

# MCES 2023 – 2028

## CAPITAL PROGRAM



Aerial Photo of Empire Wastewater Treatment Plant Solids Expansion Phase I which adds biogas treatment facilities to increase on-site utilization of biogas, a renewable fuel.

*Adopted December 8, 2022*

390 Robert Street North | St. Paul, MN 55101-1805  
Phone 651.602.1000 | Fax 651.602.1550 | TTY 651.291.0904 | [metro council.org](http://metro council.org)  
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# The Council's mission is to foster efficient and economic growth for prosperous metropolitan region

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## Metropolitan Council Members

Charlie Zelle	Chair	Raymond Zeran	District 9
Judy Johnson	District 1	Peter Lindstrom	District 10
Reva Chamblis	District 2	Susan Vento	District 11
Vacant	District 3	Francisco J. Gonzalez	District 12
Deb Barber	District 4	Chai Lee	District 13
Molly Cummings	District 5	Kris Fredson	District 14
John Pacheco Jr.	District 6	Phillip Sterner	District 15
Robert Lilligren	District 7	Wendy Wulff	District 16
Abdirahman Muse	District 8		

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The Metropolitan Council is the regional planning organization for the seven-county Twin Cities area. The Council operates the regional bus and rail system, collects and treats wastewater, coordinates regional water resources, plans and helps fund regional parks, and administers federal funds that provide housing opportunities for low- and moderate-income individuals and families. The 17-member Council board is appointed by and serves at the pleasure of the governor.

On request, this publication will be made available in alternative formats to people with disabilities. Call Metropolitan Council information at 651-602-1140 or TTY 651-291-0904.

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# About Metropolitan Council Environmental Services

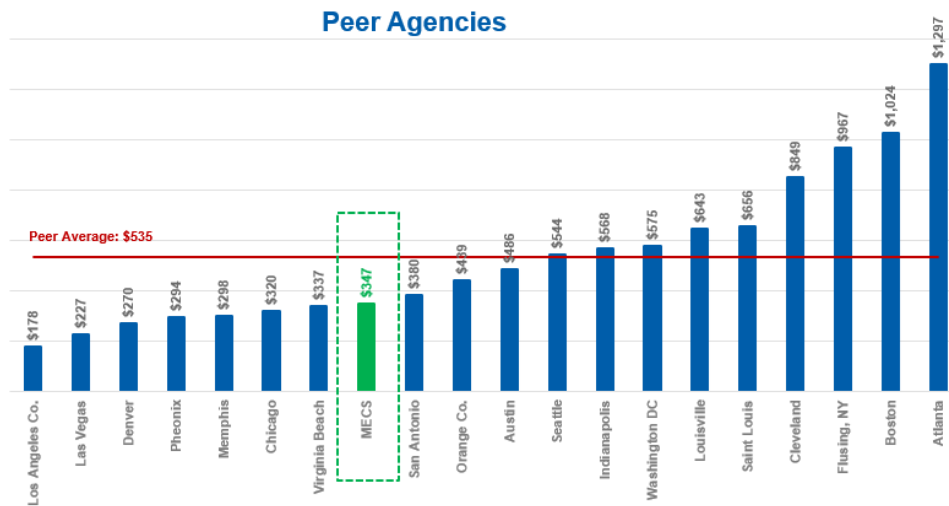


Metropolitan Council Environmental Services (MCES) is responsible for operating and maintaining the regional wastewater system which protects public health, protects the environment, and fosters the economic growth of the seven county Twin Cities Metropolitan Area. The regional wastewater system currently serves 111 communities and has an estimated replacement value of \$7 Billion. The organization employs about 640 staff (full time equivalents) who are committed to clean water and a clean environment, both of which are essential to the quality of life for those who live and work in the region.

MCES consistently achieves near-perfect compliance with federal and state water discharge standards while holding rates about 35% below the national average. MCES is committed to sustainable operations through energy efficiency, use of renewable energy resources, use of technology and reducing air pollutant emissions and resource recovery.

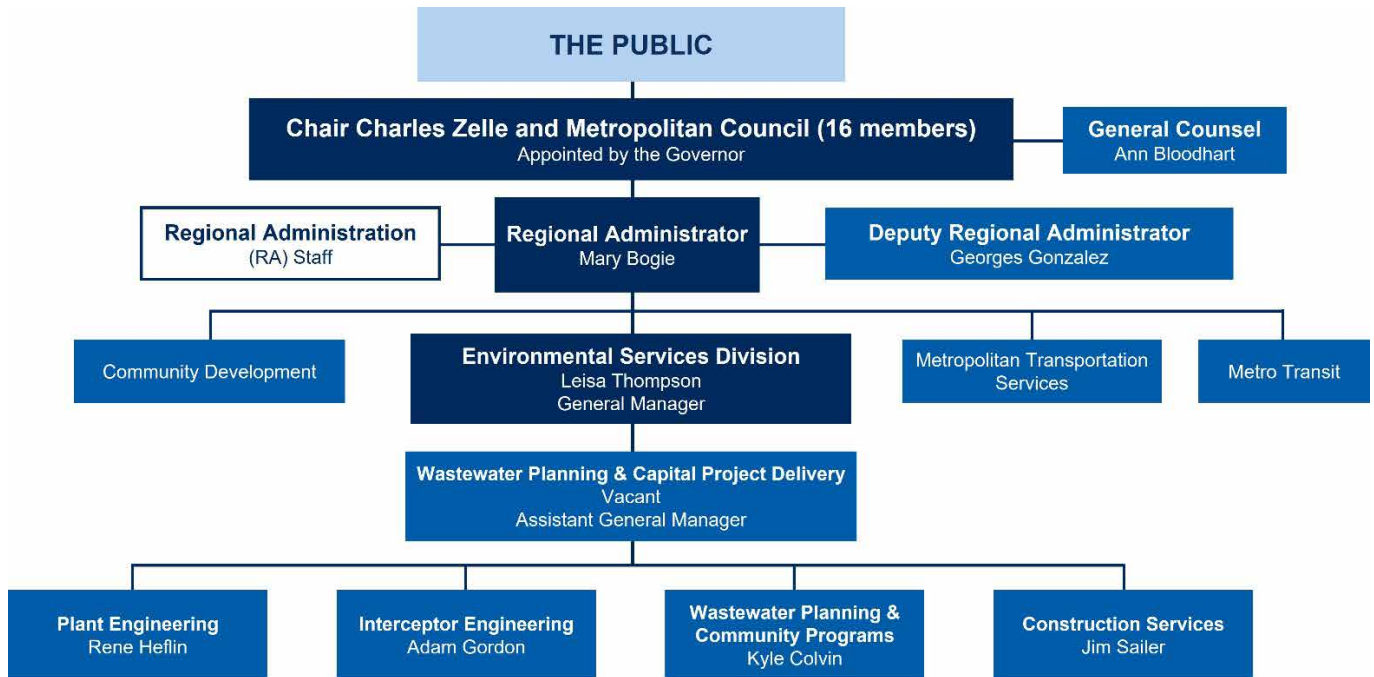
National Association of Clean Water Agencies (NACWA) 2020 peer agency rate survey results.

## Retail Sewer Charges Per Household (2019 rates from 2020 NACWA survey)



Peer agency are those wastewater service providers that treat 100 million Gallons per day (MGD) or more.

# Environmental Services Organizational Chart



# Extraordinary Facts by the numbers!

## Environmental Services

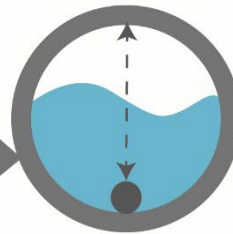
moves and treats  
**250 million** gallons  
of wastewater each day

serving **2.8 million**  
people in 111 communities in the  
7-county Twin Cities metro area.



That wastewater moves through privately owned  
and city sewer pipes into

**637 miles**  
of regional interceptor sewer mains



ranging in size from  
**9 inches** to **14 feet** in  
diameter and in age  
from 140 years old to  
brand new!

The wastewater also passes

**229 meters**  
measuring how much  
water is flowing through  
the pipes.



**60 lift stations**  
pumping water from lower  
elevation to higher elevation so  
gravity can help us move it.

on its way to  
**9 treatment plants**  
cleaning the water before it  
is returned to the environment.



# Capital Program

## *Capital Program Overview*

The Environmental Services Capital Program is a component of the Metropolitan Council's unified budget plan. The Environmental Services Division plans capital spending for new treatment plants, interceptors and/or improvements to the metropolitan wastewater system. The capital program provides capital investments to preserve and rehabilitate existing wastewater infrastructure, meet more stringent water and air quality regulations, and expand the system capacity to meet regional growth needs. The Capital Program is prepared, reviewed, and approved on a yearly basis to consider new programs and/or adjustments to the plan. The Capital Program and key projects are presented to customers at the budget workshops held annually.

From 1970 to 2013, capital investment focused primarily on developing an efficient and effective wastewater system to meet the needs of a growing region. These investments included interceptor system capacity expansion and extension to serve the long-term service area (2040 and beyond), as well as consolidating, expanding capacity, and completing quality upgrades to the regional wastewater treatment plants. Between 2014 and 2020, capital investments shifted primarily to preserving the valuable regional wastewater infrastructure. The 2023-2028 program continues to have a strong emphasis on asset preservation and includes capacity improvements to support a thriving region. Noteworthy capacity projects and asset preservation projects in the plan include expansion of solids processing at the Metro Plant, a new wastewater treatment plant at Hastings, the new Crow River wastewater treatment plant and lift station L32A in Fridley.



Contractors installing a manhole structure as part of the L24 Renovation & 7020 FM Replacement project located in Minnetrista.

# MCES Customer Level of Service

## HEALTH, SAFETY, & ENVIRONMENT



### COMPLY WITH PERMITS

Comply consistently with water, air, and other environmental permits.



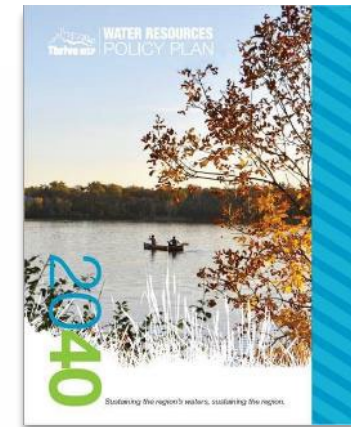
### MINIMIZE IMPACTS

Convey and treat wastewater safely with minimal backups, spills, and traffic impacts.



### LEAD BY EXAMPLE

Be a leader on environmental sustainability, including water/energy conservation and water reuse.



## FINANCIAL



### CHARGES & FEES

Charges and fees should be predictable, justifiable, and provide good value for the region.



### RETAIN AAA BOND RATING

Retain AAA Bond rating in order to provide the lowest cost debt financing possible.



### OPTIMIZE BUDGET PLAN

MCES' 5-year budget plan should optimize capital, O&M programs to meet customer service goals.



### PRESERVE ASSETS

The region's wastewater assets should be well maintained to preserve their value and performance.



### BE FAIR AND TRANSPARENT

Allocation of all charges should be fair, equitable, and transparent to the customer.

## CUSTOMER SERVICE



### BE A GOOD NEIGHBOR

Mitigate community impacts related to odors, traffic, noise, and visual aesthetics.



### MEET CAPACITY NEEDS

Provide conveyance and treatment capacity consistent with regional and local plans.



### COMMUNICATE INFORMATION

Communicate with customers about financial info and capital projects & programs that impact them.



### ENGAGE CUSTOMERS

Engage customers in a meaningful public process. Provide notice for changes in policies, rules, fees, projects, environmental performance & resolving competing Council policies/interests.



### COLLABORATE WITH OTHERS

Optimize intergovernmental coordination in all MCES work that intersects with community work.

Water Resources Policy Plan and the Customer Level of Service are the foundation for the Capital Program.



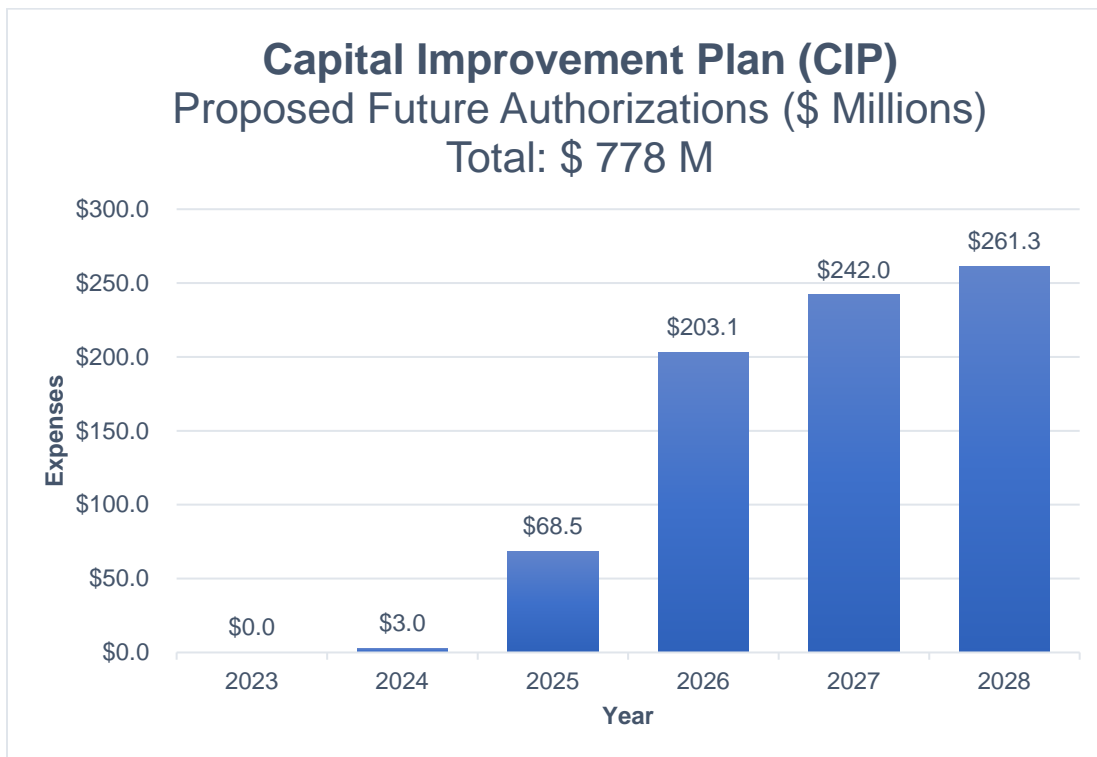
**Authorized Capital Program (ACP)** - The ACP provides multi-year authorization to spend on program costs where funding has been secured and the Council has given final approval to proceed. It is the total amount of all past and present approvals from the Council.

The 2023 ACP consists of the previously approved ACP; plus, the authorization of new programs; authorized adjustments to existing programs; and the deletion of completed and closed-out programs. The changes are summarized below.

**Summary of Authorized Capital Program (ACP) Changes**

<b>Previous Authorized Capital Program (ACP)</b>	<b>\$1,104,552,525</b>
Adjustments to Existing Projects	\$ 223,296,628
Closed Projects	\$ (119,593,291)
New Projects	\$ 55,010,896
Total All Changes	\$ 158,714,233
<b>Approved 2023 ACP</b>	<b>\$1,263,266,758</b>

**Capital Improvement Plan (CIP)** - The CIP is the six-year capital investment plan. The Council has not given final approval to these investments. These proposed investments and the year that it is anticipated that the Council will be asked to move them into the ACP is summarized below.



**Capital Program** – The Capital Program consists of the ACP plus the CIP. Table 10 from the Metropolitan Council's 2023 Unified Budget summarizes the MCES 2023 - 2028 Capital Program:

**METROPOLITAN COUNCIL  
CAPITAL PROGRAM, ENVIRONMENTAL SERVICES**

**TABLE 10  
(\$ IN 000S)**

	Authorized Capital Program (ACP)			Capital Improvement Plan (CIP)							ACP + CIP Combined
	2022 Amended	Changes	2023 Proposed	2023	2024	2025	2026	2027	2028	Total	
<b>Treatment Plant Projects</b>											
8059 - Metro Rehabilitation & Facilities Improve	115,866	-5,955	109,911	-	-	-	-	-	-	-	109,911
8062 - Metro Solids Improvements	173,828	46,485	220,313	-	-	-	-	10,000	10,000	20,000	240,313
8074 - Empire Plant Solids Improvements	53,959	-7,050	46,909	-	-	-	-	-	-	-	46,909
8078 - Regional Plant Improvements	46,676	13,149	59,825	-	-	-	8,500	10,000	10,100	28,600	88,425
8089 - MWWTP Asset Renewal	176,257	54,545	230,802	-	-	-	19,740	37,200	35,200	92,140	322,942
8091 - Wastewater Reclamation Facilities	7,133	-497	6,637	-	-	-	30,000	30,000	40,000	100,000	106,637
8097 - Blue Lake Solids Processing	2,700	78,120	80,820	-	-	25,000	35,000	20,000	20,000	100,000	180,820
8098 - Hastings WWTP	22,600	5,268	27,868	-	-	5,000	25,000	30,000	30,000	90,000	117,868
8100 - Industrial Pretreatment Incentive Program	21,700	-7,994	13,706	-	-	-	100	100	100	300	14,006
<b>TOTAL Treatment Plant Projects</b>	<b>620,719</b>	<b>176,071</b>	<b>796,790</b>	<b>-</b>	<b>-</b>	<b>30,000</b>	<b>118,340</b>	<b>137,300</b>	<b>145,400</b>	<b>431,040</b>	<b>1,227,830</b>
<b>Interceptor Projects</b>											
8028 - Blue Lake System Improvements	43,090	15,043	58,133	-	-	7,459	6,490	10	10	13,969	72,102
8041 - Hopkins System Improvements	10,213	-832	9,381	-	-	-	-	-	-	-	9,381
8055 - Lift Station Improvements	60,934	-11,137	49,798	-	-	12,500	21,850	21,850	24,350	80,550	130,348
8056 - Meter Improvements	24,014	-5,789	18,224	-	-	5,000	6,500	6,500	6,500	24,500	42,724
8063 - SWC Interceptor - Lake Elmo Connections	19,563	6,021	25,584	-	-	-	-	-	-	-	25,584
8076 - Mpls. Interceptor System Rehabilitation	81,761	-47,824	33,937	-	-	-	-	-	-	-	33,937
8082 - St Bonifacius LS/FM Rehabilitation	32,304	-7,519	24,785	-	-	-	-	-	-	-	24,785
8083 - Waconia LS/FM Rehabilitation	5,298	1,428	6,727	-	-	-	-	-	-	-	6,727
8084 - Bloomington System Improvements	17,105	-17,105	-	-	-	-	-	-	-	-	-
8086 - North Area Interceptor Rehabilitation	22,008	22,691	44,699	-	-	-	610	600	7,500	8,710	53,409
8088 - St Paul Interceptor System Rehabilitation	27,969	1,945	29,914	-	-	-	210	210	10	430	30,344
8090 - Interceptor Rehabilitation - Program	80,298	5,755	86,053	-	-	-	20,031	45,011	45,011	110,053	196,106
8092 - Mpls. Interceptor 1-MN-340 Rehabilitation	25,757	18,448	44,204	-	-	-	6,000	6,000	1,020	13,020	57,224
8093 - Brooklyn Park-Champlin Inter	15,607	-6,574	9,033	-	-	2,500	2,500	-	-	5,000	14,033
8094 - Brooklyn Park L32	12,761	-6,767	5,994	-	3,000	11,000	12,010	12,010	19,010	57,030	63,024
8095 - Coon Rapids-Fridley Area Inter	3,900	14,380	18,280	-	-	-	10	10	10	30	18,310
8096 - Northwest Area Interceptor Imp	1,251	479	1,730	-	-	-	8,500	12,500	12,500	33,500	35,230
<b>TOTAL Interceptor Projects</b>	<b>483,833</b>	<b>-17,356</b>	<b>466,477</b>	<b>-</b>	<b>3,000</b>	<b>38,459</b>	<b>84,711</b>	<b>104,701</b>	<b>115,921</b>	<b>346,792</b>	<b>813,269</b>
<b>Total ES Capital Program</b>	<b>1,104,553</b>	<b>158,714</b>	<b>1,263,267</b>	<b>-</b>	<b>3,000</b>	<b>68,459</b>	<b>203,051</b>	<b>242,001</b>	<b>261,321</b>	<b>777,832</b>	<b>2,041,099</b>

# Capital Program Use of Funds

The three objectives of the capital program are:

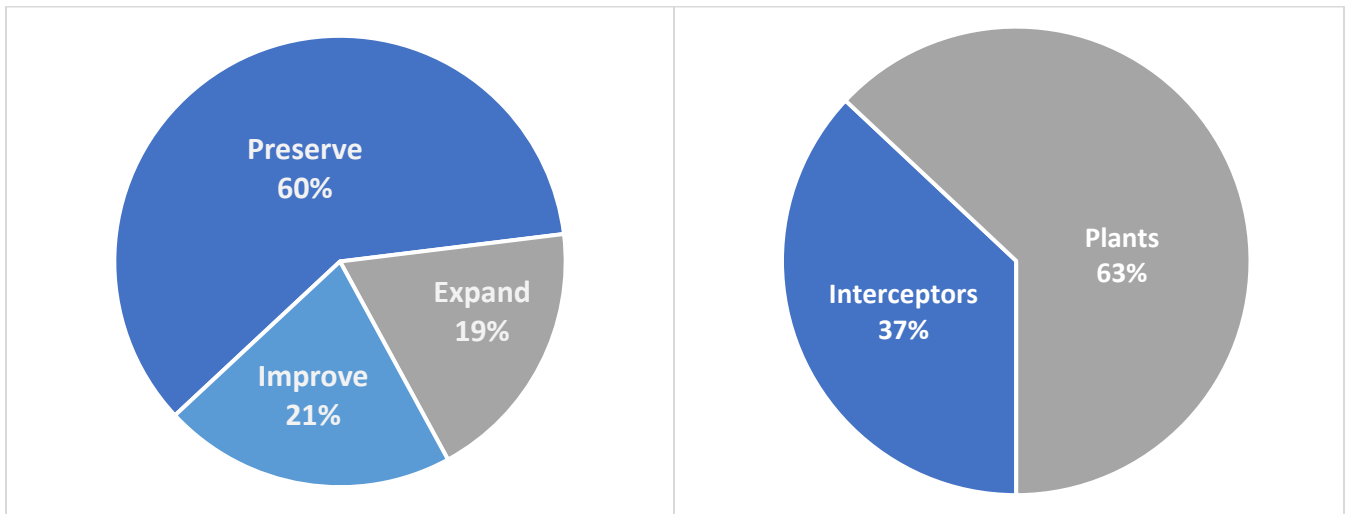
- **Asset Preservation** – Preserve the existing MCES infrastructure investment through rehabilitation and replacements.
- **System Expansion** - Expand the system capacity through treatment plant and interceptor expansions and interceptor extensions to meet the needs of a growing region.
- **Quality Improvements** - Improve the quality of service by responding to more stringent regulations, improving safety, reusing wastewater, increasing system reliability, and conserving and generating energy.

As indicated below, most of the funds are used for the preservation of the existing MCES infrastructure investment. The breakdown by objectives for the 2023 ACP and the Total Capital Program are as follows:

## Capital Program (ACP) Objectives

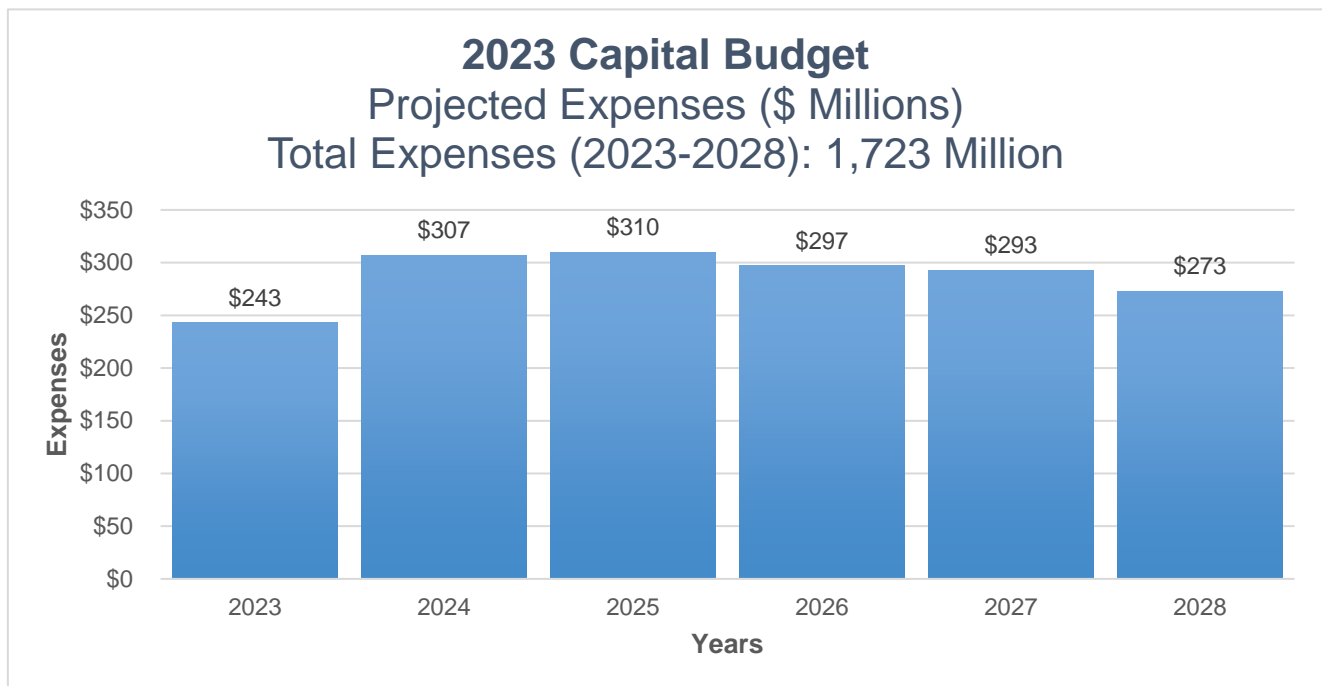
Objective:

Type:



The projects in Environmental Services program are driven by the objectives of asset preservation, capacity needs, or to improve performance in order to respond to more stringent water quality and air quality regulations, increasing system reliability and conserving or generating energy. In the 2023 Authorized Capital Program (ACP), 60% of the funding will be spent on Preservation projects, 19% on Expansion projects, and 21% on Improvement projects. Furthermore, of the 2023 ACP, Interceptors will spend approximately 37% of the budget while Plants will spend approximately 63%.

**Capital Budget and Projected Expenses** - The Capital Budget is the amount from the ACP that is expected to be spent in that given year. It cannot be exceeded without formal Metropolitan Council action. The adopted MCES 2023 Capital Budget is \$243 million. As depicted below, the projected capital expenses for the 2023-2028 timeframe are \$1,723 million. The projected expenses are utilized in the development of the debt service numbers in the MCES' Capital Finance Plan.



# MCES 2023 Capital Program

## Authorized Capital Program (ACP)

### METROPOLITAN COUNCIL CAPITAL PROGRAM, ENVIRONMENTAL SERVICES

	Authorized Capital Program (ACP)		
	2022 Amended	Changes	2023 Proposed
<b>Treatment Plant Projects</b>			
8059 - Metro Rehabilitation & Facilities Improve	115,866	-5,955	109,911
8062 - Metro Solids Improvements	173,828	46,485	220,313
8074 - Empire Plant Solids Improvements	53,959	-7,050	46,909
8078 - Regional Plant Improvements	46,676	13,149	59,825
8089 - MWWTP Asset Renewal	176,257	54,545	230,802
8091 - Wastewater Reclamation Facilities	7,133	-497	6,637
8097 - Blue Lake Solids Processing	2,700	78,120	80,820
8098 - Hastings WWTP	22,600	5,268	27,868
8100 - Industrial Pretreatment Incentive Program	21,700	-7,994	13,706
<b>TOTAL Treatment Plant Projects</b>	<b>620,719</b>	<b>176,071</b>	<b>796,790</b>
<b>Interceptor Projects</b>			
8028 - Blue Lake System Improvements	43,090	15,043	58,133
8041 - Hopkins System Improvements	10,213	-832	9,381
8055 - Lift Station Improvements	60,934	-11,137	49,798
8056 - Meter Improvements	24,014	-5,789	18,224
8063 - SWC Interceptor - Lake Elmo Connections	19,563	6,021	25,584
8076 - Mpls. Interceptor System Rehabilitation	81,761	-47,824	33,937
8082 - St Bonifacius LS/FM Rehabilitation	32,304	-7,519	24,785
8083 - Waconia LS/FM Rehabilitation	5,298	1,428	6,727
8084 - Bloomington System Improvements	17,105	-17,105	-
8086 - North Area Interceptor Rehabilitation	22,008	22,691	44,699
8088 - St Paul Interceptor System Rehabilitation	27,969	1,945	29,914
8090 - Interceptor Rehabilitation - Program	80,298	5,755	86,053
8092 - Mpls. Interceptor 1-MN-340 Rehabilitation	25,757	18,448	44,204
8093 - Brooklyn Park-Champlin Inter	15,607	-6,574	9,033
8094 - Brooklyn Park L32	12,761	-6,767	5,994
8095 - Coon Rapids-Fridley Area Inter	3,900	14,380	18,280
8096 - Northwest Area Interceptor Imp	1,251	479	1,730
<b>TOTAL Interceptor Projects</b>	<b>483,833</b>	<b>-17,356</b>	<b>466,477</b>
<b>Total ES Capital Program</b>	<b>1,104,553</b>	<b>158,714</b>	<b>1,263,267</b>

# MCES 2023 – 2028 Capital Program

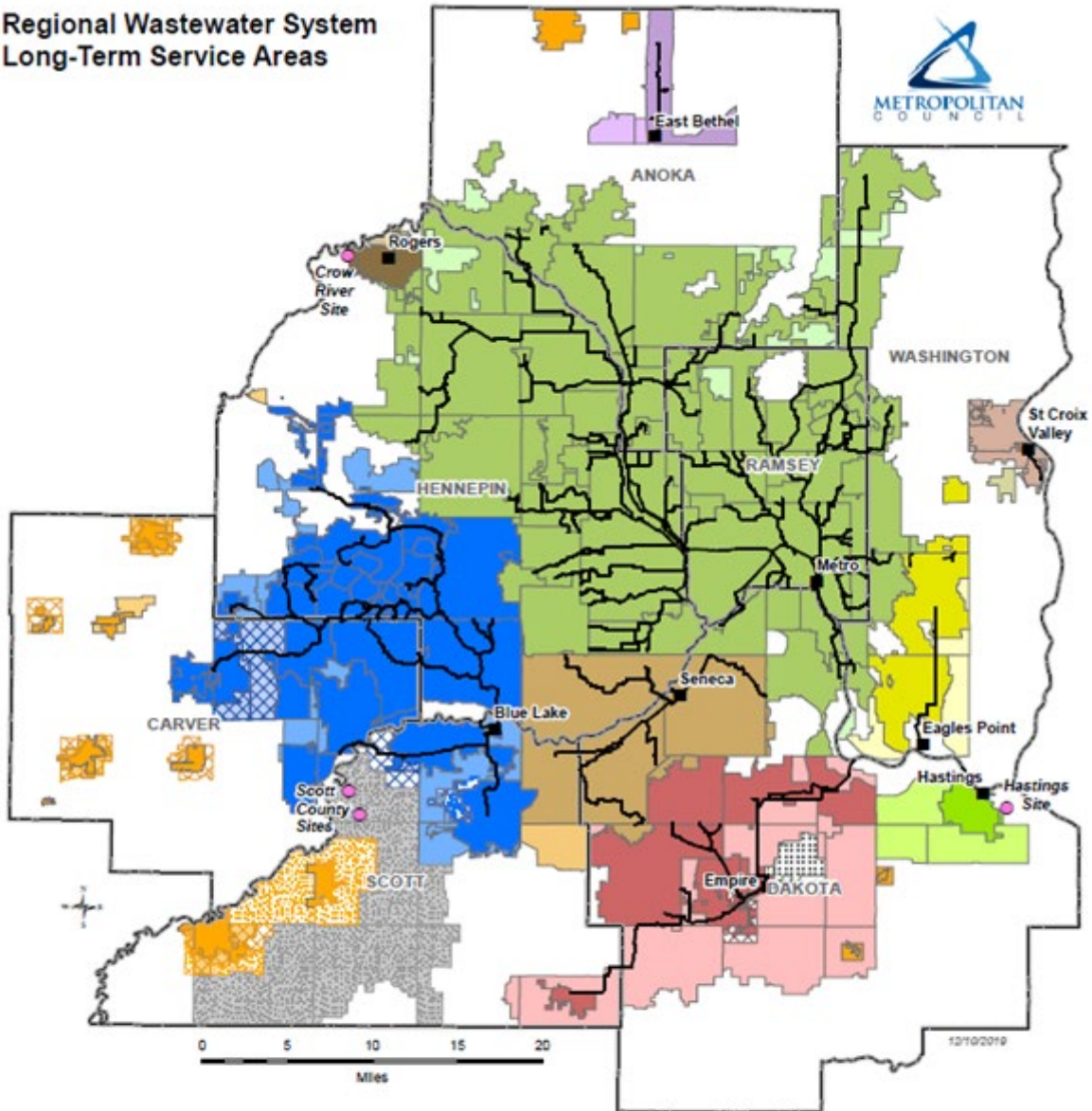
Projected Expenses by Year (all costs in \$1,000s)

Family	Project Name	2023	2024	2025	2026	2027	2028	2023-2028 Total
<b><i>Treatment Plants</i></b>								
8059	Metro Rehabilitation and Facilities Improvements	16,702	18,900	18,900	5,300	0	0	59,802
8062	Metro Solids Improvements	26,500	46,000	46,000	47,000	51,500	11,500	228,500
8074	Empire Plant Solids Improvements	6,000	5,000	0	0	0	0	11,000
8078	Regional Plant Improvements	13,377	15,875	10,550	10,000	10,000	10,100	69,902
8089	MWWTP Asset Renewal	47,368	55,557	53,156	39,621	42,200	40,200	278,102
8091	Wastewater Reclamation Facilities	500	750	1,250	30,000	30,000	40,000	102,500
8097	Blue Lake Solids Processing	5,000	30,000	55,000	39,000	24,000	25,000	178,000
8098	Hastings WWTP	7,100	7,100	13,800	28,000	30,000	30,000	116,000
8100	Industrial Pretreatment Incentive Program	2,100	100	100	100	100	100	2,600
<b>Plant Totals</b>		<b>124,647</b>	<b>179,282</b>	<b>198,756</b>	<b>199,021</b>	<b>187,800</b>	<b>156,900</b>	<b>1,046,406</b>
<b>Percent of Planned Expenses</b>		<b>51%</b>	<b>58%</b>	<b>64%</b>	<b>67%</b>	<b>64%</b>	<b>58%</b>	<b>61%</b>
<b><i>Interceptor System</i></b>								
8028	Blue Lake Interceptor System Improvements	21,600	15,130	19,809	10,090	10	10	66,649
8041	Hopkins System Improvements	966	148	1	0	0	0	1,115
8055	Lift Station Improvements	15,700	20,050	20,850	21,850	21,850	24,350	124,650
8056	Meter Improvements	2,536	2,570	9,500	7,500	6,500	6,500	35,106
8063	East Area Interceptor Improvements	4,440	8,500	6,010	0	0	0	18,950
8076	Mpls Interceptor System Rehabilitaiton	1,923	1,262	0	0	0	0	3,185
8082	St Bonifacius LS/FM Rehabilitation	9,700	5,700	300	0	0	0	15,700
8083	Waconia LS/FM Rehabilitation	900	100	0	0	0	0	1,000
8086	North Area Interceptor Rehabilitation	8,710	14,660	11,000	4,610	600	7,500	47,080
8088	St Paul Interceptor System Rehabilitation	4,860	5,283	3,260	210	210	10	13,833
8090	Interceptor Rehabilitation	30,971	24,223	6,634	20,281	45,011	45,011	172,131
8092	Mpls Interceptor System Improvements	7,370	18,920	12,870	8,000	6,000	1,020	54,180
8093	Brooklyn Park-Champlin Interceptor Renewal	4,210	700	2,510	2,510	0	0	9,930
8094	Brooklyn Park L32	3,010	3,010	11,010	12,010	12,010	19,010	60,060
8095	South Area Interceptor Improvements	1,160	6,850	7,110	2,810	10	10	17,950
8096	Northwest Area Interceptor Improvements	500	500	500	8,500	12,500	12,500	35,000
<b>Interceptor Totals</b>		<b>118,556</b>	<b>127,606</b>	<b>111,364</b>	<b>98,371</b>	<b>104,701</b>	<b>115,921</b>	<b>676,519</b>
		<b>49%</b>	<b>42%</b>	<b>36%</b>	<b>33%</b>	<b>36%</b>	<b>42%</b>	<b>39%</b>
<b>Total</b>		<b>243,203</b>	<b>306,888</b>	<b>310,120</b>	<b>297,392</b>	<b>292,501</b>	<b>272,821</b>	<b>1,722,925</b>

Six Year Cash Flow = **\$1,722,925**

# MCES Long-Term Service Area Map

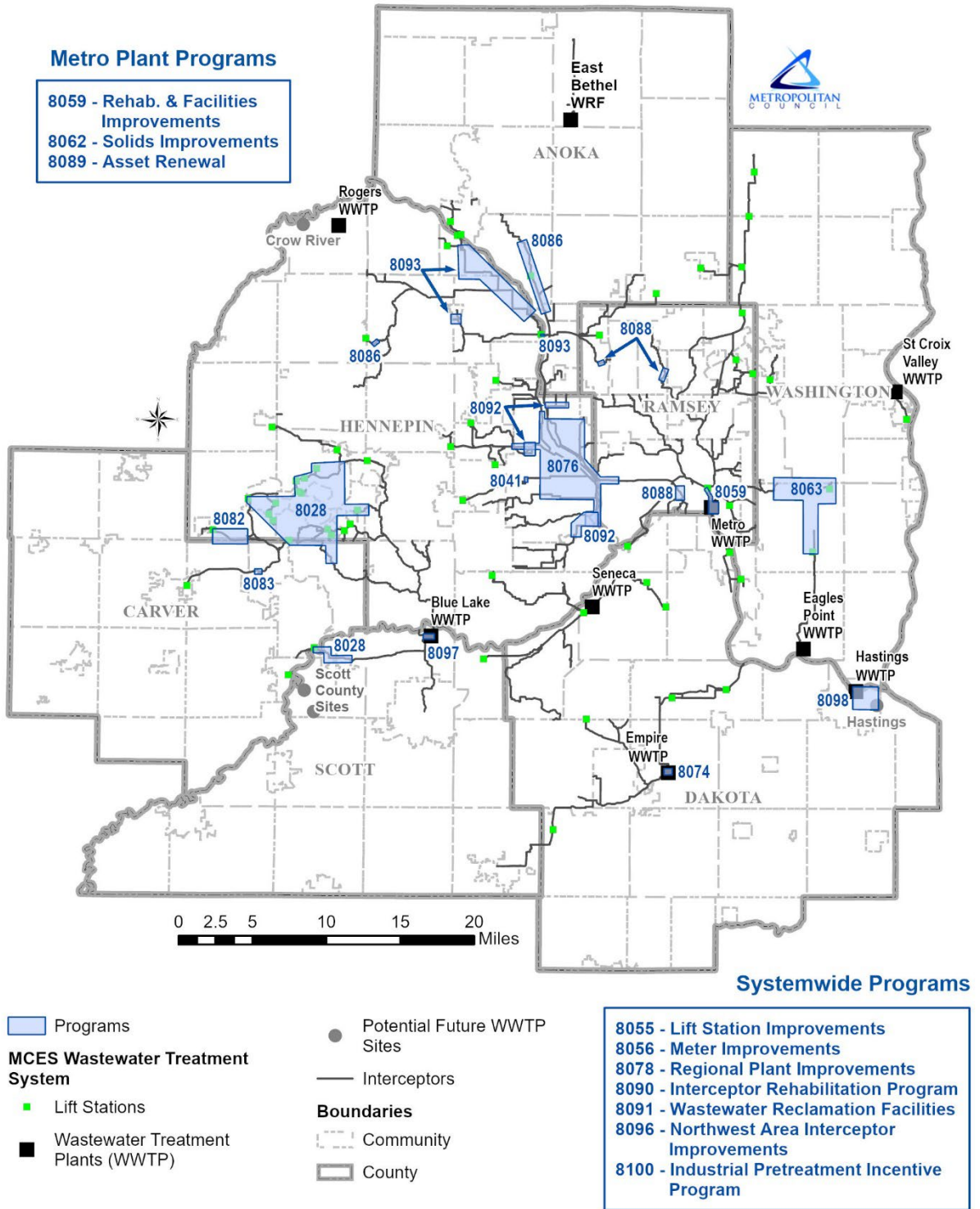
## Regional Wastewater System Long-Term Service Areas



### Long Term Service Areas

	Current	Potential			Orderly Annexations	
Rural Centers				Shakopee Mdewakanton Sioux Community		Rural Centers Pre-2030
Metro				Scott Co. Urban Expansion		Blue Lake Pre-2030
Blue Lake				Scott Co. Rural Center Expansion		Rural Centers Post-2030
Seneca				Wildlife Mgmt. Area		Blue Lake Post-2030
Empire				County Boundaries		Empire Post-2030
Eagles Point				City and Township Boundaries		
St. Croix Valley				Lakes and Rivers		
Hastings						
Rogers						
East Bethel						

# MCES 2023-2028 Capital Program Project Location Map

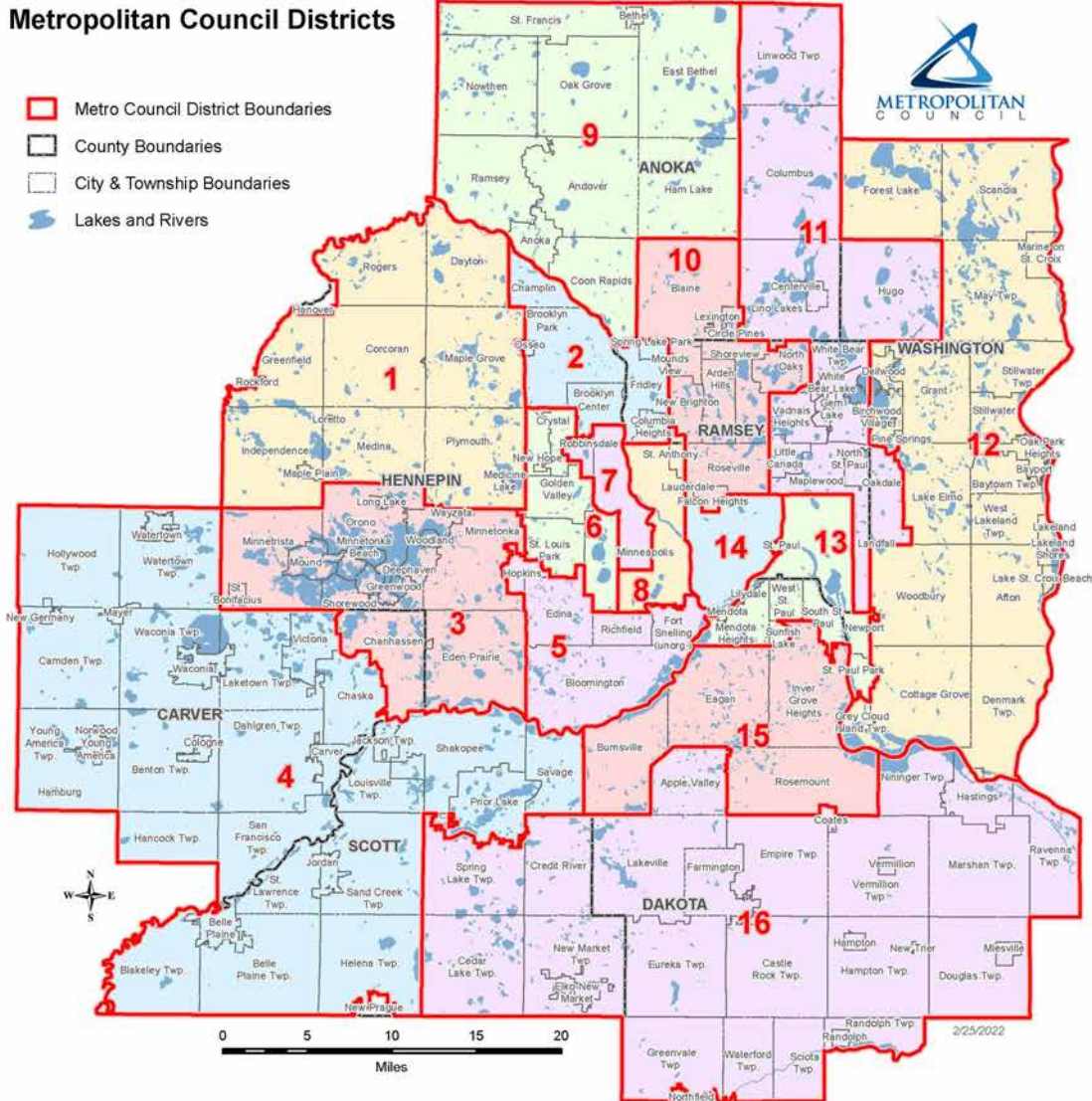




# MCES Council Districts Map

Click on the district to learn more about projects located in that district.

- [District 1](#)
- [District 2](#)
- [District 3](#)
- [District 4](#)
- [District 5](#)
- [District 6](#)
- [District 7](#)
- [District 8](#)
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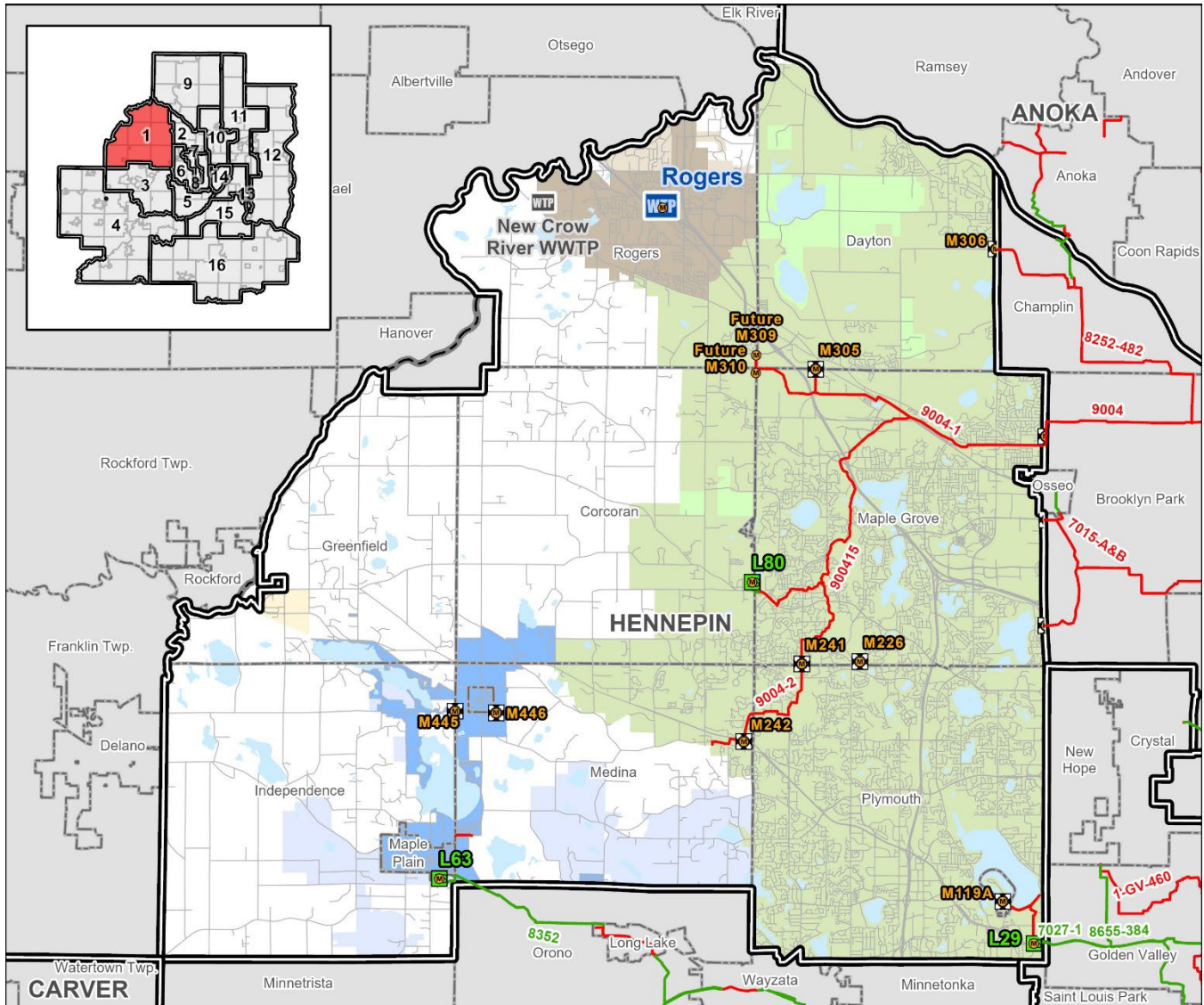
<b>Chair</b> Charlie Zelle	
<b>District</b>	<b>District</b>
1 Judy Johnson	9 Raymond Zeran
2 Reva Chamblis	10 Peter Lindstrom
3 Vacant	11 Susan Vento
4 Deb Barber	12 Francisco Gonzalez
5 Molly Cummings	13 Chai Lee
6 John Pacheco Jr.	14 Kris Fredson
7 Robert Lilligren	15 Phillip Sterner
8 Abdurahman Muse	16 Wendy Wulff

Source: Metropolitan Council Redistricting Plan passed by the state legislature on May 17, 2013. Boundaries re-aligned with municipal and county boundaries and NCompass Street Centerlines.

# District 1

## Capital Program & Projects

District 1 includes, in Hennepin County, the cities of Corcoran, Dayton, Greenfield, Independence, Loretto, Maple Grove, Maple Plain, Medicine Lake, Medina, Plymouth, and Rogers. Excluded are the Hennepin County portions of the cities of Hanover and Rockford.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Wastewater Treatment Plants
- Future Wastewater Treatment Plants

### Liquid Waste Hauler Disposal Sites

- Interceptors
- Gravity
- Forcemain
- Metropolitan Council Districts

### Long Term Wastewater Service Area

- Blue Lake
- Potential Blue Lake
- Metro
- Potential Metro
- Rogers
- Potential Rogers
- Potential Rural Center

### Programs in this District

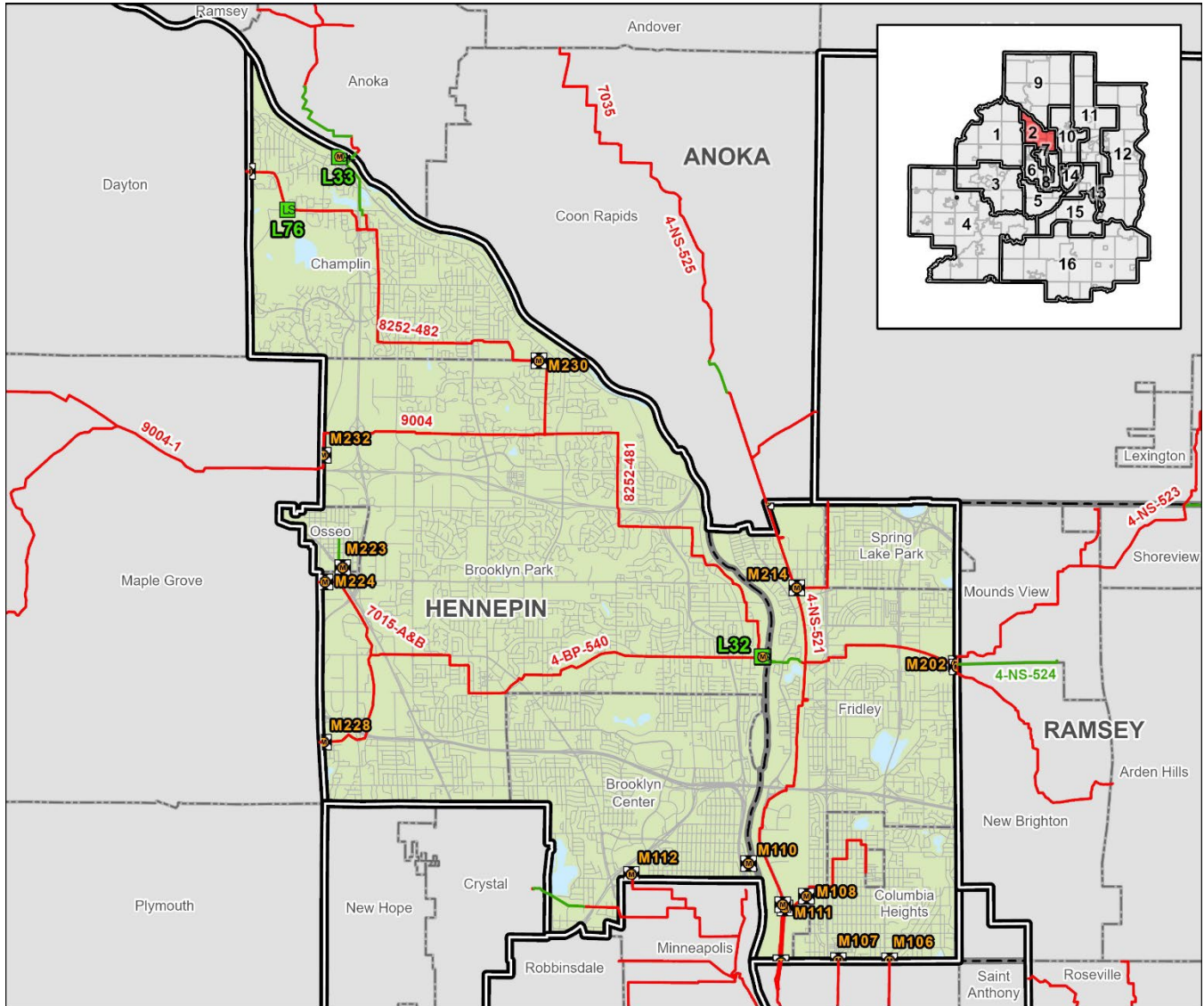
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8078: Regional Plant Improvements
- 8086: North Area Interceptor Rehabilitation
- 8090: Interceptor Rehabilitation
- 8091: Wastewater Reclamation Facilities
- 8096: Northwest Area Interceptor Improvements



# District 2

## Capital Program & Projects

District 2 includes, in Anoka County, the cities of Columbia Heights, Fridley, Hilltop, and Spring Lake Park and in Hennepin County, the cities of Brooklyn Center, Brooklyn Park, Champlin, and Osseo. Excluded is the Ramsey County portion of the city of Spring Lake Park.



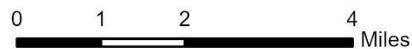
- Wastewater Infrastructure**
- Meters
  - Lift Stations
  - Liquid Waste Hauler Disposal Sites

- Interceptors**
- Gravity
  - Forcemain
  - Metropolitan Council Districts

- Long Term Wastewater Service Area**
- Metro

**Programs in this District**

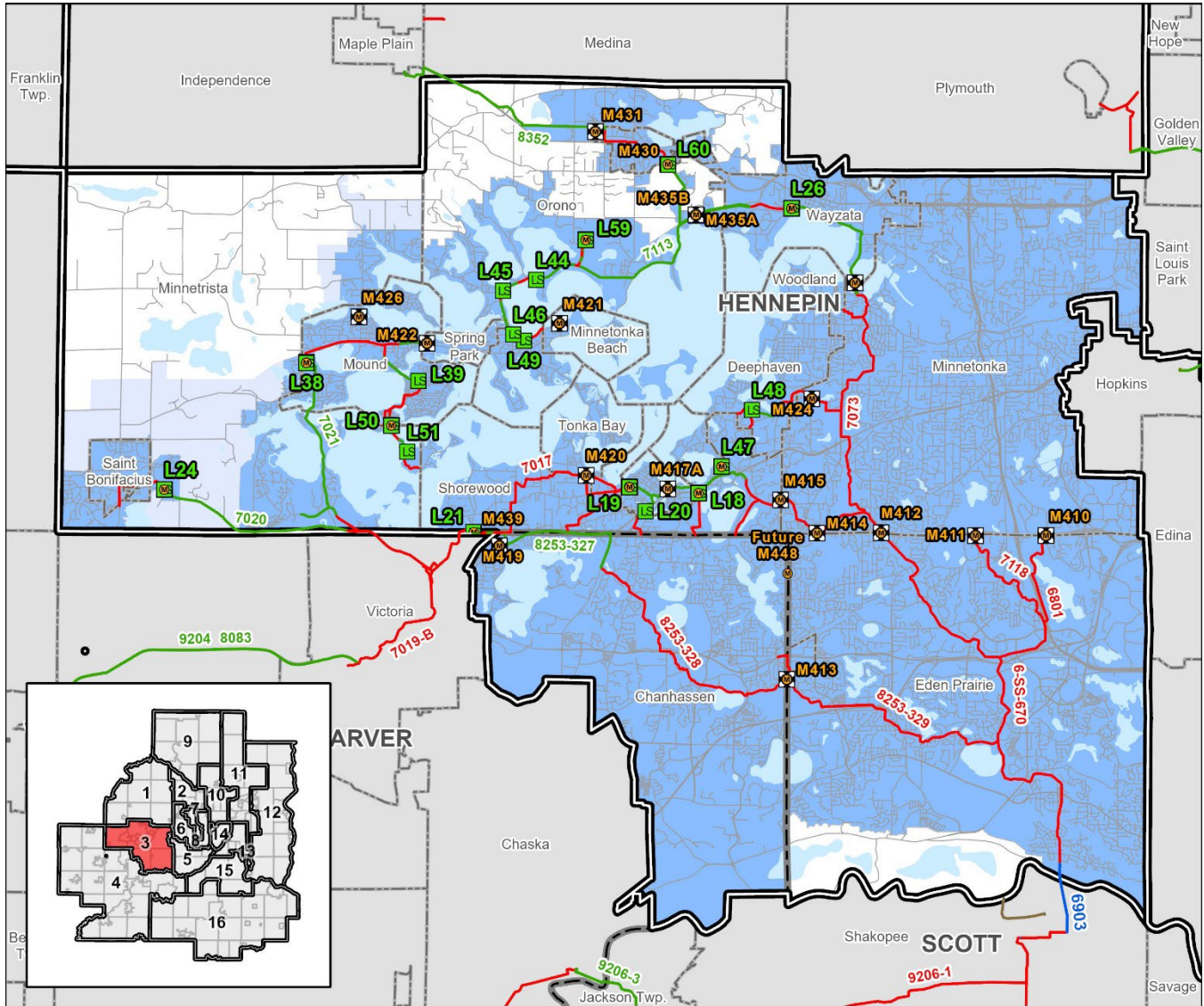
- 8028: Blue Lake Interceptor System Improvements
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8086: North Area Interceptor Rehabilitation
- 8090: Interceptor Rehabilitation
- 8092: Minneapolis Interceptor System Improvements
- 8093: Brooklyn Park - Champlin Interceptor Renewal
- 8094: Brooklyn Park L32



# District 3

## Capital Program & Projects

District 3 includes the cities of Chanhassen, Deephaven, Eden Prairie, Excelsior, Greenwood, Long Lake, Minnetonka, Minnetonka Beach, Minnetrista, Mound, Orono, Shorewood, Spring Park, St. Bonifacius, Tonka Bay, Wayzata, and Woodland.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Liquid Waste Hauler Disposal Sites

### Interceptors

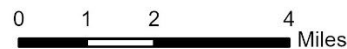
- Gravity
- Forcemain
- Siphon

### Metropolitan Council Districts

- Long Term Wastewater Service Area
- Blue Lake
- Potential Blue Lake

### Programs in this District

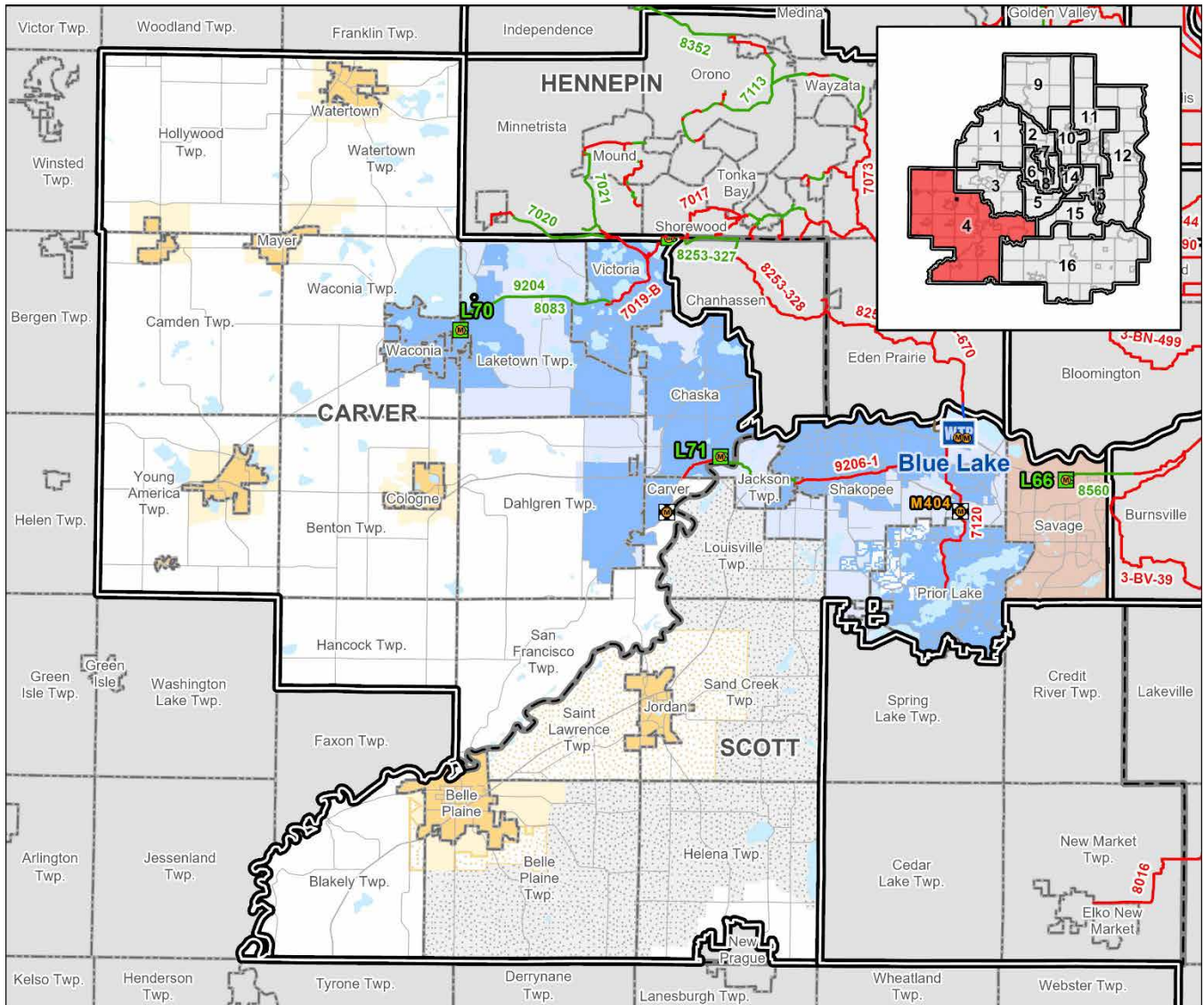
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8082: St Bonifacius LS/FM Rehabilitation
- 8083: Waconia LS/FM Rehabilitation
- 8090: Interceptor Rehabilitation



# District 4

## Capital Program & Projects

District 4 includes all of Carver County except for the city of Chanhassen and all of Scott County except Spring Lake Township, Credit River Township, Cedar Lake Township, New Market Township and the city of Elko New Market. Excluded is the Scott County portion of the city of New Prague.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Wastewater Treatment Plants
- Liquid Waste Hauler Disposal Sites

### Interceptors

- Gravity
- Forcemain
- Siphon
- Effluent
- Metropolitan Council Districts

### Long Term Wastewater Service Area

- Blue Lake
- Potential Blue Lake

### Seneca

- Rural Center
- Potential Rural Center
- Scott Co. Rural Center Expansion
- Scott Co. Urban Expansion
- Shakopee Mdwakanton Sioux Community

### Programs in this District

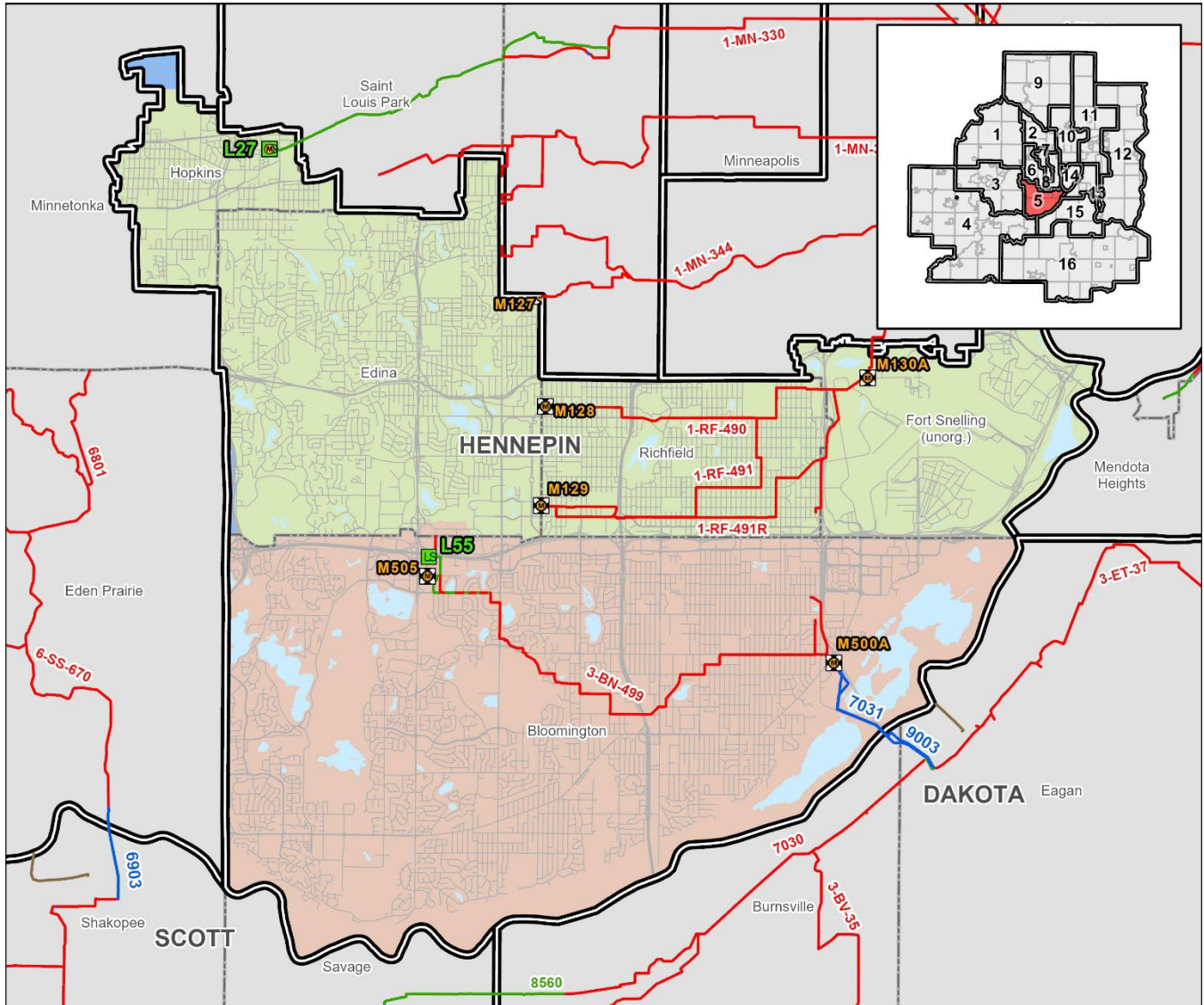
- 8028: Blue Lake Interceptor System Improvements
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8078: Regional Plant Improvements
- 8090: Interceptor Rehabilitation
- 8091: Wastewater Reclamation Facilities
- 8095: South Area Interceptor Improvements
- 8097: Blue Lake Solids Processing



# District 5

## Capital Program & Projects

District 5 includes the Hennepin County cities of Bloomington, Edina, Hopkins, Richfield, and the Fort Snelling Unorganized Territory (including MSP International Airport).



### Wastewater Infrastructure

- Meters
- Lift Stations
- Liquid Waste Hauler Disposal Sites
- Interceptors**
- Gravity
- Forcemain
- Siphon

### Metropolitan Council Districts

- Long Term Wastewater Service Area**
- Blue Lake
- Metro
- Seneca

### Programs in this District

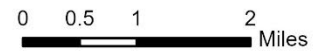
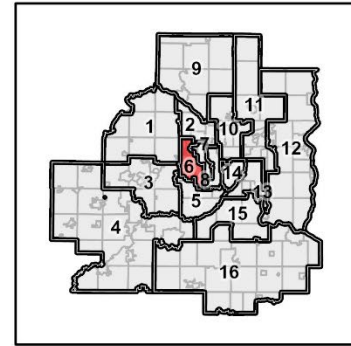
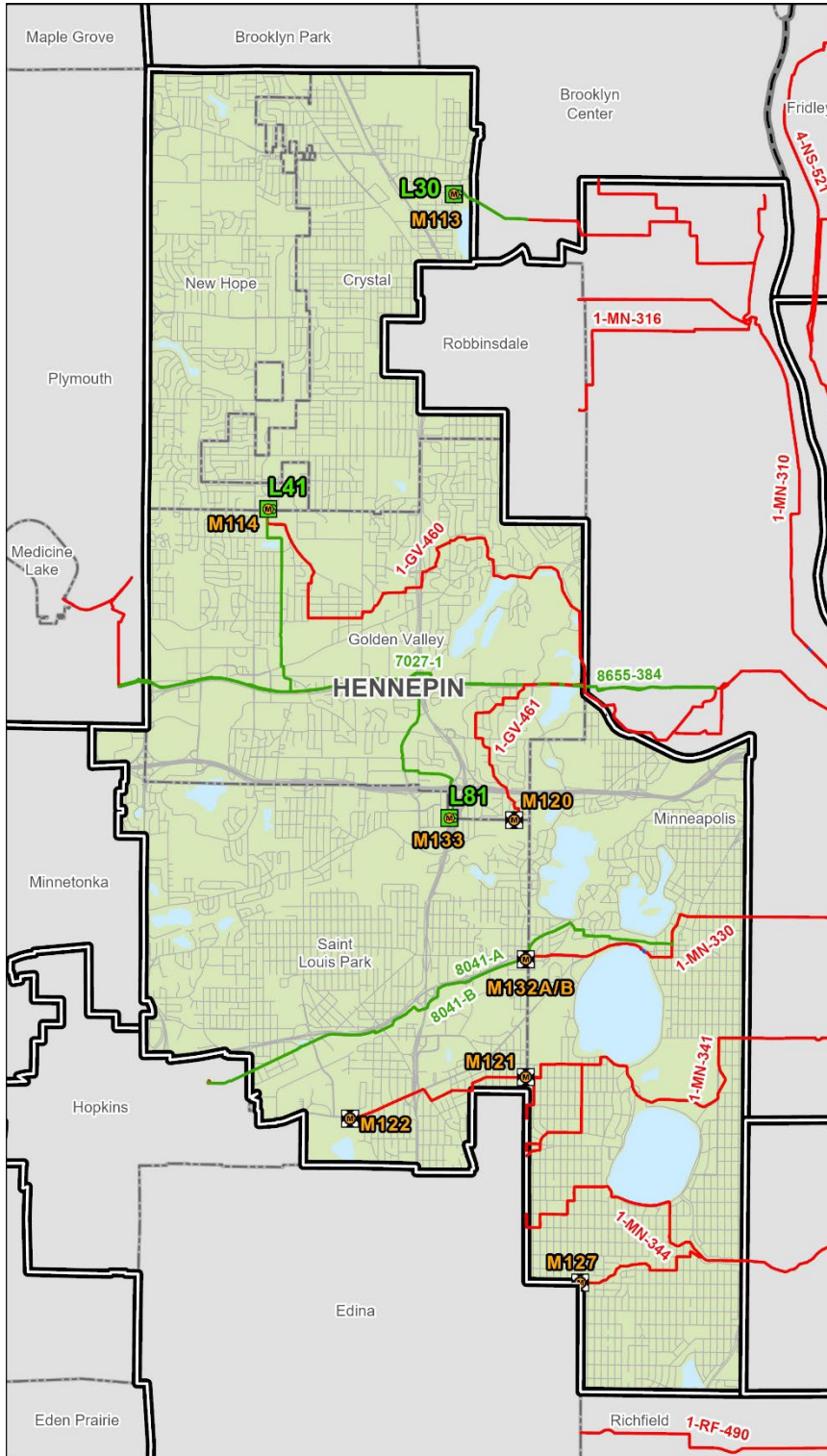
- 8041: Hopkins System Improvements
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8090: Interceptor Rehabilitation



# District 6

## Capital Program & Projects

District 6 includes the Hennepin County cities of Crystal, Golden Valley, New Hope, St. Louis Park, and the portion of Minneapolis.



### Wastewater Infrastructure

- Meters
- Lift Stations
- ▣ Liquid Waste Hauler Disposal Sites

### Interceptors

- Gravity
- Forcemain
- Siphon

### Metropolitan Council Districts

- ▭ Metropolitan Council Districts
- Long Term Wastewater Service Area
- Metro

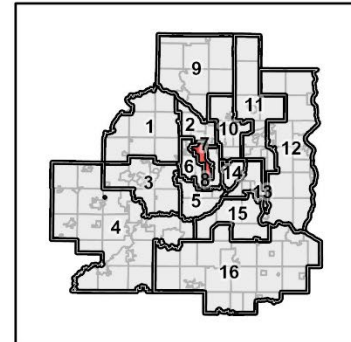
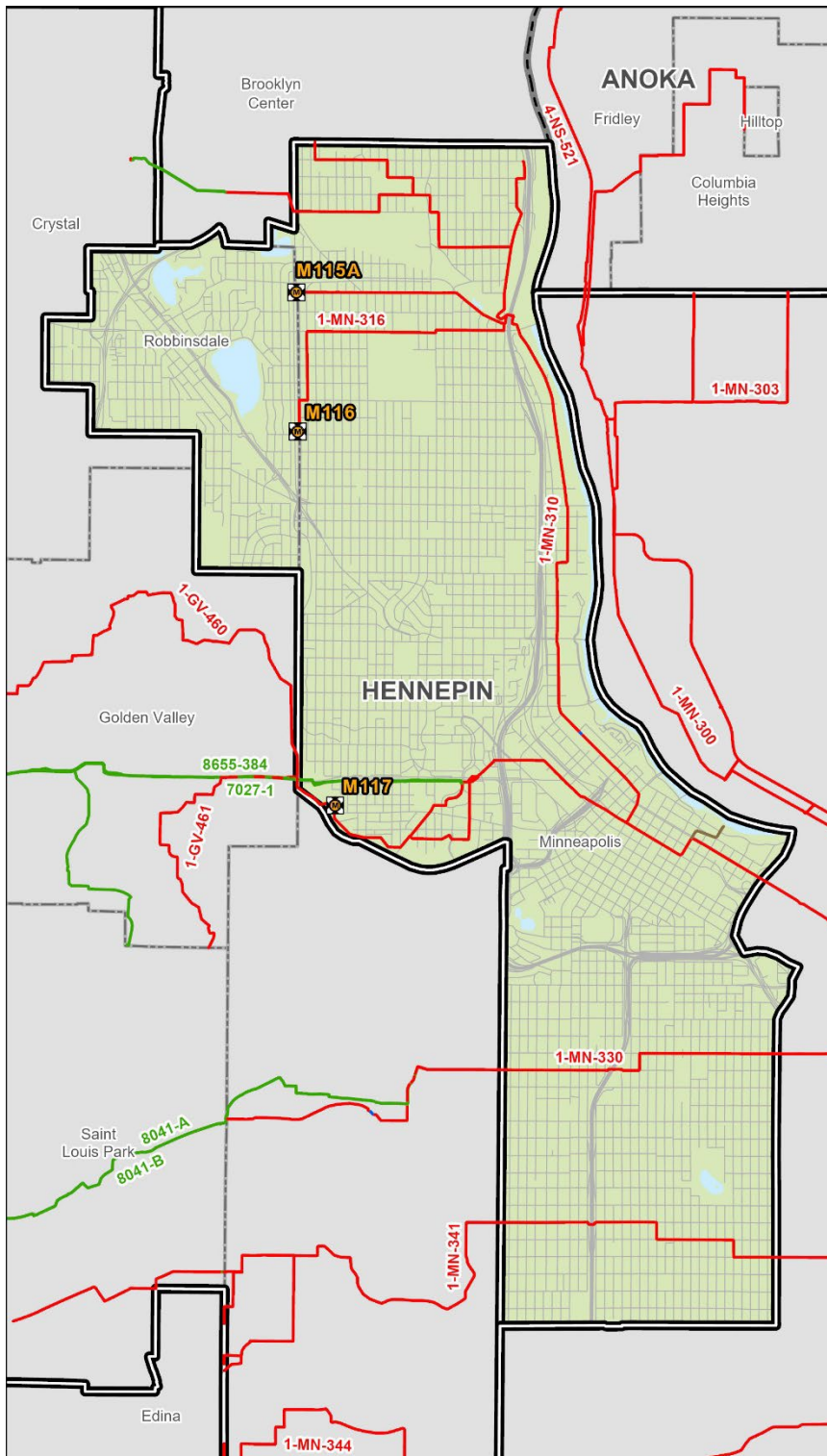
### Programs in this District

- 8041: Hopkins System Improvements
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8076: Mpls. Interceptor System Rehabilitation
- 8090: Interceptor Rehabilitation
- 8092: Minneapolis Interceptor System Improvements
- 8096: Northwest Area Interceptor Improvements

# District 7

## Capital Program & Projects

District 7 includes in Hennepin County, the city of Robbinsdale and the portion of Minneapolis.



### Wastewater Infrastructure

- Meters
- Liquid Waste Hauler Disposal Sites

### Interceptors

- Gravity
- Forcemain
- Siphon
- Effluent

- Metropolitan Council Districts

### Long Term Wastewater Service Area

- Metro

### Programs in this District

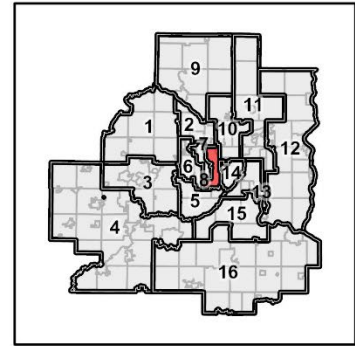
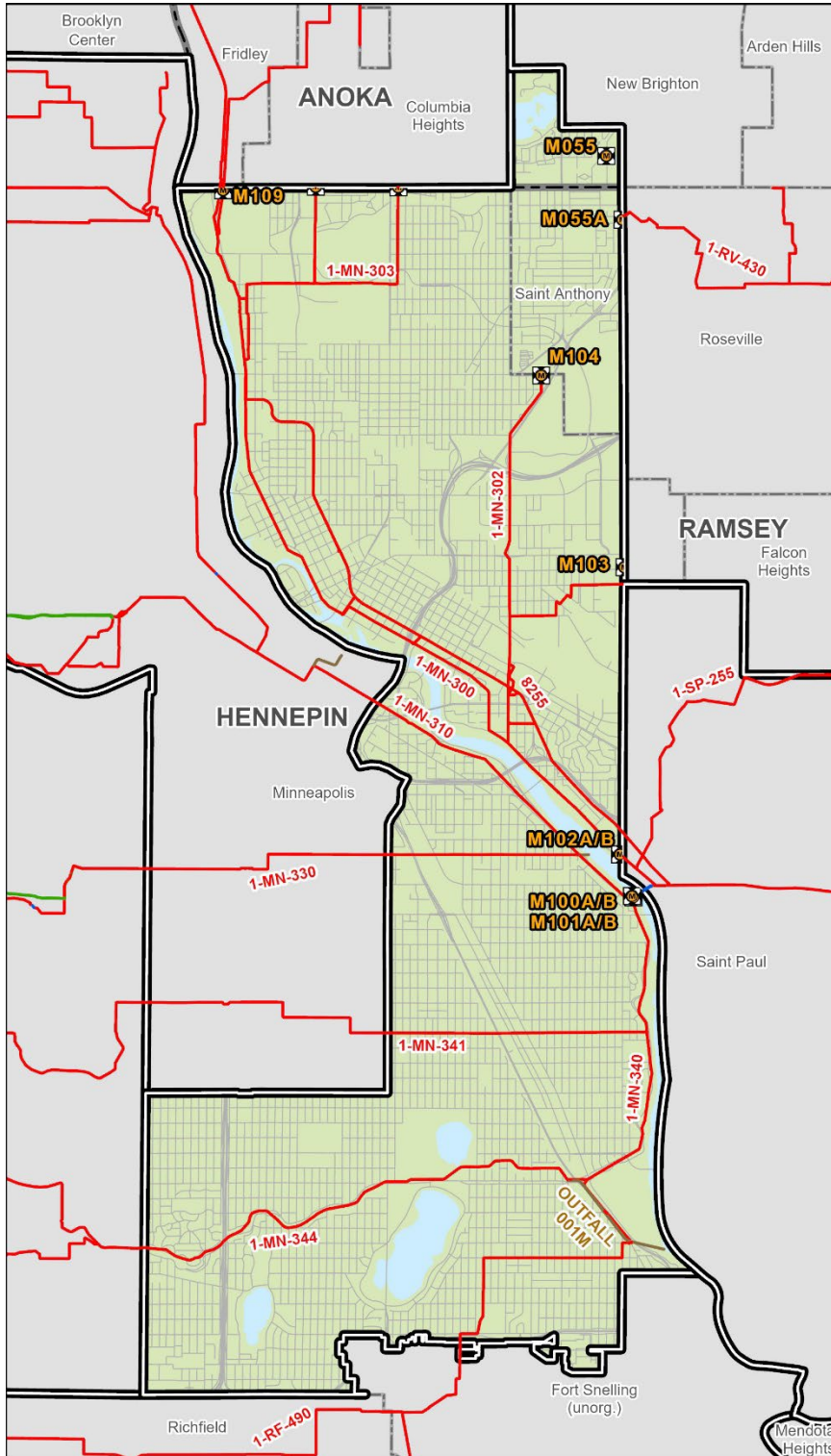
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8076: Mpls. Interceptor System Rehabilitation
- 8090: Interceptor Rehabilitation
- 8092: Minneapolis Interceptor System Improvements



# District 8

## Capital Program & Projects

District 8 includes the Hennepin and Ramsey County parts of the city of St. Anthony and the portion of Minneapolis.



### Wastewater Infrastructure

- Meters
- ⊠ Liquid Waste Hauler Disposal Sites
- Interceptors*
- Gravity
- Forcemain
- Siphon
- Effluent
- ▭ Metropolitan Council Districts

### Long Term Wastewater Service Area

- Metro

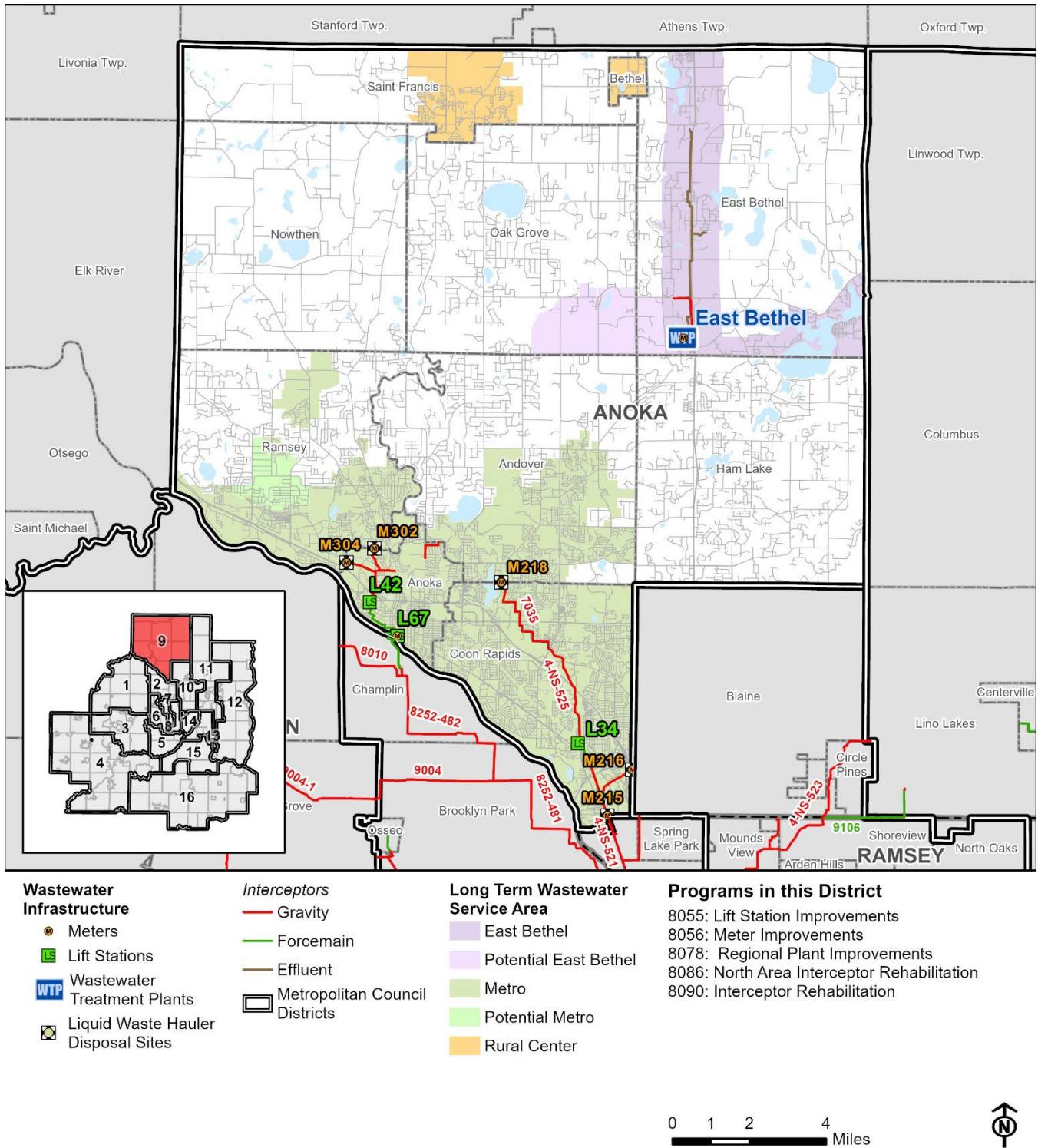
### Programs in this District

- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8076: Mpls. Interceptor System Rehabilitation
- 8090: Interceptor Rehabilitation
- 8092: Minneapolis Interceptor System Improvements

# District 9

## Capital Program & Projects

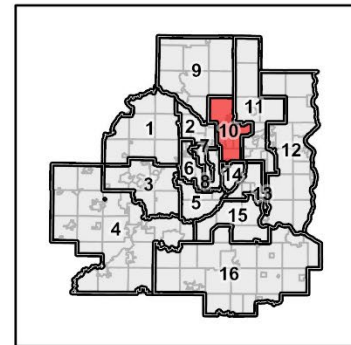
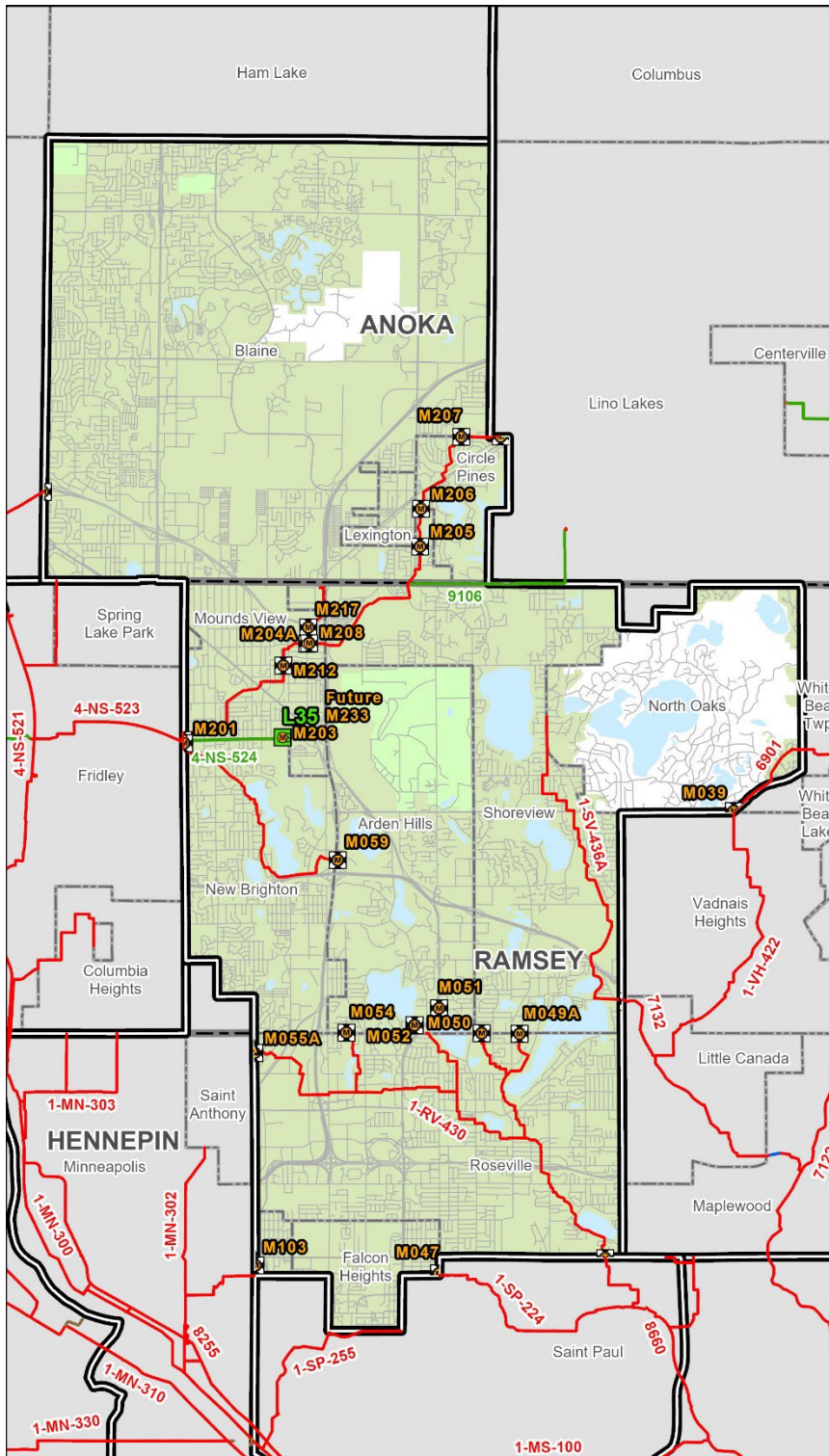
District 9 includes, in Anoka County, the cities of Andover, Anoka, Bethel, Coon Rapids, East Bethel, Ham Lake, Nowthen, Oak Grove, Ramsey, and St. Francis.



# District 10

## Capital Program & Projects

District 10 includes, in Anoka County, the cities of Blaine, Circle Pines and Lexington and in Ramsey County, Falcon Heights, Lauderdale, Mounds View, New Brighton, North Oaks, Roseville, Shoreview, and the Ramsey County portions of Arden Hills, Blaine and Spring Lake Park.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Liquid Waste Hauler Disposal Sites

### Interceptors

- Gravity
- Forcemain

### Metropolitan Council Districts

- Metro
- Potential Metro

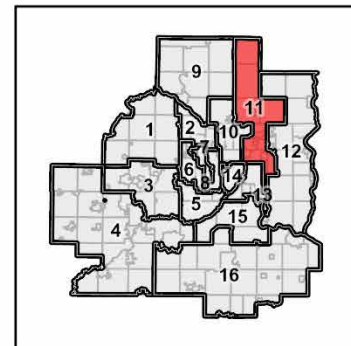
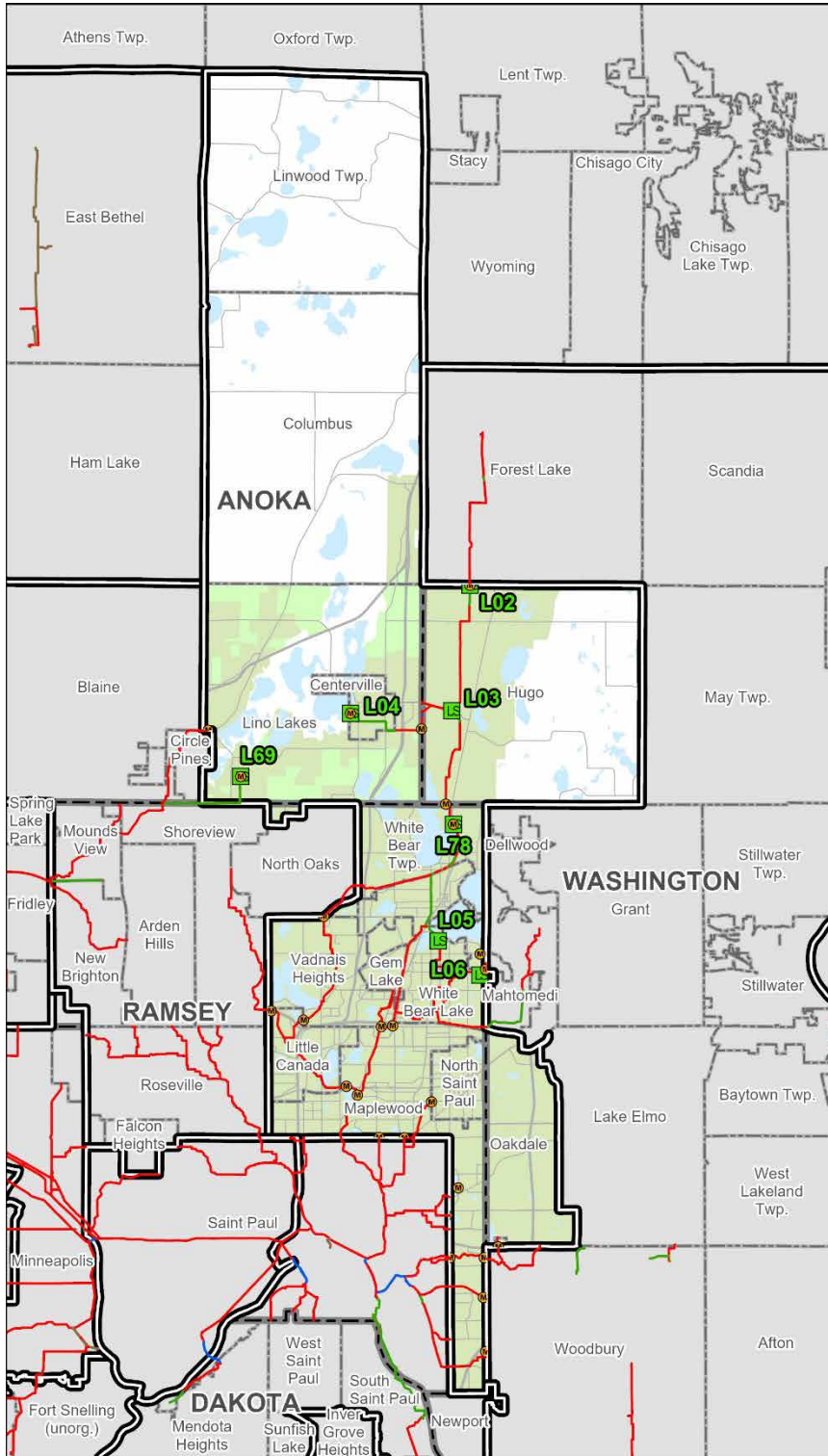
### Programs in this District

- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8086: North Area Interceptor Rehabilitation
- 8088: St Paul Interceptor System Rehabilitation
- 8090: Interceptor Rehabilitation

# District 11

## Capital Program & Projects

District 11 includes, in Anoka County, the cities of In Anoka County, Centerville, Columbus, Lino Lakes, and Linwood. In Washington County, it includes the cities of Hugo, Landfall, Oakdale, and White Bear Lake (Washington County Part). In Ramsey County, the cities of Gem Lake, Little Canada, Maplewood, North St. Paul, Vadnais Heights, White Bear Lake, and White Bear Township.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Interceptors*
- Gravity
- Forcemain
- Siphon
- Metropolitan Council Districts

### Long Term Wastewater Service Area

- Metro
- Potential Metro

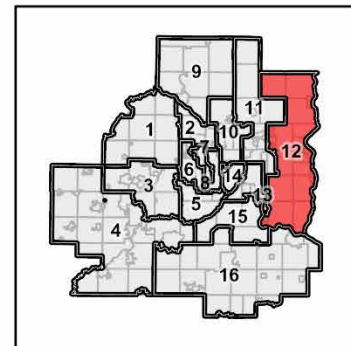
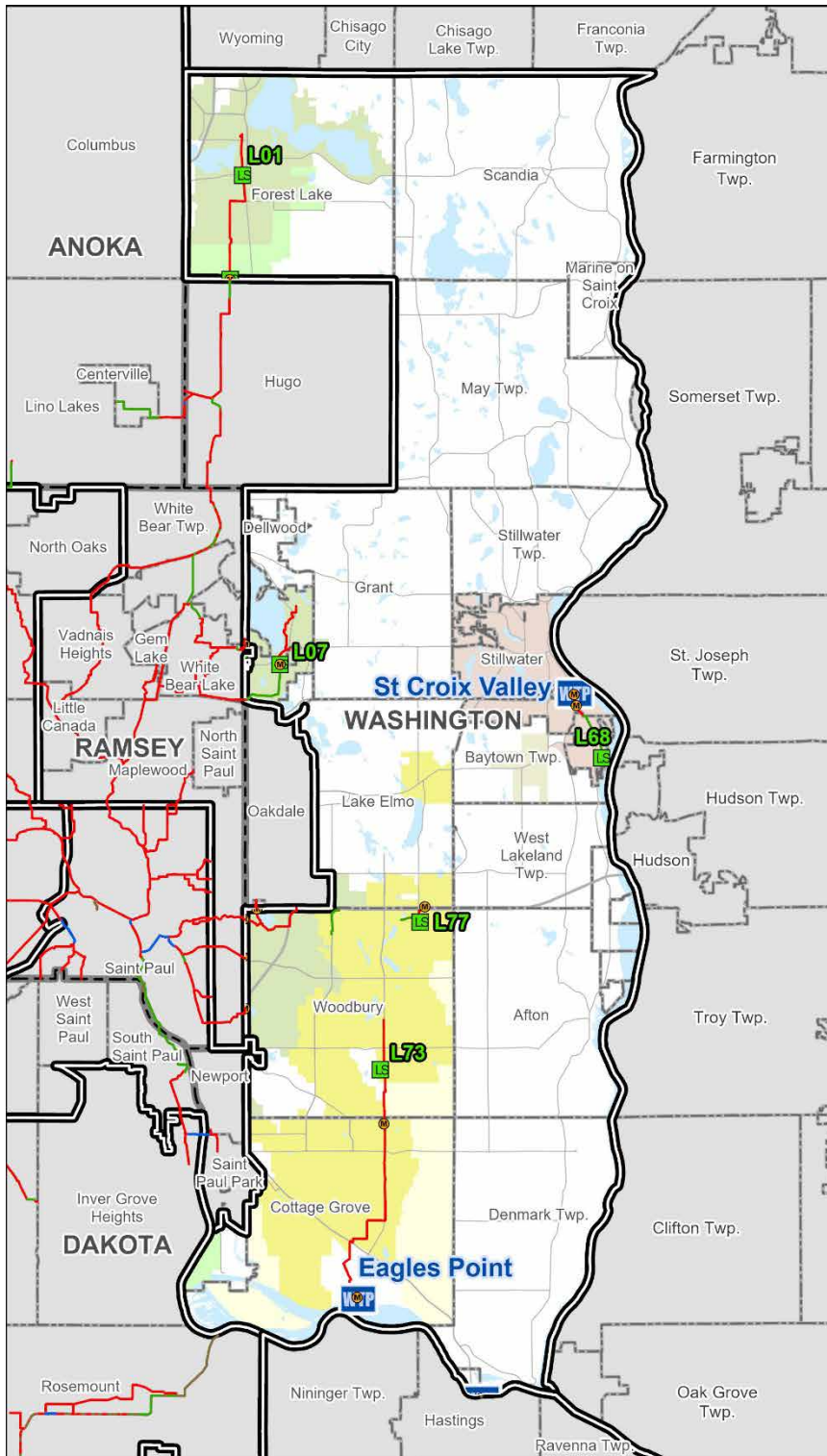
### Programs in this District

- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8086: North Area Interceptor Rehabilitation
- 8088: St Paul Interceptor System Rehabilitation
- 8090: Interceptor Rehabilitation

# District 12

## Capital Program & Projects

District 12 includes the cities of Afton, Bayport, Baytown Twp., Birchwood Village, Cottage Grove, Dellwood, Denmark Twp., Forest Lake, Grant, part of Grey Cloud Island Twp., Lake Elmo, Lake St. Croix Beach, Lakeland, Lakeland Shores, Mahtomedi, Marine on St. Croix, May Twp., Newport, Oak Park Heights, Pine Springs, Scandia, St. Mary's Point, St. Paul Park, Stillwater, Stillwater Twp., West Lakeland Twp., Willernie, and Woodbury.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Wastewater Treatment Plants

### Interceptors

- Gravity
- Forcemain
- Effluent

### Metropolitan Council Districts

### Long Term Wastewater Service Area

- Eagles Point
- Potential Eagles Point
- Metro
- Potential Metro
- St. Croix Valley
- Potential St. Croix Valley

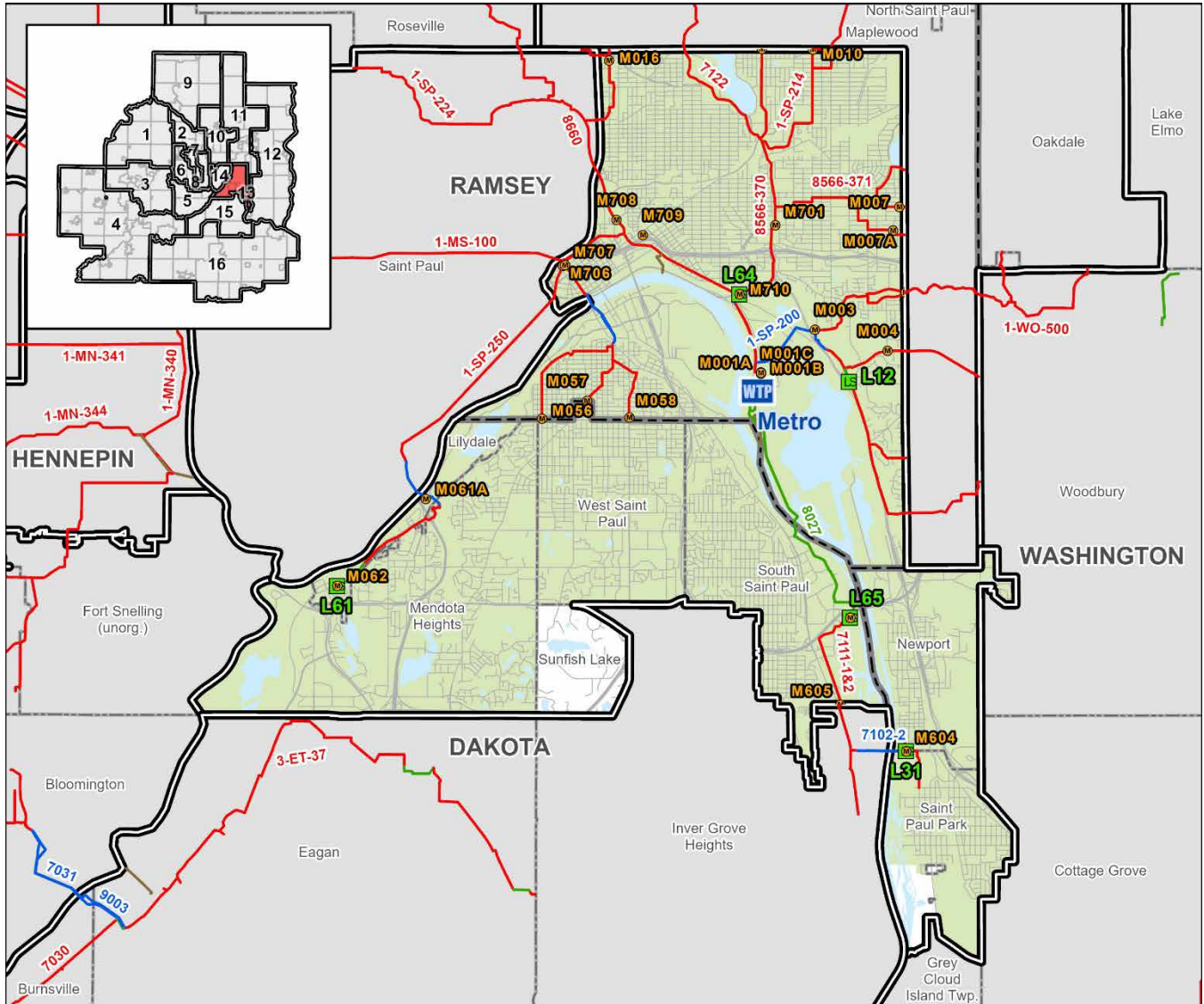
### Programs in this District

- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8063: East Area Interceptor Improvements
- 8078: Regional Plant Improvements
- 8090: Interceptor Rehabilitation

# District 13

## Capital Program & Projects

District 13 includes, in Dakota County, the cities of Lilydale, Mendota, Mendota Heights, Sunfish Lake, West St. Paul, and South St. Paul. In Washington County, Newport, St. Paul Park and the enclaves of Grey Cloud Island Township that are wholly within the city of St. Paul Park. In Ramsey County, that portion of the city of St. Paul.



**Wastewater Infrastructure**

- Meters
- Lift Stations
- Wastewater Treatment Plants

**Interceptors**

- Gravity
- Forcemain
- Siphon
- Effluent

Metropolitan Council Districts

**Long Term Wastewater Service Area**

- Metro

**Programs in this District**

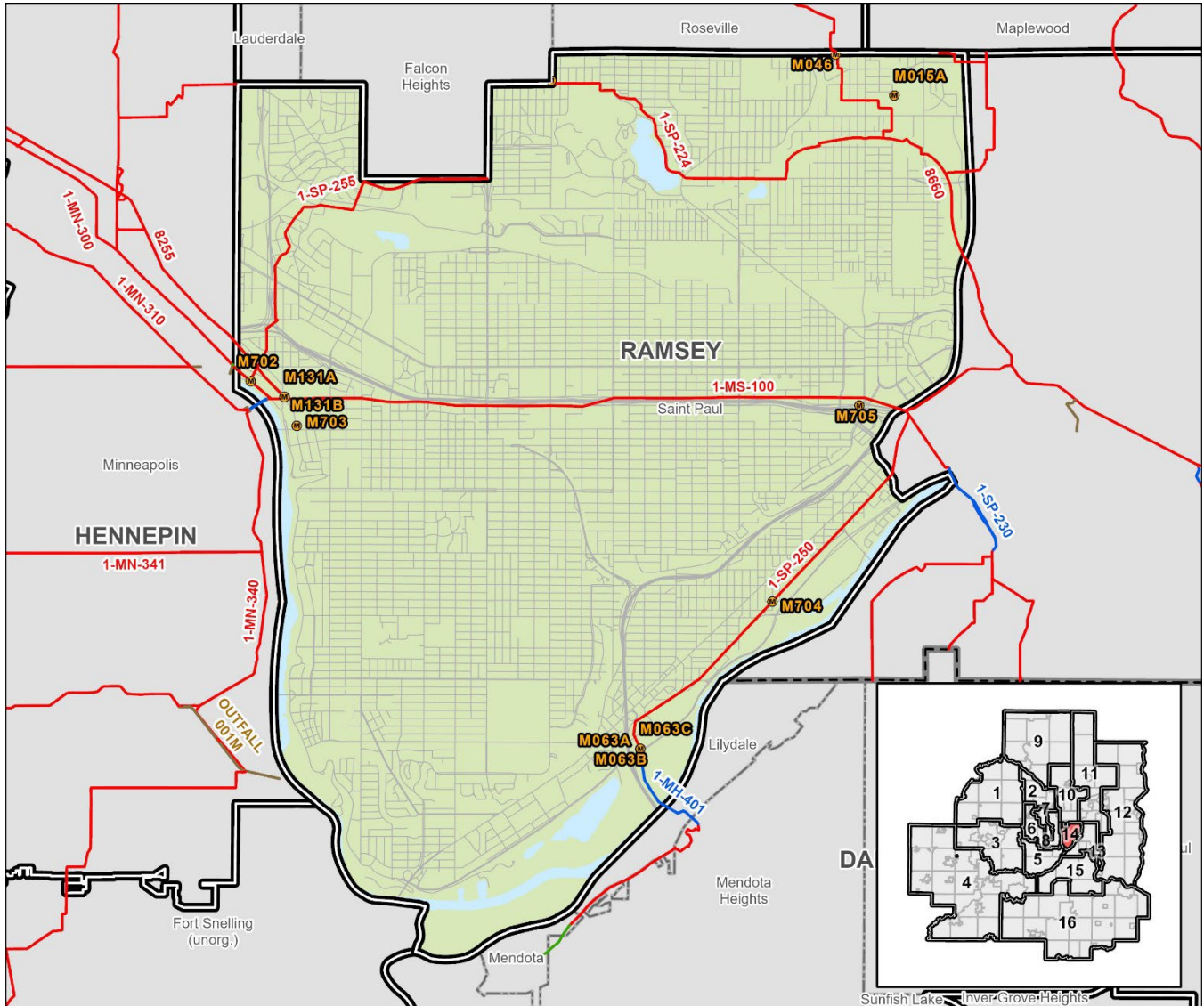
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8059: Metro Rehabilitation & Facilities Improve
- 8062: Metro Solids Improvements
- 8088: St Paul Interceptor System Rehabilitation
- 8089: MWWTP Asset Renewal
- 8090: Interceptor Rehabilitation



# District 14

## Capital Program & Projects

District 14 includes the portion of the city of St. Paul described as follows: west of a line beginning at the point where the median of Interstate 35E intersects the northern boundary of the city of St. Paul.



**Wastewater Infrastructure**

- Meters
- Interceptors*
- Gravity
- Siphon
- Effluent

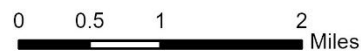
□ Metropolitan Council Districts

**Long Term Wastewater Service Area**

- Metro

**Programs in this District**

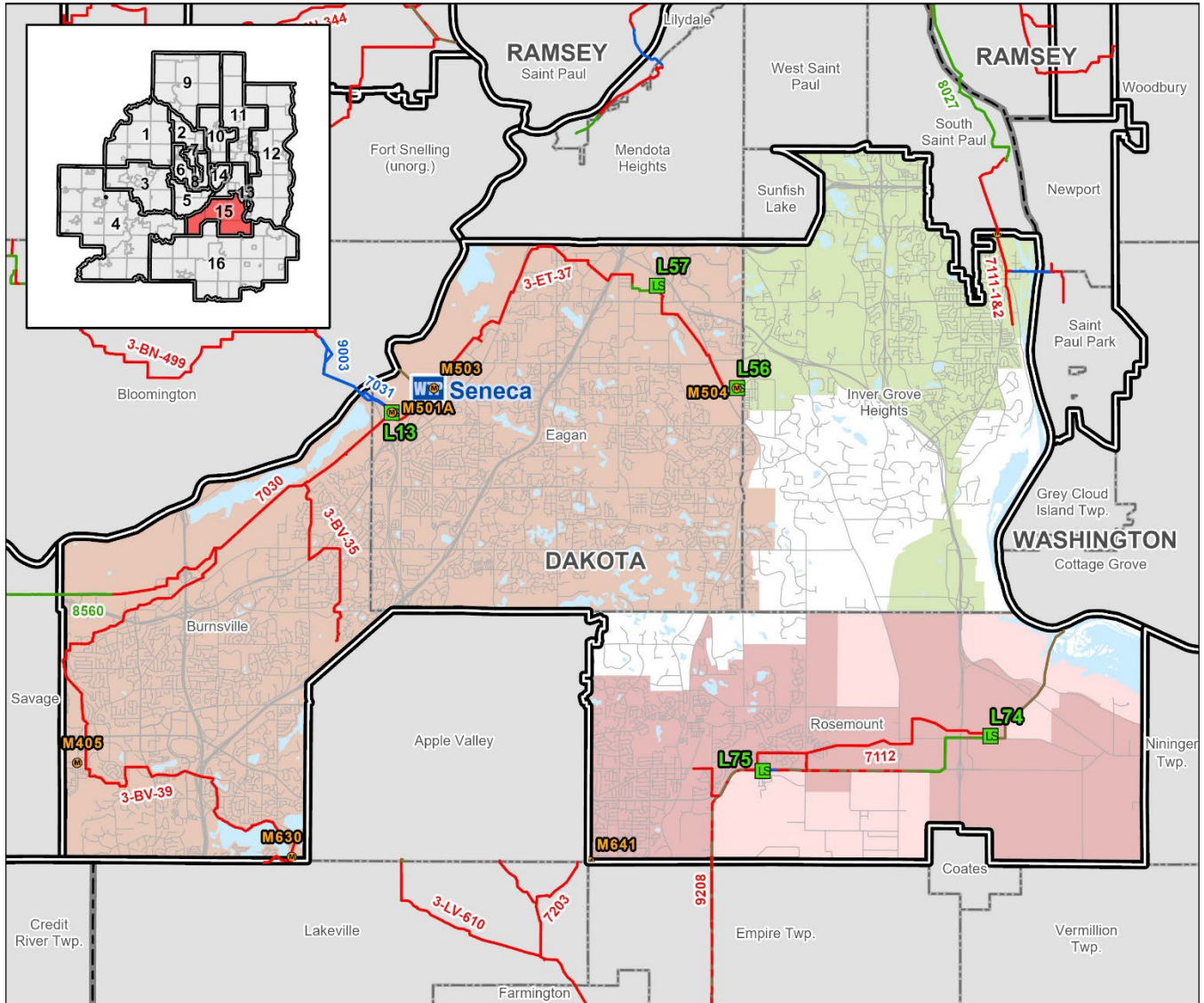
- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8076: Mpls. Interceptor System Rehabilitation
- 8088: St Paul Interceptor System Rehabilitation
- 8090: Interceptor Rehabilitation



# District 15

## Capital Program & Projects

District 15 includes the cities of Burnsville, Eagan, Inver Grove Heights, and Rosemount in Dakota County.



### Wastewater Infrastructure

- Meters
- Lift Stations
- Wastewater Treatment Plants

### Interceptors

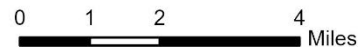
- Gravity
- Forcemain
- Siphon
- Effluent
- Metropolitan Council Districts

### Long Term Wastewater Service Area

- Empire
- Potential Empire
- Metro
- Seneca

### Programs in this District

- 8055: Lift Station Improvements
- 8056: Meter Improvements
- 8078: Regional Plant Improvements
- 8090: Interceptor Rehabilitation
- 8091: Wastewater Reclamation Facilities
- 8095: South Area Interceptor Improvements

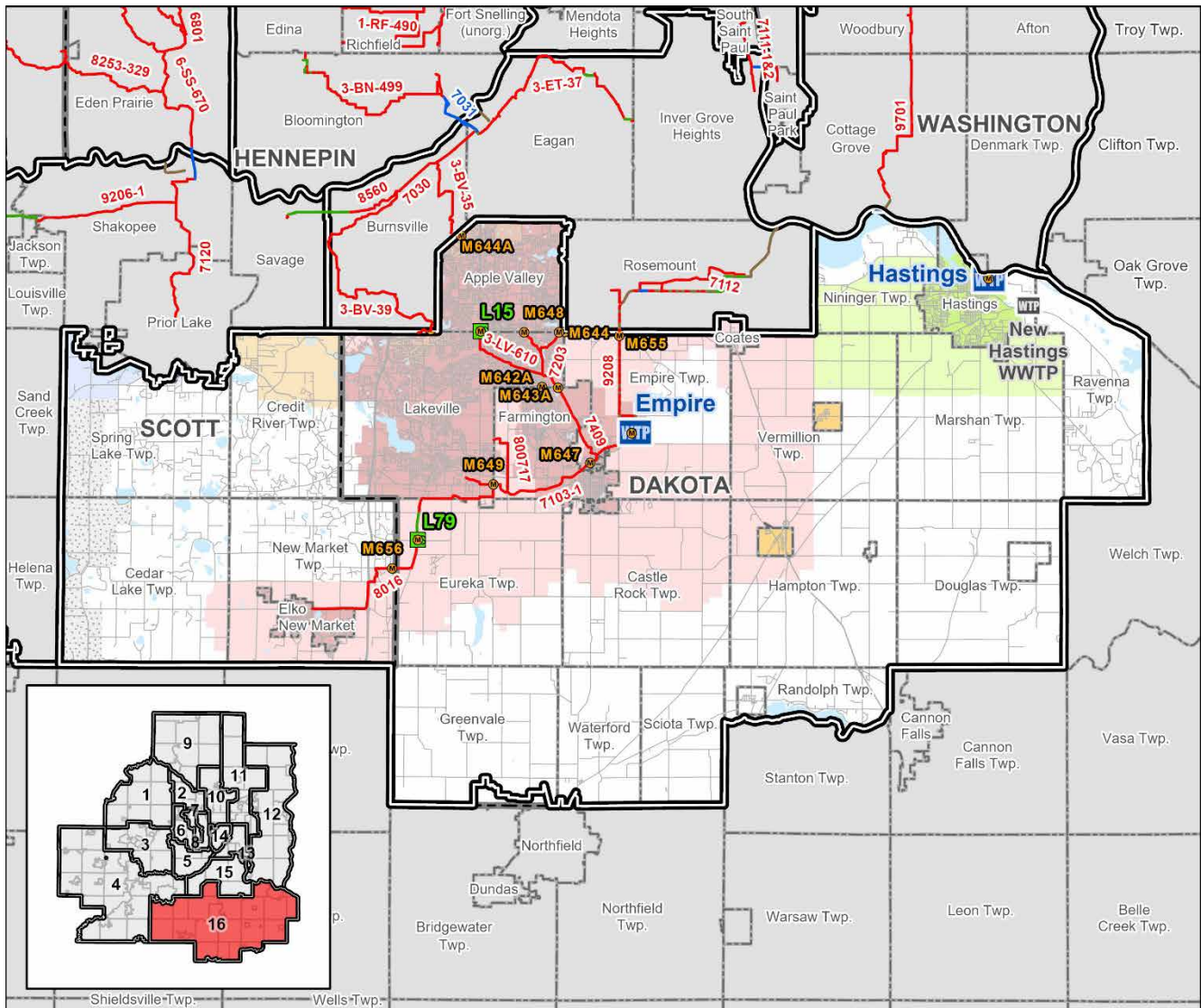




# District 16

## Capital Program & Projects

District 16 includes, in Dakota County, the cities of Apple Valley, Castle Rock Twp. Coates, Douglas Twp., Empire Twp., Eureka Twp., Farmington, Greenvale Twp., Hampton, Hampton Twp., Hastings, Lakeville, Marshan Twp., Miesville, New Trier, Nininger Twp., Randolph, Randolph Twp., Ravenna Twp., Sciota Twp., Vermillion, Vermillion Twp., and Waterford Twp. In Scott County, Cedar Lake Twp., Credit River Twp., Elko New Market, New Market Twp., and Spring Lake Twp. Excluded are the Dakota County portions of the city of Northfield.



<p><b>Wastewater Infrastructure</b></p> <ul style="list-style-type: none"> <li> Meters</li> <li> Lift Stations</li> <li> Wastewater Treatment Plants</li> <li> Future Wastewater Treatment Plants</li> </ul>	<p><b>Interceptors</b></p> <ul style="list-style-type: none"> <li> Gravity</li> <li> Forcemain</li> <li> Effluent</li> <li> Metropolitan Council Districts</li> </ul> <p><b>Long Term Wastewater Service Area</b></p> <ul style="list-style-type: none"> <li> Potential Blue Lake</li> <li> Empire</li> </ul>	<ul style="list-style-type: none"> <li> Potential Empire</li> <li> Hastings</li> <li> Potential Hastings</li> <li> Seneca</li> <li> Potential Seneca</li> <li> Rural Center</li> <li> Scott Co. Urban Expansion</li> </ul>	<p><b>Programs in this District</b></p> <ul style="list-style-type: none"> <li>8055: Lift Station Improvements</li> <li>8056: Meter Improvements</li> <li>8074: Empire Plant Solids Improvements</li> <li>8078: Regional Plant Improvements</li> <li>8090: Interceptor Rehabilitation</li> <li>8095: South Area Interceptor Improvements</li> <li>8098: Hastings WWTP</li> </ul>
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## Appendix A: Project Summaries by Program – Treatment Plant

### *Table of Contents:*

Program 8059: Metro Rehabilitation & Facilities Improvements.....	32
Program 8062: Metro WWTP Solids Improvements .....	37
Program 8074: Empire WWTP Solids Improvements.....	42
Program 8078: Regional Plant Improvements.....	47
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Program 8091: Wastewater Reclamation Facilities.....	77
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# Program 8059 Metro Rehabilitation and Facilities Improvements

View of Metro WWTP

## Description:

This program provides funding for planning and implementation of a plant-wide renewal program at the Metropolitan Wastewater Treatment Plant (Metro WWTP).

## Purpose and Justification:

The program provides for planning and implementation of projects to address renewal needs for continued, reliable and sustainable wastewater service at the Metro WWTP through the year 2030.

## Program Location:

The active projects within this program are in the following Council Districts: 13

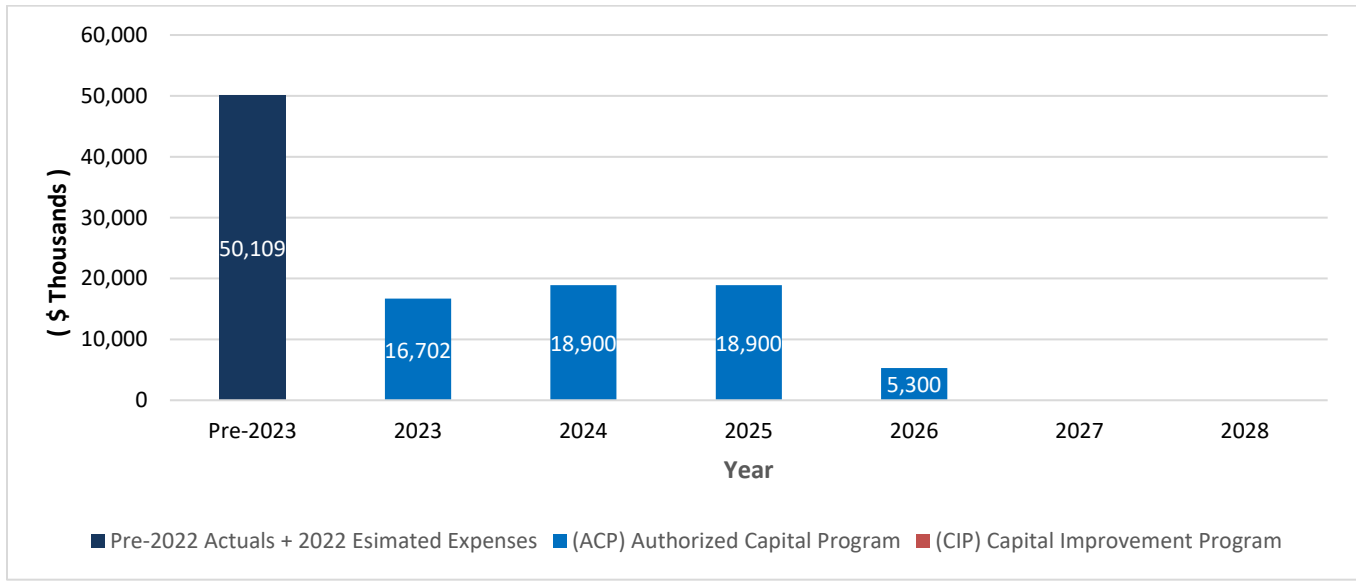
## Active Projects in Program:

Project Number	Project Title
805947	Metro WWTP Solids Renewal and Improvements
805990	Metro WWTP Site Preparation and Improvements
805998	Metro WWTP Services Buildings

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$109,910,880	Capital Improvement Plan (CIP) \$0
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8059  
Project # 805947

# Metro WWTP Solids Renewal and Improvements

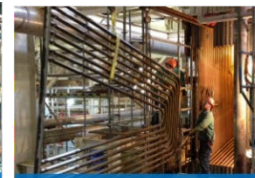
Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



Fluid Bed Incinerator  
Air Distribution



Baghouse Stainless  
Steel Liner



Waste Heat Boiler Tube  
Replacement



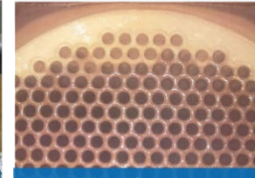
Scrubber Modifications



Cake Pumping  
Modifications



Alkaline Loadout  
Improvements



Auxiliary Condenser  
Improvements



Sludge Storage Mixing  
Improvements

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	The project includes miscellaneous improvements and renewal of equipment related to processing wastewater solids at the Metropolitan Wastewater Treatment Plant including baghouse rehabilitation, scrubber modifications, waste heat boiler tube replacement, fluid bed incinerator renewal, alkaline loadout modifications, cake pumping modifications, alkaline odor control renewal, ash cleanup improvements, auxiliary condenser improvements, instrumentation & control improvements, BF08 vent reroute, flotation thickener modifications, and sludge storage mixing improvements.
<b>PROJECT NEED:</b>	Components of the solids processing system at the Metro WWTP need to be renewed due to the harsh environment experienced inside the incineration system. Improvements will increase reliability and performance.

## PROJECT SCHEDULE



Planning  
2006-2009



Design  
2018-2019



Construction  
2020-2023

## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,600,000	<b>Current ACP</b> \$23,380,000	<b>2023 – 2028 Cash Flow</b> \$1,600,000	<b>Total Project Cost</b> \$23,380,000
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Program Family: 8059  
Project # 805990

## Metro WWTP Site Preparation and Improvements

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



5<sup>th</sup> and 5<sup>th</sup> Road Rehabilitation



Closed Loop Cooling System at SMB

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Lead by Example
<b>SCOPE:</b>	The project rehabilitates roads, Primary Settling tanks, Gravity Thickening tanks and parts of the influent channel; installs a waterline; renews the Solids storage pad and installs a closed loop cooling system for instrument air compressors.
<b>PROJECT NEED:</b>	There is a need to replace or rehabilitate assets throughout the Metro Plant to extend service life.

### PROJECT SCHEDULE



Planning  
2019



Design  
2019-2020



Construction  
2021-2024

### FINANCIAL ANALYSIS

2023 Cash Flow \$4,000,000	Current ACP \$14,423,000	2023 – 2028 Cash Flow \$4,000,000	Total Project Cost \$14,423,000
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Program Family: 8059  
Project # 805998

## Metro WWTP Services Buildings

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



*Future location of Services Building and Field Service Annex Concept Drawing*

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Engage Customers, Lead by Example and Comply with Permits
<b>SCOPE:</b>	The Services Building and Field Service Annex will be constructed adjacent to the Laboratory Building and will office the Construction Services, Water Resources, Industrial Waste Pollution Prevention and Process Engineering R&D.
<b>PROJECT NEED:</b>	Other departmental offices or laboratories currently reside within deteriorating buildings at the Metro Plant or in rental facilities away from Council property. There is a need to consolidate similar functions in common spaces to increase efficiency.

### PROJECT SCHEDULE



Planning  
2006-2009



Design  
2020-2022



Construction  
2023-2026

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$10,700,000	<b>Current ACP</b> \$55,796,000	<b>2023 – 2028 Cash Flow</b> \$53,800,000	<b>Total Project Cost</b> \$55,796,000
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## Program 8062 Metro WWTP Solids Improvements



### Description:

This program provides funding for planning and implementation of improvements to wastewater solids processing facilities at the Metropolitan Wastewater Treatment Plant (Metro WWTP).

### Purpose and Justification:

The program provides for planning and implementation of projects to address capacity and renewal needs for continued, reliable and sustainable wastewater solids processing at the Metro WWTP through the year 2050.

### Program Location:

The active projects within this program are in the following Council Districts: 13

### Active Projects in Program:

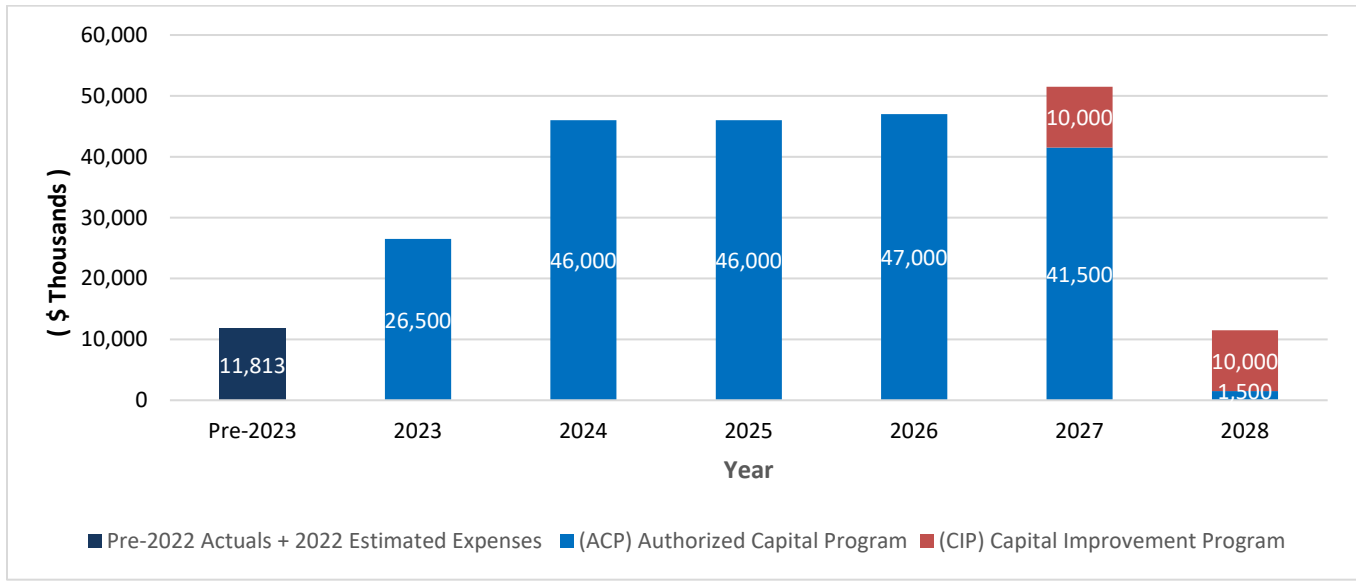
Project Number	Project Title
806210	Metro WWTP Solids Management Improvements Facility Plan
806230	Metro WWTP Fluid Bed Reactor 4
806240	Metro WWTP Renewal of Fluid Bed Reactors 1, 2 & 3

### MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$220,313,198	Capital Improvement Plan (CIP) \$20,000,000
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8062  
Project # 806210

## Metro WWTP Solids Management Improvements Facility Plan

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



*MCES customers participate in a tour of the Metro Plant's Solids Management Building.*

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Comply with Permits, Minimize Impacts, Lead by Example, Be A Good Neighbor, Optimize Budget Plan, Preserve Assets, and Meet Capacity Needs
<b>SCOPE:</b>	<p>Develop a facility plan for Council approval. Conduct planning activities necessary to support facility plan development: evaluate current and future wastewater solids production, evaluate air emissions, assess existing solids treatment facilities, develop and evaluate alternatives. Identify the recommended alternative(s) and the implementation plan.</p> <p>Develop and execute a communications plan for internal and external outreach, including a public hearing for facility plan review.</p>
<b>PROJECT NEED:</b>	The Metro WWTP needs additional solids treatment capacity to preserve existing wastewater infrastructure and to serve regional population growth.

### PROJECT SCHEDULE



Planning

2011-2023



Design

N/A



Construction

N/A

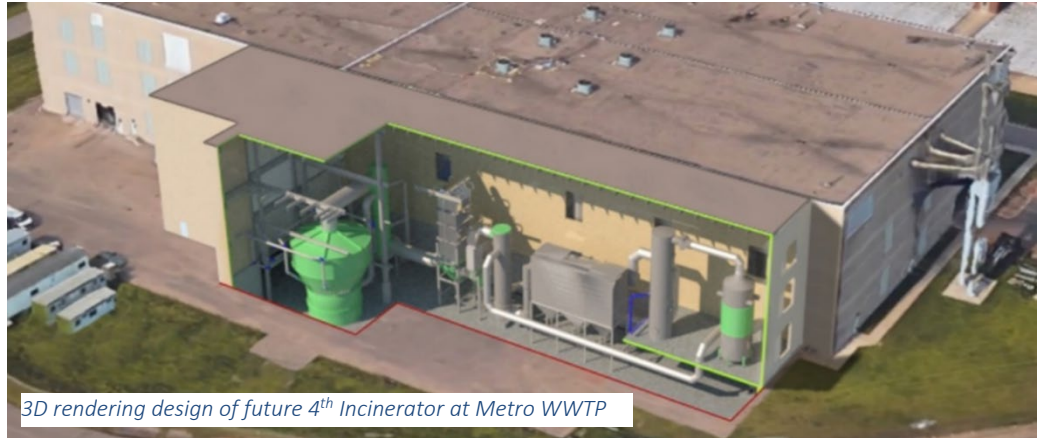
### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$500,000	<b>Current ACP</b> \$4,304,000	<b>2023 – 2028 Cash Flow</b> \$500,000	<b>Total Project Cost</b> \$4,304,000
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Program Family: 8062  
Project # 806230

## Metro WWTP Fluid Bed Reactor 4

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plants
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Need and Preserve Assets
<b>SCOPE:</b>	Expand the Metro WWTP solids management building and install a fourth incinerator train next to the existing three. The fourth train will include energy recovery, air pollution control, and related solids processing equipment.
<b>PROJECT NEED:</b>	The Metro WWTP needs additional solids treatment capacity to preserve existing wastewater infrastructure and to serve regional population growth through the year 2050.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$25,000,000	\$202,500,000	\$200,000,000	\$202,500,000

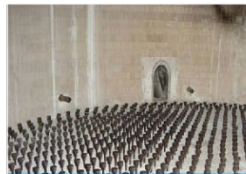
Program Family: 8062  
Project # 806240

# Metro WWTP Renewal of Fluid Bed Reactors 1, 2 & 3

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



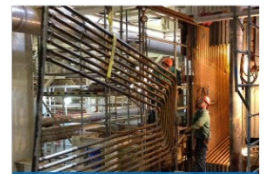
Sludge Storage Pumping Improvements



Fluid Bed Incinerator Rehabilitation



Primary Heat Exchanger Renewal



Waste Heat Boiler Renewal



Baghouse Renewal



Wet ESP Improvements



Turbine Generator Improvements



Sludge Feed Improvements

<b>PROJECT TYPE:</b>	Plants
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Implement renewal and level of service improvements (e.g., increased reliability, flexibility, operability, maintainability) to the three existing fluid bed reactors and associated solids treatment facilities.
<b>PROJECT NEED:</b>	In 2025, the existing incinerators will be 20 years old and in need of major renewal work to extend service life and to recover capacity.

## PROJECT SCHEDULE



Planning  
N/A



Design  
2025-2026



Construction  
2026-2028

## FINANCIAL ANALYSIS

2023 Cash Flow \$0	Current ACP \$0	2023 – 2028 Cash Flow \$20,000,000	Total Project Cost \$30,000,000
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## Program 8074 Empire WWTP Solids Improvements



### Description:

This program provides funding for planning and implementation of improvements to the wastewater solids processing facilities at the Empire Wastewater Treatment Plant (WWTP).

### Purpose and Justification:

The program provides for planning and implementation of projects to address capacity constraints and improve performance for wastewater solids processing at the Empire WWTP.

### Program Location:

The active projects within this program are in the following Council Districts: 16

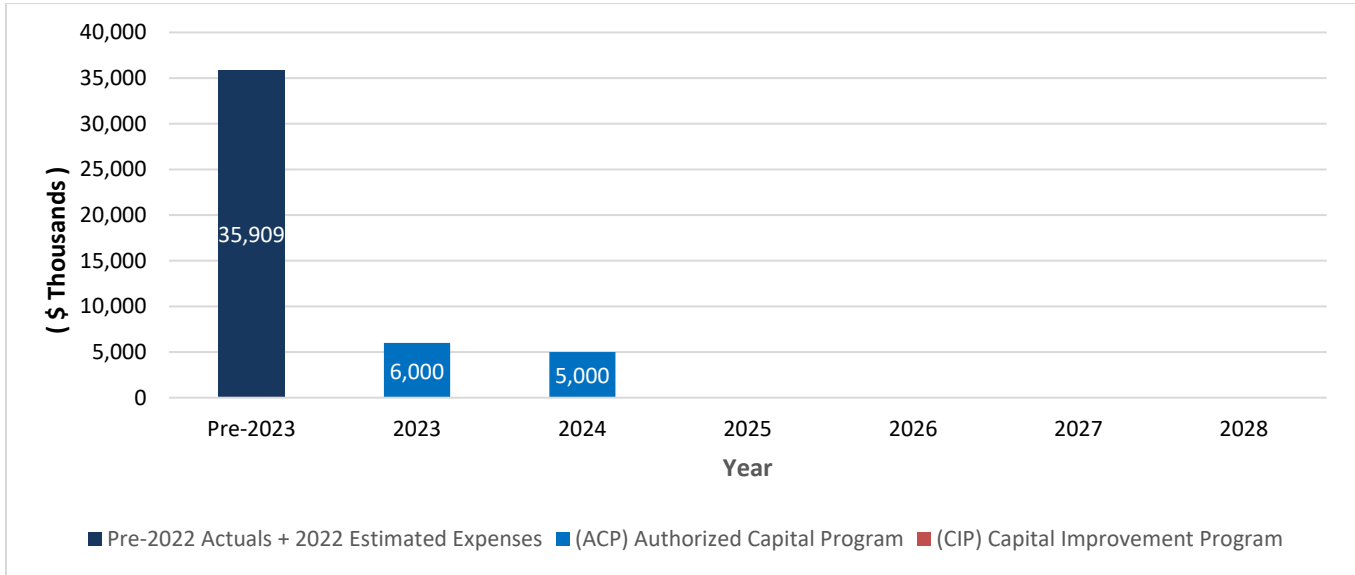
### Active Projects in Program:

Project Number	Project Title
807400	Empire WWTP Solids Improvements Phase I
807401	Empire WWTP Solids Improvements Phase II
807415	Empire WWTP High Strength Waste Receiving Pilot

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$46,908,762	Capital Improvement Plan (CIP) \$0
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### Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8074  
Project # 807400

## Empire WWTP Solids Improvements Phase I

Project Location:  
Council District # 16  
Empire Township  
Empire WWTP



*A pad cover has been constructed to improve solids processing*

<b>PROJECT TYPE:</b>	Plant Expansion
<b>OBJECTIVES:</b>	Asset Preservation, System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example, Meet Capacity Needs, and Preserve Assets
<b>SCOPE:</b>	Increase biosolids storage capacity by covering existing storage area. Improve pad drainage and recover stormwater for on-site infiltration. Provide biogas moisture removal for use as boiler fuel. Renew boiler system to replace aging equipment and meet future plant-wide heating needs.
<b>PROJECT NEED:</b>	Solids treatment capacity at the Empire Plant must be increased to accommodate future growth in the service area. The existing boiler system is near end of service life and requires renewal. Biogas improves fuel quality in preparation for a future combined heat and power system (See Empire WWTP Solids Improvements Phase II, Project # 807401).

### PROJECT SCHEDULE



Planning  
2011-2013



Design  
2014-2019



Construction  
2020-2023

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,000,000	<b>Current ACP</b> \$27,995,000	<b>2023 – 2028 Cash Flow</b> \$1,000,000	<b>Total Project Cost</b> \$27,995,000
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Program Family: 8074  
Project # 807401

## Empire WWTP Solids Improvements Phase II

Project Location:  
Council District # 16  
Empire Township  
Empire WWTP



Image of biogas flare and Digesters 4 & 5 at Empire WWTP

<b>PROJECT TYPE:</b>	Plant Expansion
<b>OBJECTIVES:</b>	Asset Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example and Meet Capacity Needs
<b>SCOPE:</b>	Modify existing digesters to increase capacity and meet future capacity needs. Add advanced biogas treatment to remove hydrogen sulfide and siloxanes from biogas prior to use as fuel in a combined heat and power engine generator (CHP). CHP will generate heat and electricity for on-site use.
<b>PROJECT NEED:</b>	Solids treatment capacity at the Empire Plant must be increased to accommodate future growth in the service area. CHP will generate approximately 1/3 of the plant's heat and power demand utilizing biogas generated on-site as fuel.

### PROJECT SCHEDULE



Planning  
2011-2013



Design  
2019-2020



Construction  
2022-2024

### FINANCIAL ANALYSIS

2023 Cash Flow \$5,000,000	Current ACP \$18,052,000	2023 – 2028 Cash Flow \$10,000,000	Total Project Cost \$18,052,000
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Program Family: 8074  
Project # 807415

# Empire WWTP High Strength Waste Receiving Pilot

Project Location:  
Council District # 16  
Empire Township  
Empire WWTP



HSW Receiving Tanks



HSW Receiving Station

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example
<b>SCOPE:</b>	Install a 27,000-gallon high strength waste receiving station complete with storage and pumping systems.
<b>PROJECT NEED:</b>	This project pilots digestion of an industrial high strength waste to increase biogas production for use as fuel in a combined heat and power engine generator system (See Empire WWTP Solids Improvements Phase II, Project #807401).

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$10,000	\$862,000	\$10,000	\$862,000

# Program 8078 Regional Plant Improvements

*Aerial view of the Rogers Wastewater Treatment Facility acquired by MCES in 2018*

## Description:

This program provides funding to address capital improvements at 8 regional wastewater treatment plants (WWTPs).

## Purpose and Justification:

The program provides for implementation of improvement and renewal projects for components and systems at the regional plants. These projects are outside of the realm of major plant expansion. The projects may also be in response to items that were not fully optimized in other major regional plant rehabilitation/renewal projects.

## Program Location:

The active projects within this program are in the following Council Districts: 1, 4, 9, 12, 15 & 16

## Active Projects in Program:

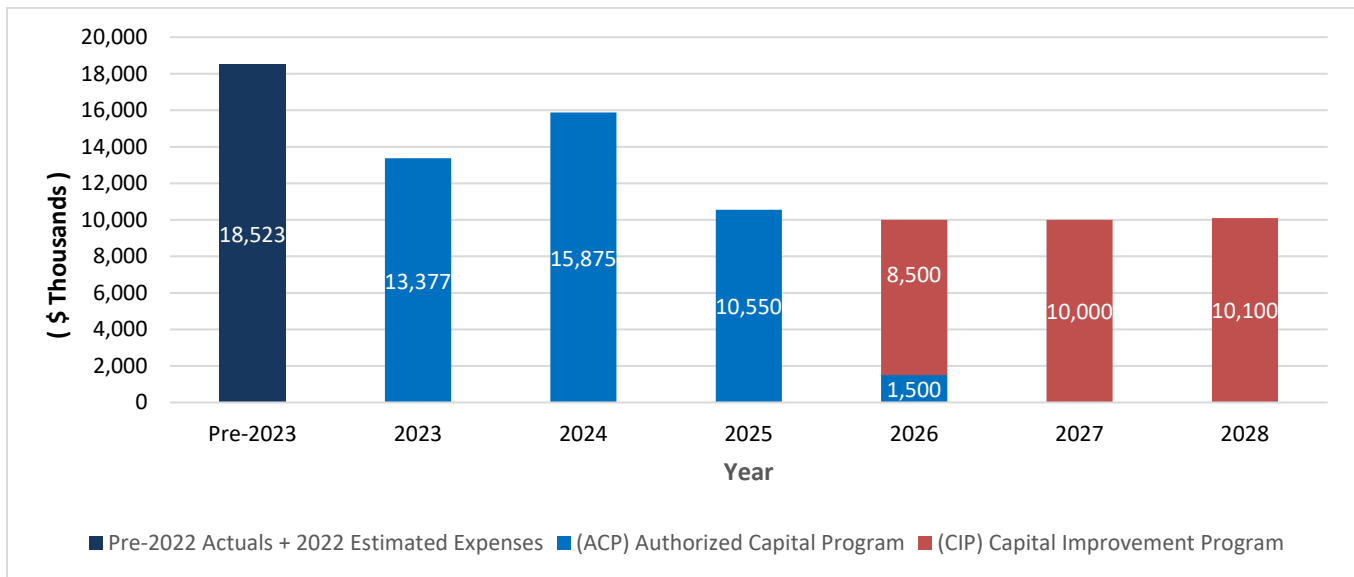
Project Number	Project Title
807803	Blue Lake Administration Building.
807805	East Bethel WRF Improvements.
807818	Hastings WWTP Aeration & HVAC Renewal.
807826	Empire WWTP Arc Flash Improvements Phase 1.
807858	Blue Lake FSF and Solids Renewal.
807863	Rogers WWTF Pond Solids Removal.
807865	Treatment Plant PLC Renewal.
807899	Regional Plant Planning.
8078XX	SCV WWTP HVAC & Gravity Thickener Metals Renewal.

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP)  
\$59,825,296

Capital Improvement Plan (CIP)  
\$28,600,000

## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8078  
Project # 807803

# Blue Lake WWTP Administration Building

Project Location:  
Council District # 4  
City of Shakopee  
Blue lake WWTP



Blue Lake WWTP Administration Building

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Engage Customers
<b>SCOPE:</b>	Perform building assessments, modify space or construct an addition to the Administration building to better accommodate staff, education and training.
<b>PROJECT NEED:</b>	The Administration Building is not well-suited for meetings and school field trips. The Administration building needs restroom, HVAC, and ADA accessibility improvements based on intended use.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$0	\$2,000,000	\$4,000,000	\$4,000,000

Program Family: 8078  
Project # 807805

## East Bethel WRF Improvements

Project Location:  
Council District # 9  
City of East Bethel  
East Bethel WWTP



East Bethel Water Reclamation Plant

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example
<b>SCOPE:</b>	Modify the piping to adjust to start up flows and increasing flows over time. Study and demonstrate different disinfection methods and equipment for use at future reclamation plants in the region.
<b>PROJECT NEED:</b>	East Bethel is the first water reclamation plant (WRP) in the MCES service area. The plant was brought online in 2014 as a demonstration plant for water reuse in the metro area at 7% of design flow. Adjustments are required to accommodate increasing flows as new connections are made. MCES is also working to achieve high effluent quality for a variety of potential reclaimed uses.

### PROJECT SCHEDULE



Planning

2017-2019



Design

2020-2023



Construction

2024-2025

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$100,000	<b>Current ACP</b> \$1,759,000	<b>2023 – 2028 Cash Flow</b> \$1,000,000	<b>Total Project Cost</b> \$1,759,000
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Program Family: 8078  
Project # 807818

# Hastings WWTP Aeration & HVAC Renewal

Project Location:  
Council District # 16  
City of Hastings  
Hastings WWTP



Aerial View of Hastings WWTP

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Optimize Budget Plan and Be Fair & Transparent
<b>SCOPE:</b>	A condition assessment of the existing Hastings WWTP was completed. A modest renewal project is planned to support existing facilities until the proposed new WWTP can be constructed at a location outside of downtown Hastings.
<b>PROJECT NEED:</b>	The Hastings plant was originally built in 1952, with expansions in 1967 and 1981. MCES will continue to preserve the plant until the new facility is constructed.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$400,000	\$2,017,000	\$400,000	\$2,017,000

Program Family: 8078  
Project # 807826

## Empire WWTP Arc Flash Improvements Phase 1

Project Location:  
Council District # 16  
Empire Township  
Empire WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Minimize Impacts and Preserve Assets
<b>SCOPE:</b>	Replace obsolete electrical equipment and construct improvements to mitigate arc flash.
<b>PROJECT NEED:</b>	Motor Control Centers in the sludge pumping building are obsolete and require replacement. MCES routinely evaluates arc flash potential for all its facilities. Where possible, MCES constructs improvements to minimize impacts and reduce risk of arc flash to its maintenance personnel.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$10,000	<b>Current ACP</b> \$2,470,000	<b>2023 – 2028 Cash Flow</b> \$10,000	<b>Total Project Cost</b> \$2,470,000
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Program Family: 8078  
Project # 807858

# Blue Lake FSF and Solids Renewal

Project Location:  
Council District # 4  
City of Shakopee  
Location:  
Blue Lake WWTP



Existing Regenerative Thermal Oxidizer

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	The Blue Lake WWTP Solids Process has a few select items that need to be rehabilitated in the next 1-2 years. These items include: RTO emissions control system, the digester gas storage tank membrane, the mixing conveyor, WAS discharge valves, process piping and the associated electrical support systems.
<b>PROJECT NEED:</b>	Blue Lake has completed a Facility Plan for large Solids Processing Improvements and Expansions. Most of the current solids train will reach end of life at 2030. Auxiliary and the pollution control systems need to be rehabilitated to keep the entire system operational until the expansion project.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$2,000,000	Current ACP \$5,201,000	2023 – 2028 Cash Flow \$2,000,000	Total Project Cost \$5,201,000
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Program Family: 8078  
Project # 807863

# Rogers WWTF Pond Solids Removal

Project Location:  
Council District # 1  
City of Rogers  
MCES Rogers WWTF



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs
<b>SCOPE:</b>	Remove solids from the solids holding pond and grit from the oxidation ditches.
<b>PROJECT NEED:</b>	The solids holding pond at the MCES Rogers WWTF needs to have solids removed to ensure sufficient capacity in the pond prior to decommissioning of the facility. Additionally, there is a significant accumulation of grit in the oxidation ditches that needs to be removed to recover aeration capacity.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,500,000	<b>Current ACP</b> \$6,000,000	<b>2023 – 2028 Cash Flow</b> \$2,500,000	<b>Total Project Cost</b> \$6,000,000
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Program Family: 8078  
Project # 807865

# Treatment Plant PLC Renewal

Project Location:  
Council District:  
Regional Project



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Replace out-of-date process control systems at Regional Wastewater Treatment Plants.
<b>PROJECT NEED:</b>	Key elements in the process control system for regional wastewater treatment plants are out-of-date and in need of replacement in order to continue to provide reliable treatment plant process control.

## PROJECT SCHEDULE



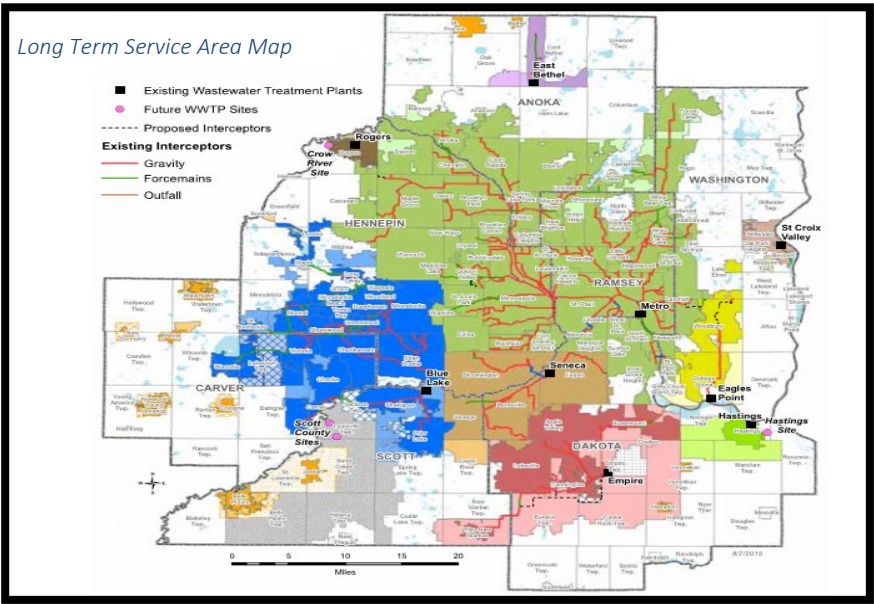
## FINANCIAL ANALYSIS

2023 Cash Flow \$2,500,000	Current ACP \$9,500,000	2023 – 2028 Cash Flow \$8,000,000	Total Project Cost \$9,500,000
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Program Family: 8078  
Project # 807899

# Regional Plant Planning

Project Location:  
Regional



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Current planning activities include the following: arc flash studies, road condition assessments, sustainable landscape planning, roof condition assessments, and real estate appraisal needs.
<b>PROJECT NEED:</b>	Planning activities are needed to identify near-term (less than 10 years) regional Plant capital project needs.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$100,000	\$460,000	\$600,000	\$760,000

Program Family: 8078  
Project # 8078XX

# SCV WWTP HVAC & Gravity Thickener Metals Renewal

Project Location:  
Council District # 12  
City of Stillwater  
St. Croix Valley WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Renew metals and improve access and ventilation at the gravity thickener. Replace obsolete ultraviolet disinfection system. Renew bar screen and provide system redundancy. Replace obsolete electrical and HVAC equipment.
<b>PROJECT NEED:</b>	The covered gravity thickener requires metals renewal and improved access and ventilation to maintain a safe work environment. Components of the existing UV system are obsolete and cannot be replaced. Where possible, MCES constructs improvements to minimize impacts and reduce risk to its maintenance personnel.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$0	\$2,100,000	\$2,000,000	\$22,100,000

Program Family: 8078  
Project # 8078XX

# Seneca Piping and Site Rehabilitation

Project Location:  
Council District # 15  
City: Eagan  
Seneca WWTP



Aerial View of Seneca WWTP

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	The project includes replacement of the final section of the RAS line returning to the aeration basins as well as rehabilitation of the main influent line into the plant. There will also be some site drainage improvements.
<b>PROJECT NEED:</b>	Two large pipes have reached the end of life. The main influent to the plant was poured along with the Administration Building foundation and has been labeled as a level 5 by the interceptor group, meaning immediate attention is needed. Also, the RAS line has corroded and needs to be replaced.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$2,000,000	<b>Current ACP</b> \$3,000,000	<b>2023 – 2028 Cash Flow</b> \$3,000,000	<b>Total Project Cost</b> \$3,000,000
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## Program 8089 Metro WWTP Asset Renewal

Metropolitan Wastewater Treatment Plant (MWWTP)

### Description:

This program provides funding to continue the plant-wide renewal program at the Metropolitan Wastewater Treatment Plant (Metro WWTP), which was initiated under Program 8059 Metro WWTP Rehabilitation and Facilities Improvements.

Funds are for planning and implementation of capital improvements to the liquids processing and plant-wide facilities at the Metro WWTP.

### Purpose and Justification:

The program provides for planning and implementation of projects to address renewal needs for continued, reliable and sustainable wastewater service at the Metro WWTP through the year 2040.

### Program Location:

The active projects within this program are in the following Council Districts: 13

### Active Projects in Program:

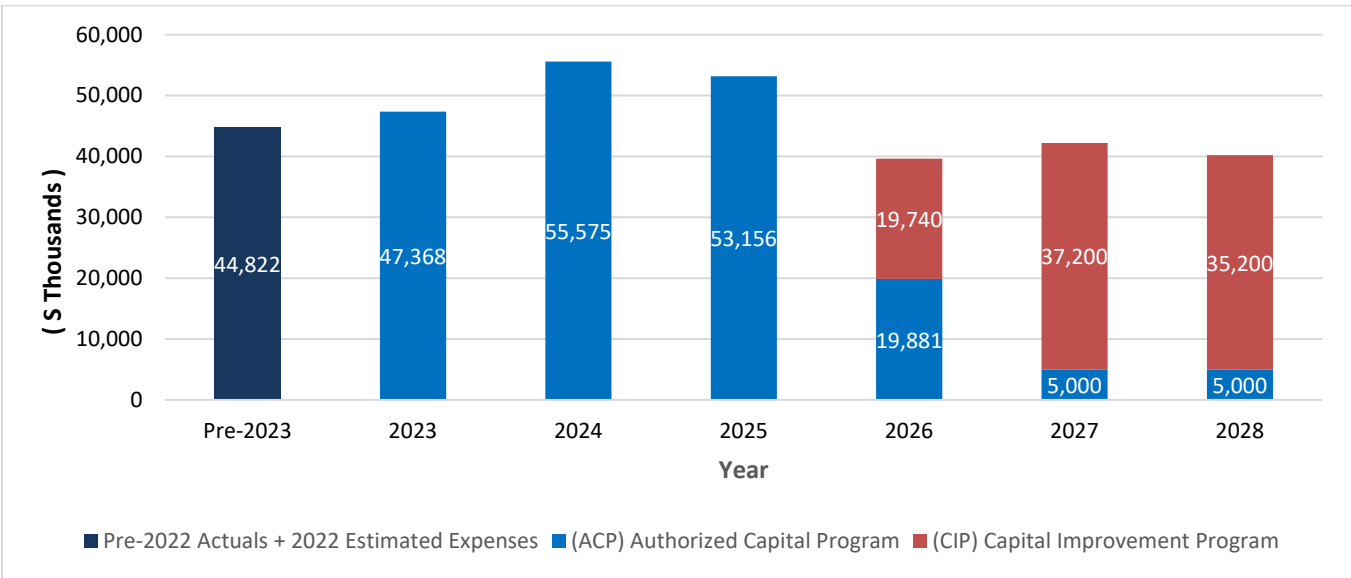
Project Number	Project Title
808915	Metro WWTP Electrical Distribution Renewal Phase 2
808916	Metro WWTP Electrical Distribution Renewal Phase 3
808921	MWWTP Primary Settling Tank Chain
808923	MWWTP Site Preparation and Improvements - Phase 2
808925	Metro PLC Renewal
808930	Metro WWTP Secondary Renewal
808935	Metro WWTP Secondary & Primary Renewal
808963	Metro WWTP Water Systems Renewal and Improvements Phase 1: Distribution System Renewal
8089XX	MWWTP Roof Replacement
8089XX	Metro WWTP Electrical Distribution Renewal – Phase 4

8089XX	Metro WWTP Water Systems Renewal & Improvements Phase 2 – Reclaimed Water
8089XX	Metro WWTP Effluent Pump Station Rehabilitation
8089XX	Metro Exterior Buildings Improvements
8089XX	Metro WWTP Water Systems Renewal and Improvements Phase 3: City Water Renewal
8089XX	Metro 408 and F&I#2 Building Envelope Rehabilitation
8089XX	Metropolitan WWTP Primary Scum Improvements

**MCES 2023 – 2028 Capital Program:**

<b>Authorized Capital Program (ACP)</b> \$230,802,073	<b>Capital Improvement Plan (CIP)</b> \$92,140,000
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**Estimated Program Cash Flow 2023 - 2028:**



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8089  
Project # 808915

## Metro WWTP Electrical Distribution Renewal Phase 2

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Maintenance staff will coordinate rehabilitation of seven compressor motors through specialty contracted services and install temperature and vibration monitoring for the motors.
<b>PROJECT NEED:</b>	The aeration compressors are critical to the continued performance of the aeration process and inspections by Maintenance staff indicate the compressor motors need to be replaced or rehabilitated to extend service life.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,260,000	<b>Current ACP</b> \$5,047,851	<b>2023 – 2028 Cash Flow</b> \$1,260,000	<b>Total Project Cost</b> \$5,047,851
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Program Family: 8089  
Project # 808916

# Metro WWTP Electrical Distribution Renewal Phase 3

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



Substation Building Concrete Pour



MCCs to be Removed in East Secondary

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation, System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Minimize Impacts, Meet Capacity Needs, and Preserve Assets
<b>SCOPE:</b>	Replace electrical distribution equipment (unit substations, switchgear, and motor control centers) with new equipment. Upgrade and expand the existing Main Substation Building to provide space for new equipment and to increase worker safety during maintenance.
<b>PROJECT NEED:</b>	Condition assessments determined that electrical equipment in the Main Substation Building and at various buildings throughout the plant are at or nearing the end of useful service life and need to be replaced.

## PROJECT SCHEDULE



Planning

2018-2019



Design

2019-2021



Construction

2022-2025

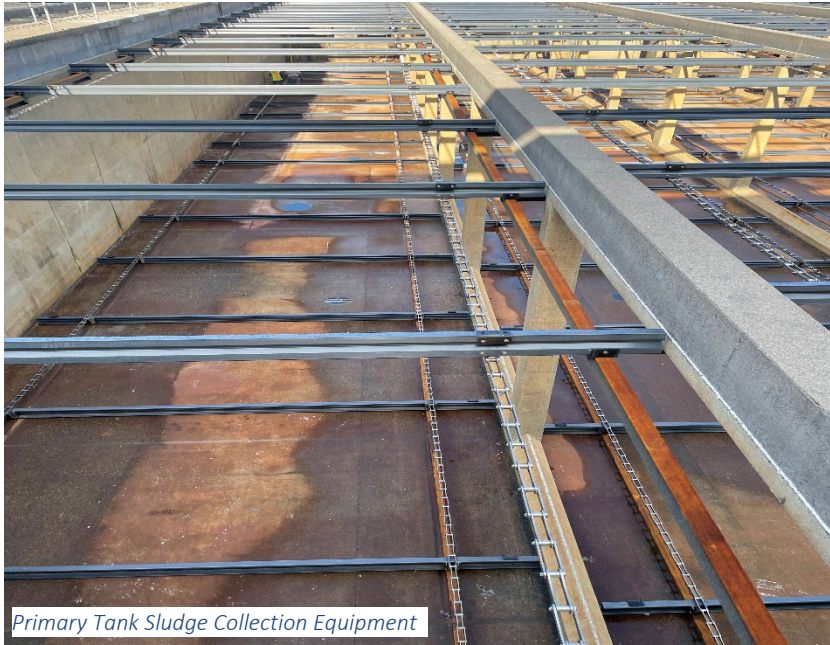
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$12,000,000	<b>Current ACP</b> \$59,645,327	<b>2023 – 2028 Cash Flow</b> \$46,800,000	<b>Total Project Cost</b> \$59,645,327
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Program Family: 8089  
Project # 808921

# MWWTP Primary Settling Tank Chain

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



Primary Tank Sludge Collection Equipment

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	The project will remove and replace existing collection equipment in 5 Primary Settling Tanks and provide Maintenance with spare equipment for future replacements
<b>PROJECT NEED:</b>	The sludge collection equipment is critical to the continued performance of the primary process and inspections by Maintenance staff indicate the chain and flight systems need to be replaced or rehabilitated to extend service life.

## PROJECT SCHEDULE



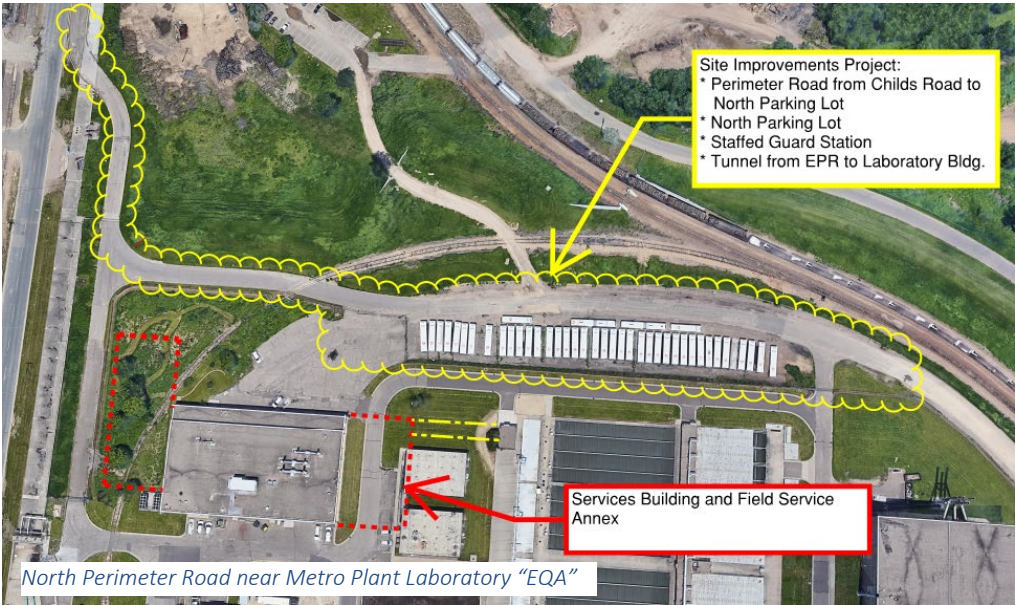
## FINANCIAL ANALYSIS

2023 Cash Flow \$500,000	Current ACP \$2,456,326	2023 – 2028 Cash Flow \$500,000	Total Project Cost \$2,456,326
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Program Family: 8089  
Project # 808923

# MWWTP Site Preparation & Improvements – Phase 2

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Construction of staffed guard station, tunnel access to the Services Building and road and parking lot rehabilitation
<b>PROJECT NEED:</b>	Road, tunnel, parking, and security improvements are required for the new Services Building and Field Service Annex

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$2,000,000	<b>Current ACP</b> \$8,037,328	<b>2023 – 2028 Cash Flow</b> \$6,500,000	<b>Total Project Cost</b> \$8,037,328
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Program Family: 8089  
Project # 808925

# Metro PLC Renewal

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Replace out-of-date process control systems at the Metropolitan Wastewater Treatment Plant.
<b>PROJECT NEED:</b>	Key elements in the process control system for the Metropolitan Wastewater Treatment Plant are out-of-date and in need of replacement to continue to provide reliable treatment plant process control.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$1,500,000	\$3,000,000	\$4,000,000	\$6,500,000

Program Family: 8089  
Project # 808930

# Metro WWTP Secondary Renewal

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	This project replaces the aeration tank diffusers, install aeration control upgrades, rehabilitate underdrain, and meter pits, install final settling tank backfill gates and air header leak assemblies.
<b>PROJECT NEED:</b>	The aeration system equipment was last replaced in the early 2000s and needs replacement. The new aeration equipment will result in significant energy savings due to improvements in air transfer efficiency.

## PROJECT SCHEDULE



Planning  
2019-2020



Design  
2020-2021



Construction  
2021-2025

## FINANCIAL ANALYSIS

2023 Cash Flow \$10,000,000	Current ACP \$42,011,485	2023 – 2028 Cash Flow \$24,500,000	Total Project Cost \$42,011,485
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Program Family: 8089  
Project # 808935

# Metro WWTP Secondary and Primary Renewal

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	The following improvements are planned: East Secondary FST inlet gates, sluice gate replacements, Compressor system monitoring/diagnostic instrumentation, E-Valve gate actuator replacement, primary sludge pump replacement, and odor control improvements.
<b>PROJECT NEED:</b>	Primary and Secondary equipment is approaching 40 years old and needs replacement. The odor control systems for Pretreatment and Sludge Storage need to be rehabilitated to mitigate odors.

## PROJECT SCHEDULE



Planning  
2019-2020



Design  
2021-2023



Construction  
2023-2025

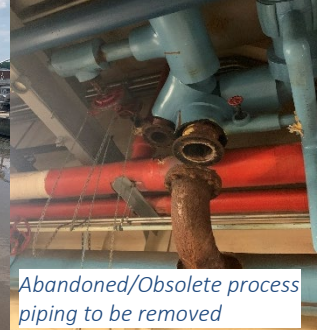
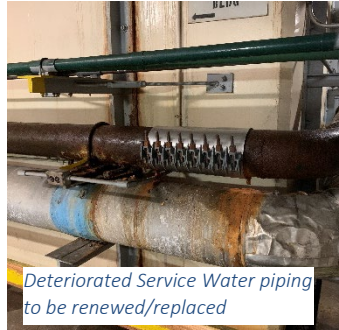
## FINANCIAL ANALYSIS

2023 Cash Flow \$3,757,000	Current ACP \$9,193,246	2023 – 2028 Cash Flow \$9,183,000	Total Project Cost \$9,193,246
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Program Family: 8089  
Project # 808963

## Metro WWTP Water Systems Renewal and Improvements Phase I: Distribution System Renewal

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example and Preserve Assets
<b>SCOPE:</b>	The project replaces the service water piping network throughout the Plant with a new piping network in preparation for a future reclaimed water system.
<b>PROJECT NEED:</b>	Rehabilitate and repurpose the Metro Plant Water Systems and reduce withdrawal of water from the Prairie du Chien aquifer.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$2,000,000	\$26,000,000	\$26,000,000	\$26,000,000

Program Family: 8089  
Project # 8089xx

# Metro Roof Replacements

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	Replace the following roofs: FLT, EPR, MWH (low roof) and CMP above the compressor floor. Rehabilitate or repair roofs for decommissioned buildings 408, REL and F&I#2 to preserve building envelopes.
<b>PROJECT NEED:</b>	Condition assessment determined that several roofs are at or nearing the end of useful service life and need to be replaced.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,000,000	<b>Current ACP</b> \$2,000,000	<b>2023 – 2028 Cash Flow</b> \$1,000,000	<b>Total Project Cost</b> \$2,000,000
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Program Family: 8089  
Project # 8089XX

# Metro WWTP Electrical Distribution Renewal Phase 4

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



Motor Control Center

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation, System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Minimize Impacts, Meet Capacity Needs, and Preserve Assets
<b>SCOPE:</b>	Replace electrical distribution equipment (unit substations, switchgear, and motor control centers) with new equipment.
<b>PROJECT NEED:</b>	Condition assessment determined that electrical equipment in various buildings throughout the plant are at or nearing the end of useful service life and need to be replaced.

## PROJECT SCHEDULE



Planning

2012-2023



Design

2023-2024



Construction

2024-2027

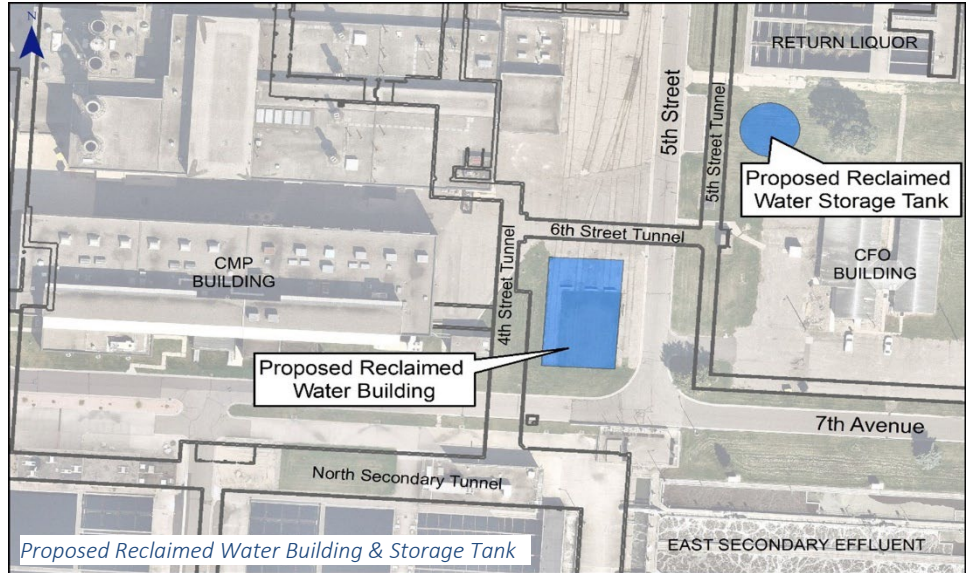
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$0	\$20,500,000	\$20,500,000	\$20,500,000

Program Family: 8089  
Project # 8089XX

# MWWTP Water Systems Renewal & Improvements Phase 2 – Reclaimed Water

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	This project constructs a new reclaimed water system to replace the water source for processes which are currently served by the Prairie du Chien aquifer through the plant service water system
<b>PROJECT NEED:</b>	There is a need to rehabilitate and repurpose the Metro Plant water systems and reduce use of the Prairie du Chien aquifer.

## PROJECT SCHEDULE



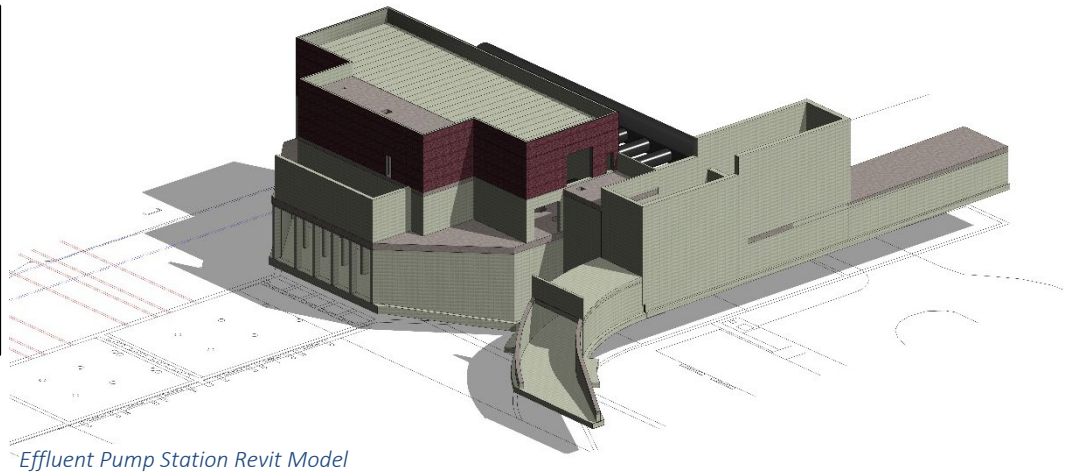
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$0	<b>Current ACP</b> \$0	<b>2023 – 2028 Cash Flow</b> \$11,000,000	<b>Total Project Cost</b> \$25,621,000
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Program Family: 8089  
Project # 8089XX

# Metro Effluent Pump Station Rehabilitation

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	This project enhances the effluent pumping reliability by providing a more robust facility to handle peak flows and during flooding and adverse weather conditions. These improvements include condition assessment of structures and piping associated with the Effluent Pump Station; upgrades to address pump vibration issue; interior and exterior building improvements; structural repairs; replacing switchgear, transformers, MCCs and other electrical equipment; replacing PLC, HAVC equipment, and sluice gates; demolition of unused structures and decommissioned processes.
<b>PROJECT NEED:</b>	The pump station has experienced problems with pump service availability. There is a need to rehabilitate the station to increase system reliability for an additional 30-40-year service life.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$5,081,000	\$15,486,000	\$15,486,000	\$15,486,000

Program Family: 8089  
Project # 8089XX

## Metro Exterior Building Improvements

Project Location:

Council District # 13

City of St. Paul

Metro WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	This project rehabilitates the exterior façade for several buildings based on condition assessment.
<b>PROJECT NEED:</b>	The building envelopes for several buildings are over 40 years old and in need of renewal.

### PROJECT SCHEDULE



Planning  
2022



Design  
2023



Construction  
2024-2025

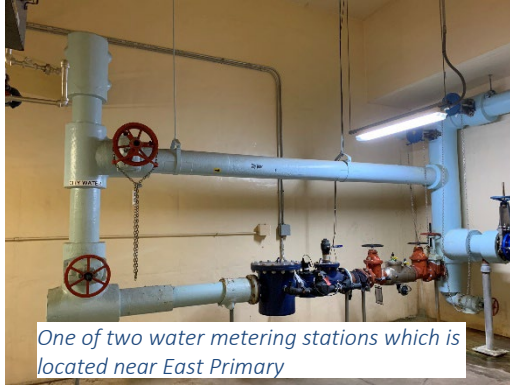
### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$500,000	<b>Current ACP</b> \$1,000,000	<b>2023 – 2028 Cash Flow</b> \$1,000,000	<b>Total Project Cost</b> \$1,000,000
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Program Family: 8089  
Project # 8089XX

# Metro WWTP Water Systems Renewal and Improvements Phase 3: City Water

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



One of two water metering stations which is located near East Primary



City water hydrant and isolation valve at final sedimentation tanks

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example and Preserve Assets
<b>SCOPE:</b>	This project replaces the city water piping network throughout the Plant with a new piping network.
<b>PROJECT NEED:</b>	Rehabilitate the Metro Water System that was installed beginning in the 1930s.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$0	\$0	\$11,000,000	\$21,000,000

Program Family: 8089  
Project # 8089XX

# Metro 408 and F&I#2 Building Envelope Rehab

Project Location:  
Council District # 13  
City of Saint Paul  
Metro WWTP



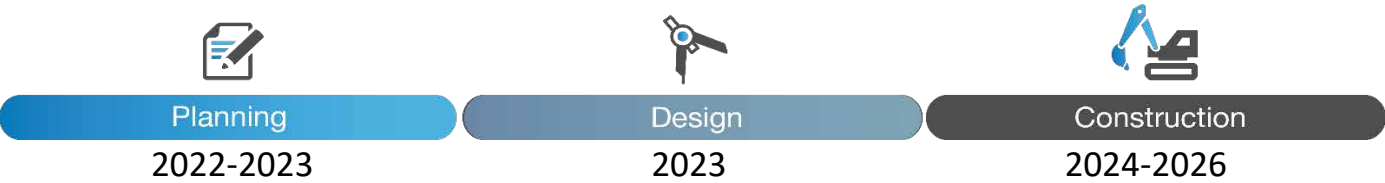
408 Building looking west



F&I # 2 building looking east

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	This project rehabilitates, removes portions of buildings, or demolishes the 408 and F&I#2 buildings based on condition assessments and a business case evaluation.
<b>PROJECT NEED:</b>	The 408 and F&I#2 buildings are over 45 years old and in need of renewal or demolition.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$4,000,000	Current ACP \$0	2023 – 2028 Cash Flow \$15,000,000	Total Project Cost \$15,000,000
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Program Family: 8089  
Project # 8089XX

# Metropolitan WWTP Primary Scum Improvements

Project Location:  
Council District # 13  
City of St. Paul  
Metro WWTP



Scum collection Inside Metro WWTP East Scum Building

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by example and Preserve Assets
<b>SCOPE:</b>	This project will install improvements for the processing of primary scum at the Metro WWTP.
<b>PROJECT NEED:</b>	Approximately 2.0 tons per day of scum is conveyed on a batch process from the primary clarifiers to the dumpsters at the Solids Management Building. There is a need to evaluate alternatives for the ultimate location for primary scum and to renew the Primary Scum process.

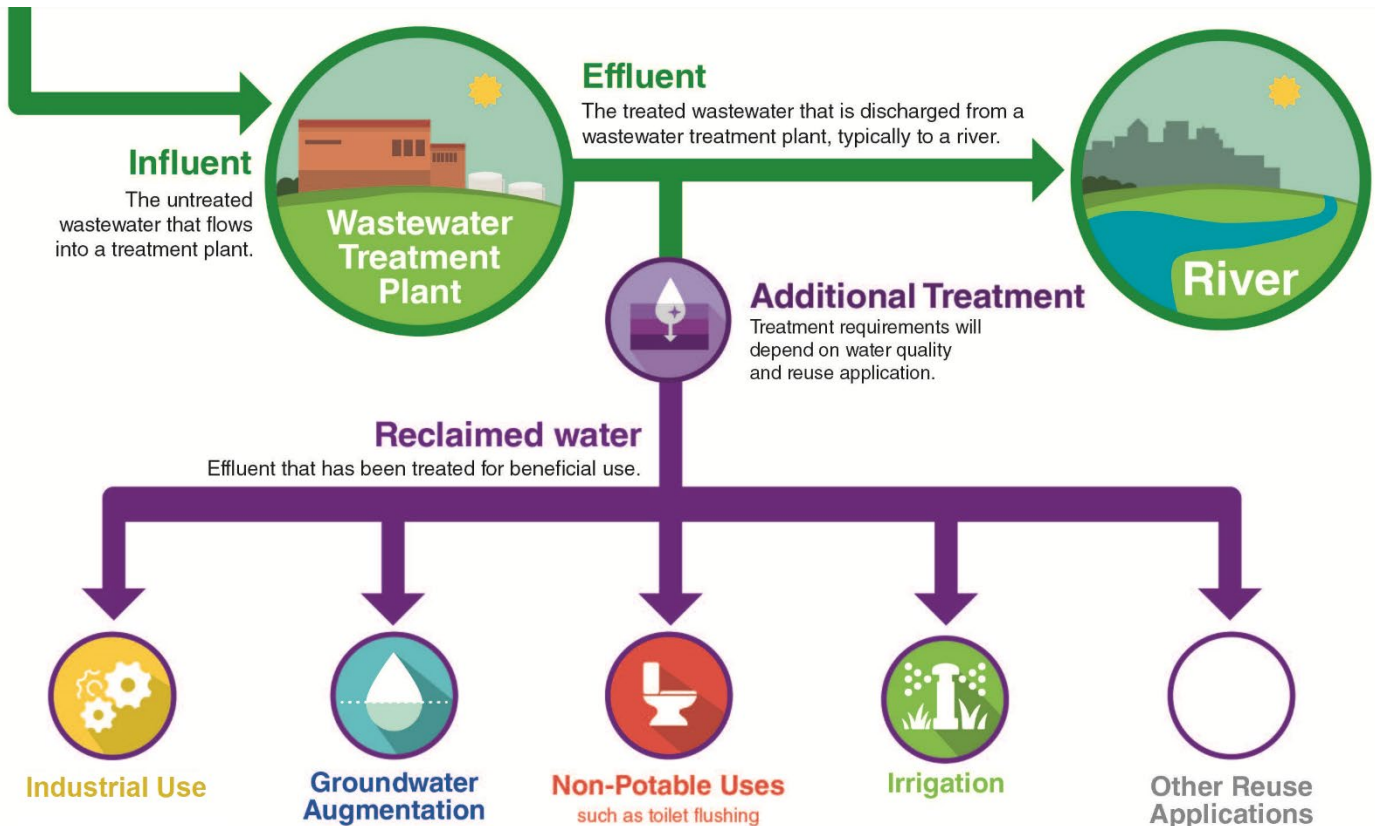
## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$0	Current ACP \$1,000,000	2023 – 2028 Cash Flow \$0	Total Project Cost \$1,000,000
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## Program 8091 Wastewater Reclamation Facilities



### Description:

This program provides funding for planning activities needed to support the Council's overall wastewater reuse initiative.

### Purpose and Justification:

The Water Resources Policy Plan directs MCES to pursue wastewater reuse where it is economically feasible to promote sustainable water resources. Drivers include:

- Alleviating future regional conveyance pipe capacity constraints
- Conserving & supplementing groundwater & surface water
- Projects to reduce the future issuance of a water appropriation due to concerns about the area's long-term water supply
- Projects driven by future regulatory requirements that result in effluent quality being close to reuse standards

### Program Location:

The active studies and projects within this program are relevant to all Council Districts. In particular, the Crow River Wastewater Reclamation Plant is planned to be built in District 1; the SE Metro Wastewater Reclamation Facility has been planned for District 15; and the Scott County Wastewater Plant is planned for District 4.



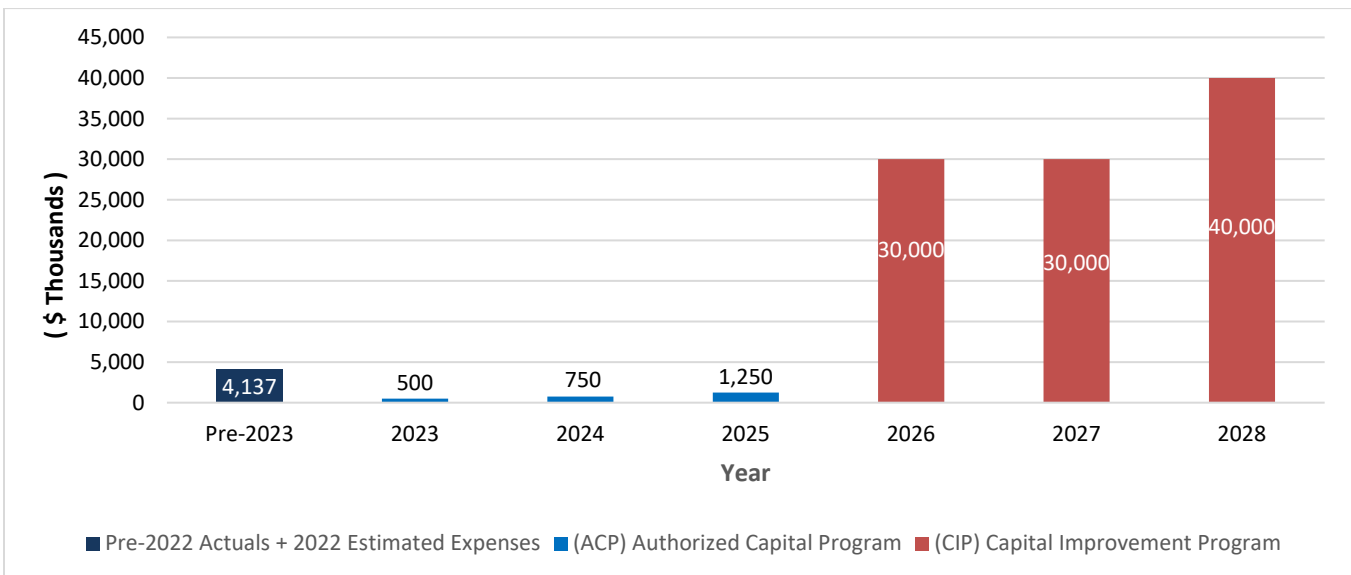
## Active Projects in Program:

Project Number	Project Title
809110	Crow River Wastewater Reclamation Plant

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$6,636,788	Capital Improvement Plan (CIP) \$100,000,000
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## Estimated Program Cash Flow 2023 - 2028:

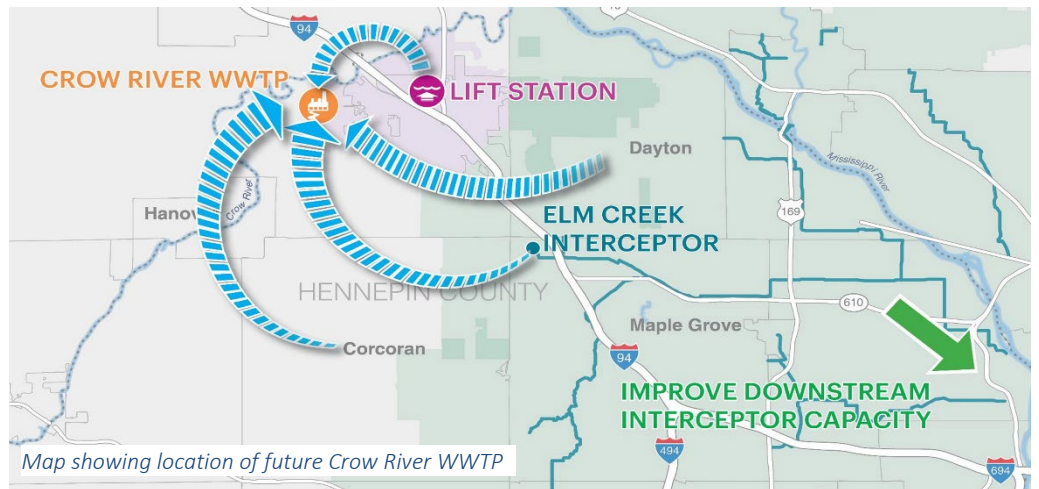


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8091  
Project # 809110

# Crow River Wastewater Treatment Plant

Project Location:  
Council District # 1  
City of Rogers  
Crow River WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Comply with Permits, Minimize /Impacts, Lead by Example, Be A Good Neighbor, Meet Capacity Needs, Communicate Information, Engage Customers, and Collaborate with Others
<b>SCOPE:</b>	MCES has recognized and planned for the need for a new wastewater facility in the northwest Metropolitan service area in the 2030 and 2040 Water Resources Policy Plans. The new facility, the Crow River Wastewater Treatment Plant, will be located on a parcel of land purchased by MCES in the City of Rogers near the Crow River. The facility will replace the existing MCES Rogers Wastewater Treatment Facility and will serve the City of Rogers as well as portions of Dayton and Corcoran. MCES is planning to start receiving flow at the facility in 2030.
<b>PROJECT NEED:</b>	This new Crow River Plant is needed to free up capacity for urban core growth in the Elm Creek interceptor which currently serves a rapidly expanding portion of Rogers. It also prepares for projected growth in the communities of Rogers, Dayton, Corcoran and the surrounding area.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$500,000	\$4,582,310	\$102,000,000	\$104,582,310

## Program 8097 Blue Lake WWTP Improvements

Blue Lake WWTP

### Description:

This program provides funding for planning and implementation of projects to address renewal and capacity needs to improve performance for wastewater solids processing at the Blue Lake Wastewater Treatment Plant (WWTP).

### Purpose and Justification:

The program provides for planning and implementation of projects to address renewal and capacity needs and to improve performance for wastewater solids processing at the Blue Lake WWTP.

### Program Location:

The active projects within this program are in the following Council Districts: 4

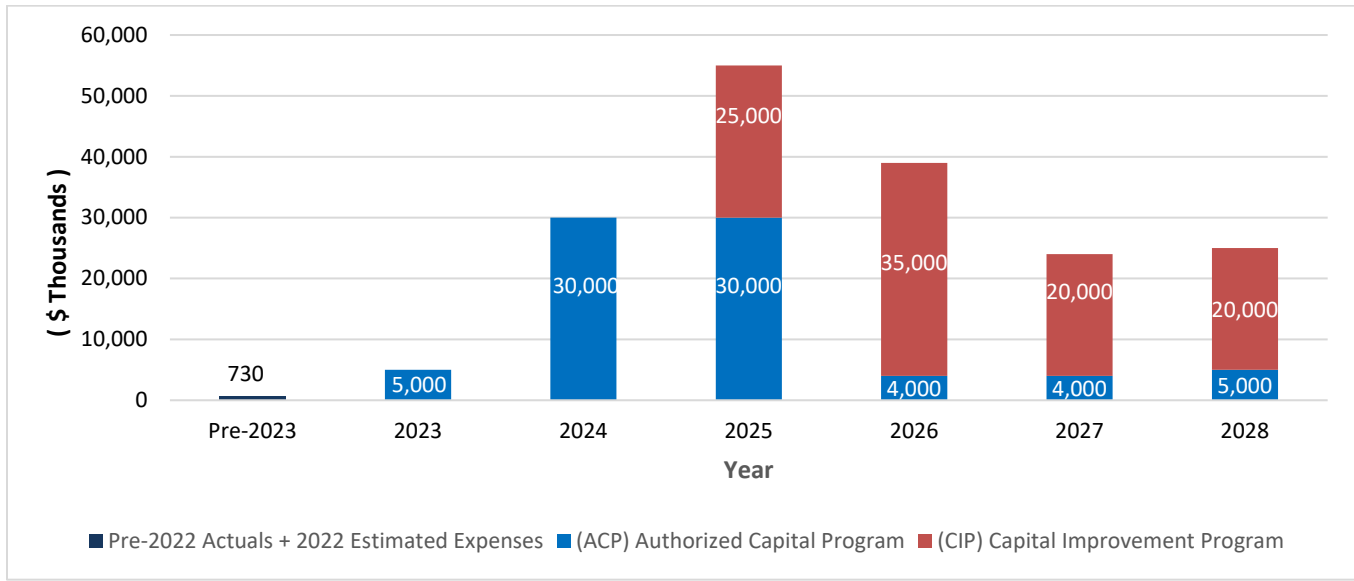
### Active Projects in Program:

Project Number	Project Title
8097XX	Final Stabilization Facility
8097XX	Digestion
8097XX	Liquids Process Upgrades

### MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$80,819,595	Capital Improvement Plan (CIP) \$100,000,000
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8097  
Project # 8097XX

# Blue Lake WWTP – Final Stabilization Facility

Project Location:  
Council District # 4  
City of Shakopee  
Blue Lake WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	The footprint for the Final Stabilization Building will be increased and a second process train will be added to include another dryer and associated pollution control and building system improvements.
<b>PROJECT NEED:</b>	The existing dryer has reached the end of life and a second dryer will be built for continuity of operation.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$0	\$0	\$50,000,000	\$50,000,000

Program Family: 8097  
Project # 8097XX

# Blue Lake WWTP – Digestion

Project Location:  
Council District # 4  
City of Shakopee  
Blue Lake WWTP



Blue Lake Digester Complex

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	There are currently 3 digesters and a sludge storage tank for regulating gas production. This project will add a fourth digester to provide capacity for the region.
<b>PROJECT NEED:</b>	The existing three digesters are nearing capacity and the required SRT cannot be met at the current flows during maintenance or at future flows during normal operation.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$0	Current ACP \$0	2023 – 2028 Cash Flow \$50,000,000	Total Project Cost \$50,000,000
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Program Family: 8097  
Project # 8097XX

# Blue Lake WWTP – Liquids Process Upgrades

Project Location:  
Council District # 4  
City of Shakopee  
Blue Lake WWTP



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs, Lead by Example and Collaborate with Others
<b>SCOPE:</b>	The project includes aeration basin improvements for improved DO control and air distribution. The secondary clarification process will also be expanded with two new tanks and improved baffling for flow distribution.
<b>PROJECT NEED:</b>	The aeration system has reached end of life and the plant is having difficulty maintaining DO while reducing energy in the system. The secondary clarifiers have reached design capacity and more tanks are needed to accommodate growth in the region.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$0	\$0	\$30,000,000	\$50,000,000

## Program 8098 Hastings WWTP

### Description:

This program provides funding for planning and implementation of a new Hastings Wastewater Treatment Plant (WWTP) located at 2445 Ravenna Trail in Hastings and includes projects for construction of the new plant and associated interceptor system improvements.



### Purpose and Justification:

MCES intends to relocate Hastings WWTP service to 2445 Ravenna Trail in Hastings. The new site will allow the plant to expand to meet long-term regulatory and future requirements. The long-term service area identified in the 2040 Water Resources Policy Plan may include land areas in the township of Marshan, Nininger, or Vermillion.



## Program Location:

The active projects within this program are in the following Council Districts: 16

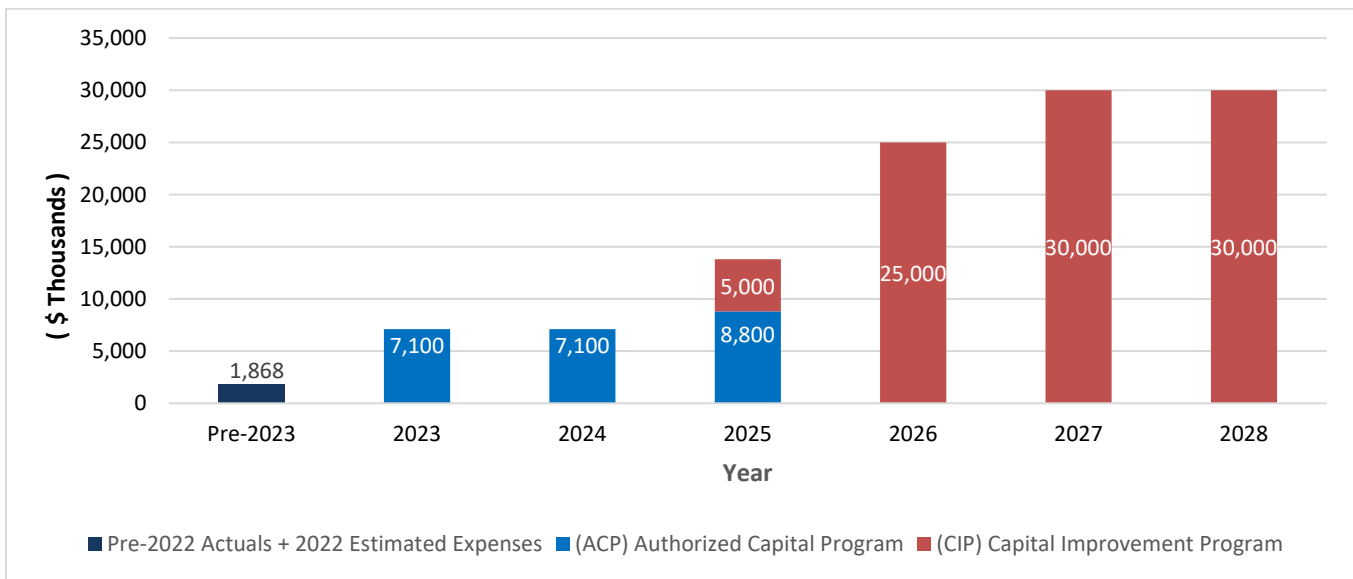
## Active Projects in Program:

Project Number	Project Title
809800	Hastings WWTP
809810	Hastings WWTP – Interceptor Improvements
809821	Hastings WWTP – Utilities Relocation

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$27,867,626	Capital Improvement Plan (CIP) \$90,000,000
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## Estimated Program Cash Flow 2023 - 2028:

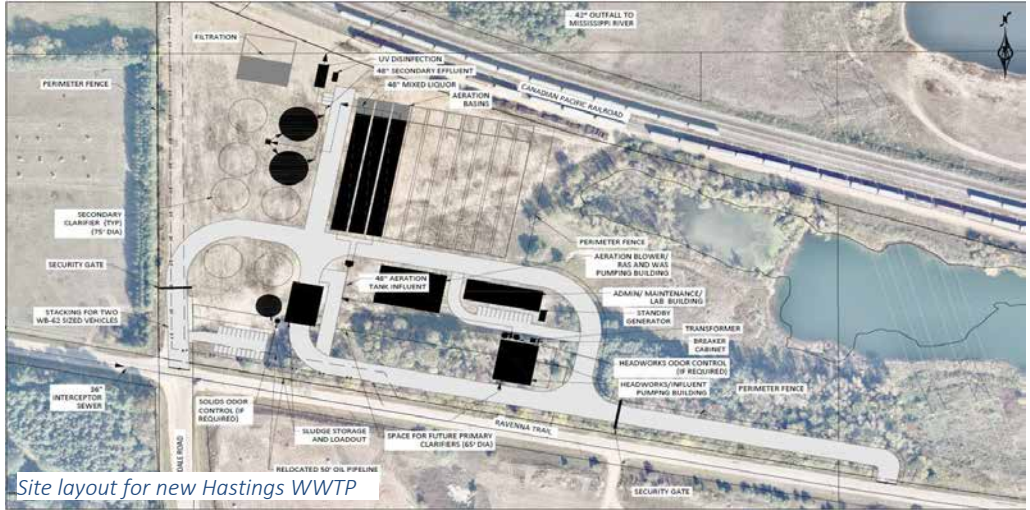


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8098  
Project # 809800

# Hastings WWTP

Project Location:  
Council District # 16  
Hastings  
Relocated Hastings WWTP



Site layout for new Hastings WWTP

<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs, Lead by Example and Collaborate with Others
<b>SCOPE:</b>	Construct a new wastewater treatment plant in Hastings
<b>PROJECT NEED:</b>	The existing plant site, located in downtown Hastings, presents challenges to major renewal, land use compatibility, expandability of the plant to respond to growth and changes in regulatory requirements.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$0	\$0	\$60,000,000	\$100,000,000

Program Family: 8098  
Project # 809810

# Hastings WWTP – Interceptor Improvements

Project Location:  
Council District # 16  
Hastings, MN



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs and Collaborate with Others
<b>SCOPE:</b>	Construct a sewer pumping station at the existing WWTP. Construct 6,000 LF of forcemain, 8,800 LF of trunk gravity sewer, and 7,600 LF of treated water discharge to the Mississippi River. Following final acceptance of the new plant, the existing WWTP will be decommissioned, and the property turned back to the City.
<b>PROJECT NEED:</b>	The existing plant has reached its treatment capacity. A new plant is required to accommodate growth. All wastewater currently flowing to the existing downtown treatment plant needs to be conveyed to the new plant site.

## PROJECT SCHEDULE



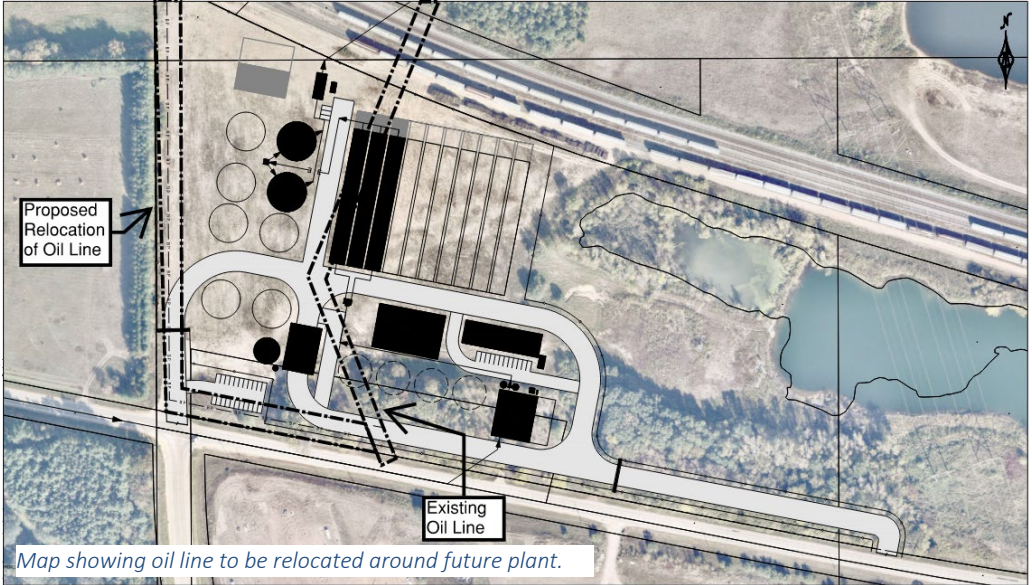
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,100,000	<b>Current ACP</b> \$8,618,755	<b>2023 – 2028 Cash Flow</b> \$38,000,000	<b>Total Project Cost</b> \$38,618,755
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Program Family: 8098  
Project # 809821

# Hastings WWTP – Utilities Relocation

Project Location:  
Council District # 16  
Hastings, MN



<b>PROJECT TYPE:</b>	Plant Improvements
<b>OBJECTIVES:</b>	System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Collaborate with Others
<b>SCOPE:</b>	Relocate 10-inch British Petroleum oil line.
<b>PROJECT NEED:</b>	Relocation of the 10-inch British Petroleum oil line is required to construct the new Hastings Wastewater Treatment Plant most efficiently.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$3,000,000	<b>Current ACP</b> \$6,000,000	<b>2023 – 2028 Cash Flow</b> \$6,000,000	<b>Total Project Cost</b> \$6,000,000
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**Program 8100  
Industrial Pretreatment Incentive Program**



*Northern Star staff observes new pre-treatment system*



*High Strength Waste enters a holding tank at the Empire WWTP*

**Description:**

Industrial Pretreatment Incentive Program (IPIP) provides financial incentives to assist high-strength industrial wastewater dischargers to pretreat the wastewater at their site, reducing or eliminating the high-strength discharge and reducing Metropolitan Council Environmental Services' (MCES) cost to treat that discharge.

**Purpose and Justification:**

This innovative public-private partnership yields benefits to MCES ratepayers, private industry, and the environment. The Council and its ratepayers benefit by avoiding operating costs (e.g., energy) to treat high-strength waste; improve ability to generate electricity by better handling of high-strength waste and potentially delay or eliminate the need for wastewater treatment plant expansion. Industries benefit by having access to low-cost loans to install treatment equipment; reducing or eliminating strength charges and enhancing ability to grow.

**Program Location:**

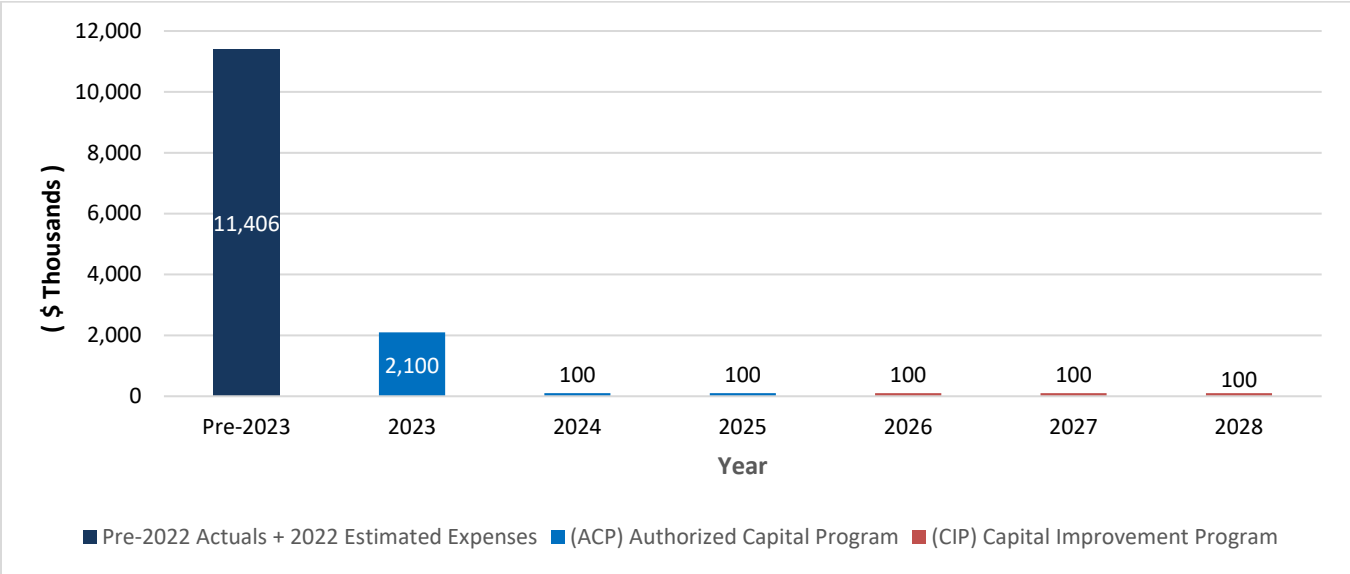
Current applications with pending projects

**Active Projects in Program:** None

**MCES 2023 – 2028 Capital Program:**

<p>Authorized Capital Program (ACP) \$13,705,777</p>	<p>Capital Improvement Plan (CIP) \$300,000</p>
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# Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

# Appendix B: Project Summaries by Program - Interceptor

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**Program 8028  
Blue Lake Interceptor Improvements**



**Description:**

This project provides improvements to meet the long-term conveyance capacity, reliability, and rehabilitation/replacement needs of the Blue Lake Interceptor System. This system includes gravity sewers, 29 lift stations, and forcemains from each lift station. The major project areas are located in Victoria, Excelsior, Orono, Excelsior and Deephaven.

**Purpose and Justification:**

Evaluation of the Blue Lake Area Interceptor System indicates that the existing facilities cannot convey all the wastewater that will ultimately be generated from within the Blue Lake sewer shed due to growth. In addition, many of the sewers, lift stations, and associated forcemains need to be rehabilitated to ensure system reliability and to address odor and corrosion control.

**Program Location:**

The active projects within this program are in the following Council Districts: 3 and 4.

**Active Projects in Program:**

Project Number	Project Title
802800	Lake Minnetonka Area (Parent Project)
802801	West Area Rehabilitation – Sites 1, 2, 3, 4 and 5
802831	Lift Station L46 and L49
802834	L48 Rehab and 6-DH-645 FM replacement
802856	Excelsior Area Lift Station L-20
802863	8567 Channel Crossings Replacement

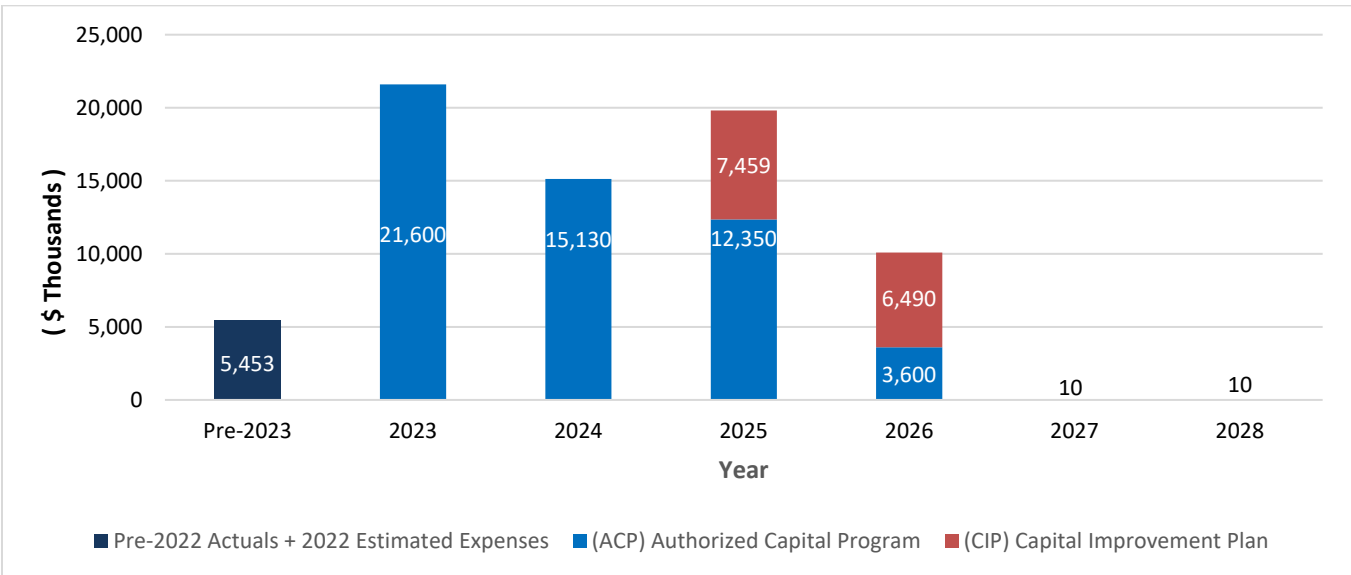


802897	Orono 7113 FM Replacement
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**MCES 2023 – 2028 Capital Program:**

<b>Authorized Capital Program (ACP)</b> \$58,133,316	<b>Capital Improvement Plan (CIP)</b> \$13,969,000
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**Estimated Program Cash Flow 2023 - 2028:**



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8028  
Project # 802801

# West Area Rehab – Forcemain 8253-327

Project Location:  
Council District # 3  
City: Shorewood and Chanhassen, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate forcemain due to pipe corrosion and improve system reliability.
<b>PROJECT NEED:</b>	Forcemain 8253-327 was built in 1988 and runs from L21 in the City of Shorewood to the discharge approximately 3 miles to the east. An external ultrasonic thickness gauge survey conducted in 2021 found locations of pipe loss. Additional planning will be conducted to recommend reliability improvements.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$300,000	\$6,065,000	\$6,065,000	\$6,065,000

Program Family: 8028  
Project # 802801

# West Area Rehab – Forcemain 8352

Project Location:  
Council District # 3  
Cities: Maple Plain, Orono, Medina, and Long Lake, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Site 2 of the West Area Improvements. This project includes rehabilitation and/or replacement of approximately 4.1 miles of forcemain due to deterioration of pipe walls.
<b>PROJECT NEED:</b>	Forcemain 8352 was constructed in 1985 as a single-barrel, 12-inch ductile iron pipe which runs approximately 5.1 miles from L63 in the City of Maple Plain to the discharge MH 172 in Long Lake. A one-mile segment of the forcemain at the intersection of Mn Hwy 12 and County Rd 6 was replaced in 2011 with dual barrel 14-inch HDPE pipes.  Forcemain 8352 was evaluated using ultrasonic testing in 2021 and determined to have wall thickness loss. This reduction in wall thickness will require rehabilitation to extend forcemain service life. Reliability and future flow needs will be evaluated as part of this project.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$300,000	<b>Current ACP</b> \$3,815,000	<b>2023 – 2028 Cash Flow</b> \$3,815,000	<b>Total Project Cost</b> \$3,815,000
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Program Family: 8028  
Project # 802801

# 802801 West Area Rehab – Interceptor 6-MT-647

Project Location:  
Council District # 3  
City: Minnetrista, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate forcemains due to a significant sag in the pipe profile.
<b>PROJECT NEED:</b>	Gravity interceptor 6-MT-647 is 8” DIP and was built in 1973. It serves the area of the Minnetrista peninsula in Lake Minnetonka upstream of lift station L51. Between 2009 and 2017, CCTV-based inspection downgraded the pipe from condition 3 to 4 between MH25-17 and MH25-18 due to a sag in the pipe. This defect requires further investigation, and, if warranted, repair.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$100,000	\$2,314,800	\$2,314,800	\$2,314,800

Program Family: 8028  
Project # 802801

# 802801 West Area Rehab – Interceptor 7020

Project Location:  
Council District # 3  
City: St. Bonifacius, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate gravity pipe due to sag and joint separation under Highway 7 Gravity Interceptor 7020 is both 15” ABS pipe and 16” DIP and was built in 1971. It serves the area of Minnetrista and St. Bonifacius.
<b>PROJECT NEED:</b>	In 2020, CCTV-based inspection rated the pipe condition 4 due to joint offsets in the pipe, joint separation and corrosion in the pipe. These defects require further investigation and will require significant coordination with MNDOT to work in the Highway 7 corridor.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$100,000	<b>Current ACP</b> \$2,314,000	<b>2023 – 2028 Cash Flow</b> \$2,314,000	<b>Total Project Cost</b> \$2,314,000
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Program Family: 8028  
Project # 802801

# 802801 West Area Rehab – Interceptor 9206-1 & 7120

Project Location:  
Council District # 4  
City: Shakopee, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate interceptors 9206-1 and 7120
<b>PROJECT NEED:</b>	The Metropolitan Council Environmental Services (MCES) owns and operates the Interceptors 9206-1 and 7120 in Shakopee, which were built in 1975. A 2020 condition assessment revealed over 3,500 linear feet (LF) of 72-inch piping with a condition rating of 4, between MH 1 and the junction vault between 9206-1 and 7120. There is also a 31 LF section of 72-inch piping between a previous lining project and the junction vault. This section of piping has a condition 5 rating. The junction vault will also need to be inspected and potentially rehabilitated.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$120,000	<b>Current ACP</b> \$3,814,000	<b>2023 – 2028 Cash Flow</b> \$3,814,000	<b>Total Project Cost</b> \$3,814,000
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Program Family: 8028  
Project # 802831

# Orono Lift Stations L46 and L49 Improvements

Project Location:  
Council District # 3  
City: Orono, MN



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Meet Capacity Needs
<b>SCOPE:</b>	Replace L49 at neighboring property, and fully rehabilitate L46 through replacement of pumps, mechanical equipment, and site improvements for safety.
<b>PROJECT NEED:</b>	A 2009 study evaluating L46 and L49 revealed L49 is at the end of its useful life and has inadequate capacity to meet current peak flow rates. Its current location is also difficult to access for maintenance. Land has been purchased adjacent to the existing lift station to provide easier access. L46 requires pump and valve replacement, electrical panel upgrades, and site improvements to protect existing equipment from traffic.

## PROJECT SCHEDULE



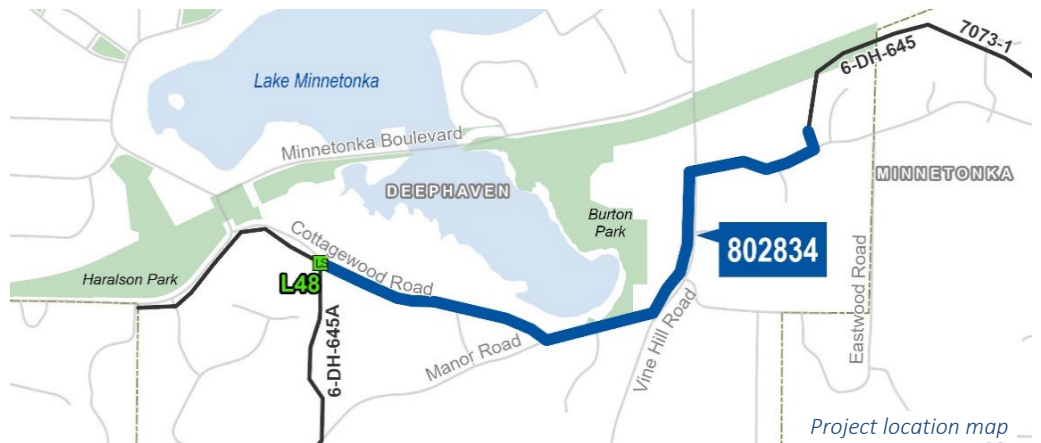
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,000,000	<b>Current ACP</b> \$5,400,000	<b>2023 – 2028 Cash Flow</b> \$4,700,000	<b>Total Project Cost</b> \$5,400,000
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Program Family: 8028  
Project # 802834

## L48 Rehabilitation and 6-DH-645 Forcemain Replacement

Project Location:  
Council District # 3  
City: Deephaven, MN



<b>PROJECT TYPE:</b>	Lift Station and Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Meet Capacity Needs
<b>SCOPE:</b>	The rehabilitation of L48 will include a new valve vault, pumps and valves, electrical and site work, forcemain replacement and replacement of the gravity discharge pipe.
<b>PROJECT NEED:</b>	The 16 ft deep buried valves are broken outside of the station. A buried temporary conveyance system was installed to convey around the broken valves. The forcemain was built in 1970 and is over 50 years old and is reaching the end of its service life.

### PROJECT SCHEDULE



Planning  
N/A



Design  
2021-2022



Construction  
2023-2025

### FINANCIAL ANALYSIS

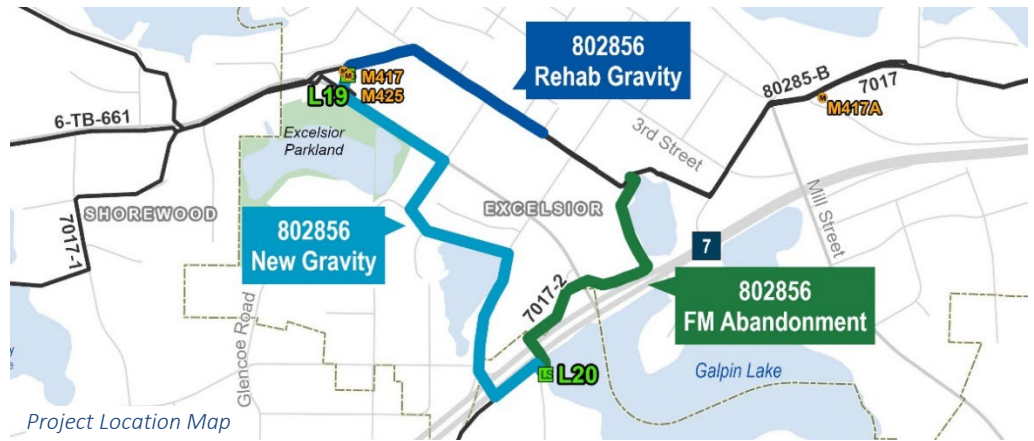
2023 Cash Flow \$4,000,000	Current ACP \$ 6,253,000	2023 – 2028 Cash Flow \$ 5,620,000	Total Project Cost \$ 6,253,000
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Program Family: 8028  
Project # 802856

## Excelsior Area Lift Station L20

Project Location:  
Council District # 3  
City: Excelsior, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	Remove existing lift station L20 and install a gravity pipe to lift station L19.
<b>PROJECT NEED:</b>	The existing L20 was constructed in 1970 and is at the end of its service life. The 2021 Lake Minnetonka Facility Plan determined that L20 should be abandoned and replaced with a gravity pipe connection to L19.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$5,000,000	\$11,928,000	\$11,000,000	\$11,928,000

Program Family: 8028  
Project #802863

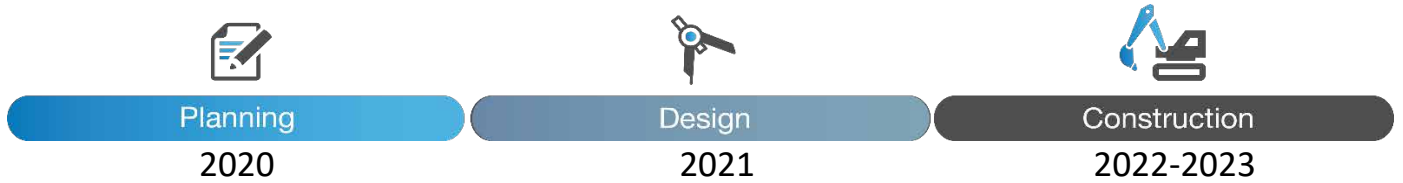
# 8567 Channel Crossings Replacement

Project Location:  
Council District # 3  
City: Orono, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	To minimize future risk, redundant parallel HDPE pipes are proposed. Directional drilling is proposed for the parallel pipes.
<b>PROJECT NEED:</b>	In 2022, Hennepin County replaced the Noerenberg and Hendrickson bridges on North Shore Drive. Interceptor Forcemain 8567 was suspended on the bridges and partially relocated under the Lake Minnetonka channels. This project will finish the relocation installing a parallel crossing on each channel and four structures.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$3,250,000	\$3,865,000	\$3,250,000	\$3,865,000

Program Family: 8028  
Project # 802897

# Orono Interceptor 7113 Forcemain Replacement

Project Location:  
Council District # 3  
City: Orono, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	Construction of a redundant forcemain along 7113 and the HCRAA trail corridor and rehabilitation of the existing forcemain.
<b>PROJECT NEED:</b>	Forcemain 7113 was built in 1979 and runs from L59 in the City of Orono to the junction with forcemain 7113A approximately 3 miles to the east. Forcemain 7113 is approaching the end of its service life and needs replacement or rehabilitation. A new redundant forcemain is proposed to increase reliability and allow the existing forcemain in Shoreline Drive to be inspected and rehabilitated or replaced.

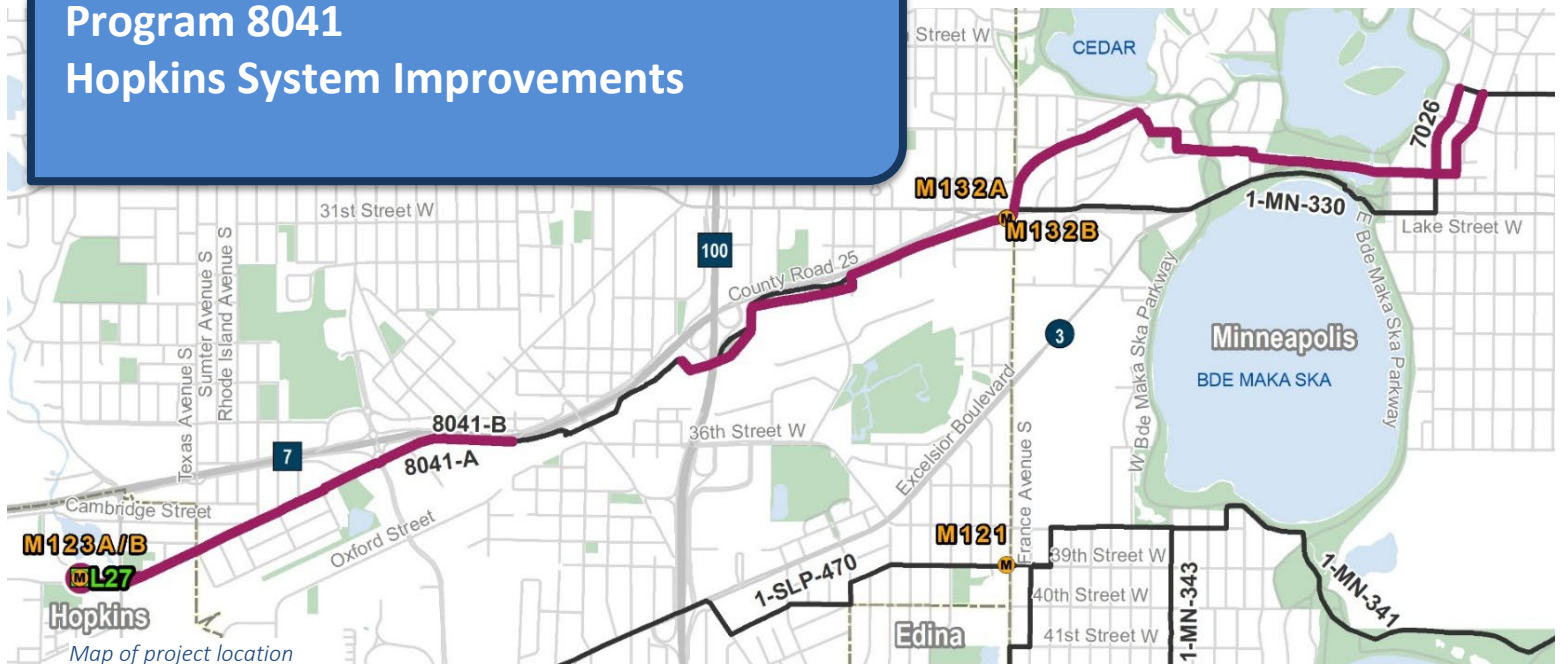
## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$450,000	<b>Current ACP</b> \$15,495,000	<b>2023 – 2028 Cash Flow</b> \$14,839,000	<b>Total Project Cost</b> \$9,015,000
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## Program 8041 Hopkins System Improvements



### Description:

The Program provides for the replacement of a 5-mile-long force main, known as the Hopkins force main, and lift station L27 located in the city of Hopkins. The force main is a single 24 to 30-inch interceptor pipe that begins in Hopkins at the intersection of Blake Rd and Lake St and passes through St. Louis Park and Minneapolis where it discharges to the 1-MN-330 gravity interceptor sewer. The system serves the cities of Hopkins, St. Louis Park, and Minneapolis. The new force main system is constructed as a dual 18 to 24-inch pipe system. The new 6.3 mgd lift station is constructed 700-feet to the west of the existing lift station.

### Purpose and Justification:

These facilities are over 40 years old, have significant condition issues and lack redundancy. The existing force main is constructed as Prestressed Concrete Cylinder Pipe which is susceptible to internal and external corrosion. In 2000, a corroded section of the force main collapsed within the Dean neighborhood of Minneapolis. In addition, the existing lift station is undersized with little storage. This presented an operational limitation to addressing malfunctions at the lift station without causing backups to homes or spills.

### Program Location:

The active projects within this program are in the following Council Districts: District # 6

### Active Projects in Program:

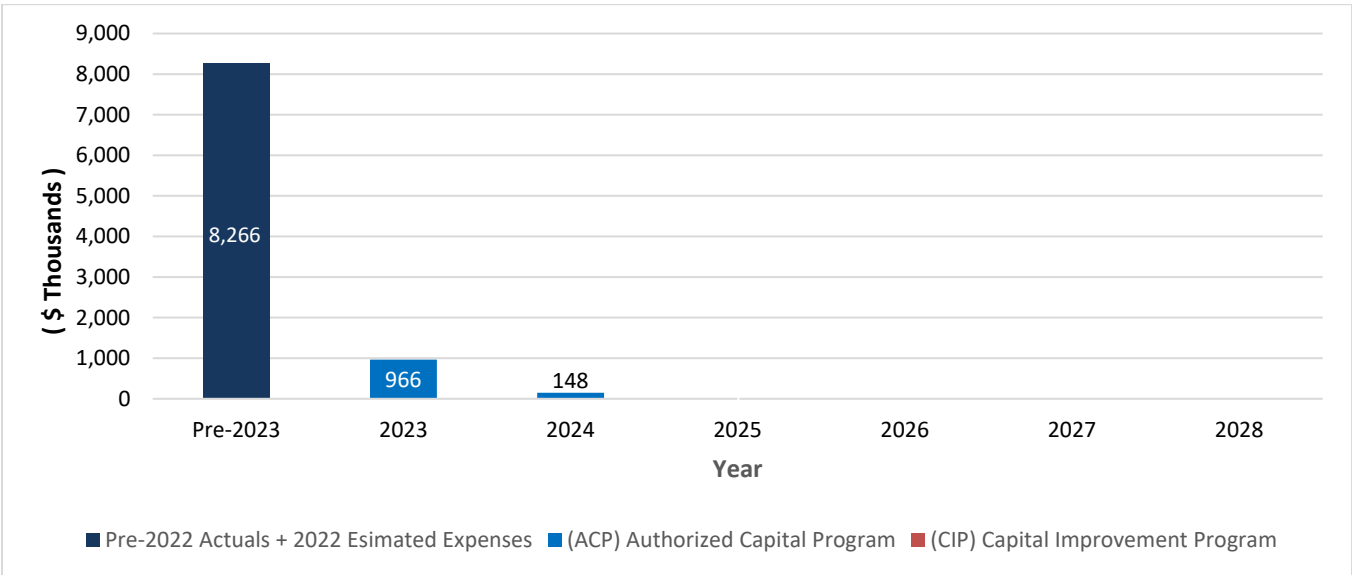
Due to funding shortages in this program, the last two construction projects in Minneapolis are planned to be funded under the Interceptor Rehabilitation Program 809000. The Hopkins System Improvements family is only used for funding the consultants and the cooperative construction agreements on the two remaining Minneapolis projects.

Project Number	Project Title
804100	Hopkins Systems Improvements (Parent Project)
819015	HIS, East Isles – Contract G
819020	HIS, East Isles – Contract H
804125	HSI East Isles Force Main Improvements (consultants)

**MCES 2023 – 2028 Capital Program:**

Authorized Capital Program (ACP) \$9,380,809	Capital Improvement Plan (CIP) \$0
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**Estimated Program Cash Flow 2023 - 2028:**



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8041  
Project # 804125

# HSI East Isles Forcemain Improvements

Project Location:  
Council District # 6  
City: Minneapolis, MN  
The Mall Park,  
Humboldt Ave



<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Mitigate Impacts, and Coordinate with Others
<b>SCOPE:</b>	The project includes only the planning and design phases for the replacement of 2500 linear feet of 24" concrete forcemain with two 24" diameter forcemains. Cooperative construction with the City of Minneapolis and Minneapolis Park and Recreation Board to complete City improvements in the area. The construction of the improvements on Humboldt Ave are under MCES project number 819015. The construction of the improvements within The Mall Park are under MCES project number 819020
<b>PROJECT NEED:</b>	Without a redundant forcemain, inspecting the existing 24" concrete forcemain is difficult and there is significant potential for corrosion given the pipe material and age. An upstream section of the forcemain collapsed in 2000. The vortex drop structure between the forcemain and interceptor 1-MN-330 at 27 <sup>th</sup> Street and Humboldt Ave. S. is severely corroded is at risk of failure.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$465,000	\$1,320,000	\$465,000	\$1,320,000

## Program 8055 Lift Station Rehabilitation



### Description:

Upgrades include reconstruction and replacement work for force mains and lift stations. Fuel tanks are being replaced for compliance with changing storage tank rules.

### Purpose and Justification:

Capacity and condition assessments are being conducted along with regulatory reviews to identify system-wide lift station upgrades. These upgrades extend the life of facilities, reduce the risk of spills, and improve the safety of staff who operate and maintain lift stations.

### Program Location:

The active projects within this program are in all the Council Districts.

### Active Projects in Program:

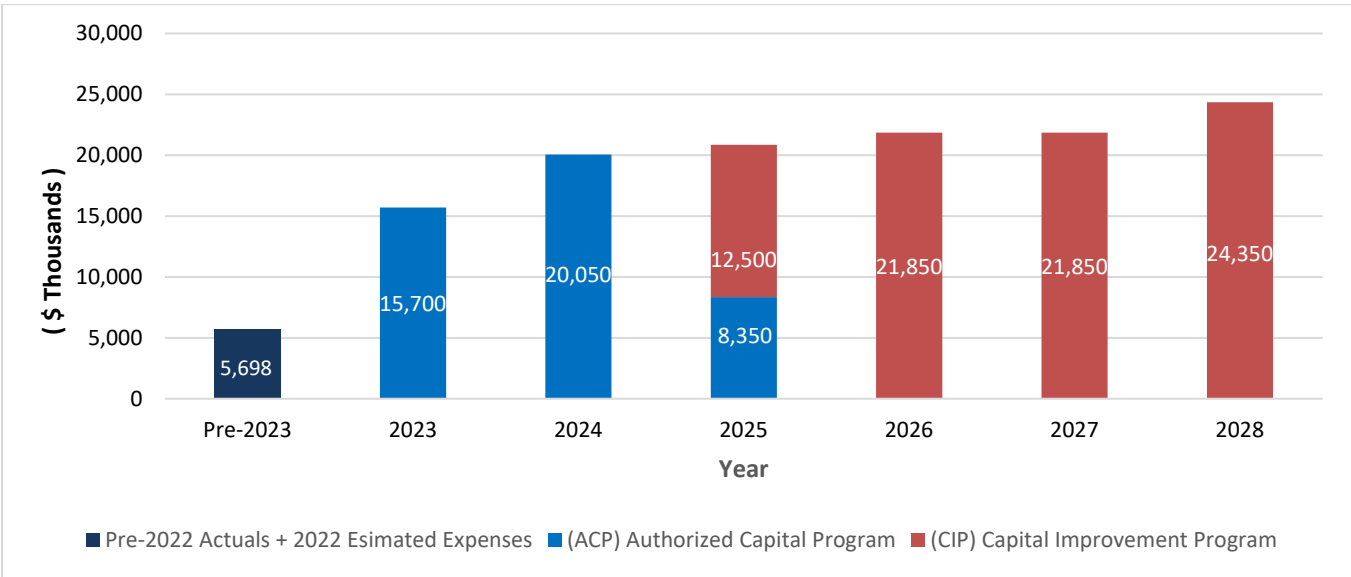
Project Number	Project Title
805500	Lift Station Rehabilitation (Parent Project)
805501	Lift Station Property Maintenance
805502	Lift Station Condition Assessments
805503	L-13 HVAC Improvements

805504	FM-Siphon-RX-Outfall Inspection Program (Sites 1 - 4)
805505	L32 Biofilter
805564	Savage L66 Lift Station Rehab
805566	Lift Station Electrical Rehabilitation (Sites 1 – 5)
805568	L71 System Improvements
805576	L29 Improvements
8055XX	Anoka Champlin Forcemain

**MCES 2023 – 2028 Capital Program:**

<b>Authorized Capital Program (ACP)</b> <b>\$49,797,785</b>	<b>Capital Improvement Plan (CIP)</b> <b>\$80,550,000</b>
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**Estimated Program Cash Flow 2023 - 2028:**



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.



Program Family: 8055  
Project # 805501

# Lift Station Property Maintenance

Project Location:  
Council District # 1 - 16  
City: Regional



MCEs workers maintain lift station L 30, a lift station in Crystal

<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Lead by Example and Be A Good Neighbor
<b>SCOPE:</b>	Implement landscaping improvements at lift station properties on a case-by-case basis to provide lower maintenance and meet sustainability goals.
<b>PROJECT NEED:</b>	Establishment of sustainable and native landscapes reduce the need to maintain conventional site landscaping through mowing, watering and application of lawn chemicals. Sustainable landscapes are better for the local ecology, the environment, and reduce carbon footprint. Undertaking these projects reduces maintenance labor and better meets sustainability goals.

## PROJECT SCHEDULE



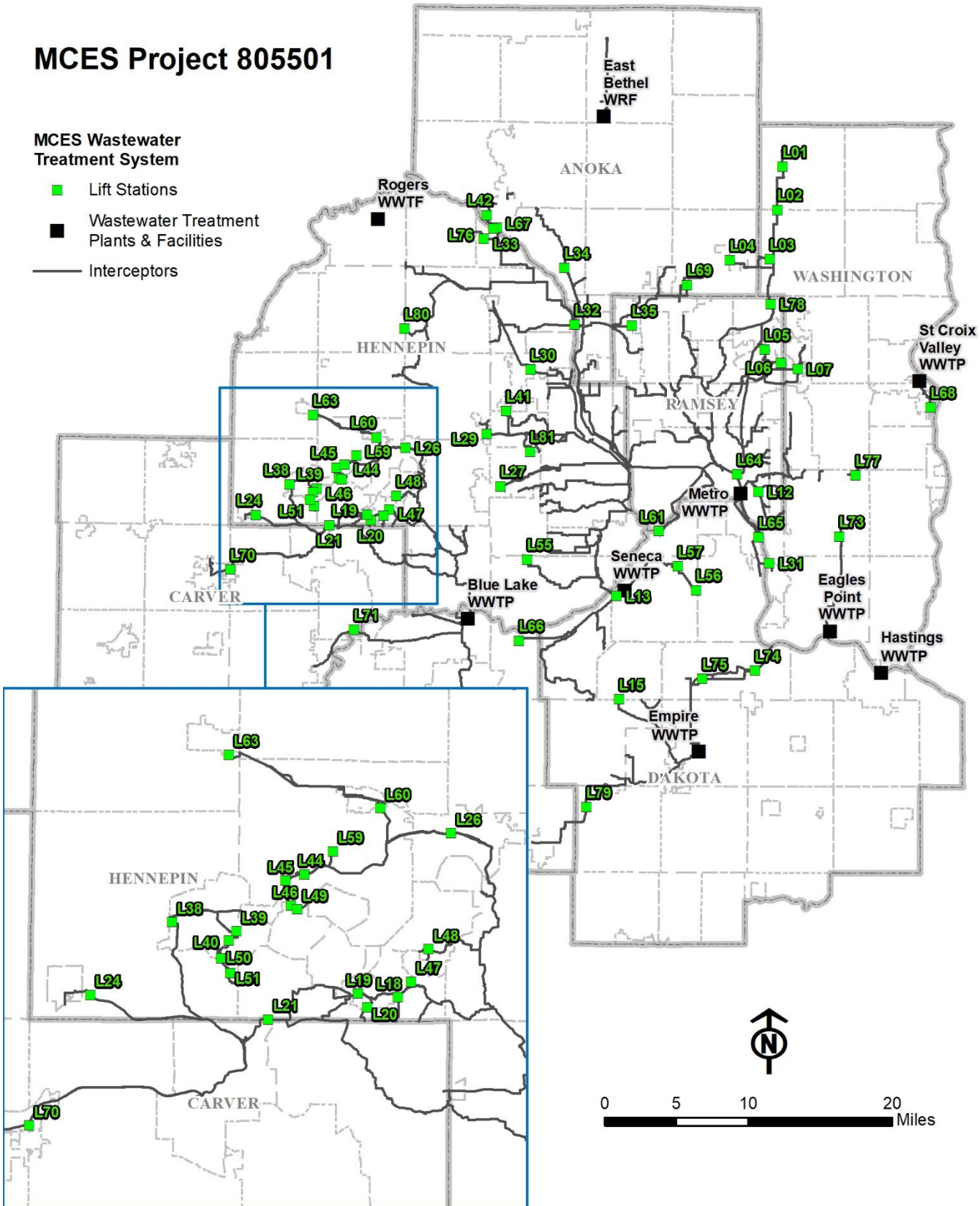
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$600,000	\$1,580,000	\$700,000	\$1,580,000

# MCES Project 805501

## MCES Wastewater Treatment System

- Lift Stations
- Wastewater Treatment Plants & Facilities
- Interceptors



Program Family: 8055  
Project # 805502

## Lift Station Condition Assessments

Project Location:  
Council District # n/a  
City: Regional



Interceptor service worker inspects the Rosemount Lift Station (L74)

<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation, System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Meet Capacity Needs
<b>SCOPE:</b>	Evaluate and report the condition of 25 lift stations.
<b>PROJECT NEED:</b>	The condition assessments are needed to prioritize and plan lift station repairs and improvements.

### PROJECT SCHEDULE



Planning  
2018-2027



Design  
N/A



Construction  
N/A

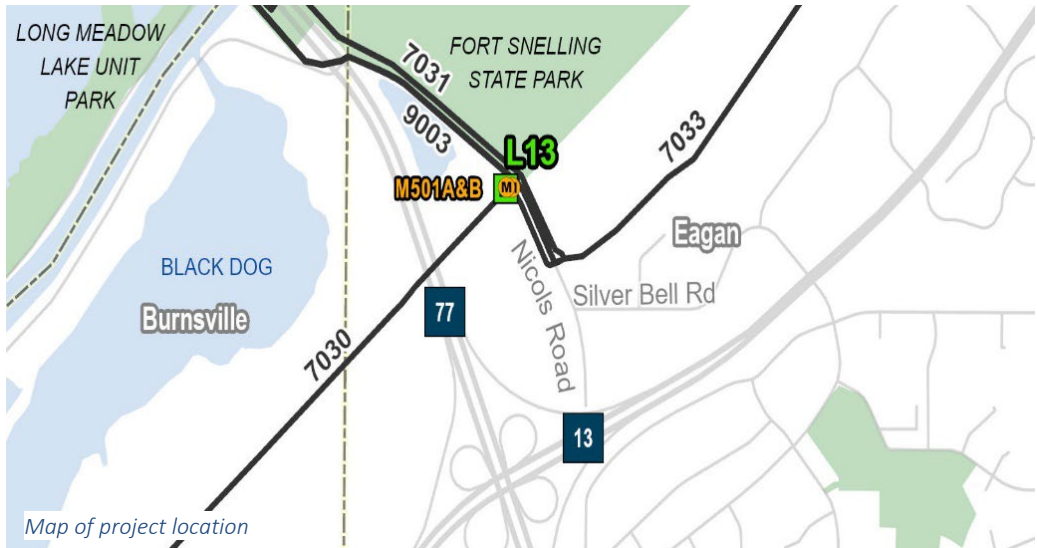
### FINANCIAL ANALYSIS

2023 Cash Flow \$150,000	Current ACP \$984,215	2023 – 2028 Cash Flow \$900,000	Total Project Cost \$1,434,215
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Program Family: 8055  
Project # 805503

# L13 HVAC Improvements

Project Location:  
Council District # 15  
City: Eagan, MN



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Be a Good Neighbor
<b>SCOPE:</b>	Design and construct HVAC (Heating Ventilation and Air Conditioning) and odor control systems that reduce odors and preserve the function of the existing lift station
<b>PROJECT NEED:</b>	High H2S levels will continue to cause corrosion within the lift station that can compromise station reliability. In addition, odors from the lift station are leaving the lift station site. The odors and potential disruption of service to our customers does not meet the Council’s Level of Service goals.

## PROJECT SCHEDULE



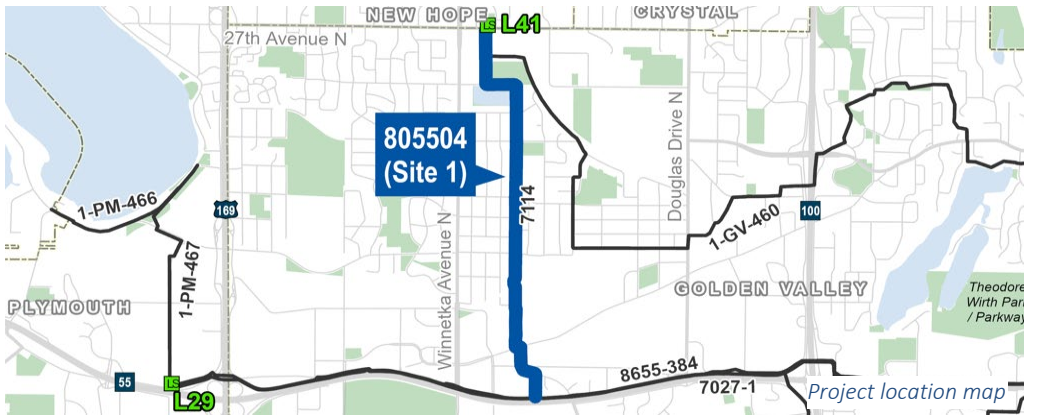
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$2,000,000	\$2,283,000	\$2,050,000	\$2,283,000

Program Family: 8055  
Project # 805504

# FM-Siphon-Rx-Outfall Inspection Program – Force Main 7114

Project Location:  
Council District # 6  
City: Golden Valley, MN



<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Inspect two miles of force main in Golden Valley.
<b>PROJECT NEED:</b>	Programmatic evaluation of assets in accordance with the 2022 Force Main-Siphon-River Crossing-Outfall Inspection Program Manual.

## PROJECT SCHEDULE



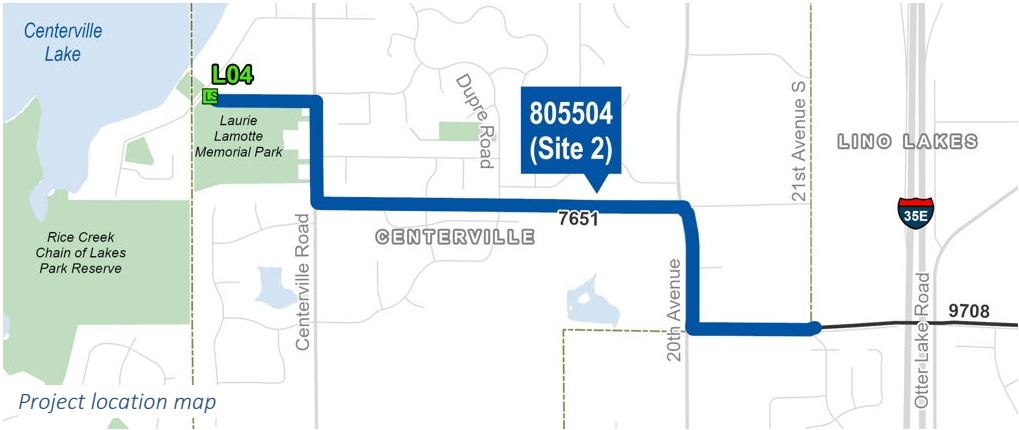
## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$400,000	\$4,060,000	\$2,800,000	\$2,800,000

Program Family: 8055  
Project # 805504

# FM-Siphon-Rx-Outfall Inspection Program – Force Main 7561

**Project Location:**  
Council District # 11  
City: Centerville,  
MN



<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Inspect 1.5 miles of force main in Centerville.
<b>PROJECT NEED:</b>	Programmatic evaluation of assets in accordance with the 2022 Force Main-Siphon-River Crossing-Outfall Inspection Program Manual.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$400,000	\$4,060,000	\$2,800,000	\$2,800,000

Program Family: 8055  
Project # 805504

# FM-Siphon-Rx-Outfall Inspection Program – Site 3 Seneca Outfall 7003

Project Location:  
Council District # 5  
Seneca WWTP to the Mississippi River in Eagan



<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Inspect one mile of outfall at Seneca WWTP in Eagan.
<b>PROJECT NEED:</b>	Programmatic evaluation of assets in accordance with the 2022 Force Main-Siphon-River Crossing-Outfall Inspection Program Manual.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$400,000	Current ACP \$4,060,000	2023 – 2028 Cash Flow \$2,800,000	Total Project Cost \$2,800,000
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Program Family: 8055  
Project # 805504

# FM-Siphon-Rx-Outfall Inspection Program - 1-MS-100 Siphon

Project Location:  
Council District # 13  
City: St Paul, MN



<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Inspect the Metro Siphon in St. Paul
<b>PROJECT NEED:</b>	Programmatic evaluation of assets in accordance with the 2022 Force Main-Siphon-River Crossing-Outfall Inspection Program Manual.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

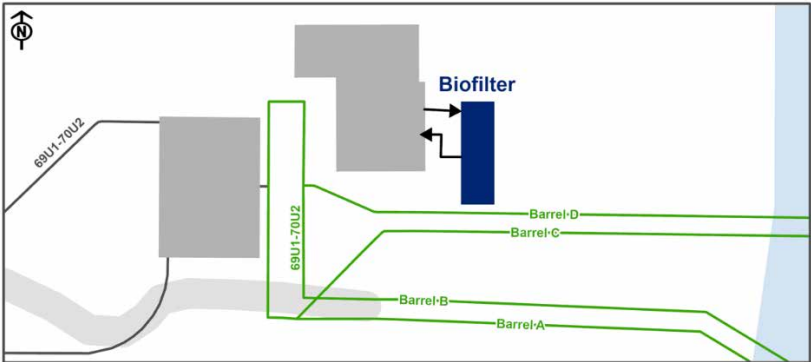
2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$400,000	\$4,060,000	\$2,800,000	\$2,800,000



Program Family: 8055  
Project # 805505

# L32 Biofilter

**Project Location:**  
Council District # 2  
City: Brooklyn Park, MN  
Location: 7700  
Mississippi Lane



**Project 805505**

- MCES Interceptors
- Gravity
- Forcemain
- Building Footprints



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Be a Good Neighbor
<b>SCOPE:</b>	Install a new biofilter to treat H2S and convert the existing carbon unit to a permanganate impregnated media polishing unit to treat other odorous compounds. This system will also be used for the new L32A lift station scheduled to be built in 3 to 5 years.
<b>PROJECT NEED:</b>	The existing carbon odor control unit does not provide the level of treatment needed for the high H2S levels entering the lift station and the close proximity of the lift station site to neighboring properties.

## PROJECT SCHEDULE



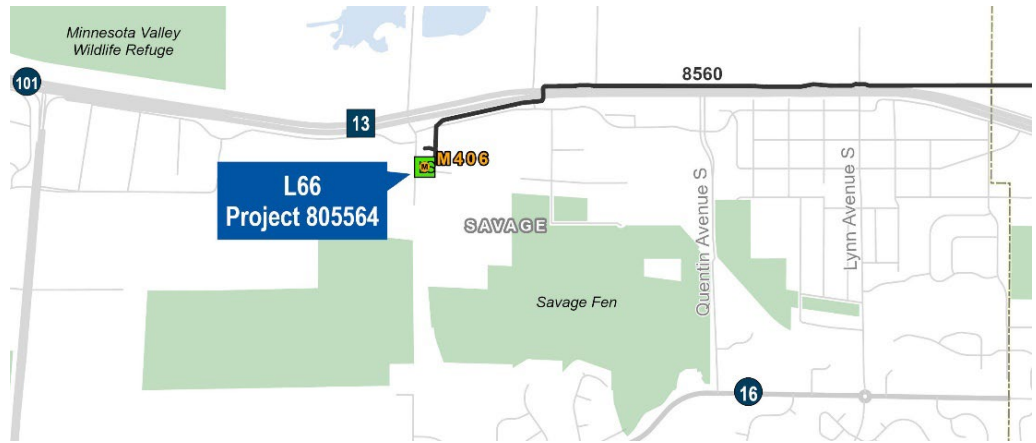
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$4,000,000	\$4,250,000	\$4,000,000	\$4,250,000

Program Family: 8055  
Project # 805564

## L66 Rehabilitation

Project Location:  
Council District # 15  
City: Savage, MN



Map of project location

<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, Be A Good Neighbor, and Meet Capacity Needs
<b>SCOPE:</b>	The lift station rehabilitation will include HVAC upgrades, carbon tank, new generator, wet well rehabilitation, pump replacement and electrical upgrades.
<b>PROJECT NEED:</b>	Wet well rehabilitation is needed due to the substantial concrete deterioration. The station also needs new pumps to accommodate for projected 2040 flows. The HVAC is not up to code and needs replacement.

### PROJECT SCHEDULE

		
Planning	Design	Construction
N/A	2017-2022	2023-2026

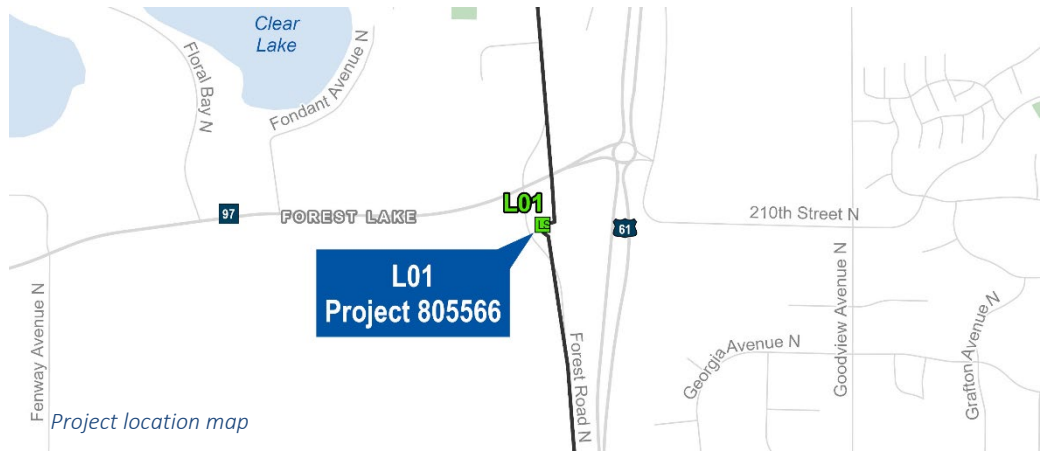
### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$2,000,000	\$7,155,000	\$7,000,000	\$7,155,000

Program Family: 8055  
Project # 805566

## Lift Station Electrical Rehabilitation – L01

Project Location:  
Council District # 12  
City: Forest Lake, MN



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Replace MCC (Motor Control Center) and in new enclosure, replace main breaker, replace manual transfer switch with automatic transfer switch and to install permanent generator in outdoor enclosure.
<b>PROJECT NEED:</b>	The electrical condition assessment reports, preventative maintenance data, and arc flash study results were reviewed and prioritized by MCES engineering, electrical, and ISBU staff. Lift Station L01 in Forest Lake is identified as a site needing rehabilitation as soon as possible. This site has many components in poor shape or obsolete.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$200,000	\$200,000	\$1,200,000	\$2,000,000

Program Family: 8055  
Project # 805566

## Lift Station Electrical Rehabilitation – L02

Project Location:  
Council District # 11  
City: Hugo, MN



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Recommendations are to replace MCC in weather-proof enclosure, replace ATS and include space heater and provisions for moisture control, and to replace circuit breakers and clean all connections.
<b>PROJECT NEED:</b>	The electrical condition assessment reports, preventative maintenance data, and arc flash study results were reviewed and prioritized by MCES engineering, electrical, and ISBU staff. Lift Station L02 in Hugo is identified as a site needing rehabilitation as soon as possible. This site has many components that show corrosion and are obsolete.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$200,000	<b>Current ACP</b> \$200,000	<b>2023 – 2028 Cash Flow</b> \$1,200,000	<b>Total Project Cost</b> \$2,000,000
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Program Family: 8055  
Project # 805566

## Lift Station Electrical Rehabilitation – L03

Project Location:  
Council District # 11  
City: City of Hugo, MN  
Location: Lift Station L03



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	This site has many components that show corrosion and are obsolete. Recommendations are to replace both MCCs in above grade, weather-proofed enclosures, clean and paint ATS enclosure, and to install outdoor service breaker.
<b>PROJECT NEED:</b>	The electrical condition assessment reports, preventative maintenance data, and arc flash study results were reviewed and prioritized by MCES engineering, electrical, and ISBU staff. Lift Station L03 in Hugo is identified as a site needing rehabilitation as soon as possible.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$200,000	\$200,000	\$1,200,000	\$2,000,000

Program Family: 8055  
Project # 805566

## Lift Station Electrical Rehabilitation – L31

Project Location:  
Council District # 13  
City: St. Paul Park, MN



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	This site has many components that are potentially dangerous and nearing end-of-life. Recommendations are to install outdoor service circuit breaker, provide with remote on/off functions, and to install new MCC.
<b>PROJECT NEED:</b>	The electrical condition assessment reports, preventative maintenance data, and arc flash study results were reviewed and prioritized by MCES engineering, electrical, and ISBU staff. Lift Station L31 in St. Paul Park is identified as a site needing rehabilitation as soon as possible.

### PROJECT SCHEDULE



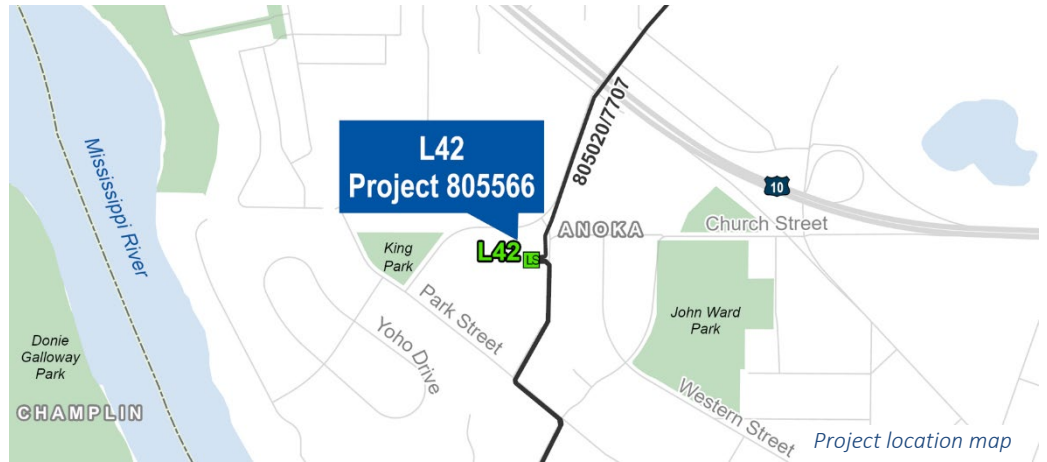
### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$200,000	\$1,000,000	\$1,200,000	\$2,000,000

Program Family: 8055  
Project # 805566

## Lift Station Electrical Rehabilitation – L42

Project Location:  
Council District # 9  
City: Anoka, MN



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Recommendations are to install outdoor service entrance circuit breaker, retrofit main switchboard to include surge protection and power meter, expand the existing switchboard to include an ATS, add flow meters at lift station, and to clean or replace corroded equipment.
<b>PROJECT NEED:</b>	The electrical condition assessment reports, preventative maintenance data, and arc flash study results were reviewed and prioritized by MCES engineering, electrical, and ISBU staff. Lift Station L31 in St. Paul Park is identified as a site needing rehabilitation as soon as possible. This site has many components that are showing corrosion and potentially dangerous.

### PROJECT SCHEDULE



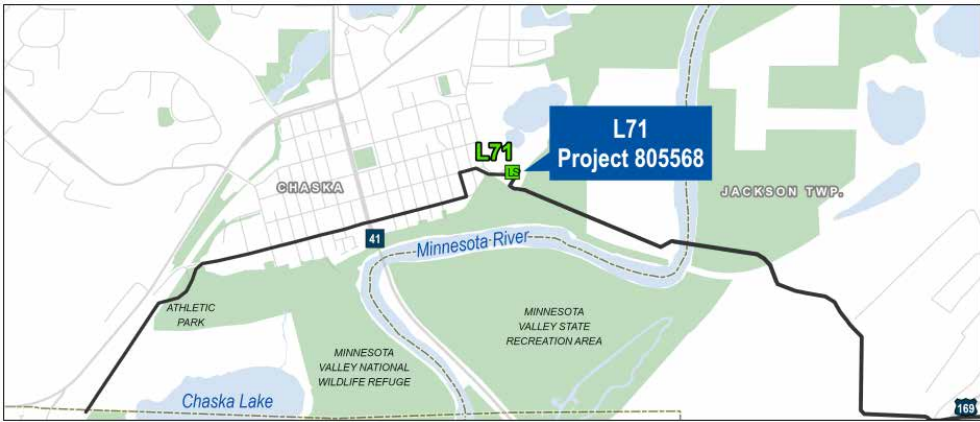
### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$200,000	\$200,000	\$1,200,000	\$2,000,000

Program Family: 8055  
Project # 805568

# L71 System Improvements

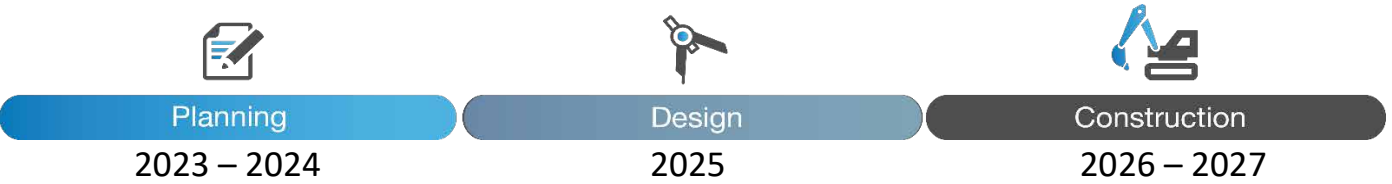
Project Location:  
Council District # 4  
City: Chaska, MN  
Location: 600 4<sup>th</sup> St E and eastward into Shakopee



Project location map

<b>PROJECT TYPE:</b>	Lift Station Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Be a Good Neighbor
<b>SCOPE:</b>	Ongoing investigations of upstream contributions and results of pump testing and odor treatment will be evaluated to determine the scope of work. Preliminary indications are that FOG pre-treatment, forcemain modifications, and odor control will be needed.
<b>PROJECT NEED:</b>	L71 receives high strength wastewater containing significant volumes of fats, oils, and greases (FOGs). The FOGs impact lift station and force main operations. This has resulted in decreased capacity and creates odors.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$300,000	<b>Current ACP</b> \$4,300,000	<b>2023 – 2028 Cash Flow</b> \$4,300,000	<b>Total Project Cost</b> \$4,300,000
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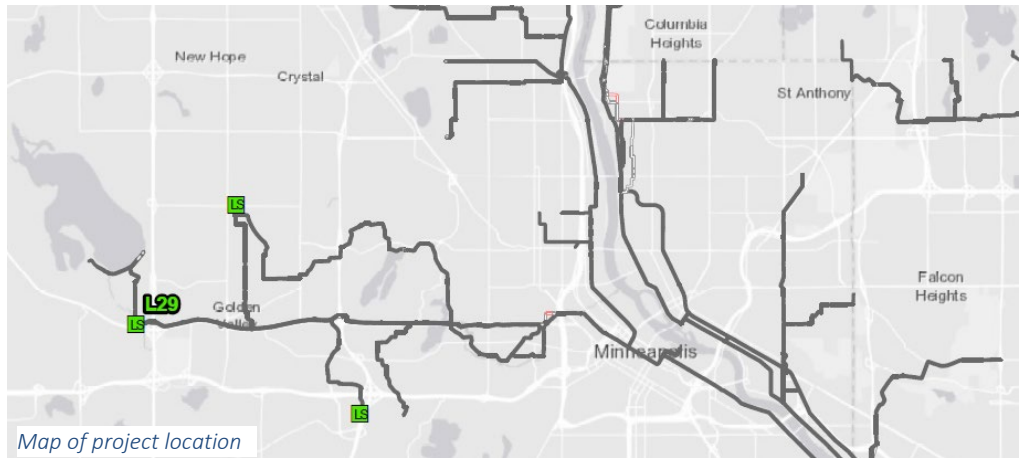
Program Family: 8055  
Project # 805576

## L29 Rehabilitation

Project Location: L29

Council District: # 1

City of Plymouth



<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	The lift station rehabilitation will include HVAC upgrades, carbon tank, new segment of forcemain, wet well rehabilitation and pump replacement.
<b>PROJECT NEED:</b>	A segment of forcemain will be replaced due to substantial corrosion. A pipe restriction will be upsized to increase lift station capacity along with new pumps.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$800,000	\$4,063,000	\$3,800,000	\$4,063,000

Program Family: 8055  
Project # 8055XX

# Anoka-Champlin Force Main Improvements

**Project Location:**  
Council District # 2 & 9  
City: Anoka and Champlin, MN  
Location: North and south sides of the Mississippi River at Hwy



Project location map

<b>PROJECT TYPE:</b>	Lift Station and Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Results of pump testing will be evaluated to determine the scope of work. Preliminary indications are that a second force main will be needed.
<b>PROJECT NEED:</b>	L33, L42, and L67 and their respective force mains are interconnected. Force Main 8751, downstream of all three lift stations, is an aging, single 24" barrel. Air release valves on the force main are inoperable and impacting the force main capacity. The force main and air releases cannot be inspected or repaired without major temporary conveyance.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$300,000	Current ACP \$0	2023 – 2028 Cash Flow \$4,300,000	Total Project Cost \$4,300,000
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## Program 8056 Meter Improvements



Photo of typical flow meter

### Description:

This Program provides funding to upgrade MCES's ability to measure flows for billing, operational, and planning purposes and standardize meter equipment at similar facilities. Meter improvements include meter rehabilitation or replacement, planning meter installation, and new meter installation.

### Purpose and Justification:

Accurate flow metering is the basis of the MCES' billing system. It is essential that our customers trust the reliability and accuracy of the flow metering system. The project provides a systematic approach for capital improvements to the flow metering system. Increases in flow, greater emphasis on capturing peak flows stemming from MCES' infiltration/inflow program, normal facility rehabilitation needs, and the need for additional flow metering locations for system planning purposes are driving this meter improvements project.

### Program Location:

The active projects within this program are in the following Council Districts: District # 1 and 2.

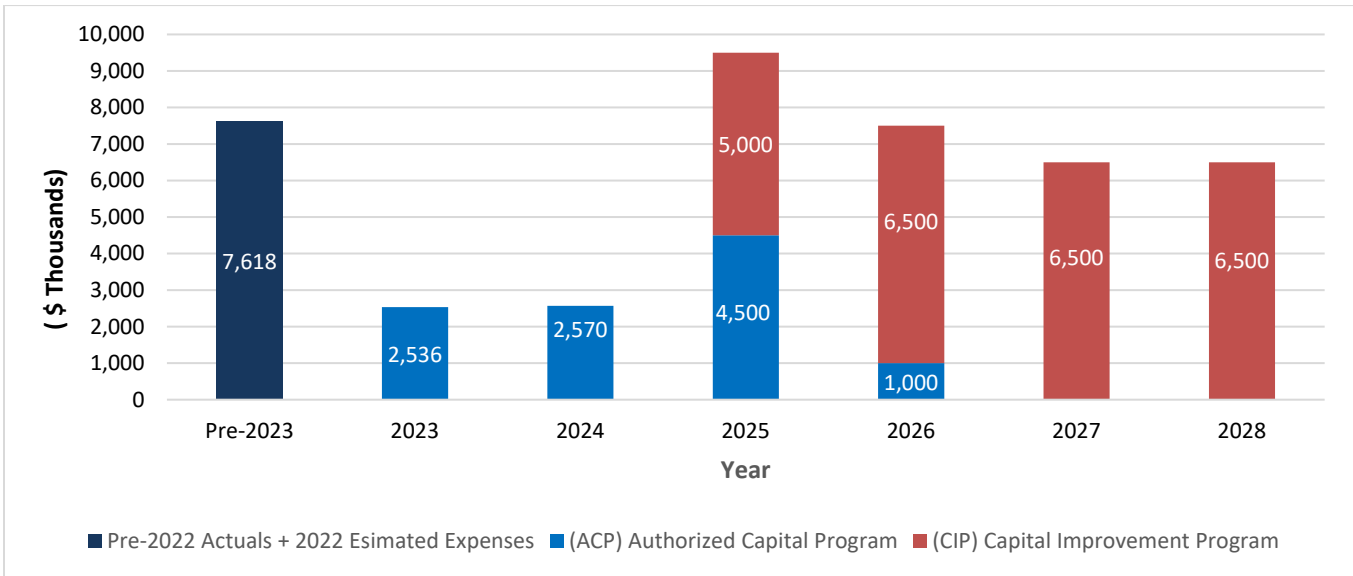
### Active Projects in Program:

Project Number	Project Title
805600	Meter Improvements (Parent Project)
805603	Flow Meter Program Support
805605	Meter M106 Rehabilitation
805606	Lino Lakes Development and Future Meter
805636	Replacement Meter Vault M228

## MCES 2023 – 2028 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$18,224,292	<b>Capital Improvement Plan (CIP)</b> \$24,500,000
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## Estimated Program Cash Flow 2023 - 2028:

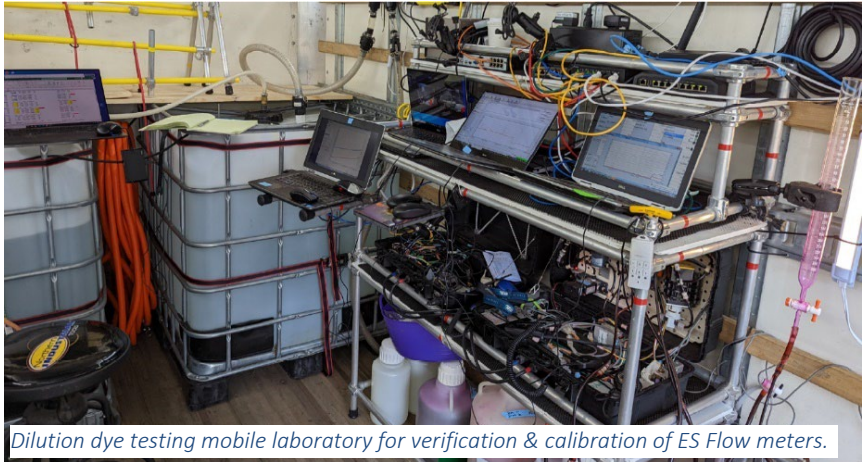


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8056  
Project # 805603

# Flow Meter Program Support

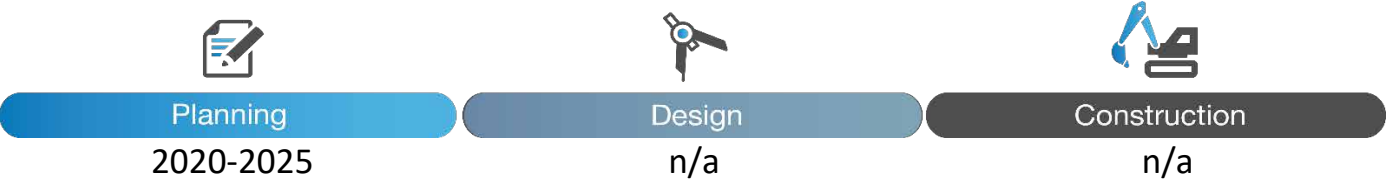
Project Location:  
Council District # 1 - 16  
City: Regional



*Dilution dye testing mobile laboratory for verification & calibration of ES Flow meters.*

<b>PROJECT TYPE:</b>	Condition Assessment and Study
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Be Fair and Transparent
<b>SCOPE:</b>	Perform annual flow meter calibration tests to verify accuracies.
<b>PROJECT NEED:</b>	The ES cost allocation program relies extensively on the performance and accuracy of wastewater flow meters for billing, and many meters have never had their accuracies tested.

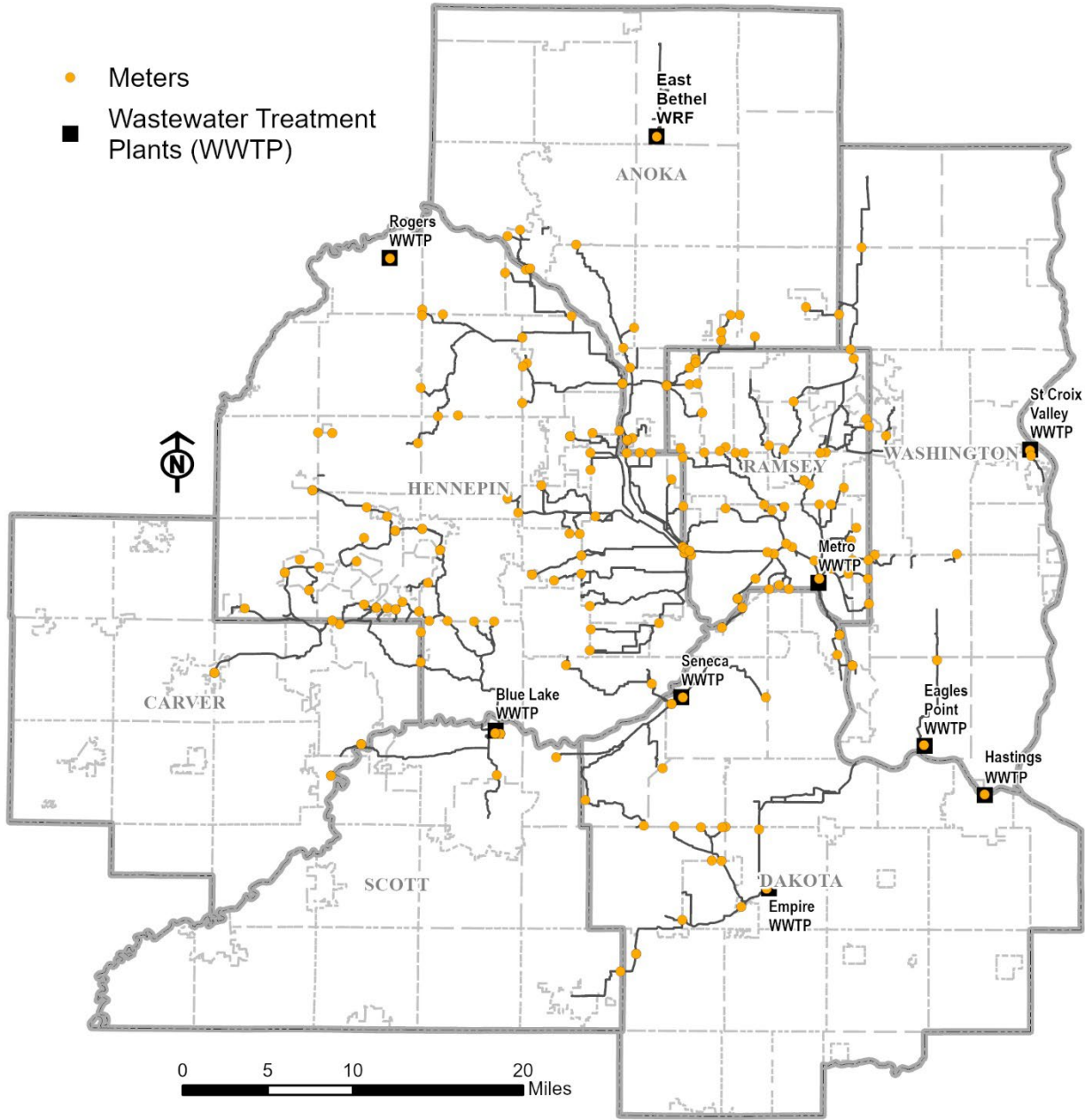
## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$500,000	\$1,500,000	\$2,500,000	\$3,530,000

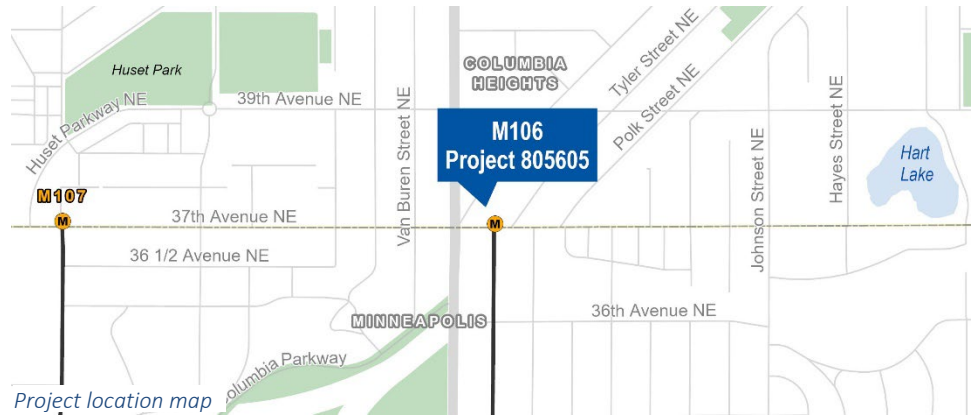
# MCES Project 805603



Program Family: 8056  
Project # 805605

## Meter M106 Modifications

Project Location:  
Council District # 2  
City: Columbia Heights,  
MN



<b>PROJECT TYPE:</b>	Meter Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Coordinate with Others
<b>SCOPE:</b>	Modify existing structure to accommodate road and trail improvements. Replace and update meter to improve accuracy and address condition at a later date.
<b>PROJECT NEED:</b>	Adjust structure to accommodate road and trail improvements to meet City's Project timeline.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,100,000	<b>Current ACP</b> \$1,295,000	<b>2023 – 2028 Cash Flow</b> \$1,100,000	<b>Total Project Cost</b> \$1,231,000
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Program Family: 8056  
Project # 805606

# Lino Lakes Development and Future Meter

Project Location:  
Council District # 11  
City: Lino Lakes and Hugo, MN



Project location map

<b>PROJECT TYPE:</b>	Meter Improvement
<b>OBJECTIVES:</b>	System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Be Fair and Transparent
<b>SCOPE:</b>	Construction of a new meter vault on a 24" city sewer pipe along 24 <sup>th</sup> Ave N during construction of the development in the area. The future 6" meter/Parshall flume will be installed when flows have increased.
<b>PROJECT NEED:</b>	A development in Lino Lakes along 24 <sup>th</sup> Ave N and Main Street includes a 24-inch sanitary sewer connecting to Interceptor 802325. A MCES meter is planned for this area to measure the flow from NE Lino Lakes and Hugo. The meter vault will be constructed as a part of the development project.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

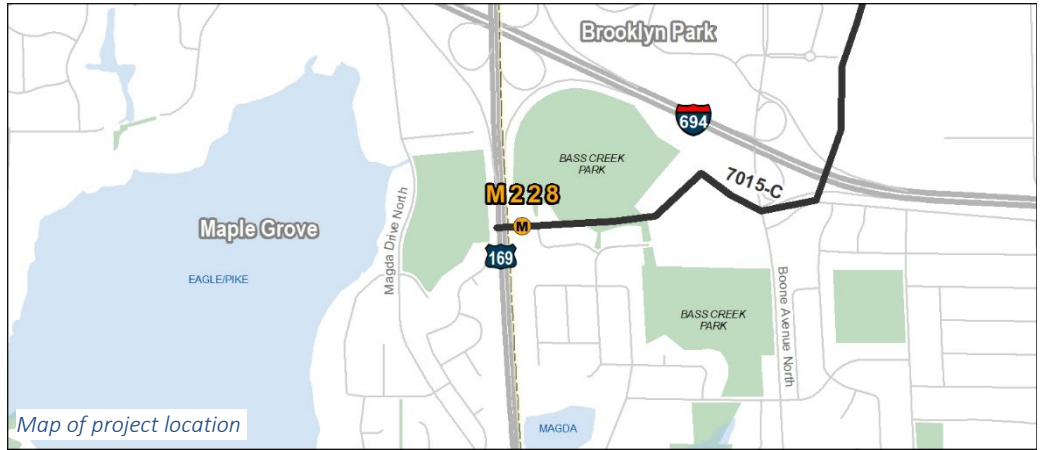
<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$400,000	\$400,000	\$400,000	\$565,000



Program Family: 8056  
Project # 805636

## Replacement Meter Vault M228

Project Location:  
Council District # 2  
City: Brooklyn Park, MN



<b>PROJECT TYPE:</b>	Meter Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, Be Fair and Transparent
<b>SCOPE:</b>	Replace existing Meter M228
<b>PROJECT NEED:</b>	Replace and update meter due to corrosion and difficult access. Meter is important to ensure accuracy of cost distribution among communities.

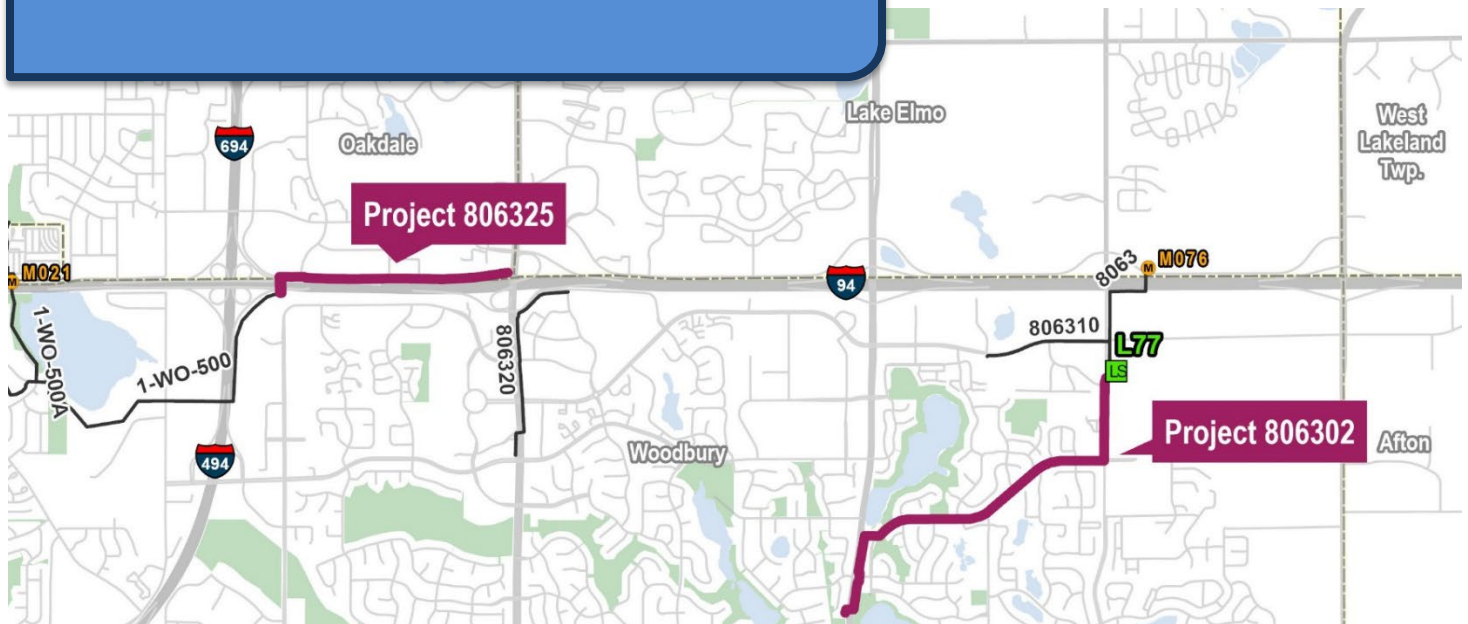
### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$500,000	\$8,193,000	\$7,500,000	\$8,193,000

## Program 8063 East Area Interceptor Improvements



### Description:

The interceptor systems in Cottage Grove, Oakdale, Lake Elmo, Woodbury, and other east area communities need rehabilitation and/or replacement as well as expansion to serve additional areas. The Program will rehabilitate existing interceptor facilities, including gravity sewers, force mains, lift stations and meter stations, and analyze the system needs to accommodate regional growth.

### Purpose and Justification:

The Program provides for improvements to the Interceptor System that serves the East Area. This includes work needed to serve the City of Lake Elmo, and the Northeast area of Woodbury. This also includes work to improve deteriorating facilities in Woodbury and Cottage Grove.

### Program Location:

The active projects within this program are in the following Council Districts: District # 12.

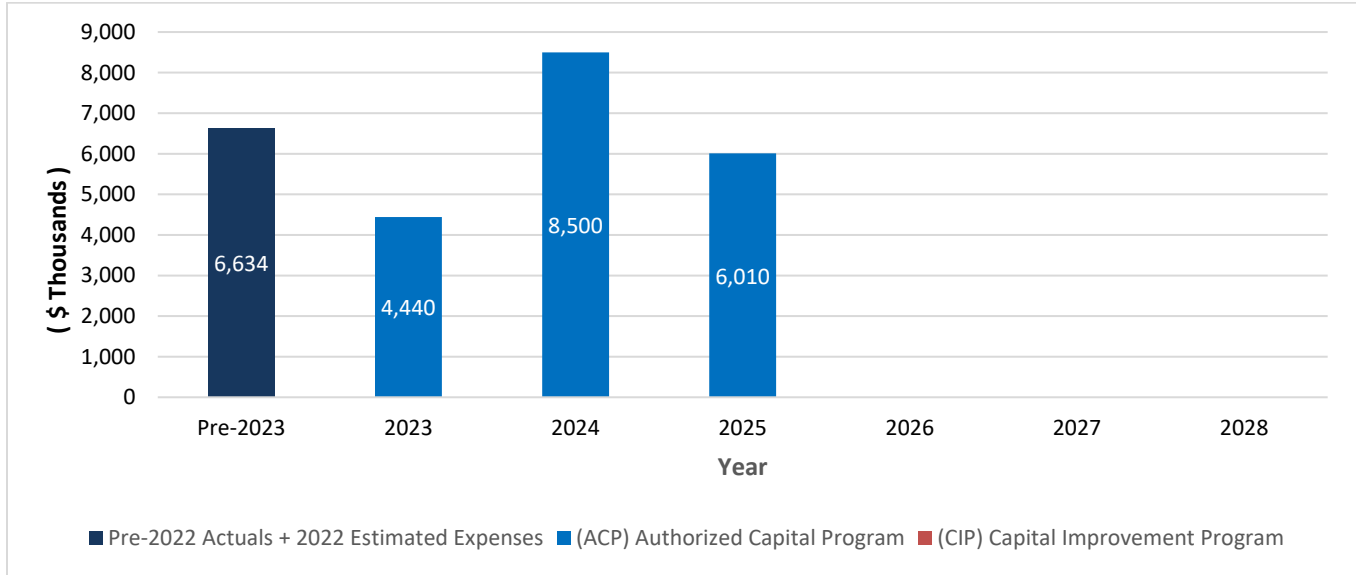
### Active Projects in Program:

Project Number	Project Title
806301	East Area Interceptor Improvements (Parent Project)
806302	L77 Improvements
806325	Southwest Lake Elmo Service Extension

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$25,583,992	Capital Improvement Plan (CIP) \$0
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## Estimated Program Cash Flow 2023 - 2028:

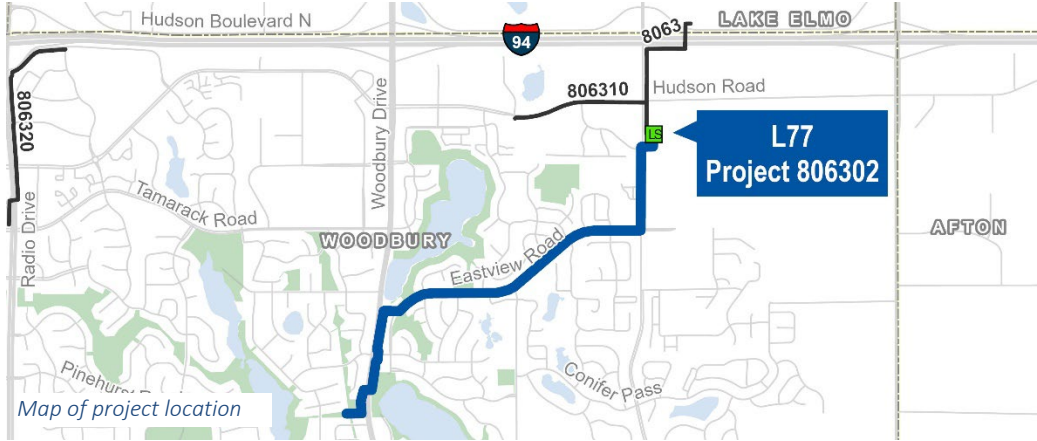


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8063  
Project # 806302

# Lift Station L77 Improvements

Project Location:  
Council District # 12  
City: Woodbury, MN



<b>PROJECT TYPE:</b>	Lift Station and Interceptor Improvement
<b>OBJECTIVES:</b>	System Expansion and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs, Asset Preservation and Minimize Impacts
<b>SCOPE:</b>	Expand L77 lift station and connect to larger forcemain. Work includes the addition of a emergency generator.
<b>PROJECT NEED:</b>	This expansion was planned with the construction of the L77 lift station and is driven by development in eastern Woodbury and Lake Elmo.

## PROJECT SCHEDULE



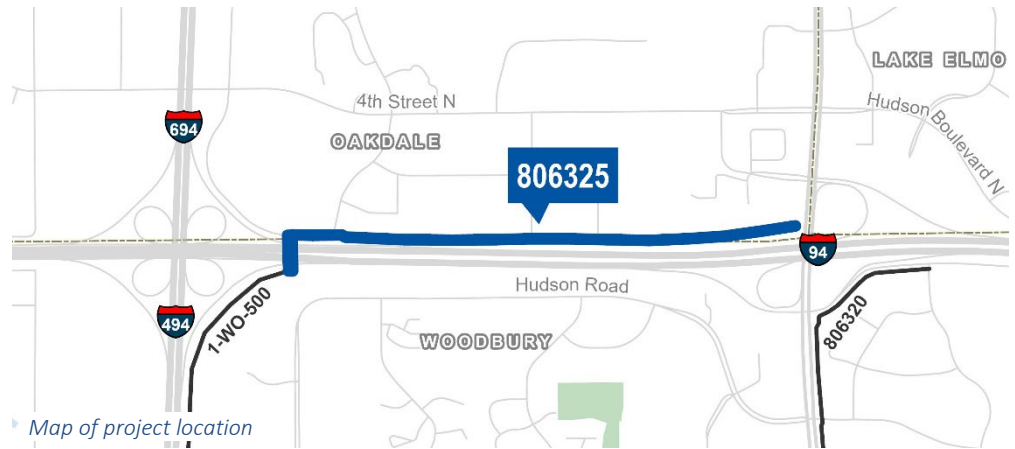
## FINANCIAL ANALYSIS

2023 Cash Flow \$1,300,000	Current ACP \$3,724,000	2023 – 2028 Cash Flow \$3,300,000	Total Project Cost \$3,724,000
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Program Family: 8063  
Project # 806325

## Lake Elmo West Connection

Project Location:  
Council District # 12  
City: Lake Elmo and Woodbury, MN



<b>PROJECT TYPE:</b>	Interceptor Rehabilitation
<b>OBJECTIVES:</b>	System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs
<b>SCOPE:</b>	Provide regional sewer service to southwestern Lake Elmo through a gravity interceptor extension from 1-WO-500. Includes the upgrade of an existing interceptor sewer crossing I-94 to accommodate current and future growth in the service area.
<b>PROJECT NEED:</b>	This project will provide interceptor facilities to convey wastewater from southwestern Lake Elmo and eastern Oakdale to the Metro WWTP in St Paul. The project is needed to support growth in this eastern portion of the metropolitan area.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$3,000,000	\$15,972,000	\$15,000,000	\$15,972,000



## Program 8076 Minneapolis Interceptor Rehabilitation



Access shaft to tunnel rehabilitation project at 4<sup>th</sup> and Hennepin in Minneapolis

### Description:

This Program provides funding to address capital improvements for the interceptors that serve Minneapolis and the surrounding areas.

### Purpose and Justification:

The project provides for the implementation of improvement and renewal projects needed to provide continued service to the metropolitan region and capacity to accommodate projected growth of the region.

### Program Location:

The planned and active projects within this program are in Council Districts 6, 7, and 8.

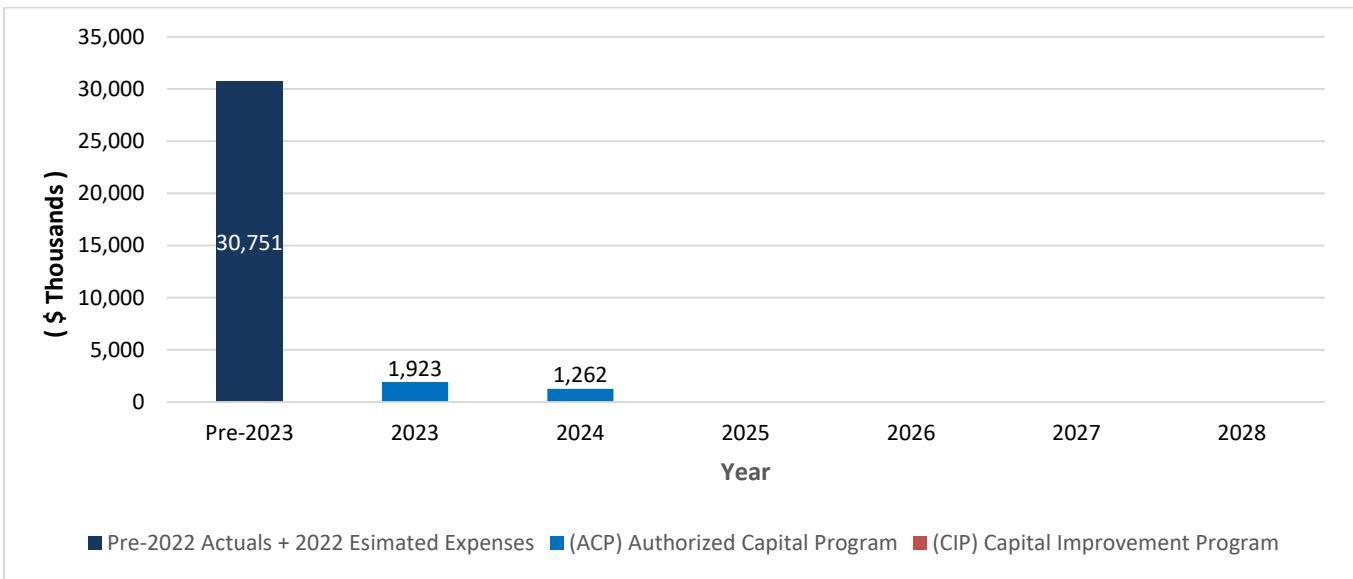
### Active Projects in Program:

Project Number	Project Title
807600	Minneapolis Interceptor System Rehabilitation (Parent Project)
807618	1-MN-341 Pipe-in-Pipe Rehab
807640	Maintenance Access Structures
807643	Minneapolis East Interceptor (MEI) Diversion Structure Rehabilitation
807650	Minneapolis Joint Sewer Study
807670	Minneapolis Interceptor Odor Control Study – Phase 1

## MCES 2023 – 2028 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$33,936,609	<b>Capital Improvement Plan (CIP)</b> \$0
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## Estimated Program Cash Flow 2023 - 2028:

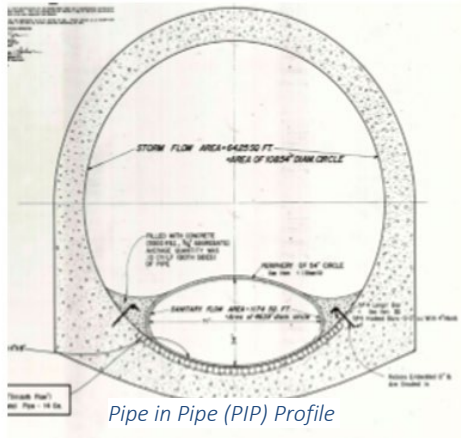


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8076  
Project # 807618

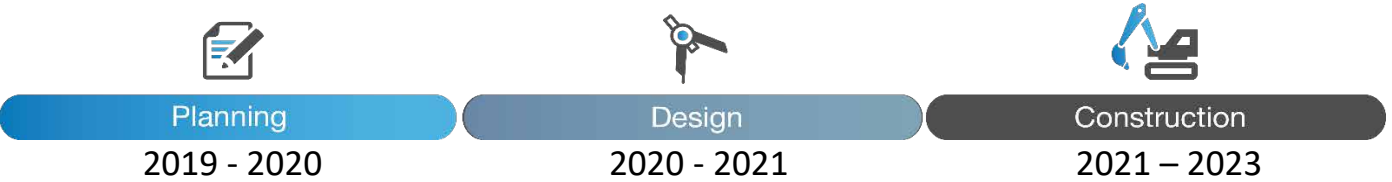
# Interceptor 1-MN-341 Pipe-in-Pipe Rehabilitation

Project Location:  
Council District # 8  
City: Minneapolis, MN  
Location:  
38<sup>th</sup> St E from 23<sup>rd</sup> Ave S  
to West River Parkway



<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Repair holes in CMP pipe and pour new geopolymer crown for CMP/invert for storm sewer.
<b>PROJECT NEED:</b>	Interceptor 1-MN-341 was built in the early 1920's as a 102" reinforced concrete combined sanitary/storm sewer. The segment of 1-MN-341 on 38th Ave S between West River Road and 24 <sup>th</sup> Ave S was converted to a PIP separated sewer in 1965 using inlaid deformed corrugated metal pipe (CMP). Recent walking inspections and smoke tests of the PIP segment identified defects that are allowing inflow of stormwater into the sanitary sewer.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$113,000	Current ACP \$7,722,000	2023 – 2028 Cash Flow \$113,000	Total Project Cost \$7,722,000
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Program Family: 8076  
Project # 807640

# Maintenance Access Structures

Project Location: Varies  
Council Districts: 1-16  
City: Various locations in the Cities of Minneapolis and St. Paul, MN



Image of typical maintenance access structure

<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Coordination with Others
<b>SCOPE:</b>	Repair existing maintenance holes and hatches and patch holes in CMP pipe-in-pipe.
<b>PROJECT NEED:</b>	Repairs required to maintain level of service related to I/I and odors.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

2023 Cash Flow \$200,000	Current ACP \$1,000,000	2023 – 2028 Cash Flow \$300,000	Total Project Cost \$857,000
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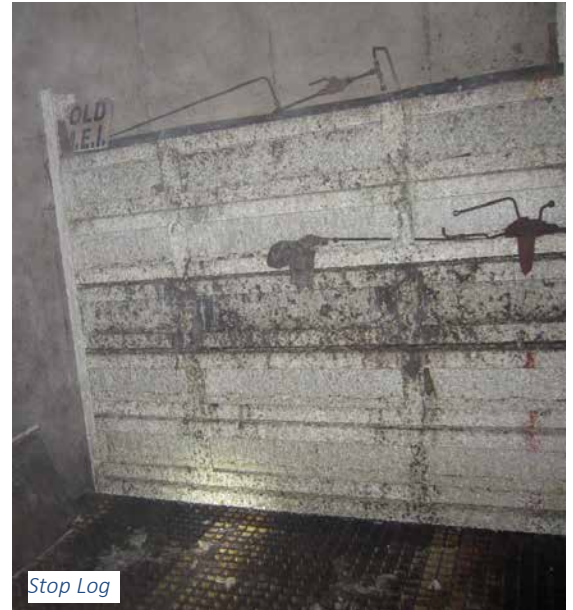
Program Family: 8076  
Project # 807643

# Minneapolis East Interceptor (MEI) Control Gate Rehabilitation

Project Location:  
Council District # 8 & 14  
City: Minneapolis and St. Paul, MN  
6 locations



Deteriorated Hydraulic Gate



Stop Log

<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate MEI Sites 1, 11, 15, 18, 20, and 26 by removing existing deteriorated hydraulic gates and replacing them with stop logs; removing and replacing vault hatches; improving ventilation, ladders, and grating for worker safety; and repairing deteriorated concrete. MEI Site 1 meters and hydraulic power units will be removed and replaced. Improvements will be made to the 1-MN-302 "pipe-in-pipe" at Site 11 and the abandonment of Interceptor 8255A.
<b>PROJECT NEED:</b>	The facilities were built in the early 1980's and need rehabilitation. Many of the original hydraulic gates are inoperable and concrete structures were found in poor condition.

## PROJECT SCHEDULE



Planning  
2017



Design  
2018-2020

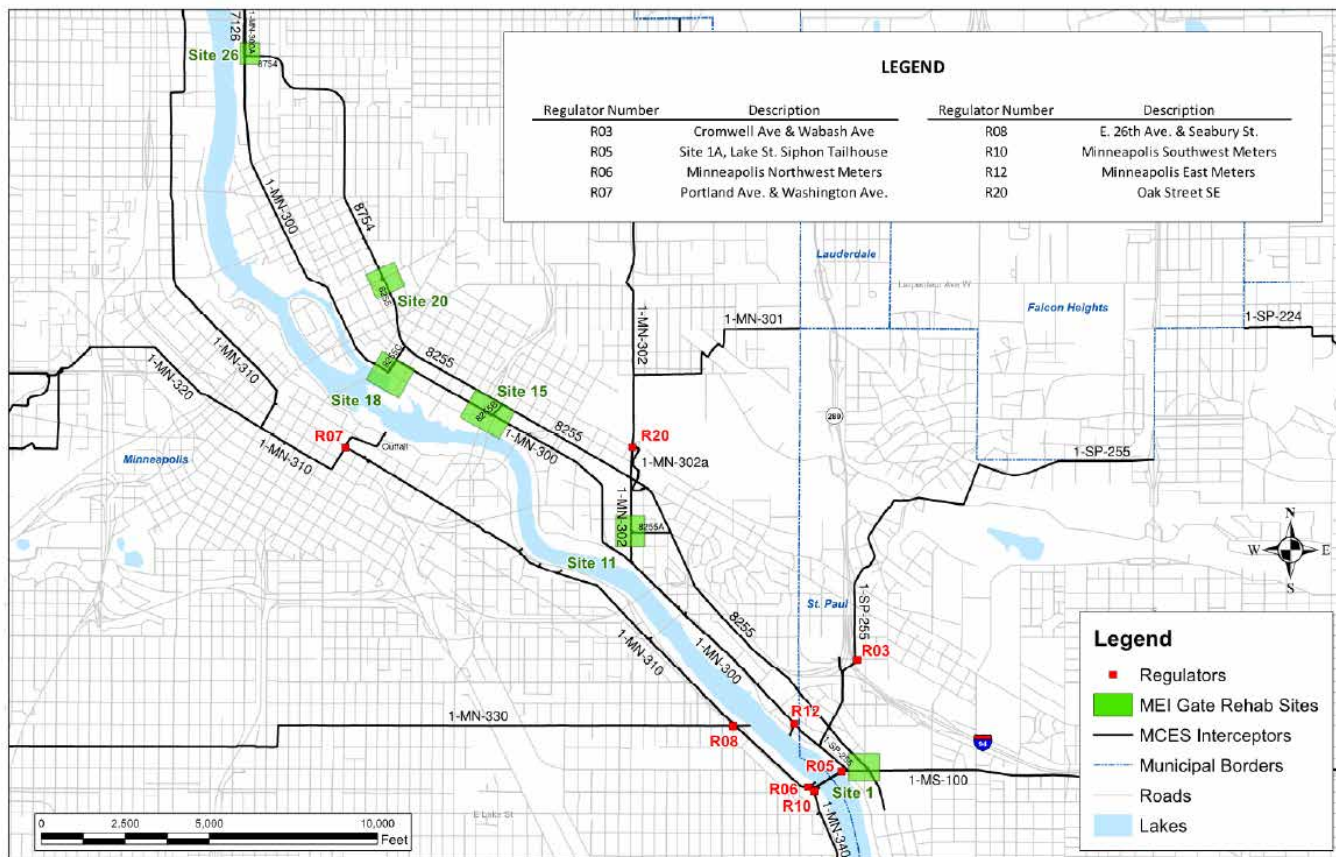


Construction  
2020-2023

## FINANCIAL ANALYSIS

2023 Cash Flow \$100,000	Current ACP \$16,651,000	2023 – 2028 Cash Flow \$100,000	Total Project Cost \$16,651,000
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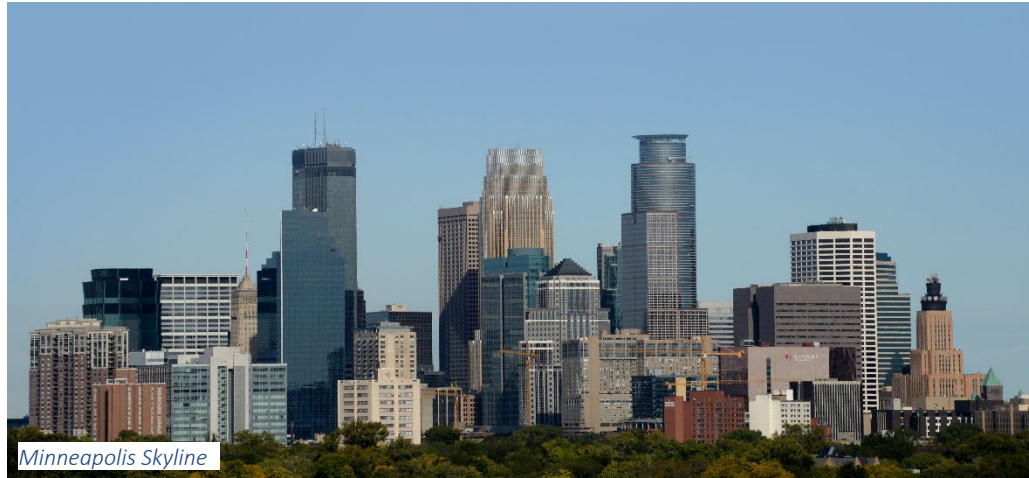
# PROJECT LOCATION MAP



Program Family: 8076  
Project # 807650

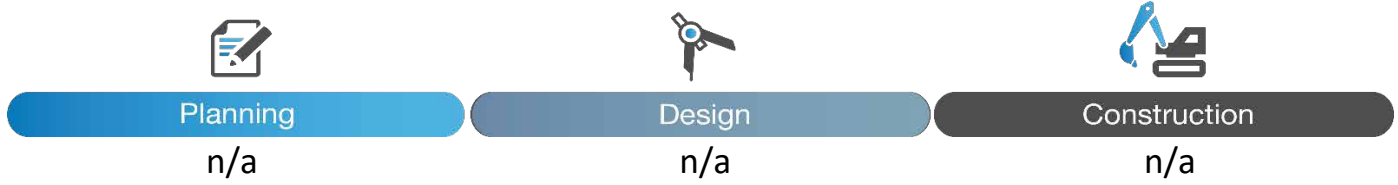
# Minneapolis Joint Sewer Study

Project Location:  
  
Council District # 6, 7, & 8  
  
City: Minneapolis, MN  
  
Various Sites



<b>PROJECT TYPE:</b>	Study
<b>OBJECTIVES:</b>	System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet Capacity Needs and Communicate Information
<b>SCOPE:</b>	Multi-year joint study with the City of Minneapolis to collect sanitary flow data at various locations throughout the City. Data will be used for I/I evaluation, hydraulic modeling and prioritizing future system improvements in both the local and regional collection systems.
<b>PROJECT NEED:</b>	Some of the oldest regional assets are in Minneapolis with some interceptors dating back to the 1880's and reflect a once combined storm/sanitary collection system. Growth within, and outside of Minneapolis needs to be accommodated through much of the regional system within the City. This coupled with I/I impacts on system flow identified a need to evaluate long-term system capacity needs and the ability of the system to accommodate anticipated flows.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$1,000,000	\$6,030,000	\$1,762,000	\$6,030,000

Program Family: 8076  
Project # 807670

## Minneapolis Odor Control Study – Phase 1

Project Location:

Council District # 6,7 & 8

City: Richfield,  
Minneapolis, St. Paul,  
Eureka Township, and  
Golden Valley, MN



Photo of a carbon unit

<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Be A Good Neighbor
<b>SCOPE:</b>	Model air and wastewater flows, deploy field instruments, and collect samples to identify individual odor sources and propose odor management strategies at the direction of the MCES Odor Management Team.
<b>PROJECT NEED:</b>	Consistent improvement of odor mitigation efforts is required to meet MCES level of service goals.

### PROJECT SCHEDULE



Planning

2018-2023



Design

n/a



Construction

n/a

### FINANCIAL ANALYSIS

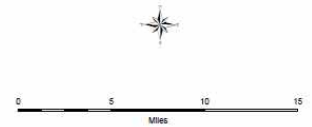
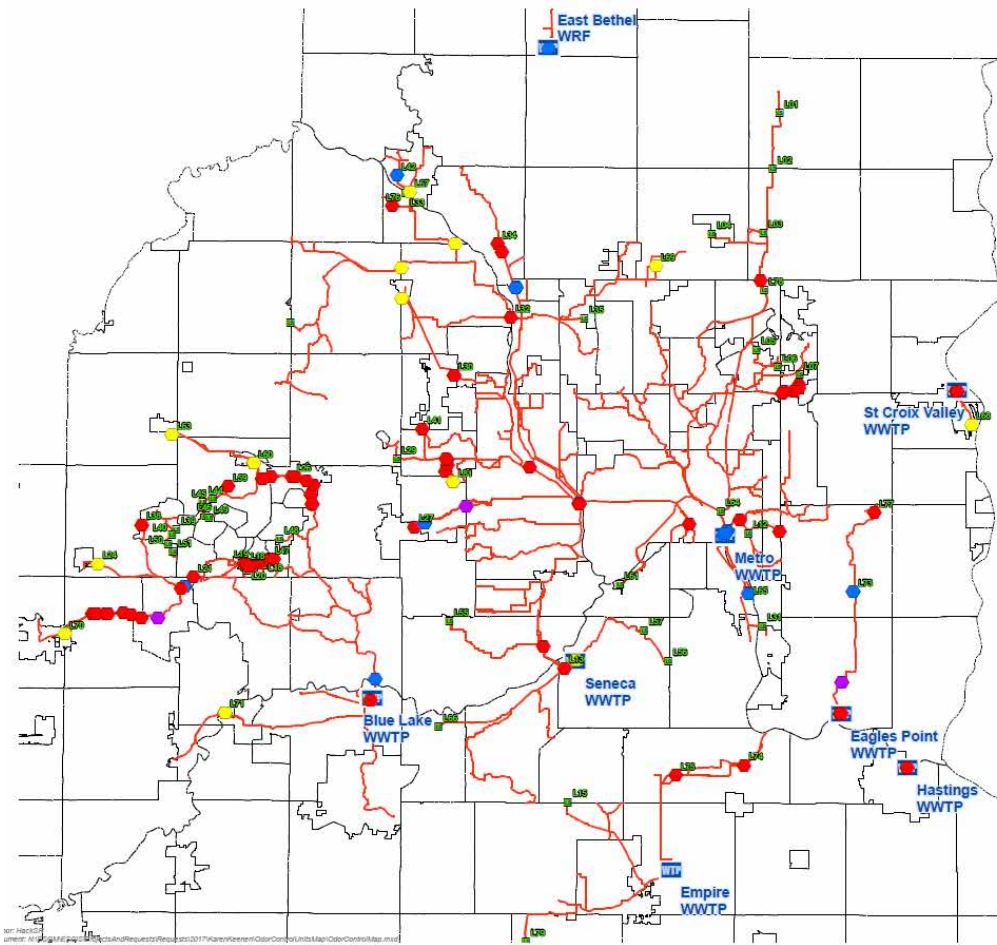
<b>2023 Cash Flow</b> \$360,000	<b>Current ACP</b> \$1,500,000	<b>2023 – 2028 Cash Flow</b> \$360,000	<b>Total Project Cost</b> \$1,500,000
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# MAP of MCES ODOR CONTROL UNITS

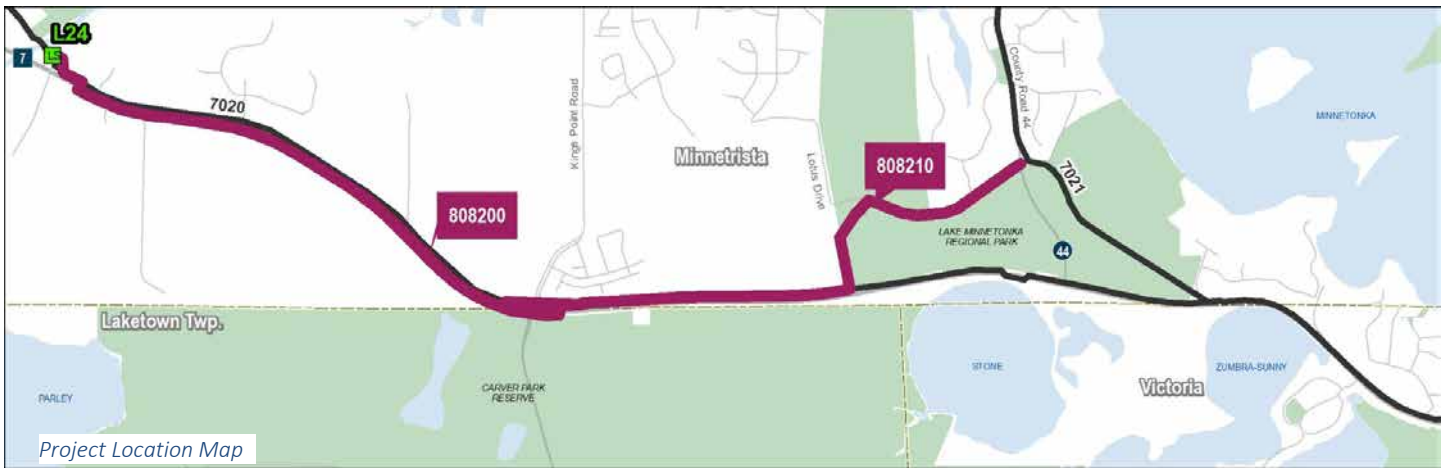
## MCES Service Area - Odor Control Units -

Jan 14, 2019 - As shown in GIS

- Odor Control Units**
- Misc Odor Control (3)
- Biofilter (21)
- Bioxide (19)
- Carbon (81)
- Wastewater Treatment Plants**
- Lift Stations
- Wastewater Treatment System**
- Interceptors
- City & Township Boundaries



## Program 8082 St. Bonifacius Lift Station / Forcemain Improvements



### Description:

This project consists of a new lift station and a new dual force main. Ultimately, the dual 14-inch force mains will be installed from L24 to the gravity discharge location in Lake Minnetonka Regional Park. This force main will connect to the previously installed Lotus Drive piping, a 2,600-foot segment of the force main that was constructed as part of the Lotus Drive with the City of Minnetrista. The force main construction will start at the west end of Lotus Drive and end on the east side of CR 44. The remaining 1,000 feet of the Waconia force main will be upgraded with this project as well, to align with work previously completed in Phases 1 & 2 of that project.

### Purpose and Justification:

The lift station needs rehabilitation based on an assessment of its condition and a history of its performance. The St. Bonifacius force main is approximately forty years old and near the end of its design life. The single 12-inch diameter cast iron pipe is just over three miles long. The force main parallels Highway 7 and discharges to a gravity interceptor located in Lake Minnetonka Regional Park. The new dual force main will provide reliable conveyance of wastewater, as well as capacity to serve long-term growth.

### Program Location:

This project serves District 3.

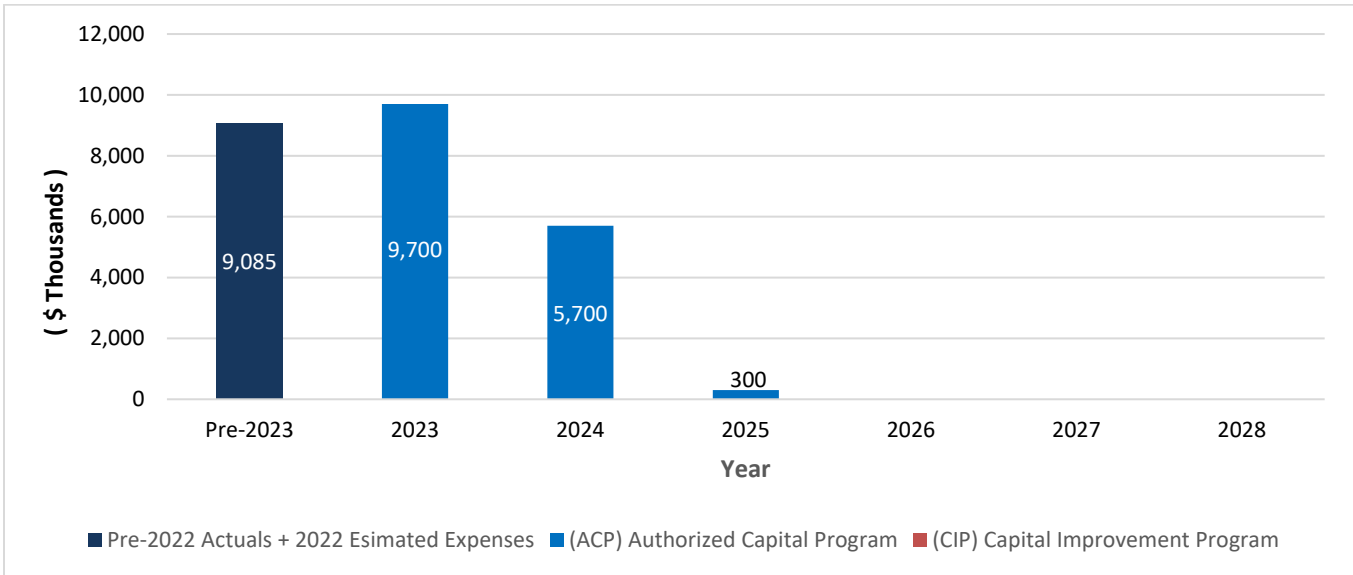
### Active Projects in Program:

Project Number	Project Title
808200	St Bonifacius LS/FM Rehabilitation (Parent Project)
808200	L24 Renovation and FM 7020 Replacement

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$24,785,071	Capital Improvement Plan (CIP) \$0
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.



**Program 8083  
Waconia Lift Station / Forcemain  
Rehabilitation**



*Contractor installing interim conveyance near the micro-tunnel pit on the west side of Carver County Highway 92*

**Description:**

Replacement of the west 9,000' of 7508 was completed in under the Phase 2, 808320 project. The existing 14-inch cast iron pipe was replaced with 20-inch PVC and HDPE pipe.

Replacement of the east 2,000' of 7508 is planned as the Phase 3, 808330 project.

**Purpose and Justification:**

Forcemain 7508 is over 40 years old and near the end of its planned service life. It is one of two parallel forcemains from L70. 7508 is being replaced due to age and to provide future capacity.

**Program Location:**

The active projects within this program are in the following Council Districts: District # 4

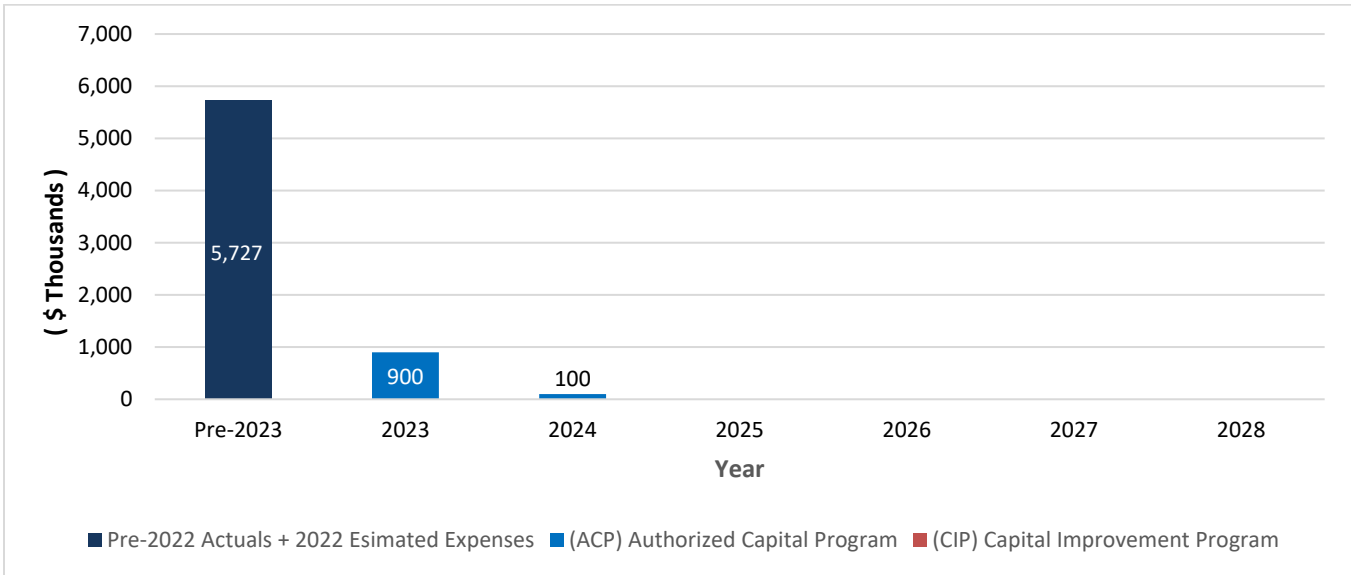
**Active Projects in Program:**

Project Number	Project Title
808300	Waconia Lift Station / Forcemain Rehabilitation (Parent Project)
808330	Waconia Forcemain 7508 Phase 3 West (included with 808200)

## MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$6,726,738	Capital Improvement Plan (CIP) \$0
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8083  
Project # 808330

# Waconia Forcemain 7508 Phase 3 Replacement

Project Location:

Council District # 4

City: Waconia, Victoria  
and Laketown  
Township, MN



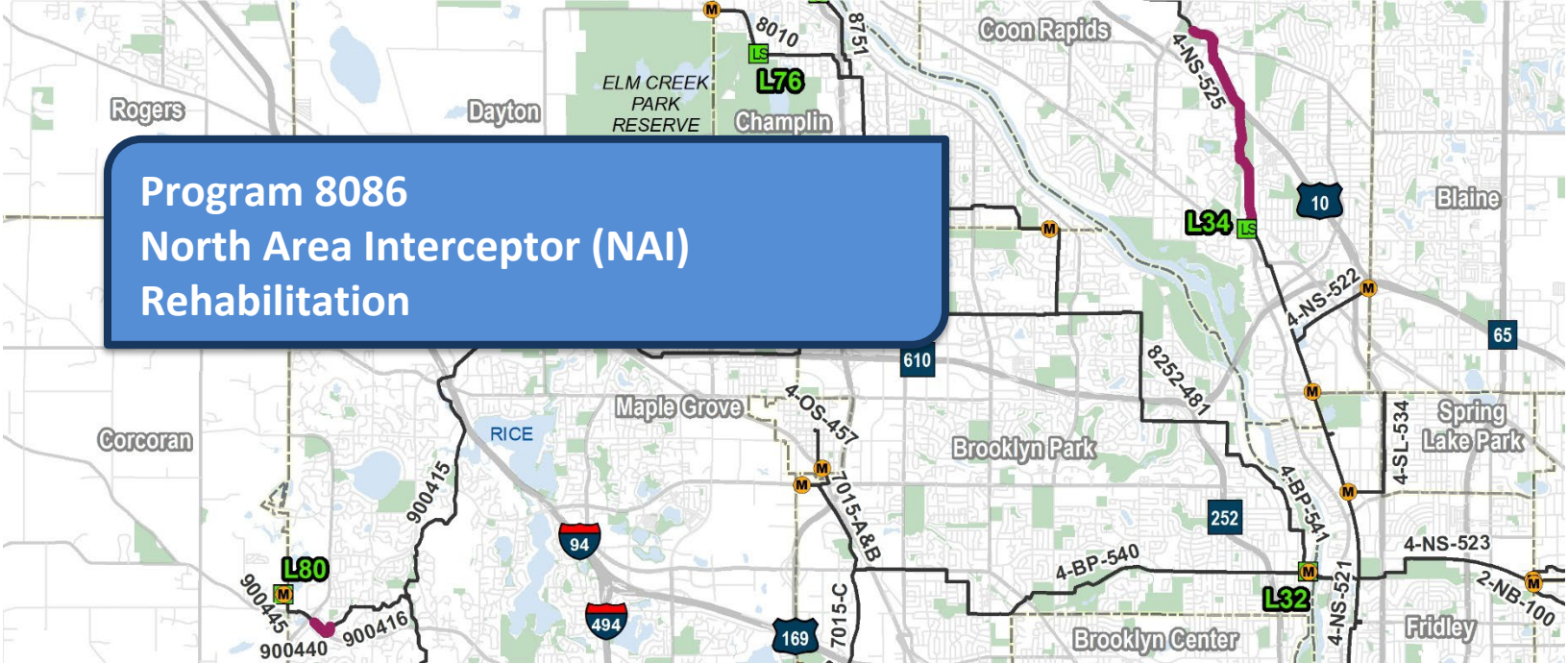
<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation, System Expansion, and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Meet Capacity Needs, Minimize Impacts, and Be A Good Neighbor
<b>SCOPE:</b>	Replace 2,000' of Interceptor Forcemain 7508.
<b>PROJECT NEED:</b>	Forcemain 7508 is over 40 years old and near the end of its planned service life. It is one of two parallel forcemains from L70. 7508 is being replaced due to age and to provide future capacity.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$800,000	Current ACP \$2,501,000	2023 – 2028 Cash Flow \$800,000	Total Project Cost \$2,501,000
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**Description:**

The interceptor systems in Blaine, Brooklyn Park, Champlin, Circle Pines, Coon Rapids, Forest Lake Fridley, Hugo, Lexington, Lino Lakes, Maple Grove, Mounds View, Spring Lake Park, and other north area communities need rehabilitation and/or replacement. The project will rehabilitate existing interceptor facilities, including gravity sewers, forcemains, lift stations and meter stations.

**Purpose and Justification:**

Inspections of the interceptors that serve the North Metro Area have revealed corrosion damage. The corrosion is extensive and has resulted in significant damage to the interior concrete surfaces of the interceptors and maintenance structures.

**Program Location:**

The active projects within this program are in the following Council Districts: District # 1 and 9.

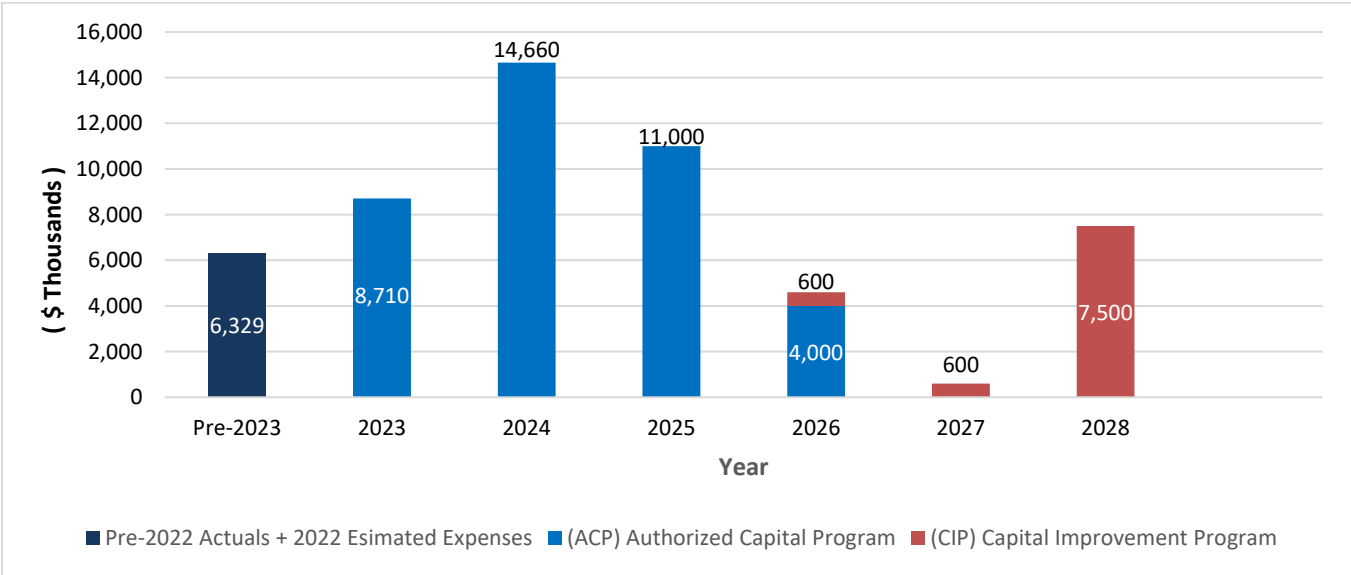
**Active Projects in Program:**

Project Number	Project Title
808600	North Area Interceptor (NAI) Rehabilitation (Parent Project)
808601	North Area Rehab (Sites 1 - 3, 5 - 6)
808607	Fridley Liquid Waste Receiving Improvements
808622	Elm Creek – Maple Grove Interceptor 900416 Renewal
808685	Coon Rapids: 4-NS-525 Phase I
8086XX	Blaine Relief Interceptor
8086XX	Coon Rapids: 4-NS-525 Phase II

## MCES 2023 – 2028 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$44,699,439	<b>Capital Improvement Plan (CIP)</b> \$8,710,000
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8086  
Project # 808601

# North Area Rehab - Interceptor 7029

Project Location:  
Council District # 6  
City: Forest Lake, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve assets and Minimize Impacts
<b>SCOPE:</b>	Site 1 of the North Area Improvements. This project includes rehabilitation and/or replacement of approximately 8,000 linear feet of interceptor and associated structures.
<b>PROJECT NEED:</b>	Interceptor 7029 was constructed in 1970 to convey flow from the City of Forest Lake. A condition assessment was completed in 2018 of the 36-inch reinforced concrete pipe (RCP). The worst condition was between MH 99 and L 02 where a 1,000-foot segment was identified as condition 4.5 and the remaining 7,000 feet to be condition 4.

## PROJECT SCHEDULE



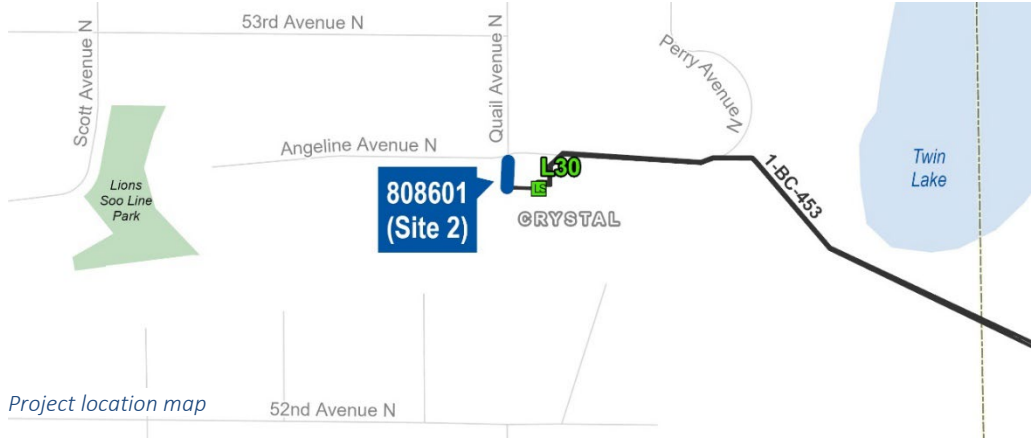
## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$135,000	\$2,400,000	\$5,567,000	\$5,567,000

Program Family: 8086  
Project # 808601

# North Area Rehabilitation - Interceptor 1-CL-455

**Project Location:**  
Council District # 6  
City: Crystal, MN  
Location:  
Interceptor 1-CL-455



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate a section of pipe between Shaft 1 and MH 100
<b>PROJECT NEED:</b>	Condition assessment of pipe shows the pipe in this section as poor condition and a sag in the pipe. There is a severe grease build up from the city pipe coming in and need frequent cleaning.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$10,000	Current ACP \$160,000	2023 – 2028 Cash Flow \$371,000	Total Project Cost \$371,000
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Program Family: 8086  
Project # 808601

# North Area Rehab - Interceptor 7015-C

Project Location:  
Council District # 6  
City: Brooklyn Park, MN  
Location: Interceptor 7015-C



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts.
<b>SCOPE:</b>	Site 3 of the North Area Improvements. This project includes rehabilitation and/or replacement of approximately 10 feet of interceptor that was not lined during the 2007 rehabilitation project and replacement of two structures. An extensive temporary conveyance system will be needed to repair this section.
<b>PROJECT NEED:</b>	Interceptor 7015-C in Brooklyn Park is a 36-inch reinforced concrete pipe (RCP) constructed in 1970 and lined in 2007. A five to ten linear foot section of pipe was found unlined on the downstream end of Section 124009 near Manhole (MH) 45. Prior to lining, the condition of the pipe was 4.5.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$50,000	\$800,000	\$1,856,000	\$1,856,000



Program Family: 8086  
Project # 808601

# North Area Rehabilitation – Interceptor 9004-1

Project Location:  
Council District # 1  
City: Maple Grove, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate 410 feet of severely corroded 48-inch RCP.
<b>PROJECT NEED:</b>	Condition assessment of the Interceptor has identified it as severely corroded. Rehabilitation of the interceptor is needed to prevent further deterioration and potential failure.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$35,000	<b>Current ACP</b> \$600,000	<b>2023 – 2028 Cash Flow</b> \$1,392,000	<b>Total Project Cost</b> \$1,392,000
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Program Family: 8086  
Project # 808601

# North Area Rehabilitation – Interceptor 900415

Project Location:  
Council District # 1  
City: Maple Grove, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate 18 Manholes on Interceptor 900415.
<b>PROJECT NEED:</b>	Routine inspection of the Interceptor identified several manholes that were in poor condition. The interceptor was previously rehabilitated and is in good condition. If not addressed, further deterioration will result in failure.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$10,000	\$160,000	\$360,330	\$360,330

Program Family: 8086  
Project # 808607

# Fridley Liquid Waste Receiving Improvements

Project Location:  
Council District # 2  
City: Fridley, MN  
Location:  
8296 Hickory St NE



Fridley Liquid Waste Receiving Facility

<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Collaborate with Others
<b>SCOPE:</b>	The loadout bay discharge pipe elevation needs to be lowered to allow customers to hookup more efficiently, provide larger rock traps and replacement or recalibration of existing flow meters. Access improvements are necessary to allow large tanker trucks into the bay. The maintenance structure that is used to dump during outages needs to be upgraded to include a grit chamber.
<b>PROJECT NEED:</b>	There are several deficiencies and issues with the receiving, process, and treatment at the Fridley Liquid Waste Receiving Facility. Several upgrades are necessary for this to be successfully used as a regional liquid waste receiving and maintenance facility.

## PROJECT SCHEDULE



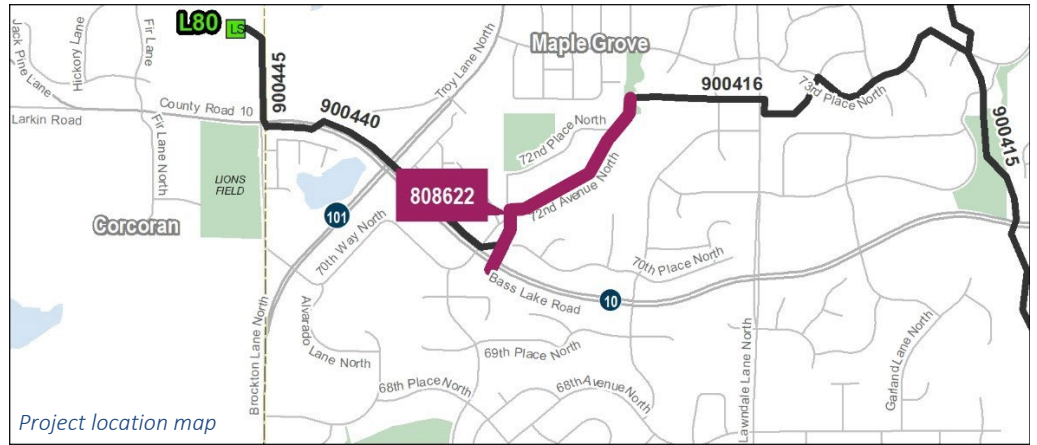
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$150,000	\$2,600,000	\$2,600,000	\$2,600,000

Program Family: 8086  
Project # 808622

# Maple Grove Interceptor Replacement

Project Location:  
Council District # 1  
City: Maple Grove, MN



<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Areas of Interceptor 900416 have been identified with varies degrees of deflection. The interceptor will be evaluated to determine which sections require rehabilitation or replacement.
<b>PROJECT NEED:</b>	To maintain the integrity of the system and to prevent potential damage to the environment due to pipe failure, sections of the interceptor must be repaired or replaced.

## PROJECT SCHEDULE



Planning

2019-2021



Design

2021-2022



Construction

2023-2026

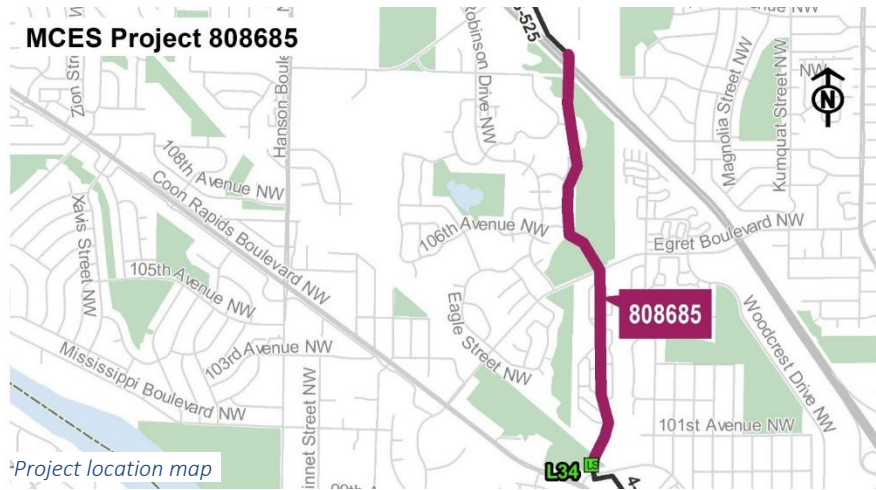
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$200,000	\$5,719,000	\$5,300,000	\$5,719,000

Program Family: 8086  
Project # 808685

# Coon Rapids Interceptor 4-NS-525 Rehabilitation Phase 1

Project Location:  
Council District # 9  
City: Coon Rapids, MN  
Location:  
Interceptor 4-NS-525



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	<p>This project is the first of a two-phase interceptor rehabilitation project. This first phase will renew approximately 7,900 LF of 48-inch RCP and 19 MHs with Cured-In-Place Pipe technology. The project will require 8 temporary construction easements, permits from BNSF and MNDOT for work in highway and railroad right of ways, City road and park permits, and will require coordination with CenterPoint Energy and Xcel Energy.</p> <p>A cooperative agreement with the City of Coon Rapids is desired by the City for the purpose of rehabilitating trunk sewers that connect directly to the interceptor.</p>
<b>PROJECT NEED:</b>	3,600 linear feet of 48-inch RCP is in need of immediate rehabilitation to extend useful life and provide reliability. Risk of failure includes a sinkhole forming that could engulf a mobile home and a 6.0 MGD spill to nearby Coon Creek that discharges directly to the Mississippi River.

## PROJECT SCHEDULE



Planning  
2020



Design  
2020-2022



Construction  
2023-2024

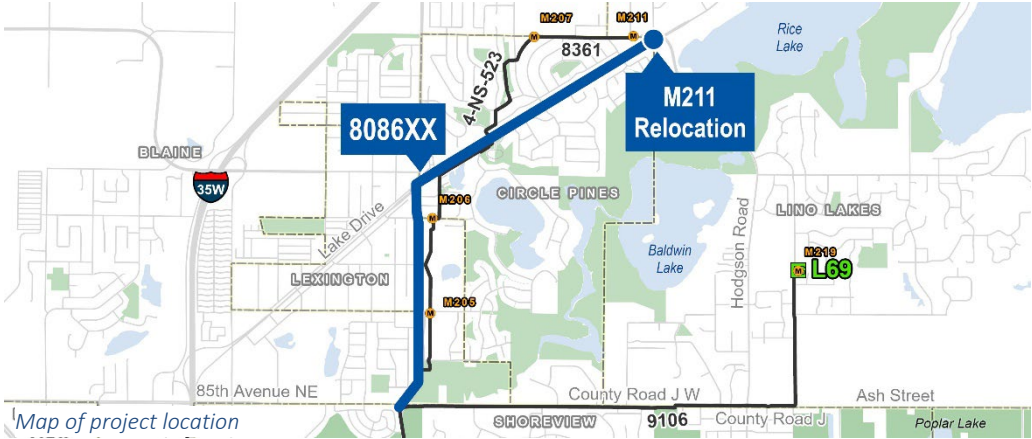
## FINANCIAL ANALYSIS

2023 Cash Flow \$6,000,000	Current ACP \$17,804,000	2023 – 2028 Cash Flow \$17,000,000	Total Project Cost \$17,804,000
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Program Family: 8086  
Project # 8086XX

# Blaine Relief Interceptor

Project Location:  
Council District # 11  
City: Circle Pines, MN  
Location: Lexington Ave and Lake Drive



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet capacity needs
<b>SCOPE:</b>	Construction of a new 14,000+ feet, 36-inch (approximate) interceptor in Circle Pines along Lexington Avenue between County Road J, north to Lake Drive then east, along Lake Drive to approximately the Lino Lakes corporate border. Project would include the relocation of M211 to allow for the measurement of flow from the western portion of Lino Lakes.
<b>PROJECT NEED:</b>	The project need was first identified in 2005 to accommodate projected growth in western Lino Lakes. Existing capacity within interceptor 4-NS-523 was insufficient to accommodate the expected increase in flow generated by the growth. An engineering report was completed in 2006 which recommended the above referenced project out of four identified alternatives. In response to the economic downturn in 2007-08 Lino Lakes revised its growth forecasts that no longer reflected the need for additional capacity. The project was then placed on hold. The city in its 2018 Comprehensive Sewer Plan added growth within its western area that once again reflects the need for additional wastewater conveyance capacity. The Council committed to having the additional capacity available for the city by the end of 2030.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

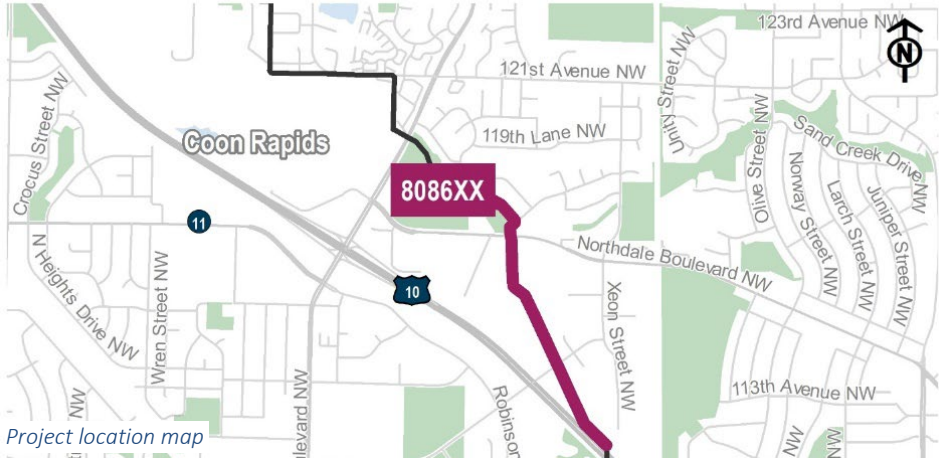
2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$50,000	\$600,000	\$600,000	\$16,850,000

Program Family: 8086  
Project # 8086XX

# Coon Rapids Interceptor 4-NS-525 Rehabilitation Phase 2

Project Location:  
Council District # 9  
City: Coon Rapids, MN  
Interceptor 4-N5-525

## MCES Project 8086XX



<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	<p>This project is the second of a two-phase interceptor rehabilitation project.</p> <p>This second phase will renew approximately 6,100 LF of 48-inch RCP and 21 MHs with Cured-In-Place Pipe technology. The project will require 8 temporary construction easements, permits from MNDOT for work in highway right of way, city road and park permits, and will require coordination with CenterPoint Energy and Xcel Energy.</p> <p>A cooperative agreement with the City of Coon Rapids is desired by the City for the purpose of rehabilitating trunk sewers that connect directly to the interceptor.</p>
<b>PROJECT NEED:</b>	48-inch RCP is in need of immediate planning for rehabilitation to extend useful life and provide reliability. Risk of failure includes a sinkhole near the foundation of an apartment complex and a 6.0 MGD spill to a tributary of Coon Creek that eventually discharges directly to the Mississippi River.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$10,000	\$20,000	\$10,000	\$20,000

## Program 8088 St. Paul Interceptor System Rehabilitation

*Cured-in-place (CIP) liner being installed through a manhole*

*Large-diameter interceptor sewer pipe segments ready for installation*

### Description:

The interceptors located in Inver Grove Heights, Maplewood, Roseville, Shoreview, St. Paul, and Vadnais Heights need rehabilitation and/or replacement. The project will rehabilitate existing interceptor facilities to ensure reliable service.

### Purpose and Justification:

The St. Paul Interceptor System Rehabilitation Program was developed to address areas of severe corrosion in the interceptor sewer system in St. Paul and surrounding suburbs. Internal corrosion of concrete sewer pipes and structures creates structural weakness that creates a risk for collapse and potential loss of service or wastewater spills. Projects have been identified to rehabilitate the existing sewers using trenchless means where possible, such as cured-in-place pipe or slip lining.

### Program Location:

The active projects within this program are in the following Council Districts: District # 10, 11, 13 & 14.

### Active Projects in Program:

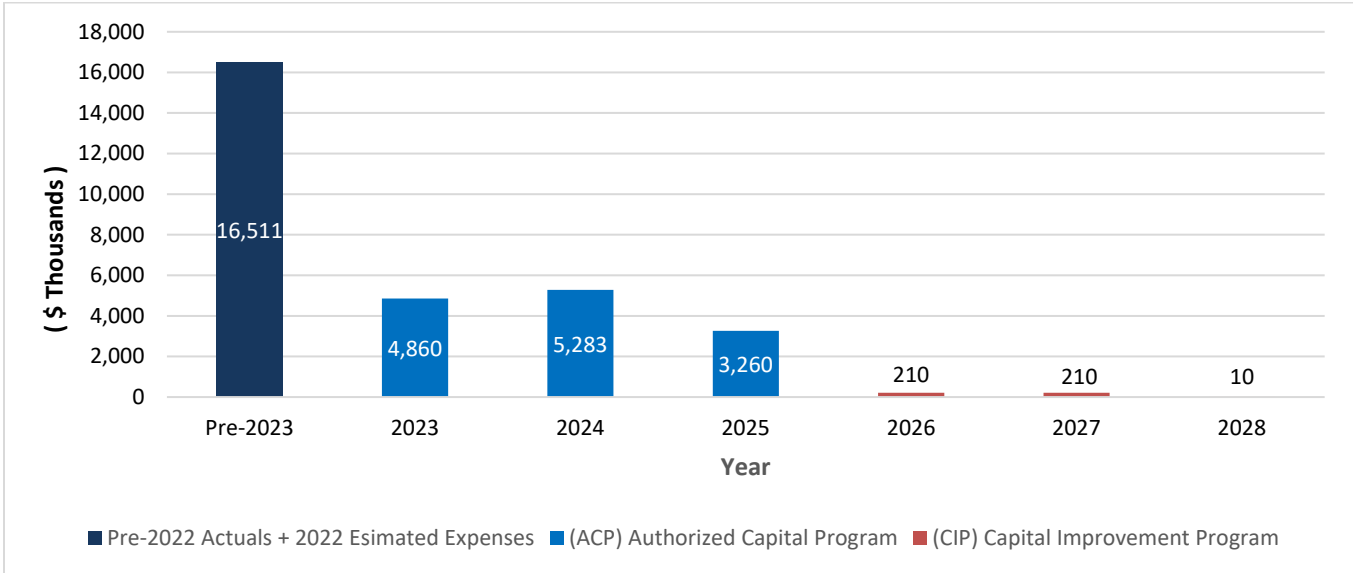
Project Number	Project Title
808800	St Paul Interceptor System (SPIS) Rehabilitation (Parent Project)
808823	Interceptors 1-SP-200 and 1-SP-201 Battle Creek Rehabilitation
808861	Grass Lake Interceptor Rehabilitation
808862	Long Lake Interceptor Rehabilitation
808881	R02 Site Needs Evaluation
808882	1-MS-100 Rehabilitation Feasibility Study
808883	Review Siphon Cleaning
808884	St Paul Interceptor System Study



## MCES 2023 – 2028 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$29,914,098	<b>Capital Improvement Plan (CIP)</b> \$430,000
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## Estimated Program Cash Flow 2023 - 2028:

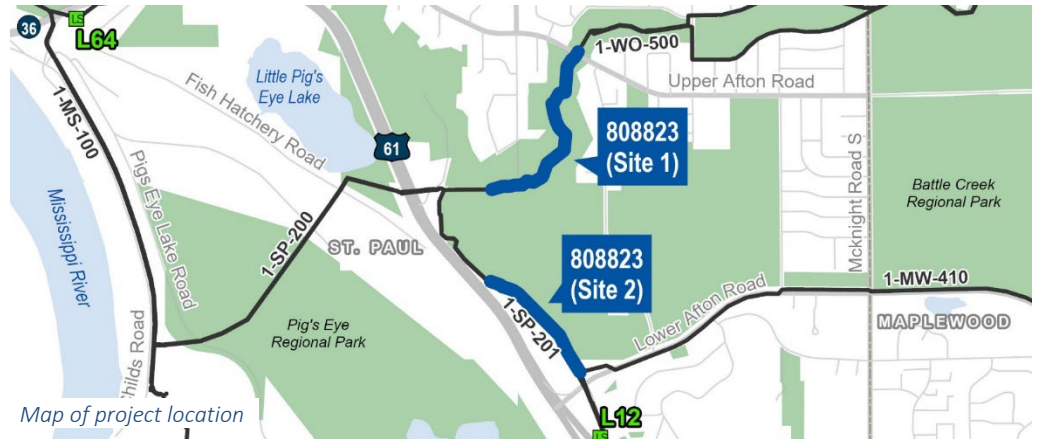


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8088  
Project # 808823

## Interceptors 1-SP-200 and 1-SP-201 Battle Creek Rehabilitation

Project Location:  
Council District # 13  
City: St. Paul, MN  
Battle Creek Regional Park



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Cured-in-place pipe lining of approximately 5,000 feet of 30" and 33" concrete gravity interceptor sewer, constructed in 1959. The work includes two adjacent sites at Battle Creek Regional Park in St. Paul. The project also includes the addition of a channel grinder in the bar screen building upstream of the Battle Creek Siphon, and some structure and pipe replacements.
<b>PROJECT NEED:</b>	This is one in a program of rehabilitation projects in St. Paul, for which a Facility Plan was approved by the MN Pollution Control Agency in 2016. The rehabilitation program is driven by condition assessment, and much of the pipe and structures included in this project are rated Condition 4 and 5.

### PROJECT SCHEDULE



Planning  
2015-2016



Design  
2019



Construction  
2020-2023

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$300,000	<b>Current ACP</b> \$13,153,000	<b>2023 – 2028 Cash Flow</b> \$300,000	<b>Total Project Cost</b> \$13,153,000
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Program Family: 8088  
Project # 808861

# Grass Lake Interceptor Rehabilitation

Project Location:  
Council District # 10  
City: Shoreview, MN



<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Re-align MH1 to MH15 to improve access and reduce I&I along Grass Lake
<b>PROJECT NEED:</b>	To relocate the interceptor to provide year around access and prevent flooded structures, prevent I&I as lake levels continue to rise.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$200,000	<b>Current ACP</b> \$6,689,000	<b>2023 – 2028 Cash Flow</b> \$5,800,000	<b>Total Project Cost</b> \$6,689,000
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Program Family: 8088  
Project # 808862

## Long Lake Interceptor Rehabilitation

Project Location:  
Council District # 10  
City: New Brighton, MN



<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	CIPP repair includes interceptor 2-NB-100 from MH 40 to MH 43
<b>PROJECT NEED:</b>	The segment of the Interceptor 2-NB-100 is showing signs and areas of heavy corrosion. The deterioration in the interceptor and at the maintenance structure at several locations is severe and needs repair.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$1,700,000	\$2,360,000	\$2,033,000	\$2,360,000

Program Family: 8088  
Project # 808881

## Third and Commercial Site Needs Evaluation

Project Location:  
Council District # 13  
City: St. Paul, MN  
Interceptor 1-MS-100  
Third & Commercial  
LWR



<b>PROJECT TYPE:</b>	Study
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Be A Good Neighbor
<b>SCOPE:</b>	The site needs evaluation to examine current and future needs at the Third and Commercial site to ensure that critical assets can be operated and maintained for the region into the future.
<b>PROJECT NEED:</b>	MCES maintains critical infrastructure at its Third and Commercial site, including the largest sewer tunnel in the Twin Cities metro area. MCES needs to reserve the space needed to maintain operations and to allow access for future rehabilitation of Interceptor Sewer 1-MS-100, the emergency relief structure and the septage recovery facility.

### PROJECT SCHEDULE

		
Planning	Design	Construction
2019-2023	N/A	N/A

### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$400,000	\$2,144,000	\$500,000	\$2,144,000

Program Family: 8088  
Project # 808882

# 1-MS-100 Rehabilitation Feasibility Study

Project Location:  
Council District # 13  
City: St. Paul, MN



<b>PROJECT TYPE:</b>	Study
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	A feasibility study is being conducted to evaluate condition assessment data for the 1-MS-100 interceptor, to understand alternative technologies for rehabilitation of this unique deep tunnel interceptor, to refine budgetary costs estimates and timelines for future inspections and eventual rehabilitation projects.
<b>PROJECT NEED:</b>	Past inspections have indicated corrosion and other structural concerns with this large and deep sewer tunnel constructed in the 1930's. Due to the size and difficulty of this work, and expected costs of construction, it will require extensive planning and multiple stages of work in advance of future construction.

## PROJECT SCHEDULE



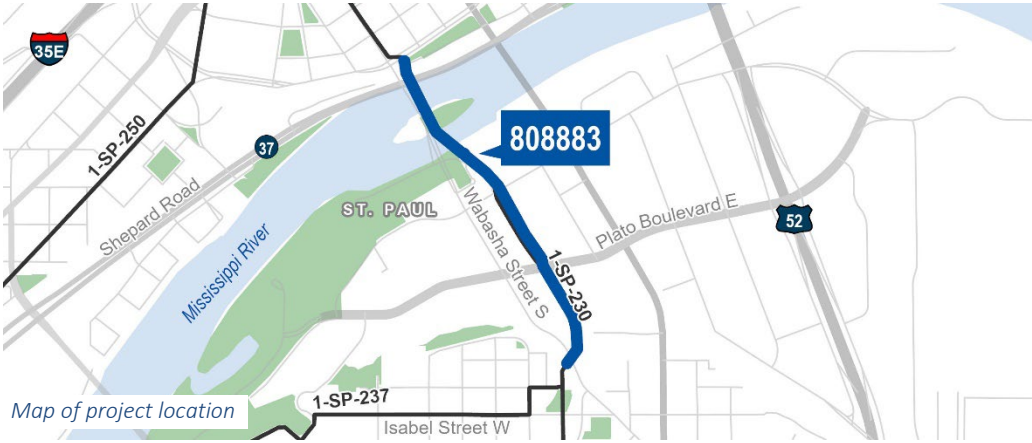
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$50,000	\$585,000	\$150,000	\$516,000

Program Family: 8088  
Project # 808883

# Riverview Siphon Cleaning

Project Location:  
Council District # 13  
City: St. Paul, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Flow in the siphons (up to four parallel pipes) will be isolated one pipe at a time to permit a cleaning. Flow performance will be tested after the cleaning to re-establish the siphon system capacity and the need for additional capacity.
<b>PROJECT NEED:</b>	Growth in the West Side Flats area of St. Paul, combined with evidence of past wastewater spills at the siphon headhouse as well as concerns raised by the City of St. Paul about the ability of the siphon to serve rapid redevelopment in the area, have driven an analysis to better understand siphon capacity and improvement needs.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$2,000,000	<b>Current ACP</b> \$3,832,000	<b>2023 – 2028 Cash Flow</b> \$3,500,000	<b>Total Project Cost</b> \$3,832,000
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Program Family: 8088  
Project # 808884

# St. Paul Interceptor System Study

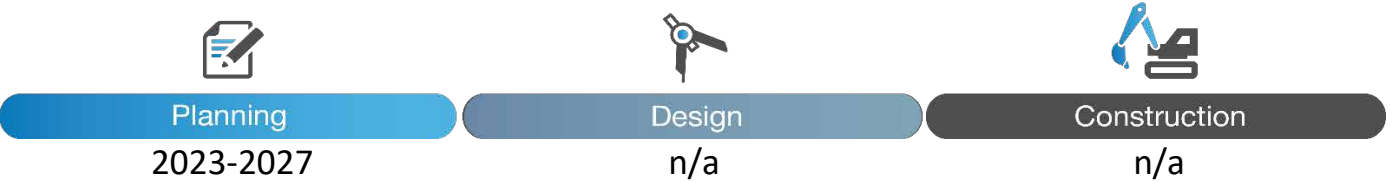
Project Location:  
Council District # 13-14  
City: Saint Paul, MN  
Location: City Wide



Image of a LaserFlow flow monitor inside ES interceptor

<b>PROJECT TYPE:</b>	Study
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Meet Capacity Needs and Collaborate With Others
<b>SCOPE:</b>	Provide a long-term study (approximately 5 years) of the regional wastewater system in the City of Saint Paul. The consultant will install and maintain temporary flow meters across the city for two years and use that data to build a hydraulic model of the MCES system. Other tasks include identification of areas with high I/I, potential for sewer overflow, and limited hydraulic capacity. Project will also replace the M700 series planning meters which no longer function.
<b>PROJECT NEED:</b>	To assist in developing a quantitative understanding of flow conditions, define existing and future system limitation, and outline improvements that may be necessary for long-term reliability of the regional system.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$200,000	\$700,000	\$1,000,000	\$1,100,000



## Program 8090 Interceptor Rehabilitation Program



*Vactor truck used to clean debris from interceptors*

### Description:

This Program includes miscellaneous projects to rehabilitate failing facilities, address Inflow and Infiltration (I/I) sources and addressing general needs of the interceptor system not programmed into a region or facility specific program. This Program also includes additional condition assessment work to complement the internal inspections work completed by operations. Office space planning and design to accommodate all the staff assigned to the Regional Maintenance Facility, and property transfer between Council and municipalities for public benefit.

### Purpose and Justification:

Periodic condition assessments for interceptor facilities have revealed facilities requiring immediate projects. In addition, system-wide administrative and management work is required to efficiently operate the interceptor System.

### Program Location:

The active projects within this program are in all the Council Districts.

### Active Projects in Program:

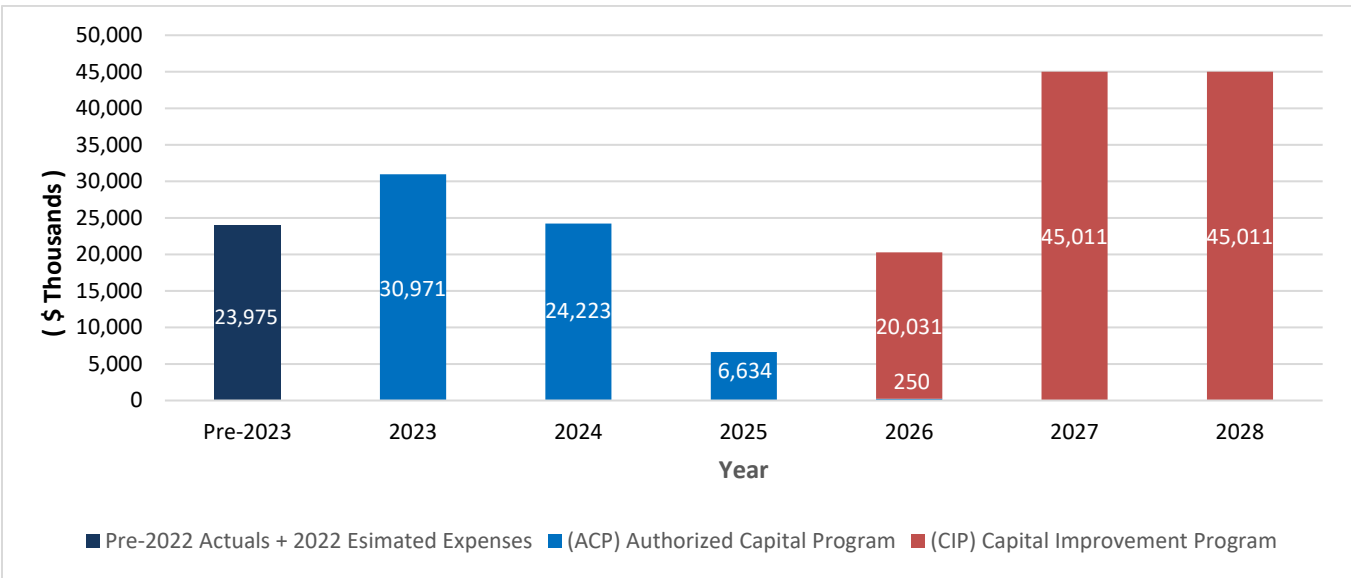
Project Number	Project Title
809099	Funds for Future Interceptor Rehabilitation Projects (Parent Project)
809083	I/I Mitigation
809089	Interceptor Inspection
809093	South Saint Paul WWTP Reconveyance

809095	Regional Maintenance Facility (RMF) Improvements
819011	Interceptor Chemical Odor Control
819015	East Isles Forcemain Improvements – Contract G
819016	Deep Tunnel Access Cleaning Phase 2
819017	7031/9003 Siphon Outlet Structure Improvements
819018	Plymouth Forcemain Relocation at Douglas Drive
819019	Vactor Waste Facility Improvements
819020	East Isles Forcemain Improvements – Contract H
819022	MCES Interceptor Rehab. Project 6-MO-650, 1-MN-320, 7122 & 8155 (Sites 1 – 4)
819025	TH 13 – MNDOT Coordination

**MCES 2023 – 2028 Capital Program:**

<b>Authorized Capital Program (ACP)</b> \$86,053,216	<b>Capital Improvement Plan (CIP)</b> \$110,053,000
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**Estimated Program Cash Flow 2023 - 2028:**



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8090  
Project # 809083

## I / I Mitigation

Project Location:

Council District # n/a

City: n/a

Project location can vary across 7 county region



Image of a sewer overflow

<b>PROJECT TYPE:</b>	Interceptor Improvements
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Working with Operations when items are identified, such as leaking maintenance hole joints, adjustment rings and broken castings, to repair these sources of inflow and infiltration.
<b>PROJECT NEED:</b>	Elimination of inflow and infiltration sources is important to MCES in order to maintain system capacity, prevent backups of wastewater into private homes and businesses and to prevent the entrance of wastewater into the environment during weather events.

### PROJECT SCHEDULE



Planning

n/a



Design

n/a



Construction

n/a

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$10,000	<b>Current ACP</b> \$250,000	<b>2023 – 2028 Cash Flow</b> \$60,000	<b>Total Project Cost</b> \$1,250,000
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Program Family: 8090  
Project # 809089

# Special Interceptor Inspections

Project Location:  
Council District # n/a  
City: n/a  
Location: Regional



UTV equipped with tracks and CCTB equipment

<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Work is identified each year during the planning for the sewer televising work that is to be completed. Work that cannot be handled in-house is contracted out. Less than 20% of the work in the last two years has been contracted.
<b>PROJECT NEED:</b>	MCES maintains critical infrastructure throughout the greater metropolitan area, and not all of it is accessible by using the standard equipment that Interceptor Operations owns. Specialized equipment, permits, and coordination with the communities is needed to complete the work.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$10,000	Current ACP \$1,073,000	2023 – 2028 Cash Flow \$30,070,000	Total Project Cost \$46,093,000
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Program Family: 8090  
Project # 809093

## South Saint Paul WWTP Reconveyance

Project Location:  
Council District # 13  
City: South St. Paul, MN  
Metro WWTP



Backup generator at Metro WWTP

<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Engage Customers
<b>SCOPE:</b>	Work includes removing unnecessary structures and materials from the site and constructing reliability improvements to electrical systems, biofilter and mechanical systems. This project also includes installation of a grinder at L74.
<b>PROJECT NEED:</b>	The Council approved reconveyance of a portion of the site to the City of South St. Paul. MCES is obligated to clear the reconveyed land of pipes and structures in accordance with the draft acquisition agreement. In addition, the electrical, mechanical, and odor control improvements are needed to increase system reliability.

### PROJECT SCHEDULE



Planning  
2018



Design  
2019-2020



Construction  
2021-2023

### FINANCIAL ANALYSIS

2023 Cash Flow \$200,000	Current ACP \$4,673,000	2023 – 2028 Cash Flow \$400,000	Total Project Cost \$4,673,000
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Program Family: 8090  
Project # 809095

## Regional Maintenance Facility (RMF) Expansion

Project Location:

Council District # 15

City: Eagan, MN

Location:  
3565 Kennebec Dr.



Regional Maintenance Facility (RMF)

<b>PROJECT TYPE:</b>	Building Improvements
<b>OBJECTIVES:</b>	Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets
<b>SCOPE:</b>	This project includes remodeling RMF to address the inadequate women's locker room and bathrooms and expansion to include the Air Quality lab and accommodate current staffing along with planned growth. The building improvements will address ADA deficiencies. Finally, a large meeting room is being planned that could share space with other amenities for consistent use and serve as an emergency operations center.
<b>PROJECT NEED:</b>	RMF was constructed in 1986 with improvements made in 2012 for expansion to accommodate additional staff. Currently, several work areas require improvements, including Dispatch, Computer Room, and women's facilities and improvements to comply with the ADA. Furthermore, MCES is no longer going to be leasing space at Metro 94 for the Air Quality department and RMF has been identified as a preferred location.

### PROJECT SCHEDULE



Planning

2019



Design

2019-2022



Construction

2022-2024

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$13,000,000	\$27,711,000	\$24,700,000	\$24,711,000

Program Family: 8090  
Project # 819011

# Interceptor Chemical Odor Control

Project Location:  
Council District # n/a  
City: n/a  
Location – Multiple Lift Stations and Meter Stations throughout the region



L-24 Chemical Odor Control Tank and Pumping System

<b>PROJECT TYPE:</b>	Odor Control Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Be a Good Neighbor
<b>SCOPE:</b>	Work will be performed under a design, build, operate contract where MCES will own all equipment (except for hydrogen sulfide monitoring equipment) and a vendor will operate, maintain, monitor, report, and supply chemical. This includes installing chemical deliver equipment and new HDPE tanks at most sites. The work includes operation of the systems for approximately 7 years with up to two 5-year extensions.
<b>PROJECT NEED:</b>	MCES currently has 16 operational chemical dosing odor control sites, including meters and lift stations. These sites are critical to reducing odor releases impacting communities and reducing corrosion within the interceptor system.

## PROJECT SCHEDULE



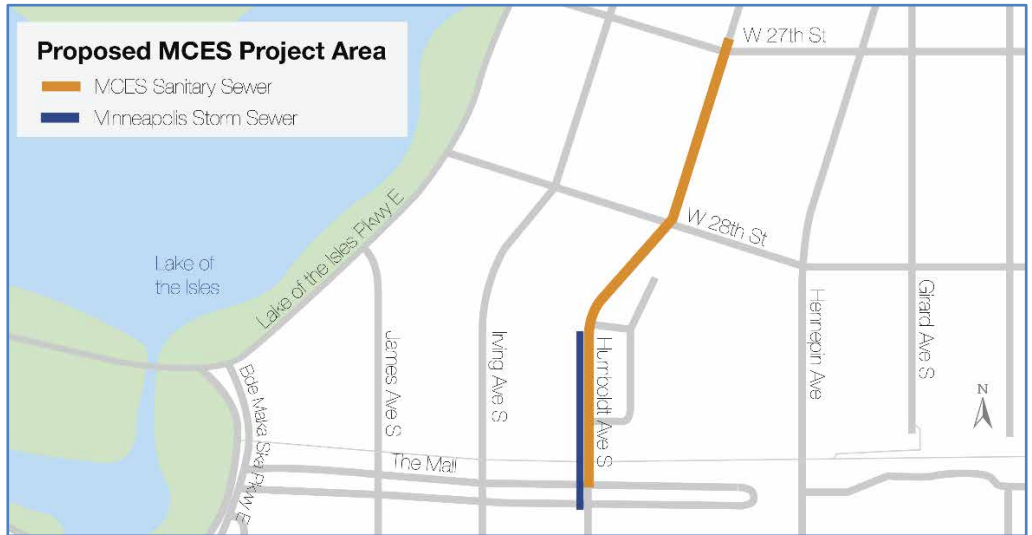
## FINANCIAL ANALYSIS

2023 Cash Flow \$3,500,000	Current ACP \$7,380,000	2023 – 2028 Cash Flow \$5,800,000	Total Project Cost 7,380,000
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Program Family: 8090  
Project # 819015

# Hopkins System Improvements, East Isles Forcemain – Contract G

Project Location:  
Council District # 6  
City: Minneapolis, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	The project includes replacement of 1500 lineal feet of 30” concrete forcemain with two 24” diameter forcemains on Humboldt Ave between the Midtown Greenway and 27 <sup>th</sup> Street. Cooperative construction with the city of Minneapolis to complete local improvements in the area.
<b>PROJECT NEED:</b>	Without a redundant forcemain, inspecting the existing 24” concrete forcemain is difficult and there is significant potential for corrosion given the pipe material and age. An upstream section of the forcemain collapsed in 2000. The vortex drop structure between the forcemain and interceptor 1-MN-330 at 27th Street and Humboldt Ave. S. is severely corroded is at risk of failure

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$600,000	<b>Current ACP</b> \$5,400,000	<b>2023 – 2028 Cash Flow</b> \$600,000	<b>Total Project Cost</b> \$5,355,000
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Program Family: 8090  
Project # 819016

# Large Diameter Interceptor Cleaning – Phase 2

**Project Location:**  
Council District #7, 8, 14  
  
City: Minneapolis and St. Paul NIEB, St. Anthony W, Prospect Park, Downtown, Marcy Holmes, North Loop, Summit Hill



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Clean seven separate segments of Interceptors 1-MN-300, 1-MN-310, 1-MN-320, 1-SP-250, and 1-MS-100. These are deeper or larger tunnels that cannot otherwise feasibly be completed by Council Operations staff.
<b>PROJECT NEED:</b>	Interceptors need to be cleaned to restore original design capacity and minimize the potential for service interruptions.

## PROJECT SCHEDULE



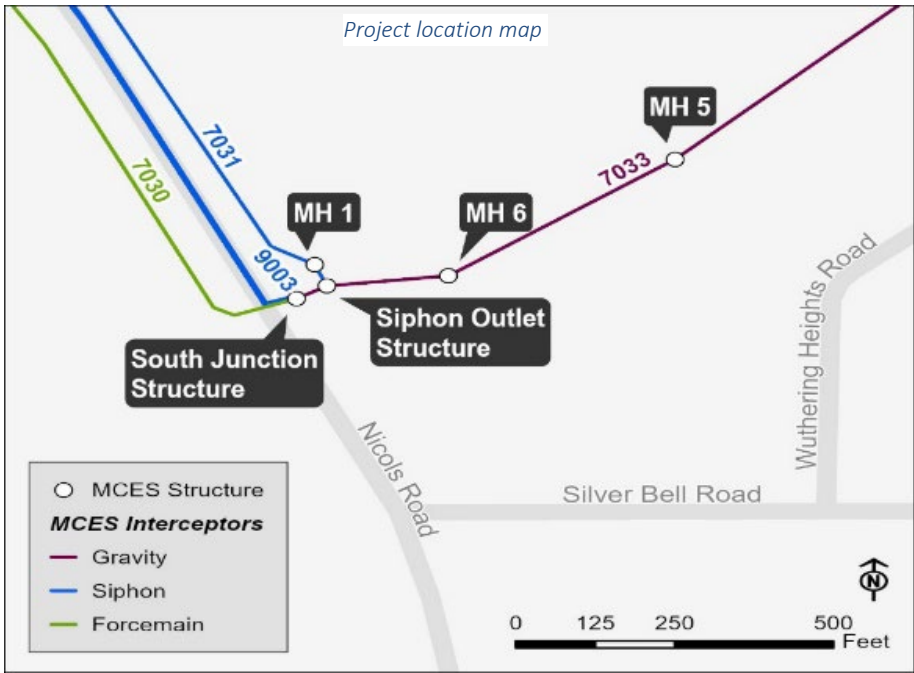
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$4,000,000	<b>Current ACP</b> \$13,010,000	<b>2023 – 2028 Cash Flow</b> \$10,953,000	<b>Total Project Cost</b> \$13,010,000
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Program Family: 8090  
Project # 819017

# 7031/9003 Siphon Outlet Structure Improvements (MH-1 & South Junction Structure)

**Project Location:**  
Council District: # 15  
City: Eagan, MN  
Location: North of intersection of Nicols Road and Silver Bell Road



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Replacement of maintenance structure (MH1) and the South Junction Structure to reduce the potential for structure failure. Internal lining of interceptor 7030, and a small portion of interceptor 7033 near MH 6.
<b>PROJECT NEED:</b>	Condition assessment has identified the tail house and surrounding structures as being in poor condition. The project is needed for operator safety, to preserve assets, and to maintain system flexibility

### PROJECT SCHEDULE



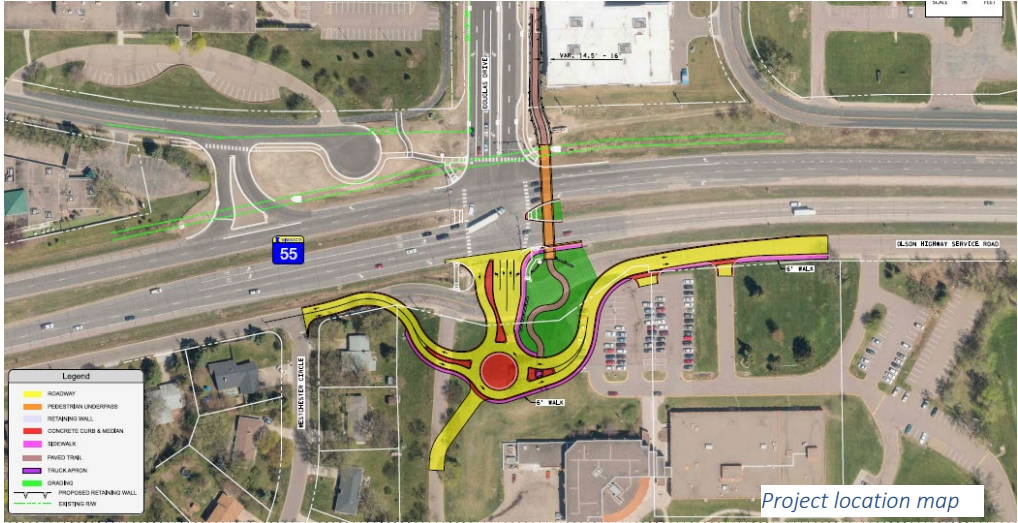
### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$500,000	<b>Current ACP</b> \$5,361,000	<b>2023 – 2028 Cash Flow</b> \$5,100,000	<b>Total Project Cost</b> \$5,361,000
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Program Family: 8090  
Project # 819018

# Plymouth Forcemain Relocation at Douglas Drive

Project Location:  
Council District # 6  
City: Golden Valley, MN  
Location:  
Hwy 55 and Douglas Dr.



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	This project realigns the existing parallel 30-inch and 42-inch forcemains. The City of Golden Valley is working to improve pedestrian access in the project area, and the ability for pedestrians to cross Highway 55. The proposed pedestrian tunnel requires that the existing forcemains be lowered. One of the forcemain pipes is over 50 years old and at the end of its useful life.
<b>PROJECT NEED:</b>	

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$2,000,000	\$3,050,000	\$3,000,000	\$3,050,000

Program Family: 8090  
Project # 819019

# Regional Vector Waste Facility Improvements

Project Location:  
Council District # 1-16  
City: Regional



*Vector truck discharging into a waste receiving facility.*

<b>PROJECT TYPE:</b>	Study
<b>OBJECTIVES:</b>	Asset Preservation and Quality Improvements
<b>CUSTOMER LEVEL OF SERVICE:</b>	Meet capacity needs, coordinate with others, minimize impacts
<b>SCOPE:</b>	Study the need for Regional vector waste facilities. Implementation of improvements, if any, would be completed under a separate project.
<b>PROJECT NEED:</b>	Metro plant is the only regional vector waste receiving facility in operation. Consequently, no regional vector waste disposal facility is available when river flooding closes access to the plant. Additionally, lack of a disposal facility can interrupt customer’s cleaning operations and potentially result in illicit dumping into the regional conveyance system.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$100,000	<b>Current ACP</b> \$200,000	<b>2023 – 2028 Cash Flow</b> \$200,000	<b>Total Project Cost</b> \$200,000
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Program Family: 8090  
Project # 819020

# Hopkins System Improvements, East Isles Forcemain – Contract H

Project Location:  
Council District # 6  
City: Minneapolis, MN  
The Mall Park



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	The project includes replacement of 1,000 lineal feet of 30” concrete forcemain with two 24” diameter forcemains within The Mall Park between Bde Maka Ska Parkway and Humboldt Ave. Cooperative construction with the Minneapolis Park and Recreation Board to construct park master plan improvements in the area. The existing 30” concrete forcemain on Irvine Ave. will be abandoned.
<b>PROJECT NEED:</b>	Without a redundant forcemain, inspecting the existing 24” concrete forcemain is difficult and there is significant potential for corrosion given the pipe material and age. An upstream section of the forcemain collapsed in 2000.

### PROJECT SCHEDULE



### FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$100,000	\$2,300,000	\$2,250,000	\$2,300,000

Program Family: 8090  
Project # 819022

# MCES Interceptor Rehab – Site 1 – 6-MO-650

Project Location:  
Council District # 3  
City: Mound, MN  
Location:  
Interceptor 6-MO-650



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	Rehabilitation of 2,600 LF of 8-inch and 10-inch FM. Rehabilitation of about 500 ft of 24-inch RCP pipe at Auditors Rd and Shoreline Dr.
<b>PROJECT NEED:</b>	Routine condition assessments have identified interceptors at this site as poor condition pipes. 6-MO-650 has experienced recent breaks in the forcemain due to its age. The gravity section of pipe has sag in the pipe. Hennepin County is planning a road reconstruction project on Shoreline Dr. This project needs to be completed before the road reconstruction.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$100,000	\$8,150,000	\$3,700,000	\$3,900,000

Program Family: 8090  
Project # 819022

# MCES Interceptor Rehab – Site 2 – Interceptor 8151 Siphon at Keller Lake

**Project Location:**  
Council District # 11  
City: Maplewood, MN  
Location:  
Interceptor 8155



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitation of 3 siphon pipes (two 24-inch DIP and a 42-inch DIP) under Keller Lake. Rehabilitation of the headhouse and tail house structures. New gates/valves to improve hydraulic performance.
<b>PROJECT NEED:</b>	Routine condition assessments have identified interceptors at this site as poor condition pipes with extensive corrosion in two of the three pipes.

## PROJECT SCHEDULE



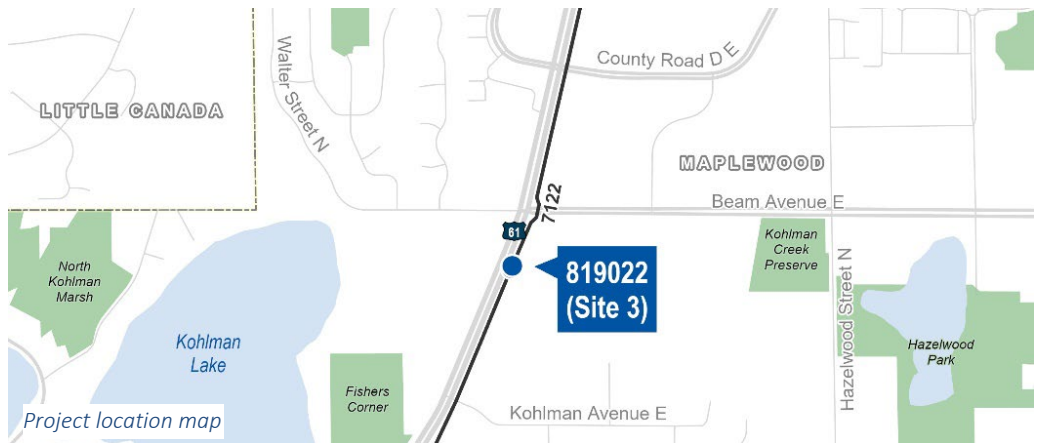
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$25,000	<b>Current ACP</b> \$3,250,000	<b>2023 – 2028 Cash Flow</b> \$3,250,000	<b>Total Project Cost</b> \$3,250,000
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Program Family: 8090  
Project # 819022

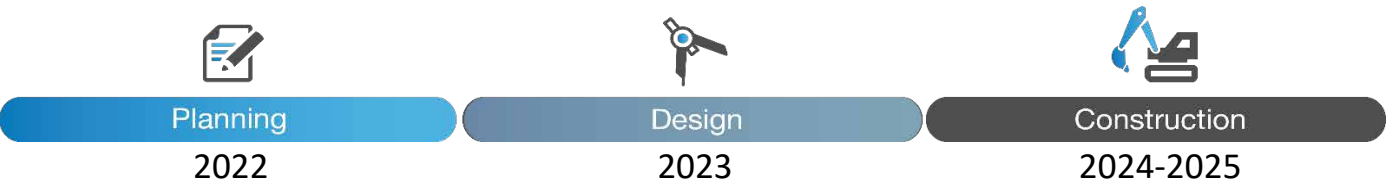
# MCES Interceptor Rehab – Site 3 – Interceptor 7122 Storm Sewer Crossing

Project Location:  
Council District # 11  
City: Maplewood, MN  
Location:  
Interceptor 7122



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Inspection and cleaning of interceptor 7122 of the low head crossing and the air jumpers.
<b>PROJECT NEED:</b>	The interceptor needs to be cleaned and inspected to check the condition of the pipe. Temporary conveyance is required to do the work.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$25,000	\$650,000	\$650,000	\$650,000



Program Family: 8090  
Project # 819022

# MCES Interceptor Rehab – Site 4 – 1-MN-310 Siphon Structures at Basset Creek

Project Location:  
Council District # 7  
City: Minneapolis, MN  
Location:  
Interceptor 1-MN-310



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitation of 2-36” diameter CIP pipes and cast-in place concrete headhouse and tail house structures. New access structures to improve maintenance.
<b>PROJECT NEED:</b>	Routine condition assessments have identified interceptor as poor condition pipes with significant loss of concrete with rebar exposed in the structures.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$50,000	<b>Current ACP</b> \$3,900,000	<b>2023 – 2028 Cash Flow</b> \$3,900,000	<b>Total Project Cost</b> \$3,900,000
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Program Family: 8090  
Project # 819025

# TH 13 – MnDOT Coordination

Project Location:  
Council District # 4  
City: Savage, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	This project realigns the existing forcemain route to move it from under MnDOT’s proposed entrance ramps and frontage roads.
<b>PROJECT NEED:</b>	MnDOT’s TH 13 project includes constructing an overpass with entrance and exit ramps to improve traffic safety at the intersections of Highway 13 and Dakota Ave and Highway 13 and Yosemite Ave. The existing forcemains need to be relocated to ensure continued maintenance without disrupting the proposed Highway improvements. The work will be completed as a part of a MnDOT Construction Contract.

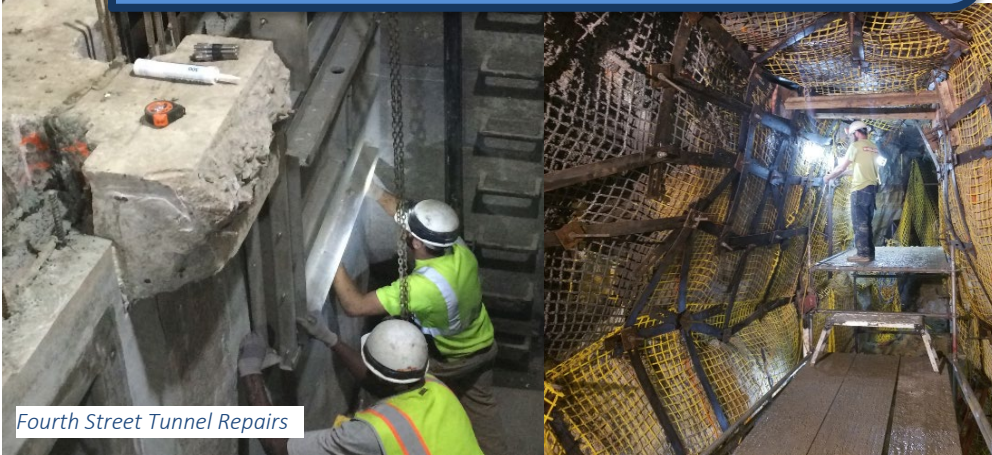
## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$100,000	\$3,696,000	\$100,000	\$3,696,000

## Program 8092 Minneapolis Interceptor System Rehabilitation – Phase 2



### 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 1930's 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: District # 6, 7 & 8.

### Active Projects in Program:

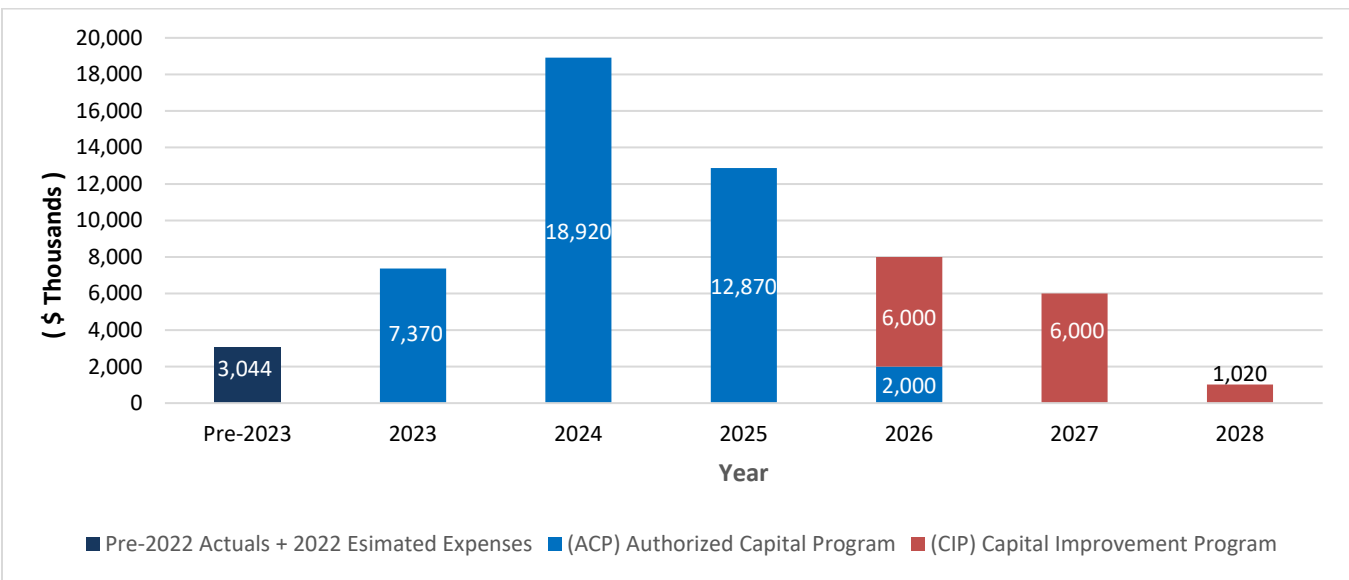
Project Number	Project Title
809200	Minneapolis Interceptor Rehabilitation Phase 2 (Parent Project) – Facility Planning
809205	Interceptor 1-MN-320 Improvements
809208	1-MN-345 Repair
809209	Basset Creek Tunnel Improvements
809210	Minneapolis Sandstone Tunnel Evaluation Program

809211	1-MN-303 Pipe-in-Pipe Rehabilitation
809213	1-MN-310 Rehab between 23 <sup>rd</sup> and 33 <sup>rd</sup> Ave. N
809214	1-MN-346 Improvements – Phase 1
8092XX	1-MN-346 Improvements – Phase 2

### MCES 2023 – 2028 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$44,204,168	<b>Capital Improvement Plan (CIP)</b> \$13,020,000
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### Estimated Program Cash Flow 2023 - 2028:

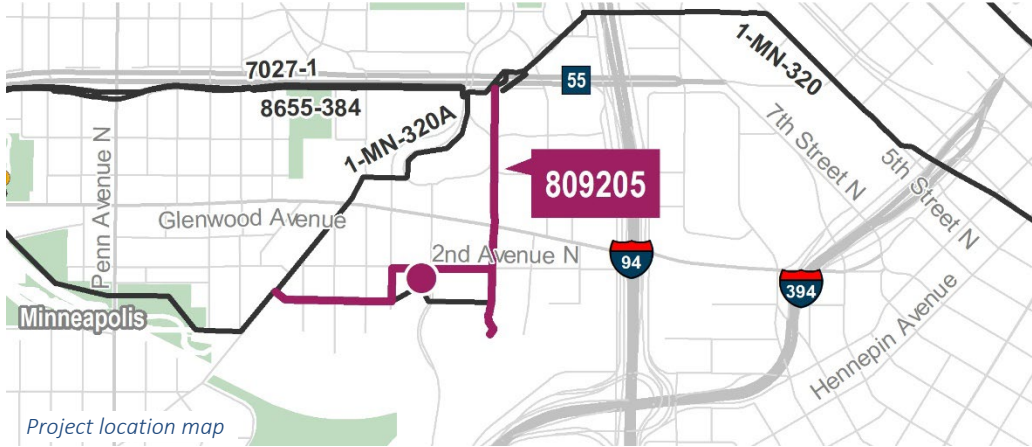


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8092  
Project # 809205

# Interceptor 1-MN-320 Improvements

Project Location:  
1-MN-320  
Council District # 6  
City: Minneapolis, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	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.
<b>PROJECT NEED:</b>	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.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$1,700,000	Current ACP \$16,094,000	2023 – 2028 Cash Flow \$15,300,000	Total Project Cost \$16,094,000
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Program Family: 8092  
Project # 809208

# 1-MN-345 Rehabilitation

**Project Location:**  
Council District #6  
City: Minneapolis, MN  
Location: Crossing of Minnehaha Creek at Girard Ave S



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	MCES will construct a temporary conveyance around the creek crossing and CIPP line the pipe.
<b>PROJECT NEED:</b>	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.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$200,000	<b>Current ACP</b> \$1,901,000	<b>2023 – 2028 Cash Flow</b> \$1,700,000	<b>Total Project Cost</b> \$1,901,000
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Program Family: 8092  
Project # 809209

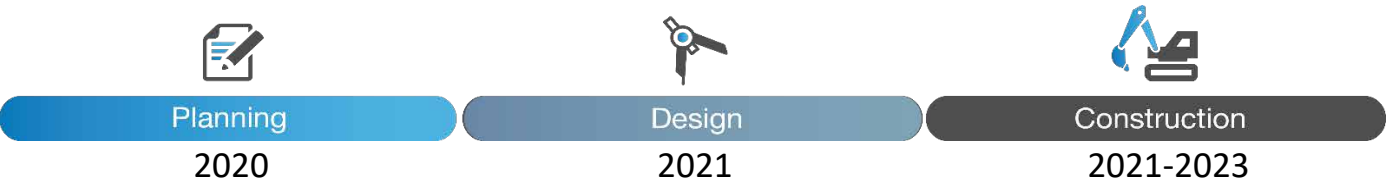
# 1-MN-320 Bassett Creek Tunnel

Project Location:  
Council District # 6  
City: Minneapolis, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Coordinate with Others
<b>SCOPE:</b>	Rehabilitate the interceptor section under Hwy 55 by slip lining.
<b>PROJECT NEED:</b>	MNDOT is removing the original Bassett Creek storm tunnel from beneath Hwy 55. The section of 1-MN-320 under Hwy 55 needs to be slip lined during the utility construction before the new road is reconstructed.

## PROJECT SCHEDULE



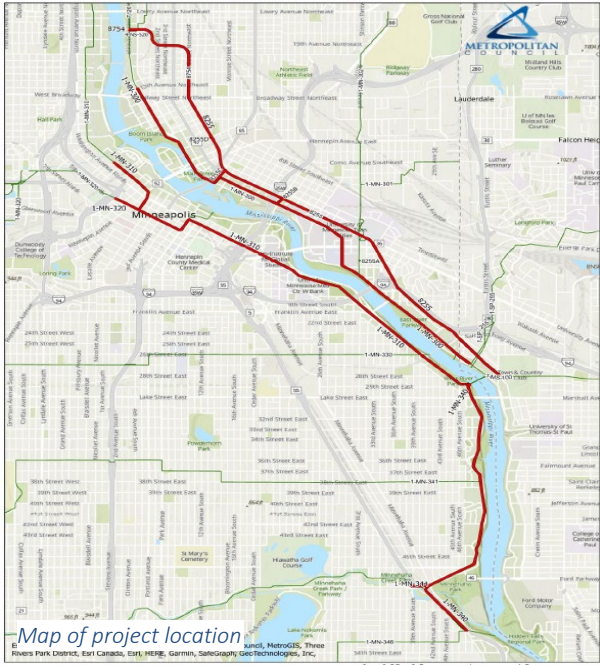
## FINANCIAL ANALYSIS

2023 Cash Flow \$200,000	Current ACP \$1,200,000	2023 – 2028 Cash Flow \$200,000	Total Project Cost \$1,200,000
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Program Family: 8092  
Project # 809210

# Minneapolis Sandstone Tunnel Evaluation

**Project Location:**  
Council District #5, 7,  
and 8  
City: Minneapolis, MN  
Location: Generally  
Paralleling the  
Mississippi River



<b>PROJECT TYPE:</b>	Condition Assessment
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Complete cave inspections on 1-MN-310 and 1-MN-340 and prepare inspection plans for 2024.
<b>PROJECT NEED:</b>	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.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$1,000,000	\$3,217,000	\$6,000,000	\$6,217,000



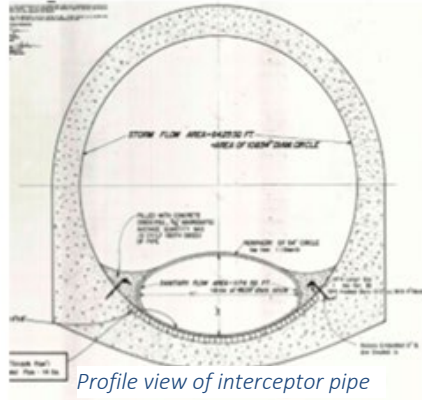
Program Family: 8092  
Project # 809211

# 1-MN-303 Pipe-in-Pipe Rehabilitation

Project Location:

Council District #8

City: Minneapolis  
Columbia Park and  
Mashall Terrace  
Neighborhoods



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Repair Pipe-in-Pipe using removal and replacement and/or CIPP.
<b>PROJECT NEED:</b>	Interceptor 1-MN-303 was built in the early 1920's as a 102" reinforced concrete combined sanitary/storm sewer. The segment of 1-MN-303 on 31st Ave NE between Randolph St NE and Columbia Golf Course was converted to a PIP separated sewer in 1965 using in-laid deformed corrugated metal pipe (CMP). A walking inspection conducted in January 2022 identified severe damage and corrosion that is allowing significant inflow of stormwater into the sanitary sewer.

## PROJECT SCHEDULE



Planning

2020-2021



Design

2021-2022



Construction

2022-2023

## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$300,000	<b>Current ACP</b> \$9,600,000	<b>2023 – 2028 Cash Flow</b> \$9,300,000	<b>Total Project Cost</b> \$9,600,000
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Program Family: 8092  
Project # 809213

# 1-MN-310 Rehab Between 23<sup>rd</sup> and 33<sup>rd</sup> Ave. N

Project Location:  
Council District # 7  
City: Minneapolis, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Line 5,000 feet of 1-MN-310 from 34th Avenue North to 22nd Avenue North and rehabilitate 20 maintenance holes.
<b>PROJECT NEED:</b>	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 Aves N. The project schedule will be coordinated to limit impacts on future development in the area.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow \$150,000	Current ACP \$6,050,000	2023 – 2028 Cash Flow \$6,350,000	Total Project Cost \$6,350,000
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Program Family: 8092  
Project # 809214

# 1-MN-346 Rehabilitation – Phase 1

**Project Location:**  
Council District #5 and 8  
City: Minneapolis and Richfield, MN  
Location: The north side of the airport to the north side of Bossen Field



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitate the existing Condition 5 pipe between Bossen Field and 53 <sup>rd</sup> St E or replace it.
<b>PROJECT NEED:</b>	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.

## PROJECT SCHEDULE



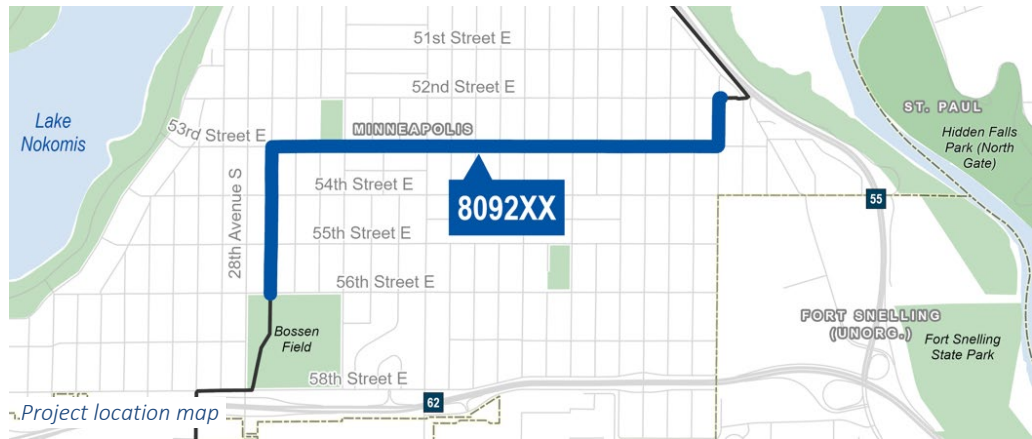
## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$120,000	\$3,820,000	\$3,620,000	\$3,820,000

Program Family: 8092  
Project # 8092XX

# 1-MN-346 Rehabilitation – Phase 2

Project Location:  
Council District # 5 & 8  
City: Minneapolis and Richfield, MN



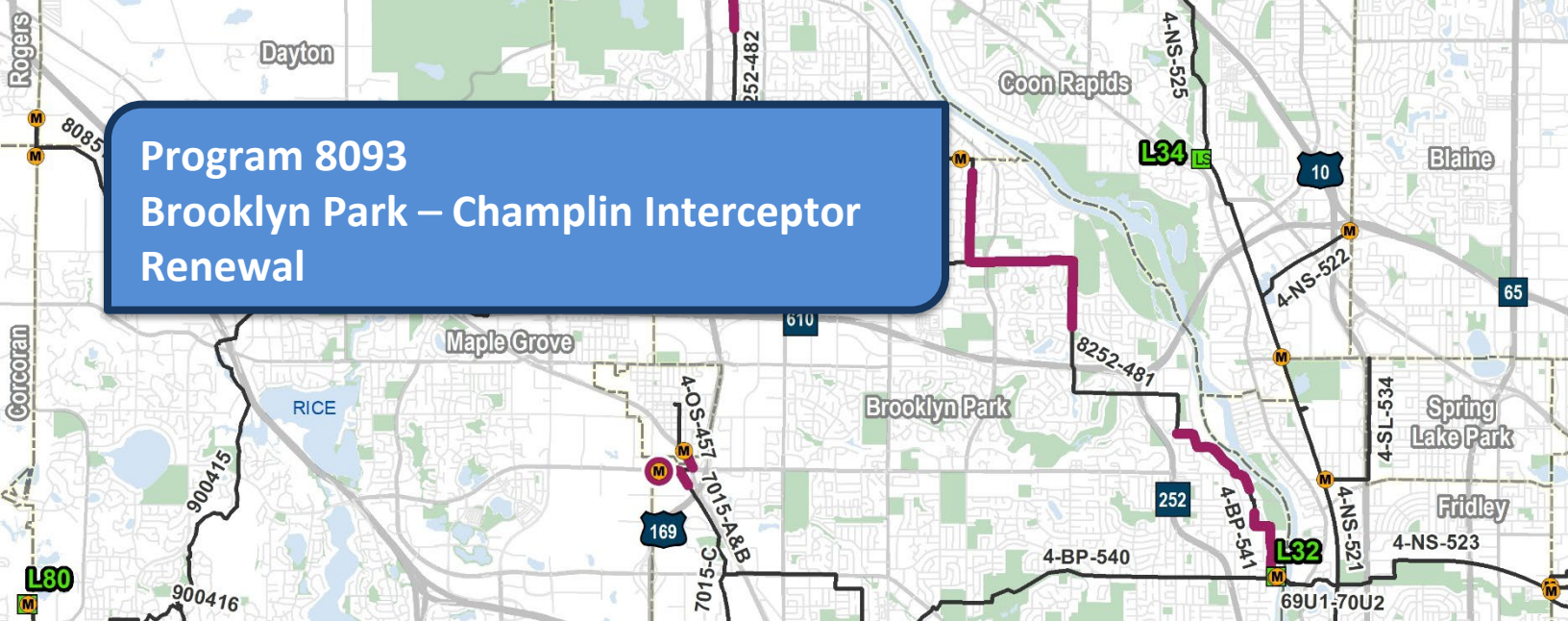
<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, Meet Capacity Needs, Communicate Information
<b>SCOPE:</b>	A study is underway to determine whether a new interceptor pipe should replace the existing 1-MN-346 interceptor or divert flow through a parallel pipe to increase capacity and reduce maintenance.
<b>PROJECT NEED:</b>	Hydraulic modeling conducted by MCES in partnership with Edina indicate future capacity issues. A sag between 54 <sup>th</sup> and 56 <sup>th</sup> Streets along 1-MN-346 has been problematic for maintenance with grease buildup and limits the capacity of the pipe.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$120,000	\$3,820,000	\$3,620,000	\$3,820,000



### Description:

This Program provides for the rehabilitation of concrete gravity interceptor in the Cities of Champlin, Brooklyn Park and Osseo. The interceptor will be rehabilitated using Cured-In-Place-Pipe (CIPP) technology.

### Purpose and Justification:

Inspections and condition assessment show the need for rehabilitation of interceptors in the Brooklyn Park and Champlin area. The pipes included in this program are rated Condition 4 or 5, which requires immediate attention and that the pipe has failed or has potential to fail within the next 5 to 10 years. The video inspection indicates significant hydrogen sulfide and age-related damage to the reinforced concrete pipe (RCP). The damage is extensive and steel reinforcement is visible and/or missing in several locations.

### Program Location:

The active projects within this program are in the following Council Districts: District # 2

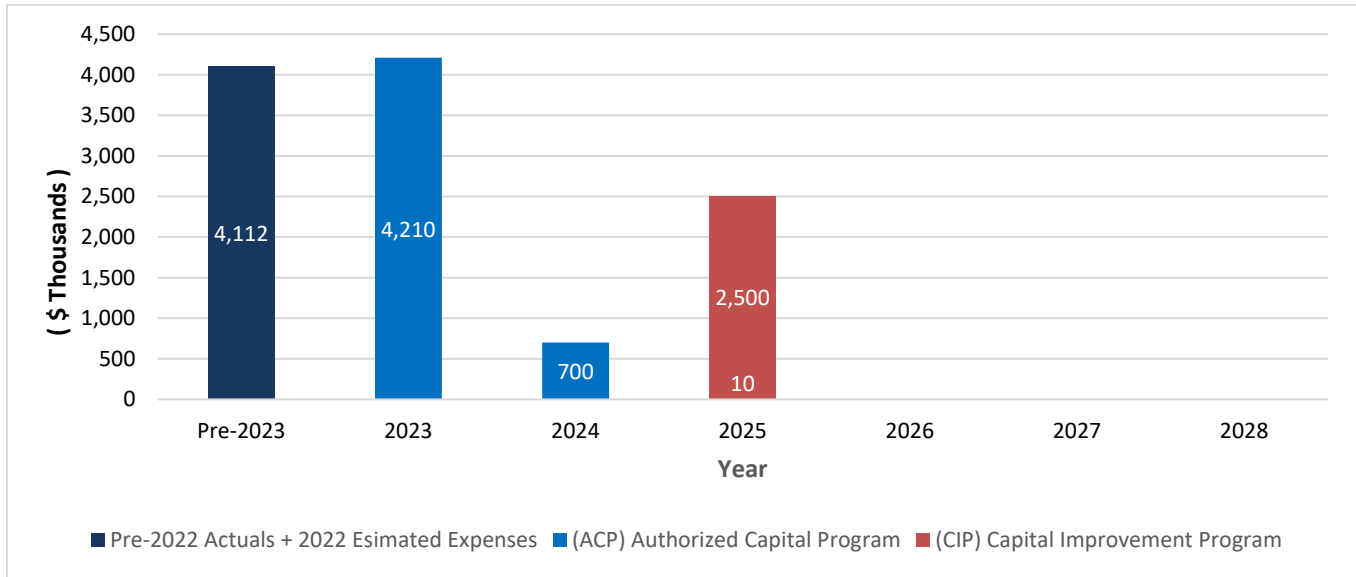
### Active Projects in Program:

Project Number	Project Title
809300	Brooklyn Park-Champlin Interceptor Renewal (Parent Project)
809320	BPCI Renewal – Phase 2
809361	Brooklyn Park & Osseo Interceptor Rehabilitation – 7015 A&B, 4-OS-457 and M224

### MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$9,032,932	Capital Improvement Plan (CIP) \$5,000,000
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8093  
Project # 809320

## Brooklyn Park-Champlin Interceptor Renewal

Project Location:

Council District # 2

City: Brooklyn Park, MN



Project location map

<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	CIPP repair includes interceptor 8252-481 from MH 8 1 to MH 15 2.
<b>PROJECT NEED:</b>	This section of the interceptor was constructed in 1985 and consists of 12,000 ft. of 66-inch RCP pipe and 22 maintenance holes. Based on the inspection, it has a condition rating of 4 and needs repair.

### PROJECT SCHEDULE



Planning  
2021



Design  
2023-2025



Construction  
2026-2028

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$200,000	<b>Current ACP</b> \$500,000	<b>2023 – 2028 Cash Flow</b> \$5,400,000	<b>Total Project Cost</b> \$5,500,000
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Program Family: 8093  
Project # 809361

## Brooklyn Park and Osseo Interceptor Rehabilitation – 7015 A&B, 4-OS-457 and M224

Project Location:

Council District # 1 & 2

City: Brooklyn Park,  
Osseo and Maple Grove,  
MN

Interceptor 7015 A&B



Project location map

<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	The project includes Cured in Place Pipe (CIPP) lining of about 2,500 ft of 36-inch interceptor and replacement of about 1,000 ft of 12-inch interceptor. The maintenance hole structures along the route will either be rehabilitated using Fiberglass Reinforced Plastic (FRP) inserts or replaced with new manholes. The meter structure M224 will be rehabilitated with a new flume and improved access to the structure. The existing bioxide tank at M224 will be moved to a new location further south on 83 <sup>rd</sup> Ave on City of Brooklyn Park property.
<b>PROJECT NEED:</b>	7015-A&B and 4-OS-457 are listed as condition 5 pipe. The RCP pipe has reinforcement exposed, and numerous defects were observed in the CCTV inspection video. Recently, there was a partially collapsed section of interceptor 7015-D in this area that caused a sink hole in the road that was fixed as an emergency repair (Project 809360). The section around the repair area is in poor condition. M224 has significant corrosion and access issues.

### PROJECT SCHEDULE



Planning

2019



Design

2019-2020



Construction

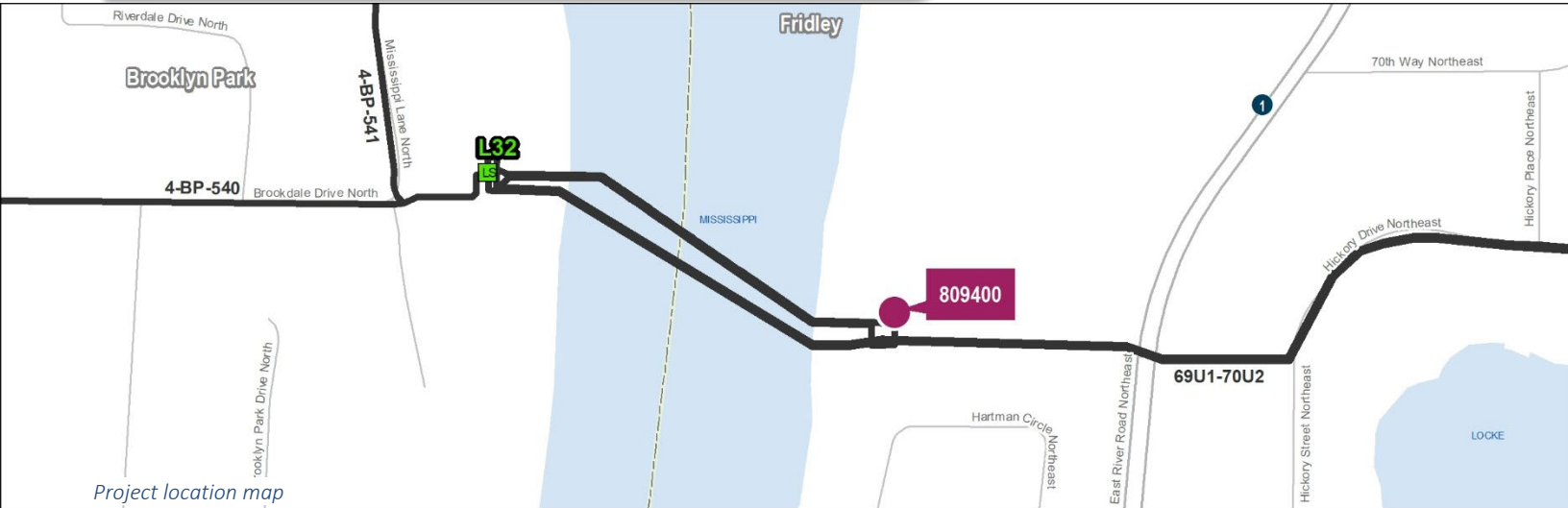
2021-2023

### FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$4,000,000	\$5,548,000	\$4,000,000	\$5,548,000



# Program 8094 Brooklyn Park L32 Replacement



## Description:

This Program provides the construction of a new L32A on the east side of the Mississippi River on Council property. Program will determine which facilities will remain on the west side of the river at the existing L32 site.

## Purpose and Justification:

Condition assessments have documented structural, mechanical, and electrical deficiencies which have led to system failures, such as backups and odor issues. Additionally, the existing Lift Station does not have capacity to serve the current and future needs of the area.

## Program Location:

The active projects within this program are in the following Council Districts: District # 2

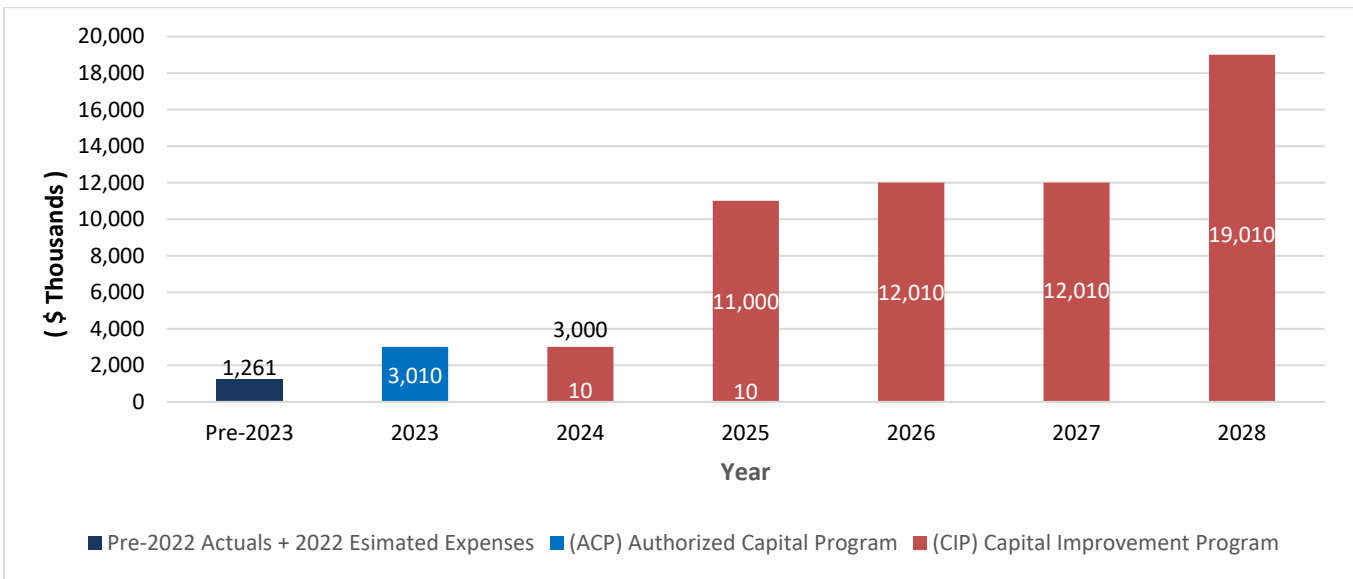
## Active Projects in Program:

Project Number	Project Title
809400	New Lift Station L32 (Parent Project)

## MCES 2023 – 2028 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$5,993,993	<b>Capital Improvement Plan (CIP)</b> \$57,030,000
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8094  
Project # 809400

# Design of New Lift Station L-32A

**Project Location:**  
Council District # 2  
City: Brooklyn Park and Fridley, MN  
Location: Lift Station L32 Site



Project location map

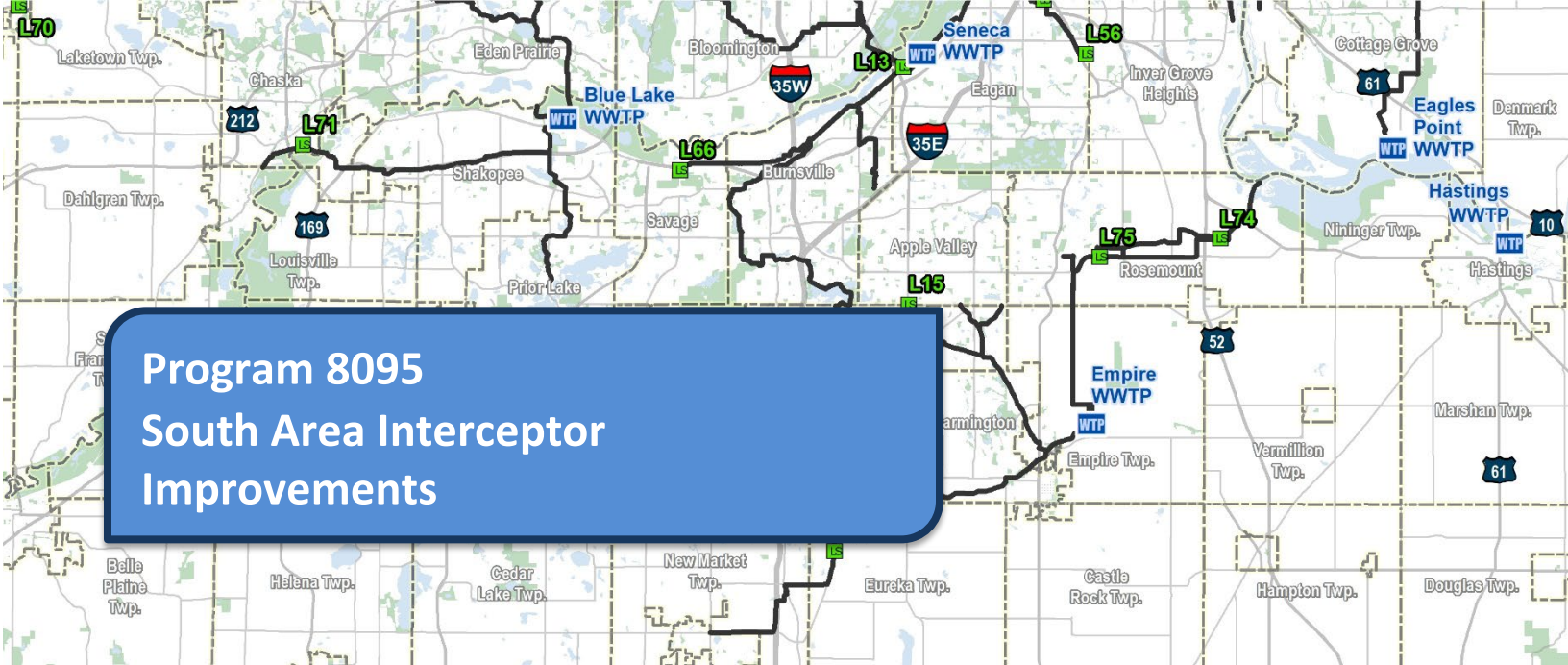
<b>PROJECT TYPE:</b>	Lift Station Improvement
<b>OBJECTIVES:</b>	Asset Preservation and System Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, Meet Capacity Needs, and Be a Good Neighbor
<b>SCOPE:</b>	Project includes design of a new lift station L32A on the east side of Mississippi River in Fridley. The work will also include rehabilitation of the two old forcemain pipes under the river, conversion of the existing forcemain pipes into siphon pipes, and demolition of the existing lift station L32 in Brooklyn Park.
<b>PROJECT NEED:</b>	Condition assessments have documented structural, mechanical, and electrical deficiencies which have led to system failures, such as backups and odor issues. Additionally, the existing Lift Station does not have capacity to serve the current and future needs of the area.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$1,200,00	<b>Current ACP</b> \$6,000,000	<b>2023 – 2028 Cash Flow</b> \$79,200,000	<b>Total Project Cost</b> \$82,200,000
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# Program 8095 South Area Interceptor Improvements

**Description:**

The interceptor systems in Apple Valley, Eagan, Farmington, Lakeville, Savage, and other south area communities are in need of rehabilitation and/or replacement as well as expansion to serve growth. The Program will rehabilitate existing interceptor facilities, including gravity sewers, and force mains, as well as analyze the 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: District # 4, 15 and 16.

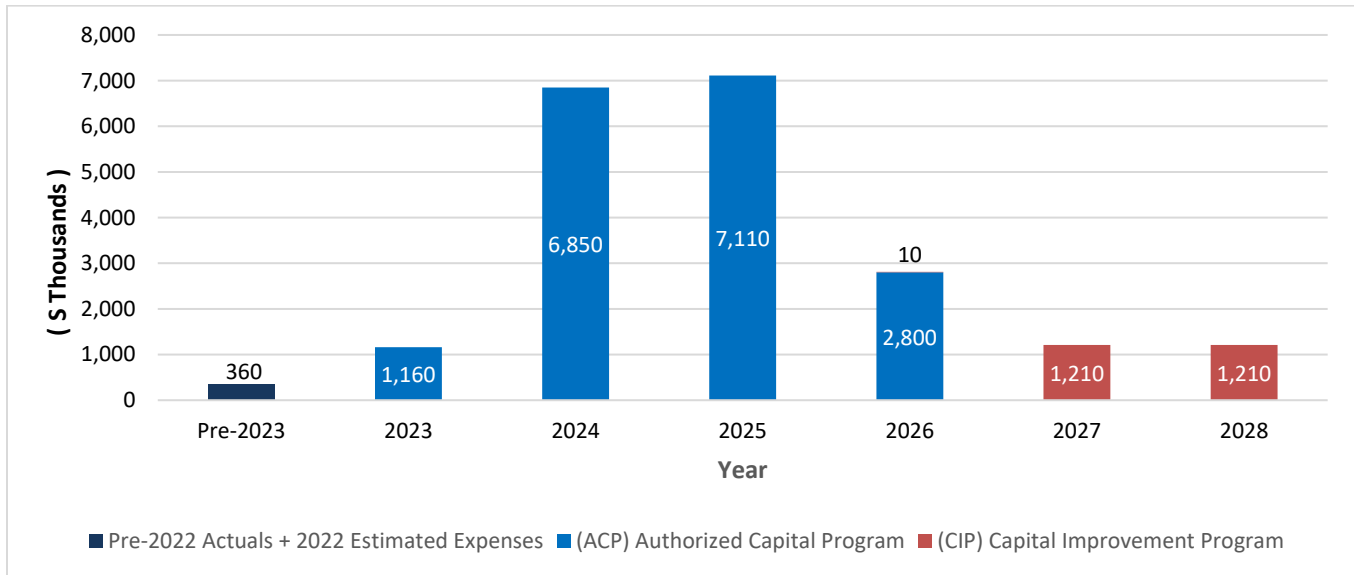
**Active Projects in Program:**

Project Number	Project Title
809500	South Area Improvements (Parent Project)
809510	Shakopee Interceptor Odor Improvements
809520	South Area Rehabilitation (Sites 1 – 4 )

**MCES 2023 – 2028 Capital Program:**

Authorized Capital Program (ACP) \$18,280,000	Capital Improvement Plan (CIP) \$30,000
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## Estimated Program Cash Flow 2023 - 2028:

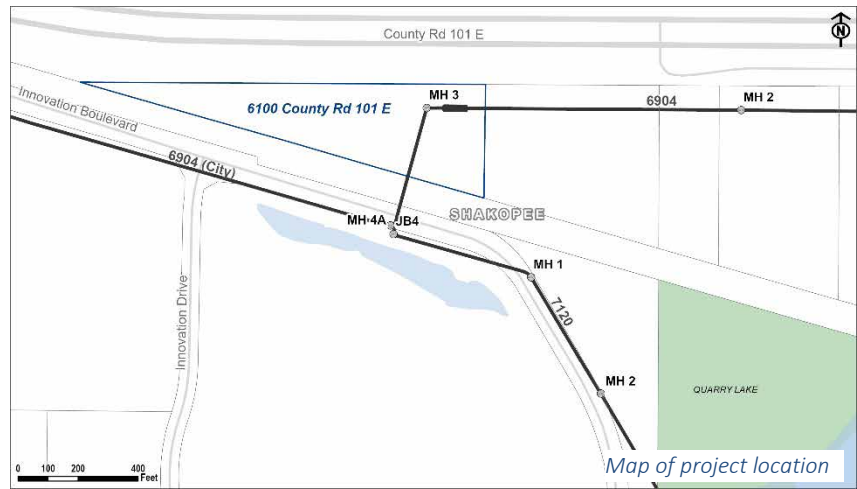


Note: The ACP is the total amount of all past and present authorizations including Pre-2023 Expenses.

Program Family: 8095  
Project # 809510

# Shakopee Interceptor Odor Improvements

**Project Location:**  
Council District: # 4  
City: Shakopee, MN  
Location: MCES 9206 & 7120; pipe that runs along highway 169



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets, Minimize Impacts, and Be a Good Neighbor
<b>SCOPE:</b>	Project work will include construction of ventilation and odor treatment facilities.
<b>PROJECT NEED:</b>	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.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b> \$500,000	<b>Current ACP</b> \$3,150,000	<b>2023 – 2028 Cash Flow</b> \$3,000,000	<b>Total Project Cost</b> \$3,150,000
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Program Family: 8095  
Project # 809520

# South Area Rehabilitation – Interceptor 3-BV-39

Project Location:  
Council District # 15  
City: Burnsville, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Rehabilitation of 8,560 linear feet of interceptor pipe and 30 maintenance structures.
<b>PROJECT NEED:</b>	Routine gravity interceptor CCTV inspections have identified four interceptor sites in the South Interceptor Service Area that have that have failed pipes or pipes that will likely fail in the next 5 years. The facilities are in need of rehabilitation.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$600,000	\$0	\$14,400,000	\$14,600,000

Program Family: 8095  
Project # 809520

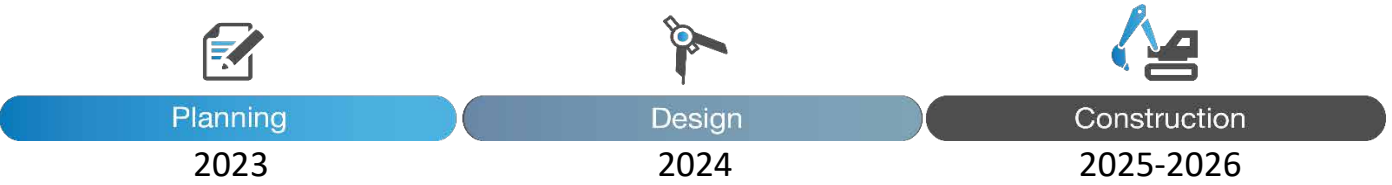
# South Area Rehabilitation – Interceptor 3-BV-35

Project Location:  
3-BV-35  
  
Council District # 15  
  
Cities: Burnsville, MN



<b>PROJECT TYPE:</b>	Interceptor Improvement
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Site 2 and 3 of the South Area Improvements. This project includes rehabilitation of 2,740 linear feet of interceptor pipe and associated maintenance structures as needed.
<b>PROJECT NEED:</b>	Interceptors 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.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

2023 Cash Flow	Current ACP	2023 – 2028 Cash Flow	Total Project Cost
\$200,000	\$0	\$4,200,000	\$4,200,000



Program Family: 8095  
Project # 809520

# South Area Rehabilitation – 7102-2 & 7111A

Project Location:  
7102-2 & 7111A

Council District # 15

Cities: Inver Grove Heights, MN



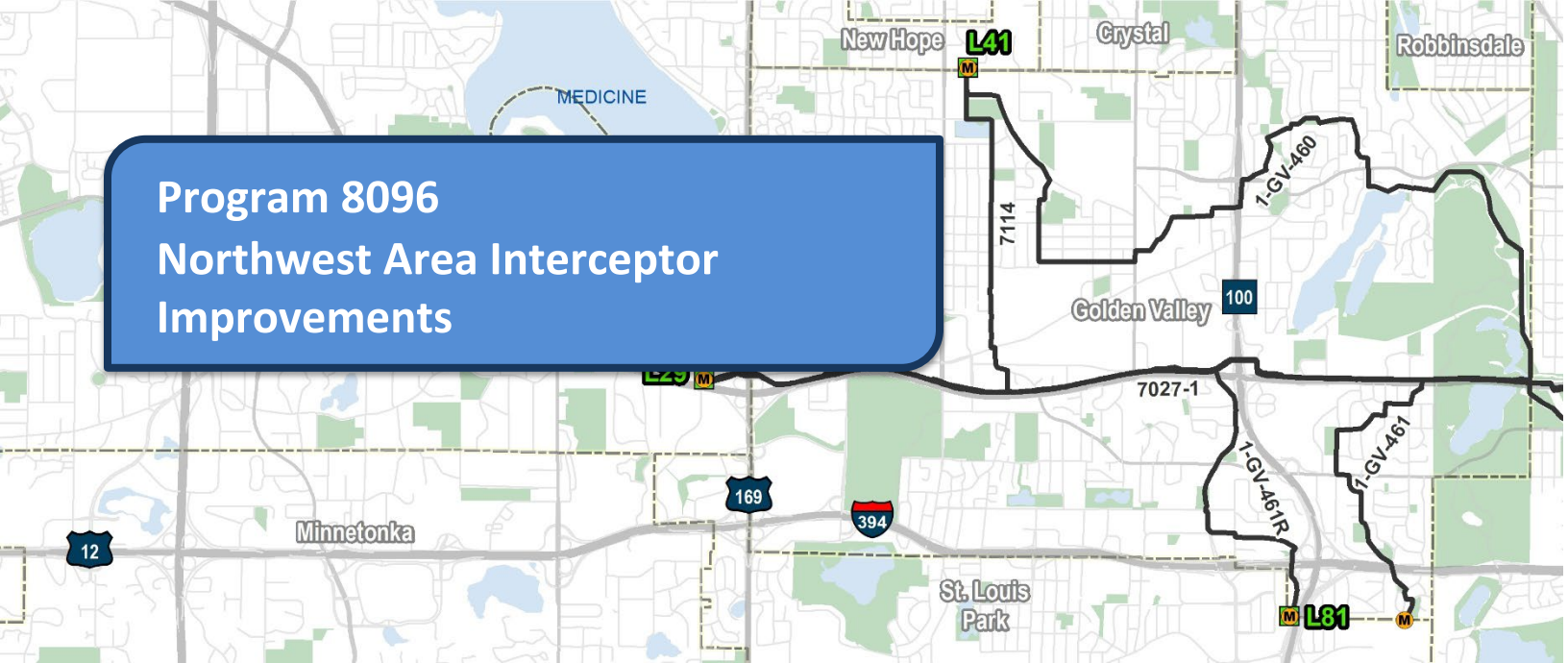
<b>PROJECT TYPE:</b>	Interceptor Rehabilitation
<b>OBJECTIVES:</b>	Asset Preservation
<b>CUSTOMER LEVEL OF SERVICE:</b>	Preserve Assets and Minimize Impacts
<b>SCOPE:</b>	Site 4 of the South Area Improvements. This project includes rehabilitation of 555 linear feet of interceptor pipe and associated maintenance structures.
<b>PROJECT NEED:</b>	CCTV inspection showed the segment between the 7102-2 Turning Chamber and 7111A discharge to 7111-1&2 at manhole (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.

## PROJECT SCHEDULE



## FINANCIAL ANALYSIS

<b>2023 Cash Flow</b>	<b>Current ACP</b>	<b>2023 – 2028 Cash Flow</b>	<b>Total Project Cost</b>
\$150,000	\$0	\$1,200,000	\$1,200,000



### Description:

The interceptor systems in Plymouth, Maple Grove, Brooklyn Center, New Hope, Golden Valley, St. Louis Park, Medina, and other northwest area communities need rehabilitation and/or replacement as well as expansion to serve growth. The Program will rehabilitate existing interceptor facilities, including gravity sewers, force mains, lift stations and meter stations, and analyze the system needs to accommodate growth.

### Purpose and Justification:

The Program provides for improvements to the Interceptor System that serves the Northwest Area. This includes work needed to expand the Rogers WWTP service area and to improve system capacity and reliability.

### Program Location:

The active projects within this program are in the following Council Districts: District # 1 & 6.

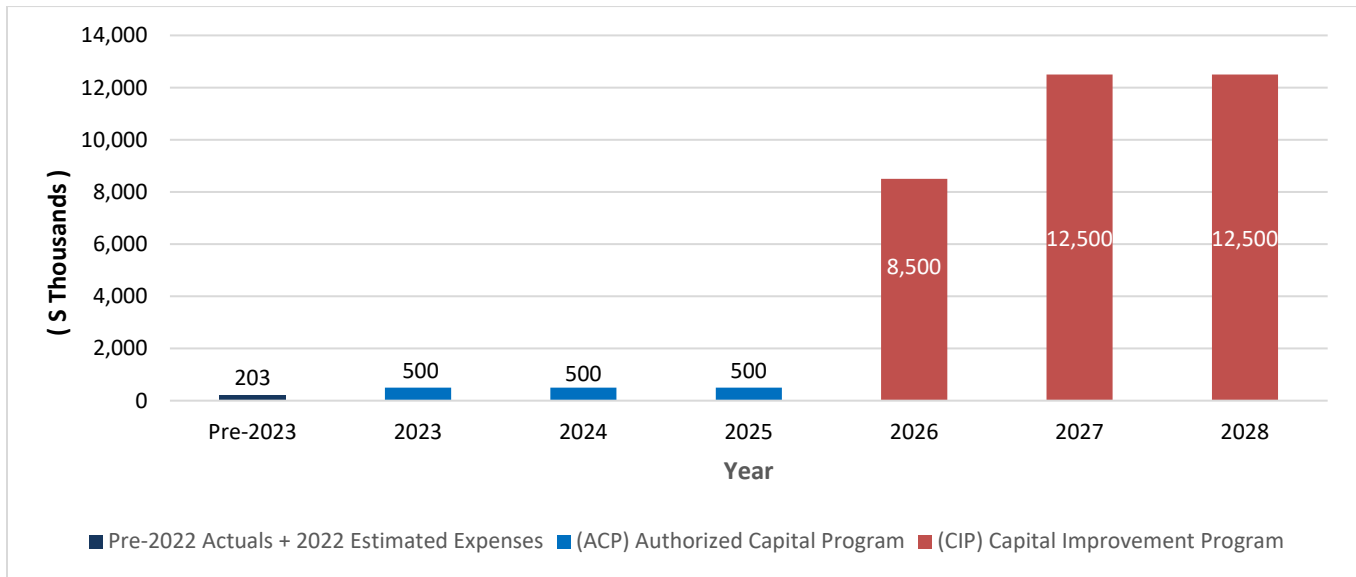
### Active Projects in Program:

Project Number	Project Title
809600	Northwest Area Improvements (Parent Project)

### MCES 2023 – 2028 Capital Program:

Authorized Capital Program (ACP) \$1,730,305	Capital Improvement Plan (CIP) \$33,500,000
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## Estimated Program Cash Flow 2023 - 2028:



Note: The ACP is the total amount of all past and present authorizations including Pre-2022 Expenses.



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390 Robert Street North  
St Paul, MN 55101-1805

651-602-1000  
TTY 651-291-0904  
[public.info@metc.state.mn.us](mailto:public.info@metc.state.mn.us)  
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