South Atlantic Coastal Study

Strategy Development Workshop Summary

Northeast Florida

As a part of the South Atlantic Coastal Study (SACS), a series of workshops was held to support the focus area analysis and action strategy development. The workshops were broken into a series of three virtual meetings per focus area. A kickoff session (the first virtual meeting) was held in July to overview the purpose of the Focus Area Action Strategies (FAAS), present the reasons why the focus area was selected, and create a vision statement unique to the focus area. The second virtual workshop for each focus area was a strategy development session that accomplished the following:

* Presented the finalized shared vision
* Reviewed stakeholder feedback on problems and opportunities in the focus area
* Overviewed existing and future conditions within the focus area
* Developed potential action strategies to address coastal storm risks

The third virtual workshop will overview the final strategy. This document summarizes the outcomes of the Northeast Florida virtual strategy development workshop held August 25, 2020.

Attendees

The following is a list of the facilitators and staff that led the workshop, as well as participants. The Northeast Florida strategy development workshop was attended by a total of 36 participants.

| NAME | AFFILIATION |
| --- | --- |
| FACILITATORS and STAFF | |
| Pamela Castens  Lisa Clark  Drew Condon  Idris Dobbs  Trevor Lancaster  Matt Schrader  Gabe Todaro | USACE SACS Command Team |
| Ryan Clark  Paul DeMarco  Ashleigh Fountain (District PM)  Tony Ledford  Kip Webber | USACE Jacksonville District |
| Jason Harrah | Additional USACE Staff |
| Jenny Bywater  Kyah Lucky | CDM Smith Facilitators |
| PARTICIPANTS | |
| Jessica Beach | City of St. Augustine |
| Shannon Blankinship | St. Johns River Keeper |
| Jan Brewer | St. Johns County Government |
| Denise Bunnewith | North Florida TPO (Transportation Planning Organization) |
| Jennifer Carver | Florida Department of Transportation (DOT) |
| Katie Conrad | U.S. Fish and Wildlife Service |
| Kelsey Cox | City of Jacksonville |
| Roxane Dow | Florida DEP |
| Reuben Franklin | City of St. Augustine |
| Tom Frick | St. Johns River Water Management District |
| Greg Garis | Florida Department of Environmental Protection (DEP) |
| Whitney Gray | Florida DEP |
| Rachel Grundl | Florida DEP |
| Meghan Harris | Florida DEP |
| Blair Hayman | Florida Fish and Wildlife Conservation Commission |
| Mercedes Harrold | St. Johns County Government |
| Adam Hoyles | Onsite Environmental Consulting |
| Susan Kelly | City of Jacksonville |
| Jennifer King | Florida DOT |
| Sean Lahav | Northeast Florida Regional Council |
| Casey Lyon | Florida DOT |
| Molly Martin | U.S. Environmental Protection Agency (EPA) |
| Kristen Martinenza | Federal Emergency Management Agency (FEMA) |
| Gerald Murphy | Murphy Planning |
| William O'Dell | University of Florida |
| Elizabeth Payne | Northeast Florida Regional Council |
| Amy Peterson | FEMA |
| Kristen Reed | City of Jacksonville |
| James Richardson | City of Jacksonville |
| Guillermo Simón | Halff Associates, Inc. |
| Peter Sucsy | St. Johns River Water Management District |
| Steve Swann | City of Atlantic Beach |
| David Tyler | Florida DOT |
| Mark Vierira | FEMA |
| William Weeks | Florida DEP |
| Stefen Wynn | City of Neptune Beach |

Meeting Summary

The following sections outline key discussions and questions posed during the strategy development session.

**Focus Area Overview**

During the strategy development workshop, the team overviewed the study framework and purpose of the FAAS. Based on stakeholder feedback from the kickoff session as well as questionnaires, the final shared vision statement is:

*“The Northeast Florida Focus Area vision is to continue efforts to engage the issues of coastal storms risk and   
sea level rise to support resilient communities and habitats and identify solutions that recognize the geographical diversities that exist between communities located along the Atlantic Ocean, Intracoastal Waterway, and Lower   
St. Johns River. The Focus Area will collaborate with partners to identify and assess the risks presented by these different geographies, and will assist with implementation and action.”*

**Problems and Opportunities**

Stakeholder feedback was reviewed in terms of the most relevant problems, institutional and other barriers, opportunities, and objectives for the focus area. Based on input from the questionnaires, the principal problems are:

* Storm surge negatively impacts functionally of multiple stormwater drainage systems (culverts/stormwater outfalls).
* Storm surge inundation to critical public infrastructure (e.g., septic systems, lift stations, wastewater treatment plants).
* Loss of important habitat as a result of coastal-storm-driven inundation and erosion.
* Storm surge inundation damaging infrastructure in low-lying and back bay areas.

The topmost barriers are:

* Lack of funding
* Need for coordination and leadership at all levels
* Lack of standards to define acceptable levels of risk

The top opportunities are:

* Incorporate sea level rise projections in future infrastructure planning and construction efforts
* Enhance public outreach and risk communication regarding the increase in coastal storm damages as a result of sea level rise
* Increase resilience and adaptive capacity to sea level rise in low-lying and back bay areas
* Strengthen stakeholder involvement for collaboration and implementation of projects on a regional level

**Existing and Future Conditions**

During this portion of the presentation, the project team overviewed the key data utilized in assessing risks from coastal storm events and sea level rise within the focus area.

The Amelia Island Back Bay and Timucuan subarea is under development pressure. The area contains significant environmental and cultural resources within the Timucuan Ecological and Historical Preserve. Multiple dredging locations at Kings Bay, Sawpit, and Jacksonville Harbor are opportunities for Regional Sediment Management (RSM) strategies. A participant inquired about potential plans for dredged material that cannot be placed on a beach and asked if there was a plan for beneficial reuse of that material. The team responded that Duval County has used dredged material to raise roads; identifying areas to utilize non-beach-quality sediment is a potential opportunity.

A shore protection project exists in the Duval Intracoastal Waterway (IWW) Back Bay subarea along the ocean-facing shorelines. A key problem in this area is storm surge inundation that damages infrastructure in low-lying and back bay areas. Attendees discussed selecting and updating the best sea level rise target elevations for planning. A stakeholder mentioned the difficulty involved when selecting a curve and expressed concern that people will potentially choose curves favorable to the outcome they want.

The St. Johns River and Tributaries subarea has high levels of development. Key problems in the area include storm surge negatively impacting the functionality of stormwater drainage systems, storm surge inundation of critical public infrastructure, and loss of important habitats as a result of coastal-storm-driven inundation.

The St. Augustine subarea contains key historic and cultural resources that are at risk to storm surge inundation, erosion, and wave attack. Reuben Franklin and Jessica Beach, both from the City of St. Augustine, highlighted some of the projects the city implemented to address coastal flooding.

**Technical Discussion: SACS Tier 2 Economic Risk Assessment and the MCL**

The team provided additional detail on the SACS Tier 2 Economic Risk Assessment and the Measures and Cost Library (MCL). These tools are available to help stakeholders analyze alternatives and estimate dollar damages. The MCL provides a suite of risk management measures, including nonstructural, structural, and natural and nature-based features. The goal of the MCL is to provide users with an array of risk management measures and costs for use in developing alternatives and strategies. The team emphasized that the MCL is simply a starting point for evaluating different options. The MCL can be coupled with the economic output from the Hazus model runs to calculate cost-benefit analyses of proposed features.

**Action Strategy Development**

Participants were divided into four breakout groups: (1) Riverine Environment – Jacksonville Metro, St. Johns River Tributaries, Palatka, (2) Amelia Island Back Bay and Timucuan Ecological Historical Preserve, (3) Duval County IWW, and (4) St. Augustine. Each breakout group annotated a web map with potential action strategies to address risk within the focus area. Following the separate breakout group discussions, the groups rejoined to summarize their ideas.

**Group A – Riverine Environment – Discussion Topics:**

* A method to prioritize areas for tributary restoration was identified as a need. Available SACS data can potentially help with prioritization.
* Various nonstructural strategies were discussed, such as policy ideas and the need for additional public communication and education regarding coastal storm risks.
* Incorporation of green infrastructure and natural and nature-based features into the more typical hardened structural solutions was discussed. Jacksonville was said to show significant opportunity for building green infrastructure and floodable landscapes, especially around Metropolitan Park.

**Group B – Amelia Island Back Bay and Timucuan Group – Discussion Topics:**

* Regional sediment management and critical habitat projects were identified, including the USACE study planned for the Point George Inlet and the ongoing RSM strategies in the northern part of the area.
* Critical habitat areas and rebuilding island habitats for migratory birds were discussed, particularly along the Nassau Sound.
* Potential back bay areas were discussed regarding oyster rake enhancement as well as thin layer placement to restore the topography and elevation of the marsh.
* Protecting the historic district as well as acquiring and restoring a barrier island to benefit the waterway and local habitats.
* Policy concerns and ongoing environmental testing of dredged material to be used in the area.

**Group C – Duval County IWW – Discussion Topics:**

* City of Jacksonville is currently performing an infrastructure assessment; the SACS teams hopes to extract data for the web map and other tools. The group also identified vulnerable critical infrastructure, such as landfills.
* Discussions included a variety of nonstructural and structural measures that would be useful in the area, such as thin layer placement to aid marshes in adapting to rising sea levels.
* Policy discussion, specifically FEMA flood maps and how updates to the maps affect standards for construction.
* City of Atlantic Beach conducted some adaptation planning; the findings will be available in November. The group discussed how these findings will fit into the overall report for the focus area.

**Group D – St. Augustine – Discussion Topics:**

* Ongoing projects in the area, including floodwalls, upgrades to stormwater systems, backflow prevention, and berming.
* Successful implementation of a buyout program, including the relocation of an historically significant house. The program involved purchasing three parcels that were the lowest point in a vulnerable neighborhood. The land was elevated and transformed into a park, which helped stabilize the neighborhood from nuisance flooding and high tides.
* Various barriers and challenges that the stakeholders are currently facing, particularly funding and navigating grant structures. St. Augustine does not have a large tax base—this is one of the biggest hurdles to implementing large infrastructure projects. Stakeholders said they could provide the cost of ongoing projects to the SACS team.
* City of St. Augustine completed a coastal vulnerability assessment. Half-foot increments of sea level rise were used to identify tipping points for critical infrastructure. The assessment resulted in the city targeting an elevation of 7 feet for ongoing resiliency projects, which ties in with an existing natural ridge. Another specific mitigation tool mentioned was an inflatable ring around power substations.

**Final Questions and Discussion**

There was no additional discussion during this portion of the presentation.