

## 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

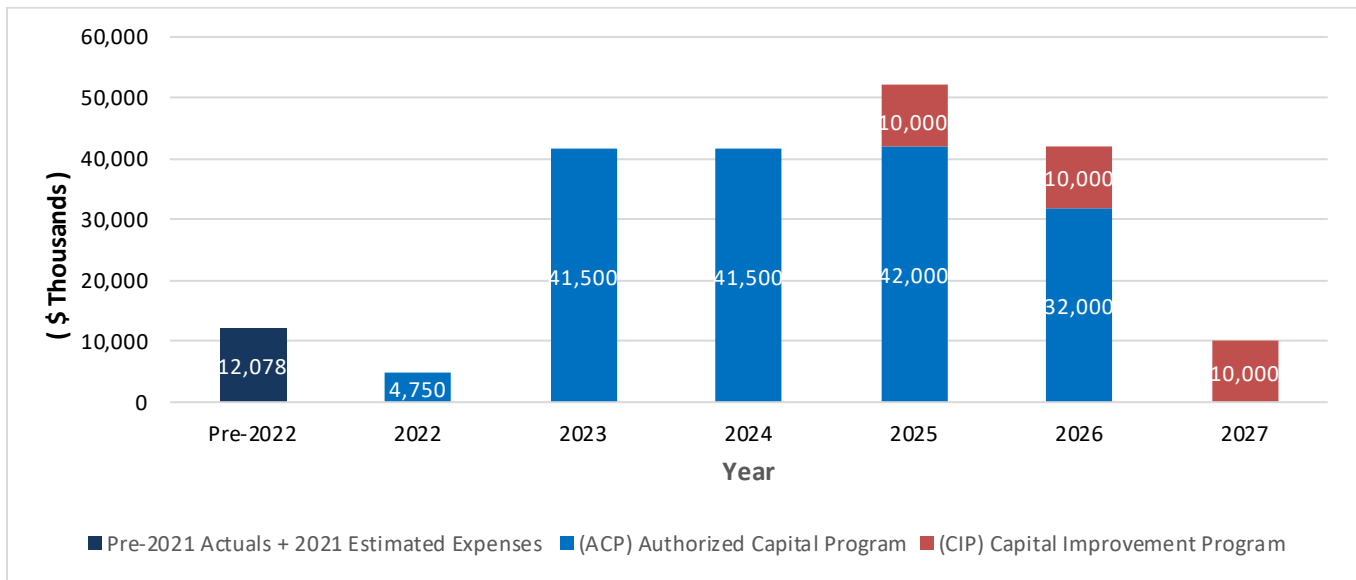
### Active Projects in Program:

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 2022 – 2027 Capital Program:

<b>Authorized Capital Program (ACP)</b> \$173,828,000	<b>Capital Improvement Plan (CIP)</b> \$30,000,000
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### Estimated Program Cash Flow 2022 - 2027:



Note: The ACP is the total amount of all past and present authorizations including Pre-2022 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>	Preservation and Expansion
<b>CUSTOMER LEVEL OF SERVICE:</b>	Comply with Permits, Minimize Impacts, Lead by Example, Be A Good Neighbor, Optimize Budget Plan, and Preserve Assets
<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



## FINANCIAL ANALYSIS

<b>2022 Cash Flow</b>	<b>Current ACP</b>	<b>2022 – 2027 Cash Flow</b>	<b>Total Project Cost</b>
\$500,000	\$4,287,546	\$500,000	\$4,287,546

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>	Preservation and 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>2022 Cash Flow</b> \$2,500,000	<b>Current ACP</b> \$155,000,000	<b>2022 – 2027 Cash Flow</b> \$152,500,000	<b>Total Project Cost</b> \$155,000,000
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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



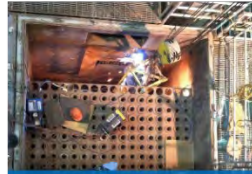
Fluid Bed Incinerator Rehabilitation



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>	Preservation and Improvement
<b>CUSTOMER LEVEL OF SERVICE:</b>	Communicate Information and 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

2022-2024



Construction

2024-2027

## FINANCIAL ANALYSIS

2022 Cash Flow	Current ACP	2022 – 2027 Cash Flow	Total Project Cost
\$0	\$0	\$30,000,000	\$32,000,000