

6TH ANNUAL RONALD C. BAIRD SEA GRANT SCIENCE SYMPOSIUM

Creating Vibrant Waterfronts in Rhode Island

October 19 and 20, 2007
University of Rhode Island
Corless Auditorium, Narragansett Bay Campus

Sponsors

Rhode Island Sea Grant
The University of Rhode Island Coastal Resources Center
The University of Rhode Island Coastal Institute
Rhode Island Coastal Resources Management Council
Rhode Island Statewide Planning
Prince Charitable Trusts
Rhode Island American Institute of Architects
Urban Land Institute, Rhode Island Chapter

Municipalities

City of East Providence
City of Newport
City of Pawtucket

Thank you

The symposium organizers would like to thank Seniors Helping Others for their assistance in preparing for this symposium.

Summary

Many Rhode Island coastal communities are working to create waterfronts with vibrant and diverse qualities that enhance their ability to be disaster-resilient, rich with urban coastal public access, and supportive of an economic base that balances traditional and emerging uses, including industrial, mixed use, and recreational activities. In addition, many of these places are engaged in regional processes to resolve economic, environmental, and social issues that impact the waterfronts and their coastal communities.

This two-day symposium explores how coastal communities locally, regionally, and nationally are using the latest environmental, economic, and social science and cutting-edge techniques to achieve vibrant waterfronts. While the symposium features the waterfronts of Pawtucket, East Providence, and Newport Harbor, key topics are nonetheless critical for all Rhode Island waterfronts and their stakeholders.

Cover artwork by Celeste MacPhee.



Day 1: Learn how social, economic, and physical sciences shape waterfront development in Rhode Island

8:00 a.m. Registration and coffee

Register at Corless Auditorium and enjoy a continental breakfast.

9:00 a.m. Welcome and address from keynote speaker John Bullard

Former New Bedford Mayor John Bullard will share how he helped spearhead the 1974–1986 revitalization of the city’s historic waterfront district, a process that protected a working waterfront while creating a National Historic Park. As head of the first federal Office of Sustainable Development, Bullard will also share his national perspective in how other places have created vibrant waterfronts.

10:30 a.m. Coffee break

10:40 a.m. Panel 1: Integrating economics, politics, and culture into the creation of vibrant waterfronts

Learn about alternative waterfront uses that can bolster a community’s economic, environmental, and social capital. Panelists with expertise in these areas will share how they helped determine which uses were best for waterfront communities, and how they ensured that public and private perspectives were reflected in the planning processes. Discussion will include the roles that waterfront history, culture, and community leadership play in decisions, and dialogue between the presenters and the audience will be encouraged.

Kip Bergstrom (moderator), Executive Director, R.I. Economic Policy Council, Providence; Kevin Hively, President, Ninigret Partners, Narragansett; Frank Mahady, Principal, FXM Associates, Mattapoissett, Mass.; John Bullard, former Mayor of New Bedford, Mass., Mike Hennessey, Regional Director, Picerne Real Estate Group

12:25 p.m. Lunch (included in registration fee)

1:15 p.m. Panel 2: Sea-level rise and hurricanes: Understanding climate change science for Narragansett Bay

Explore the science behind the projected impacts of sea-level rise and hurricanes to coastal communities over the next decades. Internationally recognized researchers will summarize and illustrate current global research and explain what the data means for Rhode Island coastal communities and waterfronts and how insurance and safety issues affect the future planning of waterfronts. Dialogue between the panel and the audience will be encouraged.

Pam Rubinoff (moderator) Senior Coastal Manager, Rhode Island Sea Grant/URI Coastal Resources Center; Dr. Kate Moran, Associate Dean, URI Graduate School of Oceanography; Dr. Malcolm Spaulding, Professor of Ocean Engineering, URI; Jeanne Salvatore, Senior Vice President of Public Affairs, Insurance Information Institute; Dr. Jon C. Boothroyd, URI Geosciences Department and Rhode Island State Geologist

2:45 p.m. Afternoon break

3:00 p.m. Summary of the day – What have we learned?

This session starts with a facilitated discussion among planners from East Providence, Pawtucket, and

Newport concerning lessons learned during the two panels, and how they envision applying this information to their own communities. Participants and panelists will be encouraged to ask questions about their home communities to invited experts.

Stephen Olsen (moderator) Director, URI Coastal Resources Center; Michael Cassidy, Planning Director, city of Pawtucket; Jeanne Boyle, Planning Director, city of East Providence; Paige Bronk, Planning Director, city of Newport

3:30 p.m. Closing remarks and a preview of Day 2

Presenters will summarize the day.

Ariana McBride, Policy Analyst, R.I. Economic Policy Council (moderator); Austin Becker, Coastal Manager, Rhode Island Sea Grant/URI Coastal Resources Center

3:45 p.m. Adjourn

4:00 p.m. to 6:00 p.m. Symposium reception & award presentation to Virginia Lee

Hazard Rooms A & B, Coastal Institute Building, URI Bay Campus

Day 2: Understand management techniques to create vibrant waterfronts in Rhode Island while minimizing impacts of sea-level rise, hurricanes and nor'easters

8:00 a.m. Registration and coffee

Register at Corless Auditorium and enjoy a continental breakfast.

8:45 a.m. Welcome and presentation: Narragansett Bay in the 21st Century

As one of the best-studied estuaries in the world, Narragansett Bay has emerged over the past 300 years as a highly complex water body with myriad characteristics that have deeply influenced how people live, work, and recreate here. Dr. Barry Costa-Pierce, co-editor of *Science for Ecosystem-Based Management: Narragansett Bay in the 21st Century*, will share the intricacies of the bay— from biological, ecological, physical, and chemical perspectives— and reaffirm that Narragansett Bay is surely the “Jewel of Rhode Island.”

Sue Kennedy (moderator), Rhode Island Sea Grant/URI Coastal Resources Center; Dr. Barry Costa-Pierce, Director, Rhode Island Sea Grant

9:35 a.m. Panel 3: Management tools & techniques for creating vibrant waterfronts

Panelists will present tested management techniques for creating vibrant waterfronts in Rhode Island – efforts that entail encouraging stable, year-round economic activity, ensuring prioritization of waterfront uses, employing participatory tools for refinement of municipal redevelopment visions, establishing natural hazard preparedness planning, and navigating construction standards. Tailored applications for East Providence, Pawtucket, and Newport waterfronts will be discussed. We'll break for coffee halfway through this session.

Jack Wiggin (moderator) Director, The Urban Harbors Institute, UMASS Boston; Grover Fugate, Executive Director, R.I. Coastal Resources Management Council; William Coulbourne, Engineer, FEMA Special Programs, URS Corporation, Va.; Charlie Cannon, architect and designer, Providence; Seth Handy, Struever Bros. Eccles & Rouse, Inc.

12:00 p.m. Wrap-up and next steps

12:15 p.m. Lunch (included in registration) and informal discussion

Participants are invited to engage in informal table discussions with the invited speakers.

1:00 p.m. Adjourn

Speaker, Panelist, and Moderator Biographies

Keynote Speaker

John Bullard

Sea Education Association and former mayor of New Bedford

John Bullard, former New Bedford mayor, is president of Sea Education Association (SEA), Woods Hole, which teaches college students and others about the oceans over a 12-week semester spent on campus and aboard one of two 135' tall ships in the Atlantic or Pacific.

Prior to joining SEA, Bullard served on Chancellor Jean MacCormack's senior staff at the University of Massachusetts-Dartmouth.

From 1986 to 1992, Bullard was mayor of New Bedford. He brought the city into compliance with the Clean Water Act by planning and financing a secondary wastewater treatment plant. Fierce neighborhood opposition to the siting of the plant cost him re-election by 390 votes.

Prior to serving as mayor, Bullard led the revitalization of New Bedford's waterfront historic district from 1974 to 1986. The area surrounding the Whaling Museum is now a National Historic Park and continues to serve the working waterfront. He also worked for the fishing industry as they faced the crisis of depleted stocks.

That work led him to Washington, where he joined the Clinton administration in 1993. As head of the first federal Office of Sustainable Development, he developed programs to assist fishing families in New England, the Gulf of Mexico, the Pacific Northwest, and Alaska. He also worked on the President's Council on Sustainable Development developing policies to unite the goals of economic opportunity, environmental health and social equity. His work on sustainable communities led him back home in 1998 after completing a fellowship at Harvard's Institute of Politics.

Bullard earned his bachelor of arts magna cum laude at Harvard. He received both a master of architecture and a master of city planning from the Massachusetts Institute of Technology. He has lectured widely and received numerous awards including an honorary master of public service from UMass-Dartmouth.

Bullard is active in many local organizations. He chairs the board of the Coalition for Buzzards Bay and is the immediate past chair of the SouthCoast Learning Network.

Ronald C. Baird

University of North Carolina Wilmington

Ronald C. Baird is a research professor at the University of North Carolina Wilmington's Center for Marine Science. He previously served as director of the National Sea Grant College Program and as associate director for ocean research of the Office of Oceanic and Atmospheric Research, the National Oceanic and Atmospheric Administration's principal line office for research.

Baird brings a background in science, business, and academic administration to his position at UNCW. He holds a doctorate in biology from Harvard University, a master's degree in zoology from the University of Texas at Austin, and a bachelor of science degree in zoology from Yale University. He served as vice

president of university relations and director of corporate relations at Worcester Polytechnic Institute, the nation's third oldest engineering college, and was appointed by the Secretary of Commerce to the National Sea Grant Review Panel, serving as its chair from 1992 to 1994. Baird was president and a director of Schuster Corporation, an investment holding company, and also served as director of research at Geo-Marine, Inc., an engineering and environmental consulting firm in Dallas, Texas.

Austin Becker

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

Austin Becker is a coastal planner and manager for the Rhode Island Sea Grant Sustainable Coastal Communities & Ecosystems (SUCCESS) Extension Program at the URI Coastal Resources Center. Becker specializes in planning issues regarding coastal land use, urban and working waterfronts, maritime industries and ports, and marine-based recreation and tourism. He provides technical and planning assistance to the Metro Bay Special Area Management Plan (SAMP), a regulatory effort of the R.I. Coastal Resources Management Council that provides the cities of Cranston, East Providence, Pawtucket, and Providence with new coastal management policies to guide shoreline development and revitalization.

Becker holds a U.S. Coast Guard 500-Ton Master License for ocean-going vessels and worked as a sailing-ship captain aboard educational schooners and tall ships. As captain for five years of Rhode Island's state flagship, the Continental Sloop Providence, he designed and oversaw marine science, maritime history, leadership and team-building programs for youth and adult trainees. In the sail-training industry, he worked on vessels throughout Northeast, the Caribbean, New Zealand and Thailand. Before coming to Rhode Island in 1999, Becker owned and operated a yacht charter business with a 1946 Rhodes Sloop that he rebuilt, managed a marina on Cape Cod, and served on the municipal Harbor Management Committee in Provincetown, Mass.

Becker received a bachelor of arts degree in maritime history from Hampshire College, a master's of marine affairs and a master's of environmental science and management from the University of Rhode Island.

Kip Bergstrom

Rhode Island Economic Policy Council

Kip Bergstrom has served since May 1998 as executive director of the Rhode Island Economic Policy Council. Prior to joining the policy council, Bergstrom was economic development director in Stamford, Conn., from 1993 to 1997, where he helped to reduce Stamford's office and industrial vacancy rates by 80 percent and closed a total of 45 deals representing over 6,000 jobs, including the 2,200-employee North American headquarters of UBS Warburg Dillion Read, the investment banking arm of the world's second largest bank.

Bergstrom has a master's degree in city and regional planning from the John F. Kennedy School of Government at Harvard University, where he was the first student to specialize in economic development.

Jon C. Boothroyd

University of Rhode Island and Rhode Island State Geologist

Jon C. Boothroyd is a professor of quaternary geology at the University of Rhode Island and has served as the state geologist since 1998. He is a field geologist specializing in coastal, braided river, and various

glacial environments. He has 42 years of field experience in New England, South Carolina, Alaska, Iceland, Saudi Arabia, Madagascar, Ecuador, Mexico and the Azores. His research interests include coastal geologic hazards and management issues and long-term beach changes.

Boothroyd serves as a member or advisor of several boards and committees, including chairing the Rhode Island State Mapping Advisory Committee, serving as a member of the Executive Advisory Board of the Rhode Island Geographic Information System, and serving as advisor to the R.I. Coastal Resources Management Council and the U.S. Army Corps of Engineers, New England district.

Boothroyd has a bachelor of arts degree in economics from the University of New Hampshire, a master's degree in geology from the University of Massachusetts-Amherst, and a doctorate in geology from the University of South Carolina-Columbia.

Jeanne M. Boyle
City of East Providence

Jeanne Boyle has served as director of planning for the city of East Providence, R.I., since 1990. As director, she serves as executive director of the city's Waterfront Development District Commission and is a member of the Rhode Island State Planning Council, the Rhode Island State Recreation Resources Review Committee, the Rhode Island Chapter of the American Planning Association, and the Urban Land Institute. She also served as East Providence Acting City Manager from March to August 2006. Previously, she served as principal planner for East Providence and worked in New York City in several planning roles, including as project manager for the Department of Ports, Terminals and International Trade; as community planner; and as technical review planner. She has served on the Rhode Island State Technical Committee, the Rhode Island Transportation Advisory Committee, the Board of Directors of the Ocean State Business Development Authority, the East Providence Economic Development Commission, and the East Providence Chamber of Commerce Economic Development Committee and Board of Directors.

Paige R. Bronk
City of Newport

Paige Bronk has served as the director of Planning, Zoning, Development and Inspections for the city of Newport for seven years. Bronk became a certified community planner in 1996.

He is responsible for planning and land development projects for the city of Newport and helps support regional efforts on Aquidneck Island. Much of his current work in Newport addresses redevelopment, master planning, and community planning. Notable recent projects include the North End Master Plan, the Newport Harbor Shuttle Plan, and the redevelopment of public properties including the Potter School and Lenthal School. Previous local government and regional experience includes comprehensive, natural resources, transportation, redevelopment, and economic planning in Brunswick and Savannah, Georgia; Frankfort, Kentucky; and Newport.

Bronk received his master's of community planning degree from the University of Rhode Island with a concentration in environmental planning and a bachelor of arts degree from Alfred University with majors in environmental studies and geology.

Charlie Cannon**LOCAL**

Charlie Cannon is a designer and educator working in Providence, R.I., and Brooklyn, N.Y. In 2005, Cannon co-founded LOCAL to focus on projects that develop and sustain local communities. To achieve this, the firm provides clients with a complete range of design services including planning, communication, strategy, architecture, and design. As director of research and design, Cannon applies rigorous design methods to a wide range of problems—energy, healthcare, water, education, and community development. Recent projects under Cannon’s direction include the Healthcare Innovation Project, a collaborative research project for the Rhode Island Economic Development Corporation, and the Community Economic Center, a non-profit, multi tenant office space anchoring a redevelopment project focused on revitalizing a neighborhood in Providence. Cannon also teaches at the Rhode Island School of Design.

Prior to LOCAL, Cannon spent nine years as a founding partner in L+C Studios, a collaborative design practice exploring the intersection of art, architecture, and design. Architecture, planning, and programming clients included the Steelyard, an arts-based revitalization of a three-acre brownfield site, Save the Bay, an environmental advocacy and educational organization for whom L+C Studios designed satellite exhibition and classroom space in Newport, and the South Providence Development Corporation’s eco-business incubator at 17 Gordon Avenue, the first green and smart building in the state.

Cannon received a master’s degree in architecture from Harvard University and a bachelor of arts with honors in anthropology.

Michael Cassidy**City of Pawtucket**

Michael Cassidy is the director of the department of Planning and Redevelopment for the city of Pawtucket. He is responsible for the management of three municipal divisions—Planning and Redevelopment, Zoning and Code Enforcement, and Senior Services. He has been responsible for new initiatives including the creation of a Housing Court, the establishment of Pawtucket’s Economic Development program, the development of a riverfront plan that led to the creation of Rhode Island’s first Riverfront Commission with zoning and design review authority over the entire riverfront area in the community, and the initiation of the first local zoning regulations in Rhode Island, which provide for design review of all new construction in the community.

Cassidy also serves as the executive director of the Pawtucket Redevelopment Agency, which provides rehabilitation loans to homeowners and businesses and owns and manages the office building that houses the Blackstone River Valley National Heritage Corridor Visitor Center. Cassidy is also the secretary and treasurer of the Pawtucket Business Development Corporation, which operates economic development loan programs to assist businesses in Pawtucket.

He is a member of Rhode Island’s Transportation Advisory Committee, a board member of the Workforce Partnership of Greater Rhode Island, and commissioner and treasurer of the John H. Chaffee Blackstone River Valley National Heritage Corridor Commission.

Barry A. Costa-Pierce
Rhode Island Sea Grant

Barry Costa-Pierce is a professor of fisheries and aquaculture and director of the Rhode Island Sea Grant College Program at the University of Rhode Island. Costa-Pierce is also an associate director of the URI Coastal Institute and an international editor of *Aquaculture*. He has over 150 publications, including the editing/authoring of 19 scientific books and monographs. His current research is funded by the FAO, WWF, and the Packard Foundation, and examines tuna capture-based aquaculture, zoological and fisheries interactions of blue mussels with pea crabs, the development of scientifically credible sustainability indices for mariculture projects worldwide, the nutrient impacts of salmon aquaculture on pelagic ecosystems, and the inclusion of fisheries/aquaculture science into the “sustainable seafoods” movement. Before coming to URI, Costa-Pierce was the director of the Mississippi-Alabama Sea Grant College Program, a lecturer in the graduate program at the Scripps Institution of Oceanography, and a “Student Recommended Faculty in Global Sustainability” at the University of California—Irvine where he was recognized for making an “exceptional impact on undergraduate education.” From 1985 to 1993 Costa-Pierce was a director and research scientist for the International Center for Living Aquatic Resources Management (ICLARM) based at the Institute of Ecology in Bandung, Indonesia; he also was the director for three years of ICLARM's Africa office in Malawi, Central Africa.

Costa-Pierce has a doctorate in oceanography from the University of Hawaii, a master's of science in zoology from the University of Vermont, and a bachelor of arts in zoology from Drew University.

William L. Coulbourne
URS Corporation

William Coulbourne, P.E., is a national expert in wind and flood mitigation and has been involved in FEMA Mitigation Assessment Teams for over 12 years. Coulbourne has 39 years of experience as an engineer and manager. His expertise includes building design, methods, materials, and codes. He has investigated failures and mitigation design techniques for thousands of buildings including residential structures, schools used as shelters, hospitals, and other critical facilities.

Coulbourne has written articles for journals and given presentations for homebuilders, engineers, architects, and homeowners on high wind and flood design and coastal construction issues. He teaches courses for FEMA, for states, and for organizations on flood design and coastal construction practices. He is a member of the American Society of Civil Engineers standards committees for ASCE 7 Minimum Design Loads for Buildings and Other Structures and ASCE 24 Flood Resistant Design and Construction. He is a part-time instructor in the University of Delaware's civil and environmental engineering department.

His experience in natural hazard projects includes serving as Hurricane Katrina program manager for the field effort and Mitigation Assessment Team reporting and as a structural engineering consultant on a joint ASCE/FEMA team investigating the 2001 World Trade Center disaster and recommending studies and work that continue to be done on tall building designs in light of these terrorist attacks.

Coulbourne has a bachelor of science degree in civil engineering from Virginia Tech and a master's in structural engineering from the University of Virginia.

Grover Fugate

R.I. Coastal Resources Management Council

Grover Fugate is the executive director of the R.I. Coastal Resources Management Council, the principal planning and management agency for the state's coastal areas. Mr. Fugate's current duties include the day-to-day administration of the state's Coastal Resources Management Program. Fugate is the council's and state's representative to a number of boards, commissions, task forces, and other coastal-related organizations. He is also a guest lecturer at the University of Rhode Island and Roger Williams University.

Before transferring to Rhode Island, Fugate was the director of Shore Zone Management with the Department of Development, government of Newfoundland and Labrador, where he worked on planning for the province's offshore oil development. During this period, he was also a lecturer at the Department of Part-time Studies and Extension, Memorial University, Newfoundland. His prior roles with the government of Newfoundland and Labrador included serving as a regional resource planner, land use planner, and forester. Previously, Fugate had been an urban forester for a private company in Connecticut.

Fugate received an MBA and a certificate in public administration from Memorial University and a bachelor's degree in natural resource management from the University of Connecticut.

Seth Handy

Struever Bros. Eccles & Rouse, Inc.

Seth Handy is development director for Struever Bros. Eccles & Rouse, Inc., Providence, R.I. He manages the Dynamo House project, a conversion of a former power plant on the Providence River into a mixed-use development including a museum, a hotel, office space, and a restaurant. Previously, Handy was an associate with Edwards & Angell, LLP, in Providence, and a policy analyst for Science Applications International Corporation.

Handy is also president of the Pawtucket Armory Association, a nonprofit that acquired the historic armory and is funding and overseeing the establishment of an arts and arts education center, housing a variety of professional arts organizations and a high school for the visual and performing arts. He is a trustee and Rhode Island board member of the Conservation Law Foundation, a member of the Rhode Island Bar Association Committee on Environmental Law, and a past director of the Sandra Feinstein-Gamm Theatre and of the San Miguel School, Providence.

He received his juris doctor and master of studies in environmental law from Vermont Law School and his bachelor's degree in history from Harvard College.

Michael Hennessey

Picerne Real Estate Group

Michael Hennessey has 14 years of experience in land development, spanning land acquisition to final sales and management. He worked in the Seattle area for 10 years, which included managing affordable housing bond developments in the Washington-Oregon-California area, condominiums, single family homes, offices, and retirement facilities in the Northwest, and resorts in Palm Springs-Las Vegas-Lake Tahoe areas. Hennessey returned to Rhode Island four years ago, acting as the regional director for Picerne Real Estate Group in charge of approximately 18 developments in various stages of development. He also serves as vice president of Rhode Island Homes, LLC, which includes developing the East Providence waterfront in a joint venture with ChevronTexaco. Throughout his career, Hennessey has worked on more than 100

land developments. His affiliations include the Rhode Island Builders Association, the Urban Land Institute, and the National Association of Home Builders. He currently serves on the East Providence Storm Drainage Advisory Committee and participated in the Transportation 2025 round table panel.

Hennessey received a bachelor of science degree in civil engineering from Clemson University.

Kevin Hively

Ninigret Partners

Kevin Hively is the President of Ninigret Partners, a business advisory firm with offices in Providence and Washington, D.C. Ninigret Partners has been involved in several major waterfront redevelopment projects in Rhode Island including the development of the West Side Master Plan; serving as development and public-private partnership advisor for the East Providence Waterfront Redevelopment Commission, Carnegie Abbey, and the Hood Marina complex; and developing the metrics and scorecard approach for the Rhode Island Bays, Rivers, and Watersheds Coordination Team. His corporate work and travels have brought him to waterfronts ranging from Sydney, Australia, and Lahaina, Hawaii, to Toledo, Ohio, and Chattanooga, Tenn.

Prior to forming Ninigret Partners, Hively was a member of the Global Leadership Team for Telesis, the strategy consulting arm of Towers Perrin. Prior to Telesis, he was director of policy for the state of Rhode Island. He also served as vice chair of the Rhode Island State Planning Council.

Susan Kennedy

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

Susan Kennedy is a public information and communications specialist for Rhode Island Sea Grant and the URI Coastal Resources Center. Kennedy works with team members and partner groups to develop and employ targeted strategies and products for increasing public and professional understanding and use of coastal management tools, practices, and programs.

Previously, Kennedy worked as a reporter and editor at several Rhode Island community newspapers and has won state and regional journalism awards for investigative reporting and educational feature coverage. She also served as a communications manager for the Rhode Island Economic Development Corporation, where she assisted with media and public relations projects and created written materials.

Kennedy received a bachelor of arts degree from the University of Massachusetts–Amherst and a master of arts degree in English literature from Rutgers University.

Francis X. Mahady

FXM Associates

Francis Mahady is an economist and planner with over 30 years of professional experience in urban and regional economic development, socioeconomic impacts assessment, and transportation and land use planning. He founded FXM Associates in 1991. From 1976 to 1990, Mahady was senior vice president of Economics Research Associates, where he served as the firm's national practice leader in transportation planning and economic development.

Mahady has directed and authored over 120 studies whose primary purposes have been to assess the strengths and weaknesses of local and regional economies, forecast market and land-use conditions and trends, and design workable strategies that can help realize community goals of economic stabilization or growth. An important specialization is waterfront planning and economics, where he has led the firm's 50-plus recent waterfront project assignments, as well as dozens of prior studies encompassing the breadth of water-dependent and waterfront-oriented economic activities and uses. Mahady's expertise in waterfront economics includes assessing market demand, financial feasibility, economic impacts, and management strategies for port facilities and operating entities serving water-dependent industries, and market and operating analyses for existing and potential industry users. His work encompasses cruise ship, charter, water taxi, commuter ferry, and excursion commercial recreational vessels; intermodal seaports; water-oriented industrial development; commercial fisheries and seafood processing and distribution; ferry passenger and freight facilities and services; marinas; specialty uses and tourist destination facilities, such as museums, aquariums, festivals and special events; restaurant; other commercial and residential uses; as well as open space and conservation uses.

Mahady holds a bachelor of arts degree from Harvard College and a master of city planning degree from the Massachusetts Institute of Technology.

Jennifer McCann

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

Jennifer McCann is leader of U.S. Coastal Management Programs at Rhode Island Sea Grant/University of Rhode Island Coastal Resources Center. McCann oversees efforts to help the state create special area management plans to address place-specific coastal resources management needs in the Providence region and on Aquidneck Island.

McCann has over 17 years of professional experience in community development, institutional capacity building, marine protected area planning and management, watershed management, and fundraising. She joined the Coastal Resources Center in 1995 to provide technical expertise on coastal management in Latin America. Her efforts included partnering with local communities to establish the first ever community-based Mexican marine protected area in Xcalak.

McCann previously worked for the Center for Marine Conservation (now The Ocean Conservancy) in Washington, D.C., building a constituency for the creation and management of the Stellwagen Bank National Marine Sanctuary. She also represented the center in the Dominican Republic, where her primary focus was to build the capacity of local non-profits as institutions and implementers of integrated coastal resources management.

McCann received a master of arts in marine affairs from the University of Rhode Island with a concentration in community involvement in coastal zone management.

Kate Moran

University of Rhode Island Graduate School of Oceanography

Kate Moran is associate dean for research and administration and ocean engineering professor at the University of Rhode Island Graduate School of Oceanography. Previously, Moran worked for almost a year as program manager for the Atlantic Canada Petroleum Institute, and as an oceanography project manager for the Canadian government in 2000. From 1998 to 2000, she was director of ocean drilling at

the Ocean Drilling Program, an international research organization. From 1981 to 1998, she worked as a marine research engineer for the Bedford Institute of Oceanography.

Moran has led major oceanographic expeditions since joining URI, including the 2004 Arctic Coring Expedition—the first drilling expedition on the sea floor of the Arctic Ocean. In 2005, Moran led a team of 27 scientists to the Indian Ocean to research the devastating Sumatra earthquake and tsunami of 2004. Both expeditions and their findings were covered in the worldwide press and in a television special that aired on the Discovery Channel and the BBC. In addition to her research and teaching, Moran directs URI's Marine Geomechanics Laboratory and is the associate director of the state's new Center of Excellence in Underwater Technology.

Moran received her bachelor of science in civil engineering from the University of Pittsburgh, her master of science in ocean engineering degree from the University of Rhode Island, and her doctorate in civil engineering from Dalhousie University, Halifax, Nova Scotia.

Stephen B. Olsen

University of Rhode Island Coastal Resources Center

Stephen Olsen has been associated with the Coastal Resources Center since its creation in 1971, and has served as its director since 1975. From 1985 to 2003, Olsen was the international director of the Coastal Resources Management Program sponsored by the U.S. Agency for International Development. That program developed a learning-based, issue-driven approach to the management of coastal ecosystems through long-term programs in Latin America, East Africa, and Southeast Asia. Olsen's work to formulate a common methodology for learning from coastal management experience is supported by a number of international institutions.

Olsen led the team that drafted the R.I. Coastal Resources Management Program adopted by the state in 1976—one of the first to be approved by the federal government. He also led the design of the second generation R.I. Coastal Resources Management Program that has been the basis for management decisions in the state since 1983. More recently he has worked with the World Bank, the Inter-American Development Bank, and the United Nations Development Program on their coastal management initiatives in a growing number of countries.

Olsen received a master of science in biological oceanography and a bachelor's degree in biology from the University of Rhode Island.

Pamela Rubinoff

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

Pamela Rubinoff is an associate coastal manager for Rhode Island Sea Grant/University of Rhode Island Coastal Resources Center. Her specialty is coastal community resilience, advancing efforts in Rhode Island and internationally to link coastal management and disaster management.

Rubinoff has recently completed development of a resilience assessment tool as a U.S. contribution to the Indian Ocean Tsunami Warning System Program. The tool includes a methodology to identify strengths and weaknesses of community resilience, which has been core to training and mentoring Indian Ocean managers in assessment and enhancement of community resilience. She also coordinates environmental

assessment and outreach activities associated with the USAID Thailand Post-Tsunami Sustainable Coastal Livelihoods Program.

Rubinoff has worked with Rhode Island communities to promote community resilience and adaptation through planning, capacity building, and outreach activities, including the development of a state sea level rise policy and implementation of mitigation initiatives for the Providence metropolitan area. She has led the development of Coastal Smart Growth elements as part of a National Coastal Community Development initiative.

Previously, Rubinoff was program coordinator for the Massachusetts Coastal Zone Management Program's Cape Cod/Islands Region and a project manager for the U.S. Army Corps of Engineers.

Rubinoff received her master's of marine affairs from the University of Rhode Island and her bachelor's degree in civil engineering from the University of Delaware.

Jeanne M. Salvatore

Insurance Information Institute

Jeanne Salvatore, senior vice president for public affairs at the Insurance Information Institute, represents the Institute and the insurance industry, working closely with national and local media, appearing on radio and TV and in print as a spokesperson for insurance-related issues that directly affect individual and commercial consumers. She also serves as the industry liaison to numerous consumer, education, safety, and community-based organizations, including the Consumer Federation of America, the National Consumers League, Neighborhood Housing Services of New York City, and the Neighborhood Reinvestment Corporation.

Salvatore has fulfilled a variety of roles since joining the institute in 1988. Among her earlier achievements, she became an expert on the issue of insurance fraud and was instrumental in the development of a national agenda to combat it, and co-authored *Fighting the Hidden Crime: A National Agenda to Combat Insurance Fraud*. She also has served as director of crisis communications, and produced a series of state-specific auto-safety conferences that culminated in a national conference. She also directed communications programs on insurance topics such as claim filing, disaster preparedness, and home safety.

Previously, Salvatore was an account executive with Creative Programming, Inc., a New York-based film and video company. She was also sales and marketing representative in photographic services for Color by Pergament, Inc. She is an active member of the Public Relations Society of America (PRSA) and served as president of the New York chapter in 2000. She is also an adjunct professor in the graduate school of Mass Communications at Iona College and Columbia University.

Salvatore holds a bachelor of arts degree in English from Villanova University and a master of arts degree in communications from Columbia University.

Malcolm L. Spaulding

University of Rhode Island

Malcolm Spaulding is a professor of ocean engineering at the University of Rhode Island, where he has been a member of the faculty since 1973. He served as chair of the department from 1991 to 2002. Spaulding

is an internationally recognized expert in marine environmental modeling, with a primary focus in the areas of hydrodynamics, pollutant transport and fate, oil spill transport and fate, and the development of integrated coastal ocean modeling and monitoring systems. He has lectured throughout the world and is widely published in the field of marine environmental modeling. In 1979, he founded Applied Science Associates, Inc., (ASA) with colleagues from the university to provide engineering and marine science services to government and private clients. He was awarded the 1993 Rhode Island Governor's Science and Technology Award, Special Citation for his contributions to excellence in education and business development. In 1997 he was awarded the Edmund and Dorothy Marshall Faculty Excellence Award in Engineering and the Royal Wales Award for his contributions to ocean engineering. Spaulding has served on many National Research Council committees and was a member of the Marine Board and liaison to the Ocean Studies Board from 1996-2001. His 2006-2007 senior ocean engineering design class focused on storm surge and flooding in upper Narragansett Bay.

Spaulding received a bachelor of science degree and a doctorate from the University of Rhode Island and a master of science degree from the Massachusetts Institute of Technology, all in mechanical engineering and applied mechanics.

Jack Wiggin Urban Harbors Institute

Jack Wiggin, AICP, is the director of the Urban Harbors Institute, where he is responsible for the institute's interdisciplinary research and public service projects on coastal area, port, and harbor issues. He has 20 years of experience in coastal management, port and harbor planning and management, waterfront development, community planning, and public participation. Wiggin has provided technical assistance in these and related areas to local, state, and national governments in the United States and abroad.

Wiggin's work in coastal management and planning includes work as an associate investigator in Bulgaria, responsible for training national and local government officials in coastal management, local coastal plans, assessing coastal issues, environmental impact assessment, GIS mapping, and strategies for program implementation and public participation. He also worked on the coastal element of the Environmental Capacity-Building Action Plan for the Murmansk region of Russia. His extensive planning experience includes work on numerous coastal, harbor, and resource management plans in the United States. He is the chairman of the Advisory Council for the Boston Harbor Islands National Park and serves on the Coastal Resources Advisory Board of the Massachusetts Coastal Zone Management Program. He has taught several undergraduate courses in coastal management and planning and has made presentations on coastal management, planning, and port management at numerous conferences and workshops.

Prior to joining the institute, Wiggin was senior environmental planner with the Connecticut Coastal Management Program where he assisted the 36 coastal municipalities in preparing comprehensive plans and regulations for their coastal areas. While there, he headed the research, writing, interagency coordination, and initial implementation of Connecticut's Harbor Management Act. He was also chief land use planner with the law firm Robinson & Cole, assisting private and public sector clients with the planning and regulatory aspects of waterfront development and coastal resource protection.

Notes