



Building Resilience and Measuring Success in the Wake of Hurricane Sandy

Department of the Interior's Approach to Achieving Coastal Resilience in the Wake of Hurricane Sandy December 6, 2016

Olivia B. Ferriter, DOI
Michael Tupper, USGS
Wendi Weber, USFWS
Susan Taylor, Abt Associates
Amanda Bassow, NFWF



DOI Recovery and Historic Preservation Projects

Goals:

- **Repair and rebuild facilities**
- **Reopen public lands and facilities**
- **Support local economies**
- **Improve resilience to future storm events**
- **Preserve damaged historic resources**

Pre-cleanup



Post Cleanup



E.B. Forsythe National Wildlife Refuge
(Photos: USFWS)



Jacob Riis Bathhouse Yard – Gateway National Recreation Area (Photo: NPS)



Packing Ellis Island after Hurricane Sandy
(Photo: NPS)



Solar Panel Installation
(Photos: USFWS)



DOI Resilience Program

Key Considerations

- **Build Resilience through Projects**
 - **Scale/scope of projects (site/region)**
 - **Community and Ecological**
- **Fill knowledge gaps/science needs**
- **Measure project performance/benefits**
 - **Implement ecological and socio-economic metrics**
 - **Analyze results across projects**
- **Identify best practices (what worked/what didn't and why)**
- **Apply lessons learned to future projects/conservation frameworks**
 - **Where to focus future efforts**
- **Communicate Results**

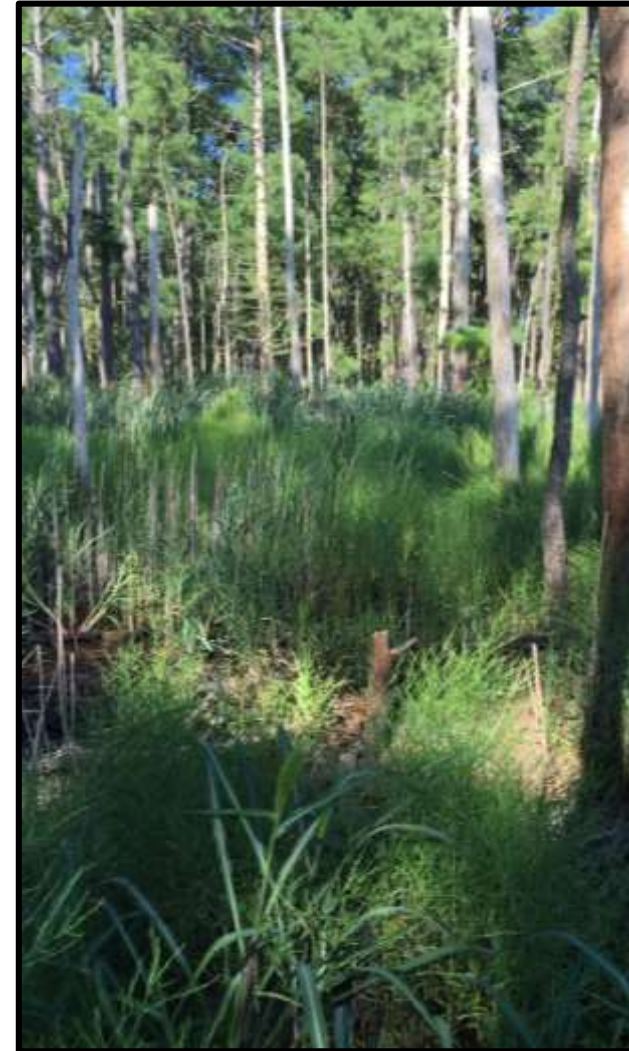
Resilience:

The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions (Executive Order 13653).



DOI Resilience Program Overarching Goals

- 1. Reduce the impacts of coastal storm surge, wave velocity, sea level rise and associated natural threats on coastal and inland communities.**
- 2. Strengthen the ecological integrity and functionality of coastal/inland ecosystems to protect communities and to enhance fish and wildlife and their associated habitats.**
- 3. Enhance our understanding of the impacts of storm events and identify cost effective, resilience tools that help mitigate for future storms.**



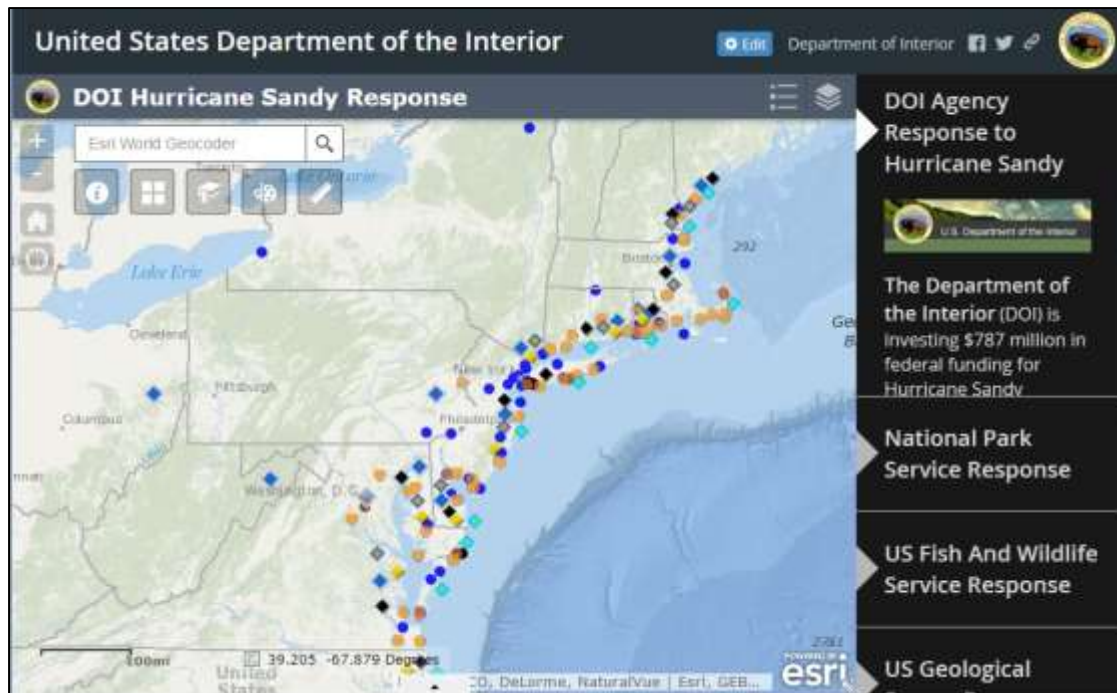
Marsh migration



DOI Communications

Hurricane Sandy Web Map

- DOI-sponsored online mapping tool featuring resilience projects
- Displays interactive map of projects with embedded bureau websites and story maps including: FWS, NPS, BOEM, USGS, BLM, BSEE and NFWF
- Serves as a centralized source of information for collaborative efforts to build a more resilient coast in the face of future storms





Key Takeaways

- **Plan for future conditions**
- **Use science to inform project planning**
- **Coordinate across landscape and with partners**
- **Plan for pre and post project monitoring**
- **Plan upfront for project/program evaluation**
- **Establish ecological and socio-economic metrics early and require data collection for projects**
- **Replicate and adapt resilience framework**



Thank you

Long Island National Wildlife Refuge Complex (Photo: USFWS)

