



Mississippi State University

Tools for Enhanced Mapping and Managing Post-Disaster Debris



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Prevent, Protect, Respond, Recover

Homeland Security Challenge:

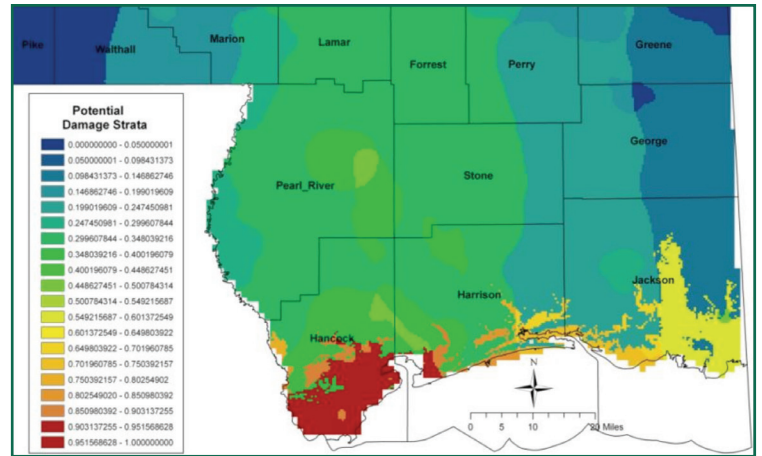
The quantity and variety of debris generated by hurricane Katrina overwhelmed local resources and revealed the need for development of tools to improve debris management in large-scale disasters.

Research Project Solution:

Geospatial products that quickly characterize damage extent and severity, combined with improved data acquisition and recording methods can significantly enhance recovery from and resilience to large scale disasters. This project will develop software and procedures for rapidly producing post-disaster maps containing information required to optimize management of debris piles. Researchers will also evaluate alternative treatments for the different waste streams and develop a cost model that will simplify the process for providing relief funding to counties and municipalities. The tools developed in this project will enable local, state, and federal agencies to reduce audit costs, facilitate post-disaster resource allocation, and identify alternative debris disposal options.

National Implications:

Methods used for debris management tool development can be extrapolated to other regions and similar geospatial solutions implemented for extreme weather events. Uniform data acquisition and record keeping techniques for debris removal and disposal identified in this project are critical components of debris management regardless of the type or location of the disaster.



Hurricane Damage Extent and Severity Developed From Remotely Sensed and Meteorological Data.



Overwhelming Quantities of Multiple, Mixed Types of Debris Can Be Produced by Natural Disasters Such As Hurricane Katrina.

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SERRI is managed by the Department of Energy's Oak Ridge National Laboratory for the U.S. Department of Homeland Security