

NWWWWS

4TH NATIONAL WORKING WATERFRONTS & WATERWAYS SYMPOSIUM

In partnership with

Stem to Stern III: Boating and Waterway Management in Florida

Tampa, Florida
November 16–19, 2015
www.conference.ifas.ufl.edu/nwwws



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WELCOME LETTER

To all “4th National Working Waterfronts and Waterways Symposium” Attendees:

The National Working Waterfront Network (NWWN) welcomes you to our 4th National Working Waterfronts and Waterways Symposium in Tampa, Florida. We are very excited about the presentations and networking events that will occur over the next three days and are confident that everyone will benefit from the information sharing and discussions.

Our mission, and that of the symposium, is to increase the capacity of coastal communities and stakeholders to make informed decisions, balance diverse uses, ensure access, and plan for the future of their working waterfronts and waterways. One way we achieve this goal is by moving the triennial symposium throughout the U.S. in order to tap into local and regional expertise and experience (2007 in Norfolk, VA; 2010 in Portland, ME; 2013 in Tacoma, WA). We are so pleased this year to bring the Symposium to Florida and grateful to the organizers of Stem to Stern III: Boating and Waterway Management in Florida for agreeing to combine the two events.

The NWWN is a nationwide network of businesses, industry associations, nonprofits, local governments and communities, state and federal agencies, universities, Sea Grant programs, and individuals dedicated to supporting, preserving, and enhancing our nation’s working waterfronts and waterways.

The work of the NWWN is guided by executive and steering committees (see sidebar) whose membership revolves. Participation is open to all individuals and organizations involved in working waterfront issues at the national, state, and local level. To stay informed about NWWN activities, please sign up to receive our newsletter and join the NWWN Community Center (www.wateraccessus.com). We encourage anyone with an interest in these issues to become active in NWWN committees and activities.

In closing, the NWWN would like to thank this year’s host, Florida Sea Grant, and fellow symposium co-organizers, the National Sea Grant Law Center and the Mississippi-Alabama Sea Grant Consortium, as well as the many members of the planning committees and the sponsors who have made this event possible.

Sincerely,



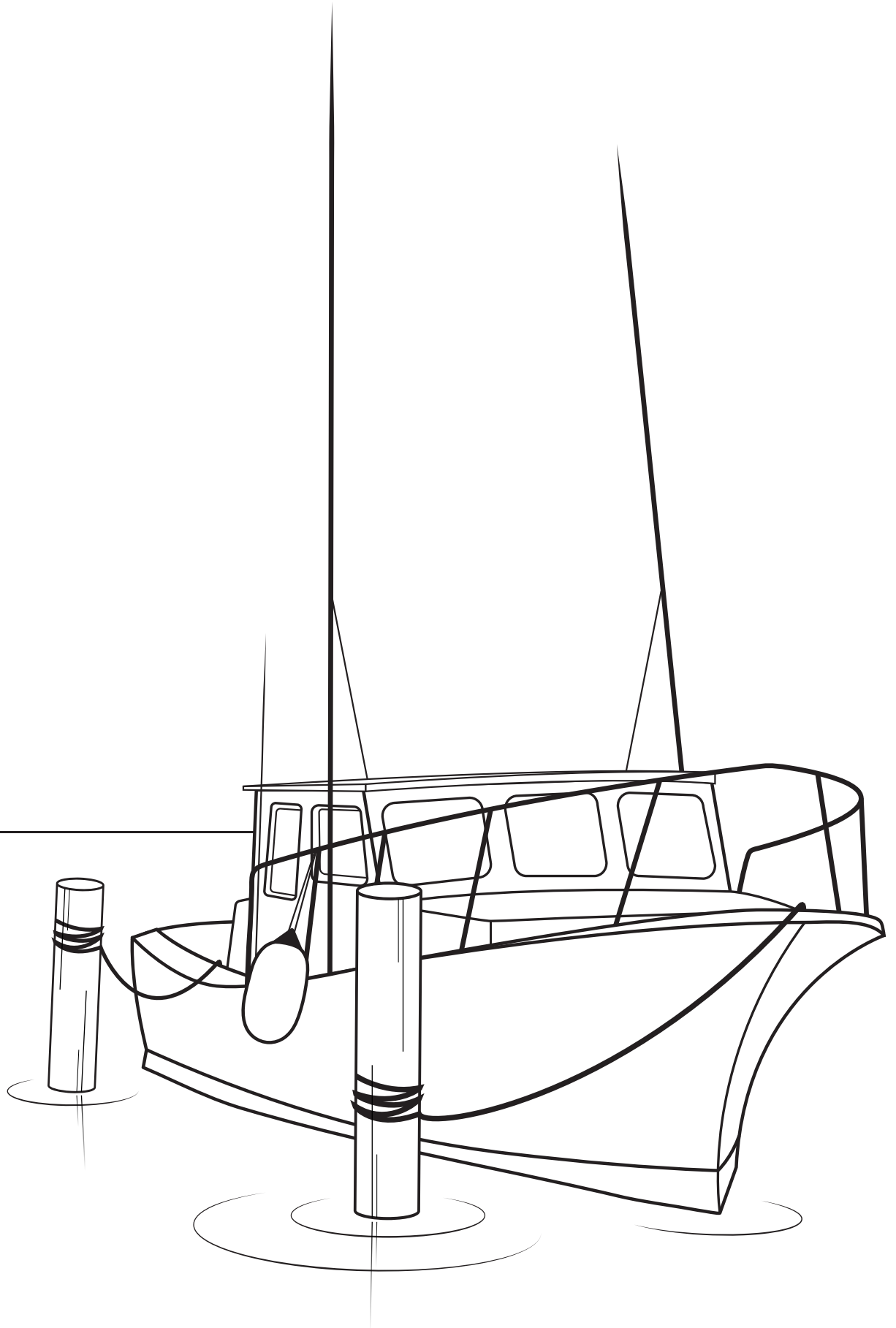
Jack Wiggin

Chair, Executive Committee
National Working Waterfront Network



TABLE OF CONTENTS

4	About the NWWN and Stem to Stern
5	Sponsor Recognition
6	Symposium Committees
8	Networking Events
10	Symposium Field Trips
14	Symposium Agenda
20	Biographies (<i>Keynote Speaker, Plenary Speakers, and Plenary Session Moderators</i>)
24	Plenary Sessions
29	Concurrent Sessions (<i>Abstracts & Session Descriptions</i>)
49	Poster Session Abstracts
56	General Information
58	Hotel Diagram



About the National Working Waterfront Network



The National Working Waterfront Network (NWWN) is a nationwide network of businesses, industry associations, nonprofits, local governments and communities, state and federal agencies, universities, Sea Grant programs, and individuals dedicated to supporting, preserving, and enhancing

our nation's working waterfronts and waterways. Participation in the NWWN is open to all individuals and organizations involved in working waterfront issues at the federal, state, and local level. Our mission is to increase the capacity of coastal communities and stakeholders to make informed decisions, balance diverse uses, ensure access, and plan for the future of their working waterfronts and waterways.

About Stem to Stern



Stem to Stern is a statewide conference that is organized every two to three years in the state of Florida. Its primary goal is to provide an opportunity for planners, resource managers, waterway users, marina operators, industry representatives, harbor masters, city managers, elected officials, law enforcement, policymakers, attorneys, consultants, educators, and researchers to learn and discuss boating and waterways issues, and to network with colleagues in the area.



A Special Thank You to Symposium Sponsors

HOSTS AND PLATINUM

Florida Sea Grant
Mississippi-Alabama Sea Grant Consortium
National Sea Grant Law Center

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Florida Fish and Wildlife Conservation Commission, Boating & Waterways Section
National Sea Grant College Program
Port Tampa Bay
Washington Sea Grant

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Coastal Management Specialist
Washington Sea Grant

Thomas Murray

Associate Director for Advisory Services
Virginia Institute of Marine Science

Natalie Springuel

Marine Extension Associate
Maine Sea Grant
College of the Atlantic

NETWORKING EVENTS

An Evening with Laura Waller (Welcome Reception)

MONDAY, NOVEMBER 16, FROM 7-9PM

Located in Esplanade Suites

Join us for a special evening of food and art! We are excited to open the 4th National Working Waterfronts & Waterways Symposium with an exhibit of Laura Waller's, a local artist who has painted scenes of our nation's working waterfronts, harbors, and ports for over twenty years. In 2013, Laura selected the Port Tampa Bay, one of Florida's major international maritime hubs, as her new subject. The resulting series of twenty-five oil paintings, "The Working Waterfront: Port Tampa Bay," explores the raw, industrial side of Tampa's waterfront through Laura's up-close, painterly portrayal of ships in the Port.

The welcome reception starts at 7:00pm and will feature a presentation by Laura about her work from 7:30 – 8:00 pm. Afterwards, view a selection of Laura's current work and learn more about the inspiration she draws from working waterfronts, the challenges she faces in gaining access, and how art can connect people to these often invisible places. While you do so, feast on hors d'oeuvres, visit the carving, pasta, salad, and dessert stations, and take advantage of the beer and wine cash bar.

Reception Schedule:

7:00pm-7:30pm – Networking with refreshments

7:30pm-8:00pm – Presentation by Laura Waller

8:00pm-9:00pm – Networking with refreshments

Preserving the Working Waterfront Premiere

TUESDAY, NOVEMBER 17, FROM 5-7PM

Located in Palma Ceia 3&4

Light refreshments available

Join us to celebrate the launch of a new oral history collection – Preserving the Working Waterfront. This National Working Waterfront Network project was funded by NOAA's Preserve America Initiative and involved the collection of ten oral histories focusing on the application of specific tools for sustaining working waterfronts across the country. Featured communities include, among others, Gig Harbor, WA; Portland, ME; Panacea, FL; and Fishtown, MI. To increase the accessibility of the oral histories, which are archived in NOAA's Voices of the Fisheries Collection, ten audio slideshows were created to highlight key portions of the oral history and lend visuals to the story.

During this two-hour event, Project Team and NWWN members Kristen Grant, Anna Hamilton, Stephanie Otts, Natalie Springuel, and Kenneth Walker will showcase full-length audio slideshow selections from the collection and share thoughts as to how oral histories can be used in working waterfront initiatives. Several of the project participants, including Lewie Lawrence, Executive Director, Middle Peninsula Planning District Commission (VA); Sarah Garcia, former Community Development Director and Harbor Planning Director, Gloucester, Massachusetts; and Bill Needelman, Waterfront Coordinator for the City of Portland, Maine, will be on hand to share their thoughts and experiences.

The showing will be followed by a moderated discussion of the role oral histories can play in helping communities plan for the future of their working waterfronts. This will be an open discussion with the symposium attendees' participation being strongly encouraged.

Dinner at The Florida Aquarium

WEDNESDAY, NOVEMBER 18, FROM 6–9PM

*Held at The Florida Aquarium
(Bus transportation provided; preregistration required)*

Please join us for dinner and a special evening at The Florida Aquarium. Come see why The Florida Aquarium is one of the top aquariums in the country! Experience sharks, alligators, lemurs, penguins and much more! Take a journey through a nostalgic state park trail past the alligator-infested Suwannee River on the Wetlands Trail and explore the Aquarium's newest exhibit, Journey to Madagascar. With over 20,000 sea creatures, there is a sea of excitement waiting at The Florida Aquarium.

Dinner at the aquarium will include a Florida Salad, Herb Crusted Baron of Beef, Chasseur Chicken, Roasted Potatoes, Seasoned Vegetables, Dinner Rolls, Key Lime Pie and Carrot Cake along with regular and decaf coffee, hot tea, and iced tea. A beer and wine cash bar will also be available.

Florida Aquarium Exhibits Closing Times

Wetlands Trail and Journey to Madagascar – 8:30pm

Bays and Beaches – 9:00pm

Coral Reef and Ocean Commotion – 10:00pm *(last bus departs for hotel at 9:00pm)*

Transportation To/From the Florida Aquarium

6:00pm - Buses will depart from the Jackson Street Entrance of the Hilton and will shuttle every twenty minutes. Last bus will depart the Aquarium at 9:00pm for return to the Hilton. The aquarium is one mile from the hotel and it is about a 20 minute walk.

Bus Schedule

Departing from Jackson Street Entrance (Hilton Tampa Downtown) **to the Aquarium**

6:00pm | 6:20pm | 6:40pm | 7:00pm

Departing from the Florida Aquarium **to the Hilton Tampa Downtown**

7:20pm | 7:40pm | 8:00pm | 8:20pm | 8:40pm | 9:00pm

Parking and walking information are available at the symposium registration desk.

SYMPOSIUM FIELD TRIPS

WEDNESDAY, NOVEMBER 18, FROM 12–5PM

Departing from Jackson Street Entrance

Field trips will depart at **12:00pm** from the Jackson Street Entrance of the Hilton Hotel. Transportation is provided for all trips. Grab a boxed lunch near this entrance before you hop on your bus. All field trips return to the Hilton by **5:00pm**. (Advance registration was required.) Note: Participants must sign a field trip liability waiver prior to boarding their bus. Pick up this form at the symposium registration desk.

For all field trips, please wear closed toed, comfortable walking shoes, and sun protection. It is also recommended to bring a hat, sunglasses and depending on weather, wind/cold protection for most tours. Some field trips have additional requirements, which are found in their description below. Water and soda will be available on the bus, but we recommend bringing a water bottle to carry with you.

City of St. Petersburg's Dynamic Downtown Waterfront

ORGANIZER *Libby Carnahan*, UF/IFAS Florida Sea Grant, lcarnahan@ufl.edu
Sharon Wright, St. Petersburg Sustainability Coordinator

SPEAKERS Representative leaders from St. Petersburg Parks Department, Arts District, Marine Sciences, Marinas and Boatyards



The City of St. Petersburg is home to a waterfront as dynamic as the citizens who reside here. On the shores of Tampa Bay, the downtown waterfront spans about 7 miles. This bus tour will take you along the downtown waterfront with stops that focus on the working waterfront areas including the marinas, the port, and the Salt Creek Marine District. You will be able to talk with people who work in these areas. These city staff, business owners, and others have been a part of past successes and challenges, and they are part of the future of the downtown waterfront that is captured in the recently completed Downtown Waterfront Master Plan (DWMP).

Clearwater's Docks, Marina and Marine Aquarium

ORGANIZER *Pat Harrell*, Florida Fish and Wildlife Conservation Commission, Patricia.Harrell@MyFWC.com

SPEAKERS *William Morris*, Director, Marine and Aviation Department, City of Clearwater



The City of Clearwater is a gateway to recreational boating near the Gulf of Mexico on the Central West Coast of Florida. This tour will visit the Clearwater Harbor and Clearwater Beach Marinas. The marinas provide important public access points for recreational boating in our region and are strategically located adjacent to dining, entertainment and public transportation. The Beach Marina is also an economic driver- housing 17 fishing charter boats, 2 fishing party boats, 3 dinner (sightseeing) cruise boats, and 23 other commercial boats. You will also get a behind-the-scenes look at the Clearwater Marine Aquarium (CMA). The CMA was once the site of a water treatment plant. Today the CMA is dedicated to the rescue, rehabilitation and release of injured marine animals, public

education, and animal-assisted therapy and research. It is the home to Winter a bottlenose dolphin who is featured in two films, Dolphin Tale and Dolphin Tale II. Winter's story has brought international fame to this small aquarium and the local area.

Cortez: The Little Fishing Village That Could

ORGANIZERS **Joy Hazell**, UF/IFAS Florida Sea Grant, jhazell@ufl.edu
Angela Collins, UF/IFAS Florida Sea Grant, abcollins@ufl.edu

SPEAKERS **John Stevely**, Florida Sea Grant, UF Emeritus
Amara Cocilovo Nash, Maritime Museum
Jane vonHamann, FISH Board of Directors
Rick Stewart, Boatworks and Duette Carriage Co.
John Banyas and/or Kim McVey, Cortez Bait and Seafood
Karen Bell, AP Bell and Starfish Company



Founded in the 1880s, Cortez is on the National Register of Historic Places. One of the few remaining working commercial fishing communities in Florida, Cortez was designated in 1999 as a Waterfronts Florida Partnership Community. In 1994, a Florida constitution net ban was passed that prohibited the use of the traditional gill-nets used in the inshore fisheries. In the ensuing decades, the community has struggled to preserve its unique history and environment. But the unique spirit that is Cortez has prevailed. This will be a special opportunity for tour participants to experience the creativity and industry of this special community. You will be able to tour a major habitat restoration phase of the Florida Institute for Saltwater Heritage (FISH) Preserve – a

unique community effort to privately fund the purchase and restoration of environmentally sensitive lands through proceeds generated by the Annual Cortez Commercial Fishing Festival. You will also tour the Florida Maritime Museum, commercial fishing facilities and experience a walk through history as you tour the town. You will be treated with a sampling of some local seafood delicacies and delightful conversation with local leaders and fishermen.

Historic Tarpon Springs Waterfront

ORGANIZER **Anne Smith**, Virginia Clean Marina Program, annesmith@vims.edu
Holly Abeels, UF/IFAS Florida Sea Grant, habeels@ufl.edu

SPEAKER **Jim Cantonis**, President, Acme Sponge & Chamois Co., Inc. / Co-Chair, Florida Sea Grant Advisory Council



Incorporated in 1887, Tarpon Springs is a leader in the world's natural sponge market. Please join us as we explore the historic Tarpon Springs Sponge Docks and the Acme Sponge & Chamois Co. processing facility. We will take an informative boat ride where a diver will demonstrate sponge diving wearing a traditional rubberized diving suit and helmet; take a narrated tour of the sponge docks and then tour the Acme Sponge & Chamois Co. processing facility. Come learn about the fascinating maritime culture and heritage of this working waterfront industry.

Tampa Bay Commercial Shrimp Docks and Shrimp Processing Plant Tour

Depending on weather and moon phase (a new moon), shrimp trawlers may be offloading while tour is going on. Attendees will likely not be able to board a vessel but can view from dock.

ORGANIZER **Chuck Adams**, UF/IFAS Florida Sea Grant, cmadams@ufl.edu

SPEAKERS **Sal Versaggi**, Versaggi Shrimp Company
Nancy Mathews, Cox's Wholesale Seafood



Visit the only commercial shrimp docks remaining in Tampa Bay. Participants will visit the office and off-loading facilities owned and operated by the Versaggi Shrimp Co. The Versaggi Family is credited with being the founders of the commercial shrimp trawling industry in the SE United States, with a history that dates back to 1899. The Versaggi Family were the pioneers that developed the commercial shrimp trawling industry that exists today. Sal Versaggi will provide a brief history of the company, a description of the operations, and a walk through of the offloading facilities. If weather permits, the tour will be able to watch as a commercial trawler ties up to the dock and offloads shrimp to be taken to the nearby processing facilities. Re-board the bus for a quick trip to visit

the Cox's Wholesale Seafood shrimp processing plant. Take a brief tour inside to see how shrimp landed by the Versaggi Shrimp Co are handled, processed and shipped throughout the U.S. and abroad. Those on the tour will hopefully gain a better understanding of the commercial seafood industry's needs for access to adequate dock space and associated waterfront facilities. In addition, participants will better understand how working waterfronts contribute to local jobs, taxes, and incomes.

Important: All participants will be required to complete the Cox's Wholesale Seafood Visitor Entry Form. Dress requirements also include full length pants and other gear also found on form. See form in advance at this address: <http://conference.ifas.ufl.edu/nwwws/documents/CoxWholesaleSeafoodVisitorEntryForm.pdf>

The City of Tampa Riverwalk and the Port of Tampa Experience

ORGANIZERS **Chris Verlinde**, UF/IFAS Florida Sea Grant, chrismv@ufl.edu
Bob Swett, UF/IFAS Florida Sea Grant, rswett@ufl.edu

SPEAKERS **Lee Hoffman**, City of Tampa
Gary Smith, Moffatt & Nichol
Keith Greminger, Kimley-Horn and Associates
Isaac Canner, Moffatt & Nichol
Shaun Drinkard, Friends of the Riverwalk
Chris Cooley, Director of Environmental Affairs



The City of Tampa has worked to transform its downtown waterfront into an active, pedestrian friendly environment for commerce, transportation, entertainment and fitness. Participants will enjoy a walking tour of the new eight acre Curtis Hixon Waterfront Park which features a unique urban design, sustainable construction, and operational features including reclaimed water for irrigation and LED lighting.

After the walking tour, the group will tour one of America's largest ports, Port Tampa Bay. Port Tampa Bay continues to flourish as the No. 1 economic engine in West Central Florida, generating nearly 100,000 jobs and delivering some \$15 billion in annual economic impact. From a wide-ranging cargo mix to its cruise passenger popularity to ship maintenance and repair, Port Tampa Bay is among the nation's most diverse seaports. Join us for a cruise aboard the Bay Spirit II, a double decker catamaran to experience Florida's largest and most diversified working seaport.

Weedon Island Preserve

ORGANIZER *Libby Carnahan*, UF/IFAS Florida Sea Grant, lcarnahan@ufl.edu

SPEAKERS *Brian Niemann (Tour leader)*, Florida Friendly Landscaping Agent, UF/IFAS
Pamela Leasure, Pinellas County Environmental Lands Manager
Lindsay Cross, Friends of Weedon Island, Past-President



Come discover St. Petersburg’s “Best Kept Secret.” Join this tour with Pinellas County Preserve staff for a look at the state-of-the-art education center, hiking trails, and a paddle through some of the most pristine coastal shoreline of Tampa Bay. Issues discussed will include seagrass protection motor exclusion zones, coastal restoration, and cooperative coastal land management. Weedon Island Preserve was purchased in 1974 under the Endangered Lands Acquisition Act. The state-owned, county-managed preserve is the second largest tract of public land in the most densely-populated county in Florida. It is a site of historical and recreational importance. Weedon Island Preserve managers work to balance education, public access, and the protection of natural and

archaeological resources. Participants will use county canoes and sign the county canoe waiver and symposium field trip waiver. Participants must wear a closed-toed wading shoe (old tennis shoes, keens, scuba booties). Sun protection (hat, sunglasses, cover up) is recommended. Life vest and paddle will be provided for you. Please bring a water bottle.

SYMPOSIUM AGENDA

Concurrent Sessions Categorized by Themes:

■ Climate Change

■ Maritime Culture and Heritage

■ Recreational Boating

■ Waterfront Industries

■ Working Waterfronts Workforce Development

Monday	Monday, November 16, 2015
5:00pm-8:00pm	Registration Open - Atrium
5:00pm-7:00pm	Sponsor Display Set-up, Poster Set-up - Bayshore 2-4
7:00pm-9:00pm	<p>Welcome Reception: Esplanade Suites</p> <p>An Evening with Laura Waller</p> <p>7:00pm-7:30pm – Networking with Refreshments 7:30pm-8:00pm – Presentation by Laura Waller 8:00pm-9:00pm – Networking with Refreshments</p>

Tuesday	Tuesday, November 17, 2015
7:00am-5:00pm	Registration Open - Atrium
7:00am-8:00am	Morning Refreshments, Visit Sponsor Displays, View Posters - Bayshore 2-4
8:00am-9:00am	<p>Plenary Session 1 - Bayshore 1</p> <p>Welcome Addresses</p> <p>Jack Wiggin, Chair, Executive Committee, NWWN Bob Swett, Coordinator, Florida Sea Grant Boating and Waterway Planning Program Major Richard Moore, Leader, Boating and Waterways Section, Florida Fish and Wildlife Conservation Commission Thomas R.P. Snelling, AICP, Director, Planning and Development, City of Tampa</p> <p>Keynote</p> <p>David Fann - A Historical Geography of Southwest Florida Waterways</p>
9:00am-10:00am	<p>Plenary Session 2 - Bayshore 1</p> <p>The National Working Waterfront Network: Working for You</p> <p>Moderator: Jack Wiggin, Director, Urban Harbors Institute, University of Massachusetts Boston</p> <p>Panelists: Kristen Grant, Marine Extension Associate, Maine Sea Grant Kenneth Walker, Program Analyst, NOAA's Office for Coastal Management Dennis Ducsik, (retired) Massachusetts Office of Coastal Zone Management Bob Swett, Coordinator, Florida Sea Grant Boating and Waterway Planning Program Natalie Springuel, Marine Extension Associate, Maine Sea Grant</p>
10:00am-10:30am	Refreshment Break, Visit Sponsor Displays, View Posters - Bayshore 2-4

Tuesday	Tuesday, November 17, 2015 (continued)			
10:30am-12:00pm	Concurrent Breakout Sessions A1 - A4			
Location	Palma Ceia 2	Palma Ceia 3&4	Garrison Suites	Bayshore 1
	A1 Aquaculture: A Powerful Tool in the Preservation of Commercial Working Waterfronts	A2 Our Ports: Resilience Planning and Implementation	A3 Washington Maritime: A Collaborative Approach to Industry Sustainability	A4 Waterway Management of Large Vessel Congregations: A Case Study
Moderator	Sebastian Belle	Nicole Faghin	Joshua Berger	Tom Shipp
	Sebastian Belle Richard Clime Barry Hurt Leslie Sturmer	Joseph Gellings Greg Theisen Deborah Mills Robbin Peach	Joshua Berger Ann Avary Penny Dalton	Tom Shipp Richard Moore Alfredo Escanio Alan May
12:00pm-1:30pm	Lunch Buffet Provided - Bayshore 5-7			
1:30pm-3:00pm	Concurrent Breakout Sessions B1 - B4			
Location	Palma Ceia 2	Palma Ceia 3&4	Garrison Suites	Bayshore 1
	B1 Financial Implications	B2 Marina and Port Resilience	B3 Surviving Commercial Fishing Declines	B4 Waterway Management & Use Issues
Moderator	Holly Abeels	Mark Breederland	Bill Mahan	Thomas Ankersen
	Tola Adeyemo Navigating the Economics of Ocean and Great Lakes Resources	Amy Samples Engaging Marina and Harbor Operators in Climate Adaptation	Ed Lewandowski “Strategic Doing”: A Public Engagement Process to Preserve Delaware’s Traditional Maritime Communities	Thomas Ankersen Waterway Management and the Rights of Navigation in Florida
	Joe Lucente Ohio’s Lake Erie Marina Industry Business Retention and Expansion Program	Jody Thompson Addressing Coastal Business Needs and Coastal Hazards: Business Resilience Indices	Joy Hazell Pink Gold Rush: Documenting a Disappearing Commercial Fishery	Carrie Backman Survey on Dredging Needs of Rural Ports and Waterways
	Brenton McCloskey Building a Sustainable Working Waterfronts Program in Maryland	Lauren Land The Ports Resilience Index: A Participatory Approach to Improving Waterfront Resilience	Richard Clime Training Maine Fishermen to be Shellfish and Sea Vegetable Farmers	Brenda Leonard Florida’s Clean Vessel Act Pumpout Program
	Henry Pontarelli Update from California’s Working Waterfronts: Strategies for Protection and Enhancement	Sarah Orlando Preparing Great Lakes Marinas for the Next Super Storm	Rhea Williamson Northern California’s Marine Research and Innovation Park: From Extraction to Sustainability	Lance Roddy The NOAA Coast Survey Inquiry and Discrepancy Management System (IDMS)

Tuesday	Tuesday, November 17, 2015 (continued)			
3:00pm-3:30pm	Refreshment Break, Visit Sponsor Displays, View Posters - Bayshore 2-4			
3:30pm-5:00pm	Concurrent Breakout Sessions C1 - C4			
Location	Palma Ceia 2	Palma Ceia 3&4	Garrison Suites	Bayshore 1
	C1 Marine Spatial Planning Efforts Supporting the Future of Waterfront Industries	C2 The Future of South Carolina Working Waterfronts: A Community Partnership Exploring Priorities	C3 Maintaining the Stream of Commerce: Issues Facing the Atlantic Intracoastal Waterway	C4 Connecting Tourists and the Working Waterfront: Examples and Innovative Tools from Oregon
Moderator	Jennifer McCann	Elizabeth Fly	Spencer Crowley	Jamie Doyle
	Jennifer McCann Penny Dalton Tiffany Smythe Amy Wirts	Elizabeth Fly Jennifer Calabria Alex Braud Tola Adeyemo	Brad Pickel Mark Crosley Kelie Moore Spencer Crowley	Jamie Doyle Kaety Jacobson Mark Farley
5:00pm-7:00pm	Preserving the Working Waterfront Premiere - Palma Ceia 3&4			

Wednesday	Wednesday, November 18, 2015			
7:00am-11:30am	Registration - Atrium			
7:00am-8:00am	Morning Refreshments, Visit Sponsor Displays, View Posters - Bayshore 2-4			
8:00am-9:30am	Concurrent Breakout Sessions D1 - D4			
Location	Palma Ceia 2	Palma Ceia 3&4	Garrison Suites	Bayshore 1
	D1 Ocean and Coastal Economics: An Approach for Analysis at the Local Level	D2 Enhancing Coastal Community Resilience in Working Waterfront Communities	D3 Building Innovative Partnerships That Support Working Waterfront Industries	D4 Water Access Projects: How Can we Address Permitting Delays
Moderator	Kristen Grant	Kenneth Walker	Nick Battista	John Sprague
	Jeffrey Adkins Sarah Garcia Lewis Lawrence Kristen Grant	Kenneth Walker Bill Needelman Michael Porto Rhonda Price	Nick Battista Josh Stoll Sheila Hoogeboom Richard Clime	Mike Montone Victoria Foster Tim Rach Patricia Harrell
9:30am-10:00am	Refreshment Break, Visit Sponsor Displays, View Posters - Bayshore 2-4			

Wednesday	Wednesday, November 18, 2015 (continued)			
10:00am-11:30am	Concurrent Breakout Sessions E1 - E4			
Location	Palma Ceia 2	Palma Ceia 3&4	Garrison Suites	Bayshore 1
	E1 Waterfront Design & Open Space	E2 Climate Adaptation	E3 Oral Histories and the Working Waterfront: Informing Decision-making and Waterfront Heritage Preservation	E4 Anchoring Conflicts on Florida's Waterways - A Case Study
Moderator	Lisa Krinsky	Bob Swett	Natalie Springuel	Richard Moore
	<p>Dan Adams Choreographing Shared Industry & Recreation on the Urban Waterfront</p> <p>Samantha Islam Open Space as Waterfront Use: A Mixed Methods Study on the Gulf Coast</p> <p>Pat Doher Preparing Michigan's Waterfront Communities for Redevelopment</p> <p>Lewis Lawrence Utilizing TIF's by Policy to Fund Local Dredging Projects</p>	<p>Rob Holmes Cartographic Visualization of Dredging in Florida</p> <p>Thomas Hawkins To Sink or Swim? Water-Dependent Infrastructure and Sea Level Rise Adaptation Policy</p> <p>Steve Ryder Protecting Valuable Shorelines and Eliminating Shoreline Erosion</p> <p>Judd Schechtman-Rosenman Toxic Storm: Climate Change, Coastal Flooding and Land Use Solutions to Hazardous Materials and Brownfields in Floodplains</p>	<p>Joshua Wrigley Barbara Garrity-Blake Natalie Springuel Stephanie Showalter Otts</p>	<p>Richard Moore Gary Klein Bill Sargent</p>
11:30am-12:00pm	Boxed Lunch - Jackson St. Entrance			
12:00pm-5:00pm	Field Trips - Jackson St. Entrance			
6:00pm-9:00pm	<p>Evening at the Florida Aquarium Dinner provided until 7:30pm; Buses depart from Jackson St. Entrance Shuttle transportation to and from the Florida Aquarium until 9:00pm</p>			

Thursday		Thursday, November 19, 2015		
7:00am-9:00am	Registration - Atrium			
7:00am-9:00am	Poster Session & Continental Breakfast - Bayshore 2-4 <i>8:00-9:00am - Presenters will be stationed by posters for discussion</i>			
Theme	Climate Change Posters	Maritime Culture and Heritage Poster	Recreational Boating Posters	Waterfront Industries Posters
	Poster #1 Alex Braud Exploring the Resilience of South Carolina's Working Waterfronts through Public Engagement	Poster #3 Joshua Wrigley Voices from the Fisheries: Create, Archive, Share	Poster #4 William T. Mahan Jr. Developing an Internet-Based Anchorage Guide for Florida's Emerald Coast Region	Poster #7 Tola Adeyemo Dive into the Ocean Economics of Your Working Waterfront
	Poster #2 Elizabeth Fly Using Participatory Modeling to Help Fishermen Identify Climate Adaptation Strategies		Poster #5 Nathaniel Trumbull The Environmental and Economic Impacts of Moorage Marinas on the West Coast	Poster #8 Lauren Land WAVE: Waterway Information for Vessels Smartphone App
			Poster #6 Sadie Marie Yarbrough Florida Fish & Wildlife Conservation Commission Waterway Asset Management System (WAMS)	Poster #9 Mike Liffmann Prevention of Aquatic Invasive Species through Best Management Practices at Working Waterfronts
				Poster #10 Jody Thompson Reversing the Tide: Preserving Working Waterfronts in Alabama
9:00am-10:00am	Plenary Session 3 - Bayshore 1 <i>Solving the Abandoned/Derelict Vessel Dilemma</i> Moderator: Ryck Lydecker , (retired) Boat Owners Association of The United States Panelists: Steve Greaves , Past President, Recreational Boating Association of Washington Major Richard Moore , Leader, Boating and Waterways Section, Florida Fish and Wildlife Conservation Commission Jennifer McCann , Director, University of Rhode Island Coastal Resources Center, and Director of Extension Programs, Rhode Island Sea Grant			

Thursday		Thursday, November 19, 2015 (continued)	
10:00am-10:30am	Refreshment Break - Bayshore 2-4		
10:30am-12:00pm	<p>Plenary Session 4 - Bayshore 1</p> <p><i>NWWN Policy Roundtable: Bracing for Working Waterfront Policy Change</i></p> <p>Moderator: Natalie Springuel, Coastal Community Development Extension Associate, Maine Sea Grant</p> <p>Panelists: Jack Wiggin, Director, Urban Harbors Institute, University of Massachusetts Boston Nicole Faghin, Coastal Management Specialist, Washington Sea Grant Hugh Cowperthwaite, Director, Fisheries Project, CEI Capital for Opportunity and Change John Sprague, Director of Government Affairs, Marine Industries Association of Florida</p>		
10:45am-12:30pm	Sponsors remove displays; Poster presenters remove posters		
12:00pm	Symposium Concludes		

BIOGRAPHIES

Keynote Speaker, Plenary Speakers, and Plenary Session Moderators

KEYNOTE SPEAKER

David Fann (retired)

Florida Sea Grant



David Fann is a sort-of-retired research geographer with Florida Sea Grant, specializing in recreational boating and waterway management. He participated in projects including regional waterway management systems, boater characterization studies, boating ordinance geodatabase creation, and historical coastal data rescue and preservation. His roles included management of data collection teams, GIS analysis, and cartography. He produced map-based “navigational, historical and environmental perspective” waterway guides for St. Augustine, the Jupiter Inlet District, and Charlotte County and co-wrote *A Historical Geography of Southwest Florida Waterways*, Volumes 1 and 2. A lifelong sailor and fisherman, David participated in field data collection whenever possible! David taught GIS in Research for the University of Florida geography department, and he continues as instructor in Florida Sea Grant’s twice-yearly workshop, “Introductory Training in GIS for Natural Resource Managers.” In his first life, David was a technical writer/editor in the aerospace industry. At UF he earned a BS (technical journalism) and MS (geography).

PLENARY SPEAKERS AND PLENARY SESSION MODERATORS

Hugh Cowperthwaite

CEI | Capital for Opportunity and Change

Hugh Cowperthwaite is the Fisheries Project Director at CEI (Coastal Enterprises, Inc.) in Portland, Maine. At CEI Hugh is responsible for CEI’s Fisheries and Waterfront programs, which involve coordinating lending, business counseling and technical assistance with commercial fishermen, shellfish growers and waterfront businesses that maintain commercial fishing access. He helped launch and administer the Maine Working Waterfront Access Protection Program a \$7.75 million state bond funded program to preserve important commercial fishing access properties along the Maine coast. Other recent work includes studying the distribution of Maine seafood and helping to connect seafood with New England wide “food hubs”. Hugh is engaged in state, regional, and national working waterfront and commercial fisheries networks to help foster investment into the sector. Hugh is a member of the Maine Technology Institute’s Aquaculture and Marine Technology Board, the Maine Fishermen’s Forum Board and the National Working Waterfront Network.

Dennis W. Ducsik (retired)

Massachusetts Office of Coastal Zone Management

Dennis Ducsik holds a doctorate in environmental policy from MIT, where his longstanding commitment to coastal management began with publication of *Shoreline for the Public* (MIT Press; 1974). After serving for nine years on the faculty of Clark University in Worcester, MA, Dr. Ducsik joined the Massachusetts Office of Coastal Zone Management where he served for 27 years as the Tidelands Policy Coordinator. There, he had primary responsibility for programs that preserve and enhance access to the coastal shoreline for both water-dependent businesses and public recreation, within the legal framework known as the Public Trust Doctrine. He co-authored regulations governing permitting of shoreland development within the state’s urbanized harbors, and was principal author of companion state regulations governing approval of municipal harbor plans and establishment of protected Designated Port Areas. At present Dr. Ducsik serves as an Advisor to the Outreach and Education Committee of the National Working Waterfronts Network.

Nicole Faghin*Washington Sea Grant*

Nicole Faghin is a Coastal Management Specialist with Washington Sea Grant based at the University of Washington in Seattle. Nicole's education, outreach and research focuses on social, economic and environmental shoreline planning efforts including working waterfronts. She is on the executive committee of the National Working Waterfronts Network and edits the quarterly newsletter for the organization. She is also involved in developing programs to encourage soft shoreline alternatives to bulkheads and coastal climate adaptation issues facing the planning community in Washington State. Nicole holds a Masters in City Planning from MIT and a law degree from Northeastern University.

Steve Greaves*Recreational Boating Association of Washington*

Steve Greaves has been involved in advocacy for recreational boating interests in Washington State since 2001. He was Chairman of the Washington Alliance for Mandatory Boater Education (WAMBE), a wide-ranging cross-section group of boating interests that developed and passed a bill requiring boat operators in Washington to take a basic boating safety course before operating a boat of 15hp or more. After 2005, WAMBE evolved into a more general-issue boating advocacy group called the Washington Boating Alliance (WBA). Steve served as WBA Chairman until 2011. The group was involved in numerous boating issues such as registration, aquatic invasive species, derelict vessels, and financing boating infrastructure such as launch ramps, mooring buoys, and marine parks. Steve has also served the Recreational Boating Association of Washington (RBAW) from 2005 to the present as Trustee, 2nd VP, 1st VP, President, and now Past President. RBAW is the "boaters' voice" in Washington State and advocates for recreational boating interests using the services of an active lobbyist.

Kristen Grant*Maine Sea Grant*

In 1999, Kristen Grant began her work as Southern Maine Marine Extension Associate with Maine Sea Grant. Thematically, Kristen's work relates to Sustainable Coastal Community Development, including a range of activities to build the capacity of coastal communities to plan and adapt for their future. A focus of her work is on addressing coastal access and waterfront development issues, and engaging community stakeholders. She is among the founding steering committee members of the National Working Waterfront Network, and co-chair of the Network's Outreach and Education Committee. To this work, Kristen brings a Master of Science degree focused on Environmental Education, and has extensive background in outreach education and community development.

Ryck Lydecker (retired)*BoatU.S.*

Ryck Lydecker retired from the Boat Owners Association of The United States (BoatU.S.) at the end of 2013 but continues the affiliation as Contributing Editor to BoatUS Magazine. During 18 years there he held dual responsibilities as Assistant Vice President of Government Affairs and Associate Editor in the association's Publications Department. Prior to that he served in similar capacity with the Motorcycle Industry Council. His career in communications and public affairs began with Minnesota Sea Grant followed by Washington, DC assignments in NOAA Public Affairs and in the Office of Sea Grant. In 2007 he conceived and co-chaired the first National Working Waterfronts and Waterways Symposium in a BoatU.S. partnership with the Virginia Sea Grant Extension Program. He also has served on the Virginia Sea Grant External Advisory Committee.

Jennifer McCann

University of Rhode Island Coastal Resources Center and Rhode Island Sea Grant

Jennifer McCann is the Director of U.S. Coastal Programs at the University of Rhode Island Coastal Resources Center and the Director of Extension Programs for the Rhode Island Sea Grant. McCann leads research and is designing trainings and workshops for an international effort to build the capacity of coastal management practitioners. She also serves as URI's lead for facilitating the comprehensive update of the RI Ocean Special Area Management Plan (Ocean SAMP). McCann served as a principal lead for the development of the Ocean SAMP and led the national effort to develop monitoring protocols and modeling tools for improved management of offshore renewable energy. McCann continues to participate in statewide efforts for improved shellfish management and to minimize the impacts of coastal erosion and inundation. McCann was a winner of the DOI's Partners in Conservation Awards (2014) as well as the Outstanding Outreach Achievement Award from the Northeast Regional Sea Grant Consortium (2013).

Major Richard Moore

Florida Fish and Wildlife Conservation Commission

Major Richard Moore works for the Florida Fish and Wildlife Conservation Commission's Division of Law Enforcement as the manager of the Boating and Waterways Section. He has served as Florida's Boating Law Administrator since 2002. With more than 25 years of fish, wildlife and boating law enforcement experience, his current professional role includes oversight of Florida's boating safety, boating access and waterway management efforts. This includes coordinating with other state, local and federal agencies on boating restricted areas and boating enforcement issues, participating in the development of state and federal boating-related legislation, and consensus-building with a wide variety of stakeholders. Richard is also actively involved with the National Association of State Boating Law Administrators (NASBLA), is serving his fourth appointment to the National Boating Safety Advisory Council (NBSAC) and is the Chair of the National Safe Boating Council (NSBC). Richard is a native Floridian from the Tampa area.

Thomas R.P. Snelling

City of Tampa

Thomas R.P. Snelling is a graduate of Miami University in Ohio and holds a Master of Arts degree from the University of South Florida. Prior to his employment with the City of Tampa, he worked for the City of Fort Myers Planning Department focusing on land use, zoning and comprehensive planning. He also has private sector planning experience with a focus on developments of regional impact, zoning and land development regulations. He is a member of the American Institute of Certified Planners (AICP) and is a member of the American Planning Association. Mr. Snelling is the Green Officer for the City of Tampa and the Director of the Planning and Development Department. He has been with this department since 1992 having previously served as the manager of the Land Development Coordination and Deputy Director for Growth Management and Development Services prior to his promotion.

John Sprague

Marine Industries Association

John Sprague is Director of Government Affairs for the Marine Industries Association of Florida and has been in the marina/boatyard business for most of his life. For over 25 years he has worked with government and stakeholders on balancing laws and regulations that may negatively affect the industry and the public's use of the waters of the U.S. and its resources. His legacy is to ensure that future generations can fish, boat and enjoy other water related activities while maintaining healthy fish stocks, reefs, clean water, and a healthy marine industry.

Natalie Springuel

University of Maine Sea Grant College Program

Natalie Springuel is a marine extension associate with the University of Maine Sea Grant College Program, based at College of the Atlantic in Bar Harbor. Springuel's extension programs address working waterfronts and coastal access, maritime heritage, and sustainable tourism planning. She was the coordinator of the second National Working Waterfronts Symposium (2010) in Portland Maine, and is a co-founder of the National Working Waterfront Network. She has been active with Maine's Working Waterfront coalition since its inception, and is a lead author of the report "Access to the Waterfront: Issues and Solutions Across the Nation," and the website "Accessing the Maine Coast," which includes everything you wanted to know about rights and responsibilities of accessing the Coast of Maine.

Bob Swett

Florida Sea Grant

Bob Swett is the Florida Sea Grant specialist on boating and waterway management issues within Florida's Cooperative Extension Service. His programmatic mission is to build a comprehensive extension and research program designed to foster the responsible use and management of Florida's waterways. The primary focus of his extension program is to develop science-based information and methods that planners, managers, regulators, policymakers and others can use to plan for and manage surface water uses. In addition, he develops and implements training in the use of geospatial information technologies for natural resource management for audiences both within and external to UF. Dr. Swett, staff, and students also create informational products to promote stewardship and responsible and safe behavior among recreational waterway users.

Kenneth Walker

NOAA's Office for Coastal Management

Kenneth Walker is a Program Analyst with NOAA's Office for Coastal Management in Silver Spring, MD. He works on a variety of coastal community issues, including coastal and waterfront smart growth, working waterfronts and coastal community resilience. Kenneth worked on post-disaster recovery planning in Louisiana after Hurricane Katrina and in New York after Superstorm Sandy. Kenneth holds a Masters of City and Regional Planning degree from the University of North Carolina and a Bachelors of City Planning from the University of Virginia.

Jack Wiggin

Urban Harbors Institute, University of Massachusetts Boston

Jack Wiggin is the director of the Urban Harbors Institute at the University of Massachusetts Boston where he is responsible for development and management of the Institute's research agenda and technical assistance projects on port and urban waterfront planning and decision making and ocean and coastal policy and management. He has 34 years of experience in government, the private sector, and academia developing and implementing coastal and marine policy, planning and management strategies at the national, state, and local levels of government in the U.S. and abroad. He is an adjunct faculty member in UMass Boston's School for the Environment teaching courses on urban planning and land use law. He also served as interim director of the school's Urban Planning and Community Development graduate program. He has a MS in Urban Studies and Planning and is a Fellow of the American Institute of Certified Planners.

PLENARY SESSIONS

A Historical Geography of Southwest Florida Waterways

by David Fann, Geographer, Florida Sea Grant

PLENARY SESSION #1

Tuesday, November 17, 2015

Bayshore 1

8:00 AM - 9:00 AM

We are pleased to open the 4th National Working Waterfronts & Waterways Symposium with a keynote address by David Fann, co-author of *A Historical Geography of Southwest Florida Waterways*, volumes 1 and 2. Perhaps nowhere else in Florida are man-made changes to land and water more visible than along its Southwest Gulf coast between Tampa Bay in the north, Marco Island in the south, and Charlotte Harbor between. The past 125 years witnessed the creation of navigable inland waterways that were designed to improve coastal navigation for safety and commerce—but also sparked explosive shorefront development.

In addition to the Gulf Intracoastal Waterway—one segment of the federal waterway from Maine to Texas—thousands of miles of access channels were dredged, bayfront property was filled, and vast finger canal systems and basins were cut to create and extend residential waterfront. The resulting inland waterway system, stretching through a shallow string of bays, lagoons, inlets and estuaries, has helped transform the region's physical landscape and economy.

Today, Southwest Florida's "working waterways" are a mecca for recreational activities that include fishing, powerboating, sailing, cruising, canoeing, kayaking, jet- and water-skiing, and nature viewing. The waterfront is dotted with amenities and businesses that cater to these recreational users—and that compete for resources vital to commercial users: boatyards, fishing vessels, and the ships using Florida's ports.

Unfortunately, the phenomenal urban and waterway development has been accompanied by significant reductions in natural habitats—such as salt marsh, mangrove and seagrass beds—that are important to boaters and fishers but, more importantly, serve as rich nurseries for marine and bird life.

In his presentation, David will highlight some of the significant changes that radically transformed Southwest Florida waterways. He will use historical maps and photographs to illustrate environmental, cultural, and geographic aspects of Southwest Florida's rich working waterway (and waterfront) history. A look to our past can "help us realize how the aspirations of society can impact the future of this natural resource system. Armed with this information, citizens can do a better job of shaping a future that includes the safeguards needed to maintain a healthy environment and growing communities." (Margaret Davidson, NOAA)

The National Working Waterfront Network: Working for You

PLENARY SESSION #2

Tuesday, November 17, 2015

Bayshore 1

9:00 AM - 10:00 AM

The National Working Waterfront Network (NWWN) is an organization of individuals from government agencies, waterfront communities, business and industry, universities, and nonprofit groups that share an interest in supporting and strengthening the working waterfronts of the nation's ocean and Great Lakes coasts and rivers. The Network's goal is to increase the capacity of coastal communities and stakeholders to make informed decisions, balance diverse uses, ensure access, and plan for the future of working waterfronts and waterways. The NWWN pursues this objective by connecting people, generating knowledge by conducting research, compiling and analyzing data and information, and making it all available through a variety of means including a website, e-newsletter, research reports, presentations to interest groups, and the triennial National Working Waterfronts and Waterways Symposium. In this session, members of the NWWN executive committee and others will provide an overview of the network and report on recent accomplishments and ongoing initiatives including: (1) creation of case studies that showcase and dissect successful working waterfront efforts, (2) completion of a working waterfront oral histories project, (3) development of a research agenda and resource inventory to support working waterfront initiatives, (4) efforts to highlight and drill down into the economics of working waterfronts, and (5) a report on legislative activities.

MODERATOR

Jack Wiggin, Director, Urban Harbors Institute, University of Massachusetts Boston

PANELISTS

Kristen Grant, Marine Extension Associate, Maine Sea Grant

Kenneth Walker, Program Analyst, NOAA's Office for Coastal Management

Dennis Ducsik, (retired) Massachusetts Office of Coastal Zone Management

Bob Swett, Coordinator, Florida Sea Grant Boating and Waterway Planning Program

Natalie Springuel, Marine Extension Associate, Maine Sea Grant

Solving the Abandoned/Derelict Vessel Dilemma

PLENARY SESSION #3

Thursday, November 19, 2015

Bayshore 1

9:00 AM - 10:00 AM

Since the earliest times in our nation's maritime economy, vessels that had outlived their useful lives or economic viability have been scuttled. Large ships might find their way to a scrap yard, but small fishing boats and recreational craft are often left in some backwater or back lot, ostensibly to rot into obscurity. While a questionable cultural tradition in any period, this generally illegal practice persists today. The advent of fiberglass hulls in the small craft (<65-feet) workboat and recreational markets since the 1950's have only compounded the problem as, it's been said, "fiberglass is forever." The seeming steady increase in abandoned, derelict, and just plain "neglected" small craft pose navigation, environmental and land-use challenges in waterfronts across the country.

This Plenary Session will examine three dimensions of the "derelict dilemma" by highlighting:

- A state-based program successfully dealing with abandoned vessel removal/disposal today (Washington Department of Natural Resources).
- A state-based prevention program targeting small craft "at risk" of becoming abandoned through on-water intervention (Florida Fish and Wildlife Conservation Commission).
- Viable vessel disposal and fiberglass scrap recycling operations in Europe and Japan, with emphasis on debris management and materials science obstacles that currently prevent development of this small business opportunity for the U.S. marine trades industry.

MODERATOR

Ryck Lydecker, (retired) Boat Owners Association of The United States

PANELISTS

Steve Greaves, Past President, Recreational Boating Association of Washington

Maj. Richard Moore, Leader, Boating and Waterways Section, Florida Fish and Wildlife Conservation Commission

Jennifer McCann, Director, University of Rhode Island Coastal Resources Center, and Director of Extension Programs, Rhode Island Sea Grant

NWWN Policy Roundtable: Bracing for Working Waterfront Policy Change

PLENARY SESSION #4

Thursday, November 19, 2015

Bayshore 1

10:30 AM - 12:00 PM

Around the country, working waterfronts are subject to policy and legislative changes. Some of these changes provide opportunity. In Washington State, for example, recent policy initiatives from the Governor's office have spurred action to support working waterfronts and their affiliated workforce. Other changes are more challenging. Maine's current governor Paul LePage, for example, is withholding voter-approved bond funds intended to protect working waterfronts and undermining jobs and infrastructure.

This roundtable discussion will focus on the priority issues facing working waterfronts; new policy directions emanating from such initiatives as ocean planning and climate preparedness; and the need to advance federal and state legislation to support coastal programs, address critical dredging needs, and provide support for waterfront industries. This session will be moderated by the NWWN Policy Committee, and feature policymakers, academics and practitioners providing national, state and local perspectives and updates to illustrate policy impacts, approaches and opportunities. We will explore successful policy approaches, examining how they have worked and why.

Following the panelist presentations, attendees will be encouraged to engage in dialogue around the following question: How can the National Working Waterfront Network and attendees of this symposium work together to affect positive change for waterfront communities? Attendees will have ample opportunity to interact with the panel to enrich the dialog and shape the working waterfront agenda for the coming years.

MODERATOR

Natalie Springuel, Coastal Community Development Extension Associate, Maine Sea Grant

PANELISTS

Jack Wiggin, Director, Urban Harbors Institute, University of Massachusetts Boston

Nicole Faghin, Coastal Management Specialist, Washington Sea Grant

Hugh Cowperthwaite, Director, Fisheries Project, CEI | Capital for Opportunity and Change

John Sprague, Director of Government Affairs, Marine Industries Association of Florida

CONCURRENT SESSIONS

ABSTRACTS & SESSION DESCRIPTIONS

(Listed in order of appearance on the agenda)

SESSIONS A1-A4

TUESDAY 10:30AM-12:00PM

Located in Palma Ceia 2

Theme: Waterfront Industries

A1 - Aquaculture: A Powerful Tool in the Preservation of Commercial Working Waterfronts

PANELISTS

Sebastian Belle (Moderator), Maine Aquaculture Association, Hallowell, ME

Richard Clime, CEI (Coastal Enterprises Inc.), Wiscasset, ME

Barry Hurt, Placida Gold Aquafarms and Southwest Florida Shellfish Growers Association, Placida, FL

Leslie Sturmer, Shellfish Aquaculture Extension Specialist and Cedar Key Aquaculture Association, Cedar Key, FL

Traditional working waterfronts have experienced significant challenges in the last twenty years. Rapid residential development and a contraction of the traditional fishing resource base have combined to change many coastal communities. Between 1986 and 2010 almost 100,000 jobs have been lost in the commercial fishing sector. During this same period marine aquaculture in the U.S. grew slowly but significantly averaging 2.5% growth annually. Worldwide aquaculture is the fastest growing food production sector averaging 8% growth annually. Although growth has been relatively slow in the U.S., aquaculture has been an important tool for coastal communities in their efforts to diversify their economic base, maintain their economic viability and preserve working waterfronts. This panel will explore the successes and challenges that a number of communities have experienced as they have developed a local aquaculture business community. Panelists will discuss the transition from commercial fishing to aquaculture, the preservation of existing and creation of new working waterfronts and how aquaculture has allowed working waterfronts to survive in the face of changing coastal community demographics. Finally the panelists will discuss a number of the tools aquaculture operators have used to maintain working waterfront access.

Contact: Sebastian Belle, Maine Aquaculture Association, Tel: 207-622-0136, Email: maineaqua@aol.com

Located in Palma Ceia 3&4

Theme: Climate Change

A2 - Our Ports: Resilience Planning and Implementation

Nicole Faghin (Moderator), Washington Sea Grant, Seattle, WA

PANELISTS

Joseph Gellings, Port of Seattle, Seattle, WA

Greg Theisen, Port of Portland, Portland, OR

Deborah Mills, Dewberry, Fairfax, VA

Robbin Peach, MassPort, Boston, MA

This panel presentation will be divided into two parts, first with a background about each port and then a moderated discussion about common issues the ports are addressing in their resiliency planning and implementation efforts. Each port will set the stage in a 10 minute presentation about the location of the port, the geography, the population in the community, the social structure of the community and its relationship to the port, the lines of business, economic impacts associated with the port on the community, local climate change predictions and local climate change impacts such as sea level rise, storm surge and heat impacts.

The second part of the presentation will be in the form of a moderated panel discussion on the following topics: 1) what is unique about your port for resiliency planning purposes, 2) what planning actions have you taken to date, 3) what are the key issues your port will need to address, 4) what type of sequencing have you identified for your planning efforts, 5) what relationship does your port planning efforts have with local or state resiliency planning efforts?

The panel will conclude with a question and answer period with the audience.

Contact: Joseph Gellings, Port of Seattle, Tel: 206-787-3368, Email: gellings.j@portseattle.org

Located in Garrison Suites

Theme: Working Waterfronts Workforce Development

A3 - Washington Maritime: A Collaborative Approach to Industry Sustainability

PANELISTS

Joshua Berger (Moderator), Washington Maritime Federation, Seattle, WA

Ann Avary, Center of Excellence for Marine Manufacturing and Technology, Anacortes, WA

Penny Dalton, Washington Sea Grant, Seattle, WA

Washington State boasts a maritime industry and working waterfront that is prosperous, growing, and anchored in a rich history. Although Washington's maritime sector is healthy, it is under threat from other regions that are aggressively pursuing the same opportunities for growth, a workforce that is changing and a lack of awareness of the industry's opportunities and impact. As we look towards sustainability and resiliency in a changing market, a collaborative and coordinated approach is necessary. The Washington Maritime Federation, Washington Maritime Workforce Initiative and Washington Sea Grant are doing just that.

Industry led, the Washington Maritime Federation, representing the coordinated voice of the breadth of Washington's maritime industry, has begun identifying ways it can better support and grow our state's maritime sector. Stakeholders from diverse subsectors have come together to support the industry including maritime organizations, ports, business, labor, workforce development and economic development organizations. The Washington Maritime Workforce Initiative has brought together a statewide consortium of education and training providers with industry to address changing workforce needs. At the 2015 National Working Waterfront and Waterways Symposium, you will hear from the coordinators of these initiatives as well as success stories of collaborative models for funding and planning.

Contact: Joshua Berger, Coordinator, Washington Maritime Federation, Tel: 206-321-8693, Email: jberger@edc-seaking.org

Located in Bayshore 1

Theme: Recreational Boating

A4 - Waterway Management of Large Vessel Congregations - A Case Study

PANELISTS

Captain Tom Shipp (Moderator), Boating and Waterways Section, Boating Safety Unit, Florida Fish and Wildlife Conservation Commission, Tallahassee, FL

Major Richard Moore, Leader, Boating and Waterways Section, Florida Fish and Wildlife Conservation Commission, Tallahassee, FL

Major Alfredo Escanio, Regional Commander South B Region, Division of Law Enforcement, Florida Fish and Wildlife Conservation Commission, Miami, FL

Lieutenant Alan May, Marine Enforcement Unit/Homeland Security, Sheriff's Office, Palm Beach County, FL

Recurring water-based events and holiday weekends with particularly high numbers of vessels and people gathering in celebration are common in Florida and elsewhere. However, the number and popularity of impromptu events with large congregations of vessels has been increasing in Florida. Social media has played a role in enhancing their popularity and spontaneity. These gatherings occur on sandbars, small islands, and shallow water areas, and they often are accompanied by incidences of alcohol/drug use, aggressive/lewd behavior, user conflicts, unsafe navigation and accidents, and other illegal activities. The panelists will discuss how a community in Miami-Dade County is dealing with the growing issue of large vessel congregations in its local waters. The session will include information about boating accidents and other documented problems in the area, the "doubling-down" by law enforcement to address impaired boat operators in the area, and local government efforts to regulate activities to reduce the problems. Waterfront communities throughout the U.S. are experiencing challenges with mass congregations of vessels and this case study will help authorities better understand the complexities associated with keeping their local waterways safe for all to enjoy.

Contact: Major Richard Moore, Florida Fish and Wildlife Conservation Commission, Tel: 850-488-5600, Email: richard.moore@MyFWC.com

SESSION B1

Financial Implications

TUESDAY 1:30PM–3:00PM

Located in Palma Ceia 2

Theme: Waterfront Industries

Navigating the Economics of Ocean and Great Lakes Resources

Jeffery Adkins, IMSG for the NOAA Office of Program Planning and Integration, Charleston, SC

Danielle Bamford, The Baldwin Group for the NOAA Office for Coastal Management, Charleston, SC

Tola Adeyemo, The Baldwin Group for the NOAA Office for Coastal Management, Charleston, SC

The resources of the oceans and Great Lakes directly support millions of jobs, contributing billions of dollars in wages and gross domestic product. The need to demonstrate the economic value of coastal resources and the importance of working waterfronts to a community is more important than ever. The Economics: National Ocean Watch (ENOW) data set generated by the NOAA Office for Coastal Management provides time-series statistics on the resources of the oceans and Great Lakes. The data are reported in terms of the number of businesses, jobs, wages, and gross domestic product for six ocean-dependent sectors that range from commercial fishing to ship and boat building. This session will provide an overview of the ocean economy and the ENOW data, and help to show what's at stake in decisions about the management, protection, and use of ocean and Great Lakes resources.

Contact: Jeffery Adkins, IMSG for the NOAA Office of Program Planning and Integration, Tel: 843-740-1244, Email: Jeffery.Adkins@noaa.gov

Ohio's Lake Erie Marina Industry Business Retention and Expansion Program

Joe Lucente, Ohio State University Extension/Ohio Sea Grant College Program, Toledo, Ohio

Sarah Orlando, Ohio State University Extension/Ohio Sea Grant College Program, Sandusky, Ohio

Explore how your coastal community could utilize the Ohio Business Retention and Expansion program to ascertain the needs of your working waterfront community. Learn how this program can be adapted to fit any industry that your coastal community may wish to learn more about, work to address business needs and create linkages between business and government. Learn how the Ohio Sea Grant College Program partnered with state-wide agencies to examine the needs of Ohio's Lake Erie Marina Industry. As a result of the business retention and expansion program conducted in 2014-2015, Ohio Sea Grant, the Lake Erie Marine Trades Association and Ohio Department of Natural Resources Office of Coastal Management learned that Ohio's Lake Erie Marina Industry plans to retain between 566-1,011 jobs with the intent of creating approximately 26-41 new jobs in the next year as a result of business expansion. Moreover, 26-41 new jobs in Ohio's Lake Erie Marina Industry has the potential to create an additional \$52,349 in local income tax collection and add approximately \$1,247,015 in personal income to Ohio's Lake Erie coastal communities.

Contacts:

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Sarah Orlando, Ohio State University Extension/Ohio Sea Grant College Program, Tel: 419-609-4120, Email: orlando.42@osu.edu

MODERATOR

Holly Abeels

UF/IFAS Florida Sea Grant Brevard County
Cocoa, FL

Building a Sustainable Working Waterfronts Program in Maryland

Brenton McCloskey, University of Maryland Environmental Finance Center, College Park, MD

Waterfronts and the waterways that connect them are an important component of the U.S. economy, and working waterfronts provide critical access for water-dependent activities such as commercial and recreational fishing, recreational boating and various marine trades. The waterfronts that make up our coastal communities have transformed over time, both in Maryland and across the United States. While neither good nor bad, this transformation has led many to question the future of their waterfronts and what role they play in their community's identity and economic importance. To address working waterfront enhancement, revitalization, and visioning within Maryland's historic working waterfront communities, the Maryland Department of Natural Resources partnered with the University of Maryland Environmental Finance Center to conduct an economic and business analysis for the City of Cambridge, which investigated infrastructure needs, economic trends and cultural and heritage protection issues. A series of stakeholder meetings within the Cambridge community informed the development of a Working Waterfronts Guidebook and culminated in a day-long exchange of information between local, state, and regional stakeholders. Lessons learned from the Cambridge pilot project led to the formalization of Maryland's Working Waterfront Enhancement Program to inform, incentivize, and advance local working waterfront planning, protection, and economic development initiatives.

Contact: Brenton McCloskey, Environmental Finance Center, University of Maryland, Tel: 301-405-8513, Email: brentmc@umd.edu

Update from California's Working Waterfronts: Strategies for Protection and Enhancement

Henry Pontarelli, Vice President and Co-founder, Lisa Wise Consulting, Inc., San Francisco, CA

Working waterfronts are grappling with ways to retain their importance as centers of employment, food production and tourism in the face of threats from gentrification, sea level rise, aging infrastructure, and fractured markets. This presentation will discuss the innovative land use policies and community-based approaches that California working waterfronts have used to protect marine dependent uses, thereby prolonging this active and authentic aspect of California's cultural heritage. The presentation will highlight case studies of these approaches that include enabling off-the-boat sales, a ballot measure restricting development to commercial-fishing related uses, and the establishment of a Business Improvement District, among others.

Henry is the Vice President and Co-founder of Lisa Wise Consulting, Inc. Henry and his team have authored strategic business plans and economic development strategies, community sustainability plans, land use studies, and infrastructure feasibility analyses for coastal cities throughout California, including Los Angeles, San Diego, Long Beach, Santa Barbara, and Monterey. The firm has also produced numerous economic reports for the U.S. West Coast commercial fishing industry, and brings a unique perspective to long-range planning for waterfront communities.

Contact: Henry Pontarelli, Vice President & Co-founder, Lisa Wise Consulting, Inc., San Francisco, CA, Tel: 805-595-1345, Email: henry@lisawiseconsulting.com

SESSION B2

Marina and Port Resilience

TUESDAY 1:30PM–3:00PM

Located in Palma Ceia 3&4

Theme: Climate Change

Engaging Marina and Harbor Operators in Climate Adaptation

Amy Samples, Michigan Sea Grant, Ann Arbor, MI

Marinas and harbors are susceptible to a variety of climate change impacts including shorter winters, warmer temperatures, more intense storms, and in the Great Lakes region, reduction in ice cover and fluctuating lake levels. Though a variety of climate-related tools are available, it is difficult for private marinas and small municipal harbors to recognize and fund needed improvements toward climate adaptation. In response, Michigan Sea Grant (MSG) led a multi-disciplinary team that developed a new module for the Clean Marina Classroom online training tool and held a series of workshops that translated climate change research findings and assisted marina and harbor operators in sector-specific problem identification, decision making and planning related to climate change adaptation. We utilized components of the Sustainable Working Waterfronts Toolkit (NWWN) to describe potential planning and financing approaches and found that customized training materials were more useful if framed in a context and language familiar to the stakeholder, adapted to the priorities of the user (e.g., operational risks), and focused on building resilience to a range of conditions. If the training materials discuss impacts alongside potential adaptations, users are better prepared to recognize risks and identify and implement efforts to increase resilience to climate change.

Contact: Amy Samples, Michigan Sea Grant,
Tel: 734-647-0766, Email: asamples@umich.edu

Addressing Coastal Business Needs and Coastal Hazards: Business Resilience Indices

Jody Thompson, Auburn University Marine Center/
Mississippi-Alabama Sea Grant Consortium, Mobile, AL
Tracie Sempier, Mississippi-Alabama Sea Grant Consortium,
Ocean Springs, MS
Colette Boehm, Gulf Shores & Orange Beach Tourism,
Gulf Shores, AL

Coastal Alabama fisheries and tourism businesses are vital to the state's economy and area employment. 2013 estimates show that coastal tourism in Baldwin County alone contributes 45,000 travel-related jobs. Generally speaking, fisheries (commercial and charter fishing enterprises, seafood processing, and related industries) and tourism (hotels, condominiums, food service, nature-based tourism endeavors, etc.) businesses are small, locally-owned endeavors, and are vulnerable to a myriad of coastal hazards.

In an attempt to address the needs of these stakeholders, several partners, led by the Mississippi-Alabama Sea Grant Consortium, have developed individual resilience indices to address specific fisheries and tourism business needs and concerns in preparing for and responding to coastal hazards. These indices are modeled after the successful Community Resilience Index, developed by MASGC and the Gulf of Mexico Alliance. Following this model, the Fisheries Resilience Index and Tourism Resilience Index provide a simple, inexpensive method for businesses to perform a self-assessment of their resilience to coastal hazards, and identify weaknesses that business may want to address prior to the next hazard event while highlighting strengths the business possesses. Designed to be a facilitated discussion, preliminary exercises have provided a positive response from participating businesses. A brief summary describing the process of developing the indicators and subsequent pilot testing will be discussed.

Contact: Jody Thompson, Auburn University Marine Center/
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MODERATOR

Mark Breederland

Michigan Sea Grant Extension
Traverse City, MI

The Ports Resilience Index: A Participatory Approach to Improving Waterfront Resilience

Lauren Land, Louisiana Sea Grant at Louisiana State University, Baton Rouge, LA

Coastal ports connect users of the sea and land in an environment exposed to coastal hazards and climate change impacts. Risks to ports also include organizational problems, technological interruptions, and human factors. By assessing assets and capabilities before a hazard event, maritime industry members and port management can identify the resources needed to increase efficiency of hazard mitigation, response and recovery, thereby increasing resilience.

Louisiana Sea Grant and the Gulf of Mexico Alliance have established a formal network of port and transportation specialists with the purpose to develop a list of indicators for a qualitative self-assessment tool through which a Port can evaluate its ability to return to an acceptable level of operation after a hazard event. The index raises awareness of challenges to port operations and the mechanisms to address those challenges, especially through social relationships and communication at different spatial and temporal scales.

This presentation will summarize the participatory approach used to engage port stakeholders to develop a qualitative tool; the factors that the port industry identifies as relevant to increase resilience to natural hazards; and the results of pilot testing the Ports Resilience Index across the Gulf Coast.

Contact: Lauren Land, Louisiana Sea Grant, Louisiana State University, Tel: 225-578-5865, Email: lland1@lsu.edu

Preparing Great Lakes Marinas for the Next Super Storm

Sarah Orlando, Ohio State University Extension/
Ohio Sea Grant College Program, Sandusky, OH
Joseph E. Lucente, Ohio State University Extension/
Ohio Sea Grant College Program, Toledo, OH

In the fall of 2012, marinas in the Great Lakes used to 1-to-3 foot waves in their harbors found themselves dealing with towering waves of up to 20 feet, and winds of over 60 miles per hour as a result of Hurricane Sandy. While there are tools and resources available to help marinas prepare for coastal storms, it is not known whether marina owners in the Great Lakes are aware of these resources or if they are able to implement these recommendations to improve their resiliency. Therefore, several of the vulnerabilities posed by coastal storms to Great Lakes marina operators are social challenges. The project, Development of a Coastal Storm Preparation, Adaptation, and Response Tool for Great Lakes Marinas, aims to understand the needs, drivers, and barriers to preparing for extreme weather hazards, and to then develop tools that will help marina owners now and in the future. This project uses a series of focus groups conducted with marina operators in several Great Lake states. We will provide a mid-project summary on what challenges marina operators in the Great Lakes are facing and how future resources and tools can help operators become more resilient in preparing for coastal storms.

Contacts:

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SESSION B3

Surviving Commercial Fishing Declines

TUESDAY 1:30PM–3:00PM

Located in Garrison Suites

Theme: Working Waterfronts Workforce Development

“Strategic Doing”: A Public Engagement Process to Preserve Delaware’s Traditional Maritime Communities

Ed Lewandowski, Delaware Sea Grant, Lewes, DE

Numerous commercial fishing and water-dependent business activities occur along Delaware’s tidal coastline of approximately 381 miles. These “working waterfronts” contribute to the State’s economic vitality and quality of life and are important to maintaining Delaware’s coastal heritage. Unfortunately, many of these traditional maritime communities have experienced significant decline due to the loss of commercial fishing and processing industries over the last several decades. In addition, the collapse of some recreational fisheries and other water-dependent businesses has caused economic malaise in areas that once supported a robust economy. To address the challenges facing Delaware’s working waterfronts, it is essential for stakeholders to begin functioning as an interested and engaged community. The stakeholders need to find new ways of thinking and acting together. Strategic thinking and the capacity to translate ideas into action are critical to achieving success. Starting in June 2013, the University of Delaware’s Sustainable Coastal Communities Initiative began to engage Delaware’s traditional maritime communities in a “Strategic Doing” process. This community engagement process balanced both open participation and leadership direction. It also helped the stakeholder group to identify and keep focused on the transformational questions that moved their community towards implementation and execution of sustainability approaches and practices.

Contact: Ed Lewandowski, Delaware Sea Grant, University of Delaware, Tel: 302-645-4253, Email: edlew@udel.edu

Pink Gold Rush: Documenting a Disappearing Commercial Fishery

Joy Hazell, Florida Sea Grant Extension Agent, Florida Sea Grant Extension, Fort Myers, FL
Justin D. McBride, West Coast Inland Navigation District, Venice, FL

The Fort Myers Beach shrimp fleet is the largest on the Florida’s Gulf Coast, but its survival is uncertain. After the discovery of “pink gold” in 1949, the shrimp fleet grew and prospered until hundreds of boats offloaded at local docks. Today, fewer than 40 operate out of Fort Myers Beach as regulations, development and imports take their toll. To highlight the history and culture of a disappearing working waterfront, the local public broadcasting station WGCU, Florida Sea Grant, West Coast Inland Navigation District, Lee County and pearl brands partnered to create Pink Gold Rush. The one hour film was a huge success, reaching the highest sustained ratings for a local show WGCU has seen, and is spreading to more than 37 stations nationwide. The story of the shrimp fleet caught the attention of local tourism officials, restaurateurs and community groups. The creators hosted film screenings and expert panels at multiple events, winning the People’s Choice Award at the Fort Myers Beach Film Festival. Restaurants have reported switching to Gulf pink shrimp. This success has shown a demand for locally caught sustainable seafood and that increased knowledge about availability increases demand. Building on this success, the creators will develop a series of videos highlighting locally caught seafood.

Contacts:

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Justin D. McBride, West Coast Inland Navigation District, Tel: 941-485-9402, Email: justin@wcind.net

MODERATOR

Bill Mahan

UF/IFAS Florida Sea Grant Bay County
Panama City, FL

Training Maine Fishermen to be Shellfish and Sea Vegetable Farmers

Richard Clime, CEI (Coastal Enterprises Inc.), Wiscasset, ME

Commercial fishing opportunities in the Gulf of Maine are increasingly constrained by factors like climate change, limited permits, lower allocated catch, and fluctuations of harvestable resources. Many fishermen now seek alternative income sources to replace the earnings lost because of these dislocations. Some commercial fishing groups are recognizing aquaculture as a seasonal alternative to complement fishing income. They already possess the working waterfront skills, boats and equipment that aquaculture demands, but often lack the required knowledge of operations, sales and marketing, and financial management of a farm business.

A team of instructors with combined business, research, and technical assistance experience now offers fishermen a practical course for shellfish and sea vegetable farming. Both provide low-cost, start-up investment options. Classroom curricula includes an overview of aquaculture, basic animal and plant biology, farming methods and equipment, site selection, permitting requirements, risk management approaches, and entrepreneurial skills that increase profitability. Classroom work is enhanced by field trips to hatcheries and commercial aquaculture sites, by extracurricular assignments for business planning and permit application, and by continuing, free technical assistance from the instructors. Examples of the course syllabus, curricula, and site visitations are presented. Pre- and post-course assessments by fishermen and instructors will be shared.

Contact: Richard Clime, Working Waterfront Project Developer, CEI, Tel: 207-882-5191, Email: rdc@ceimaine.org

Northern California's Marine Research and Innovation Park: From Extraction to Sustainability

Rhea L. Williamson, Humboldt State University, Arcata, CA
Mike Wilson, Commissioner, Humboldt Bay Harbor, Recreation and Conservation District

The coastal communities in northern California have long combined the area's natural resources with a creative ingenuity to advance economic opportunities. Today, the region is seeking ways to transition from an economy largely dependent on resource extraction to one focusing on sustainable economic development. A unique opportunity now exists to apply regional expertise in marine-based research and technology development using a repurposed industrial facility. This presentation will summarize the concept, actions to date, and future activities that are in place to help in the transition from vision to concept to reality.

The National Marine Research and Innovation Park (NMRIP), put forward by the Humboldt Bay Harbor Recreation and Conservation District (HBHRCD) and Humboldt State University (HSU), is a concept in development to repurpose a former pulp mill to a multi-use facility housing both research and commercial opportunities in aquaculture, biomass conversion, and renewable energy. Aquaculture and renewable energy are opportunities well-matched to regional strengths and resources. We believe that NMRIP will be an important part of a national strategic approach to develop a more innovative, competitive, self-sufficient and sustainable economy.

Contact: Rhea Williamson, Office of Research, Economic and Community Development, Humboldt State University, Tel: 707-672-3832, Email: rhea.williamson@humboldt.edu

SESSION B4

Waterway Management & Use Issues

TUESDAY 1:30PM–3:00PM

Located in Bayshore 1

Theme: Recreational Boating

Waterway Management and the Rights of Navigation in Florida

Thomas T. Ankersen, University of Florida Levin College of Law & Florida Sea Grant, Gainesville FL

For more than a decade Florida Sea Grant has supported research into the complicated and often controversial area of navigation rights in Florida. This research began in order to provide the legal backdrop to the resolution of disputes between local governments and boaters anchoring in the waters of Southwest Florida. The research resulted in a popular 2002 monograph published by Sea Grant entitled “Anchoring Away: Government Regulation and the Rights of Navigation in Florida.” Subsequent editions were published in 2008 and 2011. This presentation will provide an overview of the newly minted 4th edition, to be published in 2015. For this fourth edition, in addition to updating the law, we have expanded the substantive scope of analysis to more broadly address the law of waterborne navigation in Florida, including, but not limited to, anchoring. New or expanded sections discuss the relationship of boating law to admiralty and maritime law, the COLREGS or “rules of the road,” public and private interests in waters overlying submerged lands, landowner riparian rights as they may affect waters; federal, state and local channels, and boating restricted areas. Recent cases involving navigation rights and boating and rule-based administrative developments in boating law will also be discussed.

Contact: Thomas T. Ankersen, Legal Skills Professor and Director, Conservation Clinic, University of Florida Levin College of Law, Tel: 352-273-0835, Email: ankersen@law.ufl.edu

Survey on Dredging Needs of Rural Ports and Waterways

Carrie Backman, Washington State University Extension, Community and Economic Development, Cathlamet, WA

Rural ports and marinas along the Lower Columbia River have significant needs for dredging; however, lack funding and manpower to maintain dredging needs. This leads to near-impassable waterways; threatening economies dependent on river-based tourism, sports fishing and commercial fishing. A coalition of port, county, and commercial fishing interests created a community survey in two of these rural communities to understand the impacts of sedimentation on local waterways. The survey was mailed to all postal addresses in the area, and received more than a sixty percent response rate. Results showed that local residents were seeing far-reaching challenges as a result of the sedimentation; including decreased river traffic, strains on tourism-based businesses, and increased flooding during high tide events. Results also offered an arrays of ideas for grassroots solutions; including connections for permitting, and offers of donations of money and equipment for dredging. These survey results show how support can be quantified in a rural area for small port dredging, and used to fuel funding requests and planning at the local and regional level.

Contact: Carrie Backman, Washington State University Extension, Tel: 360-795-3278, Email: carrie.backman@wsu.edu

MODERATOR

Thomas T. Ankerson

University of Florida Levin College of Law & Florida Sea Grant
Gainesville, FL

Florida's Clean Vessel Act Pumpout Program

Brenda Leonard, Florida Department of Environmental Protection, Tallahassee, FL

The Federal Clean Vessel Act was passed by Congress in 1992 to help reduce pollution from vessel sewage discharges into U.S. waters. Administered through the USFWS, the Act established a grant program to begin providing funds through the Sport Fish Restoration Account to states for the construction and installation of pumpout stations and educational programs on the effects of recreational sewage in our waters. The funds come from boaters and anglers through excise taxes paid on fishing tackle and fuel. Boaters are faced with several issues in the proper treatment or disposal of recreational boater sewage and Florida is addressing these issues through increased partnerships; through educational efforts on how boater sewage affects our waterways; and by providing boaters with the locations of working pumpout facilities. There are various types of pumpout equipment available and boaters can install Marine Sanitation Devices such as holding tanks and flow through devices to either treat or retain the sewage for proper disposal. Since Florida began their CVA program in 1994 under Florida Statute 327.53 titled Marine Sanitation, over 475 pumpout projects have been funded up to 75% through U.S. Fish & Wildlife Service federal and Florida Inland Navigation District state funds.

Contact: Brenda Leonard, Office of Environmental Education and Sustainable Initiatives, Department of Environmental Protection, Tel: 850-245-2847, Email: Brenda.Leonard@dep.state.fl.us

The NOAA Coast Survey Inquiry and Discrepancy Management System (IDMS)

Lance Roddy, National Oceanic and Atmospheric Administration / Office of Coast Survey, Silver Spring, MD

Multitudes of mariners use NOAA nautical charts while navigating numerous recreational vessels, tugboats, dredging vessels, military watercraft, and other vessels on U.S. waterways. This NOAA chart user community, with its numbers and widespread distribution, provides frequent feedback about the quality of NOAA's navigation products.

The NOAA Coast Survey Inquiry and Discrepancy Management System (IDMS), accessible through the Office of Coast Survey website, provides the opportunity for anyone to submit discrepancies, comments, and questions pertaining to NOAA's navigation products, e.g., Raster Navigational Charts (NOAA RNC®), Electronic Navigational Charts (NOAA ENC®) and Coast Pilots. The IDMS comprises the Nautical Discrepancy Report System, the Nautical Inquiry & Comment System, and Coast Survey's management of both systems. Depending on the nature of a user's submission to the system, nautical chart features that are depicted on one or more navigation products may be revised.

During my presentation I will describe the IDMS; including an operational overview, its user interface, examples of reported discrepancies and their outcomes on NOAA navigation products, and system statistics.

Contact: Lance Roddy, Marine Chart Division, Office of Coast Survey, NOAA, Tel: 301-713-2737 ext. 126; Email: lance.rodny@noaa.gov

SESSIONS C1-C4

TUESDAY 3:30PM – 5:00PM

Located in Palma Ceia 2
Theme: Waterfront Industries

C1 - Marine Spatial Planning Efforts Supporting the Future of Waterfront Industries

PANELISTS

Jennifer McCann (Moderator), University of Rhode Island Coastal Resources Center/RI Sea Grant, Narragansett, RI
Penny Dalton, Washington Sea Grant, Seattle, WA
Tiffany Smythe, Smythe Coastal Consulting, Mystic, CT
CDR Amy Wirts, U.S. Coast Guard, Alameda, CA

Marine spatial planning can offer protection and help plan for the future of waterfront industries including maritime shipping, fisheries, recreation, and aquaculture. This panel highlights three case studies recently completed by the University of Rhode Island Coastal Resources Center that documented lessons learned from recent marine spatial planning efforts. The first presentation shares lessons learned from the RI Ocean Special Area Management Plan (Ocean SAMP), which is currently undergoing a five-year update. This presentation highlights how SAMP policies have sought to protect RI commercial and recreational fishing, boating and shipping. The second presentation shares lessons learned to date from the development of the Washington Coast Marine Spatial Plan, focusing on outreach made to Washington's coastal communities, which rely heavily on waterfront industries including fishing and aquaculture. The third presentation highlights two recent San Francisco Bay-area spatial management initiatives that sought to facilitate Bay Area maritime commerce while ensuring marine safety and environmental protection: planning for the 34th America's Cup Races (2012-2013) and the Approaches to San Francisco Bay Port Access Route Study (2011-2012). Principal Investigator Jennifer McCann will present one case and facilitate lively discussion among the panelists and with the audience with the goal of highlighting practical lessons learned.

Contact: Jennifer McCann, University of Rhode Island Coastal Resources Center/Rhode Island Sea Grant, Tel: 401-874-6127, Email: mccann@crc.uri.edu

Located in Palma Ceia 3&4
Theme: Climate Change

C2 - The Future of South Carolina Working Waterfronts: A Community Partnership Exploring Priorities

PANELISTS

Elizabeth Fly (Moderator), South Carolina Sea Grant Consortium and Carolinas Integrated Sciences and Assessments, Charleston, SC
Jennifer Calabria, Clemson University, Clemson, SC
Alex Braud, South Carolina Sea Grant Consortium and College of Charleston, Charleston, SC
Tola Adeyemo, The Baldwin Group for NOAA Office for Coastal Management, Charleston, SC

Working waterfronts traditionally referred to commercial fishing facilities; however, over time this definition has expanded to include recreational fishing, tourism, transportation, and other water-dependent business activities. As waterfronts have changed, so have the pressures on these facilities and the demand for access. South Carolina is early in the process of recognizing waterfront revitalization, compared to other coastal states, but now has compelling reasons to focus on restoration, retention and sustainability. For example, there is a need for redevelopment that is resilient to potential impacts of climate change. Consequently, it is timely for South Carolina to understand how working waterfronts are currently viewed and valued, what vision communities have for their future, and how they may evolve in a healthy and resilient manner. This panel will describe baseline information and current views on the future role and significance of working waterfronts in four South Carolina coastal communities. Specific components include results of participatory design, inventory of working waterfront facilities, contribution of the working waterfront economy, assessment of vulnerability to coastal hazards, and assessment of community perspectives on relationships to both tourism and traditional marine resource dependent businesses. We explore the evolution of these areas as part of broader community development planning.

Contact: Elizabeth Fly, SC Sea Grant Consortium, Tel: 843-953-2097, Email: elizabeth.fly@scseagrant.org

Located in Garrison Suites

Theme: Working Waterfronts Workforce Development

C3 - Maintaining the Stream of Commerce: Issues Facing the Atlantic Intracoastal Waterway

PANELISTS

Spencer Crowley (Moderator), Akerman LLP, Florida Inland Navigation District Commissioner, Miami, FL

Brad Pickel, Executive Director of the Atlantic Intracoastal Waterway Association, Beaufort, SC

Mark Crosley, Executive Director of Florida Inland Navigation District, Jupiter, FL

Kelie Moore, Georgia Department of Natural Resources, Brunswick, GA

Federally-designated “Marine Highway 95,” the Atlantic Intracoastal Waterway (AIWW) provides the maritime equivalent of “I-95,” linking the working waterfronts of Virginia, North Carolina, South Carolina, Georgia and Florida. Without the AIWW, many of these iconic destinations for work and play could not survive. A recent Florida study concluded that the AIWW generates \$11.86 billion dollars in business volume, creates 66,843 jobs, and contributed \$540.4 million in tax revenue. Yet the AIWW faces enormous challenges as recreational usage has come to rival commercial tonnage in terms of waterway traffic - but not in terms of access to federal funding for channel maintenance. An urbanizing shoreline also poses significant challenges as the AIWW competes for some of the nation’s most expensive real estate. Finding environmentally and economically suitable locations for dredged material and equipment mobilization is increasingly difficult, while dredging itself faces significant permitting challenges. This panel will first discuss the importance of the AIWW as essential transportation infrastructure for working waterfronts, especially with Post-Panamax Port expansions underway. It will then explore the practical and economic effect that changing use patterns, shoreline encroachment and environmental regulation have had on the AIWW. Federal, state and local policy solutions will be presented and discussed.

Contact: Brad Pickel, Executive Director of Atlantic Intracoastal Waterway Association, Tel: 843-379-1151, Email: bpickel@seahavenconsulting.com

Located in Bayshore 1

Theme: Waterfront Industries

C4 - Connecting Tourists and the Working Waterfront: Examples and Innovative Tools from Oregon

PANELISTS

Jamie Doyle (Moderator), Oregon Sea Grant, Coos Bay, OR

Kaety Jacobson, Oregon Sea Grant, Newport, OR

Mark Farley, Hatfield Marine Science Center, Newport, OR

This panel will highlight several educational tools and approaches designed to answer these questions: “What do tourists know about Oregon’s Working Waterfronts?” and “What are tourists afraid of at the working waterfront?” The panel will cover: 1) Background and needs for education about Oregon’s working waterfronts, 2) Industrial Tourism, a Working Waterfronts Tour: a mobile app and/or paper map that give a behind-the-scenes look at the people and industries of Coos Bay’s working waterfront, 3) Oregon’s Catch: a mobile app and website connecting Oregon consumers with locally caught Oregon seafood and educating users about local fisheries, 4) Shop at the Dock, a hands-on approach to teaching consumers the skills and confidence to buy seafood directly from fishermen, learn about local fisheries, and connect with the local fishing fleet. The panel will conclude with a discussion about the effectiveness of these tools, and the role of these and other tools in creating connections and understating of the working waterfront.

Contact: Jamie Doyle, Oregon Sea Grant, Oregon State University, Tel: 541-297-4227, Email: Jamie.doyle@oregonstate.edu

SESSIONS D1-D4

WEDNESDAY 8:00AM – 9:30AM

Located in Palma Ceia 2

Theme: Working Waterfronts Workforce Development

D1 - Ocean and Coastal Economics: An Approach for Analysis at the Local Level

PANELISTS

Kristen Grant (Moderator), Maine Sea Grant and University of Maine Cooperative Extension, Wells, ME

Jeffery Adkins, MSG for the NOAA Office of Program Planning and Integration, Charleston, SC

Sarah Garcia, International Economic Development Council and TIA Products, Washington, DC

Lewis Lawrence, Middle Peninsula Planning District Commission, Saluda, VA

This session will use a roundtable format to engage participants with collaborators from NOAA's Economics: National Ocean Watch (ENOW) team and the National Working Waterfront Network. The session seeks to introduce participants to the economic framework behind NOAA's ENOW data and demonstrate its usefulness in understanding the economics of working waterfronts at the local level.

The session will begin with a brief overview of the ENOW framework and data, and why and how working waterfront stakeholders have used ENOW data. The overview will also describe the needs that led to the adaptation of ENOW data for use at the local level.

Next, local-level working waterfront partners who have worked with NOAA to downscale ENOW data for their communities will describe their use of ENOW data in the Chesapeake Bay, Massachusetts, Maine, and elsewhere.

The majority of the roundtable session will then be spent working in breakout groups, each facilitated by an ENOW team member, to discuss methods for applying the ENOW data and framework in the context of local decision-making.

Contact: Kristen Grant, Maine Sea Grant and University of Maine Cooperative Extension,
Tel: 207-646-1555, Email: kngrant@maine.edu

Located in Palma Ceia 3&4

Theme: Climate Change

D2 - Enhancing Coastal Community Resilience in Working Waterfront Communities

PANELISTS

Kenneth Walker (Moderator), Program Analyst, NOAA Office for Coastal Management, Silver Spring, MD

Bill Needelman, AICP, Waterfront Coordinator, Executive Department, City of Portland, ME

Michael Porto, Director of Outreach and Planning, Metropolitan Waterfront Alliance, New York, NY

Rhonda Price, Deputy Director, Office of Coastal Restoration and Resiliency, Mississippi Department of Marine Resources, Biloxi, MS

Coastal flood hazards, including storm surge and sea level rise, impact working waterfront communities. Whether retrofitting existing infrastructure or accommodating new development along the waterfront, it is important to build community resilience into these waterfront projects. This panel will highlight several approaches and tools for enhancing coastal community resilience, particularly in light of climate change.

Portland, Maine, will describe the collaborative efforts of government, education, and nonprofit players in addressing climate change adaptation in the Casco Bay region, while stressing challenges faced when progressing from vulnerability assessments to adaptive strategies. The Metropolitan Waterfront Alliance created Waterfront Edge Design Guidelines (WEDG), a tool and scorecard for creating resilient, accessible waterfronts around New York Harbor. The WEDG rating system promotes waterfront projects that incorporate resilience, access, and habitat improvements within the site selection, planning, and design process. The Gulf of Mexico Alliance developed the Clean and Resilient Marina Initiative to promote best practices for siting, design, and operation of marinas in the Gulf of Mexico. The Clean and Resilient Marina Initiative calls for the promotion and expansion of resilient and environmentally responsible operations and best management practices in the Gulf of Mexico.

Contact: Kenneth Walker, NOAA Office for Coastal Management,
Tel: 301-563-1157, Email: Kenneth.walker@noaa.gov

Located in Garrison Suites

Theme: Working Waterfronts Workforce Development

D3 - Building Innovative Partnerships That Support Working Waterfront Industries

PANELISTS

Nick Battista (Moderator), Island Institute, Rockland, ME

Josh Stoll, University of Maine, Orono, ME

Sheila Hoogeboom, Community Development Partnership, Eastham, MA

Richard Clime, CEI (Coastal Enterprises Inc.), Wiscasset, ME

In order to ensure long term sustainability, coastal communities frequently use innovative partnerships. This roundtable will focus on identifying key elements and building blocks from real, practical, and successful non-traditional partnerships that support the people who work on our nations waterfronts. Starting with examples from Maine, Massachusetts, North Carolina and elsewhere, we will look the problem that motivated the partnership, who was involved, how the partnership worked, and how other communities can replicate successful partnerships. Examples will show how a deep understanding of the needs of fishermen led to innovative lending and business coaching on Cape Cod, how a workforce development program in Maine trained fishermen about how to incorporate shellfish aquaculture into their current business plan, and how a waterfront facility can be designed to serve the needs of fishermen as well as being an innovation hub for fishermen, researchers, and community leaders. Our end goal is build a series of case studies about these and others solutions that includes the building blocks that other communities can use.

Contact: Nick Battista, Island Institute, Rockland ME
Tel: 207-691-3554, Email: nbattista@islandinstitute.org

Located in Bayshore 1

Theme: Recreational Boating

D4 - Water Access Projects - How Can We Address Permitting Delays?

PANELISTS

John Sprague (Moderator), Boating Issues Chair, Sport Fish and Boating Partnership Council/Chair, Governmental Affairs, Marine Industries Association of Florida, Stuart, FL

Mike Montone, U.S. Army Corps. of Engineers, Regulatory Division, Permitting, Ft. Myers, FL

Victoria Foster, U.S. Fish and Wildlife Service, Chief of Staff to State Supervisor, Vero Beach, FL

Tim Rach, Florida Department of Environmental Protection, Program Administrator, Office of Submerged Lands and Environmental Resources Coordinator, Tallahassee, FL

Patricia Harrell, Boating Access Coordinator, Fish and Wildlife Conservation Commission, Tallahassee, FL

In Florida, as in other states, lengthy permitting delays for projects designed to enhance access to state waters is a major concern. The Sport Fish and Boating Partnership Council (SFBPC), at the request of the Federal Interagency Council on Outdoor Recreation (FICOR), was asked to determine reasons why water access projects are difficult to permit and to explore potential solutions. To initiate the process, the SFBPC convened a meeting in Florida with key organizations, including the Army Corps of Engineers (ACOE), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Florida Department of Environmental Protection (FDEP), and the Florida Fish and Wildlife Conservation Commission (FWC). Issues raised and discussed at the meeting included the need for better interagency communication, reductions in staff and applicant review times, greater transparency, and the development of better, more efficient and effective information systems and methods. This interactive, roundtable session will advance the process started at the initial meeting. Panelists will include staff from the aforementioned organizations and, importantly, a permit applicant for a water access project. The panelists will first provide a brief overview of their perspective on the issue to be followed by a facilitated discussion with audience members.

Contact: Pat Harrell, Florida Fish and Wildlife Conservation Commission, Tel: 850-617-9538, Email: patricia.harrell@myfwc.com

SESSION E1

Waterfront Design & Open Space

WEDNESDAY 10:00AM–11:30AM

Located in Palma Ceia 2

Theme: Waterfront Industries

Choreographing Shared Industry and Recreation on the Urban Waterfront

Dan Adams, Founding Principal of Landing Studio & Assistant Professor of Urban Landscape, Northeastern University, Boston, MA

This case study presentation will outline the design of Rock Chapel Marine in Boston Harbor - a model project for integrating active maritime industrial salt dock operations with new public recreation access and wildlife habitat. While heavy waterfront industry is often viewed as an obstruction to public recreation, and frictions between industry and local interests often creates an 'either/or' perspective, this project demonstrates a range of design interventions that create a shared use waterfront-exemplifying how heavy industry, recreation, and ecologic landscapes can cohabitate. Specifically, this project will describe how a single purpose 13,000,000 gallon waterfront tank farm was transformed into a shared dry bulk marine terminal for the transshipment of salt and a new public access landscape called the P.O.R.T- Publicly Organized Recreation Territory. This presentation will outline how art and maritime festivals, lighting installations, seasonal recreation access, landscape buffering techniques, designs for new industrial operations and new industry/community operations agreements have been deployed and re-tuned to shape a new relationship between industry and the city. Initial planning stages of this project were presented at the NWWWWS in 2010. In the summer of 2014 the project was fully constructed and opened for both salt operations and public access.

Contact: Daniel Adams, Founding Principal of Landing Studio & Assistant Professor of Urban Landscape, Northeastern University, Tel: 617-955-4569, Email: DanielAdams@Landing-Studio.com

Open Space as a Waterfront Use: A Mixed Methods Study on the Gulf Coast

Samantha Islam, University of South Alabama, Department of Civil Engineering, Mobile, AL

We examine the extent to which Gulf Coast communities value waterfront open space preservation versus development. Open space provides a wide variety of goods and services including aesthetics, wildlife habitat, recreational opportunities, and increased real estate values. Continued degradation of open space along the Gulf Coast increases socioeconomic and biophysical vulnerabilities at local and regional scales. Nevertheless, policy-making is complicated by governments' dependence on taxes for revenue and increasingly limited municipal budgets. Despite these challenges, it is critical to consider the benefits of open space when evaluating waterfront uses, particularly in places characterized by increasingly land consumptive development patterns such as those along the Gulf Coast. Facilitated group discussions were conducted to generate insights about emerging phenomena and obtain contextual information (including environmental and social inequities). We incorporated these findings into a general population mail survey to determine tradeoffs among alternative waterfront uses and development scenarios. Finally, a revealed preference model was employed using market transaction data. Findings expand on notions about community attitudes and values towards public goods and the local actions needed to efficiently manage those goods to improve social-ecological adaptations. Implications for planning and policy are considered in addition to recommendations for outreach education.

Contact: Samantha Islam, University of South Alabama, Department of Civil Engineering, Tel: 251-460-6955, Email: sislam@southalabama.edu

MODERATOR

Lisa Krimsky

UF/IFAS Florida Sea Grant Miami-Dade County
Miami, FL

Preparing Michigan's Waterfront Communities for Redevelopment

Robert Doyle, RLA, ASLA, Ann Arbor, MI

Jennifer Rigterink, MEDC, MI

Pat Doher, SmithGroupJJR, Ann Arbor, MI

The Michigan Economic Development Corporation (MEDC) is in the early stages of rolling out the Redevelopment Ready Communities (RRC) program, through which they partner with local municipalities to assist in amending policies and ordinances to encourage private land development and economic investment. Recognizing that communities located on the shores of the Great Lakes and tributary rivers face distinct challenges and unique opportunities, the MEDC prepared a specific set of best practices and training materials tailored to working waterfront communities. A team of planning and waterfront development experts was retained to update the best practice documents and prepare training materials for the intended audience of planning commissioners, municipal staff, and community stakeholders.

The resulting training program focuses on advancing community readiness for re-development in the context of waterfront related issues. Topics of the training included engaging public involvement, balancing waterfront land uses and access, connecting the community's center to the waterfront, special considerations for zoning regulations, protecting and enhancing natural and cultural resources, encouraging private redevelopment, sustaining waterfront businesses and employment, and participating in regional cooperative marketing.

Attendees will explore best practices and relevant case studies, and learn about the progress of the MEDC program in assisting waterfront communities in Michigan.

Contacts:

Bob Doyle, RLA, ASLA, Urban Design/Landscape Architecture/
Waterfront, SmithGroupJJR, Tel: 734-662-4457,
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Jennifer Rigterink, Manager, Redevelopment Ready Communities,
MEDC, Email: rigterinkj@michigan.org

Utilizing TIF's by Policy to Fund Local Dredging Projects

Lewis L Lawrence, Executive Director, Middle Peninsula
Planning District Commission, Saluda, VA

With the U.S. Army Corps of Engineers no longer funding local dredging projects, coastal local governments are struggling with how to finance local dredging projects. Local governments across the lower Chesapeake Bay in Virginia posed the following: Find a new approach to finance local dredging that will not raise revenue through a new tax; will not utilize existing general fund balance or divert revenue presently used to fund essential services; and will distribute revenue equitably in a manner that serves the public need.

A Tax Increment Financing approach or TIF by policy meets these requirements. Instead of raising taxes or diverting current spending, TIFs allow municipalities to pay for public improvements using earmarked gains in future property tax revenue. In essence, a TIF is a way for local governments to "cut the pie" differently to pay for needed public improvements. This presentation will provide an overview of TIFs and how it could be utilized to finance the dredging of Aberdeen Creek in Gloucester Virginia.

Contact: Lewie Lawrence, Middle Peninsula Planning District
Commission, Tel: 804-758-2311, Email: LLawrence@MPPDC.com

SESSION E2

Climate Adaptation

WEDNESDAY 10:00AM–11:30AM

Located in Palma Ceia 3&4

Theme: Climate Change

Cartographic Visualization of Dredging in Florida

Rob Holmes, Department of Landscape Architecture, University of Florida, Gainesville, FL

Historically, dredging was central to the urbanization of Florida: canals were dredged through the Everglades to drain land for development; spoil islands reflect the dredging of intracoastal waterways; and beach nourishment has sustained the beaches that draw both tourists and residents. Today, navigational dredging can be understood as an infrastructure supporting urban life, through the role of working waterfronts in urban economies, as those waterfronts serve as conduits for goods, platforms for harvesting natural resources, and recreational amenities.

Neither the historical nor present infrastructural roles of dredging are well-understood by the public, and they are often also not well-understood by key decision-makers. This presentation reports on the construction of a synthetic cartography of dredging at a statewide scale in Florida. This cartography is constructed by compiling, distilling, spatializing, and visualizing data collected from both historic and contemporary sources, synthesizing disparate datasets in order to represent the geography of dredging and dredged material placement in a way that can inform decision-makers and the public. It also supports the author's own design research, which looks for synergies between ecological goals like habitat creation, economic goals like maintenance of channel depths, public goals like recreation, and long-term environmental priorities such as adaptation to sea-level rise.

Contact: Rob Holmes, Assistant Professor of Landscape Architecture, University of Florida, Tel: 571-271-2578, Email: rob.holmes@ufl.edu

To Sink or Swim? Water-Dependent Infrastructure and Sea Level Rise Adaptation Policy

Thomas Hawkins, Levin College of Law, Gainesville, FL

The policy triumvirate of retreat, accommodation and protection has guided the discourse surrounding sea level rise adaptation since at least the 1990's. While these organizing pillars of adaptation policy ably serve to guide decision-making in most cases, retreat is not an option for a discrete class of activities known as water-dependent land uses. Water-dependency presupposes that an activity, and the infrastructure on which that activity depends, has no choice but to remain at the sea's mercy. Ports, marinas, boatyards, fish houses, loading docks, bridges and navigation aids are all water-dependent. Working Waterfronts are existentially water-dependent. This fundamental attribute of water-dependency leaves policymakers with the options of accommodation and protection as the remaining tools to adapt to rising seas. With support from the Florida Department of Economic Opportunity, the University of Florida Conservation Clinic has examined the extent to which planners and decision-makers have begun to consider, or require consideration, of adaptation options for existing and proposed water-dependent infrastructure. This project reviews current efforts by federal, state and local agencies, including port authorities, to address sea level rise in water-dependent infrastructure planning. Case studies will be presented along with best policy practices from around the country.

Contact: Thomas Hawkins, Levin College of Law, Tel: 352-273-0835, Email: thomas@hawkinspa.com

MODERATOR

Bob Swett

Florida Sea Grant Boating and Waterway Planning Program
Gainesville, FL

Protecting Vulnerable Shorelines and Eliminating Shoreline Erosion

Steve Ryder, Bellingham Marine, Jacksonville, FL

The coastal regions of Louisiana, like many other low lying coastal areas, are suffering significant erosion. The state has lost about 1,900 square miles of coastal land during the 20th century. Scientists predict the state could lose an additional 700 square miles over the next 50 years if no action is taken. Unfortunately, unstable bottom soils and accessibility issues have made traditional shoreline protection methods not usable along much of Louisiana's coast.

Louisiana's coast is the entry point for 16% of this nation's energy supply and home to \$150 billion in public infrastructure. Desperate to find a viable solution to minimize the rate of erosion, the U.S. Department of Agriculture Natural Resources Conservation Service issued a Request for Proposals for non-rock protection systems that could circumvent accessibility issues, poor soil conditions, severe weather, and would allow marine fisheries access to the area.

In this session, Mr. Ryder shares the concept behind the system developed by Louisiana Shoreline Solutions, in partnership with Merit Engineering and Bellingham Marine that is having great success at a test site on Shark Island in Louisiana. One year into the test period, the innovative protection system has proven 100% effective with zero land loss.

Contact: Roxie Comstock or Steve Ryder, Bellingham Marine,
Tel: 360-676-2800, Email: bmi@bellingham-marine.com

Toxic Storm: Climate Change, Coastal Flooding and Land Use Solutions to Hazardous Materials and Brownfields in Floodplains

Judd Schechtman-Rosenman, New York University Polytechnic School of Engineering, New York State Resilience Institute for Storms and Emergencies, Brooklyn, NY

Toxic releases from brownfields and active industrial uses, such as during Hurricane Sandy in the U.S., illuminated the fact that current land use management systems in coastal areas are poorly equipped to deal with this risk.

Historical and currently active heavy industrial uses are a significant challenge in many urban coastal and maritime waterfronts, particularly in older cities of the world (Flynn et al 2007). Heavy industry often developed around waterborne ports and hydropower sources, in places that are highly vulnerable to flooding from storms. Climate change is likely exacerbating the severity of flooding potential due to sea level rise and increase in storm frequency.

The extent of the problem in the U.S. is surveyed. The role of the U.S. Federal Emergency Management Agency (FEMA), the National Flood Insurance Program (NFIP) and its Community Rating System (CRS) in encouraging restriction of hazardous materials and uses is addressed. In addition, case studies of several U.S. communities that are approaching this challenge using their floodplain and zoning laws, such as Lewes, Delaware and Portsmouth, Virginia are presented, the significance for state, federal and international law is analyzed, and model codes are suggested.

Contact: Judd Schechtman-Rosenman, Research Associate, Adjunct Professor, New York University Polytechnic School of Engineering, New York State Resilience Institute for Storms and Emergencies, Tel: 646-535-8333, Email: js7369@nyu.edu

SESSIONS E3-E4

WEDNESDAY 10:00AM - 11:30AM

Located in Garrison Suites

Theme: Maritime Culture and Heritage

E3 - Oral Histories and the Working Waterfront: Informing Decision - Making and Waterfront Heritage Preservation

PANELISTS

Natalie Springuel (Moderator), Maine Sea Grant, Bar Harbor, ME

Joshua Wrigley, Voices from the Fisheries, Woods Hole, MA

Barbara Garrity-Blake, Duke University Marine Laboratory, Gloucester, NC

Stephanie Showalter Otts, National Sea Grant Law Center, University, MS

Fishermen and other members of the working waterfront transmit tradition and knowledge from one generation to the next through stories. Oral histories, or the capture of these stories in audio or video, help protect a community's cultural heritage, help us remember the past, and envision the future. Waterfront users and managers possess unparalleled knowledge about the sea and oral histories can inform waterfront management. This session will highlight four recent working waterfront oral history projects. Voices from the Fisheries is an oral history repository with over 650 narratives from coastal fisheries around the United States that provides resources to support organizations involved in creating their own oral history collections. Voices from the Working Waterfront explores how communities have implemented "tools" to preserve working waterfronts, such as land use planning, historic preservation, and financing mechanisms. Coastal Voices, a community-driven project, focuses on the maritime heritage of communities along the Outer Banks National Scenic Byway. The Maine Fishermen's Forum 40th Anniversary Radio Project, through "phone booth" interview approach, captures multiple perspectives on decades of fisheries management and community viability. In each of these projects, we will explore how stories inform decision-making, and how these stories celebrate and, by extension, help protect the nation's waterfront culture.

Contact: Natalie Springuel, Maine Sea Grant, Bar Harbor, ME, Tel: 207-288-2944 ext 5834, Email: nspringuel@coa.edu

Located in Bayshore 1

Theme: Recreational Boating

E4 - Anchoring Conflicts on Florida's Waterways - A Case Study

PANELISTS

Major Richard Moore (Moderator), FL Fish and Wildlife Conservation Commission

Captain Gary Klein, FL Fish and Wildlife Conservation Commission

Bill Sargent, FL Fish and Wildlife Conservation Commission

The issue of anchoring of vessels on Florida waters has been one of much contention for decades. Local governments face legitimate needs to resolve issues with improperly stored, abandoned and derelict boats. They must also deal with conflict between waterfront homeowners who dislike vessels anchored in close proximity to their residences and the damages resulting from vessels breaking loose during weather events. Boaters want to enjoy the freedom of unfettered ability to choose their overnight anchoring location wherever they choose, with convenience and expense being primary issues. Conflicts such as these occur with enough frequency in Florida, and Florida is certainly not the only state with these challenges. This session provides a real life example of how these issues have recently been addressed through a case study, which will include efforts to seek consensus among the affected parties and, ultimately, to change state law.

Contact: Major Richard Moore, FL Fish and Wildlife Conservation Commission, Tel: 850-570-5600, Email: richard.moore@myfwc.com

POSTER SESSION

Located in Bayshore 2-4

Poster abstracts categorized by theme through the following pages: 50-55

SESSION INFORMATION

Posters will be on display during the symposium providing many opportunities to share information. To encourage networking, early morning, mid-day and afternoon refreshments will be served each day in the poster session and sponsor display room. There will be a formal poster session Thursday morning during the continental breakfast. See the detailed schedule below.

Setup (Presenters Only)	<ul style="list-style-type: none"> Monday, November 16, 5:00pm – 7:00pm*
Poster Session For All Participants	<ul style="list-style-type: none"> Thursday, November 19, 7:00am-9:00am, during the continental breakfast. <i>Presenters to be stationed at posters from 8:00am-9:00am.</i>
Removal (Presenters Only)	<ul style="list-style-type: none"> Thursday, November 19, 10:45am-12:30pm **

* Posters may be setup anytime during these hours. If you are unable to set up your poster on Monday, please have posters set up no later than 12:00pm on Wednesday, November 18.

** Poster display boards will be dismantled by the vendor promptly, so please remove your poster by 12:30pm on Thursday, November 19. The symposium organizers are not responsible for lost or damaged posters removed by the display board vendor.

THEME: CLIMATE CHANGE

POSTER #1

Exploring the Resilience of South Carolina's Working Waterfronts through Public Engagement

Alex Braud, South Carolina Sea Grant Consortium and the College of Charleston, Charleston, SC

South Carolina coastal communities have a storied maritime past dependent on vibrant working waterfronts that provided access to the water and the resources it provides. However, the growth in coastal SC population over the last century has created intense development pressure along the waterfront in addition to an increasing amount of user groups. This economic development has led to increasing diversification, and in some cases competition, at the waterfront resource. The South Carolina Sea Grant Consortium is seeking a better understanding of what these working waterfronts were in the past, what defines them currently, and what they will look like in the future with anticipated impacts from climate change. We performed a Participatory GIS project to gather historic memories of waterfront facilities and input on what the current definition of a working waterfront is in South Carolina, engaging a diversity of working waterfront-related stakeholders in four coastal communities. We used ESRI's Business Analyst to establish a current working waterfront inventory and modeled sea level rise to visualize future impacts. Visualizing the changes to SC working waterfronts over time and what changes may occur in the future will help coastal stakeholders develop priorities to maintain and enhance SC working waterfronts.

Contact: Alex Braud, South Carolina Sea Grant Consortium, Tel: 225-439-0846, Email: Alex.Braud@scseagrant.org

POSTER #2

Using Participatory Modeling to Help Fishermen Identify Climate Adaptation Strategies

Thomas Webler, Western Washington University, Bellingham, WA

Seth Tuler, Worcester Polytechnic Institute, Worcester, MA

Jessica Whitehead, NC Sea Grant, Raleigh, NC

Esperanza Stanicoff, University of Maine Cooperative Extension/Maine Sea Grant, Waldoboro, ME

Elizabeth Fly, SC Sea Grant Consortium and Carolinas Integrated Sciences and Assessments, Charleston, SC

Brian Seitzman, Social and Environmental Research Institute, Worcester, MA

Julie Davis, SC Sea Grant Consortium, Beaufort, SC

Local citizens in three Atlantic Coast communities identified climate stressors impacting their fishery and devised adaptive actions to ensure financial stability in the face of a changing climate. In Maine, rising water temperatures impact lobster molt cycles and movement of lobsters to deeper water. Various fishing effort scenarios were modelled to demonstrate how this may affect a lobsterman's timing and duration of fishing effort and income. With rising air and water temperatures in Massachusetts, the oyster industry is concerned about increased incidence of illness from *Vibrio*. A model, developed with information contributed by growers, provided an opportunity for oystermen to anticipate possible costs of compliance with new regulations, public risk perception, and impacts of future closures. In South Carolina, the blue crab fishery has faced extended periods of drought throughout the past decade. Vulnerabilities of blue crabs to drought were diagrammed and key data gaps identified. This led to creation of the 'Crabbers Who Care Research Network' which will help fill data poor areas of an ecosystem-based business management tool. Tools and discussion generated in each community will help fishermen on an individual business management level while also fostering communication about climate related changes in fisheries and fishery-related policy.

Contact: Elizabeth Fly, SC Sea Grant Consortium and Carolinas Integrated Sciences and Assessments, Charleston, SC, Tel: 843-953-2097, Email: Elizabeth.fly@scseagrant.org

THEME: MARITIME CULTURE AND HERITAGE

poster abstracts continued on next page

POSTER # 3

Voices from the Fisheries: Create, Archive, Share

Joshua Wrigley, Project Manager, Voices from the Fisheries,
NOAA Fisheries, Falmouth, MA

Voices from the Fisheries is an oral history database containing over 650 narratives from the coastal fisheries of the United States. As a central repository for fisheries-related stories, Voices from the Fisheries aims to serve scholars and lay audiences alike. In addition to hosting oral histories online, the project provides resources and support to organizations that are involved in creating their own oral history collections.

The Voices from the Fisheries poster explains the program's mission and how to participate. Readers can learn how to share oral histories and be a part of the Voices mission.

Contact: Joshua Wrigley, Project Manager, Voices from the Fisheries, NOAA Fisheries, Tel: 518-810-9478,
Email: joshua.wrigley@noaa.gov

THEME: RECREATIONAL BOATING

POSTER # 4

Developing an Internet-Based Anchorage Guide for Florida's Emerald Coast Region

William T. Mahan Jr., UF/IFAS FL Sea Grant Extension Program, Panama City, FL

Increasing numbers of transient boaters are cruising Florida's waterways looking for safe, less expensive anchorages as opposed to paying a fee.

Goal: Design and produce the framework for a web-based version of Florida Sea Grant's (FSG); "A Guide to Anchorages in SW Florida," for the Emerald Coast Region (Bay – Escambia County).

Objectives:

- Identify and characterize anchorages in the Region as safe harbors (storm protection) and destinations for transient boaters.
- Design and develop a new Website platform identifying and characterizing anchorages as safe harbors and destinations for boaters.

Summary

Data collected:

- Identified 166 anchorages: 43 anchorages listed on website
- Developed evaluation criteria: e.g. – 13 anchorages rated good or better for storm protection (depth, protection, holding)

Identified anchorage characteristics

Coordinated design and programming of new generation web-based anchorage guide based on Google-maps technology for FSG

Future Plans

Seek funding to ground truth data -identify additional anchorages

Incorporate additional spatial data

- Bio-physical features – seagrass, reefs, etc.
- Navigational aids, marinas & services

Develop partnerships to identify data and funding

NOAA, U.S. Coast Guard Auxiliary/Power Squadrons, FL Fish & Wildlife Conservation Commission, FL Department of Environmental Protection, County Tourist Development Councils

Contact: William T. Mahan Jr., Tel: 850-784-6105, Email: bmahan@ufl.edu

POSTER #5

The Environmental and Economic Impacts of Moorage Marinas on the West Coast

Nathaniel Trumbull, University of Connecticut, Groton, CT

Marina development is increasing in almost all coastal areas, but especially on the West Coast. Local governments are interested in increasing revenues from mooring fees, and the local population supports marinas for the public enjoyment. The trend will continue: the amenities and the weather of the West Coast are suitable for the boat users with very little downtime. However, there is lack of research on how mooring facilities harm the marine environment and shoreline health as a result of oil spills, soap and waste discharges and other environmental consequences and the extent to which these are offset by regional economic benefits. The study will examine the full range of these issues in Washington and California. A major data source is information from NOAA's National Mussel Watch since 1986 for the environmental implications of marinas, complemented by data from the U.S. Census, the Economic Census Bureau, and local governments. This research seeks to analyze alternative mitigation and economic promotion scenarios for coastal development strategies. The policy goal is to find ways of reducing the environmental costs with minimal damage to the substantial economic and social benefits.

Contact: Nathaniel Trumbull, University of Connecticut, Groton, CT, Tel: 860-405-9272, Email: trumbull@uconn.edu

POSTER #6

Florida Fish & Wildlife Conservation Commission Waterway Asset Management System (WAMS)

Marie Yarbrough, Atkins, Melbourne, FL

Atkins assists the Florida Fish & Wildlife Conservation Commission (FWC) Boating and Waterways Section with management of waterway regulatory markers posting boating safety and manatee protection zones throughout the State of Florida.

The asset management program requires regular inventories and condition assessments to capture the status of those assets. FWC staff regularly performs waterway marker mobile geographic information systems (GIS)-based inventories and assessments using handheld units with a customized data collection application.

The FWC Waterway Asset Management System (WAMS) was developed as a user interface within ESRI's ArcGIS application tool. It is used to access the stored marker inventory data, including location, asset descriptions, condition assessments as determined by the field staff, and photographs. The data is then analyzed in ArcGIS and used to determine asset maintenance needs. Work plans are developed for necessary waterway marker repairs and installations.

WAMS is also an important tool used in the FWC On-Call/Emergency Response Programs. The On-Call Response Program provides rapid assessment and repair of damaged or missing waterway markers, while the Emergency Response Program provides for post-disaster response pertaining to FWC waterway assets. Similar to maintenance projects, WAMS is used to quickly gather asset information needed to develop emergency work plans.

Contact: Marie Yarbrough, Ports and Coastal Engineering, Atkins,
Tel: 321-242-4942, Email: marie.yarbrough@atkinsglobal.com

THEME: WATERFRONT INDUSTRIES

POSTER #7

Dive into the Ocean Economics of Your Working Waterfront

Tola Adeyemo, The Baldwin Group for the NOAA Office for Coastal Management, Charleston, SC

Jeffery Adkins, IMSG for the NOAA Office of Program Planning and Integration, Charleston, SC

Danielle Molnar, The Baldwin Group for the NOAA Office for Coastal Management, Charleston, SC

Many of the jobs in coastal states and counties depend on the oceans and Great Lakes. These jobs range from lobster fishing to loading cargo onto ships, and from teaching surfing lessons to drilling for offshore oil. The NOAA Office for Coastal Management has created a suite of web-based applications and tools to help understand the value that the ocean and Great Lakes contribute to coastal communities. These include tools such as the ENOW Explorer, which provides interactive infographics detailing the ocean-dependent economic activity at a state and county scale, and a series of story maps focusing on the diversity of the ocean economy and how coastal ports provide benefits to inland economies. These tools and the underlying data can be used to address a myriad of coastal and ocean management issues.

Contact: Tola Adeyemo, The Baldwin Group for the NOAA Office for Coastal Management, Charleston, SC

Tel: 843-740-1166, Email: Tola.Adeyemo@noaa.gov

POSTER #8

WAVE: Waterway Information for Vessels Smartphone app

Lauren Land, Louisiana Sea Grant at Louisiana State University, Baton Rouge, LA

Users of the waterway use a variety of methods to obtain relevant data when they are out on their boats. For example, commercial fishermen receive weather and tide information through radio communication and calls to shore. Fishermen use their GPS and radar units for navigation. The only way to receive updates on fishery closures is by word-of-mouth or when fishermen are inshore with a computer and Internet. The WAVE Smartphone App (WAVE) begins to address issues of information access by taking multiple sources of available datasets and bringing them into a mobile platform that stores data and automatically updates when an Internet signal is detected. WAVE evolved into a service to aggregate public information from scientific websites, reformatted for general consumption by fishermen and general public. WAVE currently targets commercial fishermen in the central coast of Louisiana but is being built with scalability in order to be expanded and functional for all waterway users across the coast of Louisiana. Datasets include navigational charts, wildlife and fishery map layers, storm surge modeling, and historical hurricane surge simulations.

This poster will describe the design features and data provided by the WAVE Smartphone App, developed by a multi-departmental and interdisciplinary team from LSU.

Contact: Lauren Land, Louisiana Sea Grant, Louisiana State University, Tel: 225-578-5865, Email: lland1@lsu.edu

POSTER #9

Prevention of Aquatic Invasive Species through Best Management Practices at Working Waterfronts

Michael Liffmann, National Oceanic and Atmospheric Administration, National Sea Grant Office Silver Spring, MD

The natural and gray infrastructure of working waterfronts and waterways provide habitat for native aquatic organisms. However, all aquatic habitats are at risk of invasion by non-native invasive species. Invasive species can or are likely to cause environmental or economic harm or harm to human health. Invasive species can disrupt food webs, compete with or displace native species, and degrade habitat and waterways. Economically, invasive species can decrease fisheries productivity, reduce recreation opportunities, contribute to costly hull fouling of commercial and recreational vessels, and result in waterway maintenance from clogged waterways and canals. Many invasive species are easily spread by human activities such as recreational and commercial boating and therefore invasive species can be a challenge for working waterfronts and waterways. Waterfront industries and recreational boaters can prevent the spread of aquatic invasive species by following best management practices developed by Sea Grant Programs and resource agencies. Through public outreach, workforce development, and formal education of best management practices, the people of working waterfronts and waterways can prevent and reduce the spread of invasive species and reduce the chance of negative ecological and economic impacts.

Contacts:

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Sarah R. Bowman, National Oceanic and Atmospheric Administration, National Sea Grant Office,
Tel: 301-734-1086, Email: sarah.bowman@noaa.gov

POSTER #10

Reversing the Tide: Preserving Working Waterfronts in Alabama

Jody Thompson, Auburn University Marine Center/ Mississippi-Alabama Sea Grant Consortium, Mobile, AL

Like many coastal states, Alabama has faced threats and disturbances to its ecological, economic, social and cultural structures. Natural and technological disasters, as well as the economic recession have impacted coastal communities that rely on access to the water for their livelihoods. Water dependent businesses along the Alabama coast are wide-ranging and include international industrial shipping, commercial and recreational fishing, nature tourism and other maritime interests. Generations of families based in traditional fishing towns operate fishing boats, seafood processing facilities, marine vessel construction and repair, and other support industries. As diverse as they may be, these working waterfronts have one thing in common: their tremendous impact upon Alabama's economy and socio-cultural heritage.

In response to these concerns, the Auburn University Marine Extension Center and the Mississippi-Alabama Sea Grant are working with stakeholders to protect and preserve this economy and heritage. By providing educational opportunities and technical support, AUMERC and MASGC are working within waterfront communities to achieve results. New initiatives are planned in Alabama and Mississippi, and AUMERC and MASGC are building new partnerships to increase working waterfront efforts.

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GENERAL INFORMATION

SYMPOSIUM REGISTRATION

Staff will be available to assist participants with check-in and symposium information during the following times. Please be sure to pick up your name badge up along with your materials. Your name badge will serve as your pass, so please wear it while attending symposium functions.

Monday, November 16	5:00pm – 8:00pm
Tuesday, November 17	7:00am – 5:00pm
Wednesday, November 18	7:00am – 11:30am
Thursday, November 19	7:00am – 9:00am

INTERNET ACCESS

Attendees who made reservations using the NWWWS group code will receive complimentary Wi-Fi in their guest rooms. Complimentary wireless internet is also available to hotel guests in the hotel lobby. The Hilton will share login information to guests upon check-in. In addition, complimentary wireless internet access is available to all NWWWS attendees in the meeting rooms and on the meeting room floor. Provided by the NWWWS, the signal for this internet will not reach the front desk lobby area, the restaurant or sleeping room floors.

Internet Access Code for the Meeting Area:

- Network: Hilton-Meeting
- Password/Key: NWWWS15!

SOCIAL MEDIA

- www.twitter.com/NWWWS2015
- #NWWWS2015

PARKING

Attendees who made reservations using the NWWWS group code may receive Overnight Valet Parking at \$16/24 hours, *based on availability*. If the parking area fills, the nearest parking garage fee is currently \$9.95. This fee begins from the moment of parking and reoccurs every day at 6am. It is located at Fort Brooke Parking Garage, 107 N Franklin St, Tampa, FL 33602. This garage is attached to the hotel via skywalk.

LOST AND FOUND

Please check at the hotel's front desk as well as the symposium registration desk with any lost and found inquiries. Any lost items turned into the hotel will be logged by security and kept for 90 days.

EARLY DEPARTURE FEE

Please advise the Hotel at least 48 hours in advance of the date on which you will be departing early to avoid being charged an early departure fee of \$99.00.

AIRPORT SHUTTLE

Blue One Transportation, the Hilton Tampa Downtown preferred transportation service, offers non-stop transportation to and from the Tampa International Airport. Call the hotel's transportation hotline prior to picking up luggage at the airport terminal. The hotline number is 813-333-3598. Hotel valets will assist with return transportation to the airport. Pricing is \$13 for single passengers or \$11 per passenger for 2 or more guests, one way.

LOCAL TRANSPORTATION:

- TECO Line Streetcar: \$2.50 one-way or \$5 1-day unlimited ride fare card. Monday-Thursday noon-10pm, Friday-Saturday 11am-2am, Sunday noon-8pm
- Taxi Cabs: Taxi rides within an In-Town zone are \$3 each for 2 or more people. Flat rates between this zone and the airport are \$25. The In-Town Zone encompasses Downtown, Channel District, Ybor City and Hyde Park. Taxis may be hailed from the hotel. Yellow Cab 813-888-5008; United Cab 813-253-2424
- Water Taxi: Operating daily from 9am-10pm. For taxi pickup and tours call 888-665-8687

CAR RENTAL AGENCIES:

- Avis, 513 S Florida Ave, .4 mi away, 813-221-5895
- Hertz, 700 S Florida Ave, .5 mi away, 813-226-4205
- Enterprise, 1001 W Kennedy Blvd, 1.1 mi away, 813-254-4221

LOCAL ATTRACTIONS DISTANCES AT-A-GLANCE

- City Center (0.1 mi S)
- Tampa Museum of Art (0.5 mi NW)
- Channelside (0.7 mi SE)
- Henry B. Plant Museum (0.8 mi W)
- University of Tampa (0.8 mi W)
- Amalie Arena (1 mi SE)
- Florida Aquarium (1.1 mi E)
- Ybor City (2.2 mi NE)
- Raymond James Stadium (5.5 mi NW)
- International Plaza and Bay Street (5.5 mi S)
- Lowry Zoo (6 mi N)
- Busch Gardens (10 mi NE)
- Clearwater Beach (15 mi W)

NEARBY RESTAURANTS

- Bamboozle Café (closes at 3:30pm) (0.2 mi)
- Bavaro's Pizza Napoletana & Pastaria (closes at 3pm) (0.3 mi)
- First Watch (closes at 2:30pm) (0.3 mi)
- Malio's (0.3 mi)
- Mise En Place Restaurant (opens at 5:30pm) (0.5 mi)
- Fly Bar & Restaurant (opens at 4pm) (0.6 mi)
- Jackson's Bistro (0.6 mi)
- Café Dufrain (1 mi)
- The Bricks (1.6 mi)
- El Puerto Restaurant & Grill (1.7 mi)
- Bernini of Ybor (1.8 mi)
- Haven (2.2 mi)
- Daily Eats (2.3 mi)

GROCERY STORES

- Publix Supermarket, 243 Bayshore Blvd, Tampa, FL 33606
- Duckweed Urban Grocery, 803 N Tampa St, Tampa, FL 33602

PHARMACY

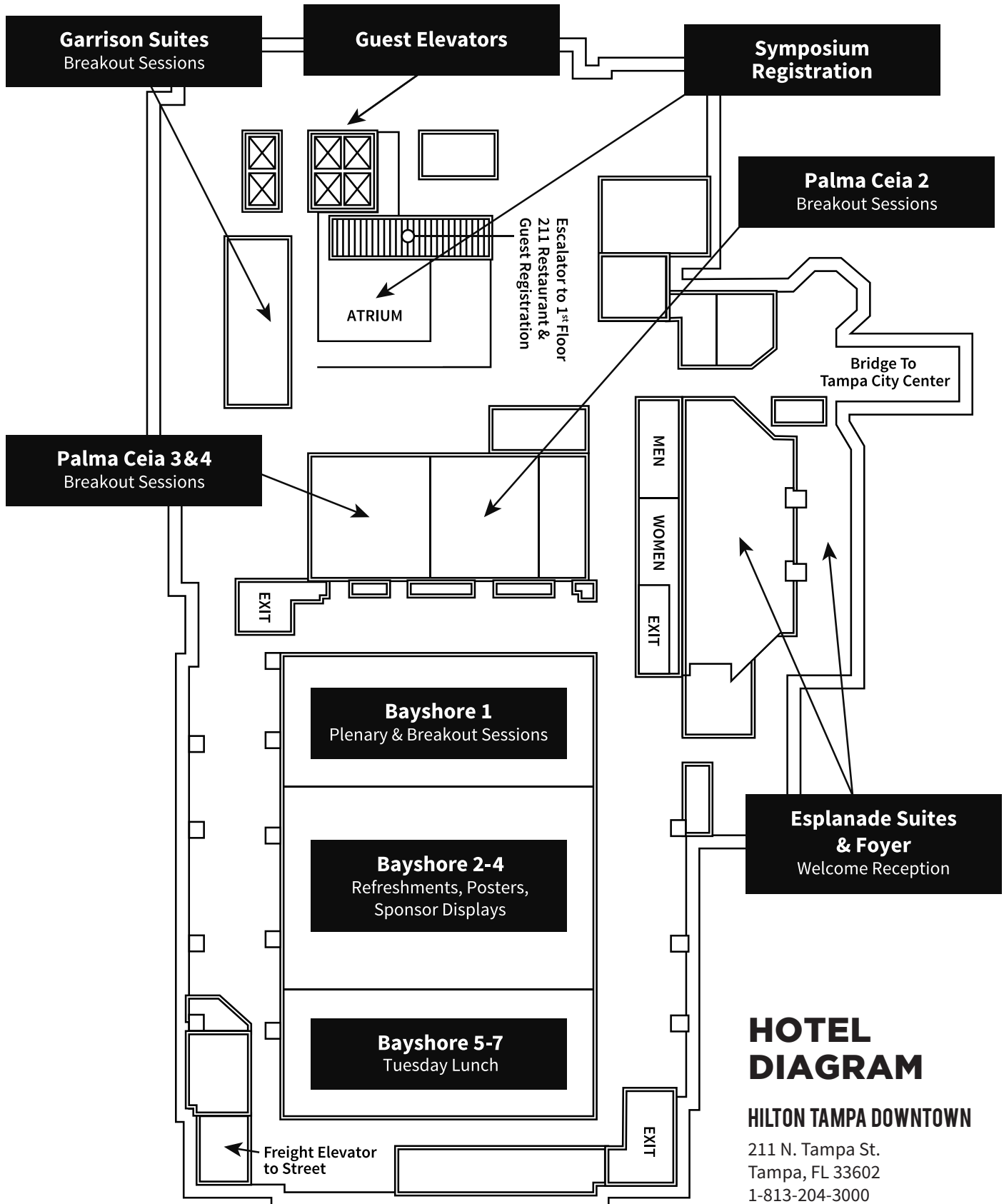
- CVS, 220 Madison St, Tampa, FL 33602, 813-228-0175

URGENT CARE

- South Tampa Immediate Care, 602 S Howard Ave, Tampa, FL 33606, 813-253-2113

HOSPITAL

- Tampa General Hospital, 1 Tampa General Cir, Tampa, FL, 33606, 813-844-7000



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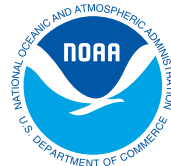
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