

Program 8062 – Metro WRRF Solids Improvements



Metropolitan Water Resource Recovery Facility (WRRF) Solids Management Building (SMB)

Description

This program provides funding for planning and implementation of improvements to wastewater solids processing facilities at the Metropolitan Water Resource Recovery Facility (Metro WRRF).

Purpose and justification

Planning work is documented in the Metro WRRF Solids Management Improvements Facility Plan (January 2019). The facility plan, which includes the addition of a fourth incinerator followed by renewal of the three existing incinerators at the Metro Facility, did not qualify for PFA funding. (The project to renew the existing three incinerators is relocated to Program 8103 Metro WRRF Restoration and Improvements.)

Projects in this program address capacity and renewal needs for continued reliable and sustainable wastewater solids processing at the Metro WRRF through the year 2050.

Program location

The active projects within this program are Council District: 13

Active projects in program

Project Number	Project Title
806211	Metro WRRF Backup Fuel Service Addition, Primary Heat Exchanger Rehabilitation and Auxiliary Condenser Improvements
806230	Metro WRRF Fourth Incinerator

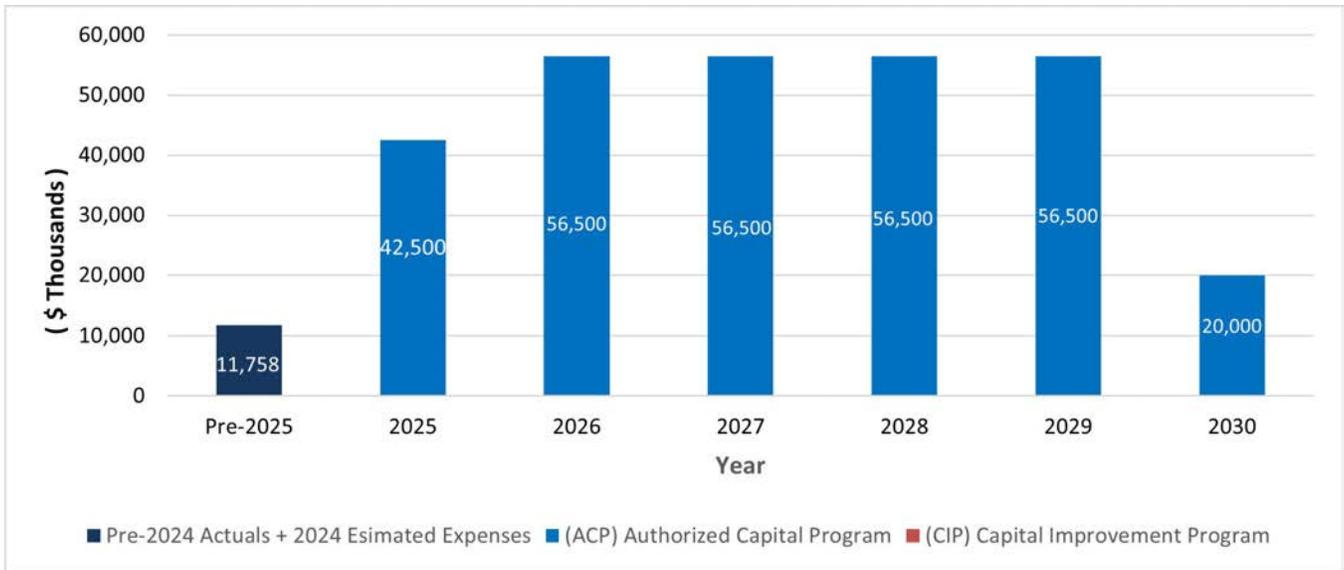
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Environmental Services 2025 through 2030 Capital Program

- Authorized Capital Program (ACP): \$300,258,193
- Capital Improvement Plan (CIP): \$0

Estimated program cash flow from 2025 through 2030

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



Metro WRRF Backup Fuel Service Addition, Primary Heat Exchanger Rehabilitation and Auxiliary Condenser Improvements

Program family 8062

Project #806211

Project location: Council District #13, City of Saint Paul, Metro WRRF



Existing Primary Heat Exchanger to be Rehabilitated



Existing Auxiliary Condenser to be Relocated

Project type

Facility

Objectives

Asset Preservation and Quality Improvements

Scope

This project includes installing a backup fuel source, reduction in effluent water pressure, relocating auxiliary condensers, rehabilitating primary heat exchangers, demolishing fuel oil tanks, installing oxygen meters, installing effluent water softening, and installing a sand reuse system.

Project need

This project is needed to renew existing equipment, reduce annual costs, and increase reliability.



Planning: 2011 through 2019



Design: 2025 through 2026



Construction: 2026 through 2028

Financial analysis

2025 cash flow:	\$2,000,000
Current ACP:	\$26,000,000
2025 through 2030 cash flow :	\$26,000,000
Total project cost:	\$26,000,000

Project location: Council District #13, City of Saint Paul, Metro WRRF



3D rendering design of future Fourth Incinerator at Metro WRRF

Project type
 Facility

Objectives
 System Expansion and Asset Preservation

Scope
 Expand the Metro WRRF 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.

Project need
 The Metro WRRF 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

2025 cash flow:	\$40,000,000
Current ACP:	\$260,000,000
2025 through 2030 cash flow:	\$260,000,000
Total project cost:	\$260,000,000