

Vermont Agency of Natural Resources
Worcester Range Management Unit - Long Range Management Plan - draft
Comments, Recommendations, Proposed Amendments, and edits
Bodo Carey, Worcester Vt.

Even by Vermont's standards, the Worcester Range ecosystem is a rare ecological gem. The sheer volume of wild and unfragmented land, especially on the Worcester/Middlesex east side of the range, is unusual. I believe that this contiguous forest block should be protected in perpetuity. The state's plan for these 18,772 acres should be driven by conscience and foresight, as well as science and Vermont law. The Worcester Range Management Plan offers a once-in-a-lifetime opportunity to preserve an invaluable ecosystem and should be amended accordingly.

The Worcester Range Management Plan (Vermont Agency of Natural Resources, Dept. of Fish & Wildlife, Dept. of Forests, Parks & Recreation) is impressive in its detail. It provides extensive information, history, inventories, tables, and maps. The plan is clear and well-organized. Yet it does not address several important aspects in its goals and proposals. It does not follow the recommendations of the 2018 Vermont Conservation Design, also created by the Vermont Agency of Natural Resources, specifically regarding size/acreage targets for old forest. The relevant excerpts from that document are appended at the end of this letter. More importantly, it does not follow, incorporate, and implement the recently enacted Vermont law, Act 59. The Worcester Range Management Plan should be updated and amended in accordance with this law. It should adopt the language, definitions, conservation vision and goals, conserved land inventory charges, and conservation plan of Act 59.

H.126 Act 59 became law on June 12, 2023 and went into effect on July 1, 2023. It contains clear goals and timelines to be followed. It spells out three conservation categories for conserved land: "Ecological reserve area," "Biodiversity conservation area," and "Natural resource management area." The Worcester Range Management

Plan addresses (though not using the law's language) the last two of the three conservation categories directed by the law, "Biodiversity conservation area" and "Natural resource management area". But it omits any language regarding or planning for the first category, "Ecological reserve areas."

The plan does designate over 9,000 acres as Natural Areas or Highly Sensitive Management Areas, where there will be no timber harvesting. But these designations provide no legal protection in perpetuity. The 9,650.8 acres are largely protected by default, with steep slopes, wet soils, and high elevations. The plan includes a caveat for the Highly Sensitive Management Areas, stating that "trees and other vegetation may be cut...."

An "Ecological reserve area," by definition, is an area having permanent protection from conversion. It is managed to maintain a natural state within which natural ecological processes and disturbance events are allowed to proceed with minimal interference. Opportunities abound in the Worcester Range for the creation of "Ecological reserve areas," not only at the higher elevations but also within forest blocks at lower elevations. Much of Vermont's biodiversity is found at low elevations, and the lowest elevations are the least protected. Northern Hardwood Forests (natural community) in particular, as well as other forest types in the lower elevations, should be designated "Ecological reserve areas," to promote the development of old forest and curtail significant "vegetation management" practices.

"Vegetation management" is one of the dominant uses of land assigned to the plan's General Management Areas. In the Worcester Range Management Plan, the majority of General Management acres are located at lower elevations in the towns of Middlesex and Worcester, making up one large contiguous block of 3,431.4 acres. Most of the plan's timber harvests are proposed for this Worcester/Middlesex block. Of the total timber harvests over the next 20 years (1,935 acres), 71% are planned for this block, where the 1,370 acres to be logged represent 40% of the block's total acreage.

The scope of the plan's "vegetation management" seems aggressive, especially in the Worcester/Middlesex block's lower elevations on the east side of the range. This large area is some of the wildest, most remote land in the Worcester Range and seems ideal for becoming an "Ecological reserve area." Joining the contiguous Middlesex/Worcester block (3,431.4 acres (GM 3.0)) to the adjacent High Elevation Worcester Range-East (1,699.8 acres (HSM 1.11B)) would form an "Ecological Reserve Area" well over the recommended size to be managed as, or for, old-growth forest in the Vermont Conservation Design (a minimum of 4,000 acres). I believe the Worcester Range Management Plan should be amended to establish such a reserve.

The timber harvests focus mostly on Northern Hardwood Forest stands. Both the Worcester Range Management Plan and Vermont Conservation Design stress the importance and value of such stands. Here are the relevant passages:

The Worcester Range Management Plan states:

"Northern hardwood forest forms the "matrix" into which all other communities in the WRMU fit. This forest type is also the most common type in Vermont. Over 6,000 acres of Northern Hardwood Forest were mapped within the WRMU, all as part of a single occurrence of very high ecological quality (A-ranked). This example is of statewide significance."

"It is recommended that state-significant natural communities be afforded a higher level of protection than other areas of the management unit."

Vermont Conservation Design states:

"Matrix forest communities should be represented as old forest according to their natural distribution in each biophysical region."

"While it is not practical or possible to return to a landscape dominated by old forest, allowing about 9% of Vermont's forest (specifically, 15% of the matrix forest within the highest priority forest blocks) to become old forest will bring this missing component back to Vermont's landscape and offer confidence that species that benefit from or depend on this condition can persist."

“Old forests are biologically mature forests, generally with trees exceeding 150 years in age. Old forests with large trees, abundant dead and downed wood, and natural canopy gaps, are essentially absent on the landscape. The complex structure of these forests creates diverse habitats, many of which are not present in younger forests. These complex structures also make these forests remarkably resilient. Old forests will be important “life-boats” that allow species and ecological processes to adapt to a changing climate.”

In addition, Act 59 includes the goal of “prioritizing ecological reserve areas to protect highest priority natural communities and maintain or restore old forests.”

And the law’s section § 2803. CONSERVED LAND INVENTORY requires “An assessment of how State lands will be used to increase conserved ecological reserve areas“ to be done by or before July 1, 2024.

Thus both the science and the law are quite clear about the need to protect Vermont’s forest ecosystem, and both call for conserving areas for old forests. There is also strong support for protecting Vermont’s forest ecosystem among state residents.

On the Vermont Agency of Natural Resources Public Scoping Survey, 85% of respondents placed the highest value on Resource Protection, as compared to 49% who listed Sustainable Forestry first.

This is not an issue about environmentalists versus foresters and management, however. Nor is it a political issue. The ecosystem needs both wild lands and working forests. The lower elevation forests along the Worcester Range's east side have been worked hard since early settlement. Vermont currently has less than 1% old forests. With current land classifications (like National Forest Wilderness Areas), it would take us another century to get to 3%, while, again, the Vermont Conservation Design calls for at least 9% old forests.

Our neighboring state of New York offers a telling comparison. The New York State Constitution has protected forest land in the Adirondacks since 1894. Over 2.5 million acres of New York are constitutionally protected to remain “forever kept as wild forest land”. With the Worcester Range Management Unit Plan, the State of Vermont could follow New York’s example and begin to establish ecological reserve areas, as now charged by Vermont law. Vermont should not depend on private landowners and non-profits to lead the way.

The Vermont Agency of Natural Resources should embrace the enormity of its decisions. It can guarantee the future of old forest land, thus creating its legacy. Current science and Vermont law are telling us that now is the time. Rewilding and protecting the Worcester Range is an opportunity that we cannot afford to miss. The Agency of Natural Resources - Worcester Range Management Unit - Long Range Management Plan- should be amended and updated to acknowledge the uniqueness of the area, align with current scientific thinking, and comply with Vermont law, Act 59. Failing to do so seems an act of omission.

Respectfully,

Bodo Carey
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WRMU Management Plan Draft Edits/Typos - Recommended changes

Executive Summary, p. iv: “The highest elevation within the management unit is Mt. Worcester (elevation 3,608 ft); the lowest elevation is along the southern boundary of the Perry Hill Block in Waterbury (elevation 480 ft).”

An un-named peak near Hogback Mt. and Hunger Mt. are the highest elevations within the unit, NOT Mt. Worcester.

Page 154: “In the winter the section of North Bear Swamp Road where the trailhead parking areas are located does not get plowed and has been blocked from use during the winter months through the end of mud season to reduce road impacts. During this period the town of Worcester and the adjoining landowner keep an area available for winter use parking. Increased pressure for access during this period will likely require a plan to be developed for managed winter parking on State Land.”

The town of Middlesex, NOT Worcester maintains this area.

Pages: 135, 167, 168

Worchester is used and is the incorrect spelling for Worcester.

Appended below are relevant portions of the documents cited above. I have underlined and used bold type for important passages.

I) Excerpts from Act 59:

“An Act Relating to Community Resilience and Biodiversity”

Sec. 5. EFFECTIVE DATE This act shall take effect on July 1, 2023. Date on which Governor allowed bill to become law without his signature: June 12, 2023

CHAPTER 89. COMMUNITY RESILIENCY AND BIODIVERSITY PROTECTION §
2801. DEFINITIONS As used in this section:

(1) “Ecological reserve area” means an area having permanent protection from conversion and that is managed to maintain a natural state within which natural ecological processes and disturbance events are allowed to proceed with minimal interference.

(2) “Biodiversity conservation area” means an area having permanent protection from conversion for the majority of the area and that is managed for the primary goal of sustaining species or habitats. These areas may include regular, active interventions to address the needs of particular species or to maintain or restore habitats.

(3) “Natural resource management area” means an area having permanent protection from conversion for the majority of the area but that is subject to long-term, sustainable land management.

§ 2802. CONSERVATION VISION AND GOALS

(a) The vision of the State of Vermont is to maintain an ecologically functional landscape that sustains biodiversity, maintains landscape connectivity, supports watershed health, promotes climate resilience, supports working farms and forests, provides opportunities for recreation and appreciation of the natural world, and supports the historic settlement pattern of compact villages surrounded by rural lands and natural areas.

(b) It is the goal of the State that 30 percent of Vermont's total land area shall be conserved by 2030, and 50 percent of the State's total land area shall be conserved by 2050. The Secretary of Natural Resources shall lead the effort in achieving these goals. The land conserved shall include State, federal, municipal, and private land.

(c) Reaching 30 percent by 2030 and 50 percent by 2050 shall include a mix of ecological reserve areas, biodiversity conservation areas, and natural resource management areas. In order to support an ecologically functional and connected landscape with sustainable production of natural resources and recreational opportunities, the approximate percentages of each type of conservation category shall be guided by the principles of conservation science and the conservation targets within Vermont Conservation Design, prioritizing ecological reserve areas to protect highest priority natural communities and maintain or restore old forests.

§ 2803. CONSERVED LAND INVENTORY

(a) On or before July 1, 2024, the Vermont Housing and Conservation Board, in consultation with the Secretary, shall create an inventory of Vermont's conserved land and conservation policies to serve as the basis of meeting the conservation goals of Vermont Conservation Design and to meet the goals established in section 2802 of this title. The inventory shall be submitted for review to the House Committees on Environment and Energy and on Agriculture, Food Resiliency, and Forestry and the Senate Committee on Natural Resources and Energy.

(b) The inventory shall include: (1) A review of the three conservation categories defined in section 2801 of this title and suggestions for developing any modifications or additions to these categories that maintain or complement the core concepts of ecological reserve areas, biodiversity conservation areas, and natural resource

management areas in order to complete the conserved land inventory and inform the comprehensive strategy in the conservation plan. As part of this review, criteria shall be developed to determine the types of agricultural lands that will qualify as supporting and restoring biodiversity and therefore count towards the natural resource management area category.

(2) The amount of conserved land in Vermont that fits into each of the three conservation categories defined in section 2801 of this title, including public and private land. The inventory shall also include other lands No. 59 Page 9 of 12 2023 VT LEG #371226 v.1 permanently protected from development by fee ownership or subject to conservation easements.

(3) A summary of the totality of conservation practices, both permanent and intermediate, available for reaching the goals of this chapter, including what they are, what they do, how they contribute, and what metrics are available to quantify them.

(4) An assessment of how State lands will be used to increase conserved ecological reserve areas.

(5) The implementation methods that could be utilized for achieving the goals of this chapter **using Vermont Conservation Design as a guide.**

(6) A review of how aquatic systems are currently conserved or otherwise protected in the State, including a description of the benefits land conservation provides for aquatic systems, whether this is sufficient to maintain aquatic system functions and services, and how the implementation methods for achieving the goals of this chapter using Vermont Conservation Design as a guide would include specific strategies for protecting aquatic system health.

(7) How existing programs will be used to meet the conservation goals of this chapter and recommendations for new programs, if any, that will be needed to meet the goals.

II) Excerpts from the 2018 Vermont Conservation Design Summary Report and
Technical Report:

Vermont Conservation Design Summary Report (Vermont Fish & Wildlife, Vermont Agency of Natural Resources):

Old forests are biologically mature forests, generally with trees exceeding 150 years in age. Old forests with large trees, abundant dead and downed wood, and natural canopy gaps, are essentially absent on the landscape. The complex structure of these forests creates diverse habitats, many of which are not present in younger forests. These complex structures also make these forests remarkably resilient. Old forests will be important “life-boats” that allow species and ecological processes to adapt to a changing climate.

Highest Priority Features and Guidelines for Maintaining Ecological Function

Vermont Conservation Design identifies increasing the amount of both young and old forest in the state as highest priority for maintaining an ecologically functional landscape. A return to the pre-European abundance of young forest (approximately 3-5% of the forest) is needed to reverse a declining trend and reach a level that at one time supported all of Vermont’s native species that require young forest. While it is not practical or possible to return to a landscape dominated by old forest, allowing about 9% of Vermont’s forest (specifically, 15% of the matrix forest within the highest priority forest blocks) to become old forest will bring this missing component back to Vermont’s landscape and offer confidence that species that benefit from or depend on this condition can persist.

Old forests should operate under natural disturbance regimes and need to be maintained in patches large enough to accommodate natural disturbance regimes

without compromising old forest characteristics. In most forests, passive restoration will result in old forest. In some cases, active forest management may promote forest composition and structure suitable for subsequent passive restoration.

Vermont Conservation Design Technical Report (Part 2) (Vermont Fish and Wildlife, Vermont Forest, Parks, and Recreation, Vermont Agency of Natural Resources):

Priority Target for an Ecologically Functional Landscape **Within the matrix forest in the highest priority forest blocks in each biophysical region, 15% should be managed as, or for, an old forest condition. 4,000-acre minimum patch sizes are preferred as they are most likely to accommodate large-scale natural disturbance events.** Smaller minimum patch sizes are offered for biophysical regions that are more fragmented and where only smaller forest blocks remain. Total Acres/minimum preferred patch sizes as follows: • Champlain Hills - 13,000/1,000 • Champlain Valley - 15,000/500 • Northeastern Highlands - 59,000/4,000 • **Northern Green Mountains - 95,000/4,000** • Northern Vermont Piedmont - 78,000/1,000 • Southern Green Mountains - 91,000/4,000 • Southern Vermont Piedmont - 31,000/1,000 • Taconic Mountains - 33,000/1,000 • Vermont Valley - 4,000/500

Matrix forest communities should be represented as old forest according to their natural distribution in each biophysical region. Patches of old forest that are smaller than the minimum preferred patch size also provide important ecological functions and contribute to the numerical goals for each biophysical region, but with the acknowledgement that these small patches are more susceptible to stand-replacing natural disturbance events and likely do not provide all the functions of larger, connected patches. Highest Priority: All of the above targets for old forest are highest priority.

It is our hope that this information **will inform land management**, local planning, and **land conservation decisions throughout Vermont.** Private landowners, municipalities, **state agencies**, and conservation organizations should find this

information helpful as we all work together for a vibrant and healthy Vermont, now and into the future.