**Department of the Interior**

**Hurricane Sandy Resiliency**

**Categories of Projects Being Considered Relevant to the North Atlantic LCC**

Department of the Interior science activities in response to Hurricane Sandy share the common objective of supporting effective post-Sandy recovery actions while promoting long-term coastal resilience to future hazard events and climate change. The projects proposed by the DOI bureaus are diverse and support this shared objective by addressing priority questions including:

* What are the immediate and longer-term physical/ecological/chemical impacts of Hurricane Sandy?
* How vulnerable are the post-Sandy coasts to future storms and climate change? How will coastal vulnerability change in response to recovery actions and natural evolution of the coast?
* How can we facilitate access to and application of enhanced data, models and forecasts that allow emergency response and natural resource managers to more effectively plan for and respond to future storm events and persistent climate-driven coastal change?
* How can we enhance the development, application, and value of science in planning and response through development of sustained and collaborative processes?
* Are there alternative and more effective approaches that will enhance the resilience of specific coastal resources and of the overall coastal system?
* How do natural features contribute to comprehensive efforts to promote resilience and reduce vulnerability of coastal communities, economies, and infrastructure?

The proposed DOI science response addresses these priority questions within a science framework of Data Collection, Development of Assessments and Decision-Support Tools, and Data and Decision-Support Provision.

**DOI Hurricane Sandy Resiliency Funding Science Project Categories Being Considered Relevant to North Atlantic LCC**

**(Summarized from over 50 science-related projects submitted by DOI bureaus)**

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| USGS | Topographic surveys  |
| USGS | Coastal mapping products and impact assessments |
| USGS | Impacts to & vulnerability of coastal beaches |
| USGS | Assess storm impacts to wetland integrity and stability, waterfowl and migratory birds, coastal forests |
| USGS | Wetland vegetation community functions & processes in response to sandy |
| USGS | Estuarine assessment |
| USGS/NPS | Scenario development to inform restoration and recovery of coupled human-natural Systems |
| USGS/USFWS | Coordinated effort to compile and make available topographic and bathymetric data needed to make decisions; elevation databases; decision support portals |
| USFWS | Decision support for Hurricane Sandy restoration and future conservation to increase resiliency of tidal wetland and beach habitats and species in the face of storms and sea level rise |
| USFWS | Regional conservation design and delivery for coastal areas affected by Hurricane Sandy |
| USFWS | Marsh restoration and management to prepare for sea level rise and storms - local scale response to sea level rise adaptation and tidal marsh migration. |
| USFWS | Developing and implementing best management practices for engineering projects in response to Hurricane Sandy |
| USFWS | Evaluation of natural resource impacts, vulnerability assessments and monitoring for national wildlife refuges impacted by Hurricane Sandy |
| NPS | Develop alternative shore protection methods to restore habitats – demonstration projects |
| NPS | Conduct submerged marine habitat mapping: A foundation for enhancing resilience to climate change |
| NPS | Jamaica Bay Science and Resilience Center |
| BOEM | Sand resource data collection; environmental assessment and monitoring |
| BIA | Tribal hazards needs assessment; risk evaluation and planning |