



Federal Policy Recommendations for Coastal Climate Change Adaptation and Resilience in the United States

BACKGROUND

Across the United States, coastal communities face **increased uncertainty** from changes such as **intensifying coastal erosion, flooding, and sea level rise**. Through creative partnerships, innovative program design, and intentional community engagement, communities, practitioners, and researchers are developing and carrying out **new ways to adapt to the rapidly changing coastal environment**.



1 Year After Construction



2 Years After Construction

A growing oyster reef constructed as a part of a **living shoreline** project run by the **North Carolina Coastal Federation**. Living shorelines are a natural alternative to sea walls and bulkheads. They decrease wave action and decrease coastal erosion. Living shorelines also **restore ecosystems** and **improve water quality**.

PROJECT OVERVIEW

We outline findings and policy recommendations identified during EESI's **Regional Coastal Resilience Congressional Briefing series** (June 2019 – April 2020). The series featured over **40 coastal resilience experts** from the Northeast, Southeast, Gulf Coast, Great Lakes, West Coast, Hawaii, Alaska, and the Caribbean. We pay particular attention to the use of **nature-based solutions** and the **application of data** to climate adaptation decision-making.



Double Dutch Dairy LLC in Wisconsin demonstrates the use of **cover crops** to reduce soil erosion, manage nutrients, increase water-holding capacity, decrease weeds, increase soil productivity, and sequester carbon.

UPCOMING REPORT

EESI's **Coastal Resilience Report** will be released in **October 2020**. The report provides **policy recommendations** to inform legislative work on coastal resilience during the 117th Congress (2021-2022). Paired with each recommendation, the report provides **specific examples of coastal resilience in action** to emphasize how the federal government can learn from and support on-going coastal resilience work.



Community members meet to **generate community land use plans** as a part of the Louisiana Strategic Adaptations for Future Environments (**LA SAFE**) initiative, a model program for community-centered resilience planning and project implementation.

POLICY RECOMMENDATION AREAS & ON-THE-GROUND MODELS FOR SUCCESS

Cross-Cutting Principles

- **Climate justice and equity** should be built into all federal policies and federally funded programs.
- Federal government decision-making should be based on the **climate of the future**, not the climate of the past.
- **Enhanced coordination** at the federal level is needed to best support state and local adaptation and resilience work.
- Federal agencies have a key role to play in **connecting science and practice**.
- Adaptation projects should create and sustain **local jobs**.

Adaptation Data

- The federal government should increase funding for **scientists and Native American communities** to co-produce knowledge and collaborate, with the understanding that Native American communities have sovereignty over their knowledge.
- In addition to providing data, federal agencies must provide **technical support** to communities, especially small, rural, and resource-scarce communities, to put this information to use.

Model: Localized sea level rise projections for [Washington State](#) were used by The City of Tacoma to design its master plan, and Metro Parks Tacoma integrated the sea level rise information into a park redesign.

Community

- **Community-centered policy development and program design** is critical for climate adaptation and resilience work. This means communities—especially Black, Indigenous, and people of color, frontline communities, and low-income communities—shape climate adaptation and resilience policy.
- Communities should be provided with **resources to train local leaders** to facilitate climate adaptation and resilience.

Models: Louisiana's Strategic Adaptations for Future Environments ([LA SAFE](#)) initiative and the Lead the Coast community leader training program; [Great Lakes Indian Fish and Wildlife Commission](#) adaptation toolkit design process

Financing Adaptation & Resilience

- The federal government should support adaptation and resilience through **funding mechanisms**, including revolving loan funds, state grant programs, green banks, and bond measures.
- Federal government funding should be designed so that **communities ultimately have control** over grant funding to implement projects.
- Federal agencies should use **climate vulnerability assessments** of federal assets to efficiently allocate resources.

Models: [The Puget Sound Institute](#) plans to expand the Shore Friendly initiative by creating a revolving loan fund. [Green banks](#) in Hawaii and Florida finance adaptation projects that are traditionally harder to fund because they have fewer profit-generating benefits.

Land Use & Development

- **Nature-based solutions** should be employed as infrastructure solutions.
- Federal agencies must shift strategies to build based on the **climate of the future**, not the climate of the past.
- Federal agencies need to **update benefit-cost analysis tools** that currently limit project types, disadvantage nature-based solutions, and reinforce structural inequalities.

Model: [North Carolina](#) changed their permitting system for living shorelines to make it easier for landowners to install living shorelines instead of sea walls and bulkheads. The process included input from state and federal agencies, practitioners, and local scientists.

Cultural Heritage

- Many **cultural heritage sites and traditions are threatened** by climate impacts. Such sites also serve as key areas of research to understand past climate change and adaptation measures taken in anticipation of or in response to impacts.
- Contributions from research on cultural heritage should be included in the **National Climate Assessments**.
- Cultural heritage considerations should be **integrated into federal requests for proposals** for climate adaptation and resilience work.

Model: Research on [Jamestown Island in Virginia](#) contributed to scientific understanding of climate impacts by studying salt water intrusion into archeological sites on the historic island.

About EESI

- 🌐 **NON-PROFIT**
Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization
- 🌐 **NON-PARTISAN**
Source of non-partisan information on energy and environmental policy development
- 🌐 **DIRECT ASSISTANCE**
In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop "on-bill financing" programs

Our Work

- 🌐 **BRIEFINGS**
Live and archived video recordings and written summaries of public briefings
- 🌐 **FACT SHEETS**
Timely, objective coverage of climate and clean energy topics
- 🌐 **CLIMATE CHANGE SOLUTIONS**
Bi-weekly newsletter featuring articles on climate solutions and environmental legislation
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Adaptation and Resilience at EESI

- 🌐 **REGIONAL COASTAL RESILIENCE BRIEFING SERIES**
[Congressional briefings](#) on each coastal region of the country
- 🌐 **CLIMATE ADAPTATION DATA WEEK**
A week of [web-based Congressional briefings](#) focused on how data is used to inform climate adaptation actions
- 🌐 **FACT SHEETS ON NATURE-BASED SOLUTIONS**
[Nature as Resilient Infrastructure: An Overview of Nature-Based Solution](#) and [Federal Resources for Nature-Based Solutions to Climate Change](#)
- 🌐 **WEB ARTICLES**
Accessible articles on topics ranging from [floodplain management](#) in rural communities to Congressional hearings on [wildfires](#)

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