

Leveraging science to address climate change on Martha's Vineyard

National and international efforts to combat climate change are not yet close to meeting the severity of the problem; however, states and municipalities are rising to the challenge, doing whatever they can to contribute to a sustainable future for all. On Martha's Vineyard, work has begun to address this immense challenge. The Martha's Vineyard Commission Climate Action Task Force (CATF) has embarked on developing an Island wide climate action plan that includes a range of scientific and engineering studies designed to ensure that future climate-smart decision making is based on the best available data.

Natural climate solutions (NCS) are some of the most cost-effective approaches for decreasing the amount of carbon in the atmosphere, helping to mitigate the impacts of climate change.

To better understand the Vineyard's potential for NCS implementation and land use policy guidance, Falmouth's Woodwell Climate Research Center and the CATF have developed a comprehensive study of the Island's land-based climate mitigation potential and climate risk. Led by Woodwell scientist, Dr. Wayne Walker, the study is intitled: ***Assessing the Land Carbon Dynamics and Storage Potential of Martha's Vineyard***. The CATF is chaired by MV Commissioner, Ben Robinson.

The proposed study is critical to guiding sound and sustainable decision making about Vineyard land use, which is an issue of increasing importance to the Island's five towns. The study will assess the Island's natural carbon storage potential in soils, forests and wetlands. The study will answer key question like: how much CO₂ can these ecosystems sequester?; where are the most promising opportunities for carbon removal?; how much will these interventions cost?; how permanent is the storage?; and how does climate change itself affect the ability of natural systems to store carbon over the long term? The findings of this study will help develop policies and best practices across a range of industries including construction, agriculture and landscaping.

Urgent action is required if we are to address climate change in the time frame that science requires. Many people across our community are contributing to this work, and the numbers are growing. If anything can provide hope for our future, it is our ability to rally together to support local initiatives with global implications.

Woodwell Climate Research Center, Dr. Wayne Walker
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