

NOAA
FISHERIES
SERVICE



Habitat Blueprint From Ridge to Reef: Manell-Geus Habitat Focus Area

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A framework to improve habitat for fisheries, marine life, and coastal communities

VISION:

Healthy habitats that sustain resilient and thriving marine resources and communities

PURPOSE:

Framework for NOAA to think and act strategically across programs and with partner organizations to address the growing challenge of coastal and marine **habitat loss and degradation**

OUTCOMES:

- Sustainable and abundant fish populations
- Recovered threatened and endangered species
- Protected coastal and marine areas and habitats at risk
- Resilient coastal communities
- Increased coastal/marine tourism, access, and recreation

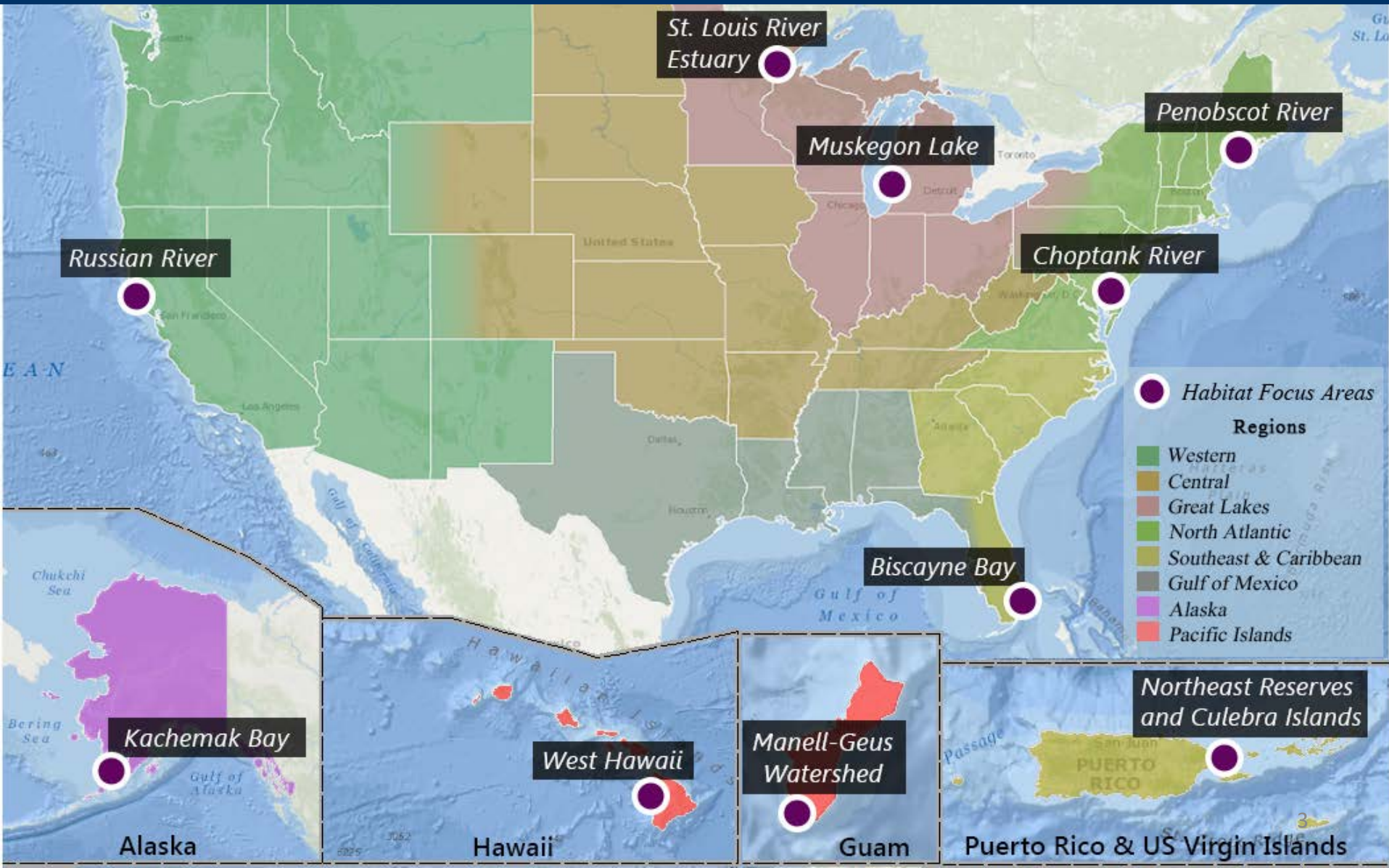


NOAA HABITAT BLUEPRINT

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



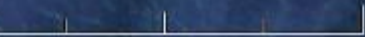
A framework to improve habitat for fisheries, marine life, and coastal communities





**Manell - Geus
Watershed
Merizo, Guam**

Data LDEO-Columbia, NSF, NOAA
Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO





Geus

Manell

Cocos Lagoon

Achang Reef Flat
Marine Preserve















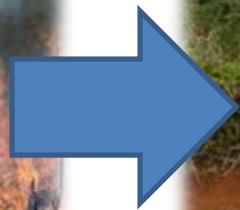


Upper reaches of the Geus River

















Manell Flooding

Google Earth Street View

Legend



Google earth

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<https://i.ytimg.com/vi/q25hCHmXcUw/maxresdefault.jpg>

















Draft Habitat Focus Area Objectives

Improve Coral Reef Ecosystem Health and Increase Resilience through targeted management actions:

- Watershed Restoration - Reducing Fire Impacts - Reef Response and Restoration

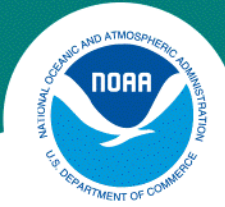
Improve Community Resilience to Climate Change Impacts

Build community and government capacity to manage coral reefs and coastal and marine resources.



Use a science based approach to inform management decisions

- *Biophysical Assessments and Monitoring*
- *Socioeconomic Monitoring*



Partners are the Key

NOAA:

NOAA Fisheries:

- Office of Habitat Conservation
- Restoration Center
- Pacific Islands Fisheries Science Center

National Ocean Service:

- Coral Reef Conservation Program
- Center for Coastal and Ocean Science

National Weather Service

Government of Guam:

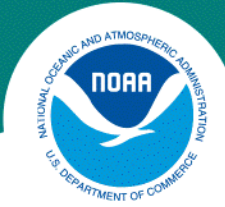
- Guam Bureau of Statistics and Plans
 - Guam Coastal Management Program
- Guam Environmental Protection Agency
- Guam Department of Agriculture
 - Division of Aquatic and Wildlife Resources
 - Forestry and Soil Resources Division

Merizo Mayor's Office

The Nature Conservancy

University of Guam

- Marine Laboratory
- Water and Environmental Research Institute
- Center for Island Sustainability
- College of Natural and Applied Sciences
- USDA Natural Resource Conservation Service
- Guam Nature Alliance
- Humatak Community Foundation
- Marianas Research and Development Council
- Guam Community College
- San Dimas Parish
- Ayuda Foundation
- Soil and Water Conservation Districts
- Merizo business owners

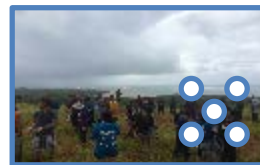


Utilize Existing Programs

- Guam Coral Reef Initiative
 - Manell-Geus Priority Watershed
 - Reef Response Team
 - Local Action Strategy Working Groups
- Guam Cooperative Fire and Forest Stewardship Programs
- NMFS Guam Field Office coordinated Community Engagement Programs







Watershed Restoration

○ Stabilize Erosion

○○ Using Native Plants

○○○ Readily Available Materials

○○○ Vetiver, Acacia, & Fiber Mats

○○○ Volunteer Labor



Service Learning





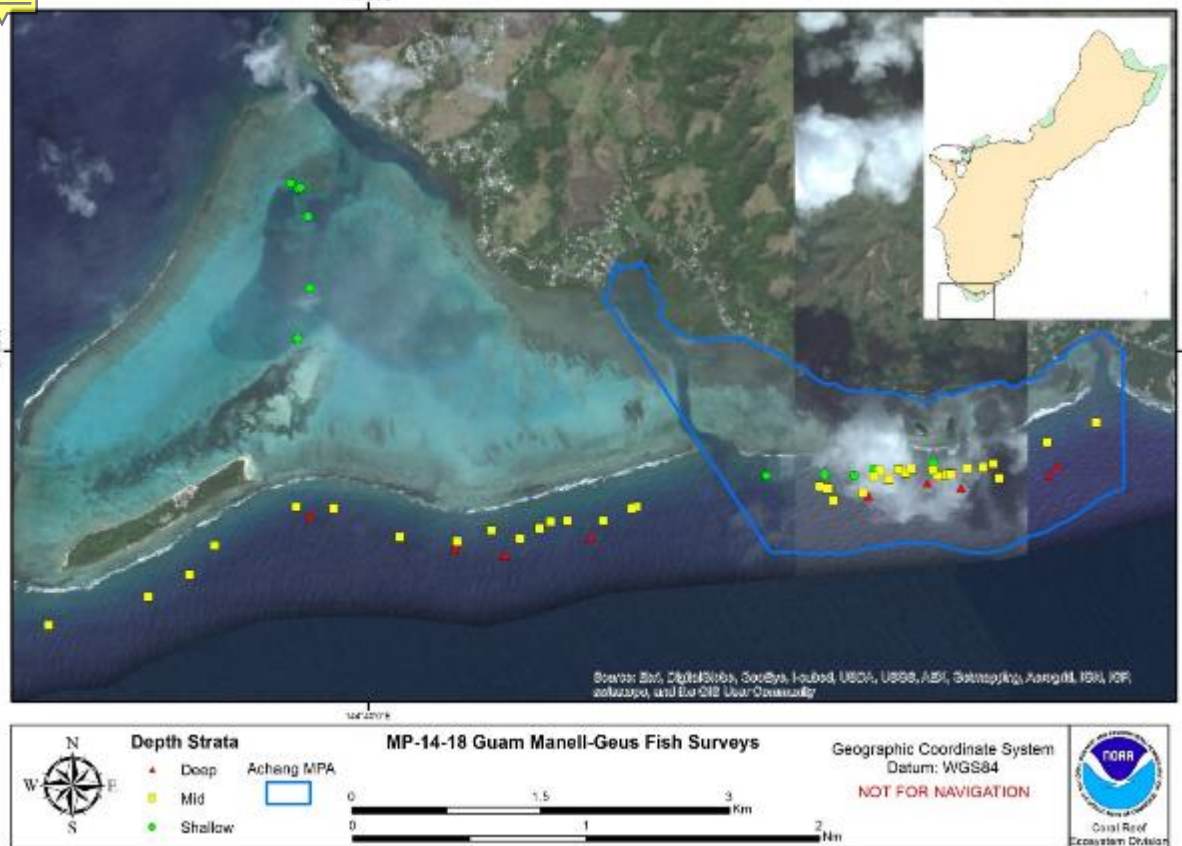
Community Training Native Plant Propagation



Science Based Approach

Biophysical:

- Fish REA
- LT Monitoring
- Freshwater
- Reef Flat Habitat Mapping and Assessment
- Sedimentation
- Nutrients



Socioeconomic:

- Human Well-Being Indicators
- Economic Indicators
- Knowledge and Perception

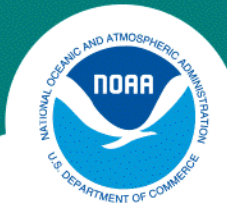




Results in 3-5 Years

- **Coral Reefs** – Decrease sedimentation impacts in the next 5 years
- **Seagrass Beds** – Maintain or increase areal extent and density of beds over the next 5 years.
- **Mangroves** – Establish monitoring plan to detect changes in the health of the mangrove forests.
- **Stream Beds** – Improve stream habitat and increase presence of native fauna in at least 3 streams
- **Community** – Increase community engagement in conservation programs





Long Term Results

- Resilient reefs and terrestrial habitats that will be able to sustain the people of Merizo well into the future.
- A safer, more resilient and engaged human community



Si Yu'os Ma'ase!



More Information:
<http://www.habitat.noaa.gov/habitatblueprint/>
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