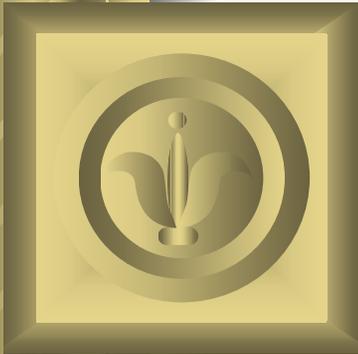
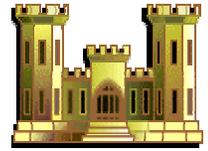


U.S. Army Corps of Engineers

New Orleans District

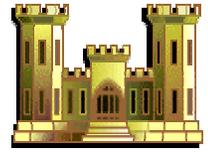


Bayou Sorrel Lock, LA Feasibility Study

Project Manager
Mr. Darrel Broussard
CEMVN-PM-W
504-862-2591

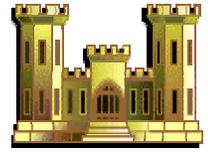
1/14/2003

Study Objective



- **The objective of this study is to develop an optimal navigation plan at Bayou Sorrel Lock in connection with structural improvements necessitated by changes in the MR&T project.**

Bayou Sorrel Lock



- **Constructed as an inseparable feature of the “Flood Control, MR&T” project to pass navigation through the East Atchafalaya Basin Protection Levee (EABPL)**
- **Existing Structure: 56-ft x 797-ft earthen chamber.**

Bayou Sorrel Lock



Alexandria

Atchafalaya
Basin Floodways

Lafayette

Port Allen

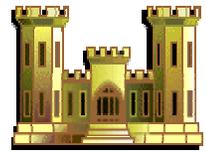
Baton Rouge

Bayou Sorrel Lock

New Orleans

GIWW

MORGAN CITY



Planning Considerations

- **The most probable future condition is that Bayou Sorrel Lock will be modified to pass the MR&T project flood.**
- **All incremental costs over the cost of the modification of Bayou Sorrel Lock to pass the project flood would be allocated to inland navigation.**
- **Navigation delays at Bayou Sorrel Lock averaged 4.7 hours in 1999 2nd highest behind IHNC (6.4).**

Alternative Plans



- **MR&T Flood Control**
 - Replacement-In-Kind
 - Independent flood gate
- **Inland Navigation**
 - Larger lock sizes:
 - 75' x 1,200' x 15' earth chamber
 - 75' x 1,200' x 15' concrete chamber
 - 110' x 1,200' x 15' earth chamber
 - 110' x 1,200' x 15' concrete chamber

Screening of Alternatives Summary

	<u>In-Kind Replacement</u>	<u>Gated Structure</u>
Construction w/E&D Costs	\$4,491,000	\$1,651,000
O&M Costs	\$1,300,000	\$1,303,000
Construction Management Costs	\$277,000	\$106,000
Mitigation Costs	\$6,500	-0-
Real Estate Costs	\$5,500	-0-
<u>Total Closure Costs to Navigation</u>	-0-	<u>\$2,540,000</u>
Total Average Annual Costs	\$6,080,000	\$5,600,000

Screening of Alternatives Summary

	<u>1st Cost</u>	<u>Incre Average Annual Cost</u>	<u>Net Average Annual Benefits</u>	<u>B/C</u>
● 75 ft wide (E)	\$88,005,000	\$1,300,000	\$12,500,000	11.9
● 75 ft wide (C)	\$79,300,000	\$1,200,000	\$15,000,000	14.0
● 110 ft wide (E)	\$92,281,000	\$1,500,000	\$12,800,000	10.8
● 110 ft wide (C)	\$87,758,000	\$1,700,000	\$14,800,000	9.8
● In-kind (E)	\$78,070,000	\$6,080,000		
● Flood gate	\$27,200,000	\$5,600,000		

Selected Plan



- 75-ft x 1,200-ft concrete lock
- Closure of existing lock
- One 3-year construction contract
- No closures of the Morgan City-to-Port Allen Route during construction



Location of
replacement lock.

- 75-ft x 1,200-ft concrete lock

- Closure of existing lock

- One 3-year construction contract

- No closures of the Alternate Route during construction

Allocation & Apportionment of Cost

- Flood Control, MR&T would be 100% Federal Government. Inland Navigation would be apportioned 50% Federal and 50% Inland Waterway Trust Fund.

	Federal Funds	Inland Waterway Trust Fund	Total
Flood Control, MR&T	\$27,200,000	-0-	\$27,200,000
Inland Navigation	\$26,050,000	\$26,050,000	\$52,100,000
Total Cost	\$53,250,000	\$26,050,000	\$79,300,000

Study Schedule



Draft report

Nov 2002

<http://www.mvn.usace.army.mil/prj/BayouSorrel/>

Final report

Apr 2003

PED

2005

Construction Start

2006

Construction Complete

2008