



Great Water Cities Summit 2017

Invest4Resilience

Marriott Marquis | New York City | May 15 – 16, 2017



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Program Overview

Great Water Cities are the bedrock for communities and businesses. They must be resilient and stable so that citizens and the economy built around them can grow. The Great Water Cities Summit 2017 - Invest4Resilience, in New York City, on May 15 - 16, 2017, hosted by the Water Environment Federation and the New York Water Environment Association, will explore physical and financial resilience and infrastructure investment tools that communities need to ensure reliable and wellmanaged systems. Partners for the summit are the Environmental Facilities Corporation of the State of New York, Department of Environmental Protection of New York City, and the International Water Association. Through the prism of what challenges communities will face in the future, experts from Main Street to Wall Street will discuss the most dependable and current financing resources utilities need to help their communities flourish.

If our nation is going to overcome the water infrastructure investment challenges we're currently facing and will be grappling with into the future, we need to develop the solutions today. As the stewards of a system of nearly 1.5 million miles of water and sewer lines in America we must be experts on the financing tools available to maintain and improve the system. Upgrades to treatment facilities will require innovative and bold leadership, as well as significant funding resources. Ratepayers and the public must understand that actions must be taken before systemic problems become compounded and insurmountable.

The Great Water Cities Summit 2017 will build upon a reoccurring area of interest from past Summits - financial resilience. Summit attendees will gather and discuss with leaders from across the infrastructure financing world ways to meet the challenges of today and tomorrow to finance utilities via both conventional and unconventional approaches.

Program

Monday, May 15, 2017

6:30 - 8:30 PM **RECEPTION**

4th Floor - Wilder Room

Tuesday, May 16, 2017

7:30 - 8:00 AM **REGISTRATION OPENS**

8th Floor - Manhattan Ballroom

8:00 - 8:30 AM CONTINENTAL BREAKFAST

8:30 - 8:40 AM **WELCOME**

8:40 - 9:00 AM **MORNING KEYNOTE**

KEYNOTE SPEAKER: Lykke Leonardsen, Program Director

Green City Solutions - City of Copenhagen

9:00 - 10:15 AM PANEL 1: PHYSICAL RESILIENCE - MANAGING RISK

Great Water Cities are more resilient because of how they innovatively manage risk. Planning for physical resilience encompasses rethinking how investments are made in the upgrade and repairs of existing assets so as to build resilience, as well as envisioning their future investment needs, such as for operations and maintenance and ongoing adaptation to shocks and stresses. Infrastructure maintenance and upgrades require great resources, partnerships and expertise – Great Water Cities invest in innovation, research and entrepreneurship as tools for managing risk. Panelists will discuss how they have managed the risks to their physical assets and how they see and plan on addressing future risks.

MODERATOR: Robin A. Barnes, Executive Vice President & COO, Greater New Orleans, Inc.

PANELISTS: Anthony Maracic, P.E., NYC DEP, Bureau of Wastewater Treatment, Director Asset Management and Capital Projects

Traci J. Minamide, P.E., B.C.E.E., Chief Operating Officer, City of Los Angeles, LA Sanitation.

Alex Kaplan, Senior Vice President, Global Partnerships, Senior Client Manager, Swiss Re.

Lynette Cardoch, Ph.D., National Director, Coastal Resiliency at HDR Inc.

10:30 - 11:45 AM PANEL 2: FINANCIAL RESILIENCE - FROM WALL STREET TO MAIN STREETS

Great Water Cities invest in financial resilience because it is the basis of a sustainable future. Wall Street and Main Street, partnering together, increases resilience and strengthens investments that support growing communities. In the United States and around the world, communities' leaders, investors and stakeholders have combined forces to build resilient financial mechanisms and products that innovate and grow, making their future brighter and more secure. Speakers in this panel will explore how sound financial planning and investment together with innovative thinking can help Great Water Cities achieve their financial goals.

MODERATOR: Sabrina M. Ty, President & CEO, New York State Environmental Facilities Corporation

PANELISTS: Dean Fuleihan, Director, Office of Management and Budget, Board Member, Municipal Water Finance Authority, New York City

Tim Williams, Managing Director, Public Power & Utilities, **RBC** Capital Markets

Neil J. Flanagan Managing Director, Public Finance, Jefferies, LLC

Thomas Liu, Managing Director, Water and Wastewater/SRF Group, Bank of America Merrill Lynch

12:00 - 12:30 PM LUNCH

12:30 - 1:00 PM

LUNCH KEYNOTE

KEYNOTE SPEAKER: Daniel A. Zarrilli, PE, Senior Director, Climate Policy and Programs, and Chief Resilience Officer, NYC Office of the Mayor

1:00 - 1:15 PM

BREAK

1·15 - 2·15 PM

PANEL 3: WORKFORCE RESILIENCE - BUILDING THE TEAM OF THE FUTURE

Great Water Cities invest in workforce resilience by building the team of the future. Communities are investing in identifying what the team of the future will look like - comfortable with technology and innovation, adaptive, cross-trained, and engaged in their community. Resilient communities are investing in institutional elements that strengthen their workforce and plans for the team of the future, making sure they will address their needs. This panel will bring together leaders who are investing in a team of the future and workforce who will reflect their increasingly resilient investments.

MODERATOR: Michael J. Garland, P.E., Director of Environmental Services, Monroe County, NY

PANELISTS: Rudolph S. Chow, Director, Department of Public Works, City of Baltimore, MD

Harlan L. Kelly, Jr., General Manager, San Francisco Public Utilities Commission

Diana Jones Ritter, Deputy Commissioner, Bureau of Organizational Development, NYC Department of Environmental Protection.

2:15 - 3:00 PM

CASE STUDY AND DISCUSSION: INSURANCE DEFECTION

Should communities facing flood risk stop paying insurance and start resilient transformation?

This Case Study session will examine quantifiable examples of how flood risk-prone communities can approach physical resiliency at a neighborhood scale, through an evaluation of the current NFIP insurance program and other financing mechanisms. The examples will illustrate and compare the present value of various recovery-based financing against debt service on different phases of resilient capital projects. This session will be interactive to allow for a dialogue with the presenters.

PRESENTER: Peter Glus, P.E., B.C.E.E., City Executive for NYC and Director of North American Big Urban Clients, Arcadis.

3:00 - 3:30 PM

BREAK

3:30 - 4:15 PM

CASE STUDY AND DISCUSSION: FINANCIAL RESILIENCE

This Case Study session will focus on how to increase financial resilience by accounting for the full lifecycle of assets through alternative project delivery models. This highly interactive session will examine specific projects and provide the opportunity to dialogue with the presenters.

PRESENTERS: Andrew D. Sawyers, Ph.D., Director, Office of Waste Water Management, U.S. Environmental Protection Agency

Michael Patella, Senior Policy Advisor, Water Infrastructure and Resiliency Finance Center, U.S. Environmental Protection Agency

4:15 - 4:30 PM

WRAP-UP SYNOPSIS

4:30 PM

CONCLUDE

GWC Speaker Bios

KEYNOTE SPEAKER:

Lykke Leonardsen, Program Director Green City Solutions – City of Copenhagen

Lykke Leonardsen holds a Master's degree as an archaeologist and Master's degree in Public Policy. She is currently the Program Director for Resilient and Sustainable City Solutions in Copenhagen where she is responsible for the development and sharing of Copenhagen's work on creating a liveable city.

She has worked for the city of Copenhagen for nearly 20 years - in many different fields. This has included neighborhood regeneration, urban planning, parks and nature conservation and waste - and stormwater management. As part of her work she has been the driving force in the development of the Climate Adaptation Plan and the Cloudburst Management Plan for Copenhagen – a city-wide plan for controlling storm water in a 100-year storm - by using both green and grey surface infrastructure. The plan aims to use climate change adaptation for creating a greener and more liveable city. She has been instrumental in developing a strategy for integrating urban nature into the plan.

Currently, she is cooperating internationally with cities such as New York and Washington D.C., on sharing knowledge from Copenhagen's work with the Cloudburst Management Plan.

Daniel A. Zarrilli, P.E., Senior Director, Climate Policy and Programs, and Chief Resilience Officer, NYC Office of the Mayor

Daniel Zarrilli was appointed Senior Director of Climate Policy and Programs for the City of New York in January 2016 and is serving as New York City's Chief Resilience Officer, overseeing the Mayor's Office of Recovery and Resiliency, the Mayor's Office of Sustainability, the Mayor's Office of Environmental Coordination, and the City's OneNYC inclusive climate action program.

Prior to this, he was named the first Director of a new NYC Mayor's Office of Recovery and Resiliency in March 2014 and had served as the Acting Director of the NYC Mayor's Office of Long-Term Planning and Sustainability from February to December 2014. After Hurricane Sandy, he served on the Special Initiative for Rebuilding and Resiliency, a task force that developed an award-winning climate adaptation program for New York City.

Daniel was recently appointed by the NOAA Administrator to a 3-year term to the Sustained National Climate Assessment advisory board, is serving a 3-year term on FEMA's National Advisory Council, and is advising the State of Louisiana on its 2017 Coastal Master Plan update.

Previously, he was Senior Vice President for Asset Management at the New York City Economic Development Corporation and spent five years with Bechtel Infrastructure Corporation. Daniel is a New York State Professional Engineer and holds an MS in Civil and Environmental Engineering from MIT and a BS in Civil Engineering from Lehigh University. He resides in Staten Island with his wife and three children

MASTER OF CEREMONIES:

Pam Elardo, P.E., Deputy Commissioner of the Bureau of Wastewater Treatment, New York City

Pam Elardo joined the New York Department of Environmental Protection (DEP) as the Deputy Commissioner of the Bureau of Wastewater Treatment (BWT) in May 2016. DEP is responsible for the largest municipal wastewater utility in North America, protecting public health and the environment for over 8.5 million customers and the millions of others who work, visit, and recreate in the city and the region on a daily basis. BWT is responsible for treating 1.3 billion gallons of wastewater (on a dry day) by operating and maintaining 14 wastewater treatment plants, 96 pumping stations, 140 miles of interceptors, 497 regulator stations, eight laboratories, and marine vessels for transporting solids and monitoring water quality. In DEP, BWT is the largest bureau, which accounts for about half of the Department's annual capital expenditures of \$1.5 billion, manages an annual operating budget of \$400 million, and includes 1,800 employees.

Pam brings a wealth of experience in wide range of wastewater management issues. Prior to coming to New York City, she was the director of the King County Wastewater Treatment Division (WTD), one of the largest public wastewater utilities on the U.S. west coast in the Metropolitan Seattle area. Previous experience includes implementing the Clean Water Act regulations with the Washington State Department of Ecology and working in the water and sanitation sector as a U.S. Peace Corps Volunteer in Nepal.

Pam has also been engaged internationally on water and sanitation issues with Asia Development Bank, the World Bank, the Living Earth Institute (LEI), and other non-profit organizations.

Pam holds a master's degree in environmental engineering from the University of Washington and a bachelor's degree in chemical engineering from Northwestern University. She is a licensed Professional Engineer and Certified Group IV Wastewater Treatment Plant Operator.

PANEL 1: PHYSICAL RESILIENCE – MANAGING RISK MODERATOR:

Robin A. Barnes, Executive Vice President & COO, Greater New Orleans, Inc.

As the number two executive at Greater New Orleans, Inc. (GNO, Inc.), the regional economic development organization for Southeast Louisiana, Barnes oversees several major initiatives designed to create and protect jobs in the region. To turn environmental challenges into economic opportunity, resilience and job creation, Barnes has led the development of the region's Environmental Management industry and workforce sector and the Greater New Orleans Urban Water Plan. She has built new coalitions to engage the business community in restoration and resilience efforts, including the Coalition for Coastal Resilience & Economy in Louisiana, which is composed of key executives from diverse industries in the Greater New Orleans region. And, she runs RES/CON: The Global Resilience Summit.

Barnes also serves on the Sewerage and Water Board of New Orleans and the New Orleans Workforce Investment Board. In 2013 Barnes served on the Hurricane Sandy Rebuilding Task Force. Formerly, Barnes was Managing Director for Louisiana at Seedco Financial, now called TruFund Financial Services, a national nonprofit Commu-

nity Development Financial Institution. In 2006, she relocated from New York City to New Orleans to open Seedco Financial's Louisiana field office and run the organization's emergency business and economic recovery response to Hurricanes Katrina, Rita, Gustav and Ike, and the Deepwater Horizon Oil Spill. At Seedco Financial, Barnes deployed Federal funds totaling \$30 million for emergency grants and loans to a total of 1,000 small businesses in greater New Orleans. Also, she opened the Seedco Financial Southeast Louisiana Fisheries Assistance Center in Belle Chasse, Louisiana, the first business assistance center for commercial fisheries. Following 9/11, she managed small business recovery programs for Seedco.

PANELISTS:

Anthony Maracic, P.E., NYC DEP, Bureau of Wastewater Treatment, Director Asset Management and Capital Projects

Anthony Maracic is the Director of Asset Management and Capital Projects in the New York City Department of Environmental Protection's Bureau of Wastewater Treatment. The Bureau is responsible for the operation and maintenance of all facilities related to the treatment of wastewater in the City. Anthony has been with the Bureau for over 31 years and is currently responsible for capital planning, a capital budget of over \$7B, engineering design, construction management, asset management and coordinating a flood resiliency program. Previously, Anthony was responsible for the bureau's requirement contract services, computerized maintenance management system, inventory management, biosolids end-use and energy efficiency assessments. Anthony holds a bachelor's degree in mechanical engineering from Polytechnic University and is a licensed Professional Engineer in NYS.

Traci J. Minamide, P.E., B.C.E.E., Chief Operating Officer, City of Los Angles, LA Sanitation.

Traci assists the City of Los Angeles, LA Sanitation General Manager in LASAN's activities with an emphasis on wastewater treatment and water reclamation. She has been with the City for over 25 years serving in many capacities including water planning, industrial pretreatment, environmental regulations, wastewater treatment, biosolids and water reclamation.

Traci holds a Bachelor of Science degree in Civil Engineering from California State Polytechnic University at Pomona, a Master of Science degree in Environmental Engineering from Loyola Marymount University and certification in Executive Management for State and Local Government from Harvard University. She is also a licensed professional civil engineer in the State of California and a Board Certified Environmental Engineer through the American Academy of Environmental Engineers and Scientists. She serves on the Board of Directors for the California Association of Sanitation Agencies (CASA) and the State of California's Advisory Panel on Direct Potable Reuse.

Alex Kaplan, Senior Vice President, Global Partnerships, Senior Client Manager, Swiss Re.

Alex Kaplan is Senior Vice President of Global Partnerships for Swiss Re., developing and executing innovative risk transfer solutions to help governments, international financial institutions, and NGOs at all levels manage their financial risks to help society create effective responses to major challenges, including natural catastrophes, climate change, and food security as well as infrastructure, healthcare and longevity.

Kaplan joined Swiss Re in 2008 as Vice President of Regulatory Affairs representing Swiss Re's commercial interests before governors, state insurance regulators and legislators as well as members of Congress and appointed members of the Federal government.

Prior to joining Swiss Re, Kaplan served as the Deputy to the Assistant Secretary for Legislative Affairs for the United States Department of the Treasury under Secretary Henry M. Paulson in August 2006. His responsibilities included managing the Office of Legislative Affairs for the Assistant Secretary and advising on all personnel, policy, and legal issues. Kaplan focused on leading Treasury nominees through the U.S. Senate confirmation process; advising on a wide array of Treasury policy matters; and contributing to the Treasury Secretary's strategic planning.

From 2002 to 2006, Kaplan served as the Manager of Government Affairs of the Organization for International Investment (OFII), a Washington D.C.-based business association representing US subsidiaries of foreign companies. Prior to joining OFII, Kaplan was a Senior Staff Assistant on the Committee on Ways and Means in the U.S. House of Representatives working on tax and economic policy.

Kaplan holds a Bachelor of Arts degree in Economics from Hobart College in Geneva, New York.

Lynette Cardoch, Ph.D., National Director, Coastal Resiliency at HDR Inc.

Dr. Lynette Cardoch serves as HDR's National Director in Coastal Resiliency. This senior-level position is responsible for developing and leading HDR's vision and strategy in coastal resiliency, as well as developing and coordinating the necessary technical resources to grow a broad-based resiliency practice that includes consulting and engineering services. This also includes interaction with a variety of coastal clients such as coastal utilities, port authorities, national and state restoration agencies, and

non-governmental organizations, such as the Rockefeller Foundation, ASCE, and The Nature Conservancy. Projects have included natural infrastructure, such as living shoreline restoration, as well built structures, such as enhanced sea walls. Lynette also directs the technical reviews for all projects initiated in the coastal business class to ensure alignment of the appropriate technical resources. She has effectively led interdisciplinary teams of engineers, scientists, and regulators for large-scale restoration and coastal infrastructure projects. Lynette is also leading HDR's company-wide (Architecture and Engineering) strategy and technical direction for an integrated resiliency services that span HDR's full portfolio, such as transportation, water, and industrial clients.

PANEL 2: FINANCIAL RESILIENCE – FROM WALL STREET TO MAIN STREETS

MODERATOR:

Sabrina M. Ty, President & CEO, New York State Environmental Facilities Corporation

Sabrina M. Ty is the President and CEO of the New York State of the New York State Environmental Facilities Corporation, the arm of Governor Cuomo's administration that provides low-cost financing to local governments for wastewater and drinking water infrastructure.

Prior to joining the Corporation, Ms. Ty served as Special Counsel to the Commissioner of the Office of General Services, where she oversaw several of the Governor's Enterprise initiatives for achieving savings, supervised the implementation of the Service-Disabled Veteran-Owned Business Program and managed the agency's MWBE program. She previously served as Governor Cuomo's Deputy Secretary for Legislative Affairs where she played a key role in the

development and production of the Executive Budget, was an integral member of the Executive team in State budget negotiations and worked on the passage of vital legislative initiatives. Ms. Ty has also held a number of positions in the New York State Assembly, culminating in Legislative Counsel to the Speaker.

PANELISTS:

Dean Fuleihan, Director, Office of Management and Budget, Board Member, Municipal Water Finance Authority, New York City

Dean Fuleihan was appointed by Mayor Bill de Blasio as the Director of the Mayor's Office of Management and Budget (OMB) for the City of New York in January 2014. In this role, Mr. Fuleihan oversees New York City's fiscal policy, including the development of the current City Budget, the Expense and Capital Budgets, the Ten-year Capital Strategy, and the budgets of more than 80 City agencies and covered organizations.

Tim Williams, Managing Director, Public Power & Utilities, RBC Capital Markets

Tim Williams is the head of the Utilities Group in the public finance investment banking department at RBC Capital Markets. He focuses on financing utility projects for wastewater, water and State Revolving Fund issuers nationwide. Tim joined RBC in July 2015 and previously worked at J.P. Morgan, UBS Securities, and Merrill Lynch & Co.

Tim has over 20 years of public finance experience on over \$20 billion in municipal bonds. These have included tax-exempt, taxable, and Private Activity Bonds. He has led financings for numerous wastewater, water and SRF credits nationally. Major senior managed wastewater and water clients include Atlanta Watershed Department, Columbus Water & Sewer, Denver Water, DC Water,

Hampton Roads Sanitation District,
Hartford Metropolitan Sewer District
Commission, Houston Combined Utility
System, Massachusetts Water Resources
Water Authority, Phoenix Water & Sewer,
St. Louis Metropolitan Sewer District,
San Antonio Water System, and Truckee
Meadows Water Authority. Major State
Revolving Fund clients include Arizona,
Colorado, Connecticut, Florida, Illinois,
Iowa, Kansas, Maine, Massachusetts,
Michigan, Missouri, New York, North
Dakota, Ohio, Oklahoma, Rhode Island,
South Dakota, Texas and Virginia.

Tim has been involved in financing projects for utility clients, municipal securitizations, as well as the development of Green Bonds as a financing tool, having structured the first Green Bond issuance for an SRF and subsequently leading numerous Green Bond issuances for SRF and water & sewer issuers. He is active in the environmental finance community and the Council of Infrastructure Finance Water Authorities. Tim received a BA from Dartmouth College, an M.A. in Urban Planning from the University of Virginia, and an M.B.A. from the Wharton School. He holds Series 3, 7, 53, and 63 securities licenses.

Neil J. Flanagan, Managing Director, Public Finance, Jefferies, LLC

Mr. Flanagan is the Joint-Head of the Municipal Investment Banking Group at Jefferies which comprises 42 banking professionals in 9 cities throughout the United States. In his 29th year in public finance, Mr. Flanagan is a nationally recognized senior banker with financings totaling more than \$50 billion in the role of senior, co-senior and financial advisor to municipal clients in New York, Illinois, Wisconsin, Arizona, California and Massachusetts, among many others. He is well known for his creative focus on practical solutions to complex financing needs and a singular devotion to clients and excep-

tional results. In his leadership role, Neil's approach is to build and staff teams to meet the needs of each client – one client at a time with excellence as the standard.

Prior to joining Jefferies, Mr. Flanagan was a Senior Managing Director at Bear Stearns. In addition to his client banking responsibilities, Mr. Flanagan oversaw the structuring and quantitative work within the department - with a special focus on precision and innovation, and he had a significant role in the management of municipal personnel training. Mr. Flanagan has a deep commitment to teamwork and excellence and has his team focused on the intersection of capital markets and investment banking to provide for optimal solutions. He received a Bachelor of Science in Financial Decision and Management Information Systems from the University of Albany. He holds FINRA Series 7, 24, 53, and 63 securities registrations.

Thomas Liu, Managing Director, Water and Wastewater/SRF Group, Bank of America Merrill Lynch

Mr. Liu is the Manager of Bank of America Merrill Lynch's Water and Wastewater/SRF Group, which is consistently top-ranked in the water/wastewater and state revolving fund ("SRF") industry. Prior to joining the firm in 2008, he served in the same role at UBS Investment Bank. For most of his 27-year career, Mr. Liu has specialized in water and wastewater financings and has served numerous municipal issuers throughout the U.S. including the City of Chicago (wastewater), DC Water, Massachusetts Water Resources Authority, Metropolitan St. Louis Sewer District, New York City Municipal Water Finance Authority, City of Philadelphia Water and the Puerto Rico Aqueduct and Sewer Authority. Additionally, Mr. Liu is a well-recognized expert in SRF (leveraged wastewater and drinking water) financings who has specialized in this area since the inception of SRF financings and has served as senior manager on over 189 financings totaling over \$20 billion for 24 SRF programs throughout the U.S. He has also advised water issuers on various matters including public-private partnerships, program start-ups, asset loan sales, consolidations, and divestitures.

Mr. Liu has also been a featured speaker or moderator at various national and regional water conferences. He was recently named as the Interim Chairman of U.S. EPA's Environmental Financial Advisory Board and previously served as a board member to the Council of Infrastructure Financing Authorities. Mr. Liu received his MBA from the University of Chicago Booth School of Business in Finance and Economics and his B.S. from the University of Maryland in Accounting and Economics. Additionally, he holds a Certified Public Accountant license (inactive status) as well as the NASD Series 7, 63 and 52 licenses.

PANEL 3: WORKFORCE RESILIENCE – BUILDING THE TEAM OF THE FUTURE MODERATOR:

Michael J. Garland, P.E., Director of Environmental Services, Monroe County, NY

Since 2008, Mike Garland has served as Monroe County's Director of Environmental Services responsible for the department's \$100-million annual operating budget and its 300 employees within the divisions of Pure Waters, Solid Waste, Engineering and Fleet. Mike first joined the County in 1996 as Special Assistant to the County Executive managing major capital projects, energy initiatives and environmental programs.

Mike's 30-year career began in private-sector consulting on domestic and international water projects. Mike holds bachelor and master degrees in civil engineering from Villanova University and

University at Buffalo, respectively. Mike is Past President of the New York Water Environment Association.

PANELISTS: **Rudolph S. Chow**, P.E., Director, Department of Public Works, City of Baltimore, MD

Rudolph S. Chow, P.E., was appointed the Director of the Baltimore City Department of Public Works (DPW) by the Honorable Stephanie Rawlings-Blake, effective February 1, 2014.

Mr. Chow brings more than 30 years of executive and managerial experience from both the water industry and public works. He most recently served as Deputy Director of Baltimore City's DPW and was its Bureau Head for Water and Wastewater for three years prior to becoming the Deputy.

The Department serves over 1.8 million residents of the City and the five surrounding counties with a combined Operating and Capital budget exceeding \$1B annually. Mr. Chow's swift rise to DPW director is a direct reflection of his transformational agenda and visionary leadership, which is designed to restore the City's prominence in the water industry and the public works arena, and make DPW a best-in-class organization.

Prior to his arrival in Baltimore, Mr. Chow spent 27 years with the Washington Suburban Sanitary Commission (WSSC) in Laurel, MD. He has a Bachelor's Degree in Civil Engineering from George Washington University and a Master's Degree in Environmental and Water Resources Engineering from University of Maryland College Park. He is a registered Professional Engineer in the States of Maryland and Delaware. He is an active member of ASCE, AWWA, WEF, WRF, NACWA, AMWA, APWA, and SWANA and serves on a number of boards and committees.

Harlan L. Kelly, **Jr.**, General Manager, San Francisco Public Utilities Commission

Harlan L. Kelly, Jr. is General Manager of the San Francisco Public Utilities Commission (SFPUC), the third largest municipal utility in California, providing retail drinking water and wastewater services to San Francisco; wholesale water to three Bay Area counties; and green hydroelectric and solar power to San Francisco's municipal departments. Mr. Kelly, who was appointed to General Manager by Mayor Ed Lee in 2012, and previously served as the SFPUC's Assistant General Manager, Infrastructure, for nine years, oversees \$10 billion in capital programs for water, sewer and power.

As an authority on water, sewer and power policy, he is in high demand as a speaker at numerous summits, forums and conferences throughout the country, and has provided expert testimony to the United States Senate on utility issues. His civil engineering career spanning three decades includes his tenure as the City Engineer of San Francisco (1996-2003). He is on the Board of Directors of the National Association of Clean Water Agencies (NACWA), as well as the Bay Area Council. His writing and insights are featured in The Value of Water – A Compendium of Essays by Smart CEOs. He and his wife, attorney and San Francisco City Administrator Naomi M. Kelly, and their two sons reside in San Francisco.

Diana Jones Ritter, Deputy Commissioner, Bureau of Organizational Development, NYC Department of Environmental Protection

Diana Jones Ritter joined the New York City Department of Environmental Protection in January 2013, in a newly created position of Deputy Commissioner for Organizational Development and Human Resources (OD&HR). She is responsible for leading transformational improvements in workforce strategies to recruit, development and retain a talented workforce of nearly 6,000 employees.

Diana leads a team of 45 professionals who support DEP's mission by striving to provide best-in-class talent management and other human resources services. In 2015, her functional organization group - OD&HR, embarked on a journey of business process improvements and achieved outcomes that inspired a culture of continuous improvement and professionalism in service delivery. OD&HR will implement a new Employee Services Center in July 2017. The Center will improve responses to employee inquiries, analyze trends in inquiries and employee needs, create career ladders for OD&HR's employees, and allow OD&HR's senior leaders to invest more time on strategic initiatives to better serve the enterprise and the unique needs of internal business partners. A significant part of this initiative also involves advancing the role of information technology in HR to reduce paperwork, improve process workflows and provide for just-in-time reporting.

Diana has thirty-two years of experience leading a diversity of operations, managing transformational change and driving organizational improvements. She spent over twenty-eight years working in New York State (NYS) agencies including the Metropolitan Transportation Authority, NYS Office of the State Comptroller, NYS Department of Health and NYS Division of the Budget. She also held the position of Agency Commissioner of the NYS Office for People with Developmental Disabilities. Throughout her career she's led substantial policy, financial, administrative, audit, technology and human resource operations.

Diana is a Morgan State University graduate with a BS in Psychology. She is married to Larry Ritter Sr. and mom to two millennials, Larry Jr., age 29 and Kameron, age 25.

CASE STUDY AND DISCUSSION: PHYSICAL RESILIENCE

PRESENTER:

Peter Glus, P.E., B.C.E.E., City Executive for NYC and Director of North American Big Urban Clients, Arcadis

Peter Glus, P.E., B.C.E.E., is a senior vice president with Arcadis and has been working in the New York City market for more than 20 years specializing in the management of large, complex engineering and consultancy projects with extensive stakeholder interaction. He recently served as project director for the East Side Coastal Resiliency Project, the Coney Island Resiliency Study, and the "Seaport City" Resiliency Project in Lower Manhattan. These projects involved leading hundreds of high-level intergovernmental, business, stakeholder, and community meetings. Peter is also the Project Director for the \$1.5 billion Bay Park Hurricane Sandy Recovery Program and is the architectural and engineering support lead for the NYC Health + Hospitals Capital Resiliency Program, Beyond NYC, Peter leads Arcadis' Big Urban Cities Program throughout North America.

CASE STUDY AND DISCUSSION: FINANCIAL RESILIENCE

PRESENTERS:

Andrew D. Sawyers, Ph.D., Director, Office of Wastewater Management, U.S. Environmental Protection Agency

Andrew D. Sawyers is the Director of the Office of Wastewater Management at the U.S. Environmental Protection Agency in Washington, DC, where he oversees the management of the National Pollutant Discharge Elimination System (NPDES), the Clean Water Act's mechanism for the permitting of municipal and

industrial discharge into surface waters of the U.S. In his role as the Director of OWM, Andrew is also responsible for multiple technical and financial assistance tools for the development and maintenance of the country's wastewater infrastructure, including WIFIA, the Clean Water State Revolving Fund and EPA's Water Finance Center.

Previously at EPA, Andrew was the Deputy Director of the EPA's Office of Ground Water and Drinking Water. In that capacity, he worked with the Director to manage the implementation of the Federal Safe Drinking Water Act. Prior to EPA, he worked for the Maryland Water Quality Financing Administration, managing the State's Clean Water and Drinking Water State Revolving Funds and Maryland's Chesapeake Bay Restoration Fund. Andrew has a Ph.D. from Johns Hopkins University in Geography and Environmental Engineering.

Michael Patella, Senior Policy Advisor, Water Infrastructure and Resiliency Finance Center, U.S. Environmental Protection Agency

Michael Patella is the Senior Policy Advisor for the Water Infrastructure and Resiliency Finance Center (WIRFC) in the US Environmental Protection Agency (EPA). His responsibilities include leading EPA's efforts with public-private partnerships (P3) in the drinking, waste and clean water sectors and helping to stand up the Water Infrastructure Finance and Innovation Act (WIFIA) loan office. Immediately before joining EPA, Michael was a representative to the Build America Transportation Investment Center (BATIC) for the USDOT's Federal Transit Administration (FTA). At FTA, he also evaluated the financial viability, and operating risks of proposed transit projects for New Starts funding considerations since 2010. Prior to that. Michael worked as an investment banker arranging P3 transactions in the water, transportation, and energy sectors both internationally and domestically.

Great Water Cities Summit 2017 Marriott Marquis

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