

CENTER FOR COASTAL MONITORING AND ASSESSMENT & HOLLINGS MARINE LABORATORY

PROJECT

OBJECTIVE

To document changes of well-being in counties impacted by the Deepwater Horizon disaster.



Photo: The Nature Conservancy

Changes in Health and Well-being in Communities Affected by the Deepwater Horizon Disaster

BACKGROUND

On April 20, 2010, the Deepwater Horizon oil rig, which is located off of the coast of Louisiana in the Gulf of Mexico, exploded. The explosion started a chain of events resulting in the release of approximately 4.9 million barrels of oil in the Gulf of Mexico. The discharge of oil continued for 111 days, impacting the marine and coastal ecosystems, as well as local communities.



Photo: NOAA

GOAL

This project seeks to increase understanding about how the Deepwater Horizon disaster has and continues to impact the well-being of people. To answer this question, researchers are evaluating indicators of the health status, social and economic well-being, and environmental condition of Gulf counties that experienced oiling of their shoreline to see how they fare over time, and relative to counties not directly impacted by the disaster.

More broadly, this project will help us to understand how people are affected by changes to ecosystem condition and the provision of ecosystem services. The project will inform efforts to mitigate or alleviate harm from this disaster and to predict changes that may occur from future disasters so that the appropriate interventions can be used to assist communities.

STUDY AREA

This study is focused on twenty counties and parishes along Gulf of Mexico in Alabama, Florida, Louisiana and Mississippi that were directly affected by the oil. The study also includes a number of unaffected counties located along the Gulf of Mexico and the Southeast Coast for comparison.



Project Study Area



METHODS

To assess well-being NOAA researchers will use social and environmental indicators, including:

- Access to food and water
- Income
- Environmental quality and quantity
- Housing
- Economic security
- Recreational places
- Human health
- Safety of person and property
- Social connectedness

Existing data for each of these indicators is being identified, collected, and consolidated into one dataset for modeling and analysis. Using statistical techniques including regression analysis and structural modeling, we will examine changes in well-being over time, focusing on changes associated with the Deepwater Horizon disaster and other large scale environmental events during the study period (2000-2010).

EXPECTED OUTCOMES

This project will improve efforts to monitor the well-being of counties affected by the Deepwater Horizon disaster. Additionally, results will enhance our general understanding of the impacts of both industrial and environmental disasters on the basic needs, health, economies, and social structure of coastal communities. Resource managers and government officials will be able to use the results of this study to inform updates to county comprehensive and emergency plans. Additionally, findings will enhance review of county governance, housing, labor, social service, and public health structures and practices to determine how officials might lessen the negative impact of future disasters on citizens.

PARTNERS

This project is a collaborative effort between the NCCOS Hollings Marine Laboratory and the NCCOS Center for Coastal Monitoring and Assessment's Biogeography Branch.



Photo credits from left to right: The Rez News, La Marque, TX Chamber of Commerce, NOAA, and K. Maloney,

ONLINE RESOURCES

NOAA Deepwater Horizon Archive . . . <http://www.noaa.gov/deepwaterhorizon/>

Center for Coastal Monitoring and Assessment's Biogeography Branch ... <http://ccma.nos.noaa.gov/about/biogeography/>

NOAA Hollings Marine Laboratory . . . <http://coastalhealth.noaa.gov/>

MORE INFORMATION

NCCOS' mission is to support the achievement of NOAA's coastal missions by providing cutting-edge research, scientific information and tools that help balance ecological, social, and economic goals. For more information on this project and others like it, contact:

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