
Resilience: Planning

Apr 27, 2022 10:30 - 10:45 AM **Abstract Title:** SUNS: Scaling Up Nature-based Solutions for People and Nature

Abstract Description: Nature-based solutions can be more impactful and cost-effective when implemented at larger scales. The SUNS project, Scaling Up Nature-based Solutions, seeks to demonstrate these benefits by planning for nature-based solutions (NBS) projects at the regional scale.

The Nature Conservancy worked with Northeastern University, the US Naval Academy, and the Northwest Florida Water Management District to pioneer SUNS across a three-county area in the Florida panhandle that was impacted by Hurricane Michael in 2018. The SUNS Portfolio is being developed by a Working Group with representatives from Bay, Gulf, and Franklin Counties; municipal governments; environmental organizations; state and federal entities; and the public. Working Group members draw upon their own expertise and NBS opportunity maps developed by the project team, to vision and develop a portfolio of project ideas across the region. The portfolio will guide investments in restoring and protecting natural features to reduce flood risk and conserve habitat.

Here we present the stakeholder-driven, replicable planning process created to develop the SUNS portfolio. We focus on lessons learned, challenges and opportunities associated with pandemic-driven virtual engagement and aligning planning to funding opportunities. We will also discuss potential expansion of SUNS to other regions of the Gulf as a model for providing technical support and capacity to underserved, socially vulnerable communities.

Speaker: Shepard, Christine, Director of Science, Gulf of Mexico The Nature Conservancy

Apr 27, 2022 10:45 - 11:00 AM **Abstract Title:** Quantifying Resilient Beach and Dunes – South Padre Island, Texas

Abstract Description: South Padre Island, Texas, is a narrow low-relief barrier island along the south Texas coastline that is subjected to erosion by storms ranging from yearly winter storm events to less frequent but damaging major hurricanes. The City of South Padre Island (SPI), on the southern end of the Island, is a top Gulf Coast tourist destination and provides many coastal recreational opportunities that are important to the region's economic viability.

A study by Integral Consulting of the beach and dune system at SPI is helping to inform the City managers of the condition of the present system, and to make recommendations for the most resilient beach and dune morphologies to provide maximum protection from storm surge and sea level rise while maintaining recreational use. A time series of twenty-five cross-shore profiles spanning twenty-six years was evaluated to quantify historical behavior of the system. In addition, a modern survey collected in late spring 2021 provides up-to-date morphology to

compare with the historical database. We examined various morphometrics, including profile volume, dune crest and toe elevations, beach width, and shoreline change. In addition, we used XBeach modeling to evaluate how the system may respond to future storms and sea level rise.

Speaker: Hapke, Cheryl, Research Professor, Senior Consultant USF College of Marine Science, Integral Consulting

Apr 27, 2022 11:00 - 11:15 AM **Abstract Title:** Texas Coastal Resiliency Master Plan (TCRMP), Coastal Texas Protection and Restoration Study and Sabine to Galveston: Working together for a Resilient Texas Coast

Abstract Description: The mission of the Texas General Land Office (GLO) is to serve the schoolchildren, veterans and environment of Texas. The GLO released the initial Texas Coastal Resiliency Master Plan (TCRMP) in 2017 to alleviate concerns related to sea level rise, tropical storms, erosion, habitat loss, water quality and other environmental issues. Updates to the TCRMP were released in 2019 with the next coming in 2023; the TCRMP is intended to serve as a state-led, ongoing, and long-term coastal planning platform. The TCRMP integrates both grey and green infrastructure concepts as recommendations to help preserve and restore existing habitat and infrastructure throughout the 16 coastal counties of Texas. As the TCRMP was being developed, the GLO also partnered with the U.S. Army Corps of Engineers (USACE) to complete a federal feasibility study for the protection and restoration of the Texas Coast, commonly known as the Coastal Texas Study. Prior to this study the GLO had also partnered with the USACE for the Sabine to Galveston study which received authorization and funding to begin construction in 2018. These three efforts work in a complementary manner to provide resiliency to the entire Texas coast by combining large scale infrastructure with both large- and small-scale ecosystem restoration forming a joint “green-gray” protection framework for the communities and ecosystems of Texas.

Speaker: Ramirez, Dianna, Upper Coast Regional Manager Texas General Land Office

Apr 27, 2022 11:15 - 11:30 AM **Abstract Title:** Expanding the Reach of the Climate and Resilience Community of Practice: Building Diverse, Equitable, and Inclusive Participation

Abstract Description: The Gulf of Mexico Climate and Resilience Community of Practice (CoP) works to connect professionals who aim to achieve common outcomes and who, by working together, can develop a set of effective common approaches to climate change adaptation that can be refined over time. The CoP is committed to increasing access and removing barriers to participation to include groups that reflect the diversity of the Gulf coast, including addressing socio-political, economic, and health inequalities. Addressing these issues requires a critical look at what inequities exist among current CoP members as well as a concerted effort to identify barriers to bringing in new members from historically marginalized and vulnerable populations. This may involve new investments (time, capacity), new partnerships (with groups not typically represented at the CoP), and new ways of doing business (accessible meeting locations, providing childcare). This presentation will discuss how the CoP plans to: (1) identify and provide universal assistance to communities that lack resources/capacity to participate in climate and resilience activities/events; (2) strengthen links between professional technical assistance, traditional ecological knowledge, and existing and new social

networks; (3) respond to diversity and provide for the successful inclusion of minorities, tribes, and migrants within the larger CoP; and (4) set concrete targets for increased equity within the growing CoP.

Speaker: Sempier, Tracie, Coastal Resilience Engagement Specialist Mississippi Alabama Sea Grant Consortium

Apr 27, 2022 11:30 - 11:45 AM **Abstract Title:** Advancing Partnerships with Military Communities for Coastal Resilience: Opportunities and Overcoming Barriers

Abstract Description: Military installations on the coast and the communities around them face resiliency challenges including coastal storms and flooding, while also needing to focus on national readiness and their base missions. Sea Grant, SERPPAS (Southeast Regional Partnership for Planning and Sustainability) and the Office of the Assistant Secretary of Defense (Office of Sustainment) are collaborating to advance partnerships between military bases and coastal community resilience practitioners by establishing a Coastal Resilience DoD Liaison, hosted by Georgia Sea Grant. Focusing on the Southeast (SERPPAS) region from North Carolina to Mississippi, the Liaison is working with Sea Grant staff and others to find opportunities for compatible land use planning, conservation, and coastal resiliency efforts associated with military communities. Opportunities for these communities include the REPI (Readiness and Environmental Protection Integration) program which offers challenge grants that focus on coastal resilience and fund projects including building living shorelines and establishing conservation easements for marsh migration. Identifying and engaging community stakeholders and establishing working relationships with base leaders can be significant barriers, however, there are many success stories. For example, in the Florida panhandle, living shorelines and other nature-based infrastructure will protect a newly reconstructed Tyndall Air Force Base, that was devastated by Hurricane Michael.

Speaker: Covi, Michelle, Coastal Resilience DoD Liaison University of Georgia MAREX and Georgia Sea Grant

Apr 27, 2022 11:45 -12:00 PM **Abstract Title:** Instituting Resilience: Using Best Available Data for Local Governmental Practices

Abstract Description: As heightened flood risk continues to threaten the nation, communities should be looking beyond federal flood maps and static sea-level rise projections to help ensure resiliency. With continuously changing conditions and the potential impacts to our future, it is vital to use the most up-to-date flood projection data to inform and influence governmental practices and procedures. For instance, using alternative future projection data, such as vulnerability assessments, in conjunction with the FEMA flood maps can help communities promote and maintain the best floodplain management and capital planning practices. This presentation will summarize and discuss the steps Pinellas County is taking to integrate results from its Sea-Level Rise and Storm Surge Vulnerability Assessment into internal policies and practices, such as assessing major capital projects and critical infrastructure, revising our floodplain management ordinance, and adjusting our strategic planning and performance standards.

Speaker: Hodde, Hank, Sustainability & Resiliency Coordinator Pinellas County