

Florida Silver Jackets Quarterly Meeting

5 March 2024

***Team of Professionals Making Tomorrow
Better***



**Warner Buchman- USACE
SPP Planner and
Florida Silver Jackets Coordinator**

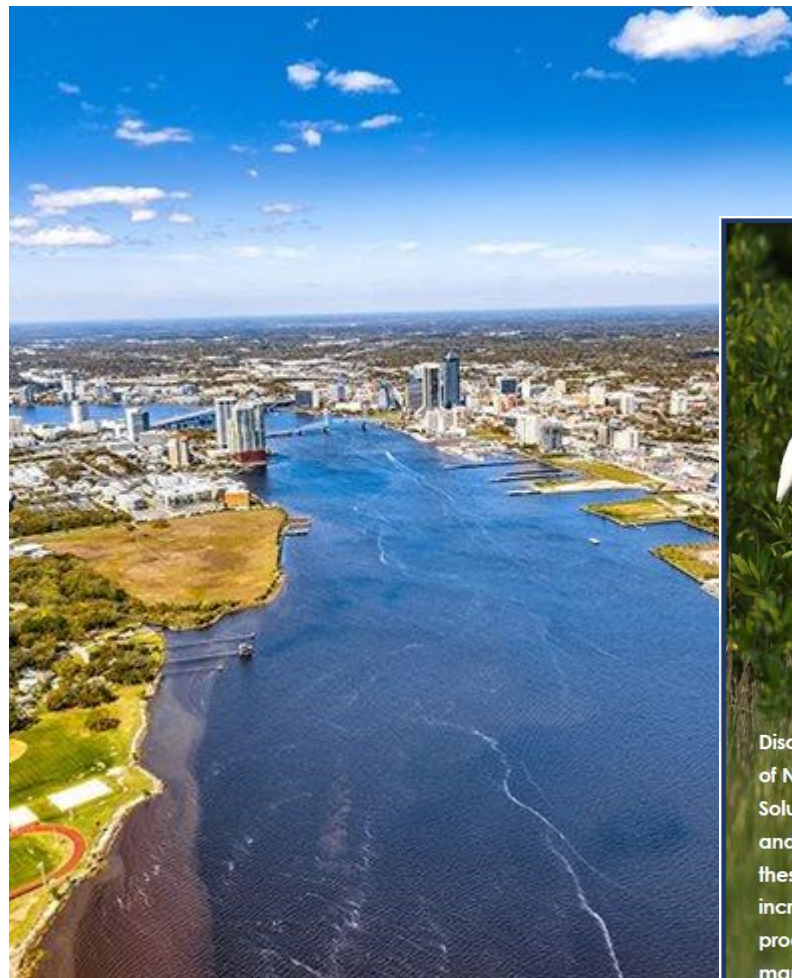
**Brigette Carrillo- FDEM
Senior Management Analyst**




AGENDA



- Overview of the Silver Jackets Program
- Guest Speaker: Anne Coglianese, Chief Resilience Officer for the City of Jacksonville
- Demonstration of the FY23 Silver Jackets Project Nature Based Solutions Storymap by Dr. Stephanie Verhulst
- Overview of current FY 24 SJ projects
- Reminder: FY25 SJ Project Proposals are due in March



Beaches to Bioswales: Nature's Toolbox for Resilience

 A Condensed Version of the Website for Nature-Based Solutions for Flood Risk Management Produced by the Interagency Florida Silver Jackets

Discover the landscape of Nature-Based Solutions (NBS) in Florida and how to implement these features to increase resilience and produce flood risk management benefits.
Image courtesy of the South Florida Water Management District.

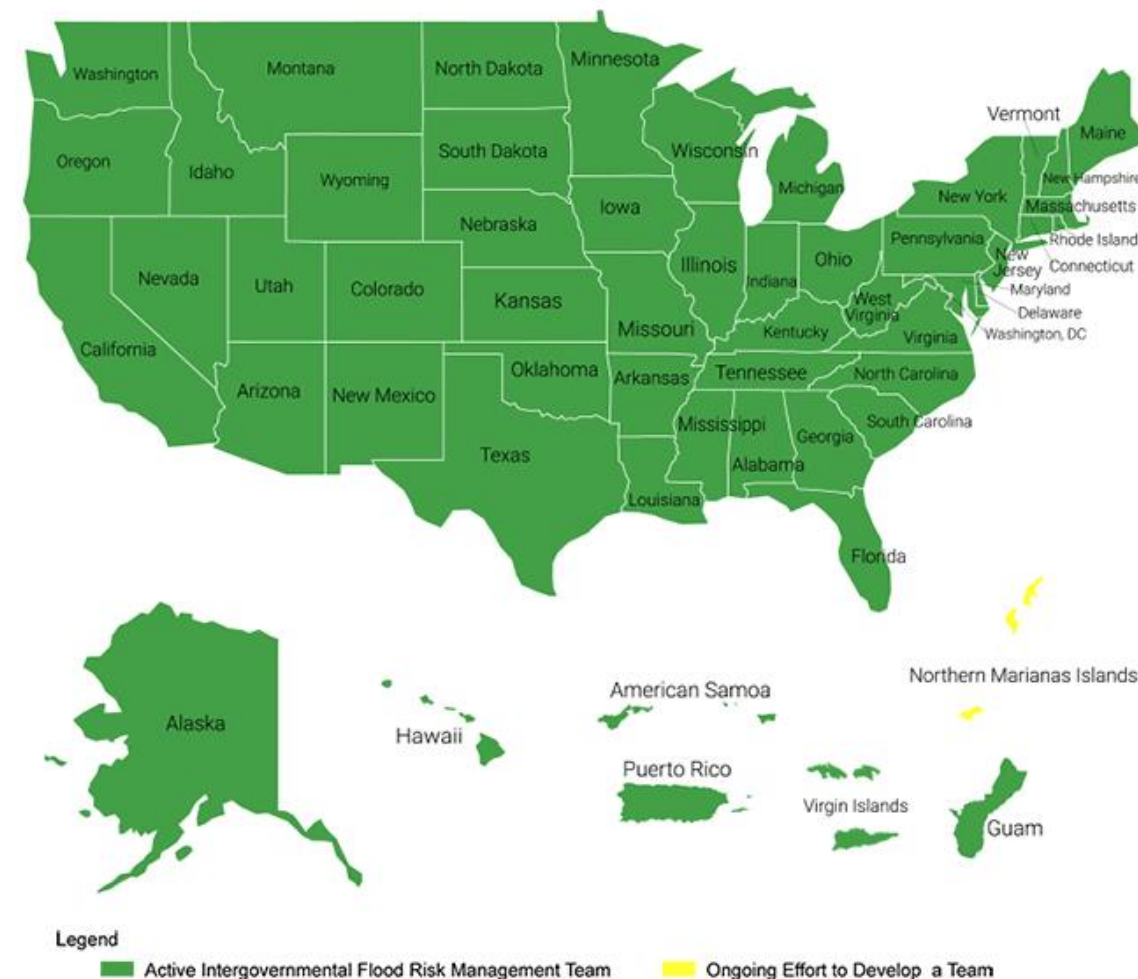
Contents

- 1 About this Project
- 2 Nature-Based Solutions (NBS) Defined
- 3 Who Can Use NBS
- 4 Benefits of NBS
- 5 Common Types of NBS
- 6 Implementing NBS
- 7 Additional Resources



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Select a team using the menu at the left or the map below.





ANNE COGLIANESE

® CHIEF RESILIENCE OFFICER FOR THE CITY OF JACKSONVILLE



“I think our resilience work really needs to focus on things that have a tangible impact on residents, so addressing our risk and addressing the impacts of climate change is the natural entry point.”

“I really believe that this work needs to be developed based on the best science and data and models. We have some of that, but there’s certainly more studying that I want to make sure is done before we’re making some of these larger-scale decisions.”



[Jacksonville.gov - Resilient Jacksonville](https://www.jacksonville.gov/Resilient-Jacksonville)



DOWNLOAD THE STRATEGY

resilientjacksonville.com

FY23 FLORIDA SILVER JACKETS: NATURE BASED SOLUTIONS



U.S. ARMY



US Army Corps
of Engineers



Presented by:
Dr. Stephanie Verhulst
RECOVER Biologist

Beaches to Bioswales: Nature's Toolbox for Resilience



Discover the landscape of Nature-Based Solutions (NBS) in Florida and how to implement these features to increase resilience and produce flood risk management benefits

2023 | Florida Silver Jackets Project





THE BEACHES TO BIOSWALES

FLORIDA SILVER JACKETS COLLABORATIVE TEAM



U.S. Army Corps of Engineers; Florida Division of Emergency Management

National Oceanic and Atmospheric Administration

U.S. Environmental Protection Agency

Florida Department of Environmental Protection

Florida Fish and Wildlife Conservation Commission

Northwest Florida Water Management District

Escambia County

Northeast Florida Regional Council

PLACE: SLR

Florida Atlantic University

The Nature Conservancy



BEACHES TO BIOSWALES: NATURE'S TOOLBOX FOR RESILIENCE | A FLORIDA INTERAGENCY SILVER JACKETS PROJECT

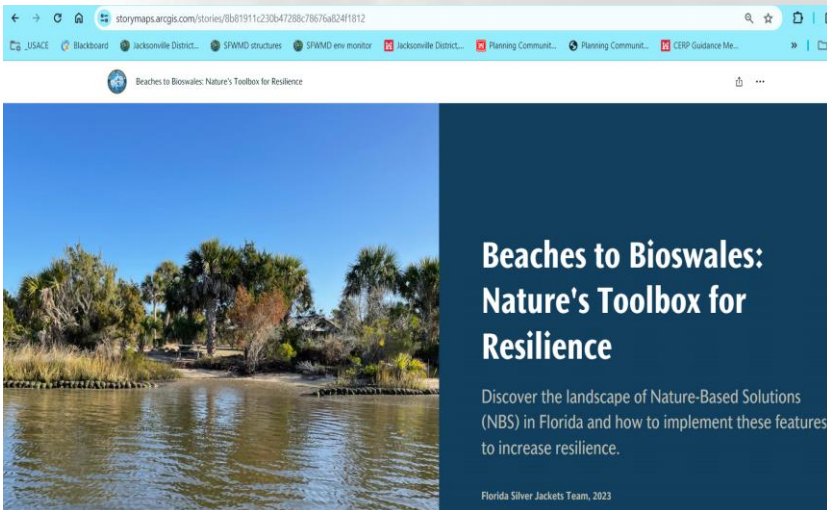


THE BEACHES TO BIOSWALES FLORIDA SILVER JACKETS COLLABORATIVE TEAM



Project accomplishments:

StoryMap website

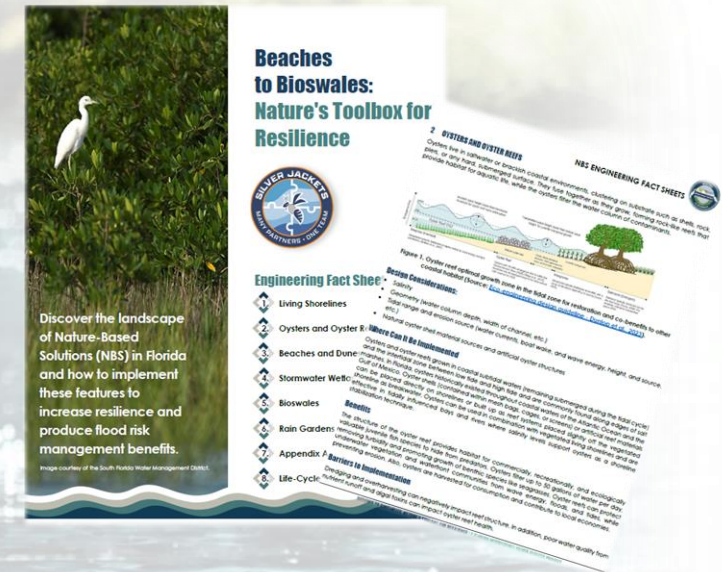


<https://storymaps.arcgis.com/stories/8b81911c230b47288c78676a824f1812>

Nature-Based Solutions Guide



Engineering Fact Sheets



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Nature-Based Solutions

Many Definitions, Same Goal



Federal Emergency Management Agency (FEMA) *“Sustainable planning, design, environmental management and engineering practices that weave natural features or processes into the built environment to promote adaptation and resilience.”*

International Guidelines *“Landscape features that may mimic characteristics of natural features to produce flood risk management benefits. These landscape features may be natural (produced purely by natural processes) or nature-based (produced by a combination of natural processes and human engineering) and include such features as beaches, dunes, wetlands, and reefs.”*

The National Climate Task Force *“Actions to protect, sustainably manage, or restore natural or modified ecosystems to address societal challenges, simultaneously providing benefits for people and the environment.*

Linking Silver Jackets to Nature-Based Solutions

- Resilience priority expressed by coastal and inland communities
- All levels of government and non-governmental partners involved
 - Expertise at each level necessary for comprehensive project development and success



NBS: Bridging the Gap from Principle to Practice



Project Motivation:

- Engineering With Nature: ***International*** Guidelines
- *Florida-centric* needs
- Community benefits and implementation needs



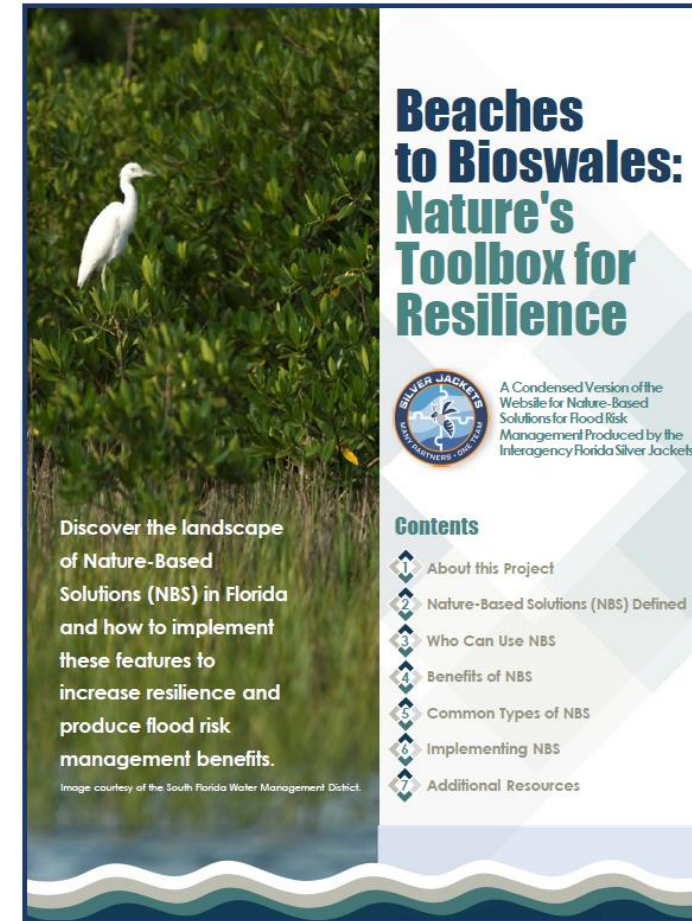
([International Guidelines](#))

NBS: Bridging the Gap from Principle to Practice



Project Goals:

- Increase knowledge and understanding of NBS as a flood risk management measure
- Leverage project designs and case studies to increase awareness of primary and secondary benefits
- Increase public and private sector familiarity of NBS



Team Product Building

Partner Involvement



Team Roles:

USACE

- Coordinate and facilitate project discussions between partners
- Assist in gathering data
- Lead drafting and production of project materials

Partners

- Agency/Partner data gathering/sharing
- Facilitator(s) of site visits
- Creative design for materials/products



Team Product Building Partner Involvement



Site Visits

Northeast Florida

- Coastal NBS – oyster bags and living shorelines
- Inland, fluvial NBS – creek restoration for ecosystem and community enhancement



Florida Panhandle

- Coastal NBS - oyster bags and living shorelines
- Inland NBS – rain gardens, stormwater pond and wetlands



Team Product Building

Partner Involvement

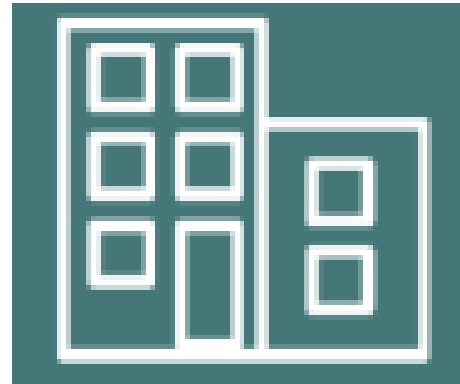


Meeting Series

- Identify audience
- Information sharing
- Topic priorities



Homeowners



Community organizations,
municipal planners,
natural lands managers



Engineering students
and professional

Nature-Based Solutions: Product Priorities



Information guide

- Benefits of NBS
- Common types of NBS

FLOOD RISK MANAGEMENT



INCREASED BIODIVERSITY



IMPROVED WATER QUALITY



COMMUNITY ENRICHMENT



LIVING SHORELINES

OYSTER REEFS

**BEACHES
AND DUNES**

BIOWALES

RAIN GARDENS

**STORMWATER
WETLANDS**

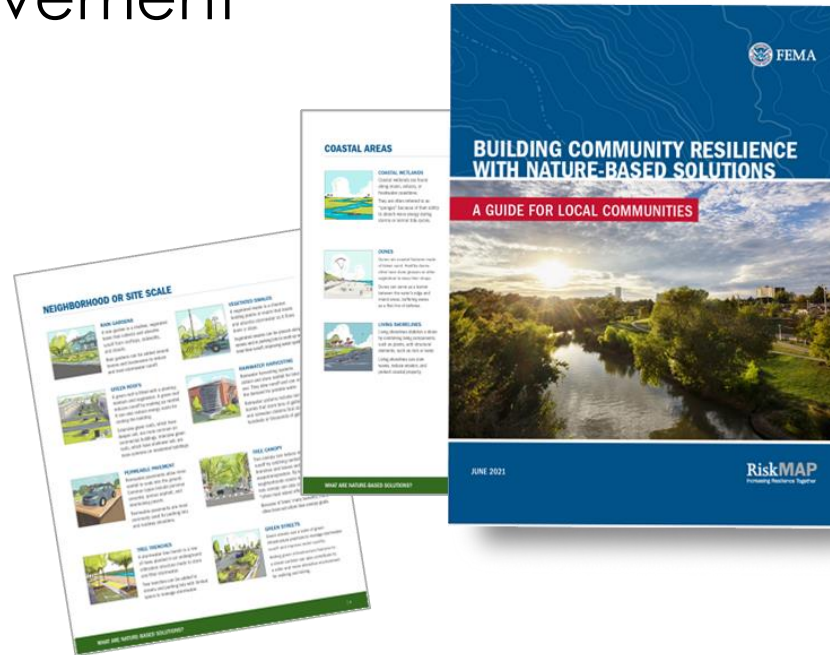
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Nature-Based Solutions: Product Priorities



Implementation considerations

- Planning
- Community Involvement
- Training
- Design
- Permits
- Cost
- Funding



Nature-Based Solutions: Resource Sharing



Providing resources

[EPA Navigating Federal Funds for Green Infrastructure and Nature-based Solutions](#)

A repository of federally-funded programs for green infrastructure and nature-based solutions (NBS).

[Gulf of Mexico Alliance: Funding Opportunities](#)

Current listings of funding opportunities from state and federal entities to support regional collaboration, community resilience, and improve management of coastal habitats and wildlife species.

[FL Living Shorelines in Gulf Coast States: Florida Resource Catalog](#)

This catalog highlights resources that have been developed to inform coastal living shoreline project implementation in U.S. Gulf of Mexico States. The catalog is organized into three primary sections highlighting resources relevant to (1) design and construction considerations, (2) permitting, and (3) costs of living shoreline projects. A brief description of each resource is included, along with information about the type of resource, topics covered, and target audiences.

[Northwest Chapter of the Florida Association of Environmental Professionals](#)

The Northwest Chapter of the Florida Association of Environmental Professionals is a non-profit organization of professionals serving the Florida counties of Escambia, Santa Rosa, Okaloosa, Walton, Bay, Washington, and Holmes. The organization's purpose is to promote the goal of enhancing, maintaining, and protecting the quality of the natural and human environment.

Providing examples of NBS in Florida

EXAMPLE



GROUNDWORK: JACKSONVILLE

Groundwork Jacksonville is a grant funded project to identify specific remedies to reduce flooding, improve water quality, increase community resilience, restore habitat, and improve access to recreation within economically vulnerable communities. The Biodiversity Corridor initiative incorporates a large bioswale, a community herb garden and flower garden, bee hotels, and pollinator plants to enhance community.



Sharing community involvement opportunities



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Nature-Based Solutions: Planning for the future



Engineering Fact Sheets

Goal: Initial guidance for engineers and engineering students on design considerations, applications, benefits, potential barriers to implementation, costs, and information on calculation lifecycle costs.

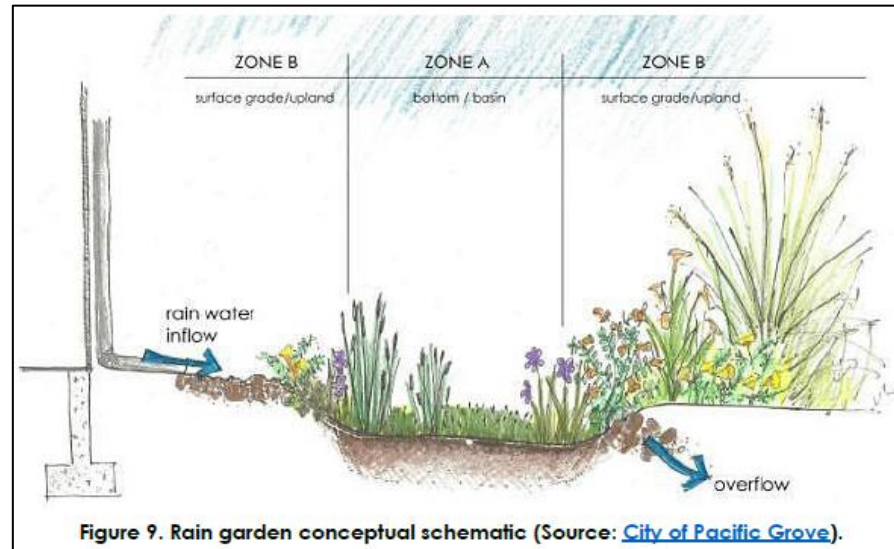
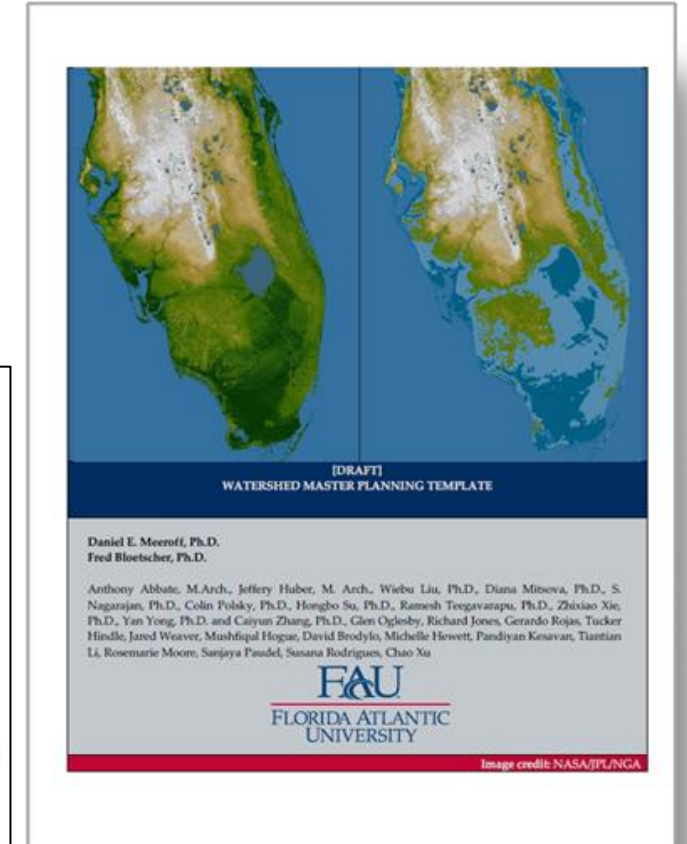


Figure 9. Rain garden conceptual schematic (Source: [City of Pacific Grove](#)).



THANK YOU

FLORIDA SILVER JACKETS | BEACHES TO BIOSWALES PRODUCTS CAN BE FOUND AT:

<https://www.iwr.usace.army.mil/Silver-Jackets/State-Teams/Florida/>



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FY24 FLORIDA SILVER JACKETS UPDATES



U.S. ARMY



US Army Corps
of Engineers

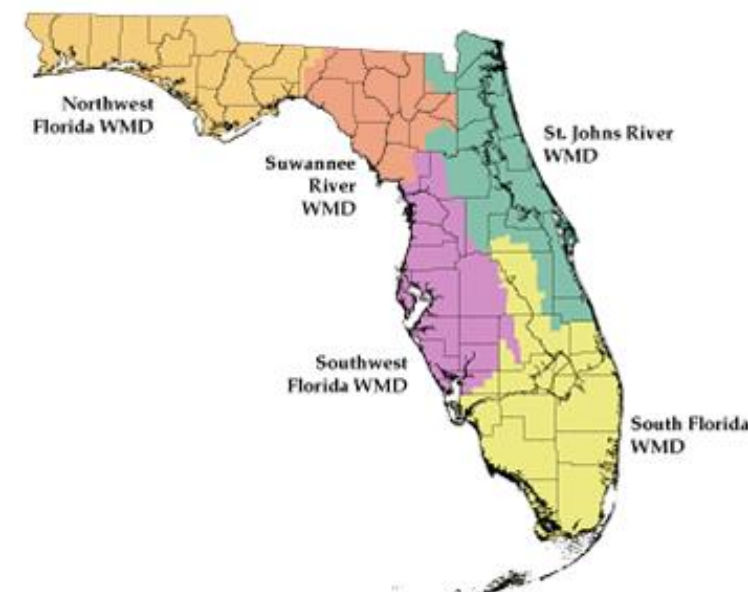




FLORIDA BASIN-LEVEL INVENTORY UPDATE



- Opportunity: Florida FloodHub development and to act as repository for all modeling and analysis across the state of Florida
- Products:
 - State-wide database- Inventory of modeling and analysis efforts in FL
 - Guidelines for aligning data methodology
 - Interactive tool for communities to access this information
- Status:
 - Currently collecting information & sharing data
 - Presentations by
 - FloodHub
 - USACE
 - FAU Engineering

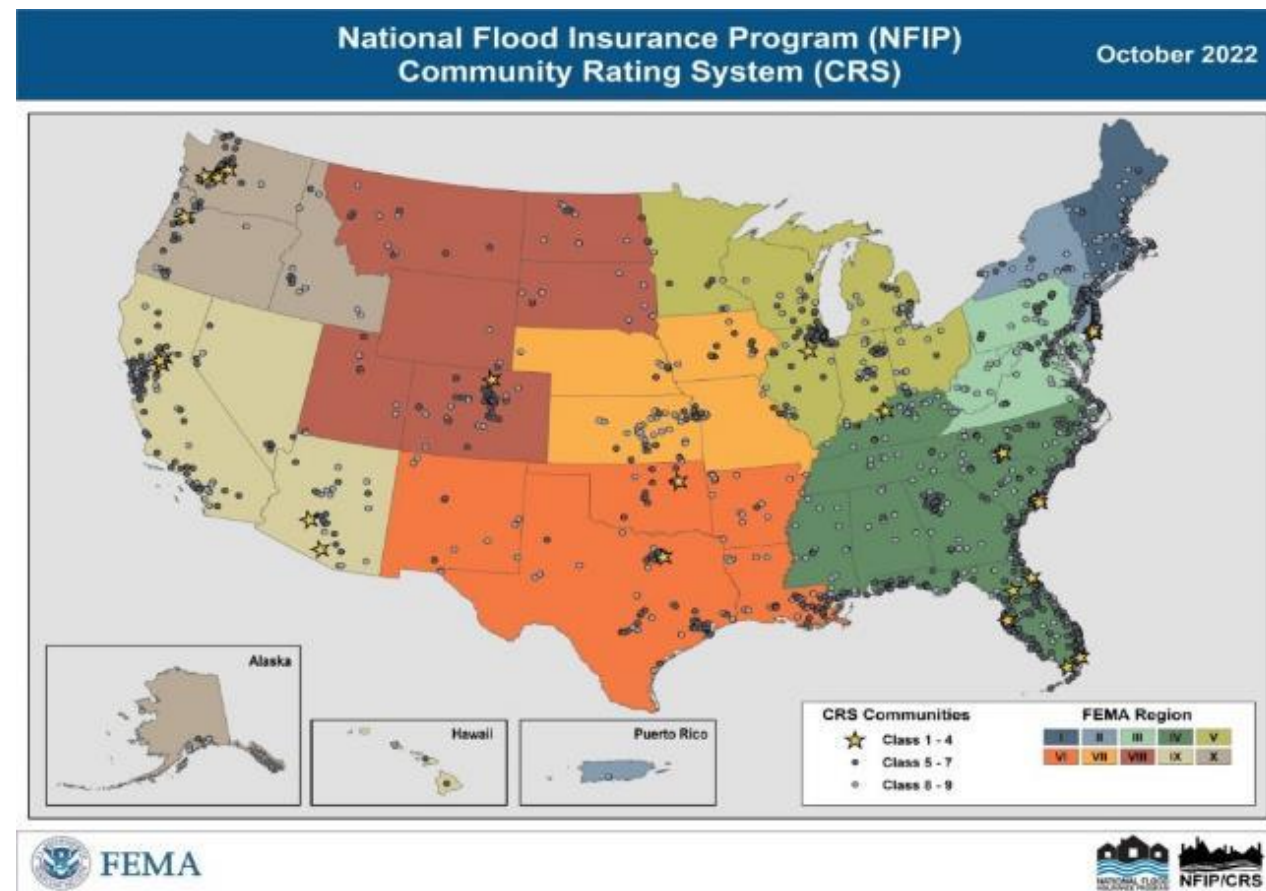




CRS: COMMUNITY RATING SYSTEM



- Opportunity:
 - 468 communities in Florida with only 256 in CRS programs
 - Decrease rating level of participating communities
- Products:
 - Create a PPI for participating communities
 - Create a template for other communities
- Status:
 - Presentation by FDEM Conn Cole
 - Refining our products
 - Establishing committees for participating communities



[Community Rating System | FEMA.gov](https://www.fema.gov/community-rating-system)





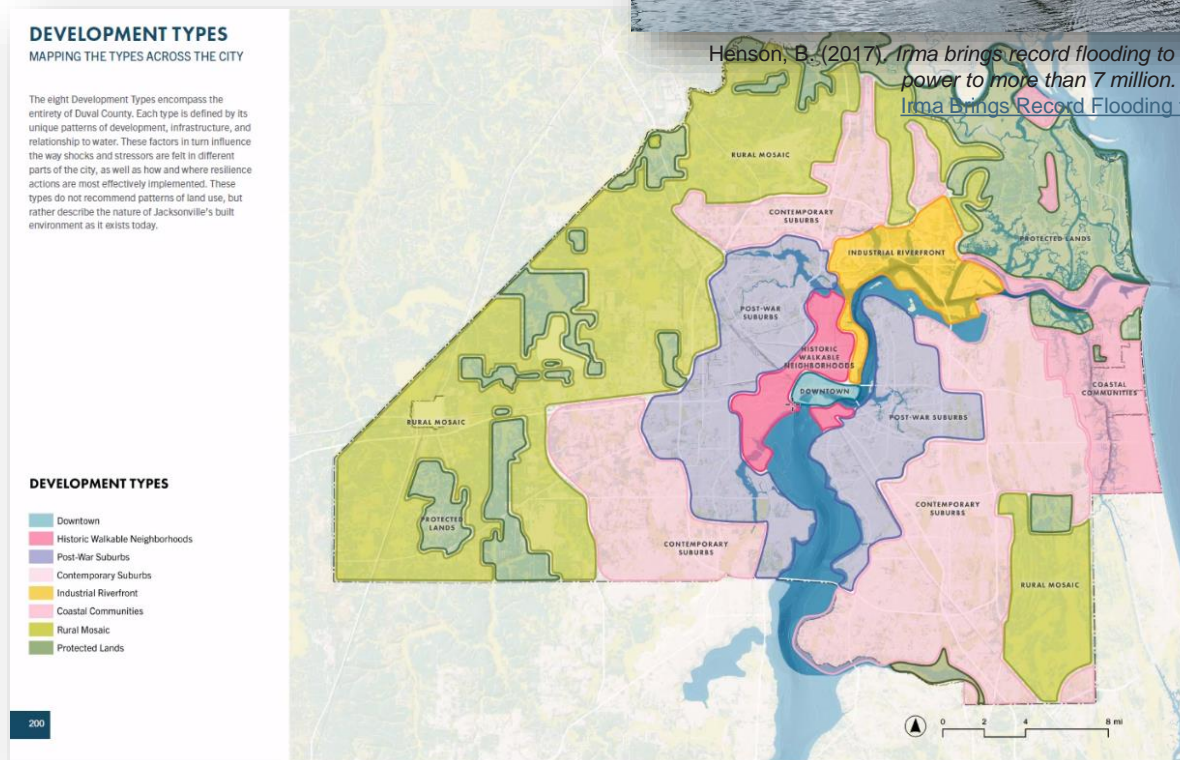
JACKSONVILLE GREEN ROADWAYS DESIGN CHARETTE



- Problem: Roadway flooding during heavy rain, tropical storms, and high tides on sunny days
- Products:
 - identify pilot roadway projects in vulnerable communities
 - Host green roadway design charrettes that will promote the inclusion of green designs for both public and private entities
- Status:
 - Determining charette
 - Locations
 - Audience
 - Focus topics
 - Messaging



Henson, B. (2017). *Irma brings record flooding to Jacksonville, cuts power to more than 7 million.* Weather Underground. [Irma Brings Record Flooding to Jacksonville.](#)

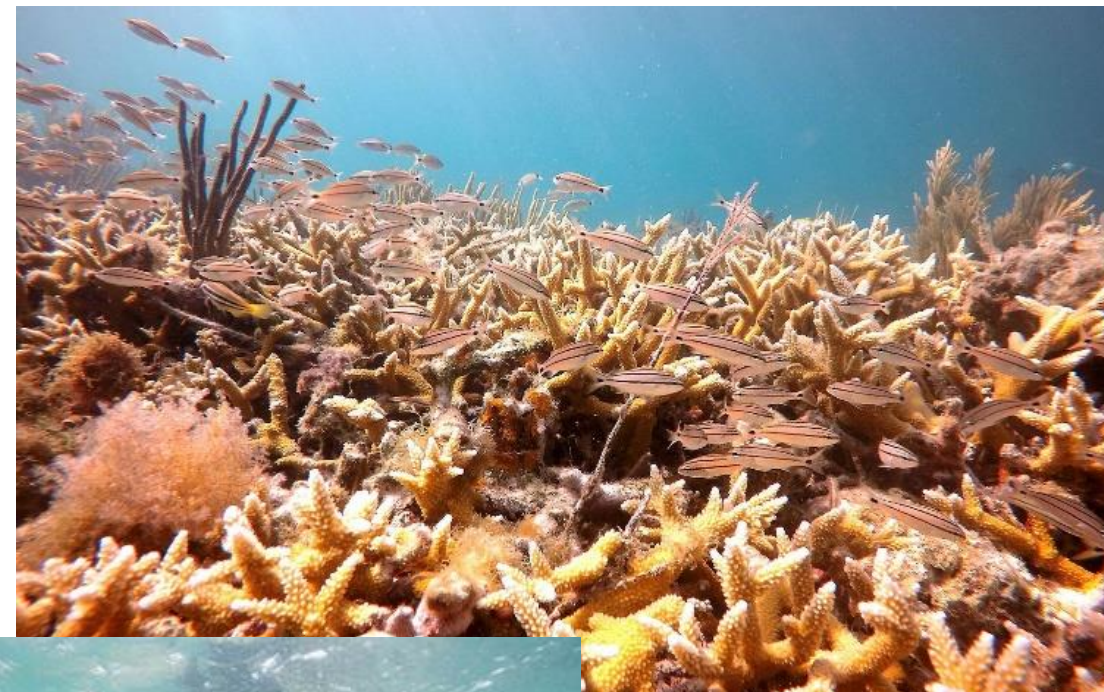




INCORPORATING CORALS INTO THE HMGP PROCESS



- HMGP= Hazard Mitigation Grant Program
- Opportunity:
 - Coral and engineered reefs have been shown to increase shoreline by reducing wave energy
 - Recently funded State initiatives focuses are coral restoration and incorporating reefs into mitigation features
- Product: Develop base knowledge and consistent language for incorporating coral and engineered reefs in applications for HMGP
- Status:
 - January meeting to initiate workshop planning
 - April 2 workshop at University of Miami



Florida's Coral Reef. (2022, August 28). The Nature Conservancy.
<https://www.nature.org/en-us/about-us/where-we-work/united-states/florida/stories-in-florida/floridas-spectacular-coral-reef-system/>

Stephens, T. (2018, February 13). Innovative restoration of coral reefs helps protect Caribbean islands. *Phys.org*.
<https://phys.org/news/2018-02-coral-reefs-caribbean-islands.html>



FY25 PROPOSALS ARE DUE 29 MARCH 2024



Please reach out to Warner (USACE)
and Brigitte (FDEM) to work to
complete your proposals

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IWR



SILVER JACKETS
Many Partners, One Team



QUESTIONS?

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USACE Silver Jackets Website:

- <http://silverjackets.nfrmp.us/>
- <https://www.iwr.usace.army.mil/Silver-Jackets/State-Teams/Florida/>

...also remember FY 25 Proposals are due 29 March 2024





WE ARE HIRING!

Join the Jacksonville District Team



Seeking to fill multiple positions:

Biologist, Physical Scientist, Program Analyst, Engineers, Geologist, Chemist, Landscape Architect and many more.

Scan the QR Code



Or visit

www.saj.usace.army.mil/NowHiring