

*EBC and Sustainable Solutions Lab at UMass Boston
Climate Adaptation Forum*

Risk Management Choices: Adaptation Strategies by the Commonwealth of Massachusetts and the Insurance Industry

Friday, January 12, 2018

University of Massachusetts Club | Boston



To submit a question any time during today's Forum, go to
www.pollev.com/ebcne

Presentations will be posted to the Forum website:
www.climateadaptationforum.org

AGENDA

8:00 a.m. Welcome

David Cash, Dean

John W. McCormack Graduate School of Policy and Global Studies
University of Massachusetts Boston

President Marty Meehan

University of Massachusetts

Forum Introduction & Overview

Daniel K. Moon, President & Executive Director

Environmental Business Council of New England

8:10 a.m. Climate Change Adaptation Strategy for the Commonwealth

- **Matthew A. Beaton**, Secretary
Executive Office of Energy and Environmental Affairs
Commonwealth of Massachusetts
- **Katie Theoharides**, Assistant Secretary of Climate Change
Executive Office of Energy and Environmental Affairs
Commonwealth of Massachusetts

8:45 a.m. Resilience in Massachusetts Emergency Management

- **Thad J. Leugemors, PMP**, Mitigation and Recovery Section Chief
Massachusetts Emergency Management Agency

9:10 a.m. Moving Science into Action: Massachusetts Climate Adaptation Efforts

- **Richard Palmer, Ph.D.**, University Director, Northeast Climate Science Center
University of Massachusetts Amherst

Vulnerability of Transportation Infrastructure to Coastal Flooding: The good, the bad, and the wicked difficult

- **Ellen Douglas, P.E., Ph.D.**, Associate Professor of Hydrology
School for the Environment, University of Massachusetts Boston

10:00 a.m. Networking Break

10:30 a.m. Natural Hazards Resiliency – An Insurer’s Perspective

- **Brion Callori**, Senior Vice President, Engineering and Research
FM Global

11:00 a.m. Panel Discussion

Moderator: **Ralph Child**, Member, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Panel Members:

- **Brion Callori**, FM Global Insurance
- **Ellen Douglas**, University of Massachusetts Boston
- **Thad Leugemors**, Massachusetts Emergency Management Agency
- **Richard Palmer**, University of Massachusetts Amherst
- **Katie Theoharides**, Executive Office of Energy and Environmental Affairs

11:40 a.m. Closing Remarks: **Rebecca Herst**, Director, Sustainable Solutions Lab
University of Massachusetts Boston

11:45 a.m. Adjourn

SPEAKERS

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Commonwealth of Massachusetts
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Secretary Matthew A. Beaton oversees the Commonwealth's six environmental, natural resource and energy regulatory agencies: the Departments of Environmental Protection, Public Utilities, Energy Resources, Conservation & Recreation, Agricultural Resources and Fish & Game. He also serves as Chairman of the Massachusetts Water Resources Authority, the Energy Facilities Siting Board, and the Massachusetts Clean Energy Center.

Massachusetts was the first state in the nation to combine energy and environmental agencies under one Cabinet secretary with the shared mission of bringing clean energy technology to market, curbing greenhouse gas emissions and cutting energy costs. Secretary Beaton is building on Massachusetts' nation-leading clean energy and environment accomplishments.

Prior to his appointment to the cabinet post at Energy and Environmental Affairs, Secretary Beaton served as a State Representative for the Eleventh Worcester district. Elected in 2011, he was a member of the committees on Ways and Means; Environment, Natural Resources and Agriculture; and Ethics.

In the private sector, Secretary Beaton has worked as an environmental engineer and sustainability consultant. He is the former owner of Beaton Kane Construction, a green building and energy efficiency consulting company that focuses on building energy efficient homes.

Beaton earned an undergraduate degree in biotechnology from Worcester Polytechnic Institute and a master's degree in energy and environmental analysis from Boston University. Secretary Beaton and his wife, Laura, live in Shrewsbury with their two young children.

Brion E. Callori, Senior Vice President, Engineering and Research
FM Global
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Brion Callori is senior vice president – engineering and research. Based in the company's corporate offices in Johnston, R.I., USA, he has overall responsibility for corporate engineering, research and FM Approvals. In this role, he oversees the management and direction of the company's loss prevention engineering services.

Prior to this appointment, Callori served as vice president and operations manager of FM Global's New York (USA) operations, where he was responsible for the management of insurance and engineering operations. He also has held a number of engineering, sales and management positions. These include division engineering manager; branch manager; engineering manager; and communications segment director. He joined FM Global in 1979 as a loss control consultant.

Callori is on the board of the Spencer Educational Foundation, a scholarship-awarding affiliate of the Risk and Insurance Management Society (RIMS), and was its former chairman. He holds a bachelor's degree in engineering science from the New Jersey Institute of Technology, Newark, N.J., USA, where he is on the board of Visitors. He also holds a master's degree in business from Montclair State University, Montclair, N.J., USA. and an Associate in Risk Management (ARM) designation.

Ellen M. Douglas, P.E., Ph.D., Associate Professor of Hydrology
School for the Environment
Director, MS/Ph.D. Programs in Environmental Sciences and Marine Science & Technology
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Dr. Ellen Douglas is a hydrologist and engineer with broad expertise in the analysis of water-related issues. Her research interests include evaluating the impacts of climate change on New England hydrology, assessing the vulnerability of coastal communities to flooding, improving methods for sustainable water resource management and monitoring the performance of river restoration through dam removal. Dr. Douglas has authored or co-authored 29 peer-reviewed publications, four book chapters, and is a contributing author for the 2013 U.S. National Climate Assessment and the IPCC Fifth Assessment Report. She is a co-author of "Climate Ready Boston: Results of the Boston Research Advisory Group" and "Preparing for the Rising Tide", reports outlining the impacts of climate change on Boston and surrounding communities. Dr. Douglas was awarded a 2013-14 Fulbright Scholarship to work in Australia with the CSIRO on the Water Values and Benefits project.

Thad J. Leugemors, PMP, Mitigation and Recovery Section Chief
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Thad Leugemors, PMP is the Mitigation and Recovery Section Chief for the Massachusetts Emergency Management Agency (MEMA). Before joining MEMA in July of 2016, Mr. Leugemors was a consultant who managed many federal disaster recovery and mitigation projects beginning with the City of New Orleans

following Hurricane Katrina in 2005. From there he obtained his Project Management Professional credential and continued to travel the country to manage teams responsible for disaster and recovery projects including Galveston, TX following Hurricane Ike, the State of Vermont following Tropical Storm Irene, NJ Parks Department following Superstorm Sandy, Boulder Colorado following the 2013 Front Range Floods, and many smaller federal disasters. Mr. Leugemors is originally from Western New York and relocated to Massachusetts with his wife and two children to join MEMA this past summer.

Richard N. Palmer, P.E., Ph.D., Professor, Department Head
Department of Civil and Environmental Engineering, College of Engineering
University of Massachusetts Amherst
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Dr. Palmer is currently Head of the Department of Civil and Environmental Engineering at the University of Massachusetts Amherst, a role that he has served during the last 10 years. He is also the University Director of the Northeast Climate Science Center (NE SCS). The NE CSC is one of eight Department of Interior Climate Science Centers in the US that functions to provide climate research for natural resources planning and management. Dr. Palmer has been at UMass for the last 10 years and was a professor at the University of Washington in Seattle from 1979 to 2008.

Dr. Palmer received his Ph.D. from the Johns Hopkins University, his Master's of Science in Environmental Engineering from Stanford University, and an undergraduate degree in Civil Engineering from Lamar University. During his Ph.D. research he was a member of a team at Johns Hopkins University and the Interstate Commission on the Potomac River Basin recognized as a finalist by ASCE for Engineering Achievement of the Year in 1983. Dr. Palmer received the Best Practice-Oriented Paper of the Year in the Journal of Water Resources Planning and Management by the ASCE in 1989. He was awarded the Huber Award for Research Excellence by the American Society of Civil Engineers (ASCE) in 1992. This honor was based upon his innovative application of simulation and optimization techniques to issues in water resource management. He was awarded the "Certificate of Recognition" for his editorial services to the Journal of Water Resources Planning and Management of ASCE in 1997. Dr. Palmer received the "Service to the Profession" Award from the Water Resources Planning and Management Division of American Society of Civil Engineers (ASCE) in 1998. In 2006, Dr. Palmer received the Julian Hinds Award from ASCE for his contributions to water resources planning and his research related to the impacts of climate change on water resources. In 2017, Dr. Palmer was elected a "Distinguished Member" of the American Society of Civil Engineers. Dr. Palmer's research funding has come from the Department of Interior, NOAA, the Nature Conservancy, Water Research Foundation, the National Science Foundation, Electric Power Research Institution, the Commonwealth of Massachusetts and a variety of public and private utilities.

Katie Theoharides, Assistant Secretary of Climate Change
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Katie works across state government and with Massachusetts cities and towns to reduce greenhouse gas emissions and adapt to the impacts and opportunities from climate change, with a major focus on

mainstreaming climate change into the daily work of state and local government. Previously, Katie worked as a consultant on numerous projects from developing policy guidance for how to better incorporate climate adaptation into farm bill conservation programs to working with partners across New England to develop exploratory scenarios of future land cover change. Prior to her consulting work, Katie served as the executive director of the Hilltown Land Trust in Ashfield, Massachusetts. She also spent several years with Defenders of Wildlife, a non-profit conservation organization in Washington, DC where she focused on federal, state and local climate change policy. Katie holds a B.A. in ecology from Dartmouth College and a M.S. in environmental biology from the University of Massachusetts-Boston.

PANEL MODERATOR

Ralph Child, Member

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
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Ralph is a member of Mintz Levin's Environmental Section. His practice involves regulatory strategy, advocacy and litigation, with a strong focus on environmental policy and enforcement. Major clients include energy project developers, manufacturers, real estate developers and public agencies concerning air, waste, contaminated site and water pollution issues.

Chambers USA 'America's Leading Business Lawyers' identifies Ralph among the leading environmental lawyers in Boston. He is a Fellow within the American College of Environmental Lawyers.

From 1996 to 1999, Ralph served as General Counsel to the Massachusetts Department of Environmental Protection, the principal environmental regulatory agency in Massachusetts with over 50 regulatory programs.

Ralph serves on the Board of Directors of the Environmental Business Council of New England. Ralph has chaired the Boston Bar Association's Environmental Law Section, and frequently speaks on environmental issues at continuing legal education seminars.

Ralph is admitted to practice in Massachusetts. He received his B.A. from Dartmouth College (1972), held a University of Massachusetts legislative fellowship at the Massachusetts legislature (1976), and earned his J.D. from Harvard Law School (1977), where he was an editor of the Harvard Law Review. He also was a Luce Scholar, providing counsel on legal reform efforts in Indonesia.

The final two Forums are scheduled for:

- April 13 – Innovative Financing for Climate Adaptation
- June 8 – Appropriate and Responsible Design for Adaptation and Resiliency

Upcoming EBC Climate Change Programs:

- February 2 – Briefing from U.S. Senator Sheldon Whitehouse, Rhode Island
- February 15 – Climate Adaptation & Resiliency Programs at Electric Utilities
- Spring 2018 – Adaptation & Resiliency Programs – Habitat and Natural Resources

EBC & Sustainable Solutions Lab at UMass Boston – Quarterly Climate Adaptation Forum
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