NOAA Restoration Projects and Priorities

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REFERENCES

NOAA AND U.S. DEPARTMENT OF COMMERCE FY22-26 STRATEGIC PLAN CROSSWALK

NOAA STRATEGIC GOALS		DOC STRATEGIC GOALS		DOC STRATEGIC PLAN OBJECTIVES (Commerce lead bureau is in parentheses)			
Goal 1 - Build a Climate Ready Nation		Goal 3 - Address the Climate Crisis through Mitigation, Adaptation and Resilience		3.1 – (NOAA) Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water and climate forecasts			
		Efforts	ſ	Ē	3.2 – (NOAA) Strengthen coastal resilience and restoration of lands and waters for current and future generations		
					3.3 – (ITA) Accelerate development and deployment of clean technologies		
				3.4 – (All bureaus) Embed climate considerations across Department programs			
Goal 2 - Make Equity Central to NOAA's Mission		Goal 5 - Provide 21st Century Service with 21st Century Capabilities		5.1 – (All bureaus) Effectively implement new Department of Commerce authorities and investments			
Operational Excellence				5.2 – (All bureaus) Optimize workforce and diversity, equity and inclusion practices			
				5.3 – (All bureaus) Equitably deliver exceptional customer experience			
				5.5 – (All bureaus) Modernize mission support processes and infrastructure			
Goal 3 - Foster an Information Based Blue Economy		Goal 2 - Foster Inclusive Capitalism and Equitable Economic Growth		2.1 – (EDA) Drive equitable, resilient, place-based economic development and job growth			
				2.2 – (EDA, All bureaus) Build sustainable, employer-driven career pathways to meet employer's need for talent and to connect Americans to quality jobs			
Operational Excellence All		Goal 1 - Drive U.S. Innovation and Global Competitiveness		1.7 – (NOAA) Advance U.S. leadership in the global commercial space industry			
				1.2 – (NIST) Accelerate the development, commercialization and deployment of critical and emerging technologies			
All		Goal 4 - Expand Opportunity and Discovery through Data		4.1 – (OUSEA, All bureaus) Implement evidence-based decision making within the Department of Commerce to increase program and policy impact			
				4.3 – (OUSEA, All bureaus) Improve Commerce data usability and advance ethical, responsible and equitable data practices			
INTRO	GOALS SUMMARY	CLIMATE	EQUITY	BLUE	ECONOMY	OPERATIONS	NOAA FY22-26 STRATEGIC PLAN 73





Through 2026, evidence of progress toward the Protect and Restore Marine Life and Ocean, Coastal and Great Lakes Ecosystems objective will include:

- Restoration results in ecological change and community resilience through habitat-based approaches to rebuild productive and sustainable fisheries, contribute to the recovery and conservation of protected resources and promote resilient ecosystems and communities.
- Communities are engaged in strengthening coastal resilience and economic vitality through the conservation and restoration of coastal ecosystems by pursuing locally-led and collaborative stewardship efforts.

NOAA FY22-26 STRATEGIC PLAN



Strategic Goal 1: Amplify the economic value of commercial and recreational fisheries while ensuring their sustainability





1.1 Manage stocks for optimum yield

Work with federal, state, and other partners to address priority habitat and ecosystem <u>restoration</u> <u>needs</u> related to increasing diadromous fish access to spawning and nursery habitat.

2.1 Stabilize highest priority protected species (All FL and Gulf related)



Current NOAA Restoration Center Programs

Transformational Habitat Restoration and Coastal Resilience Grants and Coastal Habitat Restoration and Resilience Grants for Underserved Communities

Priorities:

- 1) sustaining productive fisheries and strengthening ecosystem resilience;
- 2) fostering regionally important habitat restoration
- 3) enhancing community resilience to climate hazards and providing other co-benefits; and4) providing benefit to underserved communities, including through partnerships with tribes.



1. Sustaining Productive Fisheries and Strengthening Ecosystem Resilience.

- Contribute to the recovery of threatened and endangered species listed under the Endangered Species Act (ESA) Listed Species;
- Sustain or help rebuild managed species which includes benefits to Essential Fish Habitat (EFH)
- Enhance the sustainability of saltwater recreational fisheries by the restoration of habitat that supports the National Saltwater Recreational Fisheries Policy and Implementation Plans;
- Improve habitat to support native fish species of the Great Lakes.

2. Fostering Regionally Important Habitat Restoration.

3. Enhancing Community Resilience to Climate Hazards and Providing Other Co-benefits.

4. Providing Benefit to Underserved Communities



Evaluating the Use of a Biodegradable Hardscape for Oyster Reef Habitat Restoration Application in Georgia Estuaries (CIG Cycle 23)



Oyster Reef Restoration & Monitoring

Benthic Ecology Lab at Savannah State University

Restoration Highlights

- Historic decline of oyster reefs has emphasized the need for successful restoration projects
- Researchers at Savannah State University have restored oyster reef habitat using bagged oyster shell and a plant-based material called Oyster Catcher to study which substrate is most successful in Georgia's estuaries
- 6 reef restorations (3 bagged shell & 3 Oyster Catcher) were completed in June 2021 along the shoreline of the Skidaway Island State Park and are actively being monitored







Oyster Reef Growth & Development:

Monitoring

- Oyster Density- number of oysters at each reef
 Oyster Length- size of oysters and growth over time
- Rugosity- measure of reef structural complexity
 Aerial Surveys- use of unmanned aerial vehicles to
- quantify vertical and lateral growth of reefs over time Use of Restored Oyster Reef Habitat:
- Gill Nets, Minnow Traps, & Crab Pots- survey of the fish, crabs, and shrinp utilizing the restored habitat
 Acoustic Camera- underwater video footage to count, measure, and observe behavior of fish
- Volunteer Angler Survey engaging local anglers while determining the use of the habitat by commonly targeted sportfish species

Habitat Restoration to Support Resilience in the Gullah Geechee Corridor National Heritage Area







Strategic Goal 2: Conserve and recover protected species while supporting responsible fishing and resource development

2.1 Stabilize highest priority protected species

- Invest in research to improve and guide ESA consultations, recovery plans, and habitat restoration.
- Focus limited resources for Gulf of Mexico Bryde's whale conservation on highpriority areas, such as early engagement in Gulf restoration, advising on the siting of offshore activities that could impact the species, and recovery planning.
- Collaborate to respond to and research the major disease outbreak affecting corals in the Caribbean and along the Florida reef tract; support coral nursery genetic management; collaborate with partners to implement reef-scale coral restoration initiatives that build on recent restoration successes; and research other new interventions, review their policy implications, and develop decision-making frameworks for their use as recommended by the National Academies of Science.
- Support efforts to compensate the public for injuries to protected resources by collaborating with the Office of Habitat Conservation to inform injury assessments and determine appropriate restoration measures.





Key Strategies

NDAA Blue Economy Strategic Plan 2021-2025 January 19, 2021 C.I.I.I.C. . C.I.C. . C.I.C.I

NOAA Blue Economy Strategic Plan (2021)

5.10.2. Action: Develop a National Goal of **increasing wetlands** and other protective coastal ecosystems in endangered areas (suffering wetland and marsh losses) and identify partners to support this effort.

Lead Office: NOS Office for Coastal Management Supporting Offices: National Centers for Coastal and Ocean Science, NOAA Restoration Center, with support from external partners including US Army Corps of Engineers and the National Fish and Wildlife Foundation Due Date: FY21



Environmental Vulnerabilities of the Gullah Geechee Communities in Georgia



Jennifer Colley, Tara Cox, Dionne Hoskins-Brown (2019-GA, 2021-Corridor)

- Mapped community asset data in ArcGIS 10.4
- Used Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model
- Identified Gullah Geechee sites susceptible to inundation for different storm intensities in Chatham County, Georgia.

The **S**ea, **L**ake and **O**verland **S**urges from Hurricanes (SLOSH) model was developed by the National Weather Service (NWS) and uses information about atmospheric pressure, size, forward speed, and directional track to predict storm surge heights from hurricanes.



Result: A total of 5 active GA sites predicted to be inundated with just 1 foot of sea level rise.

