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**Subject: Somerset Integrated Resource Project EA Comments**

District Ranger Francomb:

The following comments are in reference to the Environmental Assessment (EA) released on February 13, 2020 for the Somerset Integrated Resource Project (SIRP), with a comment period ending March 23, 2020.

Thank you for extending this comment period in light of the current public health crisis. Thanks as well for providing an opportunity to comment on the SIRP Environmental Assessment. Although this is standard practice under the National Environmental Policy Act, the Early Successional Habitat Creation Project did not allow for commenting on its EA.

**INTRODUCTION**

We write these comments as avid users of the Green Mountain National Forest and as advocates for restoring the Forest’s natural communities, natural processes, and native wildlife. We hold degrees in natural resource management and more than twenty-five years of combined experience in related positions, including four seasons with the US Forest Service. We appreciate the need for a sustainable timber industry in Vermont.

The SIRP proposes a variety of management activities across approximately 43,000 acres of land managed by the Green Mountain National Forest (GMNF), across a broader project polygon of 71,000 acres. Excluding the urban areas of Wilmington and Dover, VT, the proposed SIRP overlaps with a significant portion of the largest uninhabited interior forest block in the state of Vermont, and Western New England more broadly.

The following comments will demonstrate that the SIRP project deserves an Environmental Impact Statement to ensure that it is appropriately scaled, minimizes costs to taxpayers, and protects essential habitat and ecosystem services.

**ENVIRONMENTAL HISTORY AND CONTEXT**

For more than a century, forests have been able to recover in this now-wild corner of the Northeast, in no small part due to the establishment of the Green Mountain National Forest in 1932. The forests in the project area have matured to a complexity not found in most forests across the region, supporting trees of all age classes and a wide spectrum of native habitats.

This portion of the GMNF is one of New England’s greatest experiments in rewilding. Where there were once towns, mills, and barren hillsides as far as the eye cold see, there are now unbroken forests that form a nearly complete carpet when viewed from the edges of the project area, such as the summits of Glastenbury Mountain or Mt. Snow. Few other locations in New England offer a similar panorama.

To the west of the SIRP project area, the Glastenbury Wilderness and adjacent roadless acres comprise the largest block of wildlands on the Green Mountain National Forest (40,000-plus acres between the designated Wilderness and adjacent IRA). This entire block of roadless land has been proposed for wilderness designation within the span of the current forest management plan.

At the heart of the project area, TransCanada manages 9,800-acres surrounding the Somerset Reservoir that are protected under permanent easement with the Vermont Land Trust, where active management activities are severely curtailed to protect water quality and wildlife habitat.

Immediately east of the VLT conserved lands, extending across a gradient of 2,000 vertical feet from the Somerset Reservoir and Deerfield River to the crest of Haystack Mountain and Mount Snow, are several thousand acres of unfragmented forest habitat managed as Remote Wildlife Habitat under the 2006 GMNF Forest Plan.

Few roads penetrate this vast, wild landscape at the headwaters of the Deerfield River. Despite the fact that the 2006 GMNF Forest Plan designates much of this area as suitable for varying levels of timber harvest, most of the landscape is functionally inaccessible due to the roadless and trailless nature of this expansive wild forest. A century of rewilding will be undone by SIRP, which proposes nearly 50 miles of roadwork to facilitate timber harvests and treatments (31.4 miles of temporary roads and reconstruction of 17.7 miles of maintenance level 1 roads).

Into the midst of this complex of wildlands, much of it un-manipulated in over a century, the GMNF SIRP proposes a sweeping change in management. The sheer amount of roadbuilding necessary to perform the treatments described in the SIRP EA should cause the Forest Service to question if the current extent of the project is worth the cost. Instead of preserving the public goods and ecosystem services currently harbored within this exceptional forest block, the scale of proposed treatments will result in widespread and long-term negative impacts to ecological health and carbon storage.

An Environmental Impact Statement with an adequate range of alternatives would give GMNF leadership choices for the best possible combination of management activities.

**INSUFFICIENT RANGE OF ALTERNATIVES**

The SIRP project is presented as a choice between action and no action. Just as was the case with the Early Successional Habitat Creation Project, this limited range of alternatives makes it impossible to analyze options and select the most appropriate combination of activities.

The no action alternative, Alternative A, is generally depicted as having detrimental or no impacts on climate resiliency, carbon storage, and wildlife habitat, all of which can easily be refuted using recent studies and generally accepted science (see below). What’s more, there is inadequate analysis of where natural processes could be employed to accomplish project goals instead of using mechanical treatments.

For example, additional windthrow, ice damage, and severe rain events due to climate change could be employed to increase the amounts of woody debris in streams and rivers and create openings for plant and animal species that prefer early successional habitat. Such an approach is free to taxpayers, requires no roads, helicopters, or herbicides, and limits the spread of invasive plants.

Section 3.6.4.1 of the SIRP EA states:

There would be no direct or indirect effects on the fishery or water resources in the project area including no disturbance to the stream channel, no change or loss of fish habitat and riparian vegetation, no risk to other aquatic resources, and no additional degradation of water quality…stream habitat would remain below its productive potential because the proposed habitat restoration activities including placement of large wood would not take place.

This analysis fails to account for the [changes in frequency and intensity of natural disturbance](https://statesummaries.ncics.org/chapter/vt/) that have been observed in Vermont due to climate change, and the likelihood that such disturbance events will become more frequent in the future.

**INADEQUATE ANALYSIS OF ROAD BUILDING AND CUMULATIVE EFFECTS**

An EIS is necessary to reveal the full scope of local and cumulative impacts and to help responsible officials make an informed decision about the appropriate scale of roadwork to undertake. The SIRP proposes 131 log landings of .25 to .5 acres in size, 31.4 miles of temporary roads, and reconstruction of 17.7 miles of OML 1 roads.

There are libraries of literature highlighting the long list of impacts of road construction on forest ecology. Roads contribute sediment to streams, create barriers to migration for a variety of native species, encourage human recreation and trespass, and are major vectors for invasive species, among other impacts. Roads create conditions favorable to species that are best adapted to humans (such as overabundant white-tailed deer) and push out those species that require large forest blocks (bear, marten, moose).

The EA does not adequately address the impacts of road building within the SIRP project or in combination with other proposed road building activities on the GMNF, especially those associated with the Early Successional Habitat Creation Project (ESHC).

The combined road infrastructure impacts of these two projects are inconsistent with the FEIS for the 2006 Forest Plan, which emphasizes that little road construction (temporary or otherwise) is expected over the lifetime of the Plan:

Cumulative Effects: Analysis of cumulative effects looks at past, present, and

reasonably foreseeable future actions. Following direction in the 1987 Forest

Plan, there has been relatively little new road construction in the 18 years of Plan

implementation to date. The 1987 Plan emphasizes reconstruction and

maintenance of the existing transportation system, and restoring roads with

environmental resource problems. Over the past 18 years, 19.9 miles of road have

been restored to meet their approved road management objective, 10.1 miles have

been reconstructed, and 6.6 miles have been constructed; these figures do not

include parking areas (USDA 2004). *No road construction or reconstruction has*

*occurred since 1997* except to provide a small number of parking spaces where

needed.

*No temporary roads have been constructed the past 10 years*. Construction of

logging roads for timber harvest by loggers has also been minimal. These roads

are not generally open to the public and are rehabilitated after use. Miles of road

maintenance have also been well below predicted levels because of reduced

budgets.

Basing predictions for new road development in the foreseeable future on what

has occurred over the past Plan period follows the logic that *construction of new*

*permanent or temporary roads is not expected to differ much from that of the*

*recent past* [emphasis added].[[1]](#footnote-1)

And yet, despite this clear indication that road construction is to remain minimal to nonexistent, section 2.2.6 of the SIRP EA states:

The heart of the Somerset project area is within the unincorporated Town of Somerset. *The lack of town roads renders a large component of timber stands proposed for treatment inaccessible by the existing transportation network*. This is not typical for most parts of the Green Mountain National Forest thus more temporary road construction is anticipated for this project compared to other projects of similar scope [emphasis added].

The previous paragraph does an excellent job of conveying the extraordinarily wild characteristics of the SIRP project area. With so much intact, roadless, high-quality wildlife habitat within the SIRP bounds, the fallacy of the 2006 Forest Plan is in plain sight, having designated much of this wild expanse as suitable for timber harvest without anticipating and analyzing any need for road construction. The question becomes why the GMNF chose not to inventory these lands as roadless in its 2006 plan revision and allocate them to more appropriate uses.

In summary, the 2006 Forest Plan FEIS failed to analyze any of the significant road building activity that is proposed as a part of the ESHC or SIRP. Without an EIS or consideration of a range of alternatives, these projects are racing to build roads without adequate analysis. Add to this the multi-billion dollar road maintenance backlog on the USFS road network, and the logic of this new road construction becomes even more flawed.

**INSUFFICIENT ANALYSIS OF TIMBER HARVEST IMPACTS**

The SIRP EA does not sufficiently address how natural disturbance could adequately shift forest composition and structure to Forest Plan desired conditions, and it neglects to analyze the cumulative impacts of timber harvest of the SIRP and ESHC projects.

Ecologically speaking, the treatments proposed in the SIRP EA do not mimic natural disturbance regimes. The scale of management (9,574 total acres), especially even-age management (3,867 acres) [likely exceeds the impacts of even a rare, significant weather event](https://www.nrs.fs.fed.us/pubs/jrnl/2009/nrs_2009_fraver_001.pdf) like the 1938 Hurricane. New permanent upland openings are entirely unnatural, and the SIRP project proposes 246 such openings in total, which will require routine maintenance and associated impacts.

A [recent study led by Harvard Forest](https://harvardforest.fas.harvard.edu/sites/harvardforest.fas.harvard.edu/files/publications/pdfs/Oswald_NatureSust_2020.pdf) demonstrates that the pre-European settlement forests of New England were essentially unmanaged beyond the area immediately surrounding indigenous settlements, usually located along coasts and rivers. The takeaway from the study is clear: “Land managers seeking to emulate pre-contact conditions should de-emphasize human disturbance and focus on developing mature forests.”

[Vermont Conservation Design](https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Conserve/VT%20Conservation%20Landscape-level%20Design/Vermont-Conservation-Design-Summary-Report-February-2018.pdf), using the latest science available (15 years more current than the science supporting the 2006 Forest Plan) indicates a goal of 3-4% young forest in the SIRP project area. In contrast, the GMNF has already surpassed this amount of young forest, and is on track to create significantly more of it in the previously approved ESHC Project.

As is the case elsewhere in the EA, the analysis of timber management activities does not adequately address how projected increases in frequency and intensity of disturbance events due to climate change could, in fact, accomplish many of the desired outcomes of the SIRP project without the need for costly management activities and associated impacts.

**CARBON SEQUESTRATION AND STORAGE ANALYSIS IS OUTDATED**

The Green Mountain National Forest is one of the most important carbon sinks in the Northeast US. With our current understanding of the rate of climate change and the dire need to reduce inputs of carbon into the atmosphere, the greatest public good offered by the GMNF is increasingly measured in carbon sequestered and stored. Fortunately, maximizing carbon storage also has positive benefits for water and air quality, wildlife habitat, and other ecosystem services.

In the SIRP EA and the 2019 GMNF Forest Carbon Assessment, there are deeply flawed assumptions that contradict the latest science. Recent studies ([see here for a summary](http://www.newildernesstrust.org/wp-content/uploads/2019/08/WildWorks_V1_WildCarbon-2.pdf)) demonstrate that mature forests (harboring a diverse mix of age classes and large amounts of woody debris, among other qualities) sequester and store carbon at rates that far exceed younger and middle aged forests. Mature forests continue to be carbon sinks as time goes on. The amount of carbon lost due to decomposition is negligible compared to the amount of carbon that is added to biomass and soil, year after year. From the previous link:

The growth efficiency declines as the tree grows but corresponding increases in the tree’s total leaf area are enough to overcome this decline and thus the whole-tree carbon accumulation rate increases with age and size… A large old tree may sequester as much carbon in one year as growing an entire medium size tree.

Simply put, logging is detrimental to carbon sequestration and storage, especially when logging forests of the mature age and structure of those in the SIRP project area. This [study by Bill Keeton at UVM](https://www.uvm.edu/giee/pubpdfs/Nunery_2010_Forest_Ecology_and_Management.pdf) shows that “even with consideration of C sequestered in harvested wood products, unmanaged northern hardwood forests will sequester 39 to 118% more C than any of the active management options evaluated.”

The SIRP EA claims that effects on soil carbon storage will be negligible. This is refuted by a [2014 Dartmouth study](https://onlinelibrary.wiley.com/doi/pdf/10.1111/gcbb.12221):

A severe ecosystem disturbance, such as clear-cutting forests, may cause C release from the soil via heating of the soil, increased water availability, compaction, and reduced C inputs to the system. Our study is the first to provide evidence of a regional trend of lower soil C pools in soils of harvested hardwood forests compared to mature or pristine hardwood forests.

Removing trees from forests and associated impacts on soil and vegetation invariably releases carbon into the atmosphere. Any assertion of carbon neutrality is based on a premise that the forest will return to its former state, but – assuming this can be achieved at all – it will take decades or centuries for this regrowth to occur, depending on the age and complexity of the former forest, the harvest method employed, and subsequent management activities.

Climate scientists have long argued that CO2 levels in the atmosphere are beyond or rapidly approaching the point of no return, and that we must reverse (not just halt) the release of carbon into the atmosphere to avert the worst consequences of climate change. Therefore, we do not have decades or centuries to wait for carbon sequestration and storage to return to former levels. From a climate perspective, the greatest public good from New England’s public forest lands, of which the GMNF is a critical component, will be achieved by managing for maximum carbon sequestration and storage.

**CONCLUSION**

Thank you again for providing this opportunity to comment on the Somerset Integrated Resource Project Environmental Assessment. We sincerely appreciate your careful consideration of these comments, and welcome the chance to discuss this project further.

The SIRP, just like the ESHC, warrants a detailed Environmental Impact Statement with a range of alternatives. We hope and trust that the GMNF will come to the same conclusion.

Sincerely,

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1. U.S. Forest Service, Green Mountain National Forest, Final Environmental Impact Statement for the Land and

Resource Management Plan. Page 3-351 (2006). [↑](#footnote-ref-1)