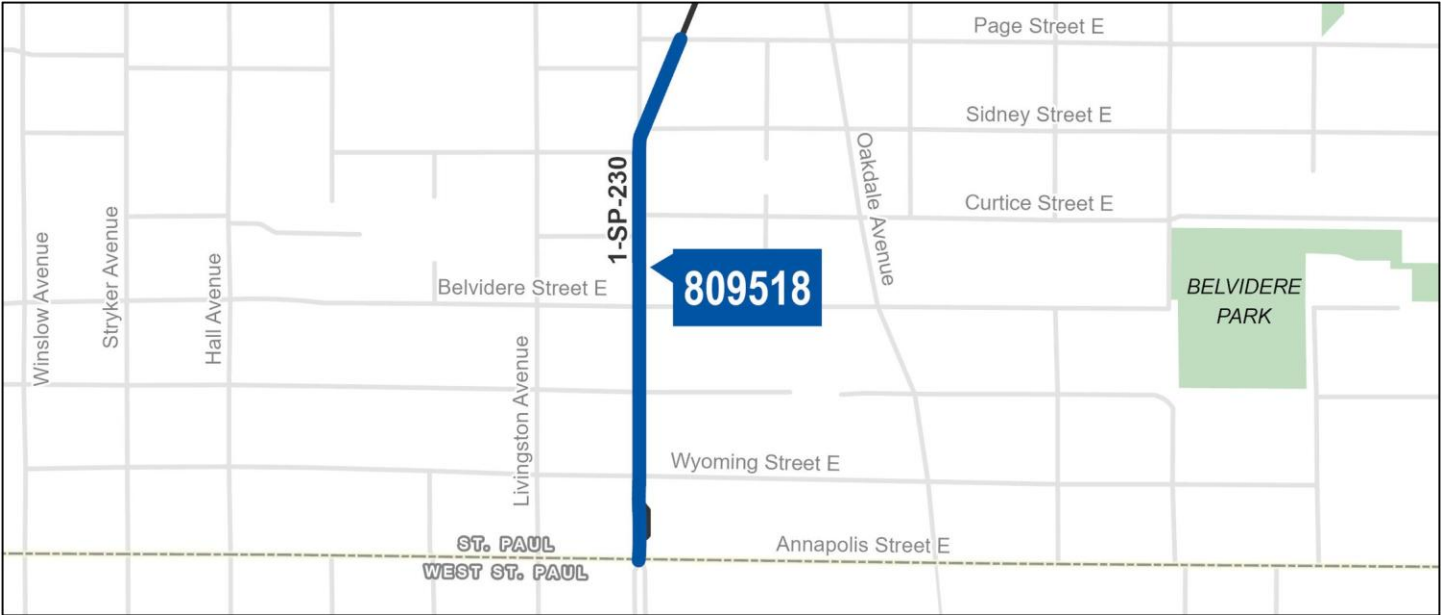


Construction: 2027 through 2028

Financial analysis

2026 cash flow:	\$200,000
Current ACP:	\$1,020,000
2026 through 2031 cash flow:	\$300,000
Total project cost:	\$351,000

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 replacement of 2,000 linear feet of 42-inch brick pipe, 11 maintenance structures, and meter M058, and construction a new local sanitary sewer that will enable 55 private service connections to be eliminated. MnDOT will contract the sewer replacement work and Met Council will separately contract the meter replacement work.

Project need

MnDOT's Robert Street Reconstruction project between Annapolis Street East and Kellogg Boulevard overlaps a portion of interceptor 1-SP-230 and M058. 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 - 2026



Construction: 2027 - 2028

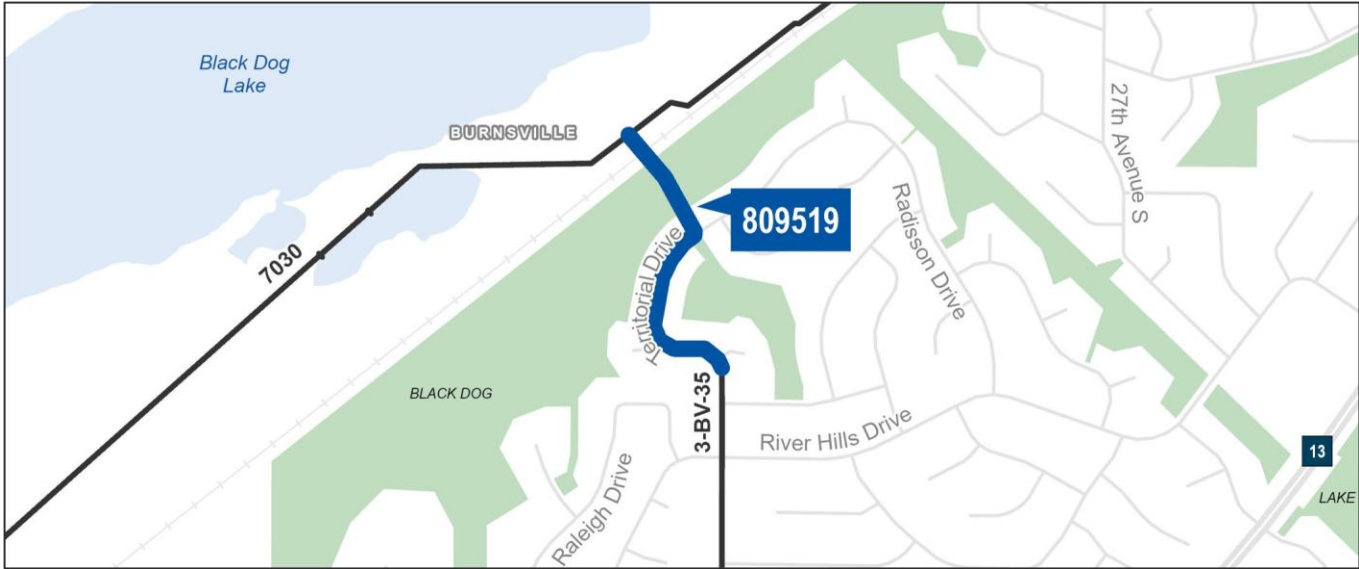
Financial analysis

2026 cash flow:	\$400,000
Current ACP:	\$14,250,000
2026 through 2031 cash flow:	\$3,200,000
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

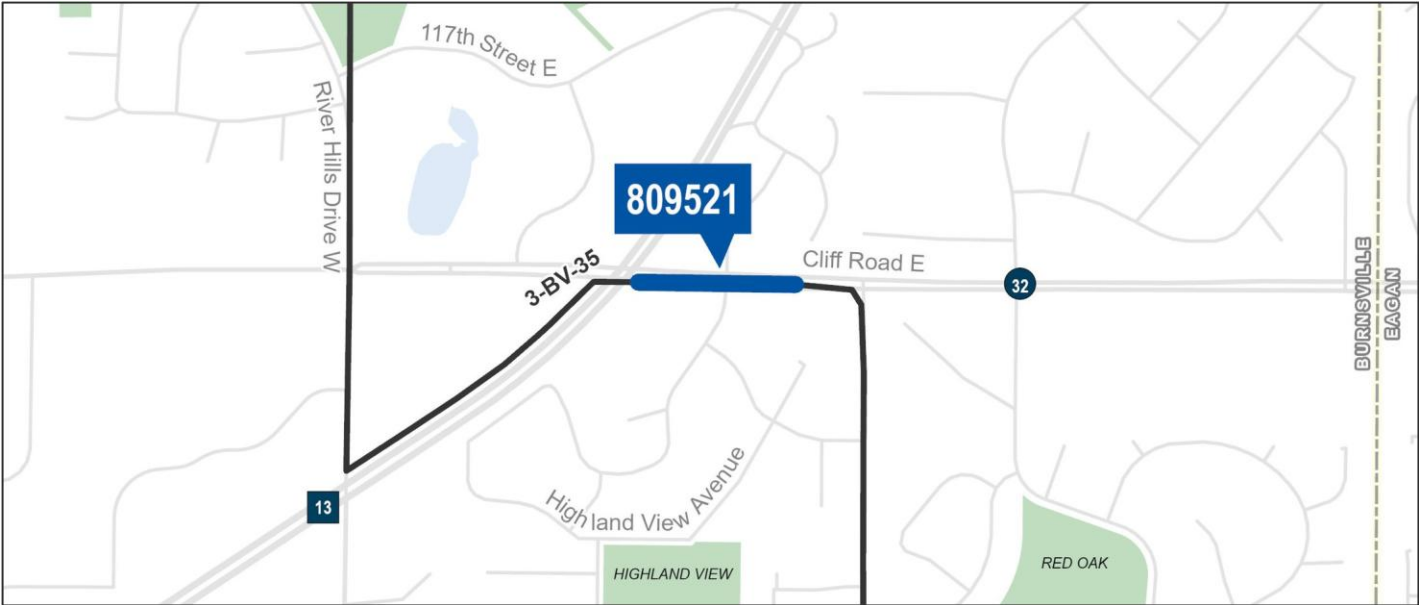


Construction: 2025 through 2026

Financial analysis

2026 cash flow:	\$2,000,000
Current ACP:	\$1,216,000
2026 through 2031 cash flow:	\$2,350,000
Total project cost:	\$2,400,000

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



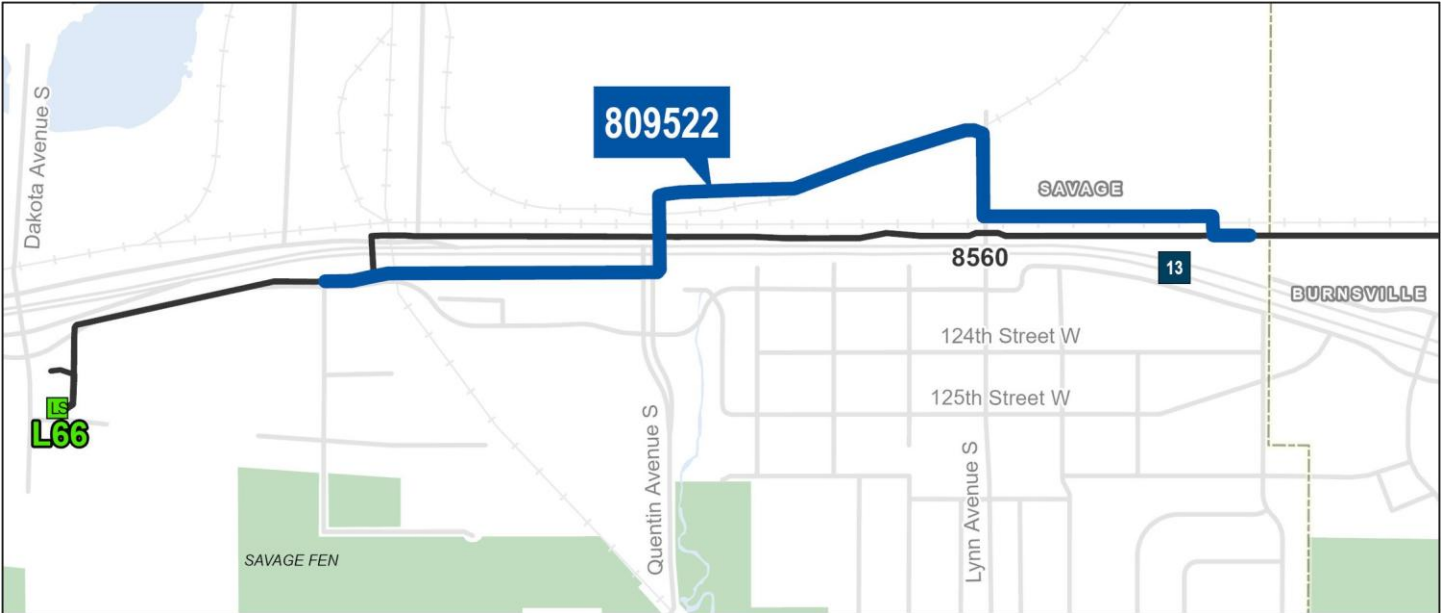
Design: 2024 through 2025



Construction: 2025 through 2026

Financial analysis	
2026 cash flow:	\$1,950,000
Current ACP:	\$3,047,000
2026 through 2031 cash flow:	\$2,000,000
Total project cost:	\$2,100,000

Project location: Council district # 16, City of Savage



Map of project #809522 located along TH 13 between Vernon Ave South and Lynn Ave South in Savage

Project type
 Interceptor Relocation

Objectives
 Quality Improvement

Scope
 The project includes the relocation of approximately 4,500 linear feet of dual 14-inch and 16-inch forcemains north of Highway 13 through the Cargill property. The new installation will consist of dual 18-inch and 20-inch forcemains, along with a temporary conveyance system to maintain service during construction. The work also includes traffic control and abandonment of the existing forcemain infrastructure. A construction cooperative agreement will be required to accommodate schedule constraints, and the project will also require a CP Railroad permit and easements through the Cargill property.

Project need
 MnDOT is planning a reconstruction project for TH-13 in Savage, which will affect the existing dual Forcemain (FM) 8560 in the area. A relocation of the FM is required to avoid the MnDOT project area and to maintain continuous access to the forcemain for operation and maintenance work in the future.

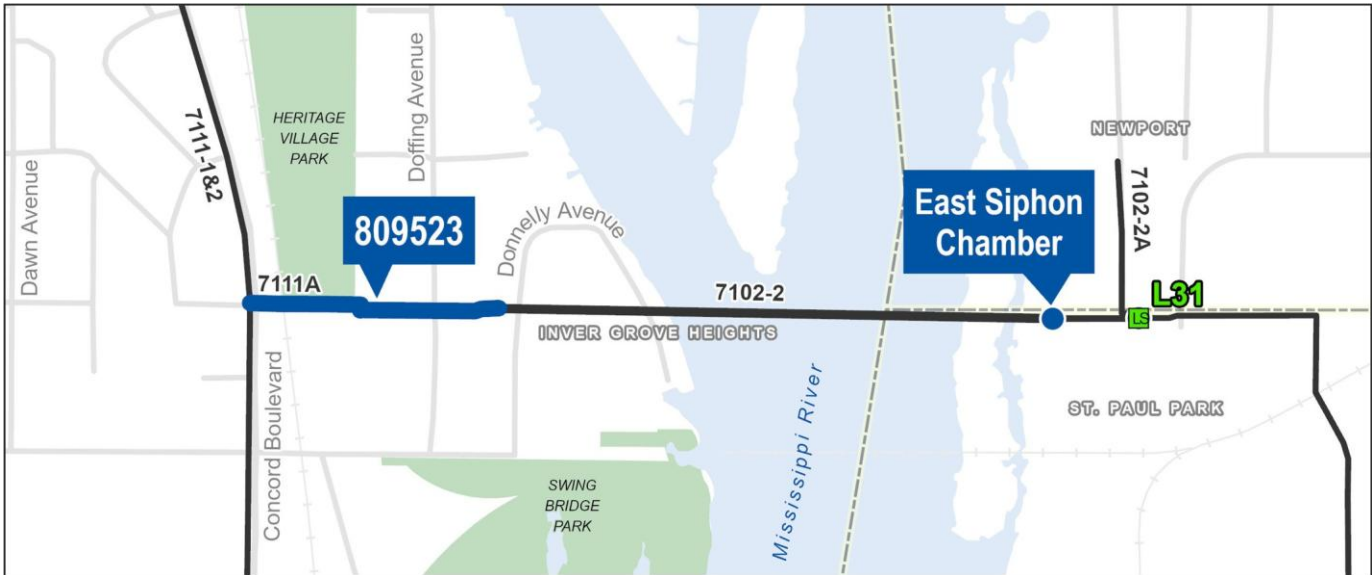
		
Planning: Year through Year 2025-2026	Design: 2026-2027	Construction: 2027-2029

Financial analysis	
2026 cash flow:	\$3,750,000
Current ACP:	\$2,000,000
2026 through 2031 cash flow:	\$23,750,000
Total project cost:	\$24,250,000

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 #809520 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 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

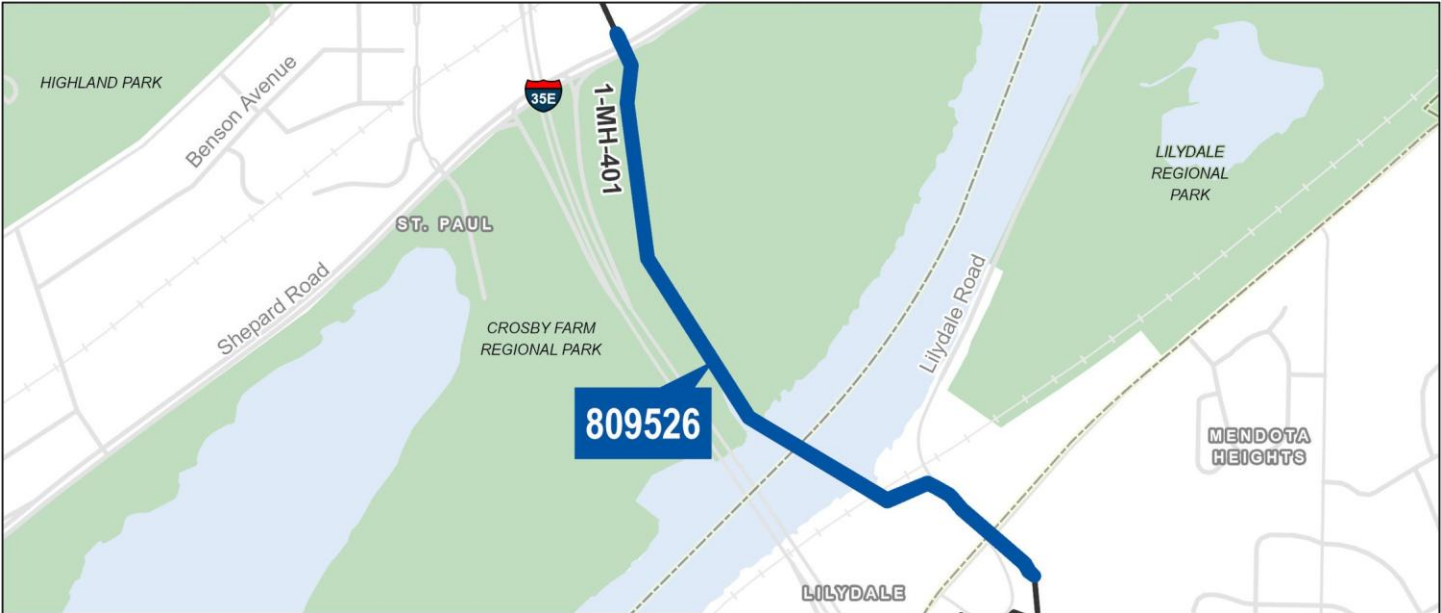


Construction: 2025 through 2026

Financial analysis

2026 cash flow:	\$500,000
Current ACP:	\$2,411,000
2026 through 2031 cash flow:	\$7,900,000
Total project cost:	\$8,103,000

Project location: Council district #14 &15, Cities of Saint Paul, Lilydale, and Mendota Heights



Three siphon pipes, known as the Lilydale Siphons, cross under the Mississippi River from Mendota Heights to Saint Paul.

Project type
Interceptor Improvements

Objectives
Asset Preservation

Scope
Installation of three new pressure pipes under the Mississippi River. The method of pipe installation is unknown at this time but will likely consist of either dredging a trench across the river or drilling the pipes within the bedrock under the riverbed.

Project need
One pipe catastrophically failed on the north side of the river. It was repaired under Emergency Declaration and is currently operable, but significant wall loss under the river is suspected. A segment of another pipe north of the river was repaired under a second Emergency Declaration, but an additional, unrepairable break was identified under the river during the work. This pipe is currently out of service. The third pipe appears to be partially blocked.



Planning: 2026



Design: 2027 through 2028



Construction: 2028 through 2029

Financial analysis

2026 cash flow:	\$500,000
Current ACP:	\$3,600,000
2026 through 2031 cash flow:	\$55,500,000
Total project cost:	\$55,500,000