



Photo by L. Heady

HUDSON RIVER ON THE RISE:

Waterfront Planning for Communities and Nature

Thursday, April 27, 2017, 9:30am-4pm

Henry A. Wallace Center at the
FDR Presidential Library and Home in Hyde Park



Cornell University

Conference Organizers

Conference committee:

Jeff Anzevino, Director of Land Use Advocacy, Scenic Hudson; janzevino@scenichudson.org

Jaime Ethier, Mid-Hudson Region Unit Supervisor, NYSDOS Office of Planning and Development; Jaime.Ethier@dos.ny.gov

Emilie Hauser, Estuary Training Program Coordinator, NYSDEC Hudson River National Estuarine Research Reserve and NEIWPC; emilie.hauser@dec.ny.gov

Laura Heady, Conservation and Land Use Coordinator, NYSDEC Hudson River Estuary Program and Cornell University; laura.HEADY@dec.ny.gov

Lucille Potter, Sustainable Shoreline Educator, NYSDEC Hudson River National Estuarine Research Reserve and Student Conservation Association / Americorps

Nava Tabak, Acting Director of Conservation Science, Climate & Stewardship, Scenic Hudson; ntabak@scenichudson.org

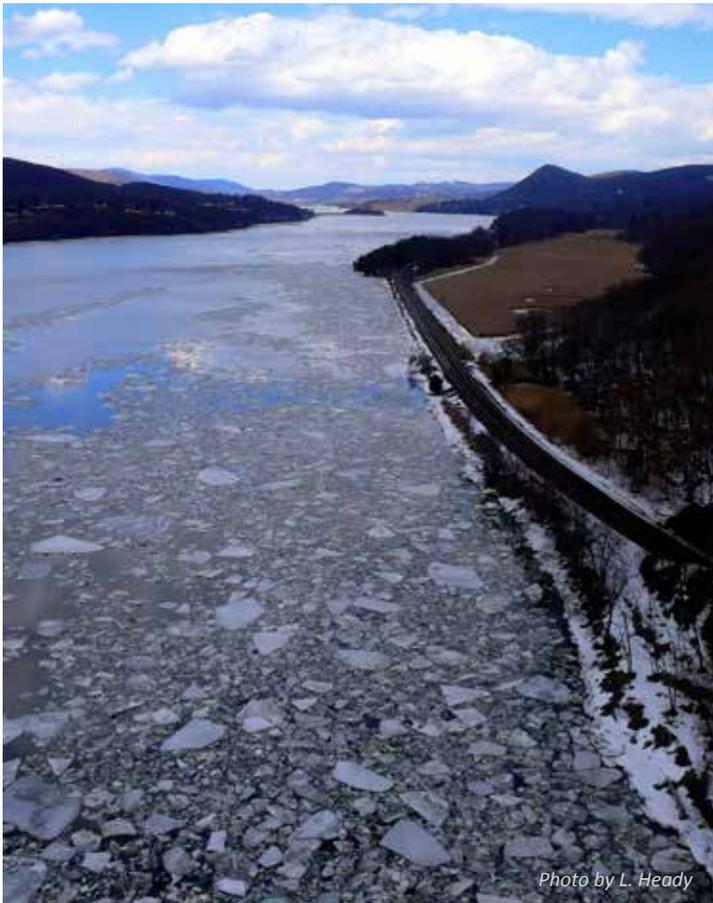


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Special thanks to coworkers and colleagues who helped with all aspects of Hudson River on the Rise, and to the speakers for bringing their knowledge and expertise to this important dialogue.

#HudsonOnTheRise



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About the NYSDEC Hudson River Estuary Program

The New York State Department of Environmental Conservation (NYSDEC) Hudson River Estuary Program uses the science of ecology to help people enjoy, protect, and revitalize the Hudson River estuary. Created in 1987 through the Hudson River Estuary Management Act (ECL 11-0306), the program focuses on the tidal Hudson and its adjacent watershed from the dam at Troy to the Verrazano Narrows in New York City. Through grants, technical assistance, and outreach, the Estuary Program helps communities with natural resource-based planning and innovative solutions that build resilience to flooding, heat, and drought. Hudson River municipalities are working with the Estuary Program on waterfront flooding task forces, design concepts for climate resilient waterfronts, natural resources inventories, and other initiatives that will contribute to resilient futures for their communities and for the estuary ecosystem.

<http://www.dec.ny.gov/lands/4920.html>

About the NYSDOS Office of Planning and Development

The New York State Department of State's (NYSDOS) Office of Planning and Development (OPD) supports the resilient, sustainable growth of New York communities by advancing progressive land use solutions, community development, and building standards and codes. OPD helps waterfront communities create and foster clear visions and plans for their future through creative partnerships and community involvement. OPD provides technical assistance to those communities developing and implementing waterfront revitalization plans that set forth land and water uses and policies, and by identifying resilient revitalization projects to implement along a community's waterfront.

<https://www.dos.ny.gov/opd/>

About Scenic Hudson

Scenic Hudson preserves land and farms and creates parks that connect people with the inspirational power of the Hudson River, while fighting threats to the river and natural resources that are the foundation of the valley's prosperity. Recognizing that climate change and sea level rise increasingly impact Hudson riverfront communities and the estuary's irreplaceable natural resources, Scenic Hudson and its partners continually work to conserve critical estuarine habitats, and have spearheaded sea level rise resiliency plans in Kingston, Piermont and Catskill. Scenic Hudson is committed to assisting communities throughout the estuary in planning for rising waters and climate change.

<http://www.scenichudson.org/>

About the Hudson River National Estuarine Research Reserve

The Reserve consists of four distinct globally rare tidal wetland sites on the Hudson River Estuary, Stockport Flats, Tivoli Bays, Iona Island and Piermont Marsh. At the Reserve's office at Norrie Point, staff conduct estuarine research, stewardship, training and education. The Reserve is part of system of 29 Reserves located around the nation and is a partnership between NYSDEC and NOAA. The Reserve's programs include the Hudson River Sustainable Shorelines Project, research into the vulnerability of its tidal marshes to sea-level rise, and other impacts of climate change and training on the vulnerability of Hudson River habitats to climate change.

<http://www.dec.ny.gov/lands/4915.html> and

<http://www.hrnerr.org>

About the New England Interstate Water Pollution Control Commission (NEIWPCC)

NEIWPCC has been a partner in the restoration and preservation of the Hudson River and its watershed for many years by providing management and technical assistance to both the NYSDEC Hudson River Estuary Program and the National Estuarine Research Reserve. This assistance consists of both staff support and the procurement of services and materials.

<http://www.neiwpcc.org>

Agenda

Welcome

9:30am *Kevin Thomas, Special Events Coordinator, FDR Presidential Library*

Steve Rosenberg, Senior Vice President, Scenic Hudson; Executive Director, The Scenic Hudson Land Trust

Morning Plenary Presentations

9:45am Hudson River: Then and Now
Fran Dunwell, NYSDEC Hudson River Estuary Program

10:10am What's Special about the Hudson Estuary? A Natural History Overview
Betsy Blair, NYSDEC Hudson River National Estuarine Research Reserve

10:35am Looking Ahead: Planning, Adapting, and Restoring for a New Normal
Sacha Spector, Doris Duke Charitable Foundation

11:00am Break

11:20am Decision-making Roles: Who is Responsible for the Future of Our Shorelines?
Matt Maraglio, NYSDOS Office of Planning and Development

11:45am Keynote
The Resilient Waterfront: Designing Adaptive Landscapes
Pippa Brashear, SCAPE / Landscape Architecture

12:30pm Lunch

Concurrent Sessions

1:30pm **Concurrent Session I**

A: Local Planning for Climate Resilience
Local Waterfront Revitalization Programs (LWRPs)
Jaime Ethier, NYSDOS Office of Planning and Development

Climate Smart Communities and Coastal Resilience
Dazzle Ekblad, NYSDEC Office of Climate Change

B: Online Mapping and Decision-Making Tools
The Sea Level Rise Mapper:
Essential Information for Waterfront Planning
Nava Tabak, Scenic Hudson

The Hudson River Flood Impact Decision Support System
Kytt MacManus, CIESIN and Columbia University

Geographic Information Gateway:
Yours for the Using
Jeff Herter, NYSDOS Office of Planning and Development

2:00pm

Concurrent Session II

A: Adapting the Built Environment

Metro-North Railroad: Post Superstorm Sandy and Planning for the Future

Richard Bottali, Metro-North Railroad Capital Engineering Department

Sustainable Shorelines: Improving Engineered Shoreline Habitats

Daniel Miller, NYSDEC Hudson River Estuary Program/NEIWPC

Confronting the Threat of Sea Level Rise in the New York City Metropolitan Area

Rob Freudenberg, Regional Plan Association

B: Designing Resilient Waterfronts

Waterfront Edge Design Guidelines (WEDG): A Framework for Sustainable Waterfront Development

Roland Lewis, Waterfront Alliance

The Cornell Climate-Adaptive Design Studio: Designing for Resilience Along Hudson River Estuary Waterfronts

Joshua F. Cerra, Cornell University Department of Landscape Architecture

Landscape Performance:

Climate-Adaptive Design Strategies for LUMBERYARD Contemporary Performing Arts

Jilian Cahan Gersten, LUMBERYARD Contemporary Performing Arts

2:45pm

Break

Afternoon Plenary Presentations

3:00pm

The Community Risk and Resiliency Act: Mainstreaming Consideration of Climate Change

Mark Lowery, NYSDEC Office of Climate Change

3:15pm

Local Inspiration: Case Studies from the Hudson Valley

Adaptation Success in the Hudson River Estuary

Kristin Marcell, NYSDEC Hudson River Estuary Program/Cornell Water Resources Institute

Waterfront Resilience and Adaptation in the City of Kingston

Mayor Steve Noble, City of Kingston

3:45-4:00pm

Closing and Departure

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Speakers and Presentation Abstracts

BETSY BLAIR

Manager, NYSDEC Hudson River National Estuarine Research Reserve

What's Special about the Hudson Estuary? A Natural History Overview

Estuaries are among the most productive of Earth's ecosystems. One of the healthiest on the Atlantic Coast, the 153-mile estuary in the Hudson River is no different. From globally significant freshwater tidal wetlands, to deepwater areas used by the spawning Atlantic sturgeon, to beds of submerged aquatic vegetation where many small creatures dwell, the Hudson estuary supports a diversity of coastal habitats, fish, and wildlife. Betsy will bring the estuary to life with an overview of its rich natural history.

Betsy Blair is the Regional Marine Habitat Manager for the NYSDEC Regions 3 and 4, an area that includes part of Long Island Sound and all of the Hudson River estuary north of New York City. In this capacity, she manages the Hudson River National Estuarine Research Reserves; oversees the NYSDEC Region 3 tidal wetlands regulatory program; and leads a wide variety of other marine habitat protection initiatives, including habitat restoration, submerged habitat mapping, and the Hudson River Sustainable Shorelines Project. She has a special interest in fostering collaborative science and outreach programs that support climate adaptation.

RICHARD BOTTALI

Assistant Director of Sustainability & Environment, Metro-North Railroad Capital Engineering Department

Metro-North Railroad: Post Superstorm Sandy & Planning for the Future

Metro-North's Hudson Line runs approximately 75 miles along the eastern shores of the Harlem and Hudson rivers, from Bronx up to Poughkeepsie. Metro-North's electrical and signal infrastructure sustained heavy damage as a result of Superstorm Sandy. Richard will discuss how Metro-North Railroad has improved the planning, engineering, and design of its vital infrastructure to improve its resiliency against future storm events.

Richard Bottali comes from a diverse background in the construction industry; having worked in the electrical trade, environmental and occupational health and safety consulting, and construction management within the heavy highway sector. His current responsibilities include integration of sustainable design and environmental protection throughout Metro-North's Capital Program, and management of Capital Projects related to sustainability and energy efficiency.

PIPPA BRASHEAR

Director of Planning & Resilience, SCAPE / Landscape Architecture

The Resilient Waterfront: Designing Adaptive Landscapes

Innovative waterfront designs can provide a path to increase resilience to climate change while also promoting ecological function and economic development. Pippa will describe concepts and elements that form the basis of climate resilient design, and draw on her extensive experience with wide-ranging projects to share examples of designs for both built waterfronts and waterfront open spaces that use natural and nature-based solutions to achieve these multiple objectives.

Pippa is the Director of Planning and Resilience at SCAPE, a design-driven landscape architecture and urban design studio based in New York. She works with planning, engineering, and design teams to integrate landscape strategies that are sustainable and resilient, and that balance environment, infrastructure, development, and community quality of life needs. Her recent work has explored techniques through which communities can adapt to climate change while achieving environmental, economic, and aesthetic goals; this includes work on the New York City Strategic Initiative for Rebuilding and Resilience, multiple NY Rising Community Reconstruction Program projects, and Living Breakwaters, SCAPE's award-winning coastal green infrastructure project that combines risk reduction with ecosystem enhancement and community education and stewardship that is currently in design for the South Shore of Staten Island.

JOSHUA F. CERRA

Assistant Professor and Director of Undergraduate Studies, Cornell University Department of Landscape Architecture

The Cornell Climate-Adaptive Design Studio: Designing for Resilience Along Hudson River Estuary Waterfronts

The Climate-Adaptive Design Studio links Cornell students in landscape architecture with flood-risk Hudson riverfront communities to explore alternative design strategies for more resilient and connected waterfront areas. To date, students have developed design alternatives for waterfronts in the Village of Catskill, City of Hudson, and City of Kingston. Josh will describe how the design process and the finished products provide inspiration for pathways towards waterfront revitalization and climate adaptation.

Josh Cerra's academic and professional work addresses relationships between urban ecosystems, communities, and site development processes, and their implications for climate adaptation and urban ecological design. Prior to joining Cornell, Josh practiced as a designer and ecologist on projects in the Pacific Northwest and China. He was the recipient of the Cornell CALS Young Faculty Teaching Excellence Award in 2014 and the CELA Excellence in Design Studio Teaching Junior Level Award in 2015.

FRAN DUNWELL

Hudson River Estuary Coordinator, NYSDEC Hudson River Estuary Program

Hudson River: Then and Now

The Hudson River has emerged from a history of pollution and neglect to recognition as an American Heritage River, celebrated for its natural and cultural history. While progress has been made to reduce pollution in recent decades, a legacy of toxic chemicals remains and the river faces new and emerging challenges. At the forefront is climate change and the impacts that rising sea levels will have on the river, its natural communities, and the people who live along its shorelines. Fran will take us on a journey to highlight how the river shaped our past, and how stakeholders can help to shape its future.

A lifelong resident of the Hudson Valley, Fran Dunwell has worked to protect the natural, scenic, and historic Hudson for over 40 years. She started at the NYSDEC

in 1984 in her current role as Hudson River Estuary Coordinator, and has continued to lead an ambitious program to conserve and recover the tidal Hudson and the extraordinary natural heritage of its watershed through programs founded in science and implemented in ways that support quality of life of the Valley's residents. Fran is also the author of two award-winning books that convey her curiosity and passion about the region.

DAZZLE EKBLAD

Climate Policy Analyst, NYSDEC Office of Climate Change

Climate Smart Communities and Coastal Resilience

Climate Smart Communities (CSC) is a voluntary, incentive-based program for New York communities to engage in reducing greenhouse gas emissions and improving climate resilience through adaptation measures. The CSC Grant Program offers 50/50 matching funds for climate change adaptation projects each year through the Consolidated Funding Application (CFA). Through the CSC Certification Program, communities can also earn points for a wide variety of actions, including strategies that enhance resilience to flooding.

Originally from Minnesota, Dazzle Ekblad now works out of NYSDEC's central office in Albany. As Climate Policy Analyst for the Office of Climate Change, she focuses on management of the Climate Smart Communities (CSC) program, including administering the CSC Grant Program and acting as the program lead for the CSC Certification Program. Dazzle also supports NYSDEC's implementation of the Community Risk and Resiliency Act.

JAIME ETHIER

Mid-Hudson Region Unit Supervisor, NYSDOS Office of Planning and Development

Local Waterfront Revitalization Programs (LWRP)

An LWRP is a comprehensive land and water use program that expresses a vision for a community's waterfront and refines state coastal policy to reflect local or regional needs. LWRPs play a significant role in addressing relevant issues for a given region or place, bringing to bear the resources and authorities of local governments and engaging the public in the management of coastal and waterfront resources and their use. LWRPs can also be prepared as a comprehensive program or a series of components, advancing completion of a program in

stages by addressing the most significant issues first--including resilience to climate change. Jaime will present the community driven process for developing and adopting an LWRP and the local laws to implement it.

Jaime Ethier has been a Coastal Resources Specialist with the NYSDOS Office of Planning and Development for nearly 10 years. While at NYSDOS, he has worked with communities in the Hudson Valley and on Long Island to develop land and water use plans including LWRPs, downtown revitalization strategies, and long-term recovery strategies. He provides technical assistance to communities managing Environmental Protection Fund LWRP grant projects ranging from downtown revitalization to shoreline stabilization to climate resilience planning.

ROB FREUDENBERG

Vice President, Energy & Environment, Regional Plan Association (RPA)

Confronting the Threat of Sea Level Rise in the New York City Metropolitan Area

Sea level rise has already begun to affect communities and critical infrastructure in the NYC metropolitan region, and presents tough decisions for vulnerable areas. Actions must be taken now to adapt the places most at risk by determining where engineered solutions can best keep water out, where people can try to live with higher seas, and how communities can begin to phase out new development and retreat from some places over the coming decades. Rob will overview the approaches RPA has been promoting and give examples of successful coastal retreat initiatives.

Robert Freudenberg is vice president of RPA's energy and environmental programs, leading the organization's initiatives in areas including climate mitigation and adaptation, open space conservation and park development, and water resource management. Rob has been with RPA since 2006 and most recently served as New Jersey director, where he managed the state program with a focus on sustainability planning and policy. Prior to joining RPA, Rob served as a coastal management fellow at the National Oceanic and Atmospheric Administration.

JILIAN CAHAN GERSTEN

Director of Development, LUMBERYARD Contemporary Performing Arts

Landscape Performance: Climate-Adaptive Design Strategies for LUMBERYARD Contemporary Performing Arts

LUMBERYARD Contemporary Arts is embarking on renovations of a former lumberyard and adjacent historic sites abutting the Catskill Creek in Catskill, NY into a state-of-the-art performing arts complex that will include an outdoor public space on the waterfront. In conceiving of the project, LUMBERYARD has partnered with student Garrett Craig-Lucas and the team at Cornell's Climate-Adaptive Design Studio, the Village of Catskill, and others to devise a site plan that takes into consideration--and indeed embraces--the site's location alongside a rising floodplain. Excerpts from the resulting recommendations for the public/performance plaza, including schematic design renderings, sea-level rise predictions, and responsive performance/production ideas, will be presented alongside pragmatic next steps in terms of adaptive re-use of the existing buildings on the site.

A lifelong New Yorker, Jilian Cahan Gersten is Director of Development at LUMBERYARD, a leading contemporary dance and performance institution currently renovating a future residency and performance complex in Catskill, NY while maintaining NYC-based programs. Jilian has several times been a key participant in organizations that have built or renovated homes that helped catalyze creative placemaking.

JEFF HERTER

Gateway Project Manager, NYSDOS Office of Planning and Development

The Geographic Information Gateway: Yours for the Using

The Geographic Information Gateway (Gateway) is a state-of-the-art website providing public access to data, real-time information, and interactive stories. This presentation will provide a brief demonstration of the Gateway's structure, available information, and functions, and an introduction to Stories on the Gateway.

At the NYSDOS Office of Planning and Development, Jeff Herter's responsibilities include risk area mapping for use in resilience planning, supervising the State's coastal consistency program, managing the Gateway project

and development team, and facilitating acquisition and incorporation of ocean and Great Lakes information into the State's offshore planning process. He was GIS Unit Supervisor for the Office prior to his current position. He also served as a Coastal Development Specialist in upstate New York.

ROLAND LEWIS

President and CEO, Waterfront Alliance

Waterfront Edge Design Guidelines (WEDG): A Framework for Sustainable Waterfront Development

With input from waterfront communities, design experts, and government agencies, the Waterfront Alliance created Waterfront Edge Design Guidelines (WEDG). The goal of this credit-based ratings system is to make waterfronts more resilient, environmentally healthy, accessible, and equitable for all. WEDG is doing for the waterfront what LEED® has done for buildings. After establishing a successful track record in New York City, the program is poised to expand to other regions.

A lifetime New Yorker, Roland took the helm of the Waterfront Alliance in 2007. Under his leadership, the Waterfront Alliance has organized a growing constituency for a vibrant, healthy, resilient, and accessible waterfront; instituted programs to provide water access; and become the leading waterfront policy organization in the New York region. Previously, he was Executive Director of Habitat for Humanity NYC, which he guided to become a national model of Habitat urban success, and was a practicing law partner for nine years.

MARK LOWERY

Climate Policy Analyst, NYSDEC Office of Climate Change

The Community Risk and Resiliency Act: Mainstreaming Consideration of Climate Change

Enacted in September of 2014, the Community Risk and Resiliency Act aims to ensure that certain state monies, facility-siting regulations, and permits include consideration of the effects of climate risk and extreme-weather events. To fulfill a primary provision of the act, the state recently adopted official SLR projections. Mark will describe the projections and NYSDEC's approach to incorporating them into regulatory and funding decisions.

A 29-year veteran of NYSDEC, Mark Lowery has served as a climate policy analyst in the Office of Climate Change

since its formation in 2007. Since joining the office, his principal areas of responsibility have included leading public outreach efforts for the Regional Greenhouse Gas Initiative, Sea Level Rise Task Force, and climate action planning. Mark is the office's lead on climate-change adaptation and is coordinating implementation of the Community Risk and Resiliency Act.

KYTT MACMANUS

GIS Programmer, CIESIN; Adjunct Lecturer, Columbia University

The Hudson River Flood Impact Decision Support System

This tool visualizes storm surge and rising sea levels to evaluate their combined projected flooding extent. Users can choose sea level scenarios from 0 to 6 feet above the base mean sea level of 1983-2001, and storm frequency scenarios ranging from the 5-year to the 1000-year flood. Critical infrastructure such as transportation and emergency services can be viewed along with the flood maps to identify those that will be vulnerable to flooding now, and potentially in the future. Impact data is made available for download and flood scenarios are provided as interoperable open standard web services.

Kytt MacManus is a Geographic Information System (GIS) Programmer for CIESIN at Columbia University, and an Adjunct Lecturer of GIS in the Columbia University Ecology, Evolution, and Environmental Biology Department, and at the School of International and Public Affairs (SIPA). He is an expert in GIS with substantial experience in global dataset development for the NASA Socio-economic Data and Applications Center (SEDAC). An experienced web-GIS application developer and python programmer, his research interests include the development of data driven web applications for decision support; the integration of global population and housing census; and the use of Python for Scientific Computing.

MATT MARAGLIO

Coastal Resources Specialist, NYSDOS Office of Planning and Development

Decision-Making Roles: Who is Responsible for the Future of Our Shorelines?

Hudson River waterfront properties are owned and managed by a diversity of stakeholders – but who controls how these shorelines are developed? What regulations apply? Matt will provide an overview of the

authorities held by local, state, and federal agencies, and will illustrate this mosaic of jurisdictions through several decision-making scenarios that are commonly encountered by communities and agencies.

Matt Maraglio has been involved in coastal consistency review for nearly a decade in his position at NYSDOS. He specializes in coastal energy projects and other special projects, as well as regulatory compliance. Before joining NYSDOS, Matt worked briefly in the private sector conducting stormwater compliance inspections for large-scale housing developments, and monitored stream restoration projects in the New York City water supply watershed at the Greene County Soil and Water Conservation District.

KRISTIN MARCELL

Climate Resilience Project Coordinator, NYSDEC Hudson River Estuary Program/Cornell Water Resources Institute

Adaptation Success in the Hudson River Estuary

Communities, businesses, and individuals have made considerable progress in adapting to flooding and erosion in recent years. Municipalities have secured funding from the NYSDEC Estuary Program and Climate Smart Communities Program, NYSDOS Local Waterfront Revitalization Program, and other sources to conduct vulnerability assessments, feasibility studies on critical infrastructure, and review zoning to improve flood resiliency. Kristin will overview some of these efforts to date and discuss the future of sea level rise and flood adaptation planning in the estuary.

Kristin Marcell coordinates the Climate Resilience Program for the NYSDEC's Hudson River Estuary Program. The Resilience program develops partnership projects that benefit communities facing challenges from flooding, erosion, and drought. She is currently leading a team to develop guidance for evaluating nature-based solutions, such as living shorelines, wetlands, and floodplains, in order to reduce climate-related risk in projects subject to state permitting and funding programs.

DANIEL MILLER

Habitat Restoration Coordinator, NYSDEC Hudson River Estuary Program/NEIWPC

Sustainable Shorelines: Improving Engineered Shoreline Habitats

Approximately 40 percent of the Hudson River estuary shoreline is hardened, or armored, with treatments such as bulkhead and rip-rap, reducing the ecological function of these critical shore zones. As the river rises and hardened shoreline infrastructure of the estuary ages, much of it will need to be repaired or replaced to maintain existing human-use functions such as property protection, river access, and transportation. Replacement of these sites can be designed to include natural and nature-based features in an effort to improve habitat value and ecological function. Dan will describe ongoing projects in the Hudson River estuary that are demonstrating methods of improving the habitat values of engineered shorelines.

As Habitat Restoration Coordinator for the NYSDEC Hudson River Estuary Program, Dan Miller works with state and federal agencies to identify opportunities to restore habitats in the estuary that have been lost or degraded. He also provides technical assistance to communities and non-governmental organizations seeking to restore estuarine habitats including shorelines and shallows in the Hudson and fish passage in tributary streams. Dan is a native of Dutchess County.

STEVE NOBLE

Mayor, City of Kingston

Waterfront Resilience and Adaptation in the City of Kingston

As a Certified Bronze Climate Smart Community and designated Clean Energy Community, the City of Kingston has been a leader in climate planning and sustainability. Situated on the banks of both the Hudson River and tidal Rondout Creek, the City has seen flooding on all its waterfronts. Following destructive flooding of Kingston's Rondout district during Hurricane Irene in 2011, the City formed the Tidal Waterfront Flooding Task Force to work with regional partners to assess its waterfront risk and charter a path to increasing its flood resiliency. Following up on this planning effort, the City has secured funding and advanced its waterfront flood resiliency goals through various multi-partner efforts including: an assessment of its wastewater treatment plant, an extensive Brownfield Opportunity Areas plan,

Climate-Adaptive Design studios with Cornell University, shoreline stabilization waterfront design, pedestrian promenades, a Natural Resources Inventory and Open Space Plan, among others. Mayor Noble will discuss the City's waterfront adaptation efforts and successes and their regional replicability.

Steve Noble has been Mayor of Kingston since January 2016, prior to which he served a ten year career as an Environmental Educator and then Environmental Operations Specialist for the City of Kingston. Mayor Noble's unique background in environmental stewardship, conservation, sustainability, and youth services plays a critical role in his administration's planning and strategies. Steve's commitment to public service extends beyond his career with the City of Kingston; he has held leadership positions with the Ulster County Resource Recovery Agency, Environmental Management Council, and the Hudson River Estuary Management Advisory Committee, and is the co-founder of the Kingston Land Trust.

SACHA SPECTOR

Program Director for the Environment, Doris Duke Charitable Foundation

Looking Ahead: Planning, Adapting, and Restoring for a New Normal

The waters and shorelines of the Hudson River estuary are facing a new set of challenges: sea level rise due to climate change, flooding from intense storms, and increased development as communities and people are drawn to the river. Sacha will discuss some of the climate changes underway, their potential impacts on the Hudson River estuary and waterfront assets, and priorities for fostering greater resiliency in the Hudson's natural systems and riverfront communities.

In his position at the Doris Duke Charitable Foundation, Sacha Spector oversees all environmental conservation grant-making of the foundation. Previously, he was Director of Conservation Science at Scenic Hudson, leading the group's efforts on climate change, land conservation planning, and natural resource stewardship. Sacha developed sea level rise and climate change adaptation initiatives in close cooperation with Hudson Valley communities and state agencies while prioritizing land acquisitions and ecological restoration projects focused on the region's most biologically important sites.

NAVA TABAK

Acting Director of Conservation Science, Climate & Stewardship, Scenic Hudson

The Sea Level Rise Mapper: Essential Information for Waterfront Planning

Scenic Hudson's Sea Level Rise (SLR) mapper was designed to help Hudson River waterfront communities and other stakeholders assess future tidal inundation and flood risk, and to plan for resilience and adaptation. Users can visualize SLR in 6 inch increments up to 6 feet, and download a report summarizing the projected impacts of different sea levels on community assets. Nava will demonstrate the use of the mapper, and provide information on upcoming updates to the tool to further assist waterfront stakeholders.

Nava Tabak is a conservation scientist with over 15 years of experience in natural resource assessment, GIS analysis, and applied conservation practice. She has worked to conserve natural resources in the Hudson Valley since 2006, most recently focusing on projecting and mitigating the impacts of sea level rise on the Hudson River's tidal wetlands and waterfront communities.



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