SUNS

SCALING UP NATURE-BASED SOLUTIONS

Building Capacity and Partnerships to Plan and Implement a Portfolio of Nature-Based Coastal Resilience Actions in Three Florida Panhandle Counties

The Nature Conservancy

USNA

Northeastern University

Northwest Florida Water Management District

Building resiliency involves concerted, regional planning efforts that consider natural and nature-based infrastructure

Working Group Kickoff

July 2021

State of Resilience Planning & Projects in the Hurricane Michael Region

Accelerator Track

Portfolio Development Process:

August 2021

Hazards and NBS Project Types

Portfolio Development Process (ctd.):

September 2021

Priority Locations and Regional Strategies

Regional Strategy Break-out Meetings

Mapping the Portfolio

January/February 2022

Characterizing Project Benefits

March/April 2022

Preparing Community Dialogues

Community Dialogues

Portfolio Finalization

July 2022

Review community feedback, finalize selection of portfolio projects

Where we are:

1. **Working Group Kickoff meeting** *July 2021*

2. **Funding source meeting** *Aug. 2021*

3. **Working Group Session 2** *Aug. 2021*
   - Mapping existing efforts
   - Hazards considerations for suitability mapping
   - Interests & Priorities for specific NBS types

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Objectives

1. Central map of existing planning efforts and projects with a NBS component across Bay, Gulf, and Franklin Counties (ie. EnvisionPC, Tyndall, Franklin 98).
2. List of NBS project types for SUNS consideration (selected from list of NBS types that are applicable to Panhandle)
3. Regional NBS Strategies for project development that reflect WG members' concurrent plans and strategic priorities.
4. List of potential projects and project locations
5. Prioritized portfolio of NBS project recommendations for Bay, Gulf, and Franklin Counties

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Understanding Existing Planning Efforts

Name	Plan or Project	Project Type (NBS)	Managing Organization	Partners	Jurisdiction	Status	Phase	Funding	Description	Location (
Recovery and Resiliency Partnership Projects (R2P2)	Plan		EPA		Mexico Beach, Parker, Springfield,	Complete				Jurisdictiona
8th Street Canal, R2P2	Project		City of Mexico Beach		City of Mexico Beach		Conceptual Design		Convert canal to	29.937968,
Central Wetland Park, R2P2	Project	Stormwater Parks	City of Mexico Beach		City of Mexico Beach		Conceptual Design		Restore vacant v	29.942063,
East Wetland Park, R2P2	Project	Stormwater Parks	City of Mexico Beach		City of Mexico Beach		Conceptual Design		Restore vacant v	29.935934,
Beach & Dune Restoration	Project	Beaches & Dunes	City of Mexico Beach		City of Mexico Beach	Complete		State of Florida,	the Bay County	Runs: appro
Trough & Back Dune Restoration	Project	Beaches & Dunes	City of Mexico Beach		City of Mexico Beach	Complete			Restoration and	Runs: appro
Regional Stormwater Detention, R2P2	Project	Stormwater Parks	City of Mexico Beach		City of Mexico Beach		Conceptual Design		The proposed pl	?
Design/Mitigation of Wetland Site	Project	Stormwater Parks	City of Mexico Beach		City of Mexico Beach	Active	Conceptual Design	NFWF (?)	Currently, the 85	acres are a l
Stormwater District, R2P2	Project	Stormwater Parks	City of Parker		City of Parker		Conceptual Design		"A districtwide st	?
Business 98 Redevelopment: Recreation, Stormwater;	Project	Stormwater Parks	City of Springfield		City of Springfield		Conceptual Design		Mixed-use redev	30.151689,
Cherry Street Linear Park, R2P2	Project	Greenways	City of Springfield		City of Springfield		Conceptual Design		"Two design con	30.145584,
Civic Green Infrastructure	Project	Stormwater Parks	City of Springfield		City of Springfield		Conceptual Design		"Integrate sustai	?
Envision PC	Plan									Boundary of
Historic Bayou & Wetland Expansion: Massalina & Wa	Project	Stormwater Parks	City of Panama City		Glenwood, City of Panama City		Conceptual Design		"Restore natural	30.159834,
Restoration of Henry Davis Park, Envision PC	Project	Floodplain Restoration	City of Panama City		Glenwood, City of Panama City		Conceptual Design		"Restore Henry I	30.172244,
Floodable Parks, Envision PC	Project	Stormwater Parks	City of Panama City		Glenwood, City of Panama City		Conceptual Design		"Create a floodal	30.161002,
Resilient Stormwater System, Envision PC	Project	Stormwater Parks	City of Panama City		Millville, City of Panama City		Conceptual Design		A resilient syster	30.154329,
Restore natural bayou finger, Envision PC	Project	Floodplain Restoration	City of Panama City		Millville, City of Panama City		Conceptual Design		Restore natural b	30.158429,
Relocate wastewater treatment plant and restore shore	Project	Waterfront/Beachfront Pa	City of Panama City		Millville, City of Panama City		Conceptual Design		Upon wasteater	30.151481,
Floodable Parks, Envision PC	Project	Stormwater Parks	City of Panama City		Millville, City of Panama City		Conceptual Design		Combine vacant	30.158865,
Joe Moody Harris Park Wetlands Restoration	Project	Stormwater Parks	City of Panama City		Millville, City of Panama City		Conceptual Design		"Restore wetlanc	30.161305,
Waterfront Park shoreline restoration	Project	Waterfront/Beachfront Pa	City of Panama City		Millville, City of Panama City		Conceptual Design		"Expand waterfr	30.170523,
Floodable Stormwater Park, Envision PC	Project	Stormwater Parks	City of Panama City		St. Andrews, City of Panama City		Conceptual Design		Floodable storm	(confirm) 30
Restablish Hydrological connection between Lake War	Project	Restoring Tidal Connecti	City of Panama City		St. Andrews, City of Panama City		Conceptual Design		"Widening the wa	30.170468,
Shoreline restoration of Lake Ware & wetlands	Project	Floodplain Restoration	City of Panama City		St. Andrews, City of Panama City		Conceptual Design		"Restore natural	30.171520,
Sweet Bay Park Wetlands Restoration	Project	Floodplain Restoration	City of Panama City		St. Andrews, City of Panama City		Conceptual Design		Restore wetland	30.181688,

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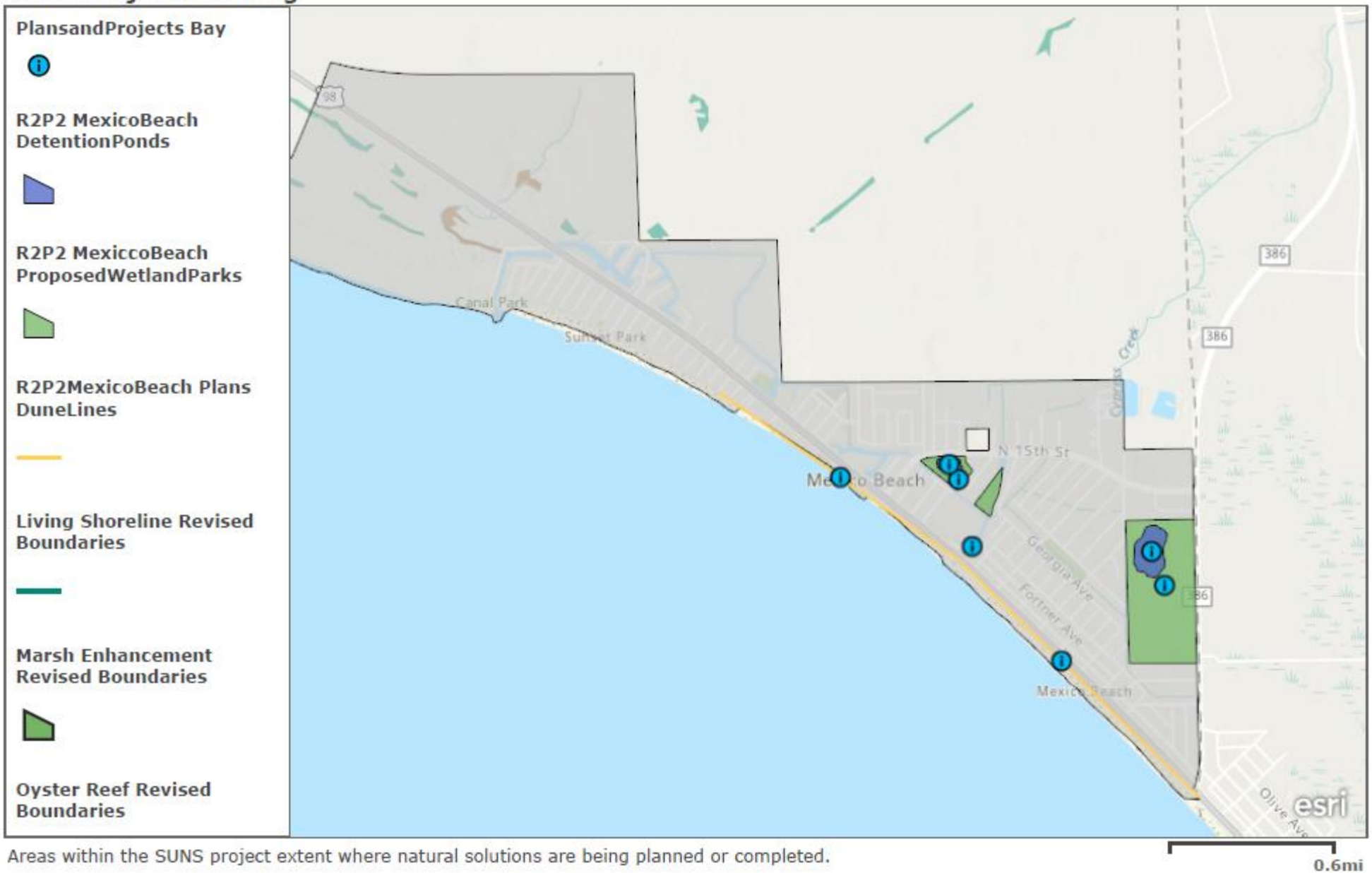
SUNS Project Planning



Areas within the SUNS project extent where natural solutions are being planned or completed.

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Reviewing Existing Planning and Project Efforts

Projects and Plans should be included in spreadsheet IF:

- Within Bay, Gulf, Franklin Counties
- **Plans:** Include NBS Strategies and/or projects that are consistent with NBS Project Types
- **Projects:**
  - Employ one/more NBS Project Types
  - If site-scale, could it link to other projects (be scaled up)?
- **Study:** Provides data essential for project development and/or provides environmental or ecological data

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What types of projects are Nature-based Solutions?

TABLE 3-2. EXAMPLE INDIVIDUAL MITIGATION PROJECTS BY HAZARD T

Scale	Setting	Riverine/Urban Flooding	Coastal Flooding
Watershed/ Landscape	More Urban ↓ More Rural	• Greenways • Culvert Upgrades • Daylighting • Low Impact Development • Stormwater Parks • Riparian Buffer • Stream/River Restoration • Horizontal Setback Levee • Floodplain Restoration • Dam Removal • Land Conservation	• Culvert Upgrades • Waterfront Parks • Beach Parks* • Tidal Circulation • Living Shorelines • Channel Restoration • Beaches and Dunes* • Coral Reef Restoration • Coastal Wetlands Restoration (Marsh, Mangroves) • Land Conservation

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Reviewing Existing Planning and Project Efforts

1. Review spreadsheet

2. For additions/amendments/changes:
   - Are all relevant planning efforts and sites documented? (If not, what should be added or who should be consulted to ensure accuracy?)
   - Are there supporting shape files or images or plans that would help make the map (and/or should be linked to)

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SUNS Portfolio Development Process

What is the SUNS portfolio?

It is a **suite of NBS projects** that:

- Align with regional strategies
- Are suitable for state and/or federal NBS funding
- Reduce risk
- Benefit fish and wildlife

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The SUNS Portfolio …

. . . .Will be a **document and map** that detail:

- NBS project type and locations
- Likely project benefits
- Regional, strategic importance of the project
- Potential funding sources for implementation

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The **SUNS Portfolio** can be used **to scale up funding and construct NBS projects** in the region to reduce risk and benefit fish and wildlife.

How do we develop the SUNS Portfolio?

An Example NBS Project Planning Workflow

This planning is approach is useful for identifying an appropriate Nature-based solution for mitigating hazards at a **known location**.

To develop a planning approach for the SUNS project, we need to **adapt and scale up** this approach.

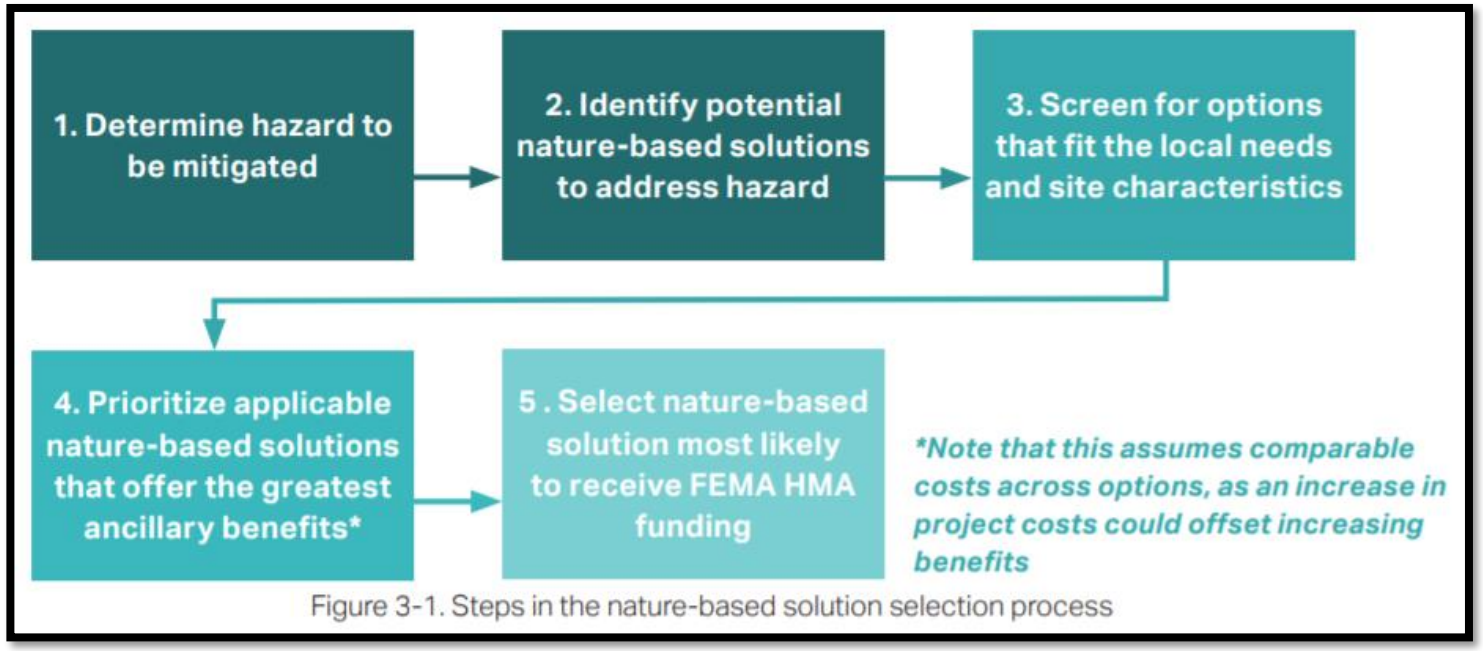

Figure 3-1. Steps in the nature-based solution selection process

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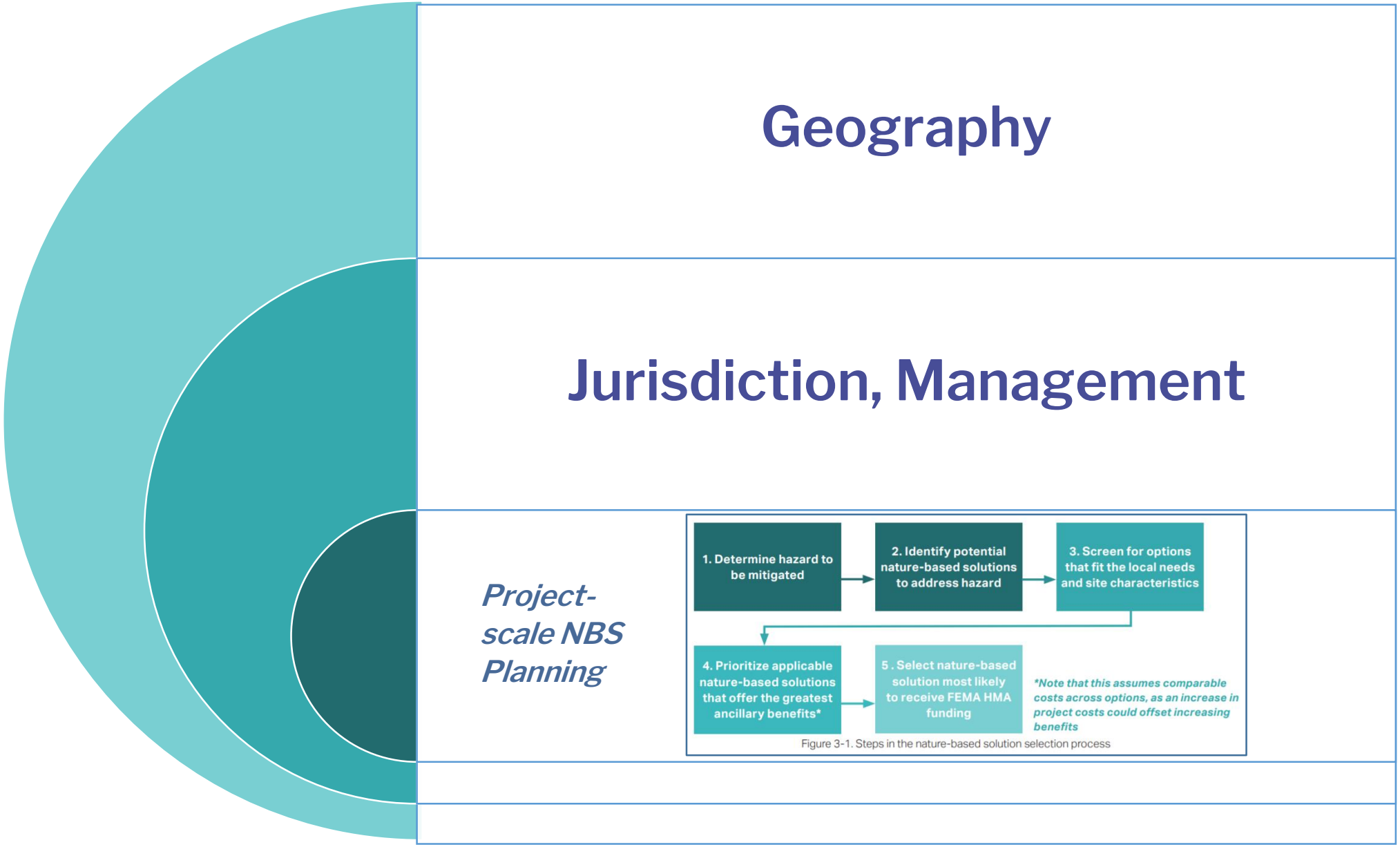
Scaling-Up Nature-based Solutions

Adapting the process to scale NBS across multiple dimensions



SUNS Portfolio Development Process

Hazards

NBS Suitability

Fish + Wildlife Habitat

Local Expertise & Knowledge

NBS Opportunity Areas

Regional Strategies

1

2

3

4

5

Existing NBS Planning and Project Efforts

Portfolio

Example Strategies

1. Living Shorelines
2. Recreation Economy
3. Stormwater Parks
4. Transportation
5. Open Space Protection

Discussion

Identifying Hazards & Data Sources

SUNS Portfolio Development Process

Hazards

NBS Suitability

Fish + Wildlife Habitat

Local Expertise & Knowledge

NBS Opportunity Areas

Regional Strategies

1

2

3

4

5

Portfolio

Existing NBS Planning and Project Efforts

Example Strategies

1. Living Shorelines
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Hazards and Data sources

Hazard	Types	Data source(s)
Storm Surge	Coastal Storms	NHC Storm Surge Hazard Maps
Flooding	Coastal	FEMA National Flood Hazard Layer NOAA High Tide Flooding
	Urban/Riverine	
Erosion (Shoreline recession)	Coastal	FL DEP Critical Erosion Layer
	Urban/Riverine?	
Sea Level Rise	Sea Level Rise	2017 NOAA Intermediate-Low and Intermediate-High SLR Projections (Planning horizons for 2040 and 2070)
Other		Local and/or county models

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Poll: Which hazards are most critical for your geography?

Go to: www.menti.com

Enter the code: 4405 8880

Pick 3 options

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Discussion

Identifying NBS Types

SUNS Portfolio Development Process

Hazards

NBS Suitability

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Local Expertise & Knowledge

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Existing NBS Planning and Project Efforts

Portfolio

Example Strategies

1. Living Shorelines
2. Recreation Economy
3. Stormwater Parks
4. Transportation
5. Open Space Protection

Hazard	Types	Data source(s)	NBS
Storm Surge	Coastal Storms	NHC storm surge hazard maps	Beaches and Dunes, Coastal Wetlands Restoration (marsh, mangroves), Oyster Reef Restoration, Living Shorelines, Riparian Buffer
Flooding	Coastal	FEMA National Flood Hazard Layer NOAA High Tide Flooding	Culvert Upgrades, Waterfront/ Beach Parks, Restoring Tidal Connection, Living Shorelines, Channel restoration, Beaches and Dunes, Oyster Reef Restoration, Coastal Wetlands Restoration (marsh, mangroves), land conservation
	Urban/Riverine		Greenways, Culvert Upgrades, Daylighting, Low Impact Development, Stormwater Parks, Riparian Buffer, Stream/River Restoration, Horizontal Setback Levee, Floodplain Restoration, Land Conservation
Erosion (Shoreline recession)	Coastal	FL DEP Critical Erosion Layer	Beaches and Dunes, Coastal Wetlands Restoration (marsh, mangroves), Oyster Reef Restoration, Living Shorelines
	Urban/Riverine?		Living shorelines, Riparian Buffer
Sea Level Rise	Sea Level Rise	2017 NOAA Intermediate-low and intermediate-high SLR Projections	Beaches and Dunes, Coastal Wetlands Restoration (marsh, mangroves, Living Shorelines), Stormwater Parks
Other		Local and/or county models	

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NBS	Storm Surge	Coastal Flooding	Urban/Riverine Flooding	Coastal Erosion	Riverine Erosion	SLR
Beaches & Dunes	X	X		X		X
Coastal Wetlands	X	X		X		X
Oyster Reef Restoration	X	X		X		
Living Shorelines	X	X		X	X	X
Riparian Buffer	X				X	
Culvert Upgrades		X	X			
Waterfront/Beach Parks		X				
Restoring Tidal Connection		X				
Channel Restoration		X				
Land Conservation		X	X			
Greenways			X			
Daylighting			X			
Low Impact Development			X			
Stormwater Parks			X			X
Stream/River Restoration			X			
Horizontal Setback Levee			X			
Floodplain Restoration			X			

Poll: Which NBS Types would you prioritize for SUNS consideration?

Go to: www.menti.com

Enter the code: 4405 8880

Pick 5 options

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Next Steps

1. Follow up with shapefiles for Planning and Project Efforts Footprint Map – email Anna Jane at annajane.jones@tnc.org

2. September 30th Working Group Session 3
   - Virtual (1.5 hour)
   - Priority Locations and Regional Strategies
   - Accelerator Update

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