

## SECTION 6 - WITHOUT-PROJECT CONDITION

### OVERVIEW

Identification of the most likely condition expected to exist in the future in the absence of any improvements to the existing navigation system is a fundamental first step in the evaluation of potential improvements. The without-project condition serves as a baseline against which alternative improvements are evaluated. The increment of change between an alternative plan and the without-project condition provides the basis for evaluating the beneficial or adverse economic, environmental, and social effects of the considered plan. Definition of the without-project condition is presented below.

### DESCRIPTION

The without-project condition identified for use in this study includes the following analytical assumptions:

1. Operation and maintenance of all system locks will be continued through the period of economic analysis to ensure continued navigability.
2. All existing waterway projects or those under construction are to be considered in place and will be operated and maintained through the period of analysis.
3. Replacement of the IHNC lock was not assumed.
4. All system locks are using the most efficient locking policies.
5. Alternative non-system transportation means (rail and non-system water) are assumed to have sufficient capacity to move diverted system traffic at current costs over the period of analysis.
6. Waterway user taxes will continue in the form of the towboat fuel tax prescribed by the Water Resources Development Act of 1986, Public Law 99-662.
7. The capacities of system locks are as presented in table 5 - 6.
8. Traffic demands on the system will grow at the mid growth rates.
9. In order to accommodate an increase in the project flood flow line in the Atchafalaya Basin Floodway, near-term improvements to Bayou Sorrel lock will be required. The total costs of two possible structures were analyzed to determine which of the two improvements would more likely be built in the without-project condition. The two structures analyzed was a new chamber built to existing dimensions with higher gates (costing approximately \$63.5 million to construct) or a sector-gated structure placed in front of the existing lock (costing approximately \$25.4 million to construct). Table 6 - 1 shows the breakdown of the average annual costs of the two structures assuming a discount rate of 5.875 percent, a 50-year project life and a base year of 2008. It should be noted that, unlike the new chamber alternative, during construction of the gated structure, navigation on the waterway would have to be completely shutdown for two months with another

490 days of partial shutdown (8 hrs/day). As is shown in table 6 – 1, this results in an average annual cost to navigation of approximately \$2.5 million. Reviewing the total average annual costs of the two structures revealed in the same table shows that the in-kind replacement structure represents a slightly more economical option in providing flood protection. As a result, in this analysis the NED cost of adding capacity at Bayou Sorrel will be the difference between the costs of a new larger lock and the costs of an in-kind replacement structure.

**Table 6 – 1**  
**Average Annual Costs**  
**In-Kind Replacement vs Gated Structure**

	In-Kind Replacement	Gated Structure
Construction with E&D Costs	4,337,284	1,903,293
O&M Costs	1,314,879	1,516,594
Construction Management Costs	267,952	119,672
Mitigation Costs	6,201	-
Real Estate Costs	7,324	-
<u>Total Closure Cost to Navigation</u>	-	<u>2,451,713</u>
Total Costs	5,933,640	5,991,272