

Vermont Agency of Natural Resources
Department of Forests, Parks and Recreation
c/o Brad Greenough, Stewardship Forester
5 Perry Street, Suite 2
Barre, VT 05641-0170

Submitted via online form and email, ANR.WRMUPublicComment@vermont.gov

February 2, 2024

Re: Worcester Range Management Unit – Draft Plan

Dear Mr. Greenough:

Standing Trees submits the following comments on the draft Long Range Management Plan (“Draft Plan”) by the Vermont Agency of Natural Resources (ANR, “the Agency”) for the Worcester Range Management Unit (“Unit”).¹

Standing Trees is a grassroots-membership organization that works to protect and restore New England’s forests, with a focus on public lands in Vermont and New Hampshire. Standing Trees works to ensure that New England’s public lands are managed using just, equitable policies and practices that support the region’s residents and natural ecosystems. Standing Trees promotes managing public lands and waters to safeguard the region’s native biodiversity, improve public health, contribute to flood and drought resilience, maximize carbon uptake and storage, and maintain clean water and clean air. Standing Trees has many members who regularly visit and recreate in the Worcester Range, including the Unit.

The Environmental Advocacy Clinic at Vermont Law and Graduate School submits these comments on behalf of Standing Trees and its members. Beyond these comments, Standing Trees is eager to provide any additional information that might help in your decision-making.

I. EXECUTIVE SUMMARY

Standing Trees requests the following:

- that the Agency reconsider its position that it must authorize timber harvest on State lands and accordingly continue to ensure passive management under the final Plan by applying the protections afforded for “Highly Sensitive Management Areas” to—at a minimum—the contiguous 15,600-acre block of the Unit and to the majority of Elmore State Park;

¹ We use “Worcester Range” to refer to the broader geographical region that includes the Unit at issue.

- that the Agency delay issuing the final Plan until it first issues land planning rules to guide the planning process;
- that the Agency specify its plans for monitoring water quality under the “Monitoring and Evaluation” section of the Draft Plan;
- that the Agency perform pre-decisional analysis of water quality on the Unit to obtain a baseline for assessing future impacts;
- that the Agency remove a footnote in the Draft Plan wrongly suggesting that considering water quality and flood resilience is “at [the] discretion” of the Agency and “[n]ot currently required”;
- that the Agency include evidence that it has considered the public trust;
- that the Agency consider the report on flood resilience that it commissioned and adopt its applicable recommendations to protect surrounding communities;
- that the Agency include analysis of the greenhouse gas emissions likely to result from its planned management actions and the impact of such emissions; and
- that the Agency perform additional analysis of potential critical habitat for endangered species on the Unit, including the Northern Long-Eared Bat.

Standing Trees appreciates that the Draft Plan largely maintains the motor-free recreational focus of the Unit; that new trail construction is relatively limited in scope; and that high-elevation areas are protected under the new plan.

These comments outline the applicable law and the instances where the Agency has a legal duty to strengthen the environmental protections in the Plan, as well as those instances where it has the discretion to do so. We begin by emphasizing that the Unit comprises unique, unfragmented forests and urging the Agency to exercise the discretion provided by its authorizing statutes by continuing to practice passive management. We then urge the Agency to delay issuing the final Plan until it has issued land-management planning rules mandated by 10 V.S.A. § 2603. We next identify ANR’s overlapping duties under the public trust, federal Clean Water Act (CWA), and the State’s Water Quality Standards (WQSs) to monitor water quality impacts and help the State reduce water quality impacts in the Lake Champlain watershed. Next, we identify the Agency’s mandate under 10 V.S.A. § 2601 to consider the positive impacts of an intact, healthy Worcester Range on flood resilience. We then highlight the Draft Plan’s lack of consideration of the greenhouse gas (GHG) emissions resulting from its planned management actions, in violation of Vermont’s Global Warming Solutions Act (GWSA). Finally, we discuss ANR’s obligations under the Endangered Species Act (ESA) to incorporate its plans for managing endangered and threatened species within the Unit.

II. ANR’s Authorizing Statute, Policy, and Purposes Support the Agency Continuing to not Authorize Timber Harvest on the Unit.

ANR has the discretion not to authorize timber harvest on State lands. Specifically, Vermont law authorizes ANR to sell natural resources, including timber, on State lands, but the law does not require such action. For any given management unit, then, ANR’s decision to authorize timber harvest is discretionary. The Worcester Range’s unfragmented nature and history of passive management combine to make the Unit unique among State lands in north-central Vermont. Moreover, as discussed further below, ANR’s proposal to abruptly authorize timber harvest is in significant tension with its environmental protection duties under the Vermont constitution and other federal and state laws. For these reasons, we urge ANR to reconsider its position that it is somehow “legislatively mandated . . . [to] produce forest products,”² and to continue to not authorize it, especially not before the Agency has developed the prerequisite rules and analysis, discussed below.

A. ANR is not required to authorize timber harvest on State lands, and even if it were, its “multiple use” obligations do not require that all uses are provided for on each planning unit.

Under 10 V.S.A. § 2603(b), ANR has the discretion to authorize timber harvesting on State lands, but the Agency is not required to do so. The relevant portion of the statute provides that the Agency “*may* sell forest products and other resources on public lands and shall administer the State park system . . . as is in the best interests of the State and is consistent with the purposes and policies of this chapter.”³ The Agency’s policies, set out in § 2601 of the same title, list goals aimed at furthering the public interest, none of which include the mandatory sale of timber on State lands.⁴ The statute also requires ANR to implement such policies by, *inter alia*, “assisting forestland owners and lumber operators in the cutting and marketing of forest growth,” “encouraging cooperation between forest owners, lumber operators, and the State of Vermont in the practice of conservation and management of forestlands,” and “protecting the multiple use of publicly owned forestlands. . . .”⁵ In other words, nowhere do either § 2601 or § 2603 require ANR to authorize the sale of timber on State lands.

Even if the multiple-use mandate were to require timber harvest, it would not necessarily be required on every management unit. The statute’s silence on this issue appears to grant ANR discretion not to authorize timber harvest in a unit-specific plan such as the Draft Plan. The

² Kevin McCallum, *Critics Call a Logging Plan in the Worcester Range a Missed Conservation Opportunity*, SEVEN DAYS (Jan. 24, 2024, 10:00 AM), <https://www.sevendaysvt.com/news/critics-call-a-logging-plan-in-the-worcester-range-a-missed-conservation-opportunity-40034018>.

³ VT. STAT. ANN. tit. 10, § 2603(b).

⁴ *Id.* § 2601(a).

⁵ *Id.* § 2601(b). Neither the statute nor relevant case law illuminates the precise scope of the phrase “multiple uses.”

Agency has not promulgated implementing regulations to the contrary. As such, we urge ANR to continue to not authorize timber harvest on the Unit.

B. The Worcester Range possesses special ecological characteristics because of its unfragmented nature that would be diminished by timber harvest on the Unit.

The Unit is coextensive with the Worcester Range, which, primarily due to the forest’s unfragmented nature, contains some of the wildest and healthiest public lands in Vermont. As the largest undeveloped mountain range in the State, the Worcester Range is home to numerous rare, threatened, and endangered species;⁶ serves as a critical wildlife corridor between Vermont’s Green Mountains and Northeastern Highlands;⁷ and remains one of the most ecologically intact, climate-resilient forests under State management. The Worcester Range also contains important headwaters for the Lamoille and Winooski Rivers—two major tributaries to Lake Champlain—and supports one of the healthiest fisheries in Vermont.⁸ In *An Enduring Place: Wildlife and People in the Worcester Range Through the Northeastern Highlands*, a report co-produced by ANR and the National Wildlife Federation, John Austin of Vermont Fish and Wildlife describes the Worcester Range as “the only place that’s left in central Vermont that is large in scale and almost completely unfragmented.”⁹

In combination, these characteristics make the Unit special—especially in central Vermont. Timber harvesting in unfragmented forests is known to have negative effects on water quality,¹⁰

⁶ See ANR, WORCESTER RANGE MANAGEMENT UNIT – DRAFT LONG RANGE MANAGEMENT PLAN 30 (2023), <https://fpr.vermont.gov/sites/fpr/files/documents/Worcester%20Range%20Management%20Unit%20Long%20Range%20Management%20Plan%20Draft%2020231201.pdf> (“Given the expansiveness of the major forest types comprising the [Unit], the property supports the range of bird and mammal species that depend and even thrive on the interior forest that can’t easily be found elsewhere in the state.”) [hereinafter “DRAFT PLAN”].

⁷ TOM SLAYTON, NAT’L WILDLIFE FEDERATION & VT. FISH & WILDLIFE DEP’T, AN ENDURING PLACE: WILDLIFE AND PEOPLE IN THE WORCESTER RANGE THROUGH THE NORTHEASTERN HIGHLANDS 6 (2012), https://ecologicalconnectivity.com/sites/default/files/project_files/enduringplacefinal.pdf (“One area that is recognized as an important wildlife corridor begins at the Worcester Range and stretches fifty miles to the east into Essex County, Vermont, and the largely unbroken forests of the Nulhegan Basin.”) [hereinafter “AN ENDURING PLACE”] (Exhibit 1).

⁸ DRAFT PLAN at 62.

⁹ See AN ENDURING PLACE at 11 (continuing, “The Worcester Range is both ordinary and unique. Ordinary, because it shares many of the characteristics of other mountain ranges in Vermont, a very mountainous state; and unique, in central Vermont, because it remains almost completely wild and undeveloped. . . . The Worcester Range, which is approximately forty-six thousand acres in size, is the largest piece of unfragmented forest land in north-central Vermont. This fact alone makes the range unusual—and very important as a large block of uninterrupted wildlife habitat.”) (Exhibit 1).

¹⁰ See LAMOILLE CNTY., VT., LANDSCAPE-BASED FOREST STEWARDSHIP: LAMOILLE COUNTY, VERMONT 44-45 (2012), available at https://centralvtplanning.org/wp-content/uploads/2013/09/LCPC_Regional_Forest_Stewardship_Report_-_2012.pdf (“ . . . [P]oor forestry practices on one parcel can have negative impacts on water quality and forest health on an entire forest or watershed. Modern logging equipment can do significant damage to forest streams in a short amount of time.”) [hereinafter “LAMOILLE COUNTY REPORT”].

flood resilience,¹¹ and biodiversity.¹² Given that the Unit remains one of the last unfragmented parcels of public lands in Vermont, we urge ANR to leave the Unit in its largely undisturbed state.

C. Along with its ecology, the Worcester Range’s history of passive management makes it unique and particularly worthy of conservation.

Much of the land in the Unit is also unique because it has not been logged for close to 100 years.¹³ Although management plans were completed for portions of the Worcester Range in the early 1980s,¹⁴ ANR has never produced a comprehensive management plan for the entire Unit, which is precisely why it exhibits such remarkable wilderness qualities today. Coupled with the fact that much of the Unit lacks roads, its ongoing lack of a comprehensive long-range management plan has invited a history of primarily passive management on the Unit. Though forestland owners surrounding the Unit regularly authorize logging on their lands, the public lands of the Worcester Range have largely functioned as a wildland for decades. Precisely because the Worcester Range is relatively old, the Unit has a head start on even other unfragmented forests in terms of when it will begin to contain so-called “old forest.”¹⁵ Currently, old forest is “essentially absent on [Vermont’s] landscape,” but ANR has committed to allow “about 9%” of Vermont’s forests to transition into old forest.¹⁶ Given its age, using the full conservation potential of the Worcester Range would help the Agency meet its old forest target more efficiently than the same efforts in a younger forest.¹⁷

The Draft Plan takes great care to recognize the ecological significance of low-to-mid elevation natural communities on the Unit, noting the vast Northern Hardwood natural community to be

¹¹See KRISTEN UNDERWOOD ET AL., VERMONT FORESTS, PARKS & RECREATION, ENHANCING FLOOD RESILIENCY OF VERMONT STATE LANDS v (2015) [hereinafter “UNDERWOOD REPORT”]; see also LAMOILLE COUNTY REPORT at 35 (“...Forest cover plays a significant role in the maintenance of water quality and quantity. . . . Upland forests contain the majority of the . . . headwaters in [Lamoille County] as well as many larger streams that include fisheries, waterfalls, swimming holes, and other recreational and scenic resources.”) (Exhibit 2).

¹² See STOWE LAND TR., *News: Putting the Shutesville Hill Wildlife Corridor on the Map* (Dec. 22, 2017), <https://www.stowelandtrust.org/news/post/news-putting-the-shutesville-hill-wildlife-corridor-on-the-map>. (noting that “[f]ragmentation, or the breaking up of forest cover within the [Shutesville Hill] corridor [leading to the Worcester Range] due to additional human development, is the top threat to the corridor’s future viability for wildlife movement”).

¹³ DRAFT PLAN at 29.

¹⁴ See, e.g., ANR, DRAFT LAND MANAGEMENT PLAN, PUTNAM STATE FOREST, WORCESTER BLOCK 1 (1983) (distinguishing the ANR Plan’s coverage of piecemeal “work plans and methods” on the State Forest from the “total resource”).

¹⁵ See ANR, VERMONT CONSERVATION DESIGN: MAINTAINING AND ENHANCING AN ECOLOGICALLY FUNCTIONAL LANDSCAPE 24 (2018) (defining old forests as “biologically mature forests, generally with trees exceeding 150 years in age”) [hereinafter “VCD”].

¹⁶ *Id.*

¹⁷ *Id.*

“A-ranked”¹⁸ and of “statewide significance.”¹⁹ The Draft Plan then suggests that “state-significant natural communities [presumably including the Northern Hardwood Forest] be afforded a higher level of protection than other areas of the management unit.”²⁰ A Vermont Fish and Wildlife report, *Progress Towards Achieving the Vermont Conservation Design (VCD) Old and Young Forest Targets*, notes how much these low-to-mid elevation forests are missing from old forest management in the Northern Green Mountains.²¹ The document stresses that the majority of future old forests will be at higher elevation, with few future old forests composed of low-elevation hardwoods.²² Although our comments above focus on the 15,600-acre contiguous core of the Unit, much of the same superlative qualities can be attributed to 995-acre Elmore State Park, an area prized by the public for its diversity of habitats, spectacular hiking trails, quiet camping, and clean water for swimming, fishing, and boating. Elmore holds a special place in many Vermonters’ hearts. The town of Elmore calls itself Vermont’s “Beauty Spot,” which FPR amplifies on its webpage for Elmore State Park.

Elmore State Park, like all State Parks, is a place apart from the hustle and bustle of daily life. It is valued by the public for its quiet beauty, easy access to nature, and outdoor recreation opportunities. However, the Draft Plan gives few special management considerations to Elmore State Park beyond its developed campground and beach. The largest share of Elmore State Park is lumped in with other forested lands in the CC Putnam State Forest in “Land Management Classification 3.0,” which is focused primarily on harvesting wood products.²³ ANR provides no rationale for logging within Elmore State Park’s beloved low-to-mid elevation forests, despite its clear importance as a scenic and recreational resource.

In sum, CC Putnam State Forest and Elmore State Park are perfect locations to put large, contiguous, low- to mid-elevation matrix forests into old forest management. To do otherwise would jeopardize a century of forest recovery and waste the Agency’s single best opportunity to manage old forests at a meaningful ecological scale.

¹⁸ DRAFT PLAN at 185.

¹⁹ *Id.* at 20. With respect to the Northern Hardwood natural community, Appendix 1 notes: “Wildlife in this community type is nearly as diverse as the vegetation, with species including white-tailed deer, black bear, moose, chipmunk, porcupine, northern flying squirrel, hermit thrush, black-throated blue warbler, red-eyed vireo, among many other species of mammals and birds. Reptiles and amphibians are also present, and the forest likely hosts species such as red-backed salamander, eastern newt, and wood frog.” DRAFT PLAN at 186.

²⁰ *Id.* at 19.

²¹ ROBERT ZAINO ET AL., VERMONT CONSERVATION DESIGN PART 2: NATURAL COMMUNITIES AND HABITATS TECHNICAL REPORT 13 (2018).

²² See VCD at 24 (noting the lack of future low-elevation old forest under State management).

²³ DRAFT PLAN at 127 (defining the “general management” Classification).

D. The Draft Plan provides directives that conflict with other portions of the Plan and with prevailing scientific knowledge.

Recent scientific literature bolsters Vermont’s already-strong arguments for maximizing the amount of forest that is allowed to grow old on the Unit. Across the New England region, early-successional habitats and species have been overemphasized in state and federal land management to the detriment of species that are on the brink of extinction, or that have been extirpated from New England but could someday return.²⁴ While there is a common misconception that young forests are better than old forests at removing carbon, strong scientific evidence indicates that carbon storage and sequestration are maximized in un-logged stands in northern New England.²⁵ Old forests store more carbon than young forests, and old forests continue to accumulate carbon over time.²⁶ The rate of carbon sequestration actually increases as trees age,²⁷ and this process is multiplied as entire stands age.²⁸ Older forests produce higher levels of ecosystem services, and are more resilient to changes in the climate and a variety of other stressors.²⁹ Among land uses in New England, timber harvest has the greatest impact on aboveground carbon storage, even more than conversion of forests to non-forest uses.³⁰

Despite recognizing and celebrating the importance of low and mid-elevation natural communities on the Unit, the Draft Plan fails to explain why these areas are largely allocated to LMC 2.0 and 3.0 and described as “available, accessible, and appropriate for commercial vegetation management activities.” VCD emphasizes that “4,000-acre minimum patch sizes are preferred [for old forest management] as they are most likely to accommodate large-scale natural disturbance events.” With this particular planning unit, ANR has perhaps its only opportunity in Vermont to manage a contiguous, 15,600-acre landscape towards old forest conditions. By our calculations, there is no larger area of contiguous, unfragmented forest north or east of I-89 under ANR management (and perhaps anywhere in Vermont) that also has no recent history of timber harvest. ANR’s West Mountain Wildlife Management Area Core Area is currently the largest

²⁴ Michael J. Kellett et al., *Forest-Clearing to Create Early-Successional Habitats: Questionable Benefits, Significant Costs*, 5 FRONTIERS FOR GLOB. CHANGE 1 (2023).

²⁵ William S. Keeton et al., *Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States*, 57 FOREST SCI. (2011); see also Richard Birdsey et al., *Middle-Aged Forests in the Eastern U.S. Have Significant Climate Mitigation Potential*, 548 FOREST ECOLOGY & MGMT., 121,373 (2023).

²⁶ Heather Keith et al., *Re-evaluation of Forest Biomass Carbon Stocks and Lessons from the World’s Most Carbon-Dense Forests*, 106 PNAS 11,635 (2009); see also Sebastiaan Luyssaert et al., *Old-Growth Forests as Global Carbon Sinks*, 455 NATURE 213 (2008).

²⁷ N.L. Stephenson et al., *Rate of Tree Carbon Accumulation Increases Continuously with Tree Size*, 507 NATURE 90 (2014), <https://andrewsforest.oregonstate.edu/pubs/pdf/pub4835.pdf>.

²⁸ Edward K. Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, FOREST ECOLOGY & MGMT. 544 (2023).

²⁹ See generally Dominik Thom et al., *The Climate Sensitivity of Carbon, Timber, and Species Richness Covaries with Forest Age in Boreal-Temperate North America*, 25 GLOB. CHANGE BIOLOGY 2446 (2019) (discussing differences in forest resiliency between stand age).

³⁰ Matthew J. Duveneck and Jonathan R. Thompson, *Social and Biophysical Determinants of Future Forest Conditions in New England: Effects of a Modern Land-Use Regime*, 55 GLOBAL ENV’T CHANGE 115 (2019).

block of state land in old forest management, statewide. This area is approximately 12,000 acres, but its management history is markedly different from that of the Unit, having sustained considerable timber harvest shortly before its current management regime was established.

Nevertheless, the “Timber Management” section downplays the significance of the Unit’s low-to-mid elevation Northern Hardwood and Hemlock-Northern Hardwood Forests; most of this low-to-mid elevation acreage ended up in MA 2.0 and 3.0. The Draft Plan says that “[t]hese areas are not defined by their ecologically sensitive features or important wildlife habitat. However, ecologically significant features and critical wildlife habitat undoubtedly exist in these areas, but at smaller scales. These important, smaller-scale features will be identified during management operations (forest, recreation, and wildlife habitat management), and will be appropriately protected.”³¹ This statement is hard to reconcile with ANR’s finding that the Unit’s Northern Hardwood Forest is a “state-significant natural community” worthy of “a higher level of protection.”³²

III. ANR Must Promulgate Rules to “Manage and Plan” for the Use of State Lands, and Doing So Before Issuing the Final Plan Makes Sense Because the Plan Would Benefit from a Robust Planning Process.

ANR has yet to fulfill its statutory mandate to issue rules for guiding land use planning. Under 10 V.S.A. § 2603, the Agency must issue rules “for the use of State forests or park lands.” ANR has promulgated three rules that address the use of forests on State lands,³³ but none address long-term management planning, whether or not to authorize logging, what the level of logging should be, or how to balance other uses on State forests or State parks. This lack of meaningful planning guidance makes it challenging for the Agency to adhere consistently to important policy considerations, but it also prevents the public from accessing (and thereby understanding) the rationales supporting ANR’s decisions. Although the Plan itself is not subject to rulemaking

³¹ DRAFT PLAN at 136.

³² The Draft Plan appears to contradict itself in other locations, as well. A portion of the Wildlife Habitat Management section reads: “Protect and enhance wildlife habitat through management of all vegetative stages: Follow guidance from the Vermont Conservation Design effort (Sorenson & Zaino, 2018) to increase the percentage of forest land in this area in a young forest age class (1-15 years old). The current vegetation management strategies and actions section (below) does not identify specific large-scale areas for the creation of new young forest stands on the WRMU. However, ANR will work to opportunistically identify places on the WRMU where young forest creation can be incorporated in planned uneven-aged management treatments provided it meets management objectives and silvicultural guides.” DRAFT PLAN at 122. On the one hand, the guidance above highlights that “[t]he current vegetation management strategies and actions section . . . does not identify specific large-scale areas for the creation of new young forest stands on the WRMU.” *Id.* And yet in the previous sentence, ANR suggests that land managers should “increase the percentage of forest land in this area in a young forest age class (1-15 years old).” *Id.* The combination of this conflicting direction with the lack of corresponding stock take of early-successional habitat within the WRMU adds to the confusion found elsewhere within the Draft Plan.

³³ These are (1) a rule establishing fees for the use of State forests and parks, 10 V.S.A. § 2603(c)(2); (2) the rule establishing accepted management practices (AMPs) in Vermont for reducing the risk of erosion from logging jobs, 10 V.S.A. § 2622(b); and (3) the “heavy cutting” rule, which requires that notice be provided to FPR’s Commissioner by an entity intending to engage in more than 40 acres of high-intensity cutting, 10 V.S.A. § 2625.

because it does not bind parties or carry the force of law, it could potentially lay the groundwork for management decisions made up to 20 years in the future that will carry the full finality and force of law. Consequently, we urge ANR not to issue a final Plan for the Unit until the Agency has issued land planning rules and the development of this Draft Plan is reconsidered subject to those rules.

A. 10 V.S.A. § 2603 requires ANR to promulgate rules intended to guide the management of State lands, but because the Agency has not yet done so, its obligations regarding long-range management planning are unclear.

Vermont requires ANR to issue rules for the management of State lands under 10 V.S.A. § 2603. The Agency, through the Department of Forests, Parks and Recreation (FPR), must “manage and plan for the use of publicly owned forests and park lands in order to implement the policy and purposes of this chapter, promote and protect the natural, productive and recreational values of such lands, and provide for multiple uses of the lands in the public interest.”³⁴ To these ends, ANR must “adopt and publish rules . . . for the use of State [lands], including . . . for the harvesting of timber or removal of minerals or other resources from such lands. . . .”³⁵ Despite the mandate to “manage and plan for the use of” State lands under its stewardship “to implement the policy and purposes of this chapter,”³⁶ ANR has not yet promulgated rules prescribing the process by which it develops long-term management plans like the Draft Plan.

Ideally, a State land-management planning rule would also require the Agency to present the public with the purpose and need for the proposed management actions, conduct a cumulative impacts analysis, and consider potential actions within the planning area in the context of the surrounding landscape. Additionally, such a rule would define the scope of public participation during plan development and timber sale approval, establish what content must be included in long-range management plans, prioritize planning objectives based on the purposes of State land management as codified, account for the public trust, ensure consistency with other state and federal laws and regulations, and require ANR to develop a reasonable range of alternatives, including a “no action” alternative, to compare with a proposed action.³⁷ As evidenced by

³⁴ VT. STAT. ANN. tit. 10, § 2603(b).

³⁵ *Id.* § 2603(c)(1).

³⁶ *Id.* § 2603(b).

³⁷ E-mail from Danielle Fitzko, Forests, Parks and Recreation Commissioner, Vermont Agency of Natural Resources, to Standing Trees member (Jan. 23, 2024) (“ . . . I believe you may be familiar with the review of ‘alternatives,’ typically used in a federal management plan development effort under the NEPA process. We do not follow that same planning framework on state lands in Vermont, and, while we considered a range of different management options for the WRMU, we did not consider a “no logging option” for this management unit. In Vermont, the land and natural resources management planning process on state lands is guided by state statute, policy, as well as management recommendations based on professional opinion from Agency of Natural Resources staff, with public input obtained during the planning process ‘taken as advice’ as per the policy shared below.”) (Exhibit 3).

footnote 21, the Agency already engages in some degree of alternatives analysis.³⁸ None of these considerations, however, are reflected in the Draft Plan. Which options did the Agency consider? Why were some options selected for consideration over others? How did ANR select its preferred option? Without the ability to probe decision-making processes or ascertain which factors were considered, there is no meaningful opportunity for public participation or review.

Here, the Draft Plan describes the primary rationale for timber harvest to be to “[p]roduce a diverse array of forest products through sustainable management.”³⁹ This economic rationale for timber harvest is stated again in the section on Unit-Wide Management Goals, where the only goal listed under the heading of “Vegetation Management” is to “Produce a diverse array of traditional and non-timber forest products through sustainable management and harvest practices.”⁴⁰ Despite the fact that manufacturing wood products is the driving motivation for its logging, ANR does not explain why timber harvest is an important goal on *these particular* State lands. Given the fact that 96% of the timber harvested in Vermont each year is done on private land,⁴¹ as well as the lengths to which the Draft Plan goes to emphasize the unique and exceptional ecological integrity of the Unit, it seems a fair question. How much of the 45,000-acre forest block containing the Unit is actively managed for timber harvest? Will the ecosystem services provided by passive management—e.g., enhanced water quality, fisheries protection, and flood resiliency—be assigned an economic value and balanced against the value of timber harvesting? Where are the wood products from the Unit going to be processed and sold? What will be the end uses of the wood harvested from the Unit? How much timber is harvested and sold across *all* State lands, and what are the end uses of *that* wood? A set of rules ensuring that this information is shared before each harvest decision is required not only by sections 2601 and 2603 but by the public trust doctrine.

Another issue that arises from ANR’s failure to promulgate rules for state land planning is the question of how a long-range management plan may be amended, either during or beyond its 20-year planning horizon. In an email communication from January 2024, FPR State Lands Manager Jim Duncan assured the public that, without a Plan amendment, no timber harvesting would be permitted to occur beyond the timber sales expressly provided for in the final Plan.⁴²

³⁸ See *id.* (“[W]e considered a range of different management options for the WRMU. . . .”) (Exhibit 3).

³⁹ DRAFT PLAN at iv.

⁴⁰ See ANR, ACCEPTABLE MANAGEMENT PRACTICES FOR MAINTAINING WATER QUALITY ON LOGGING JOBS IN VERMONT (2018), https://fpr.vermont.gov/sites/fpr/files/Forest_and_Forestry/Forest_Management/Library/AMP%20final%20version%207-17-18.pdf [hereinafter “AMPs”].

⁴¹ On average, State lands supply just 2% of the timber harvested in Vermont annually. See USDA Forest Service, *Forest Inventory and Analysis Program* (2022) (Exhibit 4).

⁴² E-mail from Jim Duncan, State Lands Manager, FPR, to Zack Porter, Exec. Dir., Standing Trees (Jan. 22, 2024) (“During the development of the plan, the team evaluated ‘8,641 acres . . . for potential commercial vegetation management.’ As part of that evaluation, the team identified a limited and explicit subset of stands that are suitable for treatment during this plan cycle – this step is not clearly explained in the plan text you quote below[,] and we’ll

While we agree that additional harvest must not be authorized without a Plan amendment or revision, this is precisely the type of policy that the Legislature directed the agency to adopt in an inclusive, transparent manner through the rulemaking provision in 10 V.S.A. § 2603.

B. Though not binding on its own, the final Plan will guide future binding decisions, and its development therefore merits the public participation provided by the Vermont Administrative Procedure Act.

The Plan is not a rule because it does not have the effect of a rule,⁴³ but in the absence of the requisite management and planning rules and the guidance they would likely provide, the Unit's Plan development process should receive the same considerations with respect to public participation as would an identical rule promulgated under the Vermont Administrative Procedure Act (APA). In pertinent part, that Act stipulates that "[r]ules shall be valid and binding on persons they affect and shall have the force of law. . . ."⁴⁴ Unit management plans do not constitute final decisions to authorize timber harvest, however, and the Agency has asserted that it will balance the competing considerations of each timber sale before finalizing any sale.⁴⁵ Even so, the Agency's failure to promulgate rules governing Unit-wide land management planning deprives the public of procedural rights related to the development, design, analysis, and implementation of individual timber sales because it allows ANR to avoid having to provide rulemaking levels of public input on issues that are more impactful or fundamental to the public interest than many rules under the Vermont APA.

Over the next 20 years, the Draft Plan proposes to authorize 13 timber harvests targeting a total of 1,935 acres.⁴⁶ ANR suggests that many variables will be considered when finalizing a given timber sale, including the appropriate season to conduct timber harvest; review of habitat for rare, threatened, and endangered species; significant natural communities, important historic or cultural sites, and sensitive natural features such as streams, steep slopes, or wetlands; and "information related to forest health, species composition, stand age, forest structure, soil characteristics, wildlife habitat, and information on forest product quality, value, and

consider that in comment review. *Only those specific stands can be developed into timber sales during the plan, and they undergo additional analysis (you can read more about the development steps of timber sales on p. 146 of the plan). As part of that analysis, some stands or portions of stands may be found to be ineligible for harvesting, but the area that could be included in any sales would not be expanded from what is in the plan without an amendment.*" (emphasis added) (Exhibit 5).

⁴³ See VT. STAT. ANN. tit. 3, § 845(a) ("Rules shall be valid and *binding on persons they affect and shall have the force of law* unless amended or revised or unless a court of competent jurisdiction determines otherwise.") (emphasis added).

⁴⁴ *Id.*

⁴⁵ DRAFT PLAN at 146.

⁴⁶ *Id.* at 147.

distribution.”⁴⁷ Furthermore, the Agency provides that it is proposing “uneven-aged” management for each timber sale,⁴⁸ but it does not (1) make any detailed harvesting plans available to the public; or (2) account for public input on future timber sales beyond the close of this comment period. ANR acknowledges that uneven-aged management can include a wide range of silvicultural prescriptions, suggesting that harvesting prescriptions could “include but are not limited to single tree and group selection, irregular shelterwood, regular shelterwood, seed tree, patch cutting, and crown thinning.”⁴⁹ In other words, the range of possibilities for potential harvests is immense, which provides the public with little sense of the planned scale, intensity, or duration of impact.

If this Draft Plan proceeds as is, then the public will have no further say in timber harvests proposed by this plan, even those set to commence nearly 20 years from now. Considering the range of variables that ANR suggests it will consider in designing and approving future timber harvests, the public has lacked the benefit of significant information during its opportunity to comment. Scientific understanding of forest ecology, climate change, botany, and fish and wildlife biology have all advanced exponentially in the past 20 years, and imagination is no limit to what advances the next two decades might bring. Additionally, public concerns and priorities will continue to shift. If ANR’s ultimate responsibility is to serve the people of Vermont, then the Agency is not entitled to deny the public its procedural rights concerning the development and approval of timber harvests in the WRMU and other State lands. This failure can and should be corrected through rulemaking.

IV. The Agency Must Specify Plans for Monitoring Logging’s Impacts on Water Quality to Comply with its Duty to Protect the Same Under the Constitutional Public Trust Doctrine, Clean Water Act, and Vermont Water Quality Standards.

There are three distinct legal bases for ANR’s duty to monitor downstream water quality impacts and ensure that its actions uphold the public’s ability to utilize Vermont’s waters. The federal CWA carries the stated objective of “restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation’s waters.”⁵⁰ The CWA requires Vermont to identify pollutants for which the national effluent limitations do not suffice to meet the Agency’s WQs and set a cap, or Total Maximum Daily Load (TMDL), on the amount of such pollutant permitted to enter

⁴⁷ *Id.* at 146. The Draft Plan also provides a long list of additional considerations, including climate change impacts; opportunities for climate and disaster mitigation; the appropriateness of harvests to deal with pests, pathogens, and invasive species; and whether and where to locate, construct, or maintain road infrastructure and skid trails. *Id.* at 124–25.

⁴⁸ *Id.* at 147.

⁴⁹ *Id.* at 124. We note that the Green Mountain National Forest considers shelterwood harvests to be forms of even-aged management. *See* USDA, U.S. FOREST SERV., GREEN MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN, CHAPTER 2: FOREST-WIDE MANAGEMENT DIRECTION 24 (Feb. 2006).

⁵⁰ 33 U.S.C. § 1251 (2023).

a given watershed.⁵¹ ANR is currently off track to meet those requirements.⁵² Separately, the WQs, through the 2018 Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont (AMPs),⁵³ require that logging jobs conform with certain standards intended to minimize harmful impacts on water quality.⁵⁴ Additionally, the State’s public trust doctrine requires Vermont’s agencies to safeguard the quality and quantity of State waters for the public’s benefit.⁵⁵

The monitoring section in the Draft Plan, as discussed below, does not commit to any particular form or standard for monitoring water quality.⁵⁶ Additionally, the Draft Plan currently contains no mention of the Agency’s public trust obligations. Finally, the phenomenon of downstream water quality degradation from logging—particularly due to phosphorous—is well documented.⁵⁷ To satisfy these three distinct legal obligations and permit meaningful review, ANR must specify its plans for monitoring water quality under the “Monitoring and Evaluation” section of the Draft Plan. It should also bolster its current analysis of water resources and ascertain a baseline by incorporating either an existing assessment of water quality or performing such an assessment from scratch. Additionally, because footnote 2 appears to assert that the inclusion of water quality considerations is discretionary and thereby misstates the Agency’s legal obligations, ANR must remove it from the final long-range management plan. Finally, because the Agency need not authorize logging, and considering the Unit’s relative uniqueness among State lands and the ANR would benefit from drastically reducing the extent and quantity of authorized treatments on the Unit under the final Plan.

A. The Agency should propose—and solicit public input on—a specific plan for monitoring water quality as required by its constitutional public trust mandate.

The Vermont constitution imposes a legal duty on ANR to safeguard water quality. As discussed below, chapter II, § 67 of Vermont’s constitution reflects its framers’ intent to provide for the

⁵¹ *Id.* § 1313(d)(1)(A), (C).

⁵² See Re: *Lake Champlain TMDL Implementation Interim Report Card for Basin 3: Otter Creek, Little Otter Creek, and Lewis Creek; and Final Report Card for Basins 2 and 4: South Lake Champlain*, EPA (Apr. 6, 2023), <https://www.epa.gov/system/files/documents/2023-04/2022-lake-champlain-tmdl-basins-2-3-4-report-card%204-6-23.pdf>.

⁵³ See ANR, ACCEPTABLE MANAGEMENT PRACTICES FOR MAINTAINING WATER QUALITY ON LOGGING JOBS IN VERMONT (2018), https://fpr.vermont.gov/sites/fpr/files/Forest_and_Forestry/Forest_Management/Library/AMP%20final%20version%207-17-18.pdf; but see UNDERWOOD REPORT at 26 (noting the challenges of relying solely on AMPs to maintain water quality) (Exhibit 2).

⁵⁴ See Vermont Water Quality Standards § 29A-203(b)(1) (describing the presumption that silvicultural activity that complies with the AMPs is also compliant with the WQs) [hereinafter “WQs”] (Exhibit 6).

⁵⁵ See VT. CONST. ch. II, § 67.

⁵⁶ See DRAFT PLAN at 172–73.

⁵⁷ EPA, PHOSPHORUS TMDLS FOR VERMONT SEGMENTS OF LAKE CHAMPLAIN 26 (2016); see also Shah et al., *The Effects of Forest Management on Water Quality*, 522 FOREST ECOLOGY & MGMT. 120,397 (2022), at 2 <https://www.sciencedirect.com/science/article/pii/S0378112722003917/pdf?md5=525e9d97a1049e02288d79f4459bea23&pid=1-s2.0-S0378112722003917-main.pdf>.

safekeeping of navigable waters critical to the recreation and well-being of Vermont’s citizens; similarly, the Vermont General Assembly has codified the State’s policy that surface waters are generally part of the public trust and must therefore be managed to serve the public interest. Moreover, dispositions from the State’s highest court make clear that the doctrine has not been and should not be construed so narrowly as to limit the State’s obligations solely to preventing the encroachment of private parties into public waters; rather, it is “to ‘be molded or extended to meet changing conditions.’”⁵⁸ Accordingly, to meet its broad public trust mandate, the Agency must (1) perform a pre-decisional water quality analysis; (2) proceed with timber harvests on the Unit, if any, only to the extent that the analysis that supports water quality standards would be maintained; and (3) specify the monitoring for any such harvests to ensure such water-quality maintenance.

Chapter II, § 67 of Vermont’s constitution provides that “the inhabitants of [Vermont] shall have liberty . . . to hunt and fowl . . . and in like manner to fish in all boatable and other waters (not private property) under proper regulations, to be made and provided by the General Assembly.”⁵⁹ In addition to entrusting the State with stewardship of public water resources and the corresponding obligation to safeguard water quality, that section has also been construed by the General Assembly as requiring the State to hold its fish and wildlife in trust for the benefit of its citizens: “As provided by Chapter II, § 67 of the Constitution of the State of Vermont, the fish and wildlife of Vermont are held in trust by the State for the benefit of the citizens of Vermont. . . .”⁶⁰ The following provision declares the “protection . . . and conservation” of Vermont’s fish populations to be “in the interest of the public welfare.”⁶¹ The Vermont Supreme Court has construed these constitutional and statutory provisions to require the State—including all its agencies—to hold “navigable waters” and the submerged land beneath them in trust for the benefit of Vermont’s citizens.⁶² Critically, too, as it concerns the maintenance of water quality, that duty “is not ‘fixed or static,’ but one to ‘be molded and extended to meet changing conditions and needs of the public it was created to benefit.’”⁶³ Indeed, the purposes of the public trust are understood to “have ‘evolved in tandem with the changing public perception of the values and uses of waterways.’”⁶⁴ If the doctrine is to mean anything at all, then such public needs surely include the universal desire for drinkable, swimmable, fishable, clean water.

The public trust’s mandate that the State preserve public access to “navigable waters” for purposes of navigation, commerce, and fishing and keep such waters free from obstruction extends to the preservation of surface waters’ quality. Moreover, the concept of “water quality”

⁵⁸ *State v. Central Vt. Railway, Inc.*, 153 Vt. 337, 342 (Vt. 1989) (quoting *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 294 A.2d 47, 54 (N.J. 1972)).

⁵⁹ VT. CONST. ch. II, § 67.

⁶⁰ VT. STAT. ANN. tit. 10, § 4081(a)(1) (2023).

⁶¹ *Id.* § 4081(a)(2).

⁶² *See, e.g., State v. Central Vt. Railway, Inc.*, 153 Vt. 337, 342 (Vt. 1989).

⁶³ *Id.* (quoting *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 294 A.2d 47, 54 (N.J. 1972)).

⁶⁴ *Id.* (quoting *Nat’l Audubon Soc’y v. Super. Ct. of Alpine Cnty.*, 658 P.2d 709, 719 (Cal. 1983)).

covers not only the physical and chemical integrity of such waters, but also their levels and flow, because navigation, commerce, fishing, and other uses protected under the doctrine depend on the consistent water flow of surface waters. ANR's priorities under this broad definition of water quality include, e.g., maintaining minimum instream flows during a drought and, conversely, reducing excessive flows during flooding events. ANR, through the Department of Environmental Conservation (DEC), interprets its mandate expansively, acknowledging that it must "manage Vermont's lakes and ponds *in a manner which preserves and protects a healthy environment*, guarantees the right of Vermonters to hunt, fish, boat, swim, and enjoy other recreational opportunities, and provides the greatest benefit to the people of the state."⁶⁵ In other words, both actions—pre-decisional analysis and subsequent monitoring--would help the Agency comply with applicable AMPs and reduce the impacts of its actions on TMDLs in the Lake Champlain watershed.

The draft Plan mentions the contributions of the Unit to downstream water quality,⁶⁶ but states that the Draft Plan's consideration of water quality was "[i]ncluded at [the] discretion of [the] Stewardship Team," and that such an assessment was "[n]ot currently required."⁶⁷ On the contrary, ANR is required to monitor and maintain water quality as part of its public trust obligations. Consequently, footnote 2 in the Draft Plan misstates the law. We urge the agency to eliminate this footnote from the final Plan. Additionally, because, as public trust resources, Vermont's lakes and ponds are a matter of public interest, we ask that the Agency provide the public with a full accounting of these resources' potential disposition.⁶⁸ In this case, the public should be able to review some written record of ANR's consideration of potential impacts on its public trust obligations to protect water quality and to contribute to the rulemaking process by providing comments on such considerations.

B. The Agency must consider the impact of its actions on phosphorus levels because the Clean Water Act requires Vermont to reduce the phosphorus entering Lake Champlain and the Unit feeds two of its tributaries.

Because timber harvesting is known to negatively affect downstream water quality and ANR is off track to meet EPA's targets for phosphorus load reduction, ANR must at least consider the likely impacts of the logging projects it authorizes on the watershed's phosphorus levels. The CWA requires that Vermont identify pollutants for which typical efforts would be insufficient for meeting its WQSs and to set caps, or TMDLs, on the level of a given pollutant permitted to enter

⁶⁵ ANR, DEP'T OF ENV'T CONSERVATION, *Explanation of Public Trust Review of Encroachment Permit Applications* (July 1995), https://dec.vermont.gov/sites/dec/files/wsm/lakes/docs/Encroachment/lp_trustreview.pdf (emphasis added).

⁶⁶ DRAFT PLAN at 54.

⁶⁷ *Id.*

⁶⁸ Here, the lack of any cohesive planning rule is particularly troubling. Such a rule would dictate which plan elements were required and which were merely discretionary, and in doing so it would eliminate any discussion of whether such elements need be included in a plan.

a given water body. Specifically, ANR must “identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) . . . are not stringent enough to implement any water quality standard applicable to such waters” and to “establish for [such waters] . . . the [TMDL] . . . at a level necessary to implement the applicable water quality standards. . . .”⁶⁹ In 2011, after a federal lawsuit challenged its approval of Vermont’s 2002 proposed TMDLs, EPA disapproved those TMDLs because the reductions they proposed, even if satisfied, would not have addressed the excess phosphorus levels.⁷⁰ Consequently, EPA took over responsibilities for setting the TMDLs and, in June 2016, in collaboration with ANR, EPA established new phosphorus TMDLs for Lake Champlain.⁷¹

EPA continues to monitor Vermont’s progress towards attaining the implementation standards set out in 2016 and periodically issues “report cards” on ANR’s progress. Most recently, EPA reported that although the Agency had successfully reduced the phosphorus load by about 40 metric tons (about 19% of the total reduction target) per year, the “pace of reductions identified . . . is lower than the necessary annual reductions. . . .”⁷² EPA questioned whether “current efforts and funding are sufficient to reach the 20-year TMDL goals,”⁷³ and, after concluding that “the current pace of phosphorus reductions needs to increase to meet TMDL reductions by 2037,” EPA ultimately “urge[d] DEC to ensure that the pace of reductions [would] accelerate as envisioned.”⁷⁴ If Vermont is to meet its obligations under federal law, then, Agency actions like the plan at issue here must account for and minimize new sources of phosphorous pollution to Lake Champlain.

As noted above, the Lamoille and Winooski Rivers are both major tributaries of Lake Champlain, and the Unit drains solely into these two water bodies. Yet the Draft Plan is silent regarding the impacts of silvicultural treatments in the WRMU on the TMDLs for phosphorus in Lake Champlain.⁷⁵ The Draft Plan does include a broad catch-all: a declaration that ANR will “[f]ollow state and federal permit requirements and conditions related to water resources.”⁷⁶

⁶⁹ 33 U.S.C. § 1313(d)(1)(A), (C).

⁷⁰ *Lake Champlain Phosphorus TMDL: A Commitment to Clean Water*, EPA (last updated June 28, 2023), <https://www.epa.gov/tmdl/lake-champlain-phosphorus-tmdl-commitment-clean-water>.

⁷¹ See EPA, PHOSPHORUS TMDLS FOR VERMONT SEGMENTS OF LAKE CHAMPLAIN (2016), <https://www.epa.gov/sites/default/files/2016-06/documents/phosphorus-tmdls-vermont-segments-lake-champlain-jun-17-2016.pdf>; see also 33 U.S.C. § 1313(d)(2), 40 C.F.R. § 130.7(d)(2) (requiring EPA, once it has disapproved of a TMDL, to establish new TMDLs as necessary to implement applicable water quality standards).

⁷² Re: *Lake Champlain TMDL Implementation Interim Report Card for Basin 3: Otter Creek, Little Otter Creek, and Lewis Creek; and Final Report Card for Basins 2 and 4: South Lake Champlain*, EPA (Apr. 6, 2023), <https://www.epa.gov/system/files/documents/2023-04/2022-lake-champlain-tmdl-basins-2-3-4-report-card%204-6-23.pdf>.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ According to EPA, the “pollutant of concern for these TMDLs is phosphorus because it is causing or contributing to excessive algal biomass in the lake, and monitoring data indicate phosphorus levels are elevated above established phosphorus criteria in the [Vermont Water Quality Standards].” EPA, PHOSPHORUS TMDLS FOR VERMONT SEGMENTS OF LAKE CHAMPLAIN 7 (2016).

⁷⁶ DRAFT PLAN at 119.

While this presumably includes the TMDLs established by EPA, the Draft Plan does not provide meaningful guidelines for the agency to implement—much less for EPA and other stakeholders to offer input on—measures that will reduce phosphorous pollution at the legally “necessary” pace.

Because ANR is tasked with stewarding such a large and ecologically significant portion of the watershed, the Agency has an outsized opportunity to help lead the significant statewide effort required to satisfy Vermont’s requirements under the CWA. At the very least, ANR should amend the current Draft Plan to reflect the extent to which it has considered the long-range management plan’s potential impacts on the TMDLs of phosphorus for Lake Champlain. And if ANR has not yet considered such impacts, it should perform an assessment to that end to ensure that the planned management actions will not affect phosphorus and other pollutant levels to an unreasonable or unjustifiable degree.

C. The Agency should explain how it intends to conform with the AMPs because noncompliance would negate the presumption that logging on the Unit complies with Vermont’s Water Quality Standards.

Although any silvicultural treatments authorized by ANR are exempt from having to adhere to Vermont’s WQSs, the Agency loses the benefit of that presumption if a water quality analysis shows that it has violated them. In 2022, DEC completed its triennial review and update of the WQSs, as required by the CWA.⁷⁷ Under the WQSs, “the requirements of these rules for any activity causing a nonpoint source discharge shall be presumed to be satisfied when the activity . . . is in compliance with the AMPs, if applicable. . . .”⁷⁸ Additionally, such logging operations are exempt from the Agency’s discharge permit requirements,⁷⁹ stormwater runoff permit requirements,⁸⁰ and permit requirements pursuant to the Vermont Wetland Rules.⁸¹ Importantly, however, such exemptions shall be negated “when a water quality analysis conducted according to § 29A-201(7) of these rules demonstrates that there is a violation of these rules.”⁸² § 29A-201(7) provides that, until the Secretary of ANR adopts rules for conducting nonpoint source pollution monitoring, “nonpoint source pollution monitoring shall be conducted in accordance with generally accepted scientific monitoring or evaluation methodologies which the Secretary determines to be appropriate.”⁸³ In sum, the presumption that ANR is in compliance with the WQSs would be negated if monitoring results demonstrated that any of the rules therein, including the phosphorus load limits discussed immediately below, were actually violated.

⁷⁷ See WQSs § 29A-302(2) (Exhibit 6).

⁷⁸ *Id.* § 29A-203(b)(1) (Exhibit 6).

⁷⁹ V.T. STAT. ANN. tit. 10, § 1259(f) (2023).

⁸⁰ *Id.* § 1264(d)(1)(C).

⁸¹ ANR, DEP’T OF ENV’T CONSERVATION, VERMONT WETLAND RULES, § 6.1–6.5 (2023).

⁸² WQSs § 29A-203(b)(2) (Exhibit 6).

⁸³ *Id.* § 29A-201(7) (Exhibit 6).

Aside from their generally applicable monitoring requirements, the WQSs also contain standards intended to address specific pollutants of concern. For example, phosphorus loadings “shall be limited so that they will not contribute to . . . the growth of aquatic biota *in a manner that prevents the full support of uses*.”⁸⁴ The phrase “full support of uses” reads quite broadly and echoes the Vermont Supreme Court’s expansive reading of the State’s public trust doctrine (discussed further below) as one that should “meet [the] changing conditions and needs of the public it was intended to benefit.”⁸⁵ Additionally, both the WQSs and the public trust doctrine align with the CWA’s stated objective to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”⁸⁶ The fact that State, federal, and common law coalesce in broadly defining the scope of the government’s duty to protect water quality supports the notion that ANR is obligated to consider its water quality-related obligations broadly as well.

In this case, the Draft Plan must comply with the current AMPs by adhering to the document’s guidance on best practices for, e.g., road-building, stream buffers, and skid roads. In other words, ANR must continuously ensure that its practices conform with the AMPs by monitoring downstream water quality using “generally accepted scientific monitoring or evaluation technologies.”⁸⁷ Because the public is entitled to assess whether such technologies are “generally accepted,” it follows that ANR should make its intended monitoring methodologies publicly available for review. As it stands, however, the Draft Plan says very little about how the Agency intends to conduct the mandatory monitoring, cross-referencing the AMPs and its own Riparian Management Guidelines for Agency of Natural Resources Lands.⁸⁸ These guidelines refer to measures to mitigate threats to riparian forest function—e.g., retaining forest biomass within the management zone. The Draft Plan does not make clear whether or when ANR will take any such measures in the Unit, and even less clear is *which* measures the Agency might take. And although the Draft Plan does contain a section on monitoring and evaluation that specifically mentions water quality,⁸⁹ the Agency does not specify how its water quality-related objectives (or any other stated objectives) are to be achieved. To satisfy its obligations to ensure compliance with the AMPs—and thereby, at least presumptively, the WQSs—ANR must in this long-range planning process clarify how it will monitor the effects of its planned silvicultural practices on water quality downstream from and within the Unit, particularly with respect to phosphorus levels.

⁸⁴ *Id.* § 29A-302(2)(A) (emphasis added).

⁸⁵ *State v. Central Vt. Railway, Inc.*, 153 Vt. 337, 342 (Vt. 1989) (quoting *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 294 A.2d 47, 54 (N.J. 1972)); *see also* discussion *infra* III(B).

⁸⁶ 33 U.S.C. § 1251 (2023).

⁸⁷ WQSs § 29A-201(7) (Exhibit 6).

⁸⁸ DRAFT PLAN at 119 (2023); *see also* ANR, RIPARIAN MANAGEMENT GUIDELINES FOR AGENCY OF NATURAL RESOURCES LANDS (2015) (Exhibit 7).

⁸⁹ DRAFT PLAN at 172–73 (Stated strategies include making efforts to “conduct periodic, standardized post-practice assessments to assess effectiveness of management activities”).

V. The Agency is Mandated by 10 V.S.A. § 2601 to Manage the Unit in Ways That Alleviate Floods and Soil Erosion.

Vermont, like the rest of the world, is experiencing wide-ranging damages caused by climate change. Flooding is a glaring example of the climate damages in Vermont. Researchers at Dartmouth found that “the amount of extreme precipitation—rain or snow that results in one to two inches of water in a day—over the past 25 years has been almost 50% greater than from 1901 to 1995.”⁹⁰ In a study published in May of 2023, Dartmouth researchers estimate that “extreme precipitation events—defined as at least 1.5 inches of heavy rainfall or melted snowfall in a day—are projected to increase in the Northeast by 52% by the end of the century.”⁹¹ The State has devoted significant resources to improve flood resiliency, implementing new measures and practices in almost every sector.⁹² Land management planning should be no exception, and ANR must include flood resilience strategies for the Draft Plan.

A. ANR did not include an analysis on flood resiliency in the Unit, and therefore the Draft Plan does not satisfy ANR’s statutory obligations.

The stakes for flood risk management on state-managed lands are high. This is especially the case for the WRMU, which is located immediately upstream of Vermont’s capital Montpelier, which was hit by some of the worst flooding in the State’s history in the summer of 2023. According to the National Oceanic and Atmospheric Administration (NOAA), “prolonged heavy rainfall on July 10th and 11th, when rainfall amounts of 3 to 9 inches were observed across the state over 48 hours,” led to “[c]atastrophic flash flooding and river flooding.”⁹³ But this is only part of the story. NOAA notes that “[t]he greatest storm totals were as high as 9.20”, with 4 to 8 inches common along the spine of the Green Mountains and in adjacent communities.”⁹⁴ Indeed, given that storm precipitation is influenced by topography, and given Vermont state lands harbor a high concentration of forested headwaters, there is both added responsibility, as well as a heightened opportunity for ANR to take decisive action to reduce dangers for downstream communities by actively leveraging state lands to alleviate flooding.

The summer of 2023 was not the first time Vermont experienced extreme flooding events. In 2011, Hurricane Irene brought catastrophic floods to Vermont, causing hundreds of millions of

⁹⁰ Huanping Huang et al., *Total and Extreme Precipitation Changes over the Northeastern United States*, 18 J. HYDROMETEOROLOGY 1783, 1797 (2017),

https://www.uvm.edu/~bbeckage/Manuscripts/Huang_etal.2017.JHM.pdf.

⁹¹ Amy Olson, *Extreme Precipitation in Northeast to Increase 52% by 2099*, DARTMOUTH NEWS (June 7, 2023), <https://home.dartmouth.edu/news/2023/06/extreme-precipitation-northeast-increase-52-2099>.

⁹² Hannah Weisgerber & Christophe Courchesne, *Rising Waters, Rising Solutions: Navigating the Path to Flood Resiliency in a Changing Climate*, VT. J. ENV. L.: TOP 10 (Dec. 18, 2023), <https://vjel.vermontlaw.edu/TopTenVol25/25-8>.

⁹³ *Id.*

⁹⁴ *Id.*

dollars' worth of damage and the death of 7 people.⁹⁵ Subsequently, Vermont Forests, Parks and Recreation commissioned a report on increasing flood resiliency of Vermont state lands to lessen the damages done from future storms like Irene. *Enhancing Flood Resiliency of Vermont State Lands* (hereinafter "The Report") lays out planning, policy, and practice recommendations for implementation, and was to be used in future agency planning within the state, including land management planning.⁹⁶ The Report's section on improving the management approach for State lands lays out multiple recommendations for using improved land management practices to increase flood resiliency. In fact, the Report includes an explicit call to incorporate flood resiliency in long-range management plans, a recommendation that ANR did not heed in the Draft Plan.⁹⁷

The attention given to flood resilience in the Draft Plan is scarce. In fact, despite ANR's clear obligation to alleviate flooding under 10 V.S.A. § 2601,⁹⁸ ANR suggests in the Draft Plan that "[i]nclusion [of a flood resiliency assessment is] at discretion of Stewardship Team. Not currently required. Size and complexity of parcel and watershed condition are factors that could influence inclusion."⁹⁹ A records request by Standing Trees revealed comments on the Report made by FPR foresters. These comments expressed concerns by the foresters that applying the recommendations in the Report would dramatically curtail logging on State lands.¹⁰⁰

The plan recognizes that properly managing headwaters provides value to the communities reliant on them. However, the one strategy highlighted to aid flood resilience, to include "water crossings" on roads and trails, just barely scratches the surface of what is needed to protect—and proactively improve—the ability of Vermont State lands to contribute to flood resilience.¹⁰¹ The Report calls for many procedural and substantive changes to be made to long-range management

⁹⁵ *Tropical Storm Irene*, VT. HISTORY EXPLORER, <https://vermonthistoryexplorer.org/tropical-storm-irene> (last accessed Jan. 24, 2024); Jack Thurston, 'We're All One Community': Vt. Remembers Drive to Recover Following Irene's Destruction, NECN, (Aug. 27, 2021), <https://www.necn.com/news/local/were-all-one-community-vt-remembers-drive-to-recover-following-irenes-destruction/2544281/>.

⁹⁶ UNDERWOOD REPORT at v ("The proposed mapping approach is intended to help inform the designation of existing Long-Range Management Plan land use classifications, and to 'red flag' those lands areas that are more sensitive from a hydrologic standpoint.") (Exhibit 2).

⁹⁷ *Id.* at 27 (Exhibit 2).

⁹⁸ 10 V.S.A. § 2601(a) ("It is the policy of the State to . . . sustain long-term forest health, integrity, and productivity, to maintain, conserve, and improve its soil resources . . . floods and soil erosion are alleviated.").

⁹⁹ DRAFT PLAN at 54.

¹⁰⁰ Specific FPR forester comments include: "If flood resiliency was the highest or only priority for management, the concepts and practices contained in the report could be effective at increasing flood resiliency on state forest lands. . . ." (Exhibit 8 at 1); "Fully adopting the recommendations this report, as written, will completely gut FP&R's long standing State lands silvicultural timber management program." (Exhibit 8 at 1); "If AMPs disregarded and difficult to enforce, what kind of compliance can be expected with [Optimal Conservation Practices]?" (Exhibit 8 at 3); "If flood resiliency is that critical, and there is no other way to accomplish it, then that is fine. I just want to be sure that those who make the decisions on these matters understand the impacts it will have. My biggest fear is that this report will somehow be adopted as policy by ANR leadership while FPR will be expected to continue to manage state lands as usual with a few tweaks to our methodology. That will not be possible." (Exhibit 8 at 8).

¹⁰¹ DRAFT PLAN at 119.

plans in order to better manage flood risk. Some of these include adding a hydrologic resource component in determining the sensitivity of a management area, delineating hydrologic reserve and conservation zones to preclude or restrict logging in sensitive areas, articulating specific targets for management areas to achieve enhanced flood resiliency, and downsizing “legacy” roads so they no longer contribute to stormwater drainage to the intense degree in which they do currently.¹⁰² None of these recommendations were included in the Draft Plan.

B. ANR should conduct a region-specific flood analysis, as well as use existing recommendations to enhance flood resilience in the Worcester Range.

The plan acknowledges that flooding is a problem that can be exacerbated by land management decisions but does not identify, much less analyze the impacts the plan will have on future flooding events. To safeguard Vermont’s communities from floods to come, long-range management plans such as this one must properly analyze the current flood mitigation capacity of the Unit, and proactively lay out measures/actions to enhance flood resiliency. We strongly urge ANR to use the Report commissioned for FPR to (1) analyze the impacts the Draft Plan will have on flooding and (2) update the Draft Plan to enhance the flood resilience of the Unit.

To start, the Report strongly encouraged the Agency to update its current AMPs for maintaining water quality on logging jobs in Vermont.¹⁰³ The current AMPs are not sufficient to manage severe storm conditions, as these practices were put in place solely to maintain minimum water quality throughout the logging process.¹⁰⁴ AMPs were not originally designed with flood resiliency in mind, which is why they are failing now. The Report recognizes this oversight, and devised a new set of standards it deems “Optimal Conservation Practices” (“OPCs”).¹⁰⁵ These practices would provide greater protection measures to areas “most vulnerable to generating runoff.”¹⁰⁶

Additionally, the report emphasizes that “all roads and trails on State Lands have the potential to serve as conduits of stormwater.”¹⁰⁷ With this in mind, the Report strongly urged that removal of unused forest access roads and skid trails begins as soon as possible.¹⁰⁸ This would reduce the number of pathways for stormwater runoff to flow. The Draft Plan makes no attempt to begin removal of retired roads and trails, but instead plans to create new ones for the planned logging projects. Adding additional roads, especially before properly decommissioning older, unused roads, will only exacerbate the floods in store for Vermont’s future.

¹⁰² UNDERWOOD REPORT at 27, 29, 32 (Exhibit 2).

¹⁰³ *Id.* at 26 (Exhibit 2).

¹⁰⁴ *Id.* (Exhibit 2).

¹⁰⁵ *Id.* (Exhibit 2).

¹⁰⁶ *Id.* (Exhibit 2).

¹⁰⁷ *Id.* at 27. (Exhibit 2).

¹⁰⁸ *Id.* at 32. (Exhibit 2).

In addition to adopting the Report's improved management practices, we urge ANR to perform the necessary analysis of the Draft Plan's impacts on flooding. An analysis conducted by a member of the public helps to illustrate the potential impacts of ANR's proposed logging in the Unit and calls into question ANR's refusal to perform its own analysis. We include some of this analysis below:

During the July flood, the Wrightsville Reservoir rose nearly fifty feet, miraculously peaking one inch shy of its spillway capacity. Had the spillway been activated, the damage downstream in Montpelier would have been dramatically more devastating. Any further loss of water storage capacity in this basin's headwaters is an unacceptable threat to those downstream in Montpelier and beyond. Yet the WRMU management plan proposes to harvest 5% of Wrightsville's basin over the next twenty years (1,370 acres of the 28,000 acres in the watershed upstream of the dam). A change in soil organic matter by just 5% over these 1,370 acres translates into a gain or loss of 100 million gallons of water storage capacity. This amount of water would raise the Wrightsville Reservoir by up to 14 inches.

Considering the significant effects that forest management has on soil health, it is reasonable to imagine that the timber harvests in the WRMU, had they already happened, may have caused the North Branch to clear Wrightsville's spillway berm last summer.¹⁰⁹

This paints a concerning picture for what future flooding events might look like in Vermont after logging activities in this Plan are carried out. An official analysis of these impacts must be performed by ANR in order for the agency to make informed decisions about the management of the Unit.

VI. ANR Has Not Fulfilled its GHG-Emission-Accounting Obligations Under Vermont's Global Warming Solutions Act and Should Not Proceed with the Plan Until the Secretary of Natural Resources Adopts Emission-Accounting Protocols.

The climate crisis has worsened to the point where we must focus on removing greenhouse gases from the atmosphere to avoid the most extreme climate damages. Land use management is part of the solution. As the State affirmed in its 2017 Vermont Forest Action Plan, the best land use practice for maximizing carbon uptake and storage is to allow our forests to continue to grow and thrive, expanding areas of healthy forests.¹¹⁰ Vermont forests store over half of the State's annual

¹⁰⁹ See Exhibit 9 for information on the process and sources for this analysis.

¹¹⁰ VT. DEP'T OF FORESTS, PARKS AND RECREATION, 2017 VERMONT FOREST ACTION PLAN 57 (2017), https://fpr.vermont.gov/sites/fpr/files/Forest_and_Forestry/Vermont_Forests/Library/2017_VT_ForestActionPlan.pdf.

CO₂ emissions,¹¹¹ and forest carbon storage would be increased by allowing a larger percentage of Vermont's forests to grow old,¹¹² especially those forests that are already in large, unfragmented landscapes, and which have received minimal logging pressure over the past century. Even when accounting for carbon stored in wood products, logging results in significantly less forest carbon sequestration and storage compared to unlogged forests.¹¹³ By substantially increasing the amount state-owned forests that are protected from logging, Vermont can pull large quantities of carbon out of the atmosphere.¹¹⁴ Doing so would not only further the conservation and sustainability goals for State forests, but it would also bring the State even closer to its GHG reduction goals laid out in Vermont's GWSA.

Acknowledging the pressing concern of climate change, the Vermont Legislature passed the GWSA in 2020. Section 3 of the Act requires State agencies to "consider any increase or decrease in GHG emissions in their decision-making procedures."¹¹⁵ However, the Draft Plan contains no analysis whatsoever of the GHG emissions that will come as a result of the Plan. The only mention of emissions is a general statement about carbon storage as a benefit that forests provide for people and wildlife.¹¹⁶ This lack of analysis or even acknowledgement of GHG emissions shows that there was no consideration of those emissions, contrary to what the statute requires.

In enacting the GWSA, the Vermont Legislature created the Climate Council, tasked with drafting a Climate Action Plan which ANR is required to use as a basis for the rules and regulations it issues. The Climate Action Plan's recommendations for managing state lands include "implement[ing] the Vermont Conservation Design goals, . . . increas[ing] the amount of old forest, protect[ing] biodiversity, . . . work[ing] to advance resilience to climate change,"¹¹⁷ increasing vegetative cover, conserving existing carbon pools in trees and soils, and increasing the size of existing forests.¹¹⁸ These actions will both sequester emissions already in the atmosphere and prevent additional emissions from being released. The agency should have based the Draft Plan on the recommended pathways laid out in the Climate Action Plan. The agency should be analyzing the Draft Plan's anticipated GHG emissions against the GHG reduction

¹¹¹ ANR, VERMONT CLIMATE ACTION COMMISSION 54 (2018),

<https://anr.vermont.gov/sites/anr/files/Final%20VCAC%20Report.pdf>.

¹¹² Keeton, W.S. et al. *Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States*, 57 FOREST SCI. 489 (2011).

¹¹³ Jared S. Nunery & William S. Keeton, *Forest carbon storage in the northeastern United States: Net effects of harvesting frequency, post-harvest retention, and wood products*, 259 FOREST ECOLOGY AND MGMT 1363 (2010).

¹¹⁴ Karl-Heinz Erb et al., *Unexpectedly Large Impact of Forest Management and Grazing on Global Vegetation Biomass*, 553 NATURE 73 (2018).

¹¹⁵ 10 V.S.A. § 578(c).

¹¹⁶ DRAFT PLAN at 123.

¹¹⁷ VERMONT CLIMATE COUNCIL, INITIAL VERMONT CLIMATE ACTION PLAN 191 (2021),

<https://climatechange.vermont.gov/sites/climatecouncilsandbox/files/2021-12/Initial%20Climate%20Action%20Plan%20-%20Final%20-%202012-1-21.pdf> (Exhibit 10).

¹¹⁸ *Id.* at 207 (Exhibit 10).

goals of the GWSA and Climate Action Plan, as well as the effects that the plan will have on carbon storage in the Unit.

Additionally, the GWSA requires the Secretary to complete requisite inventories and promulgate by rule GHG emission accounting protocols for lifecycle accounting of emissions.¹¹⁹ These protocols are supposed to be mandatory for state agencies to follow in their calculations of GHG emissions in accordance with the Act.¹²⁰ Until the Secretary has adopted such rules statutorily required of them by 10 VSA § 582(g), the Draft Plan should be considered invalid. Without those rules in place, the agency cannot sufficiently account for the GHG emissions of the Draft Plan, as required by the Act.

Alternatively, if ANR proceeds before adopting GHG-emission-accounting protocols, it is at least required to use similar protocols accepted within scientific literature.¹²¹ For example, the social cost of carbon is a widely accepted form of GHG emissions accounting that the U.S. Government has standardized for agencies to use in situations such as this.¹²² Using such a tool will allow the Agency to conduct informed decision-making, as required by law.

VII. The Unit Provides Historical and Well-Suited Habitat for Multiple Endangered Species and Should Therefore be Reserved for Consideration as Critical Habitat Under the Endangered Species Act.

ANR's long-range management planning is subject to both the state and federal ESA.¹²³ Under the ESA, agencies must "utilize their authorities only in a manner that does not jeopardize the threatened or endangered species, critical habitat. . . ."¹²⁴ The Act defines critical habitat as an area that may not be currently occupied by the threatened or endangered species but was historically occupied by the species or contains habitat that is "identifiable, concentrated, and decisive to the continued survival of a population of the species."¹²⁵

Many threatened or endangered species share a crucial need for undeveloped, old, and interior forests. The Unit provides important habitat for the recently endangered Northern Long-Eared

¹¹⁹ 10 V.S.A. § 582(g).

¹²⁰ *Id.*

¹²¹ See *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4d 1321, 1329 (D.C. Cir. 2021) (ruling that the defendant "failed to adequately analyze the impact of the projects' greenhouse gas emissions" by electing to do nothing rather than use available tools such as the widely accepted social cost of carbon for its analysis).

¹²² INTERAGENCY WORKING GROUP, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON, METHANE, AND NITROUS OXIDE INTERIM ESTIMATES UNDER EXECUTIVE ORDER 13990 at 7 (2021), https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf

¹²³ 10 V.S.A. § 5408(g) ("Nothing in this section permits a person to violate any provision of federal law concerning federally protected threatened and endangered species.").

¹²⁴ 10 V.S.A. § 5406.

¹²⁵ 10 V.S.A. § 5401(4).

Bat (“NLEB”) and Tricolored Bat.¹²⁶ For bats, the forest age class is most often the determining factor when choosing their habitat, and old or mature forests are preferred for roosting and foraging.¹²⁷ With bat populations rapidly declining, it is vitally important to protect as much suitable habitat as possible. Even given the recent endangerment status of the bats, ANR relies solely on an acoustic survey from 2015 for their location data.¹²⁸ The Draft Plan strangely does not mention that Northern Long-eared Bats were found in the Unit using bat surveys since 2015. Maps and data obtained by Standing Trees through public records requests show the NLEB has been observed by ANR in areas in and around the Unit, information that should have been provided to the public.¹²⁹ As the Draft Plan states: “the WRMU plays a very important role in the conservation of many Vermont listed [. . .] mammal species,”¹³⁰

The Unit should be left available for the Secretary of Natural Resources to designate as critical habitat for endangered species like the NLEB and Tricolored Bat. The ESA states that when designating critical habitat, the Secretary must consider “the current or historic use of the habitat by the listed species.”¹³¹ The Draft Plan determined that forests within the WRMU have historically been NLEB habitat.¹³² It also notes that the Tricolored Bat “could potentially be present,” and that the NLEB “could potentially be living on the management unit,” yet there is no discussion of whether and the extent to which further surveys will be performed in the area before timber harvest and management begins.¹³³ Before injurious activities such as logging begin, the Secretary needs to decide if there is critical habitat in the area. It’s crucial to preserve areas that could be designated critical habitat for the NLEB. ANR should leave suitable habitat, such as the Unit, available for critical habitat designation. Additionally, ANR needs to perform surveying for endangered bat species before beginning any work in the Unit. Relying on an acoustic survey from almost a decade ago is not sufficient to determine an absence of bats in the area. If the area has been historically occupied, then it could be occupied again. This lack of examination for endangered species within the Unit is imprudent and subject to legal challenge.

VIII. CONCLUSION

In sum, ANR’s current draft plan for the Unit falls short of satisfying its legal obligations. First, the Agency need not harvest timber on State forestlands at all, but if it were required to, that mandate would not require the for all potential uses on every management unit. Second, ANR

¹²⁶ Endangered and Threatened Wildlife and Plants; Endangered Species Status for Northern Long-Eared Bat, 87 Fed. Reg. 73,488 (Nov. 30, 2022); Endangered and Threatened Wildlife and Plants; Endangered Species Status for Tricolored Bat, 87 Fed Reg. 56,381 (Sept. 14, 2022).

¹²⁷ Rachel A. Krusic et al., *Bat Habitat Use in White Mountain National Forest*, 60 J. WILDLIFE MGMT. 625, 628 (1996).

¹²⁸ DRAFT PLAN at 35.

¹²⁹ See Exhibit 11 and 12 for NLEB data and maps obtained by Standing Trees.

¹³⁰ DRAFT PLAN at 35.

¹³¹ 10 V.S.A. § 5402a.

¹³² DRAFT PLAN at 35.

¹³³ *Id.* at 35.

must promulgate statutorily mandated rules for land use planning prior to engaging in long-range management plan development. Third, thanks to largely passive management in recent history, the public lands in the Worcester Range exhibit remarkable wildland qualities; as such, they constitute a priceless ecological resource for central Vermont that should not be compromised by logging and road-building. Fourth, the Draft Plan fails to meaningfully address the probable negative impacts on downstream water quality—water quality for which the State constitution, federal and State legislation, and the common law all independently require ANR to account. Fifth, and especially given the increasing risk of severe flooding in Vermont, the plan unsatisfactorily assesses the Unit’s potentially significant role in flood resilience. Sixth, the plan does not discuss ANR’s statutory obligation to assess the impacts of GHG emissions resulting from its management actions. Finally, the Draft Plan does not adequately account for the unique biodiversity of an intact Worcester Range, including the unique biodiversity benefits it provides.

At minimum, ANR should go back to the drawing board as it concerns the Agency’s consideration of water quality, flood resilience, climate mitigation, and biodiversity protection and make transparent its intended decision-making strategies with respect to each element of the plan. The most *effective* way for ANR to simultaneously address all its statutory and regulatory obligations would be to reduce both the number and extent of its planned timber harvests on the Unit. Doing so would not only help to conserve the special character of the Worcester Range and the many positive impacts it provides; it would also give the forest a chance to eventually become the sort of old forest that used to blanket Vermont.

Respectfully submitted,
STANDING TREES

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