

Program 8062 – Metro WWTP Solids Improvements



Metropolitan Wastewater Treatment Plant (WWTP) Solids Management Building (SMB)

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 district: 13

Active projects in program

Project Number	Project Title
806230	Metro WWTP Fourth Incinerator
806340	Metro WWTP Renewal of Fluid Bed Reactors 1, 2, and 3

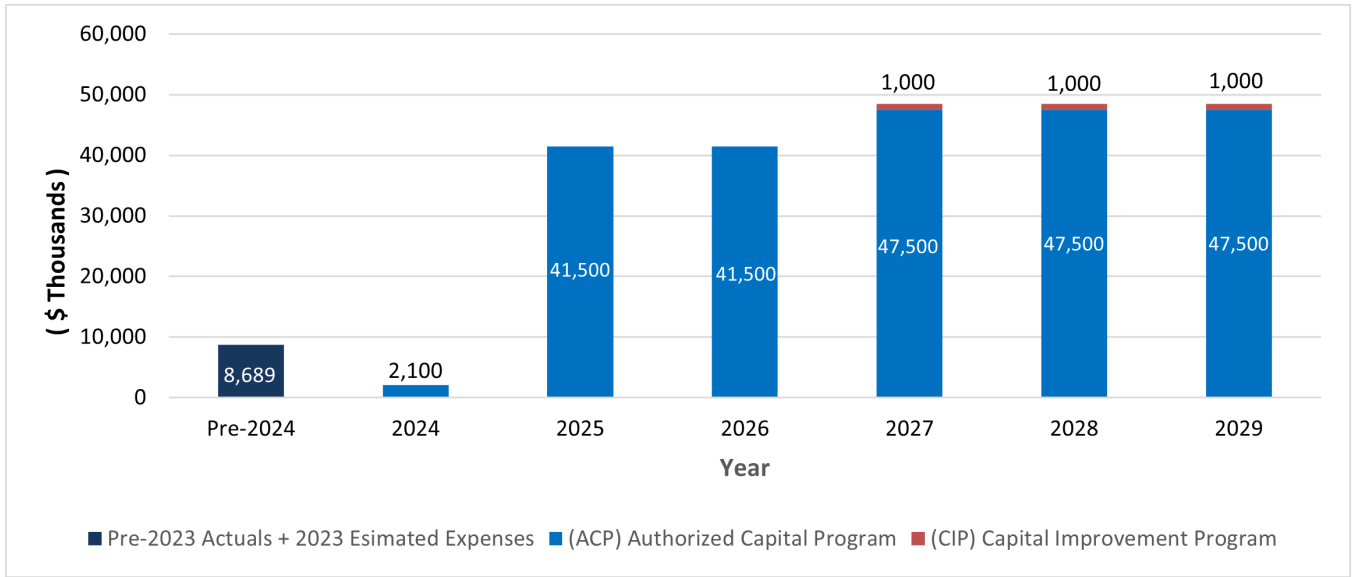
(Continued on next page)

Environmental Services 2024 through 2029 Capital Program

- Authorized Capital Program (ACP): \$239,289,254
- Capital Improvement Plan (CIP): \$3,000,000

Estimated program cash flow from 2024 through 2029

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



Project location: Council district #13, City of Saint Paul, Metro WWTP



3D rendering design of future Fourth Incinerator at Metro WWTP

Project type
Plants

Objectives
Asset Preservation, System Expansion

Scope

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.

The Solids Management Improvements Facility Plan, which includes the addition of a fourth incinerator followed by renewal of the existing three incinerators at the Metro Plant, did not qualify for PFA funding.

Project need

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:



Planning:
2011 through 2019



Preliminary Design:
2020 through 2024



Design-Build Construction:
2025 through 2027

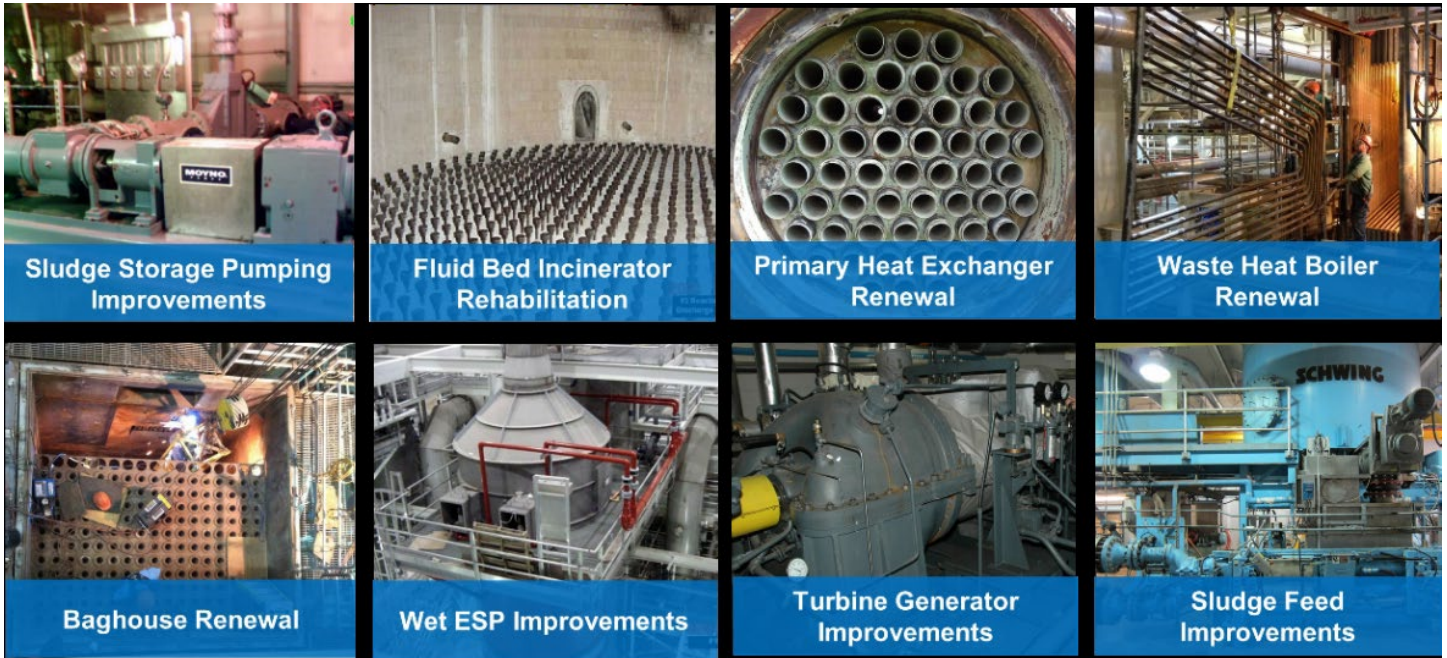
Financial analysis

2024 cash flow:	\$600,000
Current ACP:	\$200,600,000
2024 through 2029 cash flow:	\$200,600,000
Total project cost:	\$200,600,000

Metro WWTP Renewal of Fluid Bed Reactors 1, 2, and 3
Program family 8062

Project #806240

Project location: Council district #13, City of Saint Paul, Metro WWTP



Incineration Facilities Renewal Needs

Project type
Plants

Objectives
Asset Preservation

Scope

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.

Renewal of the existing incineration facilities will be resubmitted to the MPCA for PFA funding review in an amendment to the MWTP Solids Management Improvements Facility Plan. Additional planning activities may include reassessing the existing solids treatment facilities and conducting additional alternatives evaluations.

Project need

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:



Financial analysis

2024 cash flow:	\$0
Current ACP:	\$0
2024 through 2029 cash flow:	\$3,000,000
Total project cost:	\$23,000,000