



EXECUTIVE SUMMARY

Periodic Inspection Results for the Mississippi River - Bay Island Drainage District and Subdistrict No. 1 of Drainage Union No.1, Illinois Local Flood Control Project

The Bay Island Drainage District Levee and Subdistrict No. 1 of Drainage Union No. 1 System is a federally authorized and non-federally operated and maintained rural flood protection project. The project is located on the east (left descending) bank of the Mississippi River between river miles 434 and 451, on the south (left descending) bank of Copperas Creek, and on the northwest (right descending) bank of Eliza Creek in Rock Island and Mercer Counties, Illinois. The project was completed in 4 stages during the period between 1964 and 1967 with additionally work taking place between 1998 and 2001 and in 2008 along the riverside slope from damages occurred from floodwaters.

The Bay Island Drainage & Levee District No. 1 and Subdistrict No. 1 of Drainage Union No. 1 are responsible for operating and maintaining the local flood control system. The federal portion of levee enhancement was authorized in 1964 under the Flood Control Act of 1954.

A Periodic Inspection (5 year) of the levee system occurred on April 28th, 2010 (Pump Station Inspection) and between May 10th and 13th, 2010 (Levee Inspection). The local sponsor shows an active response to operation and maintenance of the project; however, some deficiencies were noted and actions are required. The overall system rating recommended by the contractor who conducted the inspection was unacceptable based on the deficiencies identified in the report.

The Rock Island District received comments from the Sponsors in response to the draft Periodic Inspection Report. Those comments and responses were considered during the levee risk analysis used to determine the final inspection rating. Several deficiencies were determined to be temporary conditions allowing the rating of the system to be appropriately based on an engineering determination of risk.

The Rock Island District has determined that the existing departures from USACE national standards identified during the Periodic Inspection result in an appropriate rating of the levee system as **Minimally Acceptable**. The Rock Island District rating supersedes the contractor's rating.

Issues that could impair the operation of the system and are in the most need of action:

- Unwanted vegetation is present within the vegetation-free zone of the levee system as defined by ETL 1110-2-571
- The required relief well pump testing has not been conducted at the nine underseepage relief wells. Furthermore, five of those nine underseepage relief wells were not accessible due to heavy woody vegetation.
- The Animal Control program needs improvement as burrows are present throughout the system.
- Encroachments by occur along the project and could impact response during a flood event
- Sections of the riverside levee slope appear to be steeper than the as-built plans/design.



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- Depressions/rutting and loss of sod cover were noted at numerous locations on the levee sections along the clay portions of the levee.
- The handrail around Pump No. 1 intake does not have an intermediate rail, is insufficient in height, and is not anchored properly.

The next Annual Inspection will be scheduled after October 1, 2011, with periodic inspections currently scheduled every five years.