

Green Mountain College Invasive Species Control Policy

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and
Land Use Committee

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I. Purpose

This policy is drafted with the intent of controlling and eventually eradicating invasive plant species from the Green Mountain College campus and lands. Education has a vital role in this policy, because it is a goal to make the college and local communities aware of the negative impacts of invasive species and to demonstrate effective and sustainable methods of control. In the process of removing the invasive plant life, restoration will also take place to help prevent the reintroduction of invasive plant life. Restoration may include planting native species

II. Criteria

1. Any species in *IPANE* or *Vermont Department of Agriculture, Food & Markets, Quarantine #3 - Noxious Weeds* and found on GMC land may be evaluated for control. Other exotic plant species on campus are candidates for control, but lower priority.
2. Species are given higher priority when they are considered greater risks to displace native species due to explosive reproduction or a tendency to form monospecific stands. Evaluation is based on information available from *IPANE*, regional conservation biologists and organizations, published research, or field observations.
3. Populations low on the geometric growth curve where control is most effective and least difficult are higher priority than populations near maximum population growth.
4. Invasive plant species for which off-campus populations can reestablish the species on campus should be evaluated for off-campus control to minimize spread back onto campus. The college will seek cooperative arrangements with off-campus neighbors.

III. Management Methods

1. Monitoring
 - a. Campus lands will be monitored periodically to document, with maps, changes in populations of invasive plant species.
 - b. Monitoring data will be used to help set priorities, plan strategies for control, and report progress.
2. Control
 - a. Exotic plants that have escaped cultivation may be removed from campus.
 - b. A management plan should guide management if a major initiative is required to remove a species, or if ornamental or other valued plantings are to be removed. For each two year period, a management plan will be drafted by the administrator for at least one invasive exotic plant species or for groups of species that are best managed together. Each management plan will be approved by the college administration through Land Use Committee's land use proposal process. The plan will describe the known status of the species, rationale for its removal, method(s) of control, and a strategy for the work needed on campus.
 - c. Invasive species management work plans will be provided to the campus community as needed so that other land uses and maintenance can be coordinated with these activities.
 - d. Mechanical treatments may be used if they are effective and feasible.
 - e. Biological controls may be used when a satisfactory level of scientific study has been conducted to indicate that the biological control species will not significantly impact native species. This is to be determined through the peer-reviewed literature and consultation with local environmental partners and experts.
 - f. Chemical treatments may be used when other methods alone are ineffective or impractical, and when the chemical has been shown to be effective and safe. The person applying the chemicals must have a proper license and follow recommendations available from plant conservation organizations.
 - g. Control events arranged by individuals, clubs, and other organizations must be coordinated with the administrator.
 - h. Collected remains will be disposed of so as to prevent seeds or other propagules from spreading back into the wild. Composting will not be used if viable seeds are present. Plants may be burned if the person or persons involved follow appropriate safety precautions.
3. Restoration
 - a. After mechanical removal to uproot larger plants, disturbed soil should be packed down to reduce the chances of reinvasion of the site.
 - b. After control, it may be necessary to restore the area by planting. Plants used in restorations should ordinarily be native to the ecosystem, and of regional provenance. Restoration recommendations will be included in species management plans.

4. Education

- a. Monitoring, control, and restoration activities will be planned and conducted to increase public awareness of the effects of invasive species, why they displace native species, and methods of control.
- b. A variety of approaches should be taken to educate the campus community and the surrounding community, for example
 - Invasive species components in course curricula
 - Public forums on campus at which all members of the Poultney community are strongly urged to attend
 - Posters in local garden shops and nurseries explaining the dangers of invasive species, promoting their removal, and suggesting alternatives
 - Attendance at town meeting by a college representative to inform the community of the purpose and progress of invasive species management by Green Mountain College
 - Integration of invasive species control and removal into established youth programs in the community, such as the mentoring program and the environmental expo.
 - Cook-offs with harvested invasive plants.

IV. Implementation

1. Administrator – Every three years, the Provost shall appoint an administrator from among the faculty who shall
 - a. Act as scientific advisor for invasive species management, providing expert knowledge on species and potential control methods.
 - b. Coordinate and promote management activities, including monitoring, control, and restoration.
 - c. Write or help others write invasive species management plans.
 - d. Select and supervise work study student(s) on a natural areas management crew.
 - e. Communicate work plans with the campus community.
 - f. Seek funding for management actions.
 - g. Promote education links to the invasive species management program.
 - h. Provide explanations of the invasive species management program and updates on its progress.
2. Sustainability Coordinator – Major responsibility for management lies with the Administrator, but oversight of field operations could shift to the Sustainability Coordinator or some other staff person with primary responsibility for student work crews. The Sustainability Coordinator will
 - a. Work with the Administrator to write work plans.
 - b. Integrate student programs with invasive species management.
 - c. Help supervise work study students on a natural areas management crew.

3. Work Study – Student(s) selected for work study positions will develop knowledge of and experience with invasive species management. Students will work with the administrator and/or the Sustainability Coordinator to:
 - a. Monitor invasive species on campus using maps, to document their locations, rate of spread, and progress of control.
 - b. Implement management plans.
 - c. Create aids to management, such as a field guide that will include identification characteristics, pictures, and proper management techniques.
 - d. Organize volunteer invasive removal workdays, including an annual pulling every Earth Day.
 - e. Educate and inform students, staff, faculty, and the surrounding community about the goals and methods of the invasive species management program.
 - f. Seek funds for equipment and supplies.

V. Budgeting:

1. For the first two years of management, the college will support one student work study position for fall and spring semesters, and as possible, student positions during summer, under the Science/Math department or similar academic budget.
2. Wildlife Habitat Incentives Program funds may be sought to help support the student summer positions.
3. Additional funds may be requested from The Student Campus Greening Fund (SCGF). The work-study student(s) will help apply to SCGF for the necessary funds to buy any appropriate supplies on a yearly basis.
4. Volunteer contributions of labor will be substantial during major events such as the spring Garlic Mustard pull on Earth Day, and the school group workshops during Environmental Expo.
5. Partnership with The Nature Conservancy's Southern Lake Champlain Valley Program and Poultney-Mettowee Natural Resource Conservation District may provide funding through grants that those organizations seek for invasive species management in the Poultney River watershed. The cost of plants for restoration may be reduced through the use of the existing Champlain Valley Native Plant Nursery Program.

VI. Appendix: Definitions

Administrator – A person facilitating an invasive species removal activity.

Biological Control – Introduction of biological organisms that will be able to control the invasive species.

Chemical Application – Use of chemical substance to kill invasive species. (e.g., Rodeo)

Community – A shared living and working environment including students, faculty, and staff of Green Mountain College and citizens of the town of Poultney.

Escape – Survival and spread outside of cultivation.

Exotic Plant Species – A plant that is not native to Vermont or the surrounding region.

Geometric Growth Curve – Population growth with exponential increase in total numbers, also known as a J-shaped growth curve.

Green Mountain College Campus – All land owned by Green Mountain College including the main campus and Endless Brook Nature Preserve.

Invasive Exotic Plant Species – Plants introduced by various means (wind, insects, birds, water, human dispersal, etc.) that can survive and spread outside their native range. They aggressively take over a habitat due to a lack of natural controls, displacing native plant populations, and altering community function.

Invasive Plant Atlas of New England (IPANE) – A comprehensive web-accessible database of invasive and potentially invasive plants in New England.
<http://invasives.ceb.uconn.edu/ipane/>.

Mechanical Treatment – Physical removal of species utilizing methods other than biological or chemical.

Mulching/Covering – Covering the invasive plants with a non-living material such as hay or dark plastic to kill the plants and prevent any seedlings from germinating.

Native Plant Species – A plant that grows naturally in an ecosystem, not as the result of introduction by humans.

Pulling – The process of pulling the plant out by hand, removing as many of the roots as possible.

Restoration – Returning an ecosystem to a natural dynamic state, for example, by removing alterations to drainage, or by planting native species that are absent because of human land use.

Riparian – Relating to, living, or located on the floodplain of a natural watercourse, lake, or tidewater.

Seed dispersal – The spreading of plant seeds from one place to another.

Site-Intensive Removal - Extermination of an invasive monoculture in one specific area larger than one square yard.

Vegetative – Of, relating to, or involving propagation by nonsexual processes or methods.

Vermont Department of Agriculture, Food & Markets, Quarantine #3 - Noxious

Weeds – A state regulation for the quarantine of noxious weeds based on the Federal Noxious Weed list.

Weed Wrench – A manually operated, all steel tool designed to remove woody plants by uprooting.