

Introduction to the Climate Change Scenario Development Workshop

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- Welcome to our first Participatory Modeling workshop.
- Your participation will help to make us successful in our efforts to develop adaptive management strategies for the Lake Champlain Basin in light of climate change.
- I look forward to seeing the outcomes of this meeting and to future meetings.
- *Judith Van Houten, Director, Vermont EPSCoR*

Why are we here?

Our goal is to build our capacity to be **resilient** in the face of climate change by:

- Introducing participants to our region's growing **capacity to use regional downscaled climate models** for resiliency planning purposes.
- Generating scenarios regarding **possible and/or anticipated impacts of climate change** on our region from “the bottom up.”
- Envisioning ways to **use scenarios** to assess risk, define policies, allocate resources, and undertake adaptation strategies

How does this work link to other initiatives?

- Institute for Sustainable Communities
 - Tetra Tech/VT ANR workshop
 - International Joint Commission
 - Others.....
-
- Our goal here is complement these initiatives...

Who are we?

Research on Adaptation to Climate Change

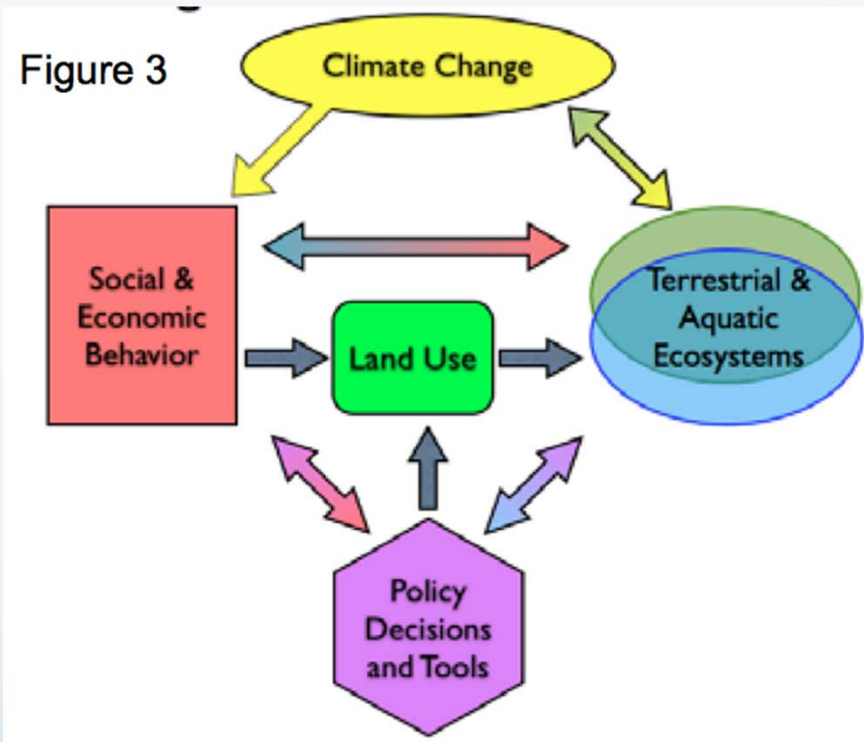
EPSCoR = Experimental Program to Stimulate Competitive Research

- Awarded to Vermont EPSCoR, a state-wide program that involves partners among higher education institutions across Vermont
- Research opportunities provide improvements in communications infrastructure and STEM education

EPS 1101317

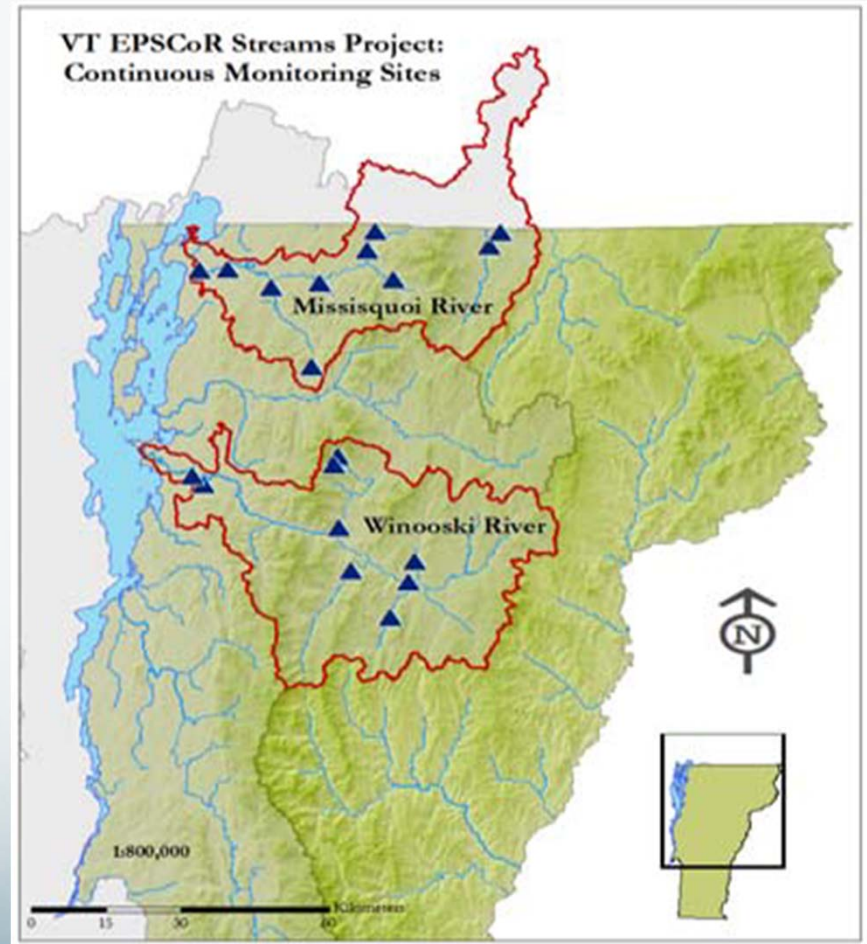


Modeling complex system for adaptive management



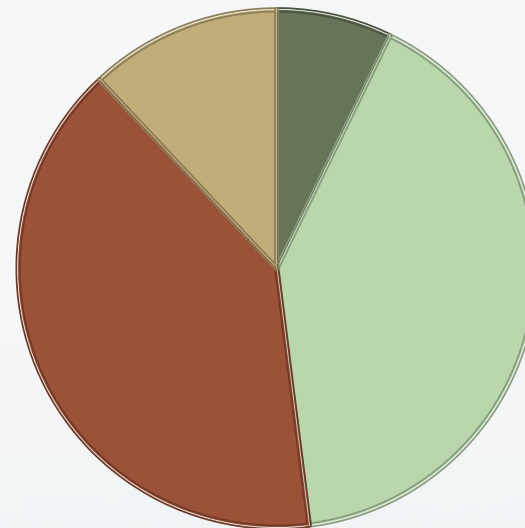
RACC Project components:

- “In lake:” Q1
- “To lake:” Q2
- Social/Policy: Q3
- Integrated Assessment: IAM



Who is here today?

- 122 people are registered



- Business
- Government
- Higher Ed
- Nonprofits

- Our focus is **regional**:
 - Vermont, New York, Quebec, New Hampshire
- Who else needs to be involved?
 - Discuss in your small group
 - Identify them in the workshop evaluation

What will be do?

Morning:

Collectively review the **current state of climate change modeling** and storyline development for our region.

Afternoon:

Small groups **generate scenarios** and **envision adaptation strategies** to address the impacts deriving from these scenarios.

Some assumptions about Causes & Effects:

Climate drivers (internal and external to our region)...

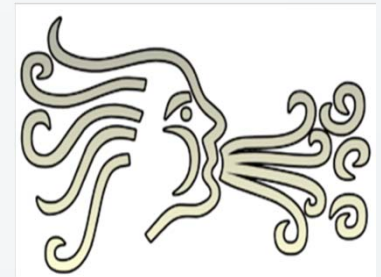
have **impacts** across a wide array of domains...

and these impacts likely extend into **more than one domain**...

these impacts, in turn, can lead to an **array of consequences**...

Anticipating how causes and effects are linked allows us to generate **PROACTIVE RESPONSES** to changing conditions and extreme events

Climate Drivers



Our five thematic areas:



What will be produce?

An example scenario:

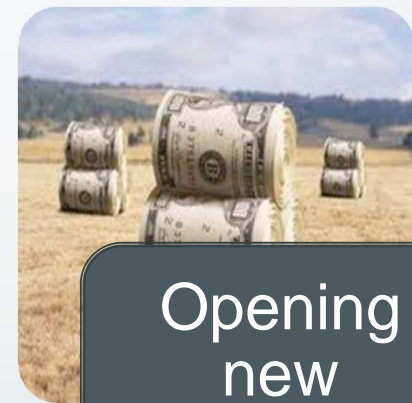
As a result increased temperatures...



Growing seasons are extended...



New crops may be grown...



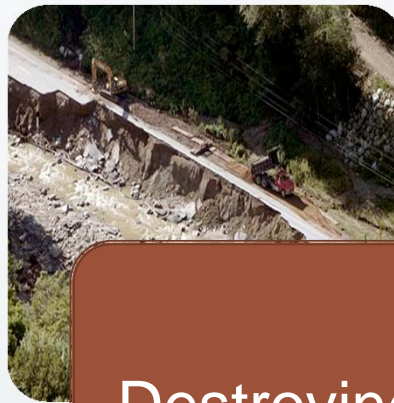
Opening new markets for region's farmers

Another example...

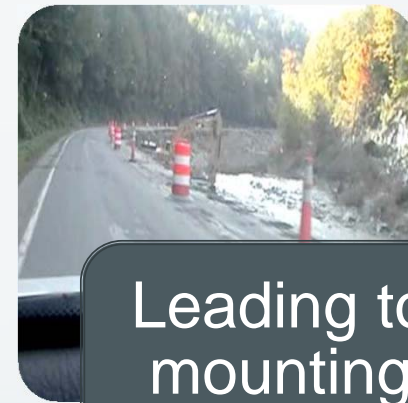
As a result of increasing frequency of flooding events....



Rivers
leave their
banks...

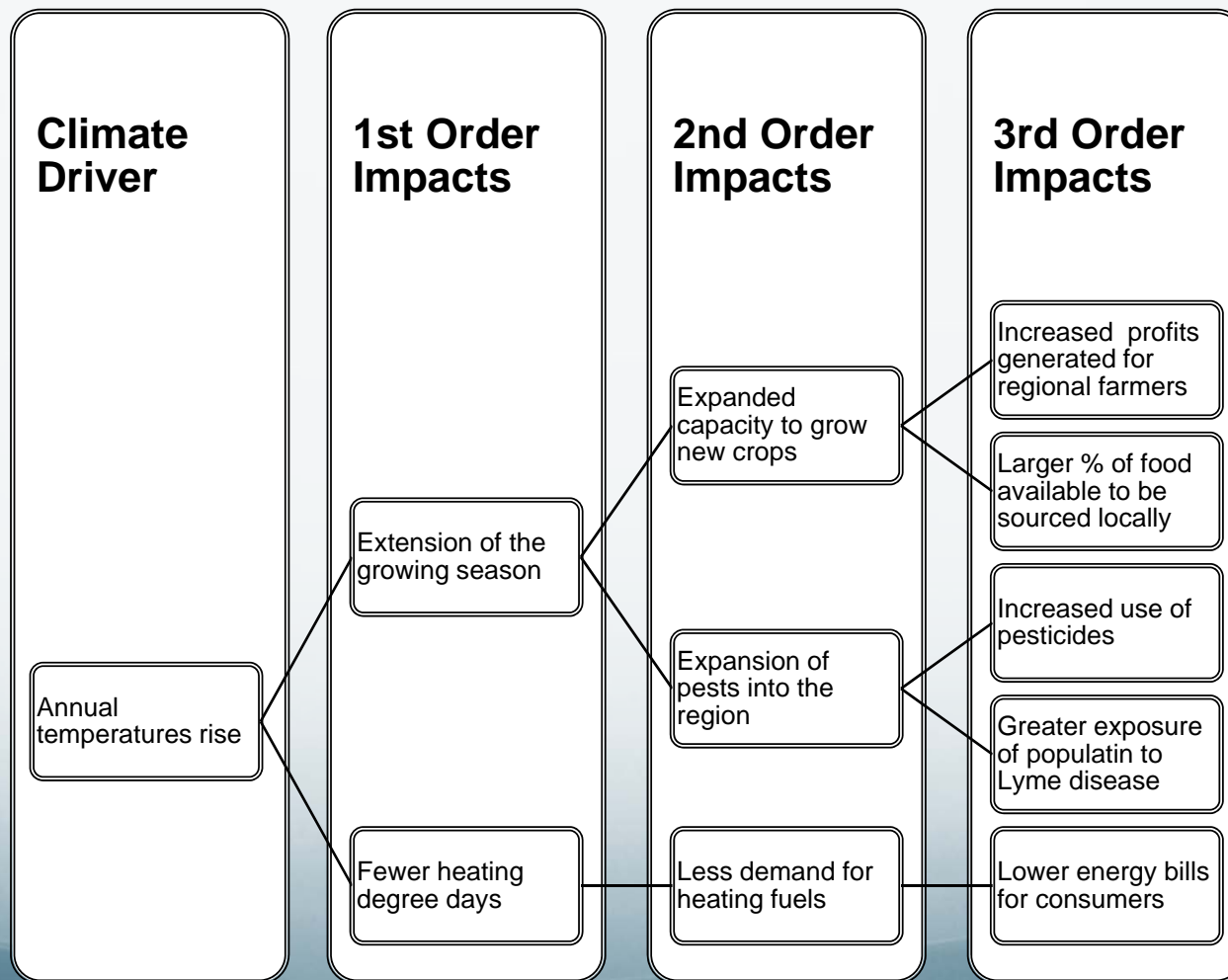


Destroying
roads...



Leading to
mounting
costs to
rebuild
them

Scenarios will branch...



What can we do with these scenarios?

- **Code and group** them
- **Assess** them based on criteria to be derived at a future workshop
- Use them to develop coupled **RACC human-natural systems models**
- Integrate impact assessments into **adaptive management plans for the region**

Approaching the day...

“Thinking through scenarios, and talking in depth about their implications, brings each person’s unspoken assumptions about the future to the surface. Scenarios are thus the most powerful vehicles I know for challenging our ‘mental models’ about the world and lifting the blinders that limit our creativity and resourcefulness.”

- Peter Schwartz,
in an Uncertain World

The Art of the Long View: Planning for the Future

Housekeeping:

- Please complete the evaluations when we email you later this week...
- Use index cards to generate comments and questions...
- Return completed worksheets to your facilitators, with, if possible, your names on them...
- Switching breakouts: stick to the same group for breakouts 1 & 3, please.
- Network!!!