

INVESTIGATION OF THE PERFORMANCE OF THE NEW ORLEANS REGIONAL FLOOD PROTECTION SYSTEMS DURING HURRICANE KATRINA: LESSONS LEARNED

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ABSTRACT

The recent flooding and devastation of the greater New Orleans region during hurricane Katrina represented the most costly peace-time failure of an engineered system in North American history. Extensive investigations and analyses have been performed by several major teams in the wake of this disaster, and some very important lessons have been learned. Many of these have very direct and urgent applications to levee systems in other regions throughout the U.S., and the world.

Lessons include the importance of proper evaluation of risk and hazard; so that appropriate decisions can be made regarding the levels of expense and effort that should be directed towards prevention of catastrophe, and the levels of post-disaster response capability that should be maintained as well. The making of appropriate decisions, given this information regarding risk levels, is then also important.

Also of vital importance are numerous “engineering” lessons regarding analysis, design, construction and maintenance; hard-won lessons with applications to flood protection systems everywhere. We must now do everything possible to capitalize upon these; and to prevent a recurrence of this type of catastrophe in the future.

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