

Northern Forest Network for Ecosystem Services Practice and Policy  
Draft Concept Paper for Discussion  
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**Introduction.** Private forest owners who actively manage their forests are an essential underpinning of the economy in the Northern Forest region of Maine, New Hampshire, Vermont, and New York. Private owners are responsible for managing over 38 million forest acres in the four states- nearly 90% of the region's total forest acreage. According to a recent study<sup>1</sup>, private forest lands in the four Northern Forest states make the following contributions to the regional economy:

- Direct, Indirect, and Induced Jobs: 148,834
- Direct, Indirect, and Induced Payroll from Private Forests: \$5.1 billion
- State Income and Severance Taxes from Private Forests: \$283 million
- Sales from Private Forests: \$14 billion
- Economic Impact - Contribution to state GDP from Private Forests: \$6 billion

Nationally and in the Northern Forest, however, the financial viability of practicing forest management that creates these economic returns is under threat. As traditional uses for local wood—e.g. sawlogs, papermaking—have left the region, the financial returns on growing trees for harvest in the Northern Forest have stagnated or declined. Instead the value of forest lands for their development and amenity values has increased significantly.

While financial and real-estate investments in the forest lands have yielded economic benefits for some investors,<sup>2</sup> these activities do not help the economic picture of the region as a whole. Sustainable forestry practices have declined among new forest owners<sup>3</sup>. New ownership in some places has also meant changes in access to forest land for traditional recreation uses. In instances where new landowners have converted the land to non-forest uses or otherwise reduced or eliminated tree harvesting, potential work for foresters, loggers, and wood processors has been lost.

Furthermore, forestlands are being subdivided into smaller and smaller pieces with multiple ownerships. This trend in forestland real estate development is considered one of the greatest threats faced by forests across the United States (Wayburn et al. 2000). As trees are removed and soil is paved over, ecosystems lose their integrity and ability to provide the critical services on which people and wildlife depend. A forest's ability to control floods and fires, sequester carbon dioxide, provide vital wildlife habitat, and purify water is jeopardized with the spread of this type of development.

Rising property taxes, a high demand for small land parcels, and immediate financial gains are accelerating the rate of subdivision and development. For example, from 2001-2005,

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<sup>1</sup> F2M/Forest to Market, 2009. The Economic Impact of Privately-owned Forests. Prepared for the National Alliance of Forest Owners.

<sup>2</sup> North East State Foresters Association, 2004. The Northern Forest of Maine, New Hampshire, Vermont, and New York: A look at the land, economies, and communities 1994-2004.. Charts 2.5, 2.6, 2.7

<sup>3</sup> Manomet Center for Conservation Sciences, 2006. Changing Timberland Ownership in the Northern Forest and Implications for Biodiversity

land parcels less than 25 acres in Vermont increased 117%, while properties greater than 25 acres increased only 62% on a per acre basis during the same time period (Fidel et al. 2007). The financial incentives for landowners to subdivide and develop their forestland are clear, while the monetary drivers for keeping their forests intact and managing sustainably are limited.

Now markets for forest ecosystem services- notably carbon sequestration and watershed services- are emerging as new opportunities to help rebuild the economic foundation for sustainable forestry and the economic impacts it provides in the Northern Forest. These opportunities, however, cannot be fully realized without two components – public **policy** recognizing the role of forests in protecting and enhancing ecosystem services, and successful pilot projects that demonstrate best **practice** for how landowners can develop and sell ecosystem services values in to existing and emerging markets.

### **Northern Forest Network for Ecosystem Services Practice & Policy**

In the Northern Forest, there is a diverse group of professionals from government, non-profits, and academia working to understand and enhance forest-based ecosystem services. There is, however, no group that unites the various initiatives throughout the region. A formalized Northern Forest Network for Ecosystem Services Practice & Policy (NF NESPP) would improve efficiency; reduce the likelihood of redundancy, and thereby provide benefits to both the environment and the people of the Northern Forest.

NF NESPP will bring together and help build initiatives in the region pertaining to Markets for Ecosystem Services. These include but are not limited to:

- 1. The Green Mountain Carbon Group** – A network of professionals from non-profits, academia, and the private sector in Vermont, working and interested in issues related to forest carbon and associated markets. This group has met several times since January 2010 to discuss how carbon markets can benefit landowners and forests in the state. The regional Network proposed in this paper would expand this group geographically by ensuring communication between the participants’ counterparts in New York, New Hampshire, and Maine.
- 2. The Northern Forest Investment Zone** - A coordinated, 5-year initiative to develop new income streams from the forest and demonstrate how they can deliver maximum community benefit. Focal areas include ecosystem services, woody biomass energy, and wood products manufacturing.

### **3. Others???**

The proposed NF NESPP would integrate the skills and findings of this initiative to individuals not directly involved in the project.

**Network Purpose & Objectives.** The purpose of the Northern Forest Network for Ecosystem Services Practice and Policy is to provide a regional (four state) forum to:

1. Connect individuals, organizations, and agencies working on the development of ecosystem services markets in the Northern Forest;
2. Develop and share relevant information, resources, and partnerships to advance specific ecosystem services projects in the region as well as the state of the field; and
3. Inform and advocate for public policies at the state and federal levels that provide incentives and remove barriers to the formation of markets for ecosystem services.

By connecting practitioners around the region in this way, the network hopes to support outcomes that include:

- New scientific and practical understanding of Northern Forest ecosystem services and how they can be quantified, packaged, and sold into existing and emerging markets;
- New markets for Northern Forest ecosystem services;
- Successful demonstration projects for how Northern Forest landowners and communities can access markets and realize new returns for ecosystem services; and
- Supportive public policy and increased public investment in the development of ecosystem services projects in Northern Forest communities.

While forests provide many types of ecosystem services, the services that will initially define the focus of the network are:

Carbon: Carbon markets have grown exponentially in recent years, with trade in carbon offsets alone doubling between 2006 and 2007, and again between 2007 and 2008, to a total of \$705 million. The worldwide market in carbon tops \$64 billion.<sup>4</sup> Business owners and landowners in the Northern Forest stand to reap financial benefits from these new markets, and these benefits will in turn support jobs in forestry, logging, and other sectors. Yet currently these opportunities are not being capitalized on in the Northern Forest. Furthermore, public policy currently does little to provide incentives for such opportunities or even to recognize the role of forests as a key component of climate change mitigation.

Water and Watershed Services: The Northern Forest contains the headwaters of many of the Northeast's major rivers and is a water source for major population centers. These watersheds are largely on private lands, where existing watershed protection tools—fee acquisition and easements—can realistically only be applied to a fraction of their acreage. As development pressures mount, there is a need for a next generation of watershed management and protection tools that quantify, sustain, and pay for the resources these watersheds supply.

Woody biomass energy: High energy costs for both heat and electricity – along with state and national climate change objectives – are driving great interest in the use of wood, wind, and other resources as energy sources in the Northern Forest. New demand for energy from woody biomass in particular has the potential to create incentives for sustainable forest management and conservation and deliver economic benefits to local communities—if the opportunity is managed well.

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<sup>4</sup> Northern Forest Center, Manomet Center for Conservation Sciences, and Coastal Enterprises, Inc. 2009. *Payments for Forest Carbon: Opportunities & Challenges for Small Forest Landowners*.

Balancing demand for carbon, biomass, and certified wood products: Management of the region's forest must optimize multiple objectives. Landowners and policy-makers alike will need scientific, economic, and practical guidance to increase carbon storage, ecological benefits, and forest productivity, simultaneously. Long-term economic and environmental sustainability in the Northern Forest depends on striking the appropriate balance of these parameters.

**Network Coordination and Activities.** Conservation Collaboratives and the Northern Forest Center will be initially responsible for coordination of the network. Anticipated year-one activities include:

- Identify, build relationships with, and connect network members;
- Develop information collection and dissemination tools (e.g. website, listserv, other) to collect and push relevant policy and practice info out to network members; use these tools to regularly communicate information, alerts, etc;
- Periodically convene network members for information exchange and dialogue;
- With network members, consider opportunities for collaboration and move forward as appropriate, e.g.:
  - Practice: Collaborative funding proposals, technical sessions
  - Policy: Identify and agree collective policy priorities, conduct joint advocacy
  - Outreach: Disseminate information to landowners and/or organizations that serve landowners (depends on what we think about this components – see above)
- Convene the network at the Summit for the Northern Forest (spring 2011); and
- Seek financial resources to support network activities and coordination.
- Other?