

Title: **Community Vulnerability Assessment Methodology – New Hanover County, NC**

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Hazards examined: Multi Peril

Study emphasis: Economic development, disaster preparedness, disaster response and reconstruction/recovery issues.

Summary: Offers a GIS-based product useful for making vulnerability-related decision and analyses. Primary goal(s) of product is/are assisting community leaders with decisions relating to, hazard mitigation planning recommendations, disaster preparedness, response and recovery activities and land use and development planning.

Vulnerability Indicators: Critical Facilities, Social, Economic, Environmental

Economic Development, Disaster Preparedness, Disaster Response and/or Disaster Reconstruction Application: All of the above

Data Requirements: Numerous GIS-based data layers and historical hazards data

Output:

- 1) New methodology developed and described on CD-ROM using case study example.
- 2) GIS project developed for use in case study area for vulnerability related decision-making and analysis.
- 3) Initial results and recommendations based on application of vulnerability assessment methodology.

Results of Application at Case Study Site: This application was used to assist the community leaders in making hazard mitigation planning recommendations. The results of each analysis are also being used to support various disaster preparedness activities, as well as in designating special consideration areas for disaster response and possible reconstruction efforts. The application was also designed to support land use and development planning decisions.

Lessons Learned: Limitations of spatial data for use in consistent vulnerability analysis are significant.

- 1) Availability of spatial data to support multi-disciplinary analysis is limited.
- 2) The necessity for continuous local input requires time-consuming commitment to local planning processes.
- 3) There is a lack of consistent and accurate probability and risk data to support local decision-making. In addition, it is extremely difficult to get the scientific community to reach consensus or acknowledge the fact that local decisions will be made in the absence of any data.
- 4) Multi-hazard analysis can be made too complex for acceptance and use in local decision-making.