



Detroit District

Great Lakes & Ohio River Division



Sault Ste Marie Locks Asset Renewal Plan



Sault Ste Marie Locks Asset Renewal

Objective

Detroit District, USACE re-capitalizes and modernizes the locks and supporting infrastructure at Sault Ste. Marie from FY08-FY14 in order to provide reliable infrastructure through the year 2035 and beyond.

Guidance

- ✓ Facility wide approach with the Poe Lock as the main effort
- ✓ MacArthur Lock
- ✓ Supporting infrastructure
- ✓ Rock Cut – Saint Marys River
- ✓ Power Plants



Sault Ste Marie Locks Asset Renewal

Funding Overview

FY	Base O&M (\$x1000)	Asset Renewal (\$x1000)
FY09	\$18,126	\$14,300
FY10	\$18,671	\$13,394
FY11	\$19,236	\$20,445 *
FY12	\$19,345	\$20,700 *
FY13	\$19,500	\$8,400
FY14	\$19,700	\$10,150
Total	\$114,605	\$87,389

* Includes \$10M in FY11 and FY12 for heavy lift equipment procurement



Sault Ste Marie Locks Asset Renewal

Fiscal Years 07/08

Completed Projects:

- ✓ Poe Gate 3 – Pintal socket repair, ball/bushing replaced
- ✓ Poe Gate 1 - Pintal socket repair, ball/bushing replaced
- ✓ Poe Gate 3S, -Embedded pintal shoe concrete replaced
- ✓ Mac – All Gate Clutches and Brakes replaced





Sault Ste Marie Locks Asset Renewal

Fiscal Year 08

- ✓ Poe- Initiate Stop Log Procurement
- ✓ Scope Rock Cut Stabilization
- ✓ Initiate Heavy Lift Analysis
- ✓ Poe - Complete Gate Latch Installation
- ✓ Communications System





Sault Ste Marie Locks Asset Renewal

Fiscal Year 09

- ✓ Poe - Complete Stop Log Procurement
- ✓ Poe – First Year of Hydraulics Upgrade
- ✓ Sandblast/Paint Mac Gates, Poe Stiffleg, & NPP Gantry Crane
- ✓ Design/Build of Utility Lines & Steam Lines System
- ✓ Sandblast/paint NPP Gates
- ✓ Hydropower Unit 10 Runner Repair





Sault Ste Marie Locks Asset Renewal

Fiscal Year 10

- ✓ Continue Construction of New Compressed Air System
- ✓ Poe – Continue Hydraulics Upgrade
- ✓ Mac - Lock Tainter Valve Bulkhead Repairs
- ✓ Mac – Automate & Upgrade 460V Controls (Plans/Specs)
- ✓ Replace Steam Lines
- ✓ Power Plant Repairs
- ✓ Vessel Signaling System
- ✓ Reinforce Bollards





Sault Ste Marie Locks Asset Renewal

Fiscal Year 11

- ✓ Reinforce Bollards Where Required
- ✓ NPP Wicket Gates
- ✓ NPP - Repair Spalling of Stay Rings of Main Turbines
- ✓ Install Air Curtain Upstream of Locks
- ✓ Stabilize Rock Cut
(year 1 of accelerated schedule)
- ✓ Initiate Heavy Lift Equipment Purchase





Sault Ste Marie Locks Asset Renewal

Fiscal Year 12

- ✓ Poe - Sandblast/paint Gates
- ✓ Poe - Rehab Wear Steel
- ✓ Poe - Rehab Concrete Surfaces
- ✓ Stabilize Rock Cut (year 2)
- ✓ Southwest Pier Repairs
- ✓ Initiate Heavy Lift Equipment Purchase





Sault Ste Marie Locks Asset Renewal

Fiscal Year 13

- ✓ Poe – Extend West Nose Pier
- ✓ Mac - Rehab Wear Steel
- ✓ Mac - Rehab Concrete Surfaces
- ✓ Stabilize Rock Cut (year 3)
- ✓ West Center Pier Repairs





Sault Ste Marie Locks Asset Renewal

Fiscal Year 14

- ✓ Poe – Extend West Nose Pier
- ✓ Poe – Upper Gate Replacement
- ✓ Mac – Sandblast/paint Intermediate Gates
- ✓ West Center Pier Repairs

