

WELCOME

Working with Nature

Nature-Based and Hybrid Solutions for Resilient Communities

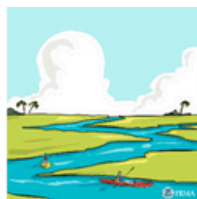
Tuesday, December 3, 2024 • 9 am - 5 pm • Conservancy of Southwest Florida

Nature-based solutions refer to strategies that use natural systems (such as mangrove forests, salt marshes, and beach dunes), or living or natural elements (such as plantings, coconut fiber logs, and other sustainable materials) to address challenges such as flooding, high heat days, and worsening water quality. Hybrid solutions combine these aforementioned elements with hardened engineered options like seawalls, levees, and culverts.

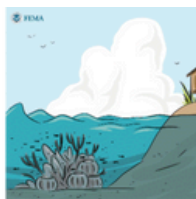
Incorporating these options into local adaptation planning can support our local nature-based economy, provide significant amounts of ecological services our communities depend on, and contribute to a multiple lines of defense approach to managing risk.



Sand Trapping



Coastal Wetlands



Coral Reefs



Stormwater Parks



Green Streets



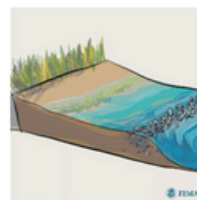
Living Shorelines



Tree Trenches



Land Conservation



Oyster Reefs



Setback Levee



CONSERVANCY
of Southwest Florida
OUR WATER, LAND, WILDLIFE, FUTURE.
PRESERVING OUR PARADISE FOR 60 YEARS

AGENDA

9:00 AM - 9:30 AM

Opening remarks

Rob Moher | President & CEO, Conservancy of Southwest Florida

Program facilitation

Carrie Schuman | Climate Resilience Advisor,
Conservancy of Southwest Florida

———— **SESSION ONE | 9:30 AM - 11:10 AM** ————

9:35 AM - 9:55 AM

**Stormwater Solutions at Naples Botanical Garden:
Working with Nature to Address Florida's Stormwater
Challenges Now and in the Future**

Chad Washburn | Vice President of Conservation, Naples
Botanical Garden

9:55 AM - 10:15 AM

**Coastal Resiliency: Restoring Beach Dunes to Protect
Our Community and Our Economy**

Chad Washburn | Vice President of Conservation, Naples
Botanical Garden

10:15 AM - 10:35 AM

**Engineering Nature: Case Studies, Policy Challenges,
and Solutions for Shoreline Resilience**

Jenna Phillips, M.S., WEDG | Senior Director & Coastal Engineer,
Cummins Cederberg

10:35 AM - 10:55 AM

**Living Shorelines and Living Seawalls: Are They
Resilient Against Hurricanes?**

Thomas Ries | President, Ecosphere Restoration Institute

AGENDA

10:55 AM - 11:10 AM

Combined Q&A for Session One speakers

11:10 AM - 11:25 AM

Break

PANEL | 11:25 AM - 12:15 PM

Moving Nature-Based Solutions Forward: Why Multiple Perspectives Matter

Thomas Ankersen | Professor Emeritus, University of Florida Levin College of Law & Director Emeritus, Florida Sea Grant Legal Program

Jenna Phillips, M.S., WEDG | Senior Director & Coastal Engineer, Cummins Cederberg

Rachel Rhode | Manager, Climate Resilient Coasts & Watersheds, Environmental Defense Fund

12:15 PM - 1:00 PM

Lunch break

1:00 PM - 1:20 PM

Audience share

SESSION TWO | 1:20 PM - 3:00 PM

1:25 PM - 1:45 PM

Restoring Resiliency in Lake Worth Lagoon

Eric Anderson | Construction Project Manager, Palm Beach County Department of Environmental Resources Management

1:45 PM - 2:05 PM

Creating Harmony with Nature: The Good Neighbor Stormwater Park as a Model for Sustainable Urban Planning

Debbie Love, AICP | Director, Development Services Department, City of North Miami

2:05 PM - 2:25 PM

Living Shoreline Performance Assessment: Building Resilience to Coastal Hazards in Cedar Key, Florida

Haley Cox | Coastal Resilience Program Coordinator, Florida Sea Grant

AGENDA

2:25 PM - 2:45 PM

Sweetwater Wetlands Park: Meeting Multiple Community Objectives Through Environmental Restoration

Christopher Keller, PE, PWS | President & Senior Environmental Engineer, Wetland Solutions, Inc.
Rick Hutton, PE | Supervising Engineer, Gainesville Regional Utilities

2:45 PM - 3:00 PM

Combined Q&A for Session Two speakers

3:00 PM - 3:15 PM

Break

———— SESSION THREE | 3:15 PM - 4:35 PM ————

3:20 PM - 3:40 PM

Resiliency Lessons Learned During Coastal & Heartland National Estuary Partnership Projects

Nicole Iadevaia | Director of Research and Restoration, Coastal & Heartland National Estuary Partnership

3:40 PM - 4:00 PM

Best Practices for Urban Tree Planting Initiatives

Lara Roman, Ph.D. | Research Ecologist, USDA Forest Service

4:00 PM - 4:20 PM

Embedding Policy Preferences for Nature-Based Solutions into Florida Law – Obstacles and Opportunities

Thomas Ankersen | Professor Emeritus, University of Florida Levin College of Law & Director Emeritus, Florida Sea Grant Legal Program

4:20 PM - 4:35 PM

Combined Q&A for Session Three speakers

4:35 PM - 5:00 PM

Conclusion and closing remarks

MEET OUR FACILITATORS

ROB MOHER

President & CEO, Conservancy of Southwest Florida
robm@conservancy.org



Rob Moher, President and CEO of the Conservancy of Southwest Florida, has more than 36 years of experience in local, regional, and international conservation. With over a decade at the helm, he is the longest-serving CEO in the Conservancy's 60-year history. During Moher's 25-year tenure at the Conservancy, more than \$140 million has been raised in philanthropic support to enhance and expand core programs, build endowments, and invest in innovative capital projects such as the recently completed \$9 million Environmental Studies Dormitory. In his current role as President and CEO, Moher's key focus is to build upon the Conservancy's outstanding 60-year history in Southwest Florida with a keen eye on current and future environmental challenges. He believes in collaborative and science-based approaches in order to balance economic growth with the conservation of our natural resources. Moher continually establishes cooperative partnerships with local individuals, businesses, and governmental and non-governmental institutions to further the Conservancy's mission to protect Southwest Florida's water, land, wildlife, and future.

CARRIE SCHUMAN, PH.D.

Climate Resilience Advisor,
Conservancy of Southwest Florida
carries@conservancy.org



Carrie joined the Conservancy's Policy Team as Principal Climate Resilience Specialist in December of 2023. Her scientific background is primarily in interdisciplinary marine and coastal sciences (M.S. Marine Science and Technology, UMASS Boston; Ph.D. Interdisciplinary Ecology with a focus in Fisheries and Aquatic Sciences, University of Florida), but with additional experience in social science and science education research. She also has skills in education and outreach acquired from more than 15 years of teaching and tutoring across many levels, and in science communication including an AAAS Mass Media Fellowship during which, she wrote coastal and climate-focused news stories for the San Luis Obispo Tribune in California. Prior to joining the Conservancy, Carrie was the Coastal Resilience Manager on the Environmental Policy Team for the Sanibel Captiva Conservation Foundation. In that role, she focused on issues like achieving balanced adaptation and resilience including through the use of nature-based solutions, and the reduction of greenhouse gas emissions through strategies including the adoption of energy efficiency and renewable energy options.

MEET OUR SPEAKERS

ERIC ANDERSON

Construction Project Manager, Palm Beach County
Department of Environmental Resources Management
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Eric Anderson is a Construction Project Manager with the Palm Beach County Department of Environmental Resources Management. For the past 18 years, he has been involved with designing, permitting, and managing estuarine restoration and monitoring projects primarily within the Lake Worth Lagoon. In 2018 he was recognized by Atlantic Coastal Fish Habitat Partnership by receiving the 2018 Melissa Laser Fish Habitat Conservation Award, this acknowledgement is for individuals who further the conservation, protection, restoration, and enhancement of habitat for coastal and estuarine fishes. Eric holds a Bachelor of Science Degree in Biology with an emphasis in Marine Biology and minor in Business Administration from Florida Atlantic University.

THOMAS T. ANKERSEN

Professor Emeritus, University of Florida Levin College of
Law & Director Emeritus, Florida Sea Grant Legal Program
ankersen@law.ufl.edu



Thomas T. Ankersen is emeritus professor from the University of Florida Levin College of Law and Director Emeritus of the Florida Sea Grant Legal Program. At the College of law, he founded and directed the Conservation Clinic, an experiential learning program providing students with opportunities to engage in the practice of law and public policy. Ankersen remains involved in marine and coastal policy across a range of matters, working with non-profit organizations and local governments such as the Sanibel-Captiva Conservation Foundation, the Sea Turtle Conservancy and the City of Cedar Key to address current and looming challenges in the marine and coastal environment. He also publishes a regular blog entitled "Legal Currents" for Florida Sea Grant.

MEET OUR SPEAKERS

HALEY COX

Coastal Resilience Program Coordinator, Florida Sea Grant
haleycox@ufl.edu



As Florida Sea Grant's Coastal Resilience Program Coordinator, Haley is responsible for expanding the scope of resilience-related extension and education programs in vulnerable areas of the state. In collaboration with faculty and staff at the UF/IFAS Nature Coast Biological Station in Cedar Key, she works to develop and deliver new materials and programming focused on climate adaptation and resilience in communities along Florida's Nature Coast. Haley has a background in wetland ecology and water quality and has previously worked in the Water Resources Division of Alachua County's Environmental Protection Department and the University of Florida's Department of Soil, Water, and Ecosystem Sciences.

RICK HUTTON, PE

Supervising Engineer, Gainesville Regional Utilities
HUTTONRH@gru.com



Rick Hutton is a professional engineer with Gainesville Regional Utilities. He received his bachelor's and master's degrees in environmental engineering from the University of Florida. He has been engaged in major facilities planning, water and wastewater treatment, and water quality protection for over 32 years. He is past president of the Florida Water Environment Association Utility Council which helps to guide statewide policy related to the municipal water wastewater treatment industry. He has been with GRU for the past 21 years.

MEET OUR SPEAKERS

CHRISTOPHER KELLER, PE, PWS

President & Senior Environmental Engineer, Wetland Solutions, Inc.

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Chris Keller is President of Wetland Solutions, Inc. in Gainesville, Florida. He has 30 years of experience in the environmental consulting industry, holds a B.S. and M.E. in Environmental Engineering from the University of Florida, has Professional Engineering licenses in Florida, Oregon, and South Carolina, and is a Professional Wetland Scientist. Chris has experience with all facets of treatment wetland projects, from conceptual planning through final design, construction, and operation. He has worked on over 100 treatment wetland projects resulting in the construction of more than 7,500 acres of new wetlands.

NICOLE IADEVAIA

Director of Research & Restoration, Coastal & Heartland National Estuary Partnership

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Nicole Iadevaia currently serves as the Director of Research & Restoration for the Coastal & Heartland National Estuary Partnership (CHNEP). This role oversees CHNEP's work on research and restoration project management as well as science communications and public engagement to protect water resources and habitat in Central and Southwest Florida. Nicole serves as the staff liaison to the CHNEP Technical and Citizens Advisory Committees. She has a background in research science, environmental communication and policy, water quality and fisheries monitoring, as well as stormwater management.

DEBBIE LOVE, AICP

Director, Development Services Department, City of North Miami

dlove@northmiamifl.gov



Debbie Love is a certified planner with over 30 years of experience in urban design, land use planning, and development. She currently oversees the Office of Land Use and Building Services at the City and has previously served as Project Manager/Primary Author of a wide variety of planning initiatives throughout Florida, including regional, city-wide, and neighborhood master plans; comprehensive plans; land development code rewrites; water supply plans; sector plans; waterfront revitalization; resiliency and sustainability plans; housing plans; floodplain and hazard mitigation strategies; and CRA plans. Ms. Love is also a certified public facilitator and conflict management specialist.

MEET OUR SPEAKERS

JENNA N. PHILLIPS, M.S., WEDG

Senior Director & Coastal Engineer, Cummins Cederberg
JPhillips@CumminsCederberg.com



Jenna Phillips is a Senior Coastal Engineer and the Senior Director of Engineering for Cummins Cederberg, a marine and coastal engineering firm. Jenna manages the St. Pete and Sarasota offices for Cummins Cederberg and is responsible for client relations, business development, and strategic growth. She has a Bachelor's degree in Ocean Engineering and a Master's degree in Coastal Engineering from the Florida Institute of Technology. She has nearly 20 years of experience specializing in coastal resiliency planning, coastal engineering, and waterfront design for local, state, and federal clients with specific focus on resilient shorelines, adaptive management, sea level rise, and storm surge modeling, living shorelines and nature-based design, shoreline stabilization, and waterways dredging and beneficial use.

Jenna serves as ASCE's Coasts, Oceans, Ports, and Rivers Institute (COPRI) Policy Committee Chair, Vice Chair of the Sarasota County Coastal Advisory Board, a member of the WEDA Education Commission and Technical Paper Committee, and the ASBPA's Science & Technology Committee.

RACHEL RHODE

Manager, Climate Resilient Coasts & Watersheds,
Environmental Defense Fund
rrhode@edf.org



As a manager for EDF's climate-resilient coasts and watersheds strategic initiative, Rachel works to build resilience for coastal communities facing unprecedented threats from climate change. She seeks opportunities for innovation and collaboration that engage communities from the ground up and governments from the top down by using science-based solutions. Committed to developing and implementing locally-supported solutions, Rachel aims to help vulnerable communities bounce forward – rather than back – from disasters and other climate change impacts. Previously, Rachel was a program assistant for EDF's Coastal Resilience team supporting the EDF team involved in the Restore the Mississippi River Delta coalition. She also led the coordination of the coalition's Projects and Science Committees dealing with grant reporting and tracking as well as project management. Rachel received both her BA and Master's Degree in Marine Science in Florida and did her thesis work on river diversions and wetland loss in the Mississippi River Delta and their associated effects on oysters.

MEET OUR SPEAKERS

THOMAS F. RIES

President, Ecosphere Restoration Institute
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Tom is a nationally known ecologist with more than 40 years of experience restoring natural systems in the SE. His work has garnered numerous environmental awards and resulted in the restoration of more than 3,800 acres of wetlands and coastal communities. He is a recognized expert in nature-based shoreline stabilization techniques, having implemented over 53 living shorelines in the Tampa Bay region. Tom founded a non-profit in 2003, which is now known as Ecosphere Restoration Institute, to advance restoration activities through innovative public-private-partnerships. Tom graduated from the University of South Florida with degrees in Biology and Geology.

LARA ROMAN, PH.D.

Research Ecologist, USDA Forest Service
lara.roman@usda.gov



Dr. Lara Roman is a Research Ecologist with the USDA Forest Service. Her research centers on the temporal dynamics of urban forests, including tree mortality and growth, canopy cover change, historical legacies, species composition change, civic science monitoring, and the factors constraining or enabling tree planting in diverse urban neighborhoods. These studies involve close collaborations with urban forestry professionals at municipalities and nonprofit organizations throughout the US, and her contributions to urban forestry practice were recognized with an Early-Career Scientist Award from the International Society of Arboriculture (ISA). She has led or coauthored over 50 publications, including a recent urban tree monitoring field guide that set the standard for longitudinal data collection of city trees. She received a Ph.D. at the University of California, Berkeley, and a Bachelor's in Biology and a Master's of Environmental Studies from the University of Pennsylvania. When she is not measuring trees, she is baking or hiking with her husband and two daughters.

MEET OUR SPEAKERS

CHAD WASHBURN

Vice President of Conservation, Naples Botanical Garden
cwashburn@naplesgarden.org



Chad Washburn is the Vice President of Conservation at Naples Botanical Garden and is responsible for the development of the Garden's plant conservation strategy and implementation of the program. He leads the Conservation and Natural Resources team, focusing on projects that ensure the long-term survival of the flora and ecosystems of South Florida and the Caribbean region through integrated plant conservation efforts. These efforts include natural resource management, seed banking, conservation plant collections development, threat assessments, restoration and resiliency projects, and capacity-building in the region. Throughout his time at the Garden, he has led efforts to address the region's most pressing challenges through nature-based solutions, including restoration of coastal beach dune plant communities, development of resilient urban forests, and stormwater management.

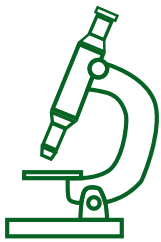
Chad acts as a convener for regional and international plant conservation efforts, bringing together a community of scientists and practitioners from across southwest Florida for monthly informal conversations, and leading a community of over 250 international botanical gardens from the Caribbean and Central American region towards achieving the region's plant conservation strategy goals. Chad is a Chanticleer Scholar, FGCU Courtesy Faculty, a graduate of Leadership Collier (2018), and a recipient of the American Public Gardens Association's Professional Citation.

**WE THANK ALL SPEAKERS AND THE MULTIPLE
ORGANIZATIONS REPRESENTED FOR THEIR
PARTICIPATION AND PARTNERSHIP.**

THANK YOU

Preserving Paradise for 60 Years

For nearly 60 years, the Conservancy of Southwest Florida has been a leading environmental advocacy organization dedicated to protecting the water, land, wildlife, and future of our five-county area. To do that, the Conservancy uses the synergy of four teams to meet this mission.



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**POLICY &
ADVOCACY**



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EDUCATION**



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