

BROOKLYN WATERS

SEA LEVEL RISE,
SUSTAINABILITY, and
RESILIENCE along the
BROOKLYN WATERFRONT

APRIL 20, 2018
9:00 am - 4:00 pm

BROOKLYN BOROUGH HALL
209 JORALEMON ST.
BROOKLYN, NY 11201

BROOKLYN
BOROUGH HALL



Annual Conference 2050

NEW YORK WATER TAXI

Brooklyn Waterfront Research Center, New York City College of Technology:

Richard E. Hanley, Director, BWRC and Emeritus Professor of English

Sean Scanlan, Associate Director, BWRC and Associate Professor of
English

Anne Leonard, Geospatial Coordinator, BWRC and Associate Professor,
Ursula Schwerin Library

Robin Michals, Staff Photographer, BWRC and Professor of
Photography

Peter Spellane, Fellow, BWRC and Associate Professor of Chemistry

Celia Castellán, Project Coordinator, BWRC

BWRC Advisory Board:

Hon. Eric Adams, Brooklyn Borough President represented by Richard Bearak

Sapna Advani, Grain Collective

Reginald Blake, New York City College of Technology

Andrew Genn, NYC Economic Development Corporation

Andrew Hoan, Brooklyn Chamber of Commerce

Brian Hughes, Hughes Brothers, Inc

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Eric Landau, Brooklyn Bridge Park Corporation

Robert Levine, RAL Companies & Affiliates LLC

Tom Outerbridge, SIMS Municipal Recycling

Jonathan Peters, College of Staten Island

Michael Stamatis, Red Hook Container Terminal, LLC

Roberta Weisbrod, Partnership of Sustainable Ports

Valerie White, Brooklyn Navy Yard Development Corporation

Dan Wiley, Congresswoman Nydia Velázquez

Special Thanks:

Eric L. Adams and the Office of the Brooklyn Borough President

Julia Jordan, Director, Faculty Commons, New York City College of Technology

MESSAGE FROM THE DIRECTOR

Two days from now, on Sunday April 22, the world will mark another Earth Day, an annual celebration of our planet and the efforts being taken to protect its environment from pollution in its many forms. That pollution has fouled the Earth's air and poisoned its waters, endangering many of the planet's life forms. But perhaps the effect of pollution that is most dangerous to humankind, as well as to other species, is the effect that pollution has had on the Earth's climate, warming the atmosphere and with it, the land and the seas.

While the slogan for Earth Day is to "act locally and think globally," today we are going to think only locally. Specifically, we are going to think about how the Brooklyn waterfront is threatened by storm surges and sea level rise, two distinct but interrelated phenomena caused by a warming climate. Brooklyn already had a taste of what these phenomena might unleash when, in October 2012, Superstorm Sandy hit New York City.

Today the Brooklyn Waterfront Research Center is pleased to bring together a group of diverse, thoughtful, and accomplished speakers to guide us through a discussion of sea level rise, sustainability, and resilience. The morning session will open with three speakers setting the context for the day. We will hear how the Brooklyn waterfront was formed—by nature and by humans; we will hear the most up-to-date science on the impacts of climate change and New York City; and we will hear how the City is planning for these impacts.

The first panel will show us how the communities of the Brooklyn waterfront reacted to Sandy, but more importantly, how they are now planning to become resilient in the face of the next Sandy. We will hear from an architect talking about protecting high-rise residential buildings and from a community leader explaining what resilience means in the context of public housing in Red Hook. We will also hear about small

home owners in the south and the new insurance issues they will be facing. The steps that large industrial sites such as the Brooklyn Navy Yard are taking will be outlined as will new guidelines that have been promulgated for building along the waterfront.

Two jewels of the Brooklyn waterfront, one constructed and the other natural—Brooklyn Bridge Park and Jamaica Bay—will be the focus of the afternoon panel. How the areas protect as well as need protection will be the focus of speakers who are devoted to preserving these ecosystems. The third and final session of the day will be a round-table discussion giving speakers and audience members the opportunity to look ahead—speculating, dreaming, and perhaps, fearing for the communities along Brooklyn’s waterfront. They will again raise difficult and complex issues of equity and justice, topics that will inform all the discussions of the day.

We hope that you find this day’s discussions informative and inspiring and will encounter Sunday’s Earth Day celebration with a new appreciation and concern for our corner of the planet here along the Brooklyn waterfront.

Richard E. Hanley, Director

Brooklyn Waterfront Research Center



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#BKresilient
#BWRC
#CityTech**

PROGRAM SCHEDULE

9:00 – 9:15 **Registration and Continental Breakfast**

9:15 – 9:30 **Welcoming Remarks and Introductions**

Russel K. Hotzler, President, New York City College of Technology (CUNY)

Richard E. Hanley, Director, Brooklyn Waterfront Research Center

9:30 – 10:15 **Setting the Context**

Julie Golia, Director of Public History, Brooklyn Historical Society

Cynthia Rosenzweig, Senior Research Scientist, NASA Goddard Institute for Space Studies and Co-Chair, New York City Panel on Climate Change

Michael Marrella, Director of Waterfront and Open Space Planning, New York City Department of City Planning

10:15 – 10:30 **Coffee Break**

10:30 – 12:15

Panel One: A Waterfront Transformed: Exploring Civic, Government, and Design Responses to Sea-level Rise and Storm Surge

Moderator:

Benjamin Shepard, Professor, Department of Human Services, New York City College of Technology (CUNY)

Panelists:

Eran Chen, Founder and Executive Director, ODA New York

Clare Newman, Chief of Staff and Executive Vice President, Brooklyn Navy Yard Development Corporation

Tevina Willis, Local Leaders Facilitator, Red Hook Initiative

Caroline Nagy, Deputy Director for Policy and Research, Center for NYC Neighborhoods

Kate Boicourt, Program Manager, Waterfront Alliance

12:15 – 1:35

Lunch in the Community Room, First Floor

1:45 – 2:45

Panel Two: Brooklyn’s “Soft” Edges

Moderator:

Reginald Blake, Professor, Department of Physics, New York City College of Technology (CUNY)

Panelists:

David Lowin, Executive Vice President, Brooklyn Bridge Park

Adam Parris, Executive Director, Science and Resilience Institute at Jamaica Bay

John McLaughlin, Managing Director, Office of Ecosystem Services, Green Infrastructure, and Research, NYC Department of Environmental Protection

Lauren Cosgrove, Northeast Program Manager, National Parks Conservation Association

2:45 – 3:00

Break

3:00 – 4:00

Resiliency and Beyond: A Round Table on the Future of Planning, Governing, and Designing within a Climate-Altered Future

Moderator: Roland Lewis, President and CEO, Waterfront Alliance

Discussants:

Carlos Menchaca, Council Member, New York City Council, District 38

Sam Hersh, Policy Advisor for Coastal Resiliency, Mayor’s Office of Recovery and Resiliency

Illya Azaroff, Associate Professor, Department of Architectural Technology, New York City College of Technology (CUNY) and Founding Principal, +LAB

Reginald Blake, Professor, Department of Physics, New York City College of Technology (CUNY)

The Last Word:

Richard E. Hanley, Director of the Brooklyn Waterfront Research Center

BIOGRAPHIES



Illya Azaroff

Illya Azaroff, AIA, Associate Professor at New York City College of Technology (CUNY), and founding principal of +LAB architect PLLC, a leader in disaster mitigation, resilient planning strategies and design. Currently, he is working with FEMA/ANCR on developing curriculum for resilience as well as with the City of New York on the 2019 Hazard Mitigation Plan. Prior, Azaroff served as a Technical Advisor to Assistant Secretary for Preparedness and Response informing the National Disaster Recovery Framework. He served as a subject matter expert with the Rockefeller Foundation 100 Resilient Cities, and his studio is engaged in resilient

planning and design projects, including resilient residential prototypes under construction in Breezy Point New York. In 2014 he received the AIA National Young Architect Award, and is founding co-chair of both the DfRR and the AIA Regional Recovery Working Group, receiving the 2015 component Excellence Award. Azaroff is currently serving on the AIA National Strategic Council 2016-2018.



Reginald Blake

Reginald Blake is a Professor of Physics at New York City College of Technology. He is a geo-physicist who has a rich and extensive background in hydro-climatology, climatology, climate change and climate change impacts, hydrology, satellite and ground-based remote sensing, meteorology, physical oceanography, and air pollution. He is a member of the Climate Impacts Group at NASA Goddard Institute for Space Studies in New York City, and he is a member of Columbia University's Earth Institute's Urban Climate Change Research Network. He is also a member of

the New York City Panel on Climate Change (NPCC), a group of climate science experts that regularly provides the Mayor of New York with the latest climate science that addresses climate risks, adaptation, mitigation, vulnerabilities, and resilience for the City. Blake is a scientist with the National Oceanic and Atmospheric Administration's Center for Earth System Sciences & Remote Sensing Technologies (NOAA-CREST) and its associated CUNY CREST Institute, and he is the director of New York City College of Technology's Center for Remote Sensing and Earth System Sciences.



Kate Boicourt

Kate Boicourt is the Waterfront Alliance's program manager for the Waterfront Edge Design Guidelines (WEDG), a LEED-like rating system and program that supports resilient, accessible, and sustainable waterfront design. Prior to her work at the Waterfront Alliance, Boicourt served in multiple roles focused on coastal issues and climate change, from managing the development of a Climate Change Adaptation Plan for the State of Maryland to serving as program manager for habitat restoration at the NY-NJ Harbor & Estuary Program here in New York. She holds a Master of

Environmental Science from Yale and a BA from Kenyon College.



Eran Chen

Eran Chen is the founder and Executive Director of ODA New York. Since establishing the office in 2007 he has become one of the most prolific and influential architects in New York. Chen has gained a reputation for delivering imaginative designs that are radically innovative as well as socially, ecologically, and fiscally responsible. Seeking to reorder architectural priorities by putting people first, Chen challenges conventional perspectives of dwelling with hope that it will, over time, influence life in our cities. His work has been recognized by the American Institute of Architects and the Society of American Registered Architects. Chen graduated with

honors from the Bezalel School of Art and Design in Jerusalem, where he serves on the board and as guest lecturer. He is a frequent speaker at design and development forums around the world, as well as architecture schools including Columbia University, Clemson University, Syracuse University, Carnegie Mellon School of Architecture, and The Technion.



Lauren Cosgrove

Having grown up in New England as a Brooklyn native, Lauren Cosgrove currently serves as a Program Manager for National Parks Conservation Association's (NPCA) Northeast Region. Since she started with NPCA in 2014, Cosgrove has worked to bolster nation-wide park funding, restore natural, historical, and cultural resources, and build a movement for community-led stewardship and advocacy. Her urban programs are anchored at both New York City's Jamaica Bay unit of Gateway National Recreation Area and the greater Boston area, allowing her to drive federal funding to our national historic sites while also working to improve access to waterfront national

recreation areas. As a board member of the Coney Island Beautification Project, Cosgrove plays a vital role in bringing together gateway communities in response to environmental hazards through beautification, education, and advocacy. She sits on the Citizen Advisory Committee for the NY Governor's Office of Storm Recovery Living Breakwaters project in Staten Island, New York. Cosgrove is a graduate of St. Michael's College in Vermont and is currently pursuing an MBA in Sustainable Business at Baruch College, CUNY.



Julie Golia

Julie Golia is the Director of Public History at Brooklyn Historical Society (BHS). Golia has curated several major exhibitions at BHS, most recently "Waterfront," which covers 20,000 years of history along Brooklyn's coastline and is housed in BHS's new satellite museum, Brooklyn Historical Society DUMBO. She is the co-host and co-producer of BHS's podcast Flatbush + Main, as well as the co-founder and editor of TeachArchives.org, a robust educational website that brings innovative teaching exercises and articles on pedagogy to a national audience. Golia received her Ph.D. from Columbia University. She is currently finishing her book, a cultural history of newspaper advice columns in early twentieth-century America.



Sam Hersh

Sam Hersh is the Policy Advisor for Coastal Resiliency at the Mayor's Office of Recovery and Resiliency. In this role, he covers policy concerning long-term operations and maintenance of flood protection infrastructure and works with federal, state, and city partners to drive a multi-billion-dollar portfolio of coastal resilience infrastructure projects. Previously Hersh was an Urban Fellow with the City of New York. He has also worked in finance, economic consulting, and transportation advocacy. Hersh is a graduate of Haverford College with a degree in Growth and the Structure of Cities.



Russell Hotzler

In 2004 Russell Hotzler became the eighth president of New York City College of Technology/CUNY. A native New Yorker, Hotzler holds BS and MS degrees in metallurgical engineering and a PhD in physical metallurgy from the Polytechnic Institute of Brooklyn. Hotzler has served as University Vice Chancellor for Academic Planning and as Interim President at several CUNY Colleges before joining City Tech. During his tenure at City Tech, enrollments have risen by over 50 percent to 17,300 and the number of full-time faculty has also risen by 50 percent to 415. Major facilities have been renovated and work is underway on the College's first major construction project in over 30 years—a building that will house the College's science and clinical health programs. City Tech is seen today as a significant source of the highly educated technical workforce necessary to the economic vitality of New York.



Roland Lewis

Roland Lewis is President and CEO of the Waterfront Alliance. A lifetime New Yorker, Lewis studied planning and law at Columbia and Rutgers Universities. After nine years as a partner at a law firm, he became Executive Director of Habitat for Humanity NYC where he guided it to become a national model of habitat urban success. In 2007, Lewis took the helm of the Waterfront Alliance. 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 has become the leading waterfront policy organization in the New York region.



David Lowin

David Lowin is the Executive Vice President at Brooklyn Bridge Park. In that role he has been responsible for overseeing the real estate development program that will generate the funds to maintain and operate the Park. Lowin also oversees the Park's concessions program, maritime maintenance program, special projects, and the long-term strategic financial planning. From October 2016 until April 2017, he served as the Interim President of the Park. Prior to joining Brooklyn Bridge Park, Lowin worked for the Clarett Group, a private development firm. He has also previously served as the Vice President of Planning and Development at the Brooklyn Navy Yard Development Corporation, and as an Associate Vice President at the New York City Economic Development Corporation. Lowin holds a BA in Economics from Johns Hopkins University and a Master's in City Planning from the University of Pennsylvania.



Michael Marrella

Michael Marrella is the Director of Waterfront and Open Space Planning for the New York City Department of City Planning. He is responsible for directing waterfront land use policy for the agency and oversees the agency's climate resiliency planning portfolio. Marrella also advises the Chair and members of the City Planning Commission on the planning and land use issues affecting waterfront and open space areas, manages the staff of the Waterfront and Open Space Division, and acts as the primary liaison to a wide range of stakeholders including elected officials, community organizations, and private sector entities on matters of land use, zoning, and economic development related to waterfront and open space. He is also an adjunct professor at both Hunter College and the Pratt Institute. Born in New York City, Marrella holds a Master in City Planning from MIT and a BA from Vassar College.



John McLaughlin

John McLaughlin is the Managing Director of the Office of Ecosystem Services, Green Infrastructure and Research with the New York City Department of Environmental Protection (DEP). He is the Bureau Director's senior advisor on the design and implementation of citywide ecosystem restoration projects and NYC Parks onsite green infrastructure projects. McLaughlin has been in the ecological restoration field for 31 years, 26 of those years with DEP. Prior to coming to DEP, he worked at the New York City Department of Sanitation and was part of team of professionals charged with the ecosystem rehabilitation and the restoration of lost environmental function of Fresh Kills Landfill. He has developed, implemented, and collaborated on many large-scale ecological designs for inactive hazardous waste landfills, freshwater and tidal wetlands, coastal woodlands and grasslands. He also manages the updates to the ecological and water quality strategies of the Department's *Jamaica Bay Watershed Protection Plan*. McLaughlin holds degrees in Ornamental Horticulture and Biology.



Carlos Menchaca

New York City Council Member Carlos Menchaca is Chair of the Committee on Immigration and a member of the LGBT Caucus. He authored, introduced, and passed legislation to create the first municipal identification card program in New York City and worked to secure funding for the largest public defender program for undocumented immigrants in the nation. Menchaca represents an incredibly diverse district of front-line communities in New York: a large Chinese and Latino immigrant population, the second-largest public housing development in the City, and a waterfront community that was heavily affected by Hurricane Sandy. After a successful first round of participatory budgeting last fiscal year, Menchaca plans to bring a broader vision of participatory democracy to this diverse district by encouraging community involvement in the entire budget, legislative, and policy-making process.



Caroline Nagy

Caroline Nagy is the Deputy Director for Policy and Research at the Center for NYC Neighborhoods. Her work is focused on the foreclosure crisis, affordable homeownership, and the impact of climate change on New York City's coastal communities. Her research has been cited in *The New York Times* and *The Wall Street Journal*, and she regularly provides expert testimony on housing policy issues to the New York City Council and New York State Legislature. Nagy has also served as a policy advocate for children experiencing homelessness at Citizens' Committee for Children of New York, and conducted urban policy research at the NYU Furman Center for Real Estate and Urban Policy. She received a JD from NYU School of Law, and a BA and MA in Political Science from Ohio University.



Clare Newman

Clare Newman serves as Chief of Staff and Executive Vice President of the Brooklyn Navy Yard Development Corporation (BNYDC). As Chief of Staff, Newman focuses on implementing a suite of projects that, together, will bring 10,000 jobs to the Yard by 2020, and on planning for future development. She comes to BNYDC from Bloomberg Philanthropies where she was a senior leader on the Government Innovation team. In that role Newman led the Mayors Challenge, an international competition to inspire and incentivize cities to generate innovative ideas to solve major urban challenges. Previously, she was a Vice President at NYCEDC. At NYCEDC, she executed key projects including the restoration of Kings Theatre, the city's bike share program, and the Applied Sciences initiative. Newman received a Masters of Urban Planning from GSAPP at Columbia University and a B.A. with honors in Political Economy from Williams College. She is a member of the boards of TransitCenter and Women in Housing and Finance.



Adam Parris

Adam Parris serves as the Executive Director of the Science and Resilience Institute at Jamaica Bay in New York City, a partnership between governmental, research, and community organizations aimed at improving resilience in the region's coastal waters. Previously, he helped develop the Sea Level Rise Tool for Sandy Recovery, an effort to integrate science on future sea level rise with flood insurance information for rebuilding and recovery efforts. From 2010 – 2015, Parris directed NOAA's Regional Integrated Sciences and Assessments (RISA) program, a national effort to connect science to climate adaptation and preparedness decisions in different regions across the US. With over 50 scientists from the RISA program, he co-edited and co-authored *Climate in Context: Science and Society Partnering for Adaptation*, an in-depth exploration of techniques for producing usable knowledge and climate services. Parris won a Presidential Green.gov award as Climate Champion, a NOAA Administrator's Award, and a Bronze medal from the Department of Commerce. He holds a Bachelor's degree in English Literature and Environmental Geology from Bucknell University and a Master of Science in Geology from the University of Vermont.



Cynthia Rosenzweig

Cynthia Rosenzweig is Senior Research Scientist, NASA Goddard Institute for Space Studies, and she leads the Climate Impacts Group at NASA GISS in New York City. She is Co-Director of the Urban Climate Change Research Network (UCCRN) and Co-Editor of the newly published Second Assessment Report on Climate Change and Cities (ARC3.2). She was Co-Chair of the Urban Thematic Group for the UN Sustainable Development Solutions Network (SDSN) and the Campaign for an Urban Sustainability Development Goal (SDG). She co-led the Metropolitan East Coast Regional Assessment of the U.S. National Assessment of the Potential Consequences of Climate Variability and Change, sponsored by the U.S. Global Change Research Program. She was named as one of "Nature's 10: Ten People Who Mattered in 2012" by the journal *Nature*, for her work preparing New York City for climate extremes and change.



Benjamin Shepard

By day, Benjamin Shepard works as Professor of Human Services at New York City College of Technology. By night, Shepard battles to keep New York from becoming a giant shopping mall. To this end, he has worked with numerous organizations, including: AIDS Coalition to Unleash Power (ACT UP), SexPanic!, Reclaim the Streets, Times Up!, the Clandestine Rebel Clown Army, Absurd Response, CitiWide Harm Reduction, Housing Works, Right of Way, Occupy Wall Street, Occupy the Pipeline, Occupy Sandy, Center for Popular Democracy, and the Professional Staff Congress of the City University of New York, where he is a chapter chair at New York City College of Technology. Shepard is also the author and editor of eleven books including his most recent, *Brooklyn Tides* (with Mark Noonan, Transcript Verlag).



Tevina Willis

Tevina Willis is a lifelong Brooklynite, community organizer, educator, resident of Red Hook Houses, and Local Leaders Facilitator at the Red Hook Initiative. Willis participated in the first cohort of Local Leaders five years ago and today runs the English-speaking program. Shortly after graduating from the Local Leaders program, she founded her own non-profit organization which trains residents in community organizing and builds the capacity of local non-profits. Willis joined RHI as a staff member in 2016, and in addition to her work with the Local Leaders program, she organizes and manages the Red Hook Hub, an online and physical community bulletin board. She is very passionate about helping her community members to become advocates who can make positive change for themselves and their neighborhood.

BWRC CONFERENCE PLANNING STAFF



Celia Castellan

Celia Castellan is the Project Coordinator at Brooklyn Waterfront Research Center. Prior to BWRC, Castellan served as a Senior Organizer with Transportation Alternatives and managed numerous winning campaigns to redesign New York City's most dangerous streets into people- and transit-friendly corridors. In addition to her organizing, she has served in project management roles for both New York Immigration Coalition and New York Cares. Currently, Castellan is pursuing her MA in Liberal Studies at The Graduate Center (CUNY) with a focus on urban social

movements and urban policy. She received her BA in Urban Studies and Hispanic Studies from Vassar College.



Richard E. Hanley

Richard E. Hanley, the Director of the Brooklyn Waterfront Research Center, is an Emeritus Professor of English at New York City College of Technology. He is the founding editor of the *Journal of Urban Technology*, an international academic journal devoted to the study of the effects of technologies on cities and of the ways cities shape and employ technologies. Hanley, who holds a PhD in English and American literature from Binghamton University, is also the chairman of the board of the CUNY Institute for Urban Systems, whose mission is to shape the next generation of urban infrastructure through studies of financing options, technology integration, and

management innovations. The Institute's Building Performance Laboratory has been a major undertaking towards these ends.



Robin Michals

Robin Michals is a photographer specializing in urban landscape with a focus on the de-industrialized waterfront. Since 2010, she has been developing *Castles Made of Sand*, a series about low-lying areas that are being adversely affected by sea level rise. In 2015, Michals was a visiting artist at the Brooklyn Navy Yard in 2015. Her work has been seen at St. Peter's Church, the Alice Austen House, the Hudson Valley Center for Contemporary Art, the Brooklyn Historical Society, and the Davis Orton Gallery among other venues. She teaches photography at New York City College of Technology. She lives in Brooklyn.



Marlon Palmer

Marlon Palmer is a senior at New York City College of Technology where he is studying Graphic Design. He's been a design intern at NYCCT's Faculty Commons since 2014 where he has worked on many projects including Scholars Exchange and *Nucleus*.



Sean Scanlan

Sean Scanlan is Associate Director at the Brooklyn Waterfront Research Center. He is an Associate Professor of English at New York City College of Technology. Scanlan's teaching and research interests include: global homesickness, New York City history and literature, and the effect that technology has on reading and writing. He has published on nostalgia, homesickness, and globalization in the journal *Style* and in the collection *The City Since 9/11*. He received his PhD from the University of Iowa (English) and is the founder and editor of the online, interdisciplinary, peer-reviewed journal *NANO: New American Notes Online* (www.nanocrit.com).

Notes:



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