

The Effects of Sea Level Rise (ESLR) Program

ESLR is a multidisciplinary research program focused on providing science products to inform coastal managers of local coastal vulnerability and solutions to mitigate flood risk.

Science informing Coastal Ecosystem, Community, and Infrastructure Protection and Resilience



Describe the vulnerability of coastal communities and ecosystems due to sea level rise (SLR)



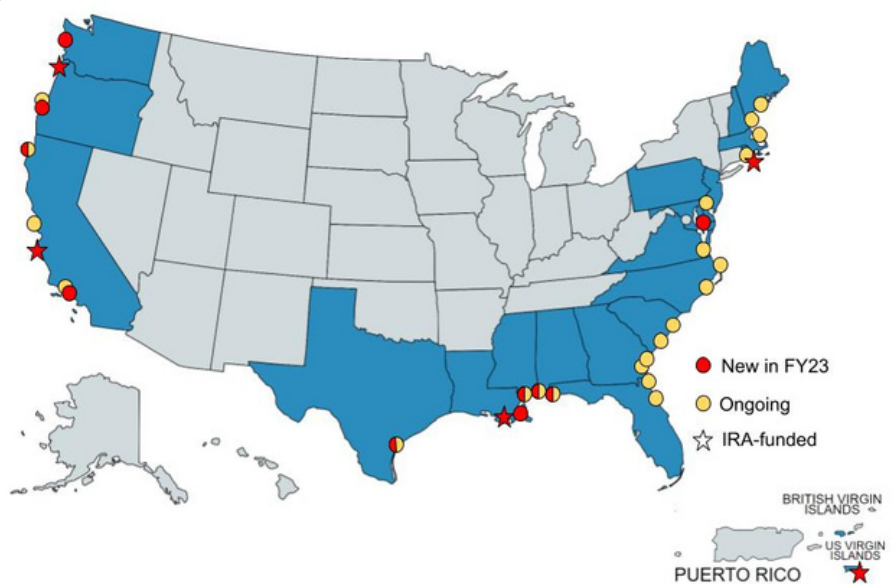
Determine the services and benefits that natural and nature-based features (NNBF) provide



Predict the effects of SLR and inundation to inform management solutions

Program at a Glance

21 active projects
\$19.1 million total
\$6.7 million in FY23
 Supporting 130 PI's
 at 72 institutions



IRA = Inflation Reduction Act

CURRENT ESLR PROJECTS

- Coastal Adaptation in collaboration with underserved communities (MD)
- Optimizing nature-based solutions to mitigate coastal vulnerability and risk (RI)
- Informing coastal adaptation and management through the coastal dynamics of sea level rise (MS, AL, FL)
- Assessment of flood adaptation options in Los Angeles County (CA)
- Evaluation of adaptation strategies to mitigate surface-subsurface flooding in coastal communities (CA)
- Cost-benefit analysis of green-gray infrastructure that incorporates co-benefits (OR, WA)
- Using models to evaluate alternative backshore management options (OR, WA)
- Informing nature-based features through coral reef-mangrove interactions (U.S. Virgin Islands)
- Integrated modeling to assess natural and nature-based solutions for roadway flooding (VA)
- Salt marsh evolution along the South Atlantic Bight (SC, GA, FL)
- Transportation, sea level rise, and storms: A sustainable path to increased resilience (AL)
- Pavement resilience to sea level rise using NNBF (NH, AL)
- Living with sea level rise in the Texas Coastal Bend (TX)
- Evaluating tidal marsh inundation risk and monetizing services to prioritize actions (GA, SC, NJ, DE, PA)
- Informing management of nor'easter and hurricane threats under sea level rise (RI, MA, ME)
- Integrated modeling of the effects of sea level rise across estuaries, marshes and barrier islands (MS, AL)
- Beneficial use of dredged sediment to increase resilience of marshes and built infrastructure (NC, FL)
- Determining if older dunes are more resilient to storms and sea level rise (NC)
- Advancing natural solutions to sea level rise impacts on the North-Central California coast (CA)
- Ecosystem and community vulnerability to surface and subsurface flooding with sea level rise (CA)
- How to increase the ecosystem services of coastal beaches and dunes (WA, OR)

More details, including completed projects, can be found on the [NCCOS ESLR website](#).



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