

## Working Agenda

### Climate Change Solutions: Developing Adaptive Intervention Scenarios to Preserve Lake Champlain Water Quality

#### Mediate Modeling Workshop

May 12, 2014

Sheraton Hotel, Burlington

- 8:30 pm      Welcome and brief introduction to the day
- Understanding the relationship between climate drivers and hydrological dynamics (report out from Research on Adaptation to Climate Change Teams)
- Panel:
- Climate downscaling and trends
  - Precipitation and extreme events
  - Land-Use Dynamics
  - State of the lake
- Q & A
- Understanding the role of institutional design, policy portfolios and resource availability on watershed governance
- Presentation:
- Institution design, policy portfolio selection and resource availability: our working conceptual model
- Panel Responses
- Q & A
- 10:20 am      Break
- Summary of adaptive interventions drawn from recent Delphi Forum
- Presentation:
- Review of existing interventions, coding, trends
- Q&A
- Integrated assessment modeling, simulation and scenario development
- Presentation:
- Current and future state of development for RACC Integrated Assessment Models (IAM)
- Q & A

Charge and structure for the afternoon

12:05 pm Lunch

1:05 pm Small group scenario development:  
Scenario #1

Scenario #2

2:35 pm Break

Swing Weights Exercise in the Groups to rank the criteria

Closing Discussion: Citizen science, crowdsourcing and visualization  
Exploring what is possible for building capacity for climate  
change adaptation for our region

4:30 pm Adjourn

### Storyline Components

Climate forecasts	Financial Resource Availability	Governance framework	Policy framework	Interventions	State of the Lake
<ul style="list-style-type: none"> <li>• Worst case</li> </ul>	<ul style="list-style-type: none"> <li>• R(0) Low</li> <li>• R(1) High</li> </ul>	<ul style="list-style-type: none"> <li>• G(0) State and local government</li> <li>• G (1) Regional and civil society</li> </ul>	<ul style="list-style-type: none"> <li>• P(0) Market and voluntary action</li> <li>• P(1) Regulation and law</li> </ul>	<ul style="list-style-type: none"> <li>• I (1)</li> <li>• I (2)</li> <li>• I (3)</li> <li>• I (4)</li> <li>• I (5)</li> </ul>	<ul style="list-style-type: none"> <li>• Water quality preserved</li> </ul>

Scenario A R(o) – G(o) – P(o) Low resourc/State-Local/ Market-Incent

Scenario B R(o) – G(o) – P(1) Low resourc/State-local/Reg.-Law

Scenario C R(o) – G(1) – P(o) Low resourc/Region-CivSoc/Market-Incent

Scenario D R(o) – G(1) – P(1) Low resourc/Region-CivSoc/Reg-Law

Scenraio E R(1) – G(o) – P(o) High resourc/State-Local/Market-Incent

Scenario F R(1) – G(o) – P(1) High resourc/State-Local/Reg.-Law

Scenario G                    R(1) – G(1) – P(0) High resourc/Region -CivSoc/Market-Incent

Scenario H                    R(1) – G(1) – P(1) High resourc/Region- CivSoc/Reg.-Law

Resource availability: Pertains to the availability of financial resources to direct to planned interventions.

Low resource availability: marked by under resourced projects, hesitance to invest public and/or private funding to provide interventions.

High resource availability: marked by sufficient resource projects, willingness to pay for intervention via public and private investment to provide interventions.

Governance Framework: Pertains to the two idealized governance designs that may be observed in the LCB region. In practice, these idealized governance structures operate as a continuum, meaning that in practice, there are mixes of both forms.

State and local government parallel play: This model of watershed governance places strong emphasis on the role of state government to regulate, incentivize, and fund best practices in land use, stormwater and wastewater infrastructure, and agriculture (soil), river corridor, lakeshore and forestry best management practices. Local governments continue to govern the land-use zoning.

Regionalized authority and civil society mobilization: This watershed governance model places an emphasis on watershed level coordinated action, civic engagement and regional planning. In this model, regional nonprofit, voluntary associations would play a lead role in initiating and implementing interventions. In some cases, authority to enforce regulation and law would be given over to regional, quasi-governmental authorities.

Policy Framework: Pertains to the a propensity toward one of two different approaches to public policy possible preserve water quality based on political will. In practice, these propensities persist along a continuum. For our purposes here, we will treat them as two extreme idealized types.

Preference for market and incentive based action: This policy orientation relies on the use of incentives and possible market-based solutions as the default preferred policy tool. Emphasis is placed on public education, technical assistance, grants-in-aid, guaranteed loans, and an interest in nutrient market development and tradable permits.

Preference for regulatory, legal, permitting and fee-based action: This policy orientation relies on the use of the state's (at the federal, state, regional or local levels) to regulate or legally sanction behavior and decisions. Emphasis is placed on economic, social and environmental regulation, permits and fees.