



Detroit District

Great Lakes & Ohio River Division



**US Army Corps
of Engineers®**



Sault Ste Marie Locks Re-Capitalization Plan

**Updated
25 May 07**

One Corps Serving the Army and the Nation



Agenda

Sault Ste Marie Locks Re-Capitalization



US Army Corps
of Engineers®

1. Re-Capitalization Objective
2. Inputs to the Plan
3. Financial Summary
4. Significant Work by Fiscal Year
5. Sabin and Davis Locks
6. St Marys River Rock Cut





Objective

Sault Ste Marie Locks Re-Capitalization



**US Army Corps
of Engineers®**

Detroit District, USACE re-capitalizes and modernizes the locks and supporting infrastructure at Sault Ste. Marie from FY07-FY12 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
- ✓ Sabin & Davis Locks - Decommission

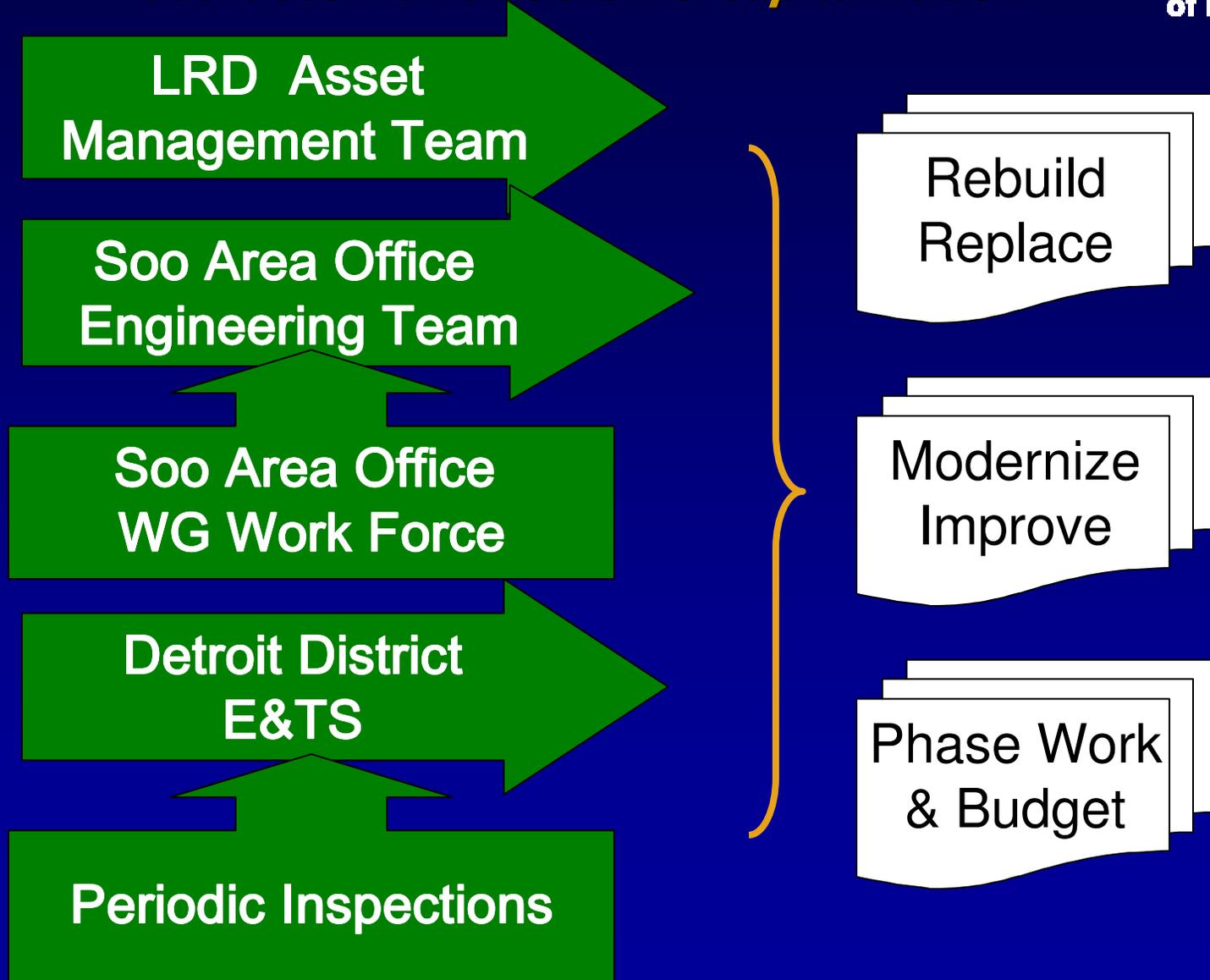


Plan Inputs

Sault Ste Marie Locks Re-Capitalization



US Army Corps
of Engineers®





Overview

Sault Ste Marie Locks Re-Capitalization



US Army Corps
of Engineers®

FY	Base O&M	Re-CAP
FY07	\$17,040	\$2,227
FY08	\$17,561	\$8,727
FY09	\$18,126	\$10,986
FY10	\$18,671	\$13,629
FY11	\$19,263	\$12,737
FY12	\$19,345	\$15,155
total	\$110,006	\$63,461

FY08
\$4,975 in PB

\$3,752 unmet
need

\$ X 1000



* Includes St Marys Rock Cut Repairs



Fiscal Year 07

Sault Ste Marie Locks Re-Capitalization



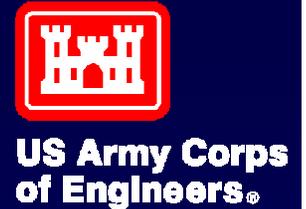
**US Army Corps
of Engineers®**

- ✓ **New Trunnion Beam Tie Down (complete)**
- ✓ **New Gate Latches (complete)**
- ✓ **Replace Cracked Diagonal Turnbuckle on Gate 2 (complete)**
- ✓ **Hydraulic maintenance on gates, valves and booms (complete)**
- ✓ **Communications System**
- ✓ **Multiple inspections (ongoing)**





Lessons Learned From FY 07 Winter Work



- ✓ **Funding (during CRA) greatly impacted work**
- ✓ **Test gate mitering in advance of dewatering**
- ✓ **Modify enclosure (tent) on sides and to sustain high winds**
- ✓ **Allow greater lead time in procurements**



Fiscal Year 08

Sault Ste Marie Locks Re-Capitalization



**US Army Corps
of Engineers®**

- ✓ Replace Davis 60” Discharge
- ✓ Replace Steam/Air Lines
- ✓ Replace Service Switchgear
- ✓ Replace motor controllers
- ✓ Poe - New Hydraulics (P&S) and Initiate Procurement
- ✓ Poe- Initiate Stop Log Procurement
- ✓ Poe – West Nose Pier Extension (P&S)
- ✓ Initiate Heavy Lift Analysis





Fiscal Year 09

Sault Ste Marie Locks Re-Capitalization



**US Army Corps
of Engineers®**

- ✓ **Poe - Complete Hydraulics**
- ✓ **Mac - Sandblast/Paint Gates**
- ✓ **Mac - Replace Boom Pit Sumps**
- ✓ **Replace Unit 10 Trash Rack**
- ✓ **Initiate Extension of Poe Lock's West Nose Pier**
- ✓ **Upgrade Lock Operations Video System**
- ✓ **Complete Heavy Lift Analysis**
- ✓ **Complete Stop log Procurement (year 2)**
- ✓ **Rock Cut Stabilization (year 1)**





Fiscal Year 10

Sault Ste Marie Locks Re-Capitalization



**US Army Corps
of Engineers®**

- ✓ **Poe West Nose Pier Extension (year 2)**
- ✓ **Poe - Initiate Gate Analysis**
- ✓ **Mac - Lock Tainter Valve Bulkhead Repairs**
- ✓ **Decommission Sabin Lock**
- ✓ **Demo Old Steam Plant**
- ✓ **Vessel Signaling System**
- ✓ **Stabilize Rock Cut (year-2)**





Fiscal Year 11

Sault Ste Marie Locks Re-Capitalization



US Army Corps
of Engineers®

- ✓ Powered Mooring Bollards
 - ✓ Sandblast/paint NPP Gates
 - ✓ Initiate Poe Gate Procurement (year 1)
 - ✓ NPP Wicket Gate
 - ✓ NPP Repair Spalling of Stay Ring of Main Turbines
 - ✓ Install Air Curtain Upstream of Locks (*pending analysis*)
 - ✓ Initiate Heavy Lift Procurement *
- ✓ Decommission Davis Lock
 - ✓ Stabilize Rock Cut (year 3)



* Funds Required TBD



Fiscal Year 12

Sault Ste Marie Locks Re-Capitalization



US Army Corps
of Engineers®

- ✓ Poe - Sandblast/paint Gates
- ✓ Rehab Wear Steel (Poe and Mac)
- ✓ Rehab Concrete (Poe and Mac)
- ✓ Complete Poe Gate Procurement (year 2)
- ✓ Heavy Lift Procurement *

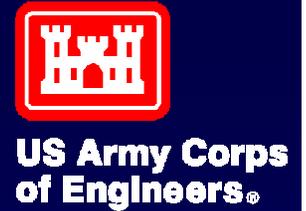


* Funds Required TBD



Working Issue

Sault Ste Marie Locks Re-Capitalization



Sabin and Davis Locks: *What does Decommission Mean?*

Intent: Optimize current investment to minimize future O&M costs while maintaining dam safety, environmental safety and worker safety.

*What can I do now
to minimize future
O & M cost?*

- ✓ *A lock is a very expensive dam*
- ✓ *Safety Requirements*
- ✓ *SHPO and related concerns*
- ✓ *216 Study*



St. Marys River Rock Cut

Sault Ste Marie Locks Re-Capitalization



**US Army Corps
of Engineers®**



FY10	\$1,200k
FY11	\$3,000k
FY12	\$3,000k





Sault Ste Marie Locks Re-Capitalization



**US Army Corps
of Engineers®**

Questions