



V e r m o n t

EPSCoR

Experimental Program to Stimulate Competitive Research

Annual Meeting May 16, 2013



VT EPSCoR Alignments and Partnerships:

State of Vermont:



Governor Peter Shumlin
September 2012

Partners and Stakeholders:

Agency of Natural Resources
Governor's Climate Cabinet
Lake Champlain Basin Program
Nature Conservancy of New York and Vermont
Lamoille River Project
Lake Champlain International

VT EPSCoR Alignments and Partnerships:

University of Vermont (UVM):

“This partnership with VT EPSCoR advances opportunities consistent with our strategic plan.” E. Thomas Sullivan, President of UVM



Baccalaureate Institutions:

Saint Michael's College

Vermont State Colleges

Community College of Vermont

Middlebury College

Congressional Delegation Support:

We have the strong support of our US Senators and Representative.



Senator Leahy



Senator Sanders



Rep. Welch

Our State EPSCoR governing board is the Vermont Technology Council



“Vermont EPSCoR is a cornerstone of our state's economic development strategy. “

John Evans, PhD, President, Vermont Tech. Council



Experimental Program to Stimulate Competitive Research

Research on Adaptation to Climate Change



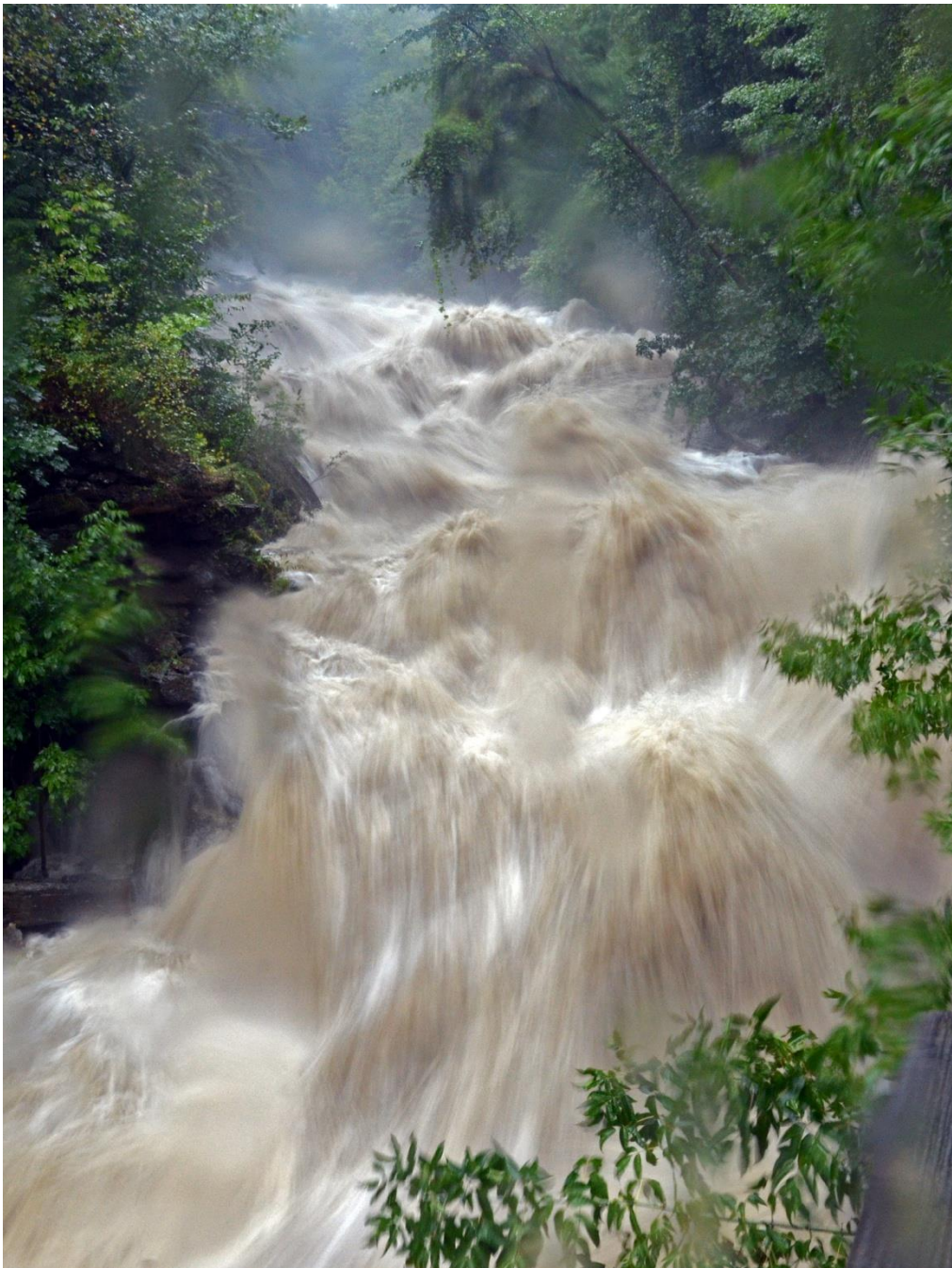
RACC

Research on Adaptation
to Climate Change

Driving Our Research and Outreach:

From the beautiful watershed comes storm water run off, sediment and nutrients that fuel algal blooms. Managers must make decisions about development, land and lake use, agriculture practices in light of the predictions of more precipitation, less snow and more rain and more severe storm events.



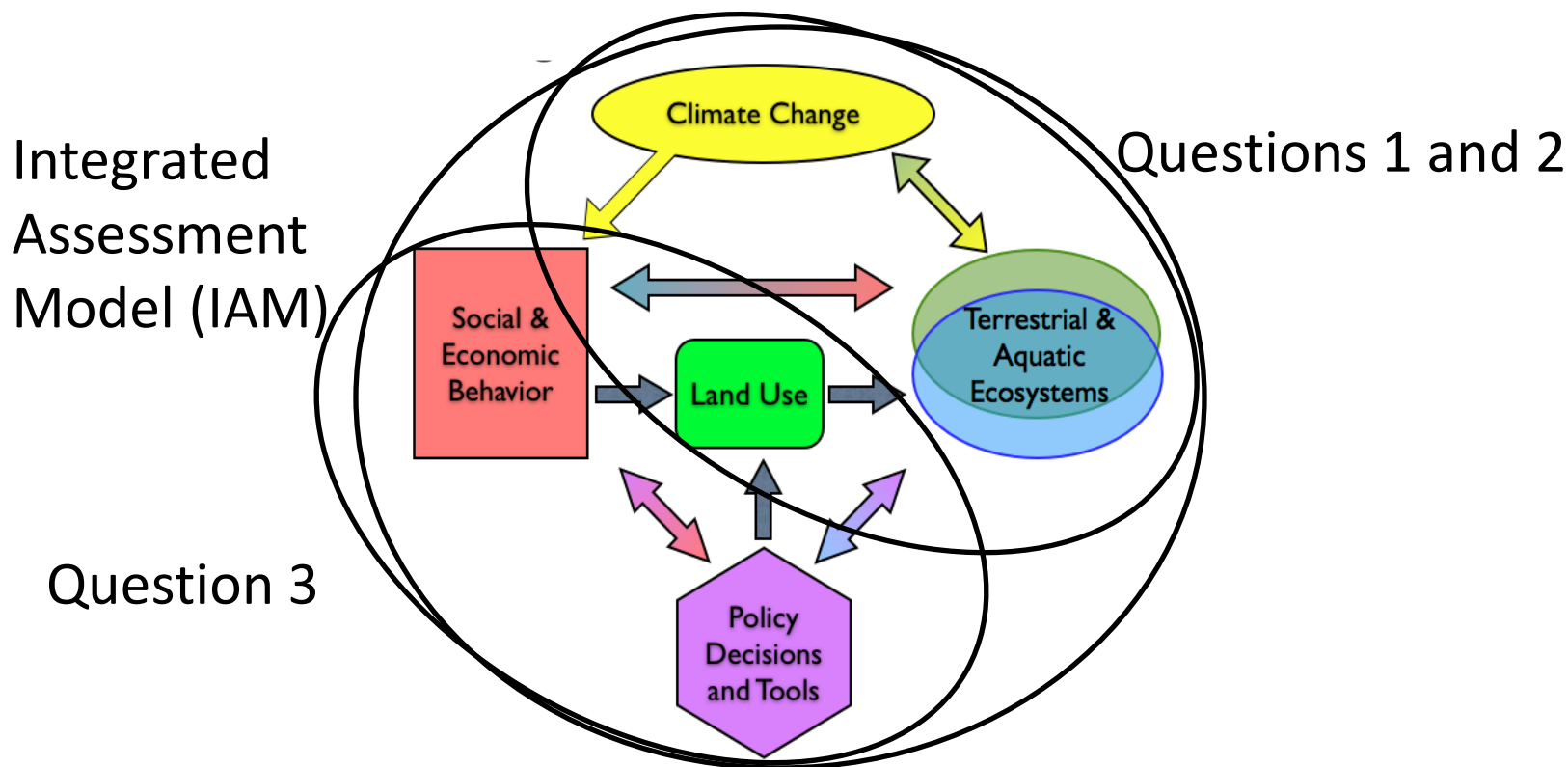


Tropical Storm Irene,
Aug. 27, 2011
(Gordon Miller)

We can expect more frequent and more severe storm events with a changing climate.

The Overarching RACC Question

How will the interactions of climate change and land use alter hydrological processes and nutrient transport from the landscape, internal processing and eutrophic state within the lake, and what are the implications for adaptive management strategies?



Missisquoi Bay Advanced Monitoring Systems

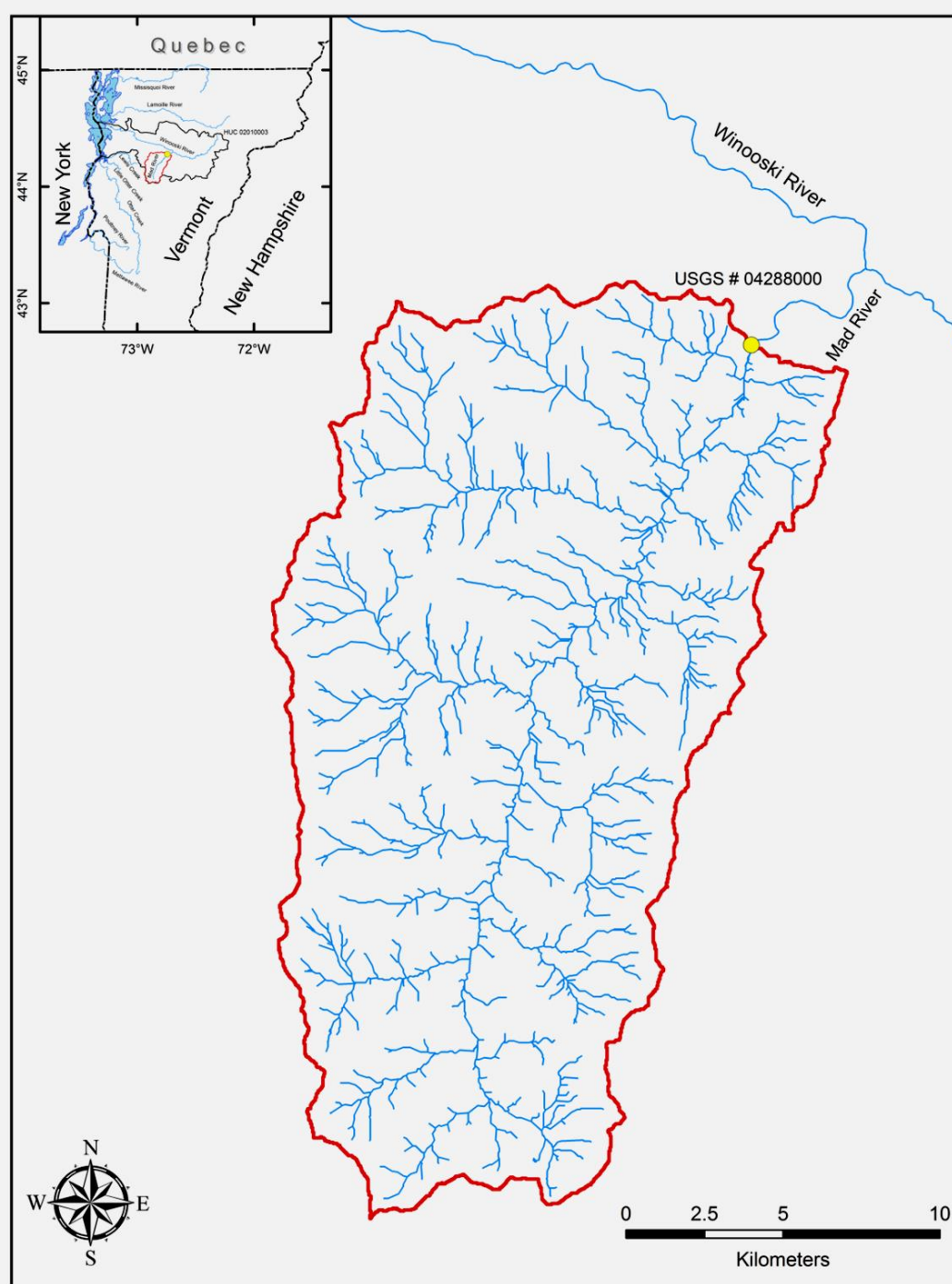


Pat and Tom
Manley
Middlebury
College

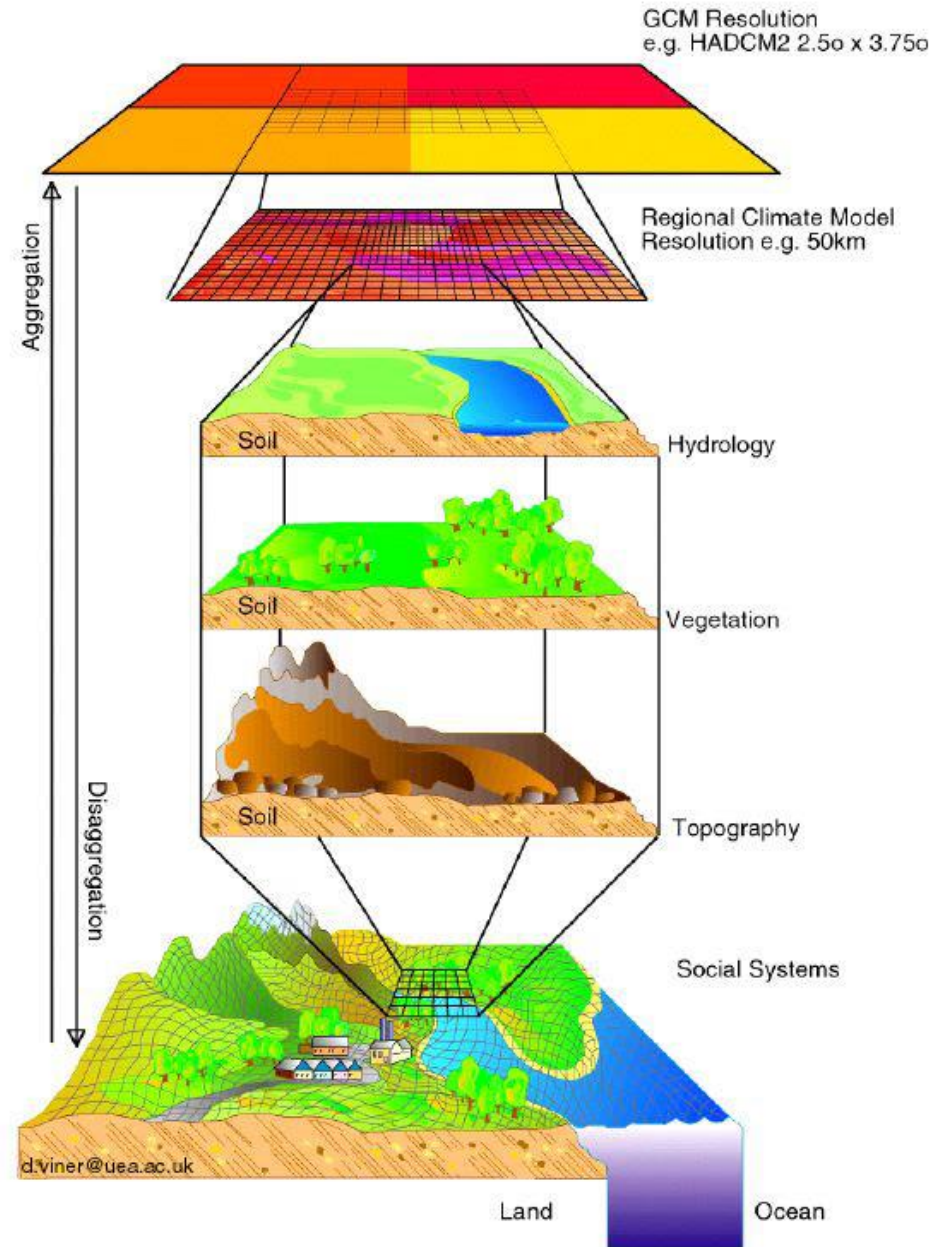


Hydrological modeling:

Begin with Mad River watershed

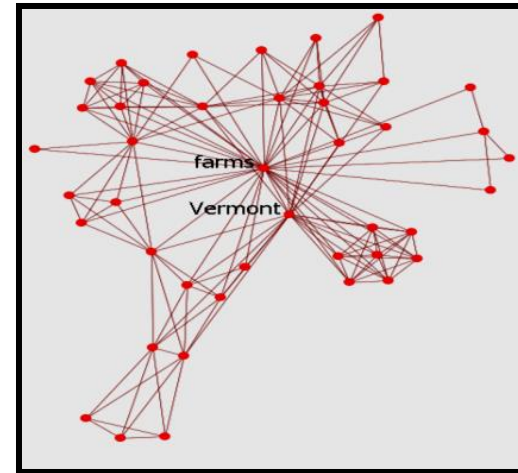
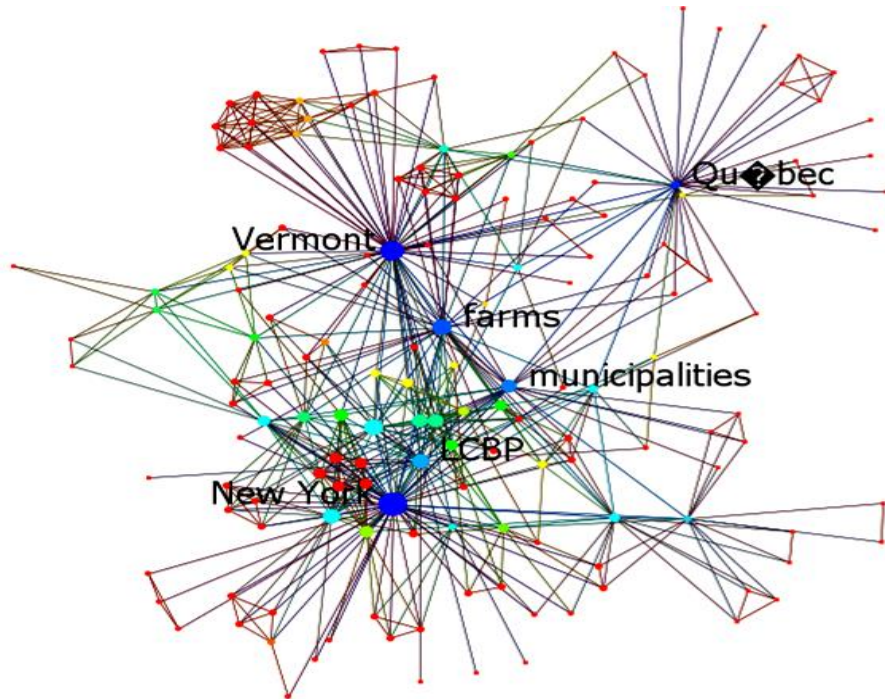


Climate downscaling



Human-Natural Coupled System: Governance Network Agent-Based Model

Lake Champlain Basin Program – Agricultural focus: “Opportunities for Action” (OFA) Plan (2010)



Integrated Modeling Platform Selected

ARIES: ARTificial Intelligence for Ecosystem Services





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Workforce Development and Diversity



Center for Workforce Development and Diversity Saint Michael's College



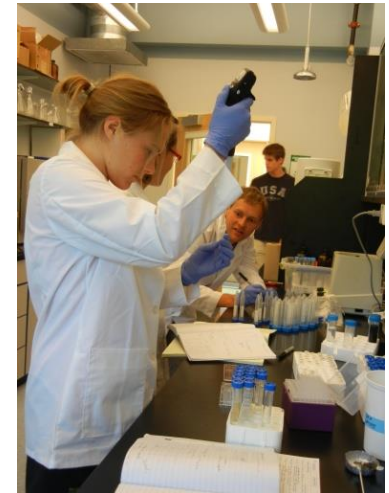
Education Outreach

Workforce Development

Broadening Participation

Service to the State

Integrate participants into RACC research



Scholarships for first generation and
Native American students



Governor's Institutes of Vermont –

funas for girls and economically disadvantaged to attend



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EPSCoR

Experimental Program to Stimulate Competitive Research

Pilot and Private Sector Innovation Awards

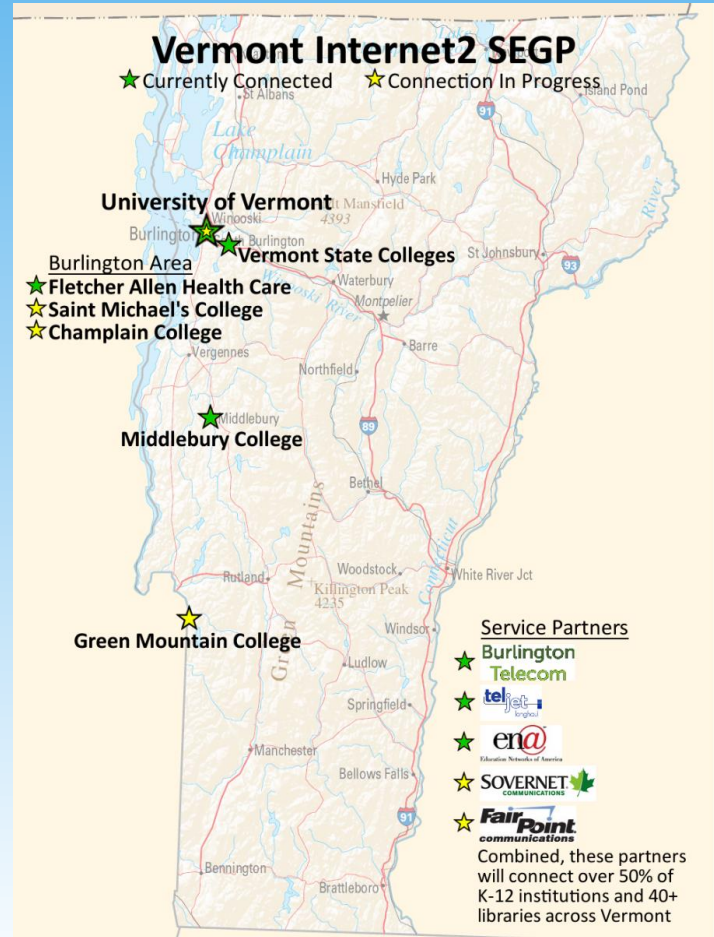
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CONNECT. 

INTEGRATE. 

EMPOWER. 





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Experimental Program to Stimulate Competitive Research



RACC

Research on Adaptation
to Climate Change



Vermont EPSCoR
CWDD
Center for Workforce Development & Diversity
AT SAINT MICHAEL'S COLLEGE

Vermont EPSCoR



CONNECTING VERMONT'S EDUCATIONAL
INSTITUTIONS TO THE WORLD

The Lake Champlain Basin



RACC
Research on Adaptation
to Climate Change