

## **PROPOSAL FOR A MARLBORO COLLEGE ECOLOGICAL RESERVE**

*Drafted by Jennifer Ramstetter and Todd Smith in collaboration with the Environmental Advisory Committee (EAC) and modified in discussions with Dan Cotter, Kevin Quigley, and Richard Saudek    October 27, 2017*

We propose the establishment of a Marlboro College Ecological Reserve to encompass approximately 130 acres of forested land north of the main campus. This land was removed from Vermont's Use Value Appraisal Program (UVA) to establish the reserve, following the recommendation of Town Meeting in 2004. The ultimate goal was to recognize the ecological, recreational, educational, and aesthetic importance of the land to the college community, as well as to the greater Marlboro community, and to provide protection for the land. The size of the ecological reserve would fall within the range of other college and university reserves (some are as small as 50 acres and others as large as 1,000 acres, but most are in the 100s of acres).

Lands within the ecological reserve would exist in the absence of further development and timber harvest. Development and timber harvest are two significant human activities that alter the ecological processes and adversely affect species within New England's forested ecosystems. The ecological reserve would be protected by a Marlboro College Trustee decree. In comparison to conservation lands at other institutions, Marlboro's proposed ecological reserve stands out in being immediately adjacent to campus, eliminating timber harvest, and being established through a collaborative, community effort. Many reserve lands at other institutions were donated, and many are at some distance from the institution and allow timber harvest.

### **Rationale for proposing this area as an ecological reserve:**

The forested area north of campus is a jewel for the Marlboro College community and central to its identity. It is often the first entry point into our woods for students and all community members, and it receives significant use for recreation, daily movement, spiritual renewal, and aesthetic appreciation. This area of the forest provides an important connection, physical and figurative, to the Town of Marlboro via the Town Trail. It is an ecologically important area that includes rich northern hardwood forests, vernal pools, a hemlock ridge, and patches of large maples and oaks and other species and processes supported by this diversity. According to BioFinder 2016 (a Vermont Agency of Natural Resources database and mapping tool), this area of our forest is ecologically important and receives conservation rankings of High Priority and Priority for its contribution to the forest interior of the area, connectivity of habitat, streams, and vernal pools.

Forested ecosystems provide many ecosystem services such as carbon sequestration, erosion control, clean air, and clean water. In particular, the forest north of campus is crucial to the water supply of Marlboro College. These woods are also at the heart of our educational program in the life sciences. All students in our life science classes such as Biology, Ecology, Ornithology, Plants of Vermont, Animal Behavior, Forest Ecology, and Winter Ecology spend time learning in these particular woods as do students studying in other areas of the curriculum. Some go on to do tutorials focused on this forest, and Plan students in the life sciences conduct research here as well. Many members of the campus community, past and present, value the forested landscape. A forest ecological reserve might also contribute to efforts to attract new

students and retain enrolled students and serve as an important control area for future research. Sustainability issues are important to many prospective students, according to a number of sources (Higher Education for Sustainability, by L.F. Johnston, 2013). Additionally, about one-third of our alumni who participated in faculty led activities at the Fall 2016 Alumni Day chose to explore the forest with current and Emeritus faculty. With all of these qualities ranging from educational, recreational, spiritual, and ecological, there is no other section of woods that holds comparable value for the Marlboro College community, and this value will only grow as the forest grows.

#### **Allowed activities:**

Based on community input, as well as our own perspective, the EAC recommends that land in the ecological reserve remain open to current activities (e.g., recreation, education, research, maple sugaring—with buckets, not tubing). Hunting is an activity that some community members wish to exclude from a proposed reserve; Town Meeting may wish to recommend to the Trustees excluding hunting from the ecological reserve in the future.

#### **Process for proposal of new activities on forested lands:**

In the Spring semester 2017, the Town Meeting unanimously passed an addition to the Town Meeting By-Laws that requires a person seeking Town Meeting or Washer/Dryer funding for a project in the forest to consult with the EAC prior to bringing the proposal to Town Meeting. The Standing Building Committee (SBC) reviews new buildings and activities that affect college lands, and will communicate with the EAC on proposed activities that may affect the College's forested lands including those within the proposed ecological reserve.

#### **Management of the ecological reserve:**

The management of the ecological reserve will focus on the ecological integrity of the forest and allowing ecological processes to proceed with little human intervention. The EAC will provide guidance for the management of the ecological reserve. The EAC consists of students, staff, and faculty, and the committee includes individuals and departments who are likely to have important insights on the forest: students interested in the environment and sustainability, faculty from the natural sciences and other interested areas, and staff from the Outdoor Program, Plant and Operations, and Residential Life. Environmental issues are central to the committee's charge, and the committee was established to 1) advise the President regarding college environmental sustainability and 2) recommend policies and procedures to implement the Environmental Mission Statement.

#### **Active management in the ecological reserve:**

While the goal of excluding timber harvest and development in the ecological reserve is to allow for ecological processes to occur unimpeded by the significant adverse impacts of these activities, there may be times now or in the future when it is to the benefit of the forests or the human inhabitants of this landscape (the Marlboro College community and greater Marlboro community) to carry out active management (e.g., control of diseased trees or forest pests; fire control in the event of forest fire danger; removal of invasive species; management to address unanticipated dangers to the college community; efforts deemed to support or enhance biodiversity or ecological functioning of the forest). Any proposed forest management or

development that would affect the forest within the ecological reserve should take place after consultation with the SBC, which should seek input from the EAC.

**Reserve boundaries:**

The reserve lands would include the land removed from the UVA Program in 2004 with the following exclusions: 1) the existing structures or features cited in the paragraph below, 2) an area 300 feet to the north running along Backway Road, and 3) an area currently used as a landing for College construction projects off of Moss Hollow Rd. These exclusions will allow for necessary current and future activities of the college to occur. The exclusions and the southern boundary will need to be surveyed to establish the reserve.

**Structures and acreage excluded from the ecological reserve:**

Existing structures and features (water tower, pump house, MacArthur Observatory, skate park, Out-of-the-Way, and Backway Road) within or at the edge of the proposed reserve land are excluded from the reserve. The Hendricks's rights-of-way (already surveyed) are also excluded from the reserve. Maintenance and other activities in those areas should be conducted with an eye to minimizing impacts on the forest. There are ecologically valuable forested lands immediately adjacent to the structures listed above. For example, the area in which the water tower and its road and the observatory occur is rich northern hardwood forest and is home to some of our most interesting wildflowers and our sugar maples used for sugaring.

**Expenses associated with establishing the ecological reserve:**

The survey is the only anticipated expense in establishing the ecological reserve at this time.

**Summary:**

The establishment of the Marlboro College Ecological Reserve will demonstrate our leadership in environmental sustainability and is in accordance with our Environmental Mission Statement and the Master Plan. The reserve represents a unique feature that may attract and sustain students, faculty, and staff alike. The forest within the reserve contributes to ecosystem services that benefit the College community (e.g., enhanced water and soil quality and carbon sequestration) and will provide for unique habitat and biological diversity that occurs in older forests and could be the catalyst for a local network of such ecological reserves. The forest in the reserve will serve as a research site for carbon sequestration and the flourishing and migration of species and ecological processes in this age of climate change. The forest within the ecological reserve will be part of the fabric of College lands that includes the built environment of our main campus and the working forest of the remainder of our forested lands. We can celebrate, and promote, the future of the College and this forest as one in which future generations, human and nonhuman alike, will benefit from allowing ecological processes to proceed in the absence of two significant human disturbances—timber harvest and development.

**Recommendation:**

That the Trustees approve a resolution authorizing the creation of an ecological reserve.