Vermont Climate Action Commission

Sequestration Working Group (5/10/2018 draft)

Commission Members: Peter Walke, Paul Costello, Marie Audet, Robert Turner
Agency staff: Alex DePillis, Karen Bates, Marli Rupe
Other contributors: Bill Keeton, Tony D'Amato (UVM)

Forest Sequestration

Background

Forest are a major carbon sink that cover roughly 78% of the land area of state. Estimates suggest more than half our annual CO_2 emissions are being absorbed by these forests, and over 200 years of emissions are stored there. Recent data suggest our net annual sequestration is declining slightly, and—for the first time in over 100 years--our forested land base is declining. Providing incentives for forests to remain forested and for management to be both responsive and adaptable to climate change is critical to maintain the carbon sink in and the many other benefits that flow from Vermont's forests.

Managing forests for carbon sequestration is completely compatible with all other forms of responsible forest management. Forests as a "crop" take decades to mature and forest managers have begun to adapt their management to reflect the expected impacts from climate change. One aspect of the future is relatively certain: climate change will increase management costs for forest landowners from a hoist of expected impacts including invasive plants and insect control, icnreased drainage and road infrastructure costs, storm damage, and potential reductions in health and productivity. Already marginal, the profitability of forest ownership is likely to decline, jeopardizing many of the benefits we have come to expect from our forests—benefits that include clean air, clean water, and carbon storage, along with more conventional forest products.

Programs exist that allow for forest landowners to monetize forest growth as carbon offsets. Carbon offset programs not only generate additional sequestration, but may well play a role in keeping the major forest carbon sink intact. Offset payments represent an annual income stream to landowners, especially important when wood product markets cycle. Trading of carbon offsets from forests is likely to continue to generate interest, both on the part of policy makers and landowners. Nationally, forest carbon offsets from across the country supply the bulk of traded offsets for the California Cap and Trade mechanism. Nationally and internationally, most experts expect to see considerable growth of these programs in the next 10-20 years.

The near-term financial feasibility of these programs, given the relatively small parcel size in Vermont, is constrained by the cost and complexity of implementation. Only one forest carbon project has been initiated in Vermont to date. Still, there is growing interest in any program that can add to the income stream of forest landowners, particularly when current wood markets are weak.

Goals:

The CEP recognizes the importance of intact forests and discusses the role of wood fuel for heat and energy. The CEP does not acknowledge the role of or the potential for sequestration in Vermont forests. The Commission will identify actions the legislature and administration might undertake to support and promote additional sequestration in forests by landowners. It will also consider recommendations that promote maintaining and enhancing the value of the large carbon sink represented by our current forests.

Recommendations:

Both forest management and land use decisions affect the sequestration of carbon in forests. We recognize the efforts already being made in the Departments of Forests, Parks and Recreation and in the Department of Fish and Wildlife in the areas of climate adaptation, both in the areas of forest management and land use planning. Our recommendations are intended to support and advance these efforts.

Support current initiatives to develop a pilot project for the sale of forest carbon offsets on smaller privately owned parcels.

An initiative led by the Vermont Land Trust and UVM's Rubenstein School is working to develop a "pilot" project to demonstrate the feasibility of carbon offsets trading for smaller private landowners in Vermont. There is considerable interest on the part of landowners, yet these carbon projects are complex. This pilot will inform the potential for the sale of offsets to increase landowner income, and its potential as a new conservation finance tool. This effort represents an opportunity for state land managers to participate and through this experience, answer a number of questions that affect the feasibility of similar projects, either on other private lands (for example, compatibility with the Current Use rules) or on state lands. We recommend a Forest, Parks and Recreation staff person be assigned to monitor and support this effort. As the trading of forest carbon offsets becomes more common, it will be important for county foresters and state land managers to build their familiarity with this process and to interpret current rules and mandates for landowners, in the context of these projects.

Improve the accessibility of information that will inform local and regional planning efforts on the status of forestland transfer and development.

The Smart Growth task group of this Commission has recommended better tracking and reporting of forest land subdivision and conversion. We endorse this recommendation and further recommend that the reporting be integrated into current, online tools designed to promote better land use decisions by local and regional planners. The Department of Fish and Wildlife currently maintains the BioFinder website for this purpose. We suggest better land transfer and parcelization reporting be incorporated into this tool.

The State of Vermont should join California, Quebec and Ontario in the Western Climate Initiative (WCI) cap and trade structure to cap carbon emissions and to draw investment in climate mitigation efforts, especially to support and incent carbon sequestration practices in Vermont's farm and forest economy.

Vermont already participates in a regional cap and trade system. The Regional Greenhouse Gas Initiative (RGGI) has generated nearly $20m in proceeds to Vermont (2008 through 2016) and these proceeds have been used to reduce GHG emissions by funding energy conservation measures. Participation in the WCI would expand the entities currently covered by the RGGI "cap" and significantly increase the revenues available to support a broader range of emission reduction and sequestration activities.

Continue funding for the Vermont Housing and Conservation Board for conservation easement purchases on forestland.

Conservation easements are an important tool for keeping forestland undeveloped. Funding for the Vermont Housing Conservation Board should be continued, with priority given to projects that emphasize the aggregation of like-minded and neighboring landowners, both to maximize the conservation values, but also to set the stage for a future aggregated forest carbon offset project.