

Local Solutions: Northeast Climate Change Preparedness Conference

Convened by Antioch University New England, in partnership with the
U.S. Environmental Protection Agency

May 19-21, 2014 • Manchester, New Hampshire



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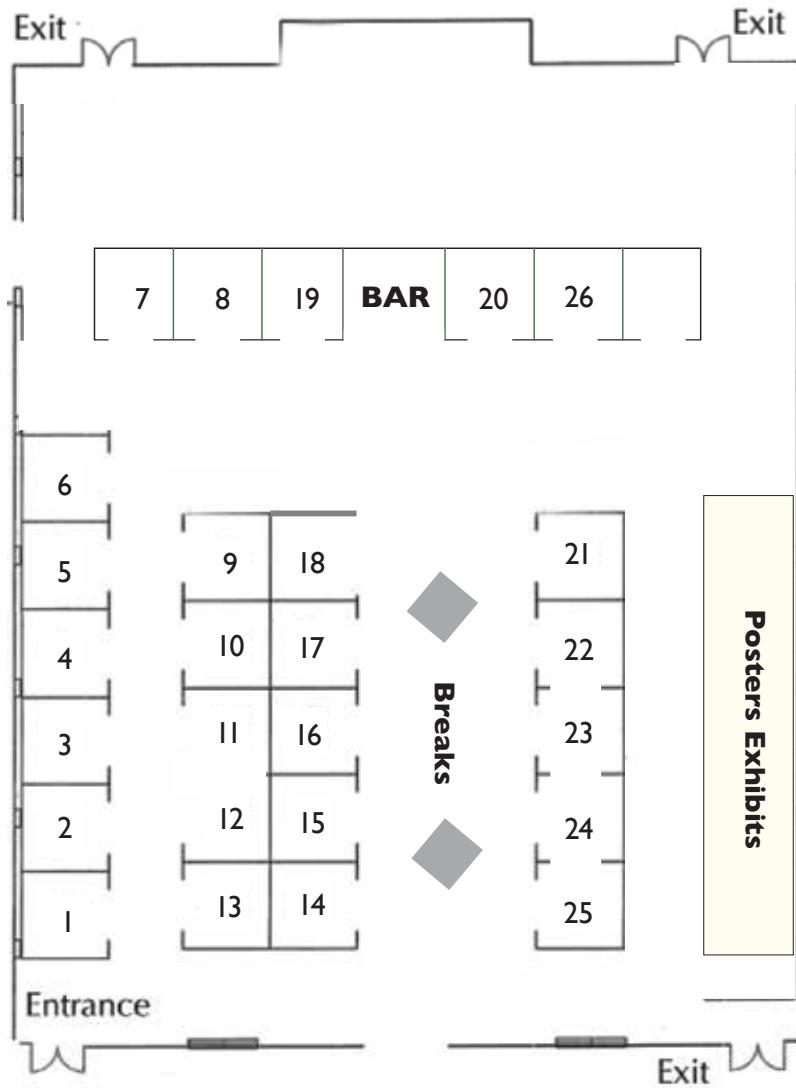


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EXHIBITORS, DAY 3

| |
|--------------------------------------|
| Antioch University New England |
| Hurricane Island Foundation |
| Kroka Expeditions |
| Lesley University |
| Middlebury School of the Environment |

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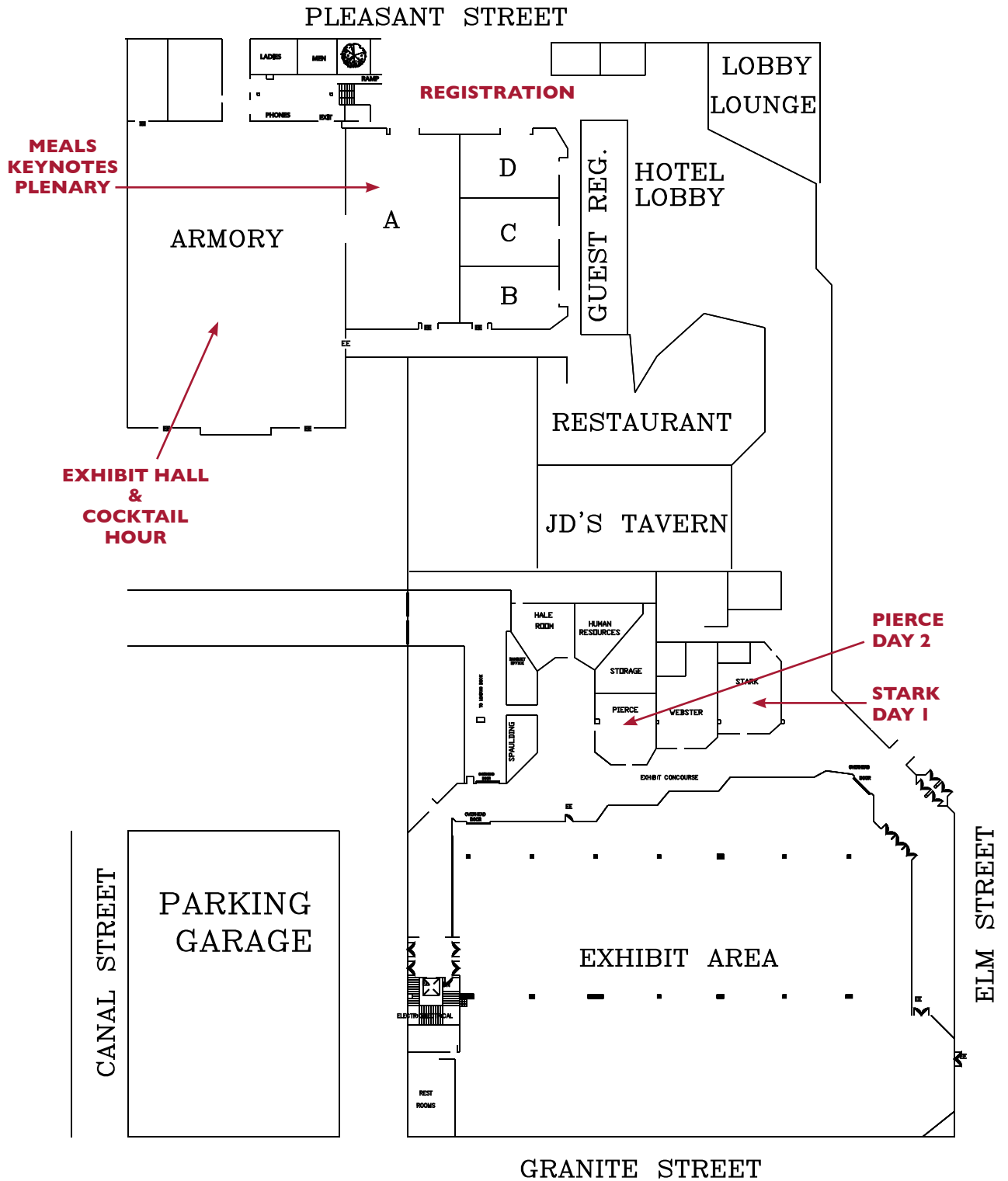
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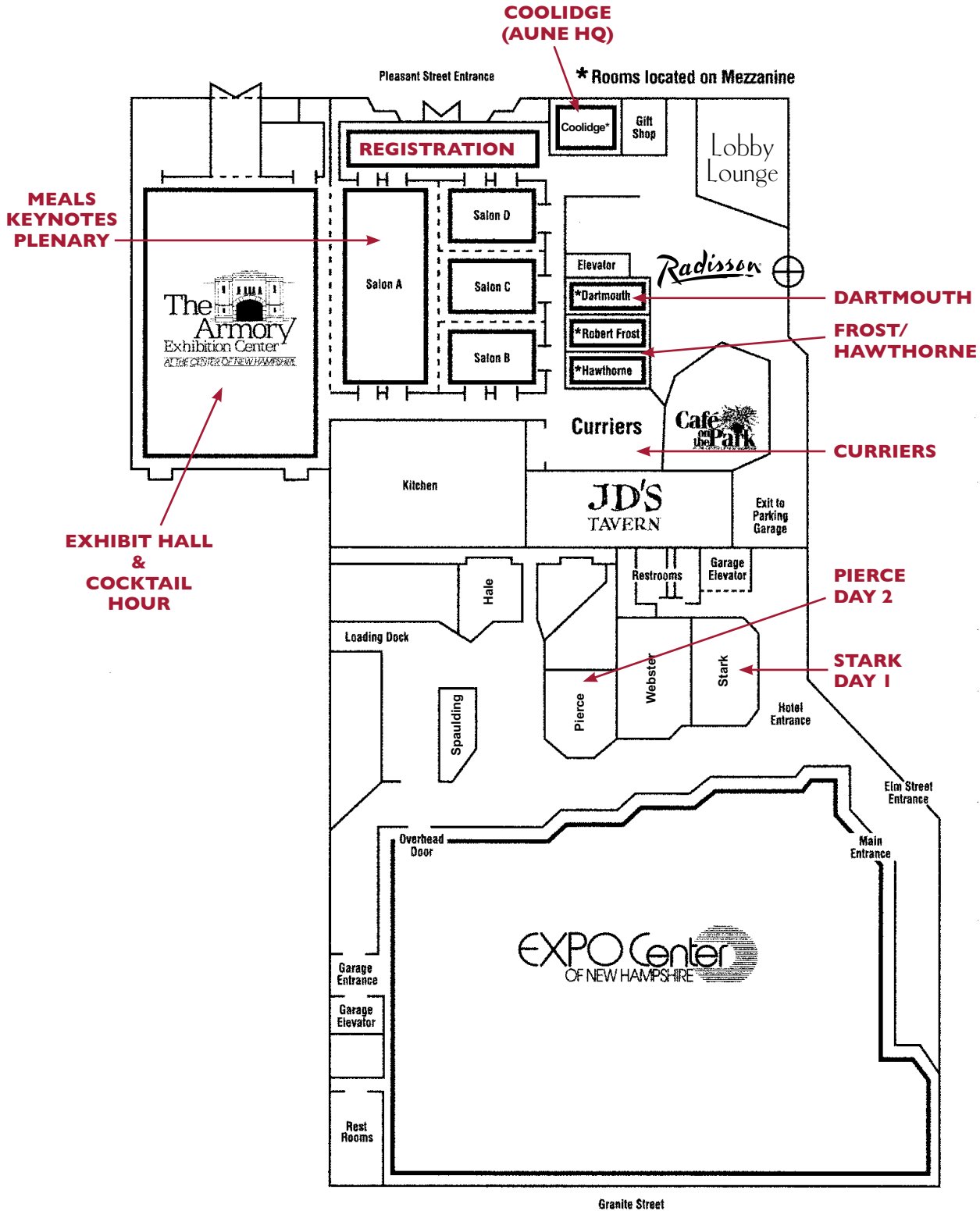
Laura Thomas, *Antioch University Center for School Renewal*

John Ungerleider, *School of International Training*

Radisson Hotel Manchester



Mezzanine



LOCAL SOLUTIONS: Northeast Climate Change Preparedness Conference

Agenda: Day 1

Monday, May 19, 2014

| | | | | |
|--------------------------------------|--|--|--|--|
| 7:30-8:30 a.m. | Registration, Continental Breakfast and Informal Networking Exhibit Hall and Poster Presentations Open | | | |
| 8:30-11:30 a.m. and 8:30 a.m.-noon * | Workshop 1 Reducing Community Vulnerability Through Ecological Design (W1) <i>Frost/Hawthorne</i> | Workshop 2 How can psychology support behavior change toward climate mitigation and adaptation? (W2) <i>Dartmouth</i> | * Workshop 3 Coffee and Conversation with American Society of Adaptation Professionals (W3) <i>Curriers</i> | |
| 12-1:15 p.m. | Welcome Lunch Opening Remarks and State of the Science | | | |
| | Track 1 Planning and Process | Track 2 Practical Skills: Natural Environment | Track 3 Practical Skills: Built Environment | Track 4 Community Engagement and Communication |
| Sessions (T1A – T4B) | | | | |
| 1:30-3 p.m. | Facing Tomorrow's Challenges: What's the Plan? (T1A) <i>Frost/Hawthorne</i> | Adapting to Nature in the New Normal (T2A) <i>Stark</i> | Transitioning to the New Built Environment (T3A) <i>Curriers</i> | Cultivating Leadership: Building Social Capital in Your Community (T4A) <i>Dartmouth</i> |
| 3-3:15 p.m. | Break | | | |
| 3:15-4:45 p.m. | Risky Business: How to Assess Our Risk? (T1B) <i>Curriers</i> | Crossing that Bridge: How Culverts Pass and Fail (T2B) <i>Dartmouth</i> | Buildings in Harm's Way (T3B) <i>Stark</i> | Collaborating for Resilience: Reaching the Most Vulnerable Populations (T4B) <i>Frost/Hawthorne</i> |
| 5-6 p.m. | Cocktails and Networking | | | |
| 6-8:15 p.m. | Keynote Dinner An Evening Conversation | | | |

LOCAL SOLUTIONS: Northeast Climate Change Preparedness Conference

Agenda: Day 2

Tuesday, May 20, 2014

| | | | | |
|-----------------------------|--|---|---|--|
| 7:30-8:30 a.m. | Registration, Continental Breakfast and Informal Networking Exhibit Hall and Poster Presentations Open | | | |
| | Track 1 Planning and Process | Track 2 Practical Skills: Natural Environment | Track 3 Practical Skills: Built Environment | Track 4 Community Engagement and Communication |
| Sessions (TIC – T4E) | | | | |
| 8:30-10 a.m. | Moving Towards Resiliency: Adapting Our Plans (TIC) <i>Curriers</i> | Responding to the Surge: Coastal Buffers (T2C) <i>Pierce</i> | Where Do We Put the Water (T3C) <i>Frost/Hawthorne</i> | Reaching Beyond the Usual Suspects (T4C) <i>Dartmouth</i> |
| 10-10:15 a.m. | Break | | | |
| 10:15-11:45 a.m. | “You have the right to…” Understanding the Legalities of Climate Change (T1D) <i>Curriers</i> | Adaptive Regeneration: Why Resilient Forests Matter (T2D) <i>Pierce</i> | Maintaining Vital Links: Transitioning our Aging Transportation Infrastructure (T3D) <i>Dartmouth</i> | Getting the Message Out (T4D) <i>Frost/Hawthorne</i> |
| 12-2 p.m. | Lunch and Plenary Taking the Long View: How Regional-Scale Planning Will Inform and Assist Local Efforts | | | |
| 2:15-3:45 p.m. | From Plan to Practice: What Does Resiliency Implementation Really Look Like? (T1E) <i>Curriers</i> | Maintaining Northeastern Wildlife and Recreation Opportunities (T2E) <i>Dartmouth</i> | Turning up the Heat on Communities’ Energy Security (T3E) <i>Pierce</i> | Motivating Community Behavior (T4E) <i>Frost/Hawthorne</i> |
| 3:45-4 p.m. | Break | | | |
| 4-5 p.m. | Closing Plenary Covering the Costs: How Do We Pay For It All? | | | |

Sessions & Workshop Descriptions

Monday-Tuesday, May 19-20

MONDAY, MAY 19 • 8:30-11:30 AM

WORKSHOP 1

Reducing Community Vulnerability Through Ecological Design (W1)

Are you looking for innovative ways to build resiliency in your community or region? Are you planning for future food, energy, economic and ecological needs within your community or region in order to address climate mitigation and adaptation? Have you considered how current municipal plans and regulations may be in conflict with creating a sustainable, resilient community? Join Steve Whitman, AICP, for an informative and interactive workshop on building resilient communities that reduce vulnerabilities to recent and future severe weather events. This workshop will include:

- A framework for working toward ecological solutions for your community or region;
- Tools to identify barriers to more resilient climate mitigation and adaptation solutions;
- Opportunities to create more resilient solutions that are grounded in the culture and geography of your community or region; and
- A range of case study examples.

Facilitator: Steve Whitman, AICP, *Planning Consultant and Educator, Resilience Planning and Design LLC*

WORKSHOP 2

How Can Psychology Support Behavior Change Toward Climate Mitigation and Adaptation? (W2)

Ecological problems are the result of millions of daily decisions, some large (e.g. should I insulate my house?) and some small (e.g. should I turn on the AC today?) When people make these decisions, they are rarely driven by their concern about the environment or their desire to live sustainably; their actions are largely determined by situational circumstances that they may not even be conscious of.

How can we create the circumstances that encourage and support resource-conserving behavior? I am one of a small but growing group of psychologists tackling this question. Our research offers insight into the factors that nudge people toward less wasteful and more ecologically balanced lives. In addition, the research explores how and why people join together to work toward larger-scale, sustainable change. In this workshop and discussion, I will talk about some of these factors, for example social norms, tangible feedback, social identity, sense of competence, sense of efficacy, and finding a balance between communicating urgency and a positive vision. We'll discuss how we can apply these findings in communication campaigns as well as behavior change efforts, and in every part of our lives: in our everyday personal decisions, at work, in our communities, and in our efforts toward larger-scale global change.

Facilitator: Dr. Christie Manning, *Professor of Psychology, Macalester College*

MONDAY, MAY 19 • 8:30 AM-NOON

WORKSHOP 3

Coffee and Conversation with American Society of Adaptation Professionals (W3)

The American Society of Adaptation Professionals (www.adaptation-professionals.org), is the only professional society in America focused on climate change adaptation and resilience. ASAP is hosting its first Northeast U.S. regional networking meet-up in conjunction with the Antioch/EPA Local Solutions conference. So, don't miss this opportunity to connect with other ASAP members, network, and share information on promising practices from your work on adaptation. Not a member yet? No problem. Stop by, chat with members, get the scoop, share your experiences, and help build resilience across the region.

Facilitator: Debra Perry, *Senior Program Officer, Institute for Sustainable Communities and American Society of Adaptation Professionals*

MONDAY, MAY 19 • NOON-1:15 PM

LUNCH and OPENING REMARKS

Welcome to the Conference

Stephen B. Jones, *President, Antioch University New England*

Welcome to the State

Maggie Hassan, *Governor of New Hampshire*

Our Changing Climate in the Northeast: State of the Science

Cameron Wake, *Climatologist, University of New Hampshire*

In this opening plenary event, Cameron Wake, Research Associate Professor of Climatology and Glaciology, and Josephine A. Lamprey Fellow in Climate and Sustainability at University of New Hampshire's Institute for the Study of Earth, Oceans, and Space, will review projected impacts to the Northeast U.S. based on the latest science of our changing climate. You will also learn about how, as director of Climate Solutions New England, Cameron and the organization's partners are collaborating to secure healthy, prosperous, and sustainable communities through building energy self-reliance and weather resilience. This framing of climate science will give attendees a solid foundation for participating in conference sessions that get straight to the point on implementing practical planning, design, and communications to address impacts.

MONDAY, MAY 19 • 1:30-3 PM

TRACK: Planning and Process

Facing Tomorrow's Challenges: What's the Plan? (T1A)

The focus of this opening session is to provide you with the overview of planning for resiliency and adaptation at different scales. The session will consider the various stakeholders, implementation mechanisms, financial constraints, and the legalities which all sur-

round planning for climate change adaptation. After this session, you should feel comfortable knowing what next steps you need to take to integrate resiliency recommendations and projects into your community's planning and policy.

Session Leader:

Julie LaBranche, Senior Planner, Rockingham Planning Commission

Session Speakers/Panelists:

Peter Britz, Environmental Planner/Sustainability Coordinator, City of Portsmouth, NH

Kristin Baja, Climate and Resilience Planner, Office of Sustainability, City of Baltimore, MD

Bill Patenaude, Principal Engineer, Rhode Island Department of Environmental Management

TRACK: Natural Environment

Adapting to Nature in the New Normal (T2A)

Preservation and restoration have been touchstones of natural resource conservation for decades. However, climate change is forcing habitat shifts for dozens of species. This framing session will set the stage and open dialogue for the future of natural resource conservation and management. We will look at tools for managers and decision-makers that facilitate identifying key future conservation habitat, structured decision making for optimizing time, money, and resources, and how small conservation groups network together to share information and methods that work.

Session Leader:

Erin Rodgers, Project Manager, Trout Unlimited, and Researcher at Conte Anadromous Fish Research Center (USGS)

Session Speakers/Panelists:

Dr. Evan Grant, Wildlife Biologist, Conte Anadromous Fish Research Center, Patuxent Wildlife Research Center/USGS

Dr. Hector Galbraith, Senior Scientist, National Wildlife Federation

Jill Weiss, Adjunct, School of Science and Social Science, Keene State College and PhD Candidate, Antioch University New England

TRACK: The Built Environment

Transitioning to the New Built Environment (T3A)

This initial session on the built environment provides an overview for the issues that must be addressed to prepare our built environment in light of changing landscape in the context of a changing climate. Focus will be on how to best transition to more resilient buildings, conveyance and distribution systems, as well as how to preserve and implement what has already been identified as important to mitigating future impacts to our communities. Discussion with participants will include the multiple scales of governance to be considered when affecting change at the local level. Such decisions about transitioning will be addressed in the context of the lifetime infrastructure. In addition, attendees will learn how incremental marginal cost and damage avoided cost impacts are associated with taking a precautionary approach. Participants will leave this session with an expanded understanding of a common framework for envisioning the future. This objective necessarily incorporates preparedness into community plans and future economic development, not only to minimize future vulnerabilities, but to create a new built environment that is vibrant.

Session Leader:

Michael Simpson, Core Faculty and Chair, Department of Environmental Studies, Antioch University New England, and Director of the Center for Climate Preparedness and Community Resilience

Session Speakers/Panelists:

Rhett Lamb, Planning Director, City of Keene, NH

Cliff Sinnot, Executive Director, Rockingham Planning Commission

Alex Wilson, Founder, BuildingGreen Inc. and Resilient Design Institute

TRACK: Community Engagement and Communication (T4A)

Cultivating Leadership: Building Social Capital In Your Community

Adaptation to climate change in a participatory democracy requires far more than informing the public of proposed approaches but should seek to engage their knowledge, talents, and values as well as their support for planning and implementing actions. This initial session will frame and share examples of how to raise awareness, which is followed by successful approaches to convening and engaging stakeholders and community members. After this overview session, you will have been introduced to the specific steps for adaptive leadership and planning in a changing environment that depends on effective community capacity building to take policy and translate it to actions.

Session Speakers/Panelists:

James Gruber, Core Faculty, Department of Environmental Studies, Antioch University New England

Paul Markowitz, Community Energy Program Manager, Efficiency Vermont

MONDAY, MAY 19 • 3:15-4:45 PM

TRACK: Planning and Process

Risky Business: How to Assess Our Risk (T1B)

This session will provide you with practical competencies needed to understand, carry out, produce, and analyze risk though such assessments. Different tools and strategies will be presented, demonstrated, and discussed. After this session, you should feel confident about next steps for your community to find the external resources to support such assessments and how to develop viable action-steps to meet your overall stated goals.

Session Leader:

Ed Saltzberg, PhD, Managing Director, The Security and Sustainability Forum

Session Speakers/Panelists:

Sherry Godlewski, Environmental Program Manager, NH Department of Environmental Services

Chris Keeley, Communities and Climate Program Coordinator, NH Sea Grant and University of New Hampshire Cooperative Extension

Dr. Samuel Merrill, President and Founder, Catalysis Adaptation Partners, LLC

Sessions & Workshop Descriptions

Monday-Tuesday, May 19-20

TRACK: Natural Environment

Crossing the Bridge: How Culverts Pass and Fail (T2B)

Inland streams and rivers have been subjected to increasingly dangerous flow and flooding due to more frequent and intense climate induced storm cycles. Because development has historically been concentrated along rivers and lakeshores, many municipalities in our region must plan for increased storm flow, which carries impacts of increased bank erosion, siltation, degrading water quality and loss of native fisheries. Participants will learn the ways properly sized culverts and bridges improve fish passage and stream hydrology, as well as what makes culverts (and the roads over them) fail.

Session Leader:

Colin Lawson, *New England Culvert Project Coordinator, Trout Unlimited*

Session Speakers/Panelists:

John Field, *Fluvial Geomorphologist, Field Geology Services*

John Magee, *Fish Habitat Biologist, NH Fish and Game Department*

Gabe Bolin, PE, *Eastern Stream Restoration Specialist, Trout Unlimited*

TRACK: The Built Environment

Buildings in Harm's Way (T3B)

This session provides best practices for decision-making about structures at risk, from identifying those risks to considering responses that may fall outside a community's experience and comfort zone—but within the growing reality of climate change. Traditional 'smart growth' topics and best construction practices to expand buildings' resilience, will be interwoven with cutting edge practitioners' recommendations about design for preparedness that should be incorporated into community and regional planning, overlay districts and building codes. Participants will leave this session with greater clarity about what resources and tools can be utilized to support vulnerability assessments as well as structural designs that foster resilience through assimilating or accommodating projected impacts. This will be complemented with knowledge of the ramifications of constructing barriers to assure preparedness, as opposed to ultimately evaluating the efficacy of retreat from those ever increasing vulnerable areas.

Session Leader:

John Bolduc, *Environmental Planner, City of Cambridge (MA)*

Session Speakers/Panelists:

Julia Knisel, *Coastal Shoreline and Floodplain Manager, MA Office of Coastal Zone Management*

Rawlings Miller, PhD, *Technical Specialist, ICF International*

Dr. Sarah Slaughter, *President and Founder, Built Environment Coalition*

TRACK: Community Engagement and Communication

Collaborating for Resilience: Reaching the Most Vulnerable Populations (T4B)

The challenging impacts of climate change disproportionately affect those with the least resources to prepare, sustain and recover. How do municipal decision makers and civic leaders promote effective en-

gagement with all community members, especially those that are likely to be most impacted? This workshop will cover:

- Concrete community engagement and climate change preparedness success stories;
- What approaches to engagement are effective in reaching vulnerable and/or marginalized populations; and
- How municipal decision makers and staff can work effectively with community-based organizations.

Session Leader:

Abigail Abrash Walton, *Planning Board Chair, City Keene, NH*

Session Speakers/Panelists:

David M. Kutner, PP, AICP, *Recovery Planning Manager, New Jersey Future*

Lee Matsueda, *Political Director, Alternatives for Community and Environment*

Ginny McGinn, *Executive Director, Center for Whole Communities*

Sarika Tandon, *Senior Program Associate, Center for Whole Communities*

Veda Truesdale, *Senior Research Specialist, Rutgers University*

MONDAY, MAY 19 • 5-6 PM

Cocktails and Networking

MONDAY, MAY 19 • 6-7:30 PM

Dinner and An Evening Conversation with Keynote Speakers:

Bob Perciasepe, *Deputy Administrator, U.S. EPA*

Bina Venkataraman, *Senior Advisor on Climate Change Innovation, Executive Office of the President of the United States*

Denice Ross, *Director of Enterprise Information, City of New Orleans*

TUESDAY, MAY 20 • 8:30-10 AM

TRACK: Planning and Process

Moving Towards Resiliency: Adapting Our Plans (T1C)

This session will discuss how communities can effectively plan for adaptation and response/recovery in the long term. Case studies of resilient communities will be utilized to demonstrate effective planning and financial strategies. After completing this session participants should feel more comfortable in pursuing a systems approach to make their communities both more adaptive and resilient, while considering how such plans might impact neighboring communities and the sustainability of the greater region.

Session Leader:

John Miller, PE, CFM, CSM, *Water Resources Engineer, Princeton Hydro, LLC*

Session Speakers/Panelists:

David Berg, AICP, LEED AP, *Associate, Cameron Engineering and Associates, LLP*

Adam Whelchel, PhD, *Director of Science, The Nature Conservancy*

TRACK: Natural Environment

Responding to the Surge: Coastal Buffers (T2C)

Climate change impacts will affect both land-based and coastal resources along our coastlines. Municipal decision-makers must consider sea level rise, and storm surge from tropical storms and hurricanes. Inland storms also deliver fresh water flooding through coastal communities. Since our coastlines are more developed, with a higher density of people per square mile, this session will look to the ramifications of a degradation, or disappearance of, the natural resources upon which a significant percentage of their populations' livelihoods depend. Participants will learn how to plan for and react to these combined risks, targeting best practices to protect municipal infrastructure and mitigate coastal erosion, loss of fisheries, and other natural coastal services.

Session Leaders:

Sherry Godlewski, *Environmental Program Manager, NH Department of Environmental Services*

Steve Miller, *Coastal Training Program Coordinator, Great Bay National Estuarine Research Reserve*

Session Speakers/Panelists:

Lisa Auermuller, *Watershed Coordinator, Institute of Marine and Coastal Sciences (Jacques Cousteau Reserve), Rutgers University*

Emilie Hauser, *NEIWPCC Environmental Analyst, NY Dept. of Environmental Conservation and Estuary Training Program Coordinator, Hudson River National Estuarine Research Reserve*

Jennifer West, *Coastal Training Program Coordinator, Narragansett Bay National Estuarine Research Reserve*

TRACK: The Built Environment

Where Do We Put the Water? (T3C)

This session addresses assessment, planning, and adaptation to not only better prepare for the next emergency, but to sustainably manage flooding, stormwater, and water supply to maintain human health and a vibrant local economy. Participants will leave this session with knowledge about the latest innovative approaches to understand the effects of storm surge and inland flooding and apply low-impact development (LID), site design, and smart growth practices at different scales of implementation. There will be reference to pioneering hydrology-based, sub-watershed approaches that have shown mitigation potential not only for storm water and flooding, but to the loss and degradation in quality of water supplies. This will be supplemented with real-world project costs showing how these green strategies compare to traditional gray infrastructure.

Session Leader:

Dr. Robert Roseen, *Associate, Geosyntec Consultants*

Session Speakers/Panelists:

Dr. Paul Kirshen, *Research Professor, Department of Civil Engineering, University of New Hampshire*

Kathleen Baskin, *Director of Water Policy, Massachusetts Executive Office of Energy and Environmental Affairs*

Dr. Samuel Merrill, *President and Founder, Catalysis Adaptation Partners LLC*

TRACK: Community Engagement and Communication

Reaching Beyond the 'Usual Suspects': How to Bring People to the Table (T4C)

Getting stakeholders to meetings has been a constant struggle for community leaders. This session will address how we can create venues and opportunities where community members feel empowered and part of the solution. A leading question for participants to understand is whether having a face-to-face meeting is the right thing to do based on your objectives. If not, what are other innovative methods of collecting public input? Participants will leave this session with an understanding of how to best frame objectives in the context of building community support; as well as, considering the effective use of digital technology in concert with other approaches to public engagement.

Session Leader:

Christa Daniels, *AICP, Faculty and Doctoral Fellow, Antioch University New England*

Session Speakers/Panelists:

Melanie Army, *Supervising Planner, Rhode Island Division of Planning*

Angela Vincent, *Sustainability Project Manager, Vanasse Hangen Brustlin, Inc.*

TUESDAY, MAY 20 • 10:15-11:45 PM

TRACK: Planning and Process

'You Have the Right To...': Understanding the Legalities of Climate Change (T1D)

This session will focus on common legal themes and questions related to aspects of climate change and liability. We will use recent examples of case law to provide participants with an understanding of some of the legal issues, which may be associated with building more resilient communities. By the close of this session participants should feel more comfortable with risk communication and have a greater understanding of the types of questions to ask legal professionals related to their resiliency planning and implementation.

Session Leader:

Julie LaBranche, *Senior Planner, Rockingham Planning Commission*

Session Speakers/Panelists:

Peg Elmer, *AICP, Principal, Community-Resilience.org*

Daniel Slone, *Partner, McGuire Woods LLP and Resilient Design Institute*

TRACK: Natural Environment

Adaptive Regeneration: Why Resilient Forests Matter (T2D)

Forests—our most dominant ecosystem type—have long been economic engines for this region. As storm and temperature patterns change, forests are more susceptible to shifting species compositions, infestation by invasive plants, insects, and diseases, and reduced habitat quality for woodland fauna. Participants will discuss how to prepare for economic and ecological challenges in the context of ongoing habitat loss and fragmentation, and how a community should consider their changing natural landscape due to the continuing shifts in forest types northwards.

Sessions & Workshop Descriptions

Monday-Tuesday, May 19-20

Session Leader:

Peter Palmiotto, *Director Monadnock Ecological and Education (MERE) Project and Director, Conservation Biology, Antioch University New England*

Session Speakers/Panelists:

Caitlin Cusack, *Urban and Community Forestry Outreach Coordinator, University of Vermont Extension*

Emily Hamilton, MLA, *Consulting Urban Forester, Davey Tree Expert Company*

Andy Whitman, *Director of Sustainable Economies Initiative, Manomet Center for Conservation Sciences*

TRACK: The Built Environment

Maintaining Vital Links: Transitioning Our Aging Transportation Infrastructure (T3D)

Transportation's function helps to assure food security, business continuity, and energy supplies for gasoline and heating fuel in many New England communities, so to maintain vibrant and growing communities. This session will go beyond the discussion about backlogs of aging infrastructure to emphasize how climate change-ready communities will need to strengthen relationships with other systems, including regional land use planning processes, water management, and energy grid operations. Participants will leave this session with an understanding of prioritizing approaches to shore up local roadway crossings, emergency routes and egress strategies not only in response to rising waters but also to the reality of an increasing frequency and duration of heat extremes and ice conditions as well. Participants will leave with a deeper understanding of transportation vulnerabilities by applying local- and regional-scale examples of best practices implemented to date, which will include how to consider funding strategies to support change that can be supported by a community's citizenry.

Session Leader:

Rebecca Lupes, *Sustainable Transport and Climate Change Team, U.S. Federal Highway Administration*

Session Speakers/Panelists:

Peter Cusolito, *CEM, CFM, Senior Security and Emergency Management Planner, Vanasse Hangen Brustlin, Inc.*

Judy Gates, *Director, Environmental Office, Maine Department of Transportation*

Steven Miller, *Supervisor of Environmental Management Systems and Sustainability, Massachusetts Department of Transportation*

TRACK: Community Engagement and Communication

Getting the Message Out (T4D)

This session is open to all, however it is also designed as a follow-up for attendees of the Monday morning Workshop, "How Can Psychology Support Behavior Change Toward Climate Mitigation and Adaptation?" It will cover how we can connect the dots for people in our com-

munities about climate impacts. This session will build participants' skills in targeting communication strategies and messaging to effectively engage and strengthen community support. Participants will learn language to include and avoid while talking about climate change, how to frame messages on climate mitigation and adaptation, along with identifying community values and interests in order to connect with mainstream Americans.

Session Leader:

Christa Daniels, *AICP, Faculty and Doctoral Fellow, Antioch University New England*

Session Speakers/Panelists:

Cara Pike, *Founder and Director, Climate Access and the Social Capital Project*

TUESDAY, MAY 20 • NOON-2 PM

PLENARY: Lunch

Taking the Long View: How Regional-Scale Planning Will Inform and Assist Local Efforts

This panel will focus on long-term recovery and increased resilience by bringing together those, both in the public and private sector, actively responding to the post-Irene and -Sandy context. We will discuss lessons learned and current strategies being implemented at the state and regional level that will inform and complement both emergency preparedness and adaptation planning at the local level. The objective for this panel is how to create a shared vision in order to establish a long-term strategy for a resilient Northeast.

Moderators:

Ken Moraff, *Director, Office of Ecosystem Protection, U.S. EPA Region 1*

Irene Nielsen, *Climate Change Coordinator, U.S. EPA Region 2*

Speakers:

Colonel Andy L. Hall, *Chief, Operations Division, Army National Guard*

Rob Klee, *Commissioner, Connecticut Department of Energy and Environmental Protection*

Deborah Markowitz, *Secretary, Vermont Agency of Natural Resources*

Edward White, *Director of Customer and Business Strategy, National Grid*

TUESDAY, MAY 20 • 2:15-3:45 PM

TRACK: Planning and Process

From Plan to Practice: What Does Resiliency Implementation Really Look Like (T1E)

This session is an opportunity for participants to speak with practitioners whose communities' have successfully implemented various aspects of their Climate Action Plans or Hazard Mitigation Plans. Case studies will be utilized to provide examples of a successful implementation strategy. Participants should leave this session with a better idea of the process of turning their communities' plan(s) into successful and resilient policies.

Session Leader:

Julie LaBranche, *Senior Planner, Rockingham Planning Commission*

Session Speakers/Panelists:

Eric Fang AIA, LEED AP, *Associate Principal, Perkins Eastman*

Nicolaas Veraart, *Vice President, Louis Berger Group*

Kristin Baja, *Hazard Mitigation Planner, Office of Sustainability, City of Baltimore, MD*

TRACK: Natural Environment**Maintaining Northeastern Wildlife and Recreation Opportunities (T2E)**

The character of our Northeastern ecosystems is defined by our relatively intact and abundant healthy wildlife populations and habitats, and the associated recreational economies that bring people to this region. As other habitats and ecosystems change, our wildlife and hunting and fishing services will change as well. Participants will discuss how to insure that the habitats, wildlife, and the robust recreational economies of our region persist in the face of climate change.

Session Leader:

Steve Fuller, *Conservation Design Specialist, Wildlife Management Institute and North Atlantic LCC*

Session Speakers/Panelists:

Jennifer Melville, *Vice President, Conservation Grants and Loans, Open Space Institute*

John O'Leary, *State Wildlife Action Plan Coordinator, Massachusetts Division of Fish and Wildlife*

Emily Preston, *Wildlife Biologist, NH Fish and Game Department*

TRACK: The Built Environment**Turning Up The Heat On Communities' Energy Security (T3E)**

This session addresses the nexus of climate mitigation and adaptation strategies. Due to a changing climate and an increased frequency of extreme events, communities are seeing increased interruption in the systems supporting our lighting, heating and cooling needs, and such interruptions are expanding in frequency and duration. And, those most vulnerable, the infirmed, the aged and the very young, are facing greater risks. These are no longer isolated incidences; it is whole neighborhoods and regions. Tropical storms Irene and Sandy demonstrated both the spatial and temporal scale of energy supply vulnerabilities. The panel will highlight recent proactive efforts that target energy systems to both increase resilience to future extreme events, and more broadly assist transition to sustainable and energy-secure communities. Participants will leave the session with a deeper understanding of how to prioritize points of vulnerability in energy and fuel distribution within their municipal boundaries. You will also be introduced to the economic benefits of implementing both demand-side management and alternative energy strategies, which concurrently mitigate the impacts of greenhouse gases.

Session Leader:

Fouad Dagher, PE, *Manager of New Products and Energy Services, National Grid*

Session Speakers/Panelists:

Jim Newman, *Principal, Linnaean Solutions*

Travis Sheehan, *Ecodistricts Energy Fellow, Boston Redevelopment Authority*

Chris Lotspeich, *Director of Sustainability Services, Celtic Energy*

TRACK: Community Engagement and Communication**Motivating Community Behavior (T4E)**

How do we get community members engaged and involved in today's over-busy society? How do we get them to move beyond attitudes and opinions to providing mutually supportive behaviors? Good strategic planning integrates a scientific approach (for identifying goals, objectives, stakeholders, research, and latent readiness) with the creative (for the design of triggering events and activities that motivate behaviors). This session will build upon successful behavioral public relations and management strategies that can be translated down to the local level so to move a community's preparedness forward. Participants will leave with an understanding how to:

- Use of "triggering events" to move individuals along the behavior continuum
- Motivate volunteer support over time
- Identify and build relationships with opinion leaders in advance of asking for their support

Session Leader:

Abigail Abrash Walton, *Planning Board Chair, City of Keene, NH*

Session Speakers/Panelists:

Robin Schell, *Senior Counsel, Jackson Jackson and Wagner*

TUESDAY, MAY 20 • 4-5 PM**PLENARY: Closing Session and Remarks****Covering the costs: How do we pay for it all?**

The focus of this concluding plenary is to address what the future holds for financial support for emergency preparedness and longer range adaptation planning. This will include an update on the rapidly changing costs of insurance for activities within identified vulnerable zones and how to best navigate the complexities for payments for damage incurred. Tips will be given about already existing funds that can be tapped to support current efforts and how a community might think out-of-the-box to mitigate future costs.

Session Leader:

Lewis Milford, *President and Founder, Clean Energy Group and Clean Energy States Alliance*

Speakers:

Cynthia McHale, *Director, Insurance Program, Ceres*

Sara Pollock Hoverter, *Senior Fellow and Adjunct Professor, Georgetown University Law Center*

Perry Plummer, *Director, New Hampshire Homeland Security and Emergency Management*

Poster Presentations

1 Rachel Schattman, *University of Vermont*

Agricultural resilience in a changing climate: A trans-disciplinary approach to on-farm adaptation and mitigation

Track: Community Engagement and Communication

Abstract: As climate changes increasingly affect agricultural regions and landscapes, stakeholders will need to confront the challenges of how to address both climate change mitigation and adaptation issues. This study is part of a larger effort that seeks to understand how best management practices used on farms can limit the risks farmers are facing. The goal of this initiative is to foster long-term viability and resiliency on Vermont farms through a trans-disciplinary approach and participatory action research (PAR) process which identifies, evaluates and supports the implementation of Climate Change Best Management Practices (CCBMP) at the farm, research, extension and policy levels.

2 Michelle Staudinger, *USGS/Northeast Climate Science Center/ University of Mass-Amherst*

The Northeast Climate Science Center: Improving the way climate science informs resource management

Track: Natural Environment

Abstract: The Department of Interior Northeast Climate Science Center (NE CSC) is part of a federal network of eight Climate Science Centers created to provide scientific information, tools, and techniques that managers and other parties interested in land, water, wildlife and cultural resources can use to anticipate, monitor, and adapt to climate change. The NE CSC conducts research that responds to the needs of natural resource management partners that exist within the NE CSC bounds. One aspect of the NE CSC research portfolio is to better understand what traits make some species and habitats relatively more vulnerable to regional climate changes than others, and use this information to design adaptation strategies in the Northeast CSC region.

3 Kathleen Saul and Maria Ruotolo, *Center for Energy and Environmental Policy (CEEP)/ University of Delaware*

A tri-partisan alliance to build local climate adaptation measures

Track: Community Engagement and Communication

Abstract: With over 50% of the global population living in coastal regions, rising sea levels resulting from climate change now pose a grave danger. Climate change policies emphasize adaptive strategies to help different communities cope with the impacts of sea level rise. However, even once appropriate strategies have been identified, the

resources to pursue them must be secured. This research will show how what we call community adaptation agreements (CAA) can help to rapidly generate adaptation measures to tackle local climate change impacts while benefiting the local industry/business, the community, and the government.

4 Jennifer Rowland, *Antioch University New England*

Community forest pest preparedness in the Northeastern U.S.: An overview and case study

Track: Natural Environment

Abstract: Due to changing climatic conditions as well as sociological and technological innovations, biological invasions have increased around the world, including those of nonindigenous forest pests. This study focuses on the approaches to forest pest preparedness by communities in Northeastern states, and examines the threats and impacts commonly associated with hemlock wooly adelgid, Asian long horned beetle, and the emerald ash borer. The town of Hartford, Vermont is believed to be a model for other northeastern communities based on the town's experiences in developing a forest pest preparedness plan and goals to mitigate the effects of pest outbreaks.

5 Jonathan Loos, *Center for the Environment, Plymouth State University*

The role of flood insurance rates in determining stakeholder perceptions of flood mitigation ecosystem services in the Upper Valley

Track: Natural Environment

Abstract: Climate change predictions for increased precipitation and storm event uncertainty in the Northeast have produced a greater need for flood mitigation factors within the region. These projections alongside planned changes to National Flood Insurance Program (NFIP) rates have created a situation for reevaluation of ecosystem services that bestow flood mitigation benefits. This research explores the ecosystem services in the Upper Valley region of the Connecticut River and evaluates the ecological processes and infrastructure that together confer flood mitigation services to human communities. Using this approach with survey and focus group based stakeholder input, this project is searching how perceptions of flood mitigation services in the Upper Valley shift as a result of changes to flood insurance policies.

6 Jackson Massey, *University of Vermont*

Climate Change Adaptation and Relief Efforts

Track: Community Engagement and Communication

Abstract: To address the issue of climate change adaptation, a response must be generated at a grassroots level to facilitate community participation. In Vermont, many negative effects can be attributed to climate change including flooding, crop loss and damage to infrastructure. Although these consequences have continued to grow in size and frequency, minimal emphasis has been placed on adapting. This research seeks to bridge the gap between these negative social-ecological consequences and climate change so that communities may better adapt to new environmental conditions. Climate Change Adaptation and Relief Efforts (CARE) will be a new organization that seeks to spur this grassroots, community based adaptation to climate change.

7 Adrien Wilkie, *Oak Ridge Institute for Science and Education (ORISE)/University of Oregon*

Detection of climate change in Northeast United States

Track: The Built Environment

Abstract: Although climate change has global ramifications, geographical regions will not be equally affected. Thus, understanding how the regional climate is changing sets the foundation for creating local solutions for our natural and built environment. Without understanding regional patterns, communities will be less effective at preparing for and adapting to climate change. Through this research and using climate indexing, a functional representation of Northeast U.S. climate was created. The results suggest the Northeast has been in a period of higher than normal temperature and precipitation for the past several decades compared to the overall patterns of the 20th century, a newly emerging climate pattern for the region.

8 Danya Rumore, *Massachusetts Institute of Technology*

Building the capacity of Northeast communities to plan for and manage climate change risks

Track: Community Engagement and Communication

Abstract: The goal of the New England Climate Adaptation Project (NECAP) is to support Northeast towns and cities in creating resilient communities that are better prepared to handle climate variability and risks, while testing the use of role-play simulations as a public engagement strategy. This poster will present the findings from NECAP's collaborative research project involving academics, decision-makers, and local planners. This research is directly focused on developing approaches for enabling effective adaptation; it is highly relevant for local and regional decision-makers, planners, and educators seeking to advance local adaptation and resilience-building measures; and it may provide a model for other Northeast towns and cities.

9 Christa Daniels, *Antioch University New England*

Employee Gardens: Strengthening Community Resiliency through Partnerships

Track: Planning and Process

Abstract: The C&S Workplace Organic Gardens initiative actively addresses priority issues of increasing community resiliency through food security, which has been identified as essential to the broader Monadnock Region. C&S is the largest wholesale grocery supply company in the U.S. and the lead supply chain company in the food industry. This research identifies food security as a major issue that will affect the region as seasonal weather patterns change and cause increased chance of both drought and flooding. This initiative consists of a partnership between a business and academic institution to meet goals established in state and local municipal plans regarding food security and climate resiliency. The project achieves climate resiliency through diversity, modularity and transparent/short feedback loops.

10 Michelle Maillet, *McGill University*

Is the United Nations Framework Convention on Climate Change an appropriate institution for supporting indigenous populations' adaptation to climate change?

Track: Planning and Process

Abstract: The United Nations Framework Convention on Climate Change is an intergovernmental institution with the objective of bringing nations together to negotiate policies in a global effort to stabilize greenhouse gas emissions. This research touches upon the cross-cutting issues of policy and planning, and community engagement and communication from a top-down perspective through critical analysis of the discourse on adaptation to climate change at the global level. Further, this study seeks to identify the various implications of this discursive structure for indigenous peoples at the international, national, regional and local scales.

11 Johanna Stacy, *University of Massachusetts*

Landscape Water Use in the Ipswich River Watershed: A Study of Homeowners Attitudes about Residential Water Conservation and Green Infrastructure Implementation

Track: Community Engagement and Communication

Abstract: The Ipswich River is currently considered one of the most 'endangered' rivers in the United States as high seasonal water demands have resulted in low flow events. Climate change is likely to further alter the predictability of flows in the river. Understanding and altering consumers' behavior may be one solution to improve the river's imbalanced water budget. This research will provide a brief overview of existing green infrastructure projects, and describe the use of homeowner surveys as instruments to better understand people's perceptions of outdoor water use and the efficiency of various outdoor water conservation measures.

Keynote Speakers

Monday-Tuesday, May 19-20

(continued)



Special Guest
New Hampshire
Governor Maggie Hassan

Governor Maggie Hassan was sworn in as the 81st Governor of New Hampshire on January 3, 2013. Governor Hassan is focused on bringing people together to build a stronger, more in-

novative New Hampshire, with more good jobs that can support a growing middle class and where all of our citizens are included in our shared success and prosperity. She is doing this through working with legislators in both parties on balancing budgets, implementing the "Innovate NH" jobs plan--a bipartisan plan that expands access to health coverage, and efforts to maintain New Hampshire's high quality of life as one of the safest, healthiest and most livable states in the nation. Governor Hassan began her career in public service in 1999 when Governor Jeanne Shaheen asked her to serve on the Advisory Committee to the Adequacy in Education and Finance Commission. In 2004, Governor Hassan was first elected to the New Hampshire Senate, serving the people of the 23rd District, and serving as both President Pro Tempore and Majority Leader of the State Senate. She helped pass many important pieces of legislation including for education; marriage equality; economic support for workers during the recession; and the Regional Greenhouse Gas Initiative (RGGI). The Governor earned her B.A. from Brown University and her J.D. from the Northeastern School of Law.

Bob Perciasepe

Deputy Administrator, U.S. EPA

Appointed by President Obama in 2009 as the U.S. Environmental Protection Agency's Deputy Administrator, Bob Perciasepe continues a career spanning nearly four decades as one of the nation's leading environmental and public policy figures.

An expert on environmental stewardship, advocacy, public policy, and national resource and organizational management, Perciasepe is widely respected within both the environmental and U.S. business communities. His extensive experience includes service both inside and outside of government. He served as a top EPA official in the administration of President Bill Clinton, who appointed him, first, to serve as the nation's top water official and later as the senior official responsible for air quality across the U.S. Prior to being named to his current position, he was



chief operating officer at the National Audubon Society, one of the world's leading environmental organizations. He has also held top positions within state and municipal government, including as Secretary of the Environment for the State of Maryland and as a senior official for the City of Baltimore. Perciasepe holds a Bachelor of Science degree in Natural Resources from Cornell University and a master's degree in planning and public administration from the Maxwell School of Syracuse University. He and his wife have two adult daughters.



Bina Venkataraman

Senior Advisor on Climate Change Innovation, Executive Office of the President of the United States

Bina Venkataraman designs and leads international initiatives and advances the role of science and technology in policy and public life. She is currently serving in the Obama Administration tackling global climate change. Bina is committed to social justice and to catalyzing innovation in the realms of global health, the environment, and education. Her previous endeavors have included serving as a journalist in the newsrooms of The New York Times and The Boston Globe; developing an HIV/AIDS clinic in Vietnam; and managing research for the Rainforest Alliance, an international conservation organization. Since 2011, she has been a lecturer at MIT, where she teaches undergraduate science and engineering majors to effectively influence policy and public dialogue. During the first term of the Obama Administration, she served as the deputy for policy to the co-chair of the President's science advisory council (PCAST), Eric Lander. She is an alumna of Brown University and Harvard's Kennedy School.

Cameron Wake

Research Associate Professor, Climatology and Glaciology, University of New Hampshire and Director, Climate Solutions New England

Cameron is a research associate professor in climatology at the Institute for the Study of Earth, Oceans and Space at the University of New Hampshire.

He also has a joint appointment in the UNH Department of Earth Sciences and is the Josephine A. Lamprey Fellow in Climate and Sustainability at the UNH Sustainability Institute.



Cameron leads a research program investigating regional climate and environmental change through the analysis of ice cores and instrumental data, with a focus on the northeast United States, the Arctic, and central Asia. He is an author on over 70 papers published in the peer-reviewed scientific literature and dozens of reports, and has provided hundreds of interviews for state, regional and national media. Cameron also directs Climate Solutions New England, a collaborative effort to secure healthy, prosperous, and sustainable communities through building energy self-reliance and weather resilience. Dr. Wake received a B.Sc. in Geology (1984) from the University of Ottawa, an M.A. in Geography (1987) from Wilfrid Laurier University, and a Ph.D. in Earth Sciences (1993) from the University of New Hampshire.

Abigail Abrash Walton

Chair of Planning Board, City of Keene, NH

Abigail chairs the City of Keene's Planning Board and served on the Steering Committee for the City's Master Plan. She has contributed to the city's adoption of a Hillside Protection Ordinance and Surface Water Protection Ordinance as well as updates to the Planning Board's development standards to include Comprehensive Transportation Management and Low-Impact Development. Abigail also serves as founding Director of Antioch University New England's Center for Academic Innovation, faculty in the Department of Environmental Studies, and an organizational leader in environmental and social performance. She has played a central role in piloting AUNE's Conservation Psychology Institute and Translating Research to Inform Policy workshops. Previously, she was program director for the Robert F. Kennedy Memorial Center for Human Rights and New Hampshire Citizens Alliance, and was a Visiting Fellow at Harvard Law School's Human Rights Program. She has been a commentator for The Washington Post, The New York Times, National Public Radio, "Democracy Now!" and "The News Hour with Jim Lehrer." Abigail holds a M.Sc. in Political Theory from the London School of Economics and Political Science, a B.A. in International Relations from the University of Pennsylvania, and a Permaculture Design Certificate from the Occidental Arts and Ecology Center.



Michael H. Simpson

Core Faculty and Chair, Department of Environmental Studies, Antioch University New England

Michael has been a senior environmental scientist and partner for two environmental consultant firms in the Northeast. He has also worked for both the NH Dept. of Environmental Services and the MA Dept. of Environmental Protection. He is a licensed wetlands scientist with over twenty-five years experience in wetland and riparian corridor assessments, employing a variety of assessment approaches and data collection procedures. Much of his research has been funded by NOAA and the US EPA; it focuses on working with local stakeholders to identify potential risks from projected climate and land-use change, followed by developing an adaptation strategy for communities to build for projected impacts. Currently, he is the Chair of the Environmental Studies Department at Antioch University New England. He has graduate degrees from Dartmouth College and Antioch New England Graduate School.



Denice Ross

Director of Enterprise Information, City of New Orleans

Denice Ross is a nationally recognized speaker, author and thought leader in "democratizing data" who currently directs information strategy for the City of New Orleans. Her efforts to build open data systems between government agencies--and with the public--support key resilience functions in areas as diverse as community engagement, blight reduction, and emergency preparedness. Prior to joining government, Denice served as the Deputy Director of the Greater New Orleans Community Data Center, a nonprofit whose mission is to make data accessible to all. When Hurricane Katrina devastated New Orleans, it propelled this critical work into the national consciousness and forged a collaboration with Brookings to publish The New Orleans Index to track regional recovery and resilience. Denice supported many post-Katrina community planning initiatives and helped provide public and private leaders reliable data to make decisions about the future. Prior to moving to New Orleans in 2001, she worked in educational technology. Denice holds a Bachelors of Science in Biology from the University of Arizona. She is active in her neighborhood association and serves on the board of the childcare center she co-founded after the storm.

Speakers

Plenary Sessions



Colonel Andy L. Hall

Chief, Operations Division, Army National Guard

Colonel Andy L. Hall is the Chief, Operations Division for the Army National Guard. Immediately prior to his current assignment, he was the Commander of the 648th Maneuver Enhancement Brigade, Georgia Army

National Guard and Task Force Hydra, Kabul Afghanistan . Colonel Hall's civilian and military education include: a Bachelor of Science Degree in Political Science, a Master of Arts Degree in Public Administration, and a Master of Science Degree in Strategic Studies. Colonel Hall is a graduate of the United States Army War College. Colonel Hall's awards and decorations include the Legion of Merit, Bronze Star, Defense Meritorious Service Medal, Meritorious Service Medal w/ 4 Oak Leaf Clusters, Army Commendation Medal with 4 Oak Leaf Clusters, Army Achievement Medal, Army Reserve Component Achievement Medal, National Defense Service Medal, Afghanistan Campaign Medal, Iraq Campaign Medal, Global War on Terror Service Medal, Military Outstanding Volunteer Service Medal, Armed Forces Reserve Medal with 2 M devices, Army Service Ribbon, Army Overseas Ribbon, Army Reserves Overseas Training Ribbon, the NATO ISAF Ribbon, The Army Staff Identification Badge, and the German Armed Forces Proficiency Badge – Gold.

Sara P. Hoverter

Senior Fellow and Adjunct Professor, Georgetown University Law Center

Sara is a senior fellow and adjunct professor at the Harrison Institute for Public Law at Georgetown Law. Her areas of concentration are health and climate change policy, including food and nutrition policy, community health worker policy and network development, and federal and state health reform. Relevant publications include *Urban Heat Adaptation: A Toolkit for Local Governments* (2012), as well as the *Federal Funding Compendium for Urban Heat Adaptation* (2013). Sara's past positions have included jobs at the National Partnership for Women and Families, the Center for Law and the Public's Health, and the DC Applesseed Center for Law and Justice. Her education includes a B.A. from Yale University, a J.D. from Georgetown University, and an LL.M. from Georgetown University.



Rob Klee

Commissioner, Connecticut Department of Energy and Environmental Protection

Commissioner Klee was appointed to lead the CT DEEP by Governor Dannel P. Malloy in January 2014. DEEP is the state agency charged with conserving, improving and protecting the state's natural resources and environment, providing first-rate outdoor recreation opportunities, and bringing cheaper, cleaner, and more reliable energy to Connecticut's residents and businesses. Prior to joining state service, Commissioner Klee was an attorney with Wiggin and Dana LLP, in New Haven, where he specialized in appellate work and energy and environmental law. He served as a Research Affiliate in the Yale School of Forestry and Environmental Studies from 2006 to 2008. Commissioner Klee holds a Ph.D. from Yale's School of Forestry and Environmental Studies in industrial ecology, a law degree from Yale, and an undergraduate degree from Princeton in geology and environmental science. Commissioner Klee and his wife Anne have two sons.

Deborah Markowitz

Secretary, Vermont Agency of Natural Resources

Deborah Markowitz is the Secretary of the Vermont Agency of Natural Resources, the state agency with primary responsibility for protecting Vermont's environment, natural resources and wildlife and for maintaining Vermont's forests and state parks. Markowitz was named to that position by Governor Peter Shumlin in January 2011. As Secretary of the Agency of Natural Resources, Markowitz has shaped the environmental agenda of the state, focusing on the challenges of climate change, habitat fragmentation and the need to make Vermont more resilient to flooding. A graduate of the University of Vermont (B.A., 1983), Markowitz received her Juris Doctorate degree from the Georgetown University Law Center (magna cum laude, 1987). Markowitz is the author of the *Vermont Municipal Guide to Land Use Regulation* (1997) and *Vermont Municipal Environmental Handbook* (1995). Markowitz has served on numerous state and national boards and commissions and is the founder of the Vermont Women's Leadership Initiative and Vermont Votes for Kids. She has been recognized nationally for her leadership by being awarded an Aspen Institute Rodel fellowship.





Cynthia McHale

Director, Insurance Program, Ceres

Cynthia brings more than 20 years of experience working with many of the leading North American and European insurers, re-insurers and insurance brokers, and is currently working with insurers to promote and expand their commitment to, and

implementation of climate risk adaptation and mitigation strategies. Before joining Ceres, Cynthia managed Accenture's Global Insurance Industry Program. Her specific areas of expertise include new product development, underwriting, claims, and customer service/policy administration. She began her career as a casualty underwriter at GenRe, a Berkshire Hathaway company. Cynthia's other professional experience includes implementation of a micro-insurance program in East Africa and administration of a social responsibility code of conduct for U.S corporations with business operations in South Africa. She holds a Bachelor of Arts degree in Government from Dartmouth College and a Master of Science in Management from Hult International Business School.

Lewis Milford

President and Founder, Clean Energy Group and Clean Energy States Alliance

Lewis Milford, President and founder of Clean Energy Group and the Clean Energy States Alliance, two nonprofit organizations that work with state, federal and international organizations to promote clean energy technologies. Prior to founding CEG in 1998, Mr. Milford was Vice President of the Conservation Law Foundation. Mr. Milford was a New York Assistant Attorney General. He was also a law professor and director of the Public Interest Law Clinic at American University in Washington, D.C. He has a J.D. from Georgetown University Law Center.



Ken Moraff

Director, Office of Ecosystem Protection, U.S. EPA Region 1 New England

Ken Moraff is Director of the Office of Ecosystem Protection at EPA New England, with responsibility for federal clean air and clean water programs in the six New England states. He has extensive experience in environmental

law and policy, and has spoken at numerous conferences, trade association meetings, and similar forums. Mr. Moraff has also served as manager of EPA New England's enforcement program, and as special assistant to the Regional Administrator. He is a graduate of Cornell University and Harvard Law School.

Perry Plummer

Director, New Hampshire Homeland Security and Emergency Management

Director Plummer is currently the Director of New Hampshire Division of Homeland Security and Emergency Management. Prior to his appointment to this position, he served as the Director of New Hampshire Fire Standards and Training and Emergency Medical Services.

Director Plummer joined the New Hampshire Department of Safety after a 25 year career with the City of Dover Fire and Rescue where he spent the last 9 years as an award winning Fire Chief. In his current role, Director Plummer serves as the Chairman of the Governor's Vermont Yankee Decommissioning Working Group and is the state's Liaison to the U.S. Nuclear Regulatory Commission (NRC). He also serves nationally on the Special and Emerging Issues Committee for Homeland Security.



Edward H. White, Jr.

Vice President, Customer and Business Strategy, National Grid

National Grid is an electricity and gas company that connects consumers to energy sources through its networks. The company is at the heart of one of the greatest challenges facing our society to create new, sustainable energy solutions for the future and developing an energy system that underpins economic prosperity in the 21st century. Edward White's team provides product expertise, alliance support, energy efficient solutions, ensures regulatory coordination and develops new products and services including modernized smart grid programs and solutions focused on alternative fuel vehicles. White earned a Bachelor of Science in Civil Engineering and a certificate in High Performance Management from Northeastern University, Boston, and completed Cambridge University's Program for Sustainability Leadership in 2008.

Speakers

WORKSHOPS



Dr. Christie Manning

Professor of Psychology, Macalester College

Professor Manning's research and teaching explore the cognitive, social and situational factors that influence behavioral and lifestyle choices and how these choices positively or negatively impact natural systems. She is particularly interested in people's cognitive and emotional response to information

about climate change. Professor Manning holds a BSc in Human Factors Engineering (Engineering Psychology), Tufts Univ. School of Engineering, 1989, and PhD in Psychology, University of Minnesota, 2000.

Debra Perry

Senior Program Officer, Institute for Sustainable Communities and American Society of Adaptation Professionals

Deb Perry joined the Institute for Sustainable Communities (ISC) in January 2011. As a Senior Program Officer on ISC's U.S. Climate and Environment Program team, Deb helps to coordinate the National Sustainable Communities Learning Network (SCLN), a Network of more than 200 communities and regions that have received grants and technical assistance through the federal Partnership for Sustainable Communities. Since 2011, Deb has also served as the project manager for the Resilient Vermont Project, an effort to develop an integrated, long-term strategy for resilience that weaves together state, regional and local initiatives, and better equips the Vermont to prepare for, respond to and bounce back from future climate impacts and the natural disasters. She has a Bachelor's degree from Colgate University, a Master of Science degree in Natural Resource Planning from the University of Vermont and is a member of the American Institute of Certified Planners (AICP).



Steven Whitman, AICP

Planning Consultant and Educator, Resilience Planning and Design LLC

Steven Whitman is a professional planner and educator based in New Hampshire and his work is focused largely on community planning and sustainability issues. Mr. Whitman is a certified permaculture teacher, and is also an adjunct faculty member at Plymouth State University and Colby Sawyer College. Mr. Whitman frequently teaches courses in the US and internationally in environmental planning, community planning, permaculture, natural building and sustainability. Mr. Whitman lives in Plymouth, NH and participates in a wide range of grassroots efforts that promote sustainability.

SESSIONS

Planning and Process

Kristin Baja

Climate and Resilience Planner, Office of Sustainability, City of Baltimore, Maryland

Kristin Baja is the Climate and Resilience Planner with the Office of Sustainability at Baltimore City. She is responsible for development and implementation of the City's Disaster Preparedness Project and Plan (DP3). She is also responsible for the City's climate communications plan, STAR certification process, and Community Rating System certification. Before joining Baltimore City, Kristin worked for the City of Ann Arbor developing their Climate Action Plan and Sustainability Framework. Kristin holds a Master of Urban Planning degree and a Master of Science degree from the University of Michigan.

David Berg, AICP, LEED AP

Associate, Cameron Engineering and Associates, LLP

David Berg, AICP, LEED AP is an Associate at Cameron Engineering and Associates, LLP where he has provided land use planning and environmental analysis for municipal and private clients for over 15 years. As the project manager of NYSERDA's Climate Smart Communities for Long Island, David is assisting municipalities to lower their greenhouse gas emissions, adapt to climate change, and mitigate the effects of sea level rise. David is one of the project managers for the NY Rising Community Reconstruction Program, assisting one of Suffolk County's Sandy-impacted areas develop a rebuilding and revitalization plan.

Peter Britz

Environmental Planner and Sustainability Coordinator, City of Portsmouth, NH

Peter Britz has served as the City of Portsmouth's Environmental Planner since 2000. Peter is a member of the Hodgson Brook Watershed Advisory Board, past Chairman for the New Hampshire Estuaries Project management committee, and serves as staff to the City's Conservation Commission. Peter has coordinated the City's membership in ICLEI and completed the first ICLEI milestone, the citywide carbon inventory. He has also worked to coordinate the City's membership in the Mayor's Climate protection agreement and assisted with the new designation of Portsmouth as an ecomunicipality.

Peg Elmer, AICP

Principal, Community-Resilience.org

Peg Elmer, AICP, is a professional planner and long-time environmental advocate with a long track record of creating training materials and programs for state and local policy-makers, lay and professional, guiding land use in northern New England. Prior to establishing Community-Resilience.org in 2012, she was Assistant Professor, Land Use Planning and

Policy and Associate Director of the Land Use Clinic at the Vermont Law School. She serves as the Governor's "smart growth" appointment on the VT Downtown Board, on the Executive Committee of VT Planners Association and is past-President of the Northern New England Chapter of the American Planning Association.

Eric Fang AIA, LEED AP

Associate Principal, Perkins Eastman

Eric is an Associate Principal at Perkins Eastman with more than 20 years of experience as an architect and urban designer. He has led large-scale projects in urban design and redevelopment, as well as university and campus planning projects. Eric is a regular contributor to professional and academic journals, and his work has been recognized by numerous awards from institutions including the AIA New York Chapter and the New Jersey Chapter of the American Planning Association.

Chris Keeley

Communities and Climate Program Coordinator, NH Sea Grant and University of New Hampshire Cooperative Extension

Chris Keeley works in coastal New Hampshire as the Communities and Climate Program Coordinator at NH Sea Grant and UNH Cooperative Extension, and also works on climate change adaptation with the Great Bay National Estuarine Research Reserve. His Masters of Science thesis research at the University of New Hampshire identified factors that prompt communities to engage in climate adaptation, the processes and methods they used for planning for climate change, and the immediate outcomes from engaging in adaptation.

Julie LaBranche

Senior Planner, Rockingham Planning Commission

Julie is a Senior Planner with the Rockingham Planning Commission in southeast New Hampshire. Her work in the region includes assisting communities with: development of Master Plans and policies; zoning ordinances and regulations relating to land use, natural resource protection, climate change and adaptation planning, energy, and stormwater management; and integrating land use and transportation planning concepts. Julie participates as a member of: the Southeast Watershed Alliance Advisory Committee, NH Sea Grant Policy Advisory Committee, NH Coastal Adaptation Workgroup, and as Vice President of the Northern New England Chapter of the American Planning Association. She holds a B.S. in Geological Sciences from Salem State College, MA and a M.S. in Earth Sciences-Geology from Montana State University, Bozeman.

John Miller, PE, CFM, CSM

Water Resources Engineer, Princeton Hydro, LLC

John is in his seventh year as Legislative Committee Chair of the New Jersey Association for Floodplain Management (NJAFM), a non-profit, all-volunteer organization incorporated in 2005 and dedicated to reducing loss of life, mitigating property damage and promoting sound floodplain management; NJAFM is a chapter of the 15,000 national member

Association of State Floodplain Managers. NJAFM is THE flood resource for the State of New Jersey, having direct input into education, policy, practices and recognition of the 11 Presidential Disaster Declarations in New Jersey in the past nine (9) years.

Bill Patenaude

Principal Engineer, Rhode Island Department of Environmental Management

Bill Patenaude is a Principal Engineer with the Rhode Island Department of Environmental Management's Office of Water Resources. In this role he has overseen wastewater treatment inspection, operator training, and operator certification programs since 1988. Most recently he has been tasked with assisting with climate change activities and vulnerability assessments for his office and for the DEM.

Ed Saltzberg, PhD

Managing Director, The Security and Sustainability Forum

Edward Saltzberg, PhD. Is the Managing Director of the Security and Sustainability Forum, a public interest organization that convenes global experts in free online events to address the impacts to society from climate and other disruptions to natural systems. Over 9000 professionals comprise SSF's following split nearly equally among the business, government and academic/nonprofit sectors. Ed received his doctorate in Environmental Sciences from the University of Virginia, completed a Master's Degree in Geology from Boston University and received a Bachelor's of Chemical Engineering from Rensselaer Polytechnic Institute.

Daniel Slone

Partner, McGuire Woods LLP and Resilient Design Institute

Dan assists innovative clients in designing and implementing their projects. He helps them to build the right entities, put together appropriate strategies, overcome impediments and put together effective contracts for the new types of relationships they create. Dan is national counsel for the U.S. Green Building Council and World Green Building Council, and on the board of the Congress for the New Urbanism. He is author of "The Legal Impediments Survey," and "Sustainability Planning and the Law," in Sustainable and Resilient Communities: A Comprehensive Action Plan for Towns, Cities, and Regions, 2011, and co-author of A Legal Guide to Urban and Sustainable Development, among numerous other publications.

Nicolaas Veraart

Vice President, Louis Berger Group

Niek Veraart is a Vice President at Louis Berger in New York, where he directs the firm's environmental planning practice. He led the firm's services for the post 9/11 recovery and redevelopment of Lower Manhattan, in particular the World Trade Center, the National September 11 Memorial, the Fulton Street Transit Center and infrastructure restoration in Lower Manhattan. He is currently supporting the State of New York, the City of New York and the City of Hoboken, New Jersey with the recovery from Superstorm Sandy. He is a graduate of Wageningen University in

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The Netherlands with undergraduate and graduate degrees in Landscape Architecture and Regional Planning.

Adam Whelchel, PhD

Director of Science, The Nature Conservancy

Dr. Adam Whelchel's twenty-two year career has focused on ecological restoration and climate preparedness while with federal agencies, ecological consulting firms, academic institutions, and non-profit organizations in the United States, Caribbean and Africa. Dr. Whelchel is currently responsible for overseeing extreme weather and climate impact assessment and responses with municipalities and states in Southern New England via the Conservancy's Coastal Resilience Network. Adam is also serving as a key advisor for Puerto Rico Climate Adaptation Project and a Lead Author on the Northeast section of the U.S. National Climate Assessment.

Natural Environment

Lisa Auermuller

Watershed Coordinator, Institute of Marine and Coastal Sciences (Jacques Cousteau Reserve), Rutgers University

Lisa Auermuller is the Watershed Coordinator for the Jacques Cousteau National Estuarine Research Reserve in Tuckerton, NJ. In her role at the Reserve, Lisa's duties include assessing the needs of coastal decision makers and providing relevant and timely training opportunities. Most recently, Lisa's primary areas of interest have been in stormwater management, climate change and coastal community vulnerability as it relates to sea level rise. Lisa has been working with a variety of partners to develop tools and protocols to help communities understand their risks, plan for those risks and put adaptation measures into place.

Gabe Bolin, PE

Eastern Stream Restoration Specialist, Trout Unlimited

Gabe is a water resource engineer with over 14 years of experience specializing in watershed management and ecological restoration projects. Gabe has gathered extensive experience in all phases of water resources work including monitoring, field surveys, modeling and analysis, design, project management and construction oversight. Gabe earned his B.S. in Bio-Environmental Engineering from Rutgers University and his M.E. in Coastal Engineering from Stevens Institute of Technology.

Caitlin Cusack

Community Forestry Outreach Coordinator, University of Vermont Extension

Caitlin Cusack is an Urban and Community Forestry Extension Educator for the University of Vermont Extension. Caitlin coordinates the Vermont Forest Pest First Detector Program and assists communities with the

management of their urban and community forests, with specific focus on forest health. She grew up in eastern Massachusetts and received a B.A. in Environmental Studies from The College of the Holy Cross in Worcester, M.A. and a M.F. in 2008 from Yale's School of Forestry and Environmental Studies in New Haven, CT.

John Field, PhD

Fluvial Geomorphologist, Field Geology Services

Dr. Field received a Ph.D. in 1994 from the University of Arizona with concentrations in fluvial geomorphology and hydrology. Dr. Field's research on flooding and habitat issues has been published in numerous peer-reviewed scientific publications and presented at professional meetings throughout the United States. Dr. Field has conducted geomorphic assessments and completed stream restoration projects throughout New England in an effort to reduce flooding and erosion while simultaneously improving aquatic habitat.

Steve Fuller, PhD

Conservation Design Specialist, Wildlife Management Institute and North Atlantic LCC

Steve Fuller has served as Conservation Design Specialist with the North Atlantic LCC since 2011, beginning with development of the Northeast Conservation Framework and the Albany 2 workshop in 2011, and recently working to assemble a comprehensive Northeast Landscape Conservation Design and translate the forthcoming results of that effort to support State Wildlife Action Plan (SWAP) revisions. Before joining the NALCC team, Steve held the position of Terrestrial Ecologist for the State of New Hampshire, serving as the science coordinator for NH's SWAP, and providing technical assistance on conservation science to the Regional Conservation Needs Program since its inception.

Dr. Hector Galbraith

Senior Scientist, National Wildlife Federation

With his initial training and degrees in avian ecology and population dynamics, Dr. Galbraith has since branched out into evaluating the potential impacts of climate change on plant and animal populations and communities in the Northeastern Region. Through numerous projects funded by, among others, the North Atlantic LCC and various state agencies and foundations, Dr. Galbraith has taken a lead role in developing and applying methods to quantify the vulnerabilities of species and communities to the changing climate. He is currently a staff scientist with the National Wildlife Federation.

Sherry Godlewski

Environmental Program Manager, NH Department of Environmental Services

Sherry Godlewski has worked for NH Department of Environmental Services for 17 years, and has experience in the water, air, waste, and environmental health programs. She currently works on Climate Change Adaptation efforts. She served as facilitator for the Governor's Climate Change Policy Task Force Adaptation Working Group. Sherry currently

serves as co-chair of both the Coastal Adaptation Workgroup and the Upper Valley Adaptation Workgroup. She also participates in and connects the various adaptation initiatives taking place in New Hampshire. She represents New Hampshire in regional adaptation workgroups. Sherry has a M.S. in Environmental Communication and Administration from Antioch University.

Dr. Evan Grant

Wildlife Biologist, Conte Anadromous Fish Research Center, Patuxent Wildlife Research Center/USGS

Evan Grant is principle investigator of the US Geological Survey's Amphibian Research and Monitoring Initiative (ARMI), Northeast region, and stationed at the Patuxent Wildlife Research Center in Laurel, MD. His research focuses on questions relating to amphibian populations, specifically with respect to their landscape-scale ecology and conservation. His work is focused on monitoring and research questions that can aid resource managers and conservationists.

Emily Hamilton, MLA

Consulting Urban Forester, Davey Tree Expert Company

Emily Hamilton, is an urban forester, landscape designer, inventory arborist and project manager for Davey Resource Group's Natural Resource Consulting group. Emily is responsible for managing urban forestry consulting contracts with municipalities, such as the Department of Public Works in Fall River, Massachusetts and the Philadelphia, Pennsylvania Parks and Recreation Department. In Springfield, Massachusetts she was contracted by the local non-profit, ReGreen Springfield, to manage the planting of 1,140 trees on private properties in the tornado recovery zone. Ms. Emily holds a B.S. in plant science from Cornell University and a Master of Landscape Architecture from the University of Illinois.

Emilie Hauser

NEIWPCC Environmental Analyst, NY Dept. of Environmental Conservation and Estuary Training Program Coordinator, Hudson River National Estuarine Research Reserve

Emilie Hauser is the Coordinator of the Hudson River Estuary Training Program at the NYSDEC Hudson River National Estuarine Research Reserve, employed by NEIWPCC. She holds a combined bachelors degree in astronomy and geology from Mount Holyoke and M.S. in earth and space sciences from Stony Brook University and is on the executive board of the Hudson River Environmental Society. She serves on the City of Kingston Conservation Advisory Council and the Climate Action Task Force, which is implementing the Kingston's Climate Action Plan. She served on the planning team for the Kingston Waterfront Flooding Task Force.

Colin Lawson, M.S.

New England Culvert Project Coordinator, Trout Unlimited

Colin works with many partners, from Trout Unlimited (TU)'s state councils and local chapters, landowners, and other non-profit organizations to federal partners such as the US Forest Service, Natural Resource Conser-

vation Service, and the USFWS. The New England Culvert Project at TU is actively working with NH NRCS on installing over 30 large wood installations on easement properties to improve aquatic habitat development. Prior to joining TU, Colin managed cross country ski areas in Vermont before returning to graduate school to study environmental science and hydro-ecology at Antioch New England University in Keene, NH.

John Magee

Fish Habitat Biologist, New Hampshire Fish and Game Department

John has a B.A. in Biology from St. Mary's College of Maryland and a M.S. in Zoology from University of Maine. He has worked in the fields of aquatic toxicology, fish physiology and fish ecology. He is the Fish Habitat Biologist at New Hampshire Fish and Game Department.

Jennifer Melville

Vice President, Conservation Grants and Loans Open Space Institute

Jennifer Melville is Vice President, Conservation Grants and Loans, for the Open Space Institute (OSI). In addition, Jennifer serves as OSI's New England Field Coordinator, based in southern Maine. She joined OSI's staff in 2008 to develop and implement OSI funds in the region, such as the Resilient Landscape Initiative, Community Forest Fund and the Transborder Land Conservation Fund. She has over 25 years of experience working for land conservation organizations in New England. She is a graduate of the University of California Berkeley and holds an MA from the Yale School of Forestry and Environmental Studies.

Steve Miller

Coastal Training Program Coordinator, Great Bay National Estuarine Research Reserve

Steve Miller is the Coastal Training Program Coordinator at the Great Bay National Estuarine Research Reserve, where he provides science-based training and resources to municipal decision makers. Prior to this he was the Program Director at the Seacoast Science Center. Steve earned a MS in Ecosystem Ecology and Wildlife from the Yale School of Forestry and Environmental Studies. Steve has worked in the environmental education field for over 30 years. Steve is the Chair of the Portsmouth Conservation Commission and is the Co-Chair of the New Hampshire Coastal Adaptation Workgroup.

John O'Leary

State Wildlife Action Plan Coordinator, MA Division of Fish and Wildlife

John received his B.S. in Fisheries Biology from UMASS, Amherst in 1977 and his M.S. in Fisheries and Wildlife Biology, also at UMASS, Amherst, in 1984. He began his professional career working for Massachusetts Cooperative Fisheries Research Unit as Anadromous Fish Restoration Project leader (1979-1989) before becoming a District Fisheries Manager for the Massachusetts Division of Fisheries and Wildlife (MDFW) in 1990. John left the MDFW to become a Watershed Team Leader within the Massachusetts Watershed Initiative from 1999-2003 and returned to MDFW as the State Wildlife Action Plan Coordinator. He was the State Co-Chair

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of the Forestry Section for the National Fish, Wildlife and Plant Climate Adaptation Strategy. He also served on Massachusetts Climate Change Adaptation Committee, Natural Resources Sub-Committee, serves as the Chair of the Northeast Association of Fish and Wildlife Agencies (NEAFWA) Climate Change Working Group and as the Northeast Representative to the Advisory Committee on Climate Change and Natural Resource Science. In the fall 2013 he was promoted to Assistant Director of Wildlife for (MDFW).

Dr. Peter Palmiotto, DF

Director, Monadnock Ecological and Education (MERE) Project and Director, Conservation Biology, Antioch University New England

Peter A. Palmiotto is a faculty member and Director of the Conservation Biology Program at Antioch University New England. He received his Doctorate of Forestry in Ecosystem Ecology and M.F.S. in Tropical Forest Ecology from Yale U., School of Forestry and Environmental Studies. He has a B.S. in Resources Management from SUNY ESF and an A.A.S. in Forestry from Paul Smith's College. As a professional forester Peter advises State and private institutions on forest management issues as well as manages Antioch University's forested properties.

Emily Preston

Wildlife Biologist, NH Fish and Game Department

Emily Preston is a wildlife biologist with the NH Fish and Game Department's Nongame and Endangered Wildlife Program. She provides technical assistance to agencies, land trusts, towns, landowners and other efforts on wildlife habitat protection and management, using wildlife habitat data to identify important natural resource areas and encouraging people to use a range of tools to protect and manage them. Emily has a Masters degree in environmental science and years of experience managing lands, providing natural history information to the public, and working on local and regional open space plans.

Erin Rodgers

Project Manager, Trout Unlimited, and Researcher at Conte Anadromous Fish Research Center (USGS)

Erin began her career as a marine biologist but became focused on inland riparian ecology during her graduate studies where she is currently completing her dissertation on the effects of catastrophic floods on native fisheries. Erin has worked with the city of Keene, NH to improve wetland habitat and with the Green Mountain Conservation Group on road salt issues over New Hampshire's stratified-drift aquifer. She currently works for Trout Unlimited as a Project Manager for the New England Culvert Project.

Jennifer West

Coastal Training Program Coordinator, Narragansett Bay Research Reserve

Jennifer West is the Coastal Training Program Coordinator with the Narragansett Bay National Estuarine Research Reserve. She develops and delivers science-based trainings and tools to decision-makers so that they may make informed decisions about how to best protect Narragansett Bay and its watershed. Jennifer has a MS in Environmental Sciences from the University of Rhode Island and a BS in Environmental Biology from the State University of New York College at Oneonta.

Jill Weiss

Adjunct, School of Science and Social Science, Keene State College and PhD Candidate, Antioch University New England

Jill is completing her PhD research on the application of communication theories to regional conservation networks and ecological stewardship. The dissertation will explore the path of knowledge sharing and collaboration in landscape scale, regional conservation networks in New England. In 2011 she researched and presented the report, Sharing Out: Alpine Stewardship Programs in the Northeast, a survey of field education, passive and active management, and research atop the peaks of the Northeast.

Andy Whitman, MS

Director of Sustainable Economies Initiative, Manomet Center for Conservation Sciences

Andy Whitman has worked on sustainable systems for more than two decades, focusing on tools and partnerships that foster sustainability. For the last five years, he has worked in New England with foresters, farmers, and local communities to develop tools for mitigating and adapting to changing weather and climate. Andy has served on sustainability panels for state government, industry and businesses and has published in numerous scientific journals. He holds an M.S. in Wildlife Ecology from the University of Maine.

Built Environment

Kathleen Baskin

Director of Water Policy at the Massachusetts Executive Office of Energy and Environmental Affairs

Kathleen Baskin develops and implements state water policy on issues such as flow and habitat alteration, stormwater management, water quality, and water supply allocation. She managed the MA Climate Change Adaptation Advisory Committee and preparation of the MA Climate Change Adaptation Report, and is currently chairing the Adaptation Subcommittee of the Global Warming Solutions Act Implementation Advisory Committee. She is EEA's lead advisor for the MA Sustainable Water Management Initiative, which is promoting protection and sustainable management of water resources for ecological needs and economic development. Before joining EEA, Ms. Baskin developed and directed tech-

nical research programs and established watershed management priorities at a non-profit organization and was a consultant at an international engineering firm. She has an MS degree in Environmental Engineering and BS degrees in Civil Engineering and Biology, all from Tufts University.

John R. Bolduc

Environmental Planner, City of Cambridge, MA

John Bolduc is an environmental planner with the City of Cambridge Community Development Department where he coordinates climate change initiatives. John is the project manager for the Cambridge Climate Change Vulnerability Assessment and Preparedness Plan project; works with the Climate Protection Action Committee, an advisory group to the City Manager, to develop recommendations for new policies and actions; reviews development proposals for compliance with the Zoning Ordinance's green building requirements. John earned a Bachelor of Science degree from the University of California at Davis in 1980 and a Master of Arts from Tufts University in Urban and Environmental Policy in 1986.

Peter Cusolito, CEM, CFM

Senior Security and Emergency Management Planner, Vanasse Hangen Brustlin, Inc.

Peter is a Certified Emergency Manager and Certified Floodplain Manager with three decades of strategic planning, training management, and experience in applying emergency management assessment and preparedness planning principles to address natural hazard mitigation, critical infrastructure resiliency, climate adaptation planning, and climate change vulnerability. His practice area focuses on public and private infrastructure, mainly in the transportation industry, for road, rail, air, and sea. Peter has conducted detailed hazard and climate impact assessments to identify risk associated with local and regional impacts of climate change. He uses traditional planning and advanced modeling techniques to analyze the impacts of increased weather activity on impact critical infrastructure. In addition, he uses risk analysis to understand the vulnerabilities to populations and social capital, infrastructure, and natural resources. A retired senior military officer, he served as the Commander of a military homeland defense/terrorist response support team and as a representative to the public for the coordination of public safety planning for several large-scale, high-risk events throughout the country. Peter is also an adjunct professor for the Graduate Programs in Emergency Management, Public Administration, and Fire Science at Anna Maria College.

Fouad Dagher, PE

Director of Emerging Products and Services, National Grid

Fouad Dagher is the Director of the Emerging Products and Services in the Customer and Business Strategy department at National Grid USA, and the program manager for the development of National Grid's solar generation facilities. His responsibilities are to identify, develop, and implement advanced technology solutions in the fields of renewable, efficient energy, storage systems, non-wire solutions, alternative fuel vehicles, home energy devices and innovative approaches to gas and electric energy efficiency. Fouad joined National Grid in 1994 as an Associate Engineer

in the Protection and Planning Department and since then he assumed different responsibilities within National Grid. Fouad earned his Bachelor of Science and Masters of Science in Electrical and Energy Engineering from the University of Massachusetts. He attended Northeastern University in Boston, MA for Post Graduate studies in Electrical Engineering. Mr. Dagher is a registered Professional Engineer in Massachusetts and Vermont and the author several engineering papers.

Judy Gates

Director, Environmental Office, Maine Department of Transportation

In her role at MaineDOT, Judy Gates oversees programs concerning groundwater, stormwater management, intra- and inter-agency coordination, permitting, threatened and endangered species, natural resource assessments, hazardous materials, and hydrology. As Director, she spearheads efforts to streamline regulatory processes through the use of programmatic agreements, abbreviated licensing procedures, and memorandums of understanding or agreement, and advocates for state transportation interests in both state and federal policy, legislative, and regulatory forums. Judy earned a B.S. in Agriculture from West Virginia University, holds M.S. degrees in Plant and Soil Sciences and Forest Biology from the University of Maine, and is ABD towards a Ph.D. in Public Policy at the Muskie School of Public Service at the University of Southern Maine.

Dr. Paul Kirshen

Research Professor, Department of Civil Engineering, University of New Hampshire

Dr. Kirshen has 30 years of experience serving as Principal Investigator/Project Manager of complex, interdisciplinary, participatory research related to water resources and coastal zone management and climate variability and change. He is presently Research Professor, Environmental Research Group of Department of Civil Engineering, and Institute for the Study of Earth, Oceans, and Space, University of New Hampshire, Durham, NH. He is also a Lead Author for the 2014 Fifth Intergovernmental Panel on Climate Change (IPCC) Assessment and the 2013 US National Climate Assessment. He was Project Manager/Principal Investigator of a study to investigate the integrated impacts of climate change on metro Boston and to develop recommendations for adaptation actions (CLIMB Project, 1999-2004). Ongoing relevant projects include developing guidance tools for planning and management of urban drainage systems under a changing climate. He received his ScB in Engineering from Brown University and his MS and PhD in Civil Engineering from MIT.

Julia Knisel

Coastal Shoreline and Floodplain Manager, MA Office of Coastal Zone Management

Julia Knisel is the Coastal Shoreline and Floodplain Manager for the Massachusetts Office of Coastal Zone Management, leading development and implementation of policies and strategies to promote sound adaptation and reduce vulnerability along the coast. She oversees the Massachusetts StormSmart Coasts program to help communities prepare for and pro-

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tect themselves from coastal storms and flooding. Julia also co-chairs the Northeast Regional Ocean Council's Coastal Hazards Resilience Committee, which coordinates activities related to coastal hazards resilience and climate adaptation in New England. Julia has a B.S. in Biology and Marine Science from The Pennsylvania State University and a M.S. in Marine Policy and Coastal Zone Management from The University of Maine.

Chris Lotspeich

Director of Sustainability Services, Celtic Energy

Chris Lotspeich ("Lot-speech") is Director of Sustainability Services at Celtic Energy in Glastonbury, CT. He was lead author of microgrid proposals for Stamford and Glastonbury, Connecticut, and lead author of the Whole-Systems Integrative Green Design Module for the Government of Singapore's Certified Energy Manager course created in 2010. He was a 2002–2003 Batten Fellow at the Darden business school at the University of Virginia. From 1994 to 2001 he was Executive Assistant to Amory Lovins and a Senior Associate at Rocky Mountain Institute in Snowmass, Colorado, where he worked on six continents and led numerous resource efficiency surveys at industrial facilities and on a Navy warship. He earned two masters degrees from Yale, in public and private management from the School of Management, and in environmental studies from the School of Forestry and Environmental Studies. He received a B.A. in International Politics from Wesleyan University. Chris served as a wilderness emergency medical technician, firefighter, and hazardous materials technician on volunteer rescue services in Colorado, Connecticut and Maine.

Rhett Lamb

Planner, City of Keene, NH

Rhett has been the planning director for the City of Keene since 1996. He is also an adjunct professor at Antioch University New England. He is a member of the New Hampshire Planners Association and the Northern New England Chapter of the American Planning Association. He served on the New Hampshire Governor's Climate Change Policy Task Force and has a leading role with Keene's ongoing climate initiatives. Rhett holds a master's degree from Tufts University. He lives with his family in Keene.

Rebecca Lupes

Sustainable Transport and Climate Change Team, U.S. Federal Highway Administration

Becky Lupes is a member of the FHWA's Sustainable Transport and Climate Change Team where she oversees a pilot program in which 19 agencies are assessing the resilience of their transportation infrastructure to climate change and extreme weather. With the agency since 2001, Becky has also worked in the headquarters Office of Project Development and Environmental Review and the Texas Division Office. Becky has a BA in Economics from Cornell University and a Masters in Environmental Management from Duke University's Nicholas School of the Environment.

Dr. Samuel Merrill

President and Founder, Catalysis Adaptation Partners

Dr. Merrill has spent over 20 years at the interface of local community needs, managed landscapes, and sensitive natural resources. He has received many awards for his work, including in the year 2000, a military medal for distinguished public service, and has published over 20 peer-reviewed articles and over sixty agency technical reports. From 2001 through 2013 Sam served as Director of the New England Environmental Finance Center and Associate Research Professor at the Muskie School of Public Service, University of Southern Maine. He holds a BA in Zoology from the University of Maine, and both a MS in Conservation Biology and PhD in Wildlife Conservation from the University of Minnesota.

Rawlings Miller, PhD

Technical Specialist, ICF International

Rawlings Miller is a climate scientist, with more than 15 years of experience in climate change and air pollution research and policy as well as 2 years of experience as an engineer. She has participated in a range of projects involving assessments of climate impacts on current national programs and policies, assessments of observed and projected impacts associated with climate variability across a number of sectors within the United States and Internationally, synthesis of climate change vulnerability studies, development of projections and long-range weather data sets for climate risk assessments, atmospheric modeling of the impact of aerosols and air quality, climatic impacts and mitigation analysis of short lived climate pollutants, communicating climate science, and emission modeling for varying regulation scenarios. She has supported a number of clients, including the U.S. Environmental Protection Agency (EPA), National Highway Transportation Safety Administration (NHTSA), Koshland Science Museum, Department of Homeland Security (DHS), Department of Defense (DOD), World Bank, USAID, and the Federal Highway Administration (FHWA). Dr. Miller has a PhD in Atmospheric Sciences from University of Arizona, an M.S. in Aerospace Engineering from Boston University, and a B.S. in Physics from Union College.

Steven Miller

Supervisor of Environmental Management Systems and Sustainability, Massachusetts Department of Transportation

Steven oversees MassDOT's Highway Division's Environmental Management System and Sustainability efforts. He is also the Project Manager for the MassDOT-Federal Highway Administration (FHWA) Climate Change and Extreme Weather Vulnerability Assessment and Adaptation Options of the Central Artery. Also, Steven participated in drafting polices to help mitigate the effects of greenhouse gases related to transportation and participated in the development of the adaptation strategies for the Key Infrastructure subcommittee/Roadway Sector for the Massachusetts Climate Change Adaptation Report required by the Massachusetts General Law Chapter 21N, Chapter 298 of the Acts of 2008; the Global Warming Solutions Act. Throughout his 19 year career at MassDOT he has worked closely with the US Department of Transportation, the Volpe National Transportation Center, FHWA, the American Association of State High-

way Transportation Officials, the Transportation Research Board of the National Academies, and state DOTs on various important environmental concerns. Steven participated in the Climate Adaptation and Transportation, Identifying Information and Assistance Needs, Expert Workshop in Washington, DC organized by the Center for Clean Air Policy, and the Environmental and Energy Study Institute. Prior to joining MassDOT, he worked as an Environmental Consultant for 10 years focusing on the assessment and remediation of soil and groundwater contamination for the US Superfund program, and helping clients navigate through the Massachusetts Contingency Plan relative to release of oil and hazardous materials. Steven holds a B.S. in Geology from Northeastern University.

Jim Newman

Principal, Linnean Solutions

Mr. Newman is a founder and principal of Linnean Solutions, which provides environmental planning services and tracks energy, environmental, and community impacts for companies, non-profit, and governmental organizations. Mr. Newman has over 20 years of experience in the presentation of complex information for decision-makers at Linnean, and before that, as Director of Strategy and Business Development at BuildingGreen, LLC, publishers of Environmental Building News. Mr. Newman lead research and production of the Cost of LEED report for BuildingGreen and was the project manager for the EPA-funded Green Guideline Specifications project. Mr. Newman's project experience includes energy audits for the Boston Architectural College as part of creating their Climate Action Plan, comprehensive environmental auditing for several other educational institutions, and managing the Atrium School renovation for the client. Related Qualifications: Environmental Analysis and Reporting BSAD, MIT; MS Management Science, Lehigh University; Project Management Training; Pragmatic Management of LEED AP O+M; USGBC and USGBC MA (Vice-Chair of the Board of Directors) for 22 years.

Dr. Robert Roseen

Associate, Geosyntec Consultants

Dr. Roseen, Associate at Geosyntec Consultants of Portsmouth, NH, has substantial experience with the implementation of stormwater management and green infrastructure including design, costing, installation, construction oversight and inspection. He was the Director of the UNHSC from 2004-2012. Dr. Roseen has conducted numerous studies examining the flooding impacts of both land use and climate change and the role of green infrastructure in building community resiliency. His area of expertise is broadly in water resources engineering, land use and pollutant loading assessment, stormwater management, green infrastructure and LID design, gravel wetlands, porous pavements, nutrient studies, BMP testing and optimization, hydrology and hydraulics evaluations, stream restoration and enhancement alternatives, dam removal assessment, groundwater investigations, nutrient and TMDL studies, remote sensing, and GIS applications. Dr. Roseen has participated in many significant and award winning green infrastructure projects. He has a Ph.D., Civil- Water Resources Engineering from the University of New Hampshire and M.S., Environmental Science and Engineering, Colorado School of Mines.

Travis Sheehan

Ecodistricts Energy Fellow, Boston Redevelopment Authority

Travis Sheehan is the Ecodistricts Energy Fellow at the BRA. Mr. Sheehan manages the City's strategic planning for local energy projects and market transformation. Before joining the BRA, Travis founded Gridling Global, a consultancy that provides urban development strategy specializing in clean energy deployment with projects in New York and India. Travis graduated with dual-master's degrees from MIT where he developed decision making tools for technology cluster developments based on green infrastructure pricing and benefits.

Cliff Sinnott

Executive Director, Rockingham Planning Commission

Cliff Sinnott is the Executive Director of the Rockingham Planning Commission, a regional planning commission and MPO which serves 26 municipalities in southeastern New Hampshire, including its the coastal communities. He has thirty years' experience as a land use planner, and twenty-six of those as head of the agency. Mr. Sinnott presently serves as the Chair of the New Hampshire Coastal Risk and Hazards Commission established by the NH Legislature in 2013 to develop guidance and recommendations for the state and municipalities to prepare for sea level rise and other flood related risks associated with climate change.

Dr. Sarah Slaughter

President and Founder, Built Environment Coalition

Dr. Sarah Slaughter is President and founder of the Built Environment Coalition, a research and education nonprofit (501c3) organization. Dr. Slaughter is currently a member of the National Academy of Construction, and an Associate Member of the National Academy of Sciences. She was previously on the National Research Council Board on Infrastructure and the Constructed Environment (BICE), the National Academies DOD Standing Committee on Materials, Manufacturing, and Infrastructure, and the Vice Chair of the NRC Committee on Sustainable Critical Infrastructure Systems. She received her PhD, MS, and Bachelors of Science degrees from the Massachusetts Institute of Technology.

Alex Wilson

Founder, BuildingGreen Inc. and President, Resilient Design Institute

In addition to creating the Resilient Design Institute, Alex is the founder of BuildingGreen, Inc. in Brattleboro, Vermont, an 18-person company that has served the design and construction industry with non-biased information on environmentally responsible design and construction since 1985. He is author of *Your Green Home* (2006), and co-author of *Green Development: Integrating Ecology and Real Estate* (1998), and the *Consumer Guide to Home Energy Savings* (1990, 9th edition, 2007).

Speakers

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Community Engagement and Communications

Melanie Army

Supervising Planner, Rhode Island Division of Planning

Melanie Jewett Army, AICP is the Supervising Planner for RhodeMap RI at the State of Rhode Island's Division of Planning. RhodeMap RI is a \$2.4 million dollar Sustainable Communities Regional Planning Grant responsible for the creation of a new state Housing Plan, Economic Development Plan, Growth Centers Strategy and Implementation Plan as well as the improvement of social equity outcomes in planning and the development of performance measures, technical assistance and capacity building efforts for local and state agencies. Melanie holds Bachelor degrees in Environmental Management and Marine Affairs from the University of Rhode Island and a Master of Regional Planning degree from the University of Massachusetts at Amherst.

Christa Daniels, AICP

Faculty and Doctoral Fellow, Antioch University New England

Christa Daniels (Koehler), AICP is a community planner that specializes in resiliency and sustainability planning. Mrs. Daniels has facilitated innovative participatory stakeholder engagement strategies with communities such as Pittsburgh PA, the Greater Portland Council of Governments, Monadnock region in New Hampshire, NY Department of Conservation, Maplewood NJ, and Bridgeport CT. Christa earned her B.A. in Political Science at Pace University is currently enrolled in the Environmental Studies doctoral program at Antioch University New England. Christa's past experience includes working for the United Nations, NH Department of Environmental Services and as a city planner for Keene, NH. Christa is also an adjunct faculty member at Antioch University New England.

Dr. James Gruber

Faculty, Department of Environmental Studies, Antioch University New England

Jim Gruber is a Core faculty member in the Department of Environmental Studies at AUNE. He is also currently the Director of the Resource Management Conservation program and Sustainable Development concentration. Outside of the university, Jim Gruber is a professional civil engineer in the state of New Hampshire. Prior to coming to AUNE, Jim received his BS from San Diego State University, his MS from the Massachusetts Institute of Technology, his MPA from the Kennedy School of Government at Harvard University and his PhD from the University of Zagreb. His prior experiences include: executive director of the Greater Upper Valley Solid Waste Management District in Vermont, acting town manager and assistant town manager of Hartford, Vermont, assistant city

manager/consultant for the City of Lebanon in New Hampshire, project manager of the Total Environmental Action Foundation in Keene, New Hampshire and town engineer for the Town of Swansea in Massachusetts.

David M. Kutner, PP, AICP

Recovery Planning Manager, New Jersey Future

David manages New Jersey Future's Local Recovery Planning Manager program, which provides direct, long-term assistance to municipalities seeking to rebuild from the devastating damage of Hurricane Sandy. David is a licensed professional planner with over 25 years of land use and environmental planning experience. He has worked as a planning consultant and held positions in local, county, and state planning agencies in New Jersey, Massachusetts, New York, Pennsylvania, and Florida. David's work has included master planning; community design; neighborhood planning; downtown redevelopment planning; economic development; natural resource protection and open space/recreation planning. He has extensive experience in project management and facilitation specializing in citizen participation, community interaction and project negotiation.

Paul Markowitz

Community Energy Program Manager, Efficiency Vermont

Paul Markowitz is Community Energy Program Manager with Efficiency Vermont where he promotes partnerships with non-profit organizations, businesses, and municipalities to implement community-based energy efficiency programs. Paul has 32 years experience in energy and environmental project management, community planning, leadership training, and facilitation in non-profit institutions, state government, and academia. He has managed local environmental action programs in Central and Eastern Europe, directed state recycling programs, taught university courses on energy and solid waste policy, and promoted least-cost electrical planning. He has an MS in Resource Economics from the University of Vermont.

Lee Matsueda

Political Director, Alternatives for Community and Environment

Lee Matsueda, Political Director at Alternatives for Community and Environment (ACE), joined the staff in October 2005, after serving as an organizer with the T Riders Union (TRU) program at ACE and then the program director for TRU. Lee is a graduate of Brandeis University and attended the Environmental Studies Advocacy and Organizing Program at Antioch University New England. Previous to ACE, Lee was a community organizer for nearly three years with the Greater Four Corners Action Coalition (GFCAC) in Dorchester. While at the GFCAC, his efforts included campaign work to gain access to rapid transit along the Fairmount line commuter rail corridor, and Boston Schoolyard Initiative projects at the Sara Greenwood K-8 Middle School and the former William E. Endicott Elementary School. Alternatives for Community and Environment (ACE), builds the power of communities of color and low-income communities in Massachusetts to eradicate environmental racism and classism, create healthy, sustainable communities, and achieve environmental justice.

Ginny McGinn

Executive Director, Center for Whole Communities

Ginny McGinn is executive director of Center for Whole Communities, a transformative change organization that fosters inclusive communities that are strongly rooted in place and where all people – regardless of income, race, or background – have access to and a healthy relationship with the natural world. Throughout her career, Ginny has been deeply involved in the work of social and organizational change and in building partnerships across lines of power and privilege. Previously, Ginny helped to grow and ultimately served as president of Bioneers, a national nonprofit dedicated to disseminating practical and visionary solutions for restoring Earth's ecosystems and healing human communities. Ginny facilitates workshops and offers consulting on organizational change and cultural competency around the country, using the many tools she has helped develop at Whole Communities.

Cara Pike

Founder and Director, Climate Access and the Social Capital Project

Cara Pike is the founder and director of the nonprofit Climate Access, a network for leaders engaging the public in the transformation to low-carbon resilient communities; and the Social Capital Project, an environmental communication-consulting firm. Her work includes creation of the Ecological Roadmap, a values-based approach to building support for environmental protection; Climate Communications Behavior Change – A Guide for Practitioners, and other widely used publications and toolkits. Cara regularly advises government agencies and nonprofit organizations including the Obama Administration, the state of Oregon, British Columbia's Ministry of the Environment, the city of Seattle, World Wildlife Fund, Union of Concerned Scientists, Tides Canada and others. Ms. Pike has a Masters of Science in Environmental Communications from California State University-Fullerton and a Bachelor of Arts in Film and Communications and Environmental Science from McGill University.

Robin Schell

Senior Counsel, Jackson Jackson and Wagner

Robin Schell, APR, Fellow PRSA, is senior counsel at Jackson Jackson and Wagner and has been with the firm since 1986. She has over 20 years of public relations consulting experience and specializes in strategic planning, effective internal and external communication, development of constituency relations programs and opinion leader identification programs. She also serves as a Research Director of Dudley Research, the firm's research subsidiary.

Sarika Tandon

Senior Program Associate, Center for Whole Communities

Sarika Tandon is a Climate Adaptation and Equity Consultant for the Center for Whole Communities. She recently completed a Master's Project monograph entitled "Race, Vulnerability, and Differential Impacts: Prioritizing Social Justice in Climate Change Adaptation." Previously, Sarika worked for the Institute for Sustainable Communities on the Resilient Vermont project, a multi-stakeholder disaster management and climate adaptation planning process. She has also worked with the Vermont Natural Resources Council on the development of a community resilience assessment tool. She holds a Master's Degree in Environmental Studies from Antioch University New England.

Veda Truesdale

Senior Research Specialist, Rutgers University

Ms. Truesdale has worked on land-use planning and climate change issues at the state and local level. Prior to joining the Center she worked for the New Jersey Department of Environmental Protection where her work included climate change mitigation and adaption planning, smart growth, public access planning, and sustainable land-use research. Her professional experience also includes working for the New York City Department of Environmental Protection and in the nonprofit sector. Veda received a BA in Geography from Vassar College and a Master of Environmental Management degree from the Yale School of Forestry and Environmental Studies

Angela Vincent

Sustainability Project Manager, Vanasse Hangen Brustlin, Inc.

Angela is a Sustainability Project Manager for VHB, Inc. based in Wattertown, MA. In this role, Angela works with over 60 communities, primarily in New York and Massachusetts, to support and advance their climate protection and sustainability efforts. Angela is working with the Climate Smart Communities program to provide technical assistance such as trainings, resource guides, in-person guidance, and webinars to local governments in the Capital District and Mid-Hudson Region. In Massachusetts she is coordinating the public outreach for and development of the Greenfield Sustainable Master Plan in Greenfield, MA. As a volunteer, Angela is the Chair of the Lowell Green Restaurant Certification Program, which she helped to create in 2011 and is a Board Member for the American Planning Association.

Educators Summit

Agenda

Wednesday, May 21, 2014

7:30-8:25 a.m.

Registration, Continental Breakfast, Exhibits and Networking

All activities, with the exception of the Workshops, take place in the Amory.

8:30-8:40 a.m.

Welcome: Jimmy Karlan

Topic: Educators Summit Goals

8:40-8:45 a.m.

Special Guest: Vermont Governor Peter Shumlin

Topic: Opening Remarks and Introducing Lachlan Francis (pre-recorded video)

8:45-8:55 a.m.

Keynote Speaker: Lachlan Francis

Topic: Students as Citizen Scientists, A Student's Perspective

9-10 a.m.

Plenary I

Setting the Stage – Lessons from School – Community Partnerships

Moderator: David Sobel

Panel Members: Rhett Lamb, *City Planner*; Catherine Weaver, *Landscape Architect*; Eric Magers, *Teacher*; Samuel Koufman, *Student*

10-10:10 a.m.

Break/Exhibits/Networking

10:15-11:15 a.m.

Workshop Session I

Track 1

Successful School –
Community Partnerships
Presenter:
Ruth Kermish-Allen

Carriers Room

Track 2

Vulnerability Assessment
and Risk Management
Presenter: Liz Duff

Hawthorne Room

Track 3, Workshop 1

Low Impact
Development
Presenters:
Mohamad Musavi, PhD
and Cary James

Dartmouth Room

Track 3, Workshop 2

Forest and Recreation
Resources
Presenter:
Martha Carlson

Frost Room

All activities, with the exception of the Workshops, take place in the Amory.

11:20 a.m.-
12:05 p.m.

Plenary 2

How STEM, The Common Core, and Next Generation Science Support Students as Citizen Scientists

Moderator: Ruth Kermish-Allen

Panel Members: Laurel Kohl, *Education and Training Energy Specialist*; Mohamad Musavi, PhD, *Associate Dean Engineering University of Maine*; Tamara Shapiro Ledley, PhD, *Senior Scientist and Chair of the Center for Science Teaching and Learning at TERC*

12:05-12:35 p.m.

Lunch/Exhibits/Networking

12:40-1:20 p.m.

Keynote Speaker: David Sobel

Topic: Global Climate Change Meets Ecophobia

1:30-2:30 p.m.

Workshop Session 2

Track 1

Successful School –
Community Partnerships
Presenters: Brian Stilwell
and Alan Palm

Curriers Room

Track 2

Facilitation and
Community Engagement
Techniques
Presenter: Robin Organ

Hawthorne Room

Track 3, Workshop 1

Food and Water
Security
Presenter: Tom Sabo

Dartmouth Room

Track 3, Workshop 2

Wildlife and Fishery
Resources
Presenter: Judy Tumosa

Frost Room

2:30-2:40 p.m.

Break/Exhibits/Networking

2:45-3:30 p.m.

Round-Table Discussions

Student Round-Table

Facilitators: Lachlan Francis and Tasha Statz-Geary

Teacher Round-Table

Facilitator: Tom Sabo

Student, Teacher and Community Leader Round Table

Facilitator: Tamara Shapiro Ledley

3:30-3:45 p.m.

Round-table Discussions: Reporting Out

3:45-3:55 p.m.

Break/Exhibits/Networking

Closing Inspirations and What Next?

4-4:15 p.m.

Keynote Speaker: Bill McKibben

Topic: The Value of Involving Youth in Local Climate Preparedness Projects (via live video feed)

4:15-4:30 p.m.

Closing Remarks: Envisioning the Future

Speakers: Michael Simpson and Jimmy Karlan

Educators Summit Sessions & Workshop Descriptions

Wednesday, May 21

8:30-8:40 AM

Welcome

Jimmy Karlan, EdD, *Director of the Educators Summit and Antioch University's Director of Science Teacher Certification in the Department of Environmental Studies*



8:40-8:45 AM

Special Guest

Vermont Governor Peter Shumlin

Opening Remarks and Introducing Lachlan Francis (pre-recorded video)



8:45-8:55 AM

Keynote Speaker

Lachlan Francis

Students as Citizen Scientists, A Student's Perspective 9-10 am

Plenary 1:

Setting the Stage, Lessons from School-Community Partnerships

A city planner, school teacher, student and community leader will set the stage for thinking about how to create and maintain effective community partnerships.

Moderator: David Sobel

Presenters:

Rhett Lamb, *City Planner*

Catherine Weaver, *Landscape Architect*

Eric Magers, *Teacher*

Samuel Koufman, *Student*

10:15-11:15 AM

Workshop Session I

Track 1: Successful School-Community Partnerships

What can we learn from an exemplary school-community partnership that involves climate change preparedness?

Presenter:

Ruth Kermish-Allen, *Education Director of the Island Institute*

Track 2: Vulnerability Assessment and Risk Management

How can students help their communities study systems' responses to change and assist in risk management projects?

Presenters:

Lindsey Duff, *Green Scholars student*

Liz Duff, *Education Coordinator, Massachusetts Audubon's Salt Marsh Science Project*

Track 3, Workshop 1: Low Impact Development

How can students be involved with low impact development projects to reduce risks to storm water events?

Presenters:

Mohamad Musavi, *PhD, Associate Dean of Engineering, University of Maine*

Carey James, *Chemistry Teacher, Bangor High School*

Track 3, Workshop 2: Forest and Recreation Resources

How can students be involved with forest and recreation resource projects associated with climate change and severe weather events?

Presenter:

Martha Carlson, *Ph.D., Director of Climate Change in the School Yard, Project Maple Watch 11:20am-12:05pm*

Plenary 2:

Citizen Scientists Meet the Standards, How STEM, The Common Core, and Next Generation Science Support Students as Citizen Scientists

Experts on STEM, The Common Core and Next Generation Science will share why they think students acting as citizen scientists in partnership with organizations working on climate change preparedness projects are aligned with the standards.

Moderator: Ruth Kermish-Allen

Presenters:

Laurel L. Kohl, *Education, and Training Energy Specialist Eastern Connecticut State University's Institute for Sustainable Energy*

Mohamad Musavi, *PhD, Associate Dean of Engineering University of Maine, Senior Project Manager of the Storm Water Project*

Tamara Shapiro Ledley, *PhD, Senior Scientist and Chair of the Center for Science Teaching and Learning at TERC*

12:10-12:40 PM

Lunch (Armory)



12:40-1:20 PM

Keynote Speaker

David Sobel

Global Climate Change Meets Ecophobia

1:30-2:30 PM

Workshop Session 2

Track 1: Successful School-Community Partnerships

What can we learn from an exemplary school-community partnership that involves climate change preparedness?

Presenters:

Brian Stilwell and Alan Palm, *Alliance for Climate Education*

Track 2: Facilitation and Community Engagement Techniques

What techniques can students use to be effective facilitators and engage their communities?

Presenter:

Robin Organ, *Founder and Executive Director of Green Schools*

Track 3, Workshop 1: Food and Water Security

How can students help secure safe food and water?

Presenter:

Tom Sabo, *Executive Director, Center for Sustainable Systems and High School Science Teacher*

Track 3, Workshop 2: Wildlife and Fishery Resources

How can students be involved with wildlife and fishery resource projects?

Presenter:

Judy Tumosa, *New Hampshire Fish and Game Aquatic Resources Educator*

2:45-3:30 PM

Round-Table Discussions

This is an opportunity to select a round-table discussion of your choice:

Student Round-Table

What preparedness actions have you taken and what do you want to accomplish next year? How might you network?

Co-facilitators:

Lachalin Francis, *Co-Vice Chair, VT Board of Education*

Tasha Statz-Gearry, *Young Women in Climate Change*

Teacher Round-Table

What have you been doing? What are you planning on doing?

What might you want to collaborate on?

Facilitator:

Tom Sabo, *Montpelier High School Science Teacher and Executive Director of the Center for Sustainable Systems*

Students, Teachers and Community Leaders Round-Table

What are the take home lessons from those who have participated and want to participate in school-community partnerships involving students as citizen scientists?

Facilitator:

Tamara Shapiro Ledley, PhD, *Senior Scientist and chair of the Center for Science Teaching and Learning at TERC*

3:30-3:45PM

Roundtable Discussions: Reporting Out

Facilitators for each group will highlight their discussions and take home messages.



4-4:15 PM

Keynote Speaker:

Bill McKibben

The Value of Involving Youth in Local Climate Preparedness Projects

Bill McKibben will speak a via live videoconference call.

4:15-4:30 PM

Envisioning the Future: Closing Remarks

Michael Simpson, *Conference Chair and Chair of Antioch University's Department of Environmental Studies*

Jimmy Karlan, *Director of the Educators Summit and Director of Antioch University's Science Teacher Certification in the Department of Environmental Studies*

Educators Summit

Speakers

Wednesday, May 21



Special Guest
Governor of Vermont,
Peter Shumlin

Joining via pre-recorded video.

Keynotes (in order of appearance)

Lachlan Francis

Vermont Governor Peter Shumlin named 17 year-old Lachlan Francis to the Vermont Board of Education as a student representative. Now in his second term and a high school senior at Brattleboro Union High School in Brattleboro, VT, Lachlan is Co-Vice Chair of the Vermont Board of Education. Lachlan is involved with a number of organizations in his community.



David Sobel

David is Professor of Child Development and Science Education at Antioch University New England. He was co-founder of the Harrisville Children's Center in Harrisville, New Hampshire, and has served as a publicly elected school board member in both Nelson and Harrisville, New Hampshire. He serves as a staff development and science curriculum consultant to schools throughout the country and has been a guest speaker and workshop leader for a variety of school and environmental organizations. He serves on the editorial board of the *Holistic Education Review*, is author of *Place-based Education: Connecting Classrooms and Communities*, and many articles on children and nature. David is an advocate for service projects within the school system and believes that schools should be a place for developing the skills of civic participation.

Bill McKibben

Bill McKibben is a Schumann Distinguished Scholar at Middlebury College and author of a dozen books. *The End of Nature* (1989) is the first book for a general audience on climate change. *Time* magazine called him 'the planet's best green journalist' and *The Boston Globe* said in 2010 that he was 'probably the country's most important environmentalist.' Bill will present his inspirational remarks via a live video conference call at the closing called, "The Value of Involving Youth in Local Climate Preparedness Projects."



Martha Carlson, PhD

Martha coordinates Forest Watch, a University of New Hampshire program involving middle and high school students in authentic scientific research. Climate Change in the School Yard involves students in learning about climate change from sugar maples. She was founder and head of Sandwich Community School, a college preparatory high school serving rural day students in north-central New Hampshire. She and her team of founding teachers developed a unique place-based, inquiry-driven program.

Lindsey Duff

Lindsey Duff is a senior at Manchester Essex Regional High School. She is the niece of co-presenter Liz Duff with whom she has worked on several projects related to sea-level rise in her hometown, and has been involved in the Green Scholars class run by Eric Magers.

Liz Duff

Liz is the Education Coordinator for Mass Audubon's Salt March Science Project. She has engaged over 16600 students in authentic scientific investigations, studying the invasive reed Phragmites. She partners with middle and high school students and teachers in environmental initiatives including the Perennial Pepperweed Control Project and the Seeking Relief from Sea Level Rise: Student Mapping and Leadership Initiative. Duff received a Gulf of Maine Council Visionary Award in 2009 and was named 2011 Massachusetts Marine Educator of the Year.

Cary James

Cary is the Science, Technology, and Engineering department head at Bangor High School in Bangor, Maine. He has received numerous teaching awards including the 2009 Siemens Award for Advanced Placement Teacher of the Year for Maine, Pulp and Paper Foundation Maine Teacher Award 2009, New England Institute of Chemistry Maine State Teacher Award 2011. Cary has a passion for improving the quality of water for people in developing countries and focuses student research on water sanitation and conservation.

Jimmy Karlan, Ed.D.

Jimmy is the Director of the Educators Summit and Antioch University's Director of Science Teacher Certification in the Department of Environmental Studies. Jimmy is an advocate of engaging students in real problem solving science that can help make the world a better place.

Samuel Koufman

Sam is Co-President of the Manchester Essex Green Team, a grade 6-12 program that supports students in pursuing their own individual sustainable projects. Sam advises the elementary and middle school Green

Teams, is a student liaison for the Massachusetts Environmental Literacy Plan, and was recently awarded the Presidential Environmental Youth Award.

Ruth Kermish-Allen

Ruth is the Education Director of the Island Institute. Her research is focused on defining research-based education models to promote a more sustainable society. Ruth is currently earning her PhD in Environmental Studies at Antioch University New England. Before joining the Island Institute in 2004, Ruth was a high school science and math teacher in North Haven and in other coastal Maine schools.

Laurel Kohl

Laurel is an Education and Training Energy Specialist at Eastern Connecticut State University's Institute for Sustainable Energy. She is Co-chair of the Connecticut Green LEAF Schools Collaborative. Laurel is responsible for energy education-related projects at the Institute, including curriculum development and delivery, coordination of workshops, conferences, and education outreach.

Rhett Lamb

Rhett Lamb has been the Planning Director for the City of Keene, New Hampshire, since 1996. His planning tasks include developing comprehensive plans, drafting zoning ordinances and subdivision/site plan regulations, and reviewing development proposals. He is involved in the implementation of management systems and computer mapping to support planning functions and municipal decision-making. ICLEI – Local Governments for Sustainability- USA recently gave a "Sustainability Leadership Award" to Keene for its integration of climate adaptation and climate mitigation into the city's Community Vision and Comprehensive Plan.

Eric Magers

Eric is the Director of the Green Team and Green Scholars Programs at Manchester Essex Regional School, which has won state, regional, and national green school initiative awards. Founded by Eric in 2009, the Green Team's goal is to identify and implement environmentally sustainable initiatives. Green Scholars is an honors course offered by Eric that represents the district's effort to integrate STEM content, 21st-century skills, environmental literacy and service learning into a single program. In 2012, the Science Department "adopted" the Green Team district-wide. Eric has been awarded ACE Teacher of the Year and the NE Environmental Education Alliance Formal Educator of the year.

Mohamad Musavi, PhD

Mohamad is Associate Dean of Engineering at the University of Maine and is Senior Project Manager of the Storm Water Project – a project involving young female and minority students as citizen scientists. He has been involved in development and research in the areas of neural networks, computer vision and robotics. His specialties are in development of intelligent computer systems to automate industrial tasks for increased efficiency and cost-effectiveness.

Alan Palm

Alan is a lead educator for the Alliance for Climate Change Education (ACE), an educator, and writer. Alan co-founded BioTour, a sustainability education program operated from school buses converted to run on waste vegetable oil and solar energy.

Robin Organ

Robin is the Founder and Executive Director of Green Schools, a multi-award-winning 501(c) 3, nonprofit organization, whose mission is to cre-

ate greener and healthier learning environments through innovative environmental education, awareness, and action. Green Schools provide a number of Environmental Education and STEM-based programs to schools and communities looking to develop the next generation of students and schools. Robin believes firmly that creating an environmentally literate citizenry begins with educating our youth. Robin recently participated in climate solutions discussions with US Vice President Joe Biden and US Agriculture Secretary Tom Vilsack. Robin has won numerous awards including the 2008 Massachusetts Audubon's Conservation Teacher Award and the Massachusetts Teacher's Association's 2009 Outstanding Educator.

Tom Sabo

Tom Sabo is an award-winning science teacher, leading sustainability educator, prominent food activist, and a chief architect of a model of service learning that integrates curriculum through school greenhouses and gardens. He is the founder and Executive Director of the Center for Sustainable Systems (CSS) where he offers workshops to help teachers design relevant and rigorous food systems curricula.

Tamara Shapiro Ledley, PhD

Tamara is a senior scientist and chair of the Center for Science Teaching and Learning at TERC. Tamara led the development of the award winning Earth Exploration Toolkit. She leads the development of the Climate Literacy and Energy Awareness Network (CLEAN), a collection of rigorously reviewed climate and energy educational resources, and chairs the CLEAN Network, a professionally diverse community of climate and energy literacy stakeholders. Tamara also leads the earthlab project that focuses on development of curriculum materials, teacher professional development programs, and science education research to support the effective teaching and learning of climate science. She is the 2013 American Geophysical Union's Excellence in Geophysical Education Awardee for her work in bringing earth science data and tools to teachers and students and for her leadership in climate literacy.

Brian Stilwell

Brian is an Associate Program Director for the Alliance for Climate Change Education (ACE). David has worked to promote sustainability through research, education and action at the U.S. Fish and Wildlife Service, Cornell University and the Sierra Club. With an unwavering belief in the power of youth to bring about positive change in the world, Brian can't wait to see what future this generation is going to create!

Judy Tumosa

Judy is the Watershed Education Specialist at the New Hampshire Fish and Game Department. The watershed program works with schools and community members to help them better manage their aquatic ecosystems. She has been a wildlife and aquatic specialist and environmental educator for many years, working for USDA, the Society for the Protection of New Hampshire Forests, and the Trust for NH Lands as well as co-owning a forestry and wildlife consultant firm with her husband.

Catherine Weaver

Catherine is the principal at Tupelo Gardenworks Ltd. an award winning small landscape architecture firm that services both private and public clients. She is currently president of the Rhode Island Nursery and Landscape Association which has been involved with developing the Newport Resiliency Innovation Hub, as well as a green infrastructure initiative and workforce training program for climate change adaptation, resilience and sustainable economic growth. Catherine encourages the use of school landscapes to expand and support curriculum. rages the use of school landscapes to expand and support curriculum.



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- Conduct a greenhouse gas inventory for the city of Keene
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