Coastal Resilience Assessment

CONTACTS

Mandy Chesnutt
National Fish and Wildlife Foundation
202-857-0166 or
Mandy Chesnutt@nfwf.org

Rickie White
NatureServe
919-794-6145 or
rickie_white@natureserve.org

PARTNERS

US Army Corps of Engineers.

UNC ASHEVILLE NEMAC
NATIONAL ENVIRONMENTAL MODELING AND ANALYSIS CENTER

NatureServe

Learn more at **www.nfwf.org**

NATIONAL HEADQUARTERS
1133 15th Street, NW
Suite 1000
Washington, D.C. 20005
202-857-0166

BACKGROUND

The National Fish and Wildlife Foundation (NFWF) is committed to supporting programs and projects that improve resilience by reducing communities' vulnerability to coastal storms, sea-level rise, and flooding events by strengthening natural ecosystems and the fish and wildlife habitat they provide.

COASTAL RESILIENCE ASSESSMENTS

The National Oceanic and Atmospheric Administration (NOAA) has provided funding for NFWF to assess regional resilience for U.S. coastlines as well as eight targeted watersheds. In partnership with NOAA and in collaboration with the U.S. Army Corps of Engineers (USACE), NFWF commissioned the National Environmental Modeling and Analysis Center (NEMAC) at University of North Carolina at Asheville and NatureServe, a non-profit conservation science organization, to conduct the resilience analyses. This assessment builds on the evaluation concepts developed by NFWF in the wake of Hurricane Sandy.

OBJECTIVES

1. Create contiguous and standardized datasets for U.S. coastlines and eight targeted watersheds* to support coastal resilience assessment and planning.
2. Analyze the impacts of potential coastal *and* inland storm events.
3. Identify areas for restoration, installation of natural and nature-based features, and other projects that achieve maximum benefit for ***human community resilience, fish and wildlife populations, and their habitats.***
4. Identify and recommend specific strategies, conservation actions, and monitoring in targeted watersheds.

PRODUCTS

Regional and Watershed Assessments include:

- ***Community Exposure Index map*** that provides fine-scale data on where communities, people, and infrastructure are at the highest risk of flooding
- ***Critical Fish and Wildlife Populations and Habitats map***
- ***Resiliency Hubs map*** that identifies large swaths of connected habitat that protects coastal communities from the impacts of storms as well as support fish and wildlife
- ***Project Portfolio*** for each targeted watershed that identifies resilience projects, including recommendations for the highest priority and most impactful projects

These analyses prioritize sites for large-scale natural and nature-based resilience project implementation that enhance or build on the existing Resiliency Hubs and will result in the maximum benefit for both human communities *and* fish and wildlife habitats.

*TARGETED WATERSHEDS

- Cape Fear (NC)
- Savannah River (GA/SC)
- Narragansett Bay and Coastal RI (RI/MA)
- Charleston Harbor (SC)
- Merrymeeting Bay (ME)
- Delaware Bay (DE/NJ/PA)
- St. Johns River (FL)
- San Francisco Bay (CA)

Targeted Watershed Assessments

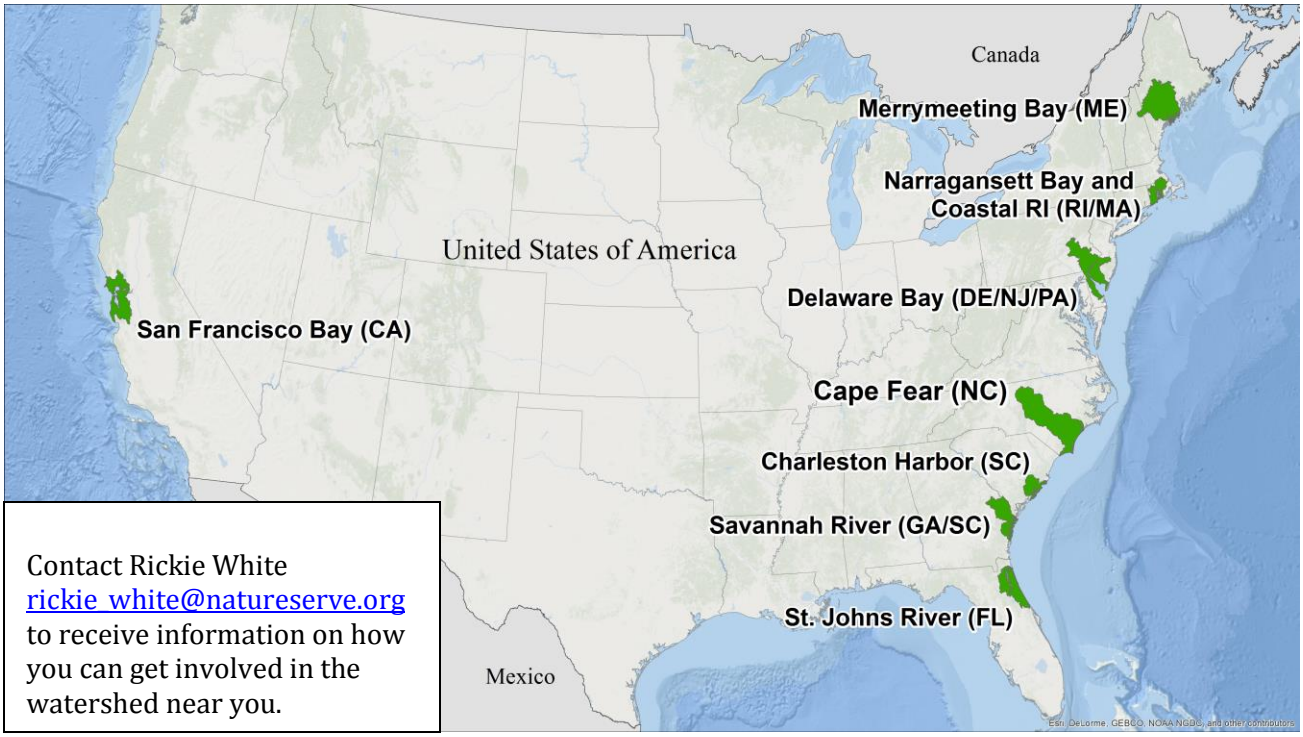
WATERSHED ASSESSMENT OBJECTIVES

1. Engage stakeholders in the watershed to provide project input to the assessment, data, and identification of resilience projects.
2. Develop a GIS decision support system aggregating regional and local data on species, habitats, and natural features.
3. Conduct GIS assessments of current wildlife condition and potential climate vulnerability.
4. Develop a portfolio of resilience projects analyzed for their benefit to human assets and natural resources.
5. Provide assessment results in a report and watershed decision support system to inform resilience planning and project development.

Photo: Patrick Crist

PROCESS

1. Conduct an introductory webinar for interested stakeholders.
2. Host watershed workshops with stakeholders, providing two opportunities to participate.
3. Conduct habitat assessment for the watershed using regional and local data.
4. Compile information on candidate resilience projects, conduct site visits, and characterize them per established criteria.
5. Present draft findings to stakeholders for feedback.
6. Present final products by webinar to stakeholders.



Contact Rickie White
rickie_white@natureserve.org
to receive information on how you can get involved in the watershed near you.