<u>Ground up Adaptation, Local lessons as a model for building climate change</u> resilience in Vermont

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Abstract: Research shows that Vermont and the surrounding region are most critically effected by climate change impacts related to increases in temperature and changes in precipitation. Vermont has completed and is still undergoing a significant amount of policy connected to climate change adaptation. Progressive environmental policy action and planning at the state level has been paramount in supporting local decisions. Evidence of this action around climate change adaptation planning at the local level is widespread throughout the state. Specific research of how individual communities are coming together to become more resilient to climate change presents valuable indicators that can serve as a model for understanding how progress moves from planning to implementation. Vermont's economic, social and environmental sustainability depends on communities building resiliency and the networks formed within and across communities that promote both short-term and long-term solutions for both adaptation and mitigation. This paper aims to describe the potential success in the theory of ground up adaptation through a specific community in Vermont, the Mad River Valley (MRV). The MRV is a community heavily reliant on its agricultural business enterprises and water resources that are both at increasing risks from flooding and compromised water quality. Through a qualitative case study on the actions of this unique community, currently engaged in a variety of adaptation planning for building resilience to climate change, we are able to study the locally built governing networks that are driving change. The case study provides an improved understanding of the decision points across sectors related to climate change adaptation work at a broad scale as it pertains to Vermont and a diverse set of stakeholders. Finally, we propose that building systems that support adaptation from the ground up at a local scale has impressive implications to serve as a model for how state, regional and potentially global policy applications for responding to climate change impacts can be successfully implemented.