Concern: [Seq#1]

Comments that generally do not agree with the proposed vegetation management action with no supporting rationale. [ID#1]
Response: [Seq#1]

The purpose and need of the Tarleton IRP is to move towards the land management goals and objectives laid out in the WMNF forest plan. The vegetation management proposal will "use sustainable ecosystem management practices to provide a diversity of habitats across the Forest, including various habitat types, age classes, and non-forested habitats" (Forest Plan, p. 1-20) (EA pg. 5). Removing the vegetation management part of the Tarleton IRP does not meet the purpose and need for the project to meet the habitat management objectives laid out in the WMNF forest plan. [ID#1]

Concern: [Seq#2]

Comments requesting the forest re-designates the area around Lake Tarleton from MA 2.1 - general forest management to MA 8.5 - scenic areas. [ID#2]
Response: [Seq#2]

Revising the management area around Lake Tarleton is beyond the scope of the Tarleton IRP. Management areas are assigned based on management areas of adjacent forest service land and the historical use of the area. Re-designating an MA requires a forest plan amendment, the forest plan is not scheduled to be revised for the near future. A change or addition to an MA during a plan revision would be analyzed and considered during that analysis. [ID#2]

Concern: [Seq#3]

Commenters state that logging will be detrimental to wildlife habitat. [ID#3]
Response: [Seq#3]

The Forest Service acknowledges the proposed timber harvests would have negative impacts on some species while benefitting others. Specifically, timber harvests would decrease the available habitat for species that depend on mature, interior forests for all or some of their life cycles. For example, there is likely to be less nesting habitat for ovenbirds after project implementation. On the other hand, species that require or prefer early successional forests, such as the chestnut-sided warbler, would benefit from the proposed harvests. There is no doubt the proposed action would change the wildlife species composition of the project area.

There are a number of Standards and Guidelines in the Forest Plan that would minimize effects to wildlife (2-33 to 2-36), including rare and unique habitats and wildlife species (2-13 to 2-16).

The silvicultural treatments were carefully planned to ensure that all existing habitats would not be minimized to the point that any wildlife species would be lost. This includes common species as well those designated as threatened, endangered, or sensitive. The degree of forest management proposed would not disrupt migratory pathways.

The commenters expressed concern over a number of individual species. All of these would continue to persist within the project area. Many, including the chestnut-sided warbler, Canada warbler, moose, deer, and bear, either depend on early-successional forests or are known to regularly use such habitats, including those created through timber harvests. [ID#3]

Concern: [Seq#4]

The project will destroy the forest, is a deforestation project, and will do detrimental harm to the area. [ID#4]

Response: [Seq#4]

The Tarleton IRP is not a deforestation project. The goals and objectives of the project are to increase species and age class diversity of the forested stands that make up the Tarleton habitat management unit during regeneration, not to convert the forest to non-forested areas. The project will abide by all design features approved by the responsible official on pgs. 16-18 of the EA, all state and federal laws, all WMNF forest plan standards and guidelines, and all New Hampshire state best management practices to minimize effects that may occur due to implementation. All short term effects of implementation will be temporary and will diminish as the forest regenerates. [ID#4]

Concern: [Seq#5]

Letters submitted are fragments of a long form pdf letter where a long form response is necessary. [ID#5]

Response: [Seq#5]

The compiled comments are addressed in the "Long Form Comment Spreadsheet" located in the project record here: https://usfs.app.box.com/file/954332991916 [ID#5]

Concern: [Seq#6]

The Tarleton IRP and general designation of MA 2.1 with general forestry management allowed goes against the spirit of why the land was sold to the US Forest Service back in 2000. [ID#6]
Response: [Seq#6]

Tom Wagner, former Forest Supervisor for the White Mountain National Forest, provided detail regarding the history of the purchase of the lands in question (C/R #31). In addition, there is no evidence that any encumbrances or deed restriction exist on the parcel in question.

While it is not the purpose of this analysis to revisit historic actions, it is clear that the lands were acquired prior to forest plan revision. Consistent with the planning regulations, the forest plan revision process included significant public involvement and release of a public draft environmental impact statement. The final forest plan allowed for sustainable forestry practices on less than 35 percent of the total land mass of the WMNF, including portions of the Tarleton HMU, to provide multiple benefits with appropriate standards and guidelines. To that end, and based on interdisciplinary team and line officer review, the proposed management within MA 2.1 lands in the Tarleton HMU are consistent with forest plan guidance.

In addition, the proposed project does not include land use conversion or permanent development and is therefore consistent with the idea of sustainable land management.

[ID#6]

Concern: [Seq#7]

People's personal attachment stories to the Lake Tarleton area. [ID#7]
Response: [Seq#7]

No response required [ID#7]

Concern: [Seq#8]

Statements supporting the proposed Tarleton IRP [ID#8]
Response: [Seq#8]

No response required [ID#8]

Concern: [Seq#9]

The Forest Service needs to coordinate with the Abenaki Nation Coalition and other tribal parties. [ID#9]
Response: [Seq#9]

The Abenaki Nation Coalition is a non-Federally recognized tribe. The list of Federally recognized tribes contacted during development and release of the draft environmental assessment are available in the project record. The list of tribes contacted will be added to the Agencies and Persons Consulted section of the final EA. [ID#9]

Concern: [Seq#10]

The White Mountain National Forest should work with neighboring property owners to highlight the existing recreation attractions instead of conducting management activities in the area. [ID#10]
Response: [Seq#10]

The need for the project is to move the forest toward desired future conditions and to address accessibility, safety, and visitor experience at the Lake Katherine boat launch (EA pp. 15-16).

In addition, the proposed project does not propose new development of recreation opportunities, but rather improvements to existing facilities for resource protection, user safety, and accessibility.

Proposals to engage neighboring communities to promote stewardship and increased visitation is outside of the scope of the current project. However, the White Mountain National Forest values engagement with local communities to promote the mission of the Forest Service. For example, design feature NNIS-2 (EA, p. 17) emphasizes working with local partners for stewardship at the boat launch. [ID#10]

Concern: [Seq#11]

Commenter request the group selection units be further explained. [ID#12]
Response: [Seq#11]

Size ranges for group selection cuts will be added to the EA, pg. 10. Group selection max size restriction have been added to the EA, pg. 13. A detailed definition of Group Selection is also listed on page 12 of the Abbreviations, Acronyms, and Glossary section of the Forest Plan. Timber contracts are overseen by the Forest Service, and Timber Sale Administrator acts as the on-the-ground federal inspector for the project. [ID#12]

Concern: [Seq#12]

Commenters claim the WMNF did not consider a reasonable range of alternatives, would like the WMNF to consider a "No Action" alternative, or would like the WMNF to take the time to create a list of reasonable alternatives. [ID#13]

Response: [Seq#12]

Commenters suggest that the Forest Service consider a "range of alternatives" such as alternatives including development of a network of trails. However, this public-submitted proposal is not an alternative to the current proposal (i.e., is outside of scope) and would not address the need for the Tarleton Project as stated on p. 7 of the EA for Recreation.

The Forest Service may consider such proposals, as need warrants and consistent with Forest Plan, in the future subject to applicable environmental analysis and decision-making processes.

Commenters do not propose an alternative to the proposed action or provide any specific deficiencies with the existing analysis in the EA and project record. No further response required as commenters do not provide substantive, actionable issues related to the project. Comments are general in nature. [ID#13]

Concern: [Seq#13]

Commenter questions need for and purpose of wildlife opening management. [ID#14]

Response: [Seq#13]

The Forest Plan includes desired future conditions for wildlife openings on p. 1-21, and the HMU rationale for the Tarleton Project includes an analysis of the difference between the existing and desired future conditions. In addition, the terrestrial habitat management documented cited on p. 6 of the EA provides further background on the need for the creation and maintenance of wildlife habitat, including permanent wildlife openings. These documents inform the need for wildlife habitat management as stated on pp. 8-9 of the EA. In addition, p. 6 describes the need for management of the relatively large wildlife opening to address recommended opening sizes of 30 acres or less.

The commenters reference wildlife habitat off-Forest. However, the scope of this proposal concerns wildlife habitat management consistent with the forest plan and within the Tarleton HMU objectives. Further, open areas located on private lands are not necessarily managed as wildlife habitat and are not subject to Forest Service control. The Forest Service manages wildlife openings for the sole purpose of providing this habitat to the species that utilize it. Great care is taken to minimize negative impacts to wildlife in the maintenance of these areas.

The Forest Service has not claimed that a lack of open habitats on the WMNF is a limiting factor for any species, rather that a suite of species benefit from maintenance of open habitats. The rationale for maintaining areas in an open state is detailed in the Forest Plan and its supporting documents. [ID#14]

Concern: [Seq#15]

Commenters claim the proposed action has to have a decision on the entirety of the proposal. [ID#16]
Response: [Seq#15]

Several of the components proposed in the Tarleton Project have independent utility. While they are not required to be considered together under a single proposal, the analysis presented in the EA will provide the responsible official with information needed to make a decision as to whether to implement all, part, or none of the proposed activities as described. No further response required because the commenters have submitted an opinion regarding the composition of the proposed action with no actionable comment on alternatives or the proposal itself. [ID#16]

Concern: [Seq#16]

Commenters suggest the silvicultural prescriptions be altered to reduce potential effects to the lake and viewshed [ID#17]
Response: [Seq#16]

The draft EA includes several silvicultural prescriptions, not one, for forest management (EA, p. 7-13). Proposed vegetation management activities are consistent with forest plan direction, including goals and objectives for wildlife habitat. Potential impacts to water quality and quantity and scenery are considered in the EA (pp. 19-20).

Refer to C/R #13 and others for responses relating to range of alternatives. [ID#17]

Concern: [Seq#17]

The Proposed Action section is mistitled. [ID#18]
Response: [Seq#17]

No alternatives to the proposed action are presented. The EA heading will be corrected to reflect this. No further responses needed. [ID#18]

Concern: [Seq#18]

Commenters state that an Environmental Assessment is not the proper level of effects analysis and an Environmental Impact Statement is warranted. [ID#19]
Response: [Seq#18]

The EA and the project record provide the responsible official with the information necessary to make an informed decision regarding the proposed project. Consistent with NEPA implementation regulation, the responsible official may prepare a finding of no significant impact, if appropriate. If the responsible official determines that preparation of an EIS is warranted, the Forest Service would follow applicable NEPA implementing regulations for that level of analysis, including publication of a Notice of Intent in the Federal Register. The Tarleton IRP EA and preliminary FONSI are consistent with the forest plan and the CEQ and Forest Service NEPA implementing regulations. [ID#19]

Concern: [Seq#19]

Commenter provides data supporting the positive impact the timber sector has on the local economy. [ID#20]
Response: [Seq#19]

An economic analysis was conducted at the forest plan level, and an updated assessment was completed in 2013 (Lee et al., 2013). The proposed project is consistent with the forest plan goal of providing sustainable yield of high quality forest products, with special emphasis on sawtimber and veneer. [ID#20]

Concern: [Seq#20]

Comments opposing clear cutting harvesting techniques in the Tarleton HMU. [ID#21]
Response: [Seq#20]

The application and effects of silvicultural clearcutting are described on page 10 of the Environmental Assessment (EA). Clearcutting is needed to achieve the goals of increasing age-class diversity and maintaining or increasing aspen/birch habitat to improve wildlife habitat diversity within the Tarleton HMU. Clearcutting is a current and effective silvicultural treatment used to manipulate the light environment to better suit shade intolerant and mid-tolerant species. Safford 1983 and Perala 1977

concluded that paper birch and aspen species require large openings and full sunlight for successful regeneration. Yamasaki et al. 2014 discusses that clearcutting results in true early successional vegetation that produces larger compositions of paper birch, aspen, white ash, yellow birch etc. whereas shade tolerant species, such as beech and striped maple, increase with additional shade. [ID#21]

Concern: [Seq#21]

General statements of opinion neither supporting nor opposing any project activities with no supporting rationale. [ID#22]
Response: [Seq#21]

No further response required. [ID#22]

Concern: [Seq#22]

The archeological analysis was not adequate enough to ensure harm to cultural resources will be avoided, the section 106 conducted is inaccurate in its "no historic properties will be affected" finding, a thorough enough effort to locate cultural resources in the project area was not made. [ID#23]
Response: [Seq#22]

Measures to protect archaeological sites and historic landscape features, such as stone walls, and provisions for the inadvertent discovery of previously unknown archaeological sites are described in the Project Design Features table on page 16 of the draft EA, and in the Cultural Resources Reconnaissance Report in the project record. The New Hampshire State Historic Preservation Office (New Hampshire Division of Historic Resources) was consulted and concurred with the finding of No Historic Properties Affected under Section 106 of the National Historic Preservation Act, subject to the described protection measures. [ID#23]

Concern: [Seq#23]

The project should concur with the Biden administration's executive order concerning our nations forests. [ID#24]
Response: [Seq#23]

Presidential executive orders pertaining to national forests are managed by the Secretary and are beyond the scope of the Tarleton IRP. Any goals and objectives pertaining to the executive order will be directed by the Chief and addressed at a later date. [ID#24]

Concern: [Seq#24]

Vegetation management activities will create unacceptable levels of noise pollution that will negatively affect the local community and visitors recreating near the lake. [ID#25]

Response: [Seq#24]

Vegetation management activities will occur during the winter months during a period of low visitor use. Noise impacts to recreational visitors will be dampened by buffers to recognized recreational features and no harvest being proposed within 500 feet of the Appalachian trail. Noise impacts will occur during week days in the Sentinel Mountain area and will affect a limited number of non-motorized winter recreationists. Work would be conducted using standard equipment and techniques, similar to previous projects on the National Forest. [ID#25]

Concern: [Seq#25]

Proposed vegetation management activities will negatively affects the viewshed from the Camp, Mt. Piermont, on the lake itself, Route 25C, the Appalachian Trail, Webster Slide, and the overall view of Lake Tarleton. [ID#26]

Response: [Seq#25]

The potential impacts from the analyzed viewpoints are referenced, modeled and noted (in visible acres) in the EA and project record. Viewpoints are chosen by the highest potential opportunity and volume of public access as well as having the best proximity and quality of viewshed of the project area. Viewpoints on private land are not considered high potential opportunity for public access therefore they are not eligible as viewpoints to be selected for analysis. Some viewpoints are chosen for alternative views (alternate angles) to expose as much of the project area as possible for analysis (again meeting previously mention criteria). The analysis included computer modeling depicting and highlighting any potential impacts and GIS analysis derived data, both of which are included in the project record. [ID#26]

Concern: [Seq#26]

Requests that the project does not included timber activity in lands designated as wilderness [ID#27]
Response: [Seq#26]

There is no designated wilderness in the project area. [ID#27]

Concern: [Seq#27]

The 2005 WMNF Forest Plan is out of date and should be revised before any new timber projects are planned. [ID#28]
Response: [Seq#27]

The current analysis is consistent with Forest Plan direction. Forest plan revision is out of scope for the current proposal. [ID#28]

Concern: [Seq#28]

The Lake Tarleton area should be preserved and unaffected by this project. [ID#29]
Response: [Seq#28]

The area around Lake Tarleton has a history of being harvested (EA, pg. 7) and was decided during forest plan revision to designate the area as MA 2.1, general forest management based on that management history. The project goals and objectives are to increase species and age class diversity of the area. [ID#29]

Concern: [Seq#29]

Non-Exploitative public access improvement was not included in the proposed action. [ID#30]
Response: [Seq#29]

The proposed action includes improvements to Lake Katherine for hand launched watercraft users. Part of the project is also to manage vehicular access to Charleston Rd. for resource protection. Charleston Rd. will still be accessible for non-motorized uses. Dispersed campsites along Lake Tarleton lake will continue to be monitored and managed as a primitive recreation opportunity. [ID#30]

Concern: [Seq#30]

Former WMNF Forest Supervisor and the Society for the Protection of New Hampshire's forests responding to messages from the public regarding the Tarleton IRP and providing feedback on the positive effects of sustainable forestry management done by the WMNF. [ID#31]
Response: [Seq#30]

No response needed. [ID#31]

Concern: [Seq#31]

Comments claiming the WMNF is putting short term financial gain over the protection of the forest. [ID#32]
Response: [Seq#31]

The EA considers potential impacts to recreation and socioeconomics. The Proposed Action would help move the forest toward desired conditions by maintaining and improving landscape resiliency, promoting forest health and resistance of Forest lands to disturbances and other stressors, and diversifying wildlife habitat (EA, p. 6). These benefits are not monetary and cannot be captured in an economic efficiency analysis. [ID#32]

Concern: [Seq#32]

Conducting vegetation management so close to Lake Tarleton and on the slope to the lake will have negative effects on the lake's water quality. [ID#34]
Response: [Seq#32]

Water quality concerns in Lake Tarleton will be limited by following applicable State and National Core BMPs as well as Forest Plan Standards and Guidelines (EA, pgs. 16-17), which are aimed at minimizing erosion and sedimentation resulting from vegetation management activities. Harvest is scheduled to be conducted in winter strictly during frozen ground conditions which will further minimize erosion and sedimentation. Phosphorus entering Lake Tarleton is the biggest concern, as it would cause algae blooms and a reduction in water clarity. Phosphorus is primarily transported by sediment, so by limiting erosion and sedimentation, we would also be limiting phosphorus additions to Lake Tarleton. In addition, studies in the White Mountains have shown that water quality changes are not measurable at harvest levels below about 20% of the basal area of a watershed. This project would remove 6.1% of the basal area in the Lake Tarleton watershed. [ID#34]

Concern: [Seq#33]

The Tarleton IRP includes road construction that is extensive and cause runoff into the lake. [ID#35]
Response: [Seq#33]

No new road construction has been proposed for the Tarleton IRP. The 1.43 miles of reconstruction proposed would stabilize the road system and would include stream crossing infrastructure such as bridges that would reduce the current runoff issues that can be found along Charleston Road. Any reconstructed features intended to capture runoff water are designed to drain into areas suitable for trapping sediment and do not drain directly into streams, wetlands, or vernal pools. [ID#35]

Concern: [Seq#34]

Using herbicides near the lake will degrade water quality and poison the wildlife in the area. [ID#36]
Response: [Seq#34]

Any invasive treatments within the Tarleton project area would be carried out as part of a project specific NNIS control plan (EA, pg. 17) where the effects analysis has already been conducted under the the WMNF Forest-wide Invasive Plant Control Project EA, which strategizes annual control work across the Forest based on priority and need (i.e., risk of spread and threat level). The WMNF Control Plan follows an Integrated Pest Management approach to controlling invasive species, including preventative measures and control strategies, which include manual control techniques and use of herbicides, depending on the situation. The Control Plan evaluated risks of specific authorized herbicides to humans, soils, aquatic systems, and wildlife. When herbicide applications are warranted, the WMNF uses spot foliar application methods or cut-stump applications according to the required herbicide label directions. The applications are very targeted to individuals of the targeted invasive species, and involve very limited amounts of herbicides (since the infestation sizes of invasive species on the WMNF are very small). We follow all applicable federal and state laws and regulations regarding application of herbicides, including required setbacks from public water supplies and surface waters. The form of herbicide used whenever we are in the vicinity of water or wetlands is formulated to be immobile; that is, it will not readily leach offsite and into aquatic systems, and quickly biodegrades on-site. The Forest Wide Control Plan EA concluded that by following an IPM approach, and all applicable federal and state laws, that risks to humans, water quality, wildlife and other environmental risks are negligible or very small. [ID#36]

Concern: [Seq#35]

The 100 foot buffer added as a protection measure for dispersed recreation along Lake Tarleton is inadequate to protect the lake from runoff and erosion that may be caused by vegetation management activities. [ID#37]

Response: [Seq#35]

Based on monitoring of vegetation management activities in the WMNF, and following the National BMP Monitoring Program, the 100-foot buffer has been effective in preventing sediment from reaching waterways, however to preserve the dispersed recreation features adjacent to Lake Tarleton the responsible official has approved extending the buffer to 300 feet. The design feature lowering the max group size from two acres to one acre for group selection units and the harvesting strictly occurring in winter during frozen ground conditions will also help prevent sediment from reaching waterways. [ID#37]

Concern: [Seq#36]

Implement the Lake Katherine Boat Launch action as soon as allowable to stabilize the bank and reduce the current runoff issue. [ID#38]

Response: [Seq#36]

The Lake Katherine Boat Launch action is planned to be implemented the spring or summer after the final decision for the Tarleton IRP is signed. The focus of this effort will be on resource protection with an emphasis to protect the fragile lake shore environment and addressing impacts to soil, water, and vegetation. The project will provide a small gravel parking surface to accommodate a maximum of six vehicles and will facilitate car-top and hand-launched watercraft. [ID#38]

Concern: [Seq#37]

Commenter states that the WMNF should buffer and protect any intermittent stream to the same level that perennial streams are protected when following National Core and State BMP's. [ID#39]

Response: [Seq#37]

Any perennial streams in the project area will be buffered per the Forest Plan G-1 (p. 2-24).

The WMNF does recognize that intermittent streams can experience very high flow rates during storms. While we do not explicitly provide buffers to intermittent streams, we still do apply all applicable BMPs as they relate to erosion and sedimentation, such as choosing the best skid trail crossing locations and

using whatever tools are necessary to minimize erosion and sedimentation at crossings sites as well as the slopes that lead to intermittent streams.

Additional protections for intermittent streams are included in the Forest Plan, including G-9 (p. 2-25) and G-15 (p. 2-26), which would be implemented as part of the proposed action. [ID#39]

Concern: [Seq#38]

Commenters are concerned the project will cause the lakes to be more susceptible to algae blooms and invasives to be recruited into the lake. [ID#40]

Response: [Seq#38]

The proposed project activities will have no known direct mechanism to generate algal blooms in the lakes (that is, fluxes of nutrients related to harvesting are temporary and localized, and not of sufficient magnitude to generate an algal bloom in the lake). Phosphorus is the limiting nutrient for algae in this region. The most common mechanisms for phosphorus to enter water bodies are fertilizer use in the watershed (especially adjacent to water bodies) and leaky septic systems near water bodies. Phosphorus attaches to soil particles, so erosion and sedimentation in the watershed that makes its way to a lake could increase phosphorus concentrations in the lake. Numerous Best Management Practices (BMPs) and Forest Plan Standards and Guidelines would be followed throughout this project to minimize erosion and sedimentation, thereby minimizing the amount of phosphorus entering water bodies throughout the watershed.

The primary pathway for the establishment of aquatic invasives in lakes are from motorboats, which are only launched into Lake Tarleton. It is not expected that the project will increase boat activity in Lake Tarleton. Other aspects of non-native invasive species' prevention and control are addressed in the Tarleton Non-Native Invasive Species Risk Assessment, the Forest-wide Non-Native Invasive Plant Control Plan, and Forest Plan Standards and Guidelines concerning invasive species. [ID#40]

Concern: [Seq#39]

Concern that the Lake Katherine Boat Launch Improvement proposal will attract more visitors than the lake is prepared to handle. [ID#41]

Response: [Seq#39]

The Lake Katherine boat launch proposal meets the recreation goals and objectives for the Lake Tarleton area and is meant to be an improvement that focuses on minimal recreation use and resource protection, with a maximum of six vehicle capacity in the improved lot and limited to car top and hand launched watercraft. [ID#41]

Concern: [Seq#40]

Vegetation management proposed near the lake will cause higher levels of water during heavy rain storms and thus cause more runoff into the lake. [ID#42]
Response: [Seq#40]

Research at the Hubbard Brook Experimental Forest within the WMNF has shown that changes in water quantity are not measurable when less than approximately 25% of the basal area within a watershed is removed as part of vegetation management activities. The highest amount of harvest in a watershed as part of this project would be 16.9% basal area removal. In the Lake Tarleton watershed, 6.1% of the basal area is planned for harvest. Therefore, no measurable effect on water quantity resulting from this project is expected. [ID#42]

Concern: [Seq#41]

Commenter states that the hydrology section of the EA does not give a thorough enough analysis with only a short paragraph. [ID#43]
Response: [Seq#41]

Because we do not believe there will be measurable effects to water quality or water quantity resulting from this project, hydrology was not identified as an issue warranting detailed analysis. Research in the White Mountain National Forest has shown that water quality changes are not measurable at harvest levels below approximately 20% basal area removal in a watershed, and water quantity changes are not measurable at harvest levels below approximately 25% basal area removal in a watershed. For this project, the maximum basal area removal in a watershed would be 16.9% and the basal area removal for the Lake Tarleton watershed would be 6.1%. Furthermore, applicable State and National Core BMPs as well as Forest Plan Standards and Guidelines will be followed to minimize erosion and sedimentation, as is recorded in the Project Design Features table on pgs. 16-17 in the EA. [ID#43]

Concern: [Seq#42]

Commenter states that the buffers set for Lake Tarleton exceed what is required from Forest Plan and State Best Management Practices and is reducing the potential vegetation management opportunities available in the area. [ID#44]
Response: [Seq#42]

NEPA document explains dispersed recreation and public comments considered for increasing buffer beyond minimum state and federal requirements, this is at the discretion of the decision maker.

[ID#44]

Concern: [Seq#43]

Commenter questions the statement from the Consequences of No Action section that without a forested buffer along Lake Katherine water quality will continue to be low and asks for further information as to how the Forest Service knows the water quality in Lake Katherine is poor. [ID#45]
Response: [Seq#43]

It has been well documented that larger forested buffers benefit water quality by slowing and filtering stormwater runoff and providing shade. Increasing the width of a buffer strip improves water quality by lowering sedimentation, decreasing the loading of nutrients (including phosphorus), lowering water temperature, and increasing the concentration of dissolved oxygen. The Forest Plan recommends a 75-foot wide Riparian Management Zone around lakes to maintain a relatively continuous forest canopy for the protection and maintenance of water quality, dead wood recruitment, hydrologic function, wildlife habitat, and scenic values (pp 2-24 to 2-25). This guideline is not being met on the northeastern edge of Lake Katherine.

The New Hampshire Department of Environmental Services (NHDES) has sent us all available water quality data for Lake Katherine. While all recent dissolved oxygen data is well above the standard of 5.0 mg/l, there have been some instances of low dissolved oxygen and high water temperatures (>75° F) over the years during the summer. While this isn't uncommon during the summer in shallow waterbodies, a wider buffer strip may improve these numbers.

Additionally, NHDES notes that phosphorus has often fluctuated above levels that are desirable for an oligotrophic lake. Addressing the problematic boat launch while also allowing the buffer strip to grow up along the adjacent shoreline could cut down on how much phosphorus ends up in the lake.

Because the northeastern shoreline of Lake Katherine does not have an adequate vegetated buffer, there has been less accumulation of large woody debris into this section of the lake compared to where the shoreline is forested. The Forest Service counted how many pieces of wood five inches in diameter or greater existed in the littoral zone in the unbuffered section of the lake and compared that to the rest of the lake. The difference was stark: 39 pieces of wood per linear mile in the unbuffered section versus 146 per linear mile along the rest of the lake. Therefore, we are proposing to add large pieces of wood to mimic the natural recruitment of large wood to the lake that would be taking place if a proper forested buffer were present.

The Forest Service acknowledges the phrase "poor water quality" might be extreme in describing Lake Katherine. This language will be clarified in the final EA.

[ID#45]

Concern: [Seq#44]

Commenter ask if the WMNF has done a 3-D modeling of it's Riparian areas and what steps the WMNF is taking to ensure there is not an influx of cyanobacteria in WMNF waterbodies. [ID#46]

Response: [Seq#44]

For the response to the cyanobacteria concern, see also C/R #40.

The White Mountain National Forest addressed the management and protection of riparian areas in the 2005 revision of the Land Management Plan. Guidelines were developed based on the latest science much of which is summarized in "Riparian Management in Forests of the Continental Eastern United States (Verry et.al., 1999). The riparian management guidelines in the Forest Plan are already based on 3-dimensional assessments as described in Swanson et.al. (1982) and also in Verry et.al. (1999). Forest Plan Guidelines were developed to prevent accelerated warming and sedimentation, and to ensure a continual source of woody debris into aquatic systems. Forestry practices on the WMNF also must follow 2005 Best Management Practices for Forestry (BMP's) which were developed to protect water quality. These BMP's were developed with the assistance of NHDES staff. While oligotrophic lakes can experience cyanobacterial blooms, the risk comes from changing land uses. As Rein et.al. (2021) states, the risk is changing forested catchments to agricultural use or urban landscapes. Silvicultural treatments by the WMNF in the Lake Tarleton drainages will maintain these catchments as forested. Treatments will result in natural reforestation as compared to deforestation which coverts forests to non-forest uses. [ID#46]

Concern: [Seq#45]

The dispersed campsites along Tarleton need to be properly maintained and managed. [ID#47]

Response: [Seq#45]

The primitive dispersed campsites along the shore of Lake Tarleton are not formally recognized as Forest Service recreation areas, but are monitored and periodically maintained by Forest Service staff. [ID#47]

Concern: [Seq#46]

There is no reason to log this area when there are so many other areas on the forest to log. [ID#48]
Response: [Seq#46]

The Lake Tarleton Habitat Management Unit (HMU) is one of many HMU's on the WMNF that is managed for the goals and objectives starting on page 1-20 of the Forest Plan. Reference Comment/Response 116 for a summary of the process of how silvicultural treatments are determined. The goals and objectives of the Tarleton IRP align with those in the Forest Plan which move the WMNF toward the stated desired future condition. [ID#48]

Concern: [Seq#47]

Commenters feel that the Lake Tarleton HMU being designated as MA 2.1 was done in error and is not the proper MA for the area. [ID#49]
Response: [Seq#47]

The area around Lake Tarleton has a history of being harvested (EA, pg. 7) and was decided during forest plan revision to designate the area as MA 2.1, general forest management based on that management history. [ID#49]

Concern: [Seq#48]

The prescribed vegetation management treatments are in centuries old old-growth forests that will take centuries to recover. [ID#50]
Response: [Seq#48]

All treatment units in the project area were inventoried and do not meet the Old Growth Forest criteria listed on page 21 of the Abbreviations, Acronyms, and Glossary section of the White Mountain National Forest Land and Resources Management Plan. [ID#50]

Concern: [Seq#49]

Project is inconsistent with State BMP's and State/Federal Law [ID#51]
Response: [Seq#49]

The Tarleton IRP is in compliance with all applicable environmental laws and regulations, and will incorporate all state and federal core BMPs (EA, p. 16-17). Commenter does not indicate which laws and

state BMPS the WMNF is allegedly breaking with the proposed Tarleton IRP. [ID#51]

Concern: [Seq#50]

Commenter requests the forest service consider environmental impacts to the projects during the NEPA process. [ID#52]

Response: [Seq#50]

NEPA requires that federal agencies consider and disclose the potential effects of their actions on the human environment, as well as ensure compliance with other applicable environmental laws and regulations including the National Historic Preservation Act and the Endangered Species Act. The Environmental Assessment discloses the potential environmental impacts resulting from the proposed action. [ID#52]

Concern: [Seq#51]

Statement of support for the project from New Hampshire Timberland Owners Association. [ID#53]

Response: [Seq#51]

No response required [ID#53]

Concern: [Seq#52]

Project activities will lead to the introduction and spread of invasive species. [ID#54]

Response: [Seq#52]

The Tarleton Project Non-Native Invasive Species (NNIS) Risk Assessment describes and maps known invasive species locations; discloses and analyzes anticipated effects of the project on NNIS; assigns an overall risk level for the potential spread and establishment of NNIS; and identifies applicable Forest Plan Standards and Guidelines, Standard Operating Procedures, and project specific Design Features to control and limit the spread of NNIS in the project area. Most invasive infestions in the project area occur along roads or edges of openings; there is one proposed harvest unit where two NNIS are widely scattered under a forest canopy.

Any invasive treatments within the Tarleton project area would be carried out as part of the WMNF Forest-wide Invasive Plant Control Project, which identifies infestations requiring control work prior to implementation of projects across the Forest based on priority and need (i.e., threat level and risk of

spread). This annual prioritization of control work under the Forest-wide Control Project will include a plan for addressing control needs in the Tarleton project area before or during implementation. Planned control work is just one aspect of preventing the spread of invasives within the project area; Standards, Guidelines, Standard Operating procedures, and design features include numerous strategies designed to prevent the introduction or spread of invasives, such as equipment cleaning, gravel pit inspections, and use of native plants in revegetation efforts.

The WMNF Control Plan EA discusses how the Forest follows an Integrated Pest Management (IPM) based approach to controlling invasive species, which is fundamentally about using multiple complimentary strategies. The Control Plan identifies specific non-native invasive species targets on the Forest, and applicable preventative measures, and control strategies and techniques. Manual control techniques and application of herbicides are both important strategies for effective control of NNIS. The Control Plan evaluated risks and effects of specific herbicides to humans, soils, aquatic systems, invertebrates and other wildlife, and authorizes the use of three herbicides on the Forest. When herbicide applications are warranted, the WMNF almost exclusively uses spot foliar application methods or cut-stump applications according to the required herbicide label directions. The applications are very targeted to individuals of the invasive species, and involve very limited amounts of herbicides (since the infestation sizes of invasive species on the WMNF are relatively small). We follow all applicable federal and state laws and regulations regarding application of herbicides, including obtaining an annual Special Permit from the NH Division of Pesticide Control and required setbacks from public water supplies and surface waters. Herbicides used in the vicinity of water or wetlands are formulated for use near aquatic systems (that is, they are relatively immobile, will not readily leach offsite and into aquatic systems, and quickly biodegrades naturally on-site). The Forest Wide Control Plan EA concluded that by following an IPM approach, and all applicable federal and state laws and regulations, that risks to humans, water quality, wildlife and other environmental risks from use of the three authorized herbicides are vary small or negligible.

The improvements to the boat launch area on Lake Katherine will allow for launching of canoes and kayaks and will not be motor boat accessible, thereby limiting the potential introduction of Eurasian Milfoil or other aquatic invasives into the lake. Nonetheless, an educational kiosk will be installed and will include aquatic invasive prevention signs, and the District will explore opportunities to establish a lake host program that includes Lake Katherine (EA, pg. 17).

[ID#54]

Concern: [Seq#53]

Stream crossing at public access areas should be improved. [ID#55]

Response: [Seq#53]

The Forest does not recognize non-system trails and therefore does not invest in stream fords or improvements to features on these trails. New trail development is restricted by the Forest Plan. A no net gain policy is in effect whereby to add new trails to the system, existing trails must first be

decommissioned. The WMNF prioritizes the development of new trails based on highest need relative to visitor use and resource concerns. [ID#55]

Concern: [Seq#54]

ATC concurs with the WMNF findings that the proposed activities will have no measurable impact on the AT corridor viewshed. [ID#56]
Response: [Seq#54]

No response required [ID#56]

Concern: [Seq#55]

Incorporate the Tarleton area into the next Forest Plan revision to guide all future management decisions. [ID#57]
Response: [Seq#55]

The Tarleton HMU will be included in the next forest plan revision, as will all areas of the WMNF. The public will have multiple opportunities to be involved in the forest plan revision process. [ID#57]

Concern: [Seq#56]

Project will be the starting point for corporations to take advantage of untouched lands for development projects. [ID#58]
Response: [Seq#56]

The goals and objectives of the Tarleton IRP include increasing the species and age class diversity of forested stands in the project area. The project area is in MA 2.1 lands and will continue to be sustainably managed as such. The WMNF has no control over development or other activities on private land surrounding the project area. [ID#58]

Concern: [Seq#57]

Statement of support and like-minded goals and objectives from the Society for the Protection of New Hampshire's Forests. [ID#59]
Response: [Seq#57]

No response required [ID#59]

Concern: [Seq#58]

It is difficult using the online form submission tool to attach helpful documents or visual aids the commenter may want to submit. [ID#60]
Response: [Seq#58]

Commenters using the online commenting form have the option to attach other documents along with their comment. In the case that the document they wish to submit exceeds the online submission form's capacity, commenters can always send the responsible official the documents directly, by email attachment or hardcopy mailing. [ID#60]

Concern: [Seq#59]

Comments from previous comment periods have gone unacknowledged and/or unaddressed. [ID#61]
Response: [Seq#59]

Federal agencies may address comments by modifying the proposed action, considering or adding alternatives, refining the environmental analysis, making factual corrections, or otherwise improving the analysis. For an EA, there is not a requirement to provide a public response to comments. However, the Pemigewasset Ranger District posted a comment summary report to the project website in October 2021. All comments must be considered by the responsible official (36 CFR 218.25 (b)). The WMNF has responded to public comments to date by adding the 100 foot no-cut buffer to Lake Tarleton, reducing the max size of individual groups in group selection units from two acres to one acre, describing herbicide types and methods used on the forest, and adding detail to the scenery effects section in chapter 3. [ID#61]

Concern: [Seq#60]

The Lake Katherine Boat Launch is illegal and should not be improved but decommissioned and have trees planted to protect the soil resource instead. [ID#62]

Response: [Seq#60]

The boat launch at Lake Katherine serves as the primary access point to Lake Katherine and is consistent with Forest Plan goals and objectives pertaining to recreation opportunities on the WMNF. Recreation demands here include fishing and access for car-top or hand-launch watercraft for users who desire a small lake experience. Visitation here has resulted in impacts to soil and vegetation due to a lack of barriers and hardened parking surface. The proposed action will include a gravel parking surface to accommodate up to 6 vehicles as well as barriers to address potential impacts from vehicles and recreation users on water quality and the integrity of the shoreline. [ID#62]

Concern: [Seq#61]

Project needs to suspend logging due to the need for mature trees to sequester and store carbon to help slow the global climate change crisis. [ID#63]

Response: [Seq#61]

When considering carbon and climate change in the context of land management activities, it is necessary to consider the overall management objectives associated with a piece of land, the carbon stocks in different pools, and the flows of carbon between these pools. That is to say it is necessary to consider the forest sector carbon cycle in its entirety and not single out individual processes.

The White Mountain National Forest is incorporating the concepts of resistance, resilience and transition in responding to the issue of climate change at the project level. The environmental impacts section of the EA evaluates how the project adapts the forest to climate change. Management proposed in the Tarleton Project can be expected to have short term carbon emissions, and also maintain the Forest as a net carbon sink in the long term, as addressed in the Forest Carbon Assessment for the White Mountain National Forest.

Furthermore, the proposed project w

ould

transfer stored carbon in the harvested wood to the product sector, where it may be stored for up to several decades and substitute for more emission intensive materials or fuels.

This proposed action is consistent with internationally recognized climate change adaptation and mitigation practices.

The Forest has incorporated management actions that help to sustain and conserve ecosystems over the long term and ultimately stabilize the capacity of the forest to retain long-term carbon stocks. The conclusion that the project would increase resilience to climate change by increasing diversity of age class, forest type and within-stand diversity is paired with the conclusion that the project is designed to promote the Forest as a continuing carbon sink. This may indeed involve short term reductions in carbon due to disturbance facilitated by the project (see WMNF Carbon Assessment, section 5.0) but such

reductions due to disturbance have to be considered alongside the long-term management of the forest as a continuing carbon sink, with greater structural diversity, greater within-stand diversity of species, species composition that is better aligned with Forest Plan objectives, and continuing carbon uptake from young forests.

[ID#63]

Concern: [Seq#62]

The Forest Service did not consider the scenery impacts from the top of Mount Piermont [ID#64]
Response: [Seq#62]

Mount Piermont is not eligible to be considered as a viewpoint for a federal scenery analysis since it is on private land and therefore not considered to be a publicly accessible area. [ID#64]

Concern: [Seq#63]

Commenters disagree with intensity factor #4 that the project is not "highly controversial" and have a petition with over 1,200 signatures supporting that claim. [ID#65]
Response: [Seq#63]

Controversy relates to scientific controversy, not social controversy. All submitted articles by commenters they claim refute the project purpose and need are not comparable due to the articles studying a different ecosystem in a different part of the country or in some cases a different country altogether, or articles that refer to actions on private land that do not adhere to the same laws and regulations as the U.S. Forest Service, therefore the Forest Service has considered the proposed action and all potential effects based on the best science available. The WMNF uses multiple tools to determine whether the project goals and objectives were met, including stand exams post implementation and monitoring. Monitoring is a tool to assess the effectiveness of Forest Plan implementation; the results of monitoring do not necessarily affect the purpose and need for any future proposed projects, although our current knowledge informs our effects assessments and design features for the proposed activities. Monitoring is required under the Forest Plan, and monitoring reports are available online (https://www.fs.usda.gov/detail/whitemountain/landmanagement/planning/?cid=STELPRDB5187780). For example, regarding wildlife alone, there are countless scientific papers that have been published, both locally and regionally, that document the effects of timber harvest activities on various wildlife species. We use this information to inform management decisions. It is not necessary to monitor every stand pre-and post-harvest to be able to make a reasoned conclusion about effects to many species. The WMNF is involved with ongoing wildlife surveys in countless ways including direct on the ground

surveys, collaboration with our research branch or other research institutions, ongoing work at the two Experimental Forests (Hubbard Brook and Bartlett), State agencies, and other non-profits agencies. For example, we have been monitoring birds at low elevation and high elevation sites for over twenty years. [ID#65]

Concern: [Seq#64]

There is already plenty of early successional habitat on private land and made with natural disturbances, there is no need for a vegetation management project to create more. [ID#66]

Response: [Seq#64]

The Forest Service has no control over land-based decisions on other ownerships and does not consider these lands in developing habitat composition goals. Early successional habitat is needed to maintain a balanced set of forest conditions, along with young, mature, and old forests for a broad diversity of species over time. Maintaining early successional habitat in permanent wildlife openings ensures these areas will not develop into young forests. Creating early successional stands that are then left to grow into young stands maintains temporal balance. [ID#66]

Concern: [Seq#65]

Commenters suggests that all vernal pools be buffered for habitat protection prior to project implementation, and that the EA does not discuss the protection measures for vernal pools adequately. [ID#67]

Response: [Seq#65]

The Forest Service would follow the Guidelines set forth in the Forest Plan (pp. 2-24 to 2-25) regarding the buffering of vernal pools. Specifically, no tree cutting or other timber harvest would occur within 25 feet of a vernal pool. From 25 to 75 feet from a vernal pool, tree cutting would be permitted, but would be designed to maintain a relatively continuous forest canopy. In addition, the Forest Service has added a project-specific design feature to protect vernal pools and other wetlands in one particular area that has a high density of these habitats (measure SS-1, p. 16 of the EA).

All timber harvests would occur in the winter when the ground has adequate snow cover or the soil is frozen. This limits effects to both upland and lowland habitats. In addition, it minimizes the chance for direct effects to reptiles and amphibians while they are present and hibernating in their upland habitats. [ID#67]

Concern: [Seq#66]

Comments that list several different resources that will be negatively affected by the project. [ID#68]
Response: [Seq#66]

For response to project effects on wildlife, see C/R # 3

For response to project effects on area viewsheds, see C/R # 26

For response to project effects on water quality, see C/R # 34

For response to project effects on runoff, see C/R # 35

For response to project effects on climate change, see C/R # 63

[ID#68]

Concern: [Seq#67]

The science that is being used to support the proposed activities of the Tarleton IRP is outdated and not the best available science pertaining to healthy forest sustainability, and/or the agency is ignoring best available science that counters the goals and objectives of the Tarleton IRP. [ID#69]
Response: [Seq#67]

The commenters have not presented any scientific articles to support their claims, see C/R # 65, no further response required. [ID#69]

Concern: [Seq#68]

The Tarleton IRP is being used to create hunting opportunities in the area which runs counter to the agency's mission. [ID#70]
Response: [Seq#68]

The WMNF acknowledges that project activities will attract game species such as deer, moose, grouse, bear, and turkey. However, the main goal of vegetation management on the White Mountain National Forest is to "manage vegetation using an ecological approach to provide both healthy ecosystems and a sustainable yield of high quality forest products, with special emphasis on sawtimber and veneer." FP, pg. 1-17. The project helps the forest move towards this goal. [ID#70]

Concern: [Seq#69]

Commenter suggest managing the apple orchard without the use of certain heavy equipment such as backhoe and excavator [ID#71]

Response: [Seq#69]

The use of heavy equipment to expand the existing apple orchard is necessary to prepare the ground for mowing in the future. This would be a one-time disturbance. All future maintenance activities would involve tractors and hand tools. [ID#71]

Concern: [Seq#70]

The Appalachian Trail Conservancy and other commenters stating they do not support any timber harvesting in MA 8.3 lands or close to MA 8.3 lands such that it would compromise the experience of hiking the trail. [ID#72]

Response: [Seq#70]

Per the forest plan, timber management in MA 8.3 is allowed when MA is adjacent to MA 2.1, so long as it does not have any effect on the footpath. The public had extensive opportunities at the time to comment on the MA designations and the standards and guidelines written for MA 8.3. All timber management is scheduled to be conducted in winter strictly during frozen conditions when the user levels along the AT are relatively low, and no timber management will occur in the foreground of the AT corridor (EA, p. 21). [ID#72]

Concern: [Seq#71]

The purpose and need should reflect alternatives that would work more towards meeting Forest Plan direction and lessen resource impacts. [ID#73]

Response: [Seq#71]

The purpose and need already addresses the goals and objectives of the forest plan, and is the best option for forest management of this area at this time. The purpose and need guides alternatives, if any are identified, not the other way around. The silvicultural prescriptions for the project area evaluated the amount of mature, young, and regeneration forest in the project area and treatments were created based on that evaluation. [ID#73]

Concern: [Seq#72]

Lake Tarleton has had a string of issues related to environmental stressors in recent years. [ID#74]
Response: [Seq#72]

Several project design features are included in the proposed action to minimize effects to lake Tarleton, including solely conducting the unit harvest in winter during frozen ground conditions, extending the no cut buffer to 300 feet, abiding by all Forest Plan standards and guidelines and implementing national and state core best management practices. No measurable effect on water quality resulting from this project is expected. [ID#74]

Concern: [Seq#73]

Commenter states that logging large trees will cause an increase to forest floor temperature. [ID#75]
Response: [Seq#73]

This is an anticipated outcome of some of the silvicultural treatments on the Tarleton Project. Woody and herbaceous vegetation should germinate due to the abundance of light, corresponding warming of the forest floor, and increased nutrient cycling in the project area. [ID#75]

Concern: [Seq#74]

Project activities will negatively alter the relationship between Mycorrhizal fungi and the arboreal ecosystem. [ID#76]
Response: [Seq#74]

Soil borne ectomycorrhizal fungi (ECM) are known to provide many ecosystem functions, including decomposition, nutrient cycling and contributing to organic carbon dynamics. Soil fungal communities are shaped by a number of biotic and abiotic factors including forest management. Collado et al. (2020) found that thinning correlated positively with aboveground/belowground ratio of both total and ECM fungal biomass. Lazarek et al. (2015) looked at the effects of partial cutting on ECM and found that areas of dispersed and aggregated green-tree retention were not dramatically different than unharvested forests. Leski et al. (2019) looked at ECM in forest reserves and managed forests, finding that managed forests harbored higher number of fungal taxa than the reserves. Tomao et al. (2019) reviewed the findings of several studies to evaluate the impact of anthropogenic disturbances on forests ecosystem biodiversity conservation. The review reached consensus that traditional clearcutting negatively effects fungal diversity. Fungal diversity conservation does not overpower habitat goals achieved by clearcutting such as increasing age class diversity and maintaining/increasing aspen-birch habitat.

Further, the effects to fungal diversity are mitigated with retention of individual trees, aggregated patches, and live stumps (coppicing). The review also generated "Best forest management practices for fungal diversity conservation" which parallels management in the Tarleton IRP.

-Enhancing stand structural complexity - achieved in single tree selection and/or group selection treatments.

-Promoting the presence of deadwood - slash and non-commercial material from harvested stands is left in or returned to stands and distributed, creating a layer of deadwood.

-Conducting reduced-impact logging - all stands in the Tarleton IRP are planned for winter harvest under frozen conditions that reduce the likelihood of ground scarification and compaction.

-Promoting tree retention forestry - retaining individually dispersed and/or aggregated patches of larger trees.

-Improving landscape heterogeneity and connectivity - wildlife habitat goals listed on page 6 of the EA. [ID#76]

Concern: [Seq#75]

Commenter suggest that the Sentinel Mountain units should be an independent NEPA project because it is too far away from the main project area. [ID#77]
Response: [Seq#75]

All units in this project, including the Sentinel Mountain units, are within the Tarleton Habitat Management Unit (HMU) and are needed to achieve the desired future conditions for wildlife, vegetation, and recreation described in Chapter 1 of the Forest Plan. [ID#77]

Concern: [Seq#76]

Commenter states that logging in general causes soil erosion. [ID#78]
Response: [Seq#76]

The proposed harvest treatments, wildlife opening redesign, apple orchard adoption, and transportation management activities would result in a short-term increase in the amount of non-detrimental soil erosion, compaction, and nutrient cycling in the project area (Soils Specialist Report 2020).

However, by following

BMPs and

the

design features related to this project

,

and

based on monitoring of previous similar projects, no long-term detrimental effects are anticipated. [ID#78]

Concern: [Seq#77]

Commenters state that the proposed vegetation management activities will cause harm to the federally listed northern long-eared bat, which has been reclassified from Threatened to Endangered. [ID#79]
Response: [Seq#77]

The biological evaluation considers potential impacts, including relevant cumulative effects, to the northern long-eared bat and other woodland bat species.

The Forest Service does acknowledge the potential for indirect effects to the northern long-eared bat. The species prefers to roost and forage under a closed canopy, and therefore large open areas created by timber harvests may be unsuitable as roosting habitat for many years. There are a number of Standards and Guidelines in the Forest Plan designed to protect bats and their habitats from the effects of timber harvest (p. 2-35 to 2-36).

There are no known maternity colonies for the northern long-eared bat in the project area. However, if there is a maternity colony in the vicinity, the removal of roost trees could alter the distribution of bats on the landscape when they return from hibernation. Northern long-eared bats are not believed to be limited by the availability of roost trees. If northern long-eared bats do roost within the project area, they would find ample roost trees remaining after timber harvests have been carried out. See page 10 of the Biological Evaluation for a more detailed explanation.

It is worthwhile to note that since all timber harvest activities would occur during the winter, we do not anticipate any direct effects to individual northern long-eared bats.

Initially, it was determined the Proposed Action would have no effects beyond those previously disclosed in the programmatic biological opinion on implementing the final 4(d) rule dated January 5, 2016. Streamlined consultation with the USFWS under Section 7 of the Endangered Species Act was completed in February 2021. However, on November 30, 2022, the USFWS issued a rule to reclassify the northern long-eared bat as endangered. This action removes the final 4(d) rule, because such rules only apply to species designated as threatened. As a result, consultation has been reinitiated and a Biological Opinion is anticipated from the USFWS by early 2023. Any reasonable and prudent measures and terms

and conditions that result from the Biological Opinion would be incorporated into the Proposed Action to ensure compliance with the Endangered Species Act.

The Biological Evaluation has been updated to account for the change in the northern long-eared bat's listing status. The effects analysis for the species was updated to incorporate new information from the 2022 Species Status Assessment Report published by the USFWS. [ID#79]

Concern: [Seq#78]

The Pemigewasset Ranger District did not make enough of an effort to inform seasonal users of the area, outreach beyond those that live adjacent to the area, or did not publish the project notice with CEQ or the Federal Registar. [ID#80]

Response: [Seq#78]

The Pemigewasset Ranger District (Pemi district) conducted public involvement outreach for the Tarleton IRP in accordance with 36 CFR 218.24: Notification of opportunity to comment on proposed projects and activities. All adjacent landowners were contacted during initial proposal development with a hardcopy newsletter at the mailing address documented on the parcel record for their property. The project website was created in late 2019 and the project was added to the WMNF Schedule of Proposed Actions (SOPA) on October 1, 2019. Both the project website and the SOPA are accessible to all members of the public. In addition to the requirements outlined in 36 CFR 218.24, the Pemi District visited both Warren and Piermont Board of Selectmen during proposal development and during the first 30-day comment period of the Draft EA, hosted an in person open house during proposal development in November 2019 at the Warren Town Hall, and hosted a virtual public meeting during the first 30-day comment period in July 2021. Pemi district foresters also made themselves available to conduct project area tours to the Lake Tarleton Association and any other interested parties in November 2021.

EA level projects are not required to post on the Federal Register. Projects required to post on the Federal Register are projects that require preparation of an Environmental Impact Statement or projects where the Chief is the responsible official. Neither of these requirements pertain to the Tarleton IRP.

CEQ is responsible for developing procedures and regulations for NEPA that all federal agencies are required to follow. CEQ is not a platform to deliver public notice for individual NEPA projects. [ID#80]

Concern: [Seq#79]

Commenter suggest that after project implementation the Forest Service should ensure the proper seed bed takes root and does not get out competed. [ID#81]

Response: [Seq#79]

The project area receives an abundant amount of annual rainfall, enough to maintain soil moisture and to support natural reproduction, both sexual and asexual. Artificial reproduction (planting) is not necessary to achieve the goals and objectives listed in the "Need for the Proposal" section of the environmental analysis. If they have not already, seedlings and saplings will establish on their own and outcompete herbaceous vegetation within a few growing seasons. Stocking surveys done post-harvest have continually found that early successional forest created through vegetation management are adequately stocked with the desired species targeted for regeneration (2018 Monitoring Report, pgs. 37-48). [ID#81]

Concern: [Seq#80]

Commenter states that endangered ferns exist around Tarleton and the project will cause harm to the fern community. [ID#82]

Response: [Seq#80]

No federally listed or Regional Forester Sensitive plants occur in the project area (BE, pgs. 27-42). There are populations of rare ferns and other plants in the larger area beyond the project area, but these will not be affected by any proposed activities associated with this project. [ID#82]

Concern: [Seq#81]

Commenters concerned that Bald Eagles will lose nesting trees due to the project. [ID#83]

Response: [Seq#81]

Bald eagles are not known to nest in the project area. However, the Forest Service acknowledges there is adequate breeding habitat in the project area (i.e. large bodies of water bordered with tall trees). The 100-foot no-cut buffer around Lake Tarleton would preserve an abundance of potential nest trees for bald eagles. In addition, the following project-specific design feature has been included in the Draft Environmental Assessment to protect potential nest trees near Lake Katherine (measure SS-2, p. 16).

The Forest Service worked with New Hampshire Audubon to ensure the project would not result in the loss of bald eagle nesting habitat. [ID#83]

Concern: [Seq#82]

Commenters are concerned that the noise and changes to water quality caused by the project activities will displace Common Loons from Lake Tarleton. [ID#84]

Response: [Seq#82]

All logging activities would occur during the winter when common loons would not be present on Lake Tarleton. Therefore, noise associated with logging activities would have no impact on individual loons.

The Forest Service and its contractors shall implement appropriate national core and state best management practices to minimize soil loss and erosion and to protect water quality. In addition, no trees would be removed from within 100 feet of the Lake Tarleton shoreline. Given these design features, measurable changes to water quality that might affect the common loon are not anticipated.

The Forest Service consulted the Loon Preservation Committee during the planning of this project. [ID#84]

Concern: [Seq#83]

Commenter opposes harvesting beech trees due to their importance with the ecosystem and wildlife. [ID#85]

Response: [Seq#83]

American beech is the most abundant tree species in the project area due to past management, shade tolerant characteristics, and the effects of beech bark disease. Beech bark disease effects over 99% of American beech trees on the white mountain national forest by causing stress. Initially, this causes the tree to grow slowly and inhibits its ability to produce regular and abundant nuts, eventually killing the tree. The stress response to beech bark disease is to re-sprout new stems from their root systems, which impacts the abundance of beech and creates too much shade for other species to establish and recruit. This project does not aim to eliminate beech and beech will still be the most common species after implementation. Instead, beech may be harvested or in an area with other species also being harvested by silvicultural methods needed to meet the goals and objectives listed in the "Need for the Proposal" section of the environmental assessment. If disease free beech trees are encountered, they will be retained for biodiversity. [ID#85]

Concern: [Seq#84]

Commenters state that the harvesting will release carbon stored in the soil, will harm the integrity of the soil, the soil carbon loss was not discussed in the Climate Change section of the EA, and inquires about the effect of soil carbon loss during heavy rain and/or drought events. [ID#86]

Response: [Seq#84]

Outside of a very few situations, forest management activities conducted properly (ie no major soil disturbance) have not been shown to result in significant loss of carbon from the soil. A portion of carbon from harvested stems remains stored in wood products, and slash decomposes slowly. As long as land use remains forest, those losses are offset. These comments do not reflect the relevant time scale or the current state of knowledge; Effects on soil carbon are generally small and transient. In the south where there is blading, ripping, and subsoiling, you can see losses. Detectable effects are rarely found outside of that; Effects on soil carbon are generally small and transient (Nave et al, 2010).

Submitted articles reference soil studies from varied locations which are not applicable to soil types or project activities in the project area. [ID#86]

Concern: [Seq#85]

The streams that feed Lake Tarleton need to have more data collected and analyzed, particularly during springtime, before the project can move forward. [ID#87]

Response: [Seq#85]

Research in the White Mountain National Forest has shown that water quality changes are not measurable at harvest levels below approximately 20% basal area removal in a watershed, and water quantity changes are not measurable at harvest levels below approximately 25% basal area removal in a watershed. For this project, the maximum basal area removal in a watershed would be 16.9% and the basal area removal for the Lake Tarleton watershed would be 6.1%. Furthermore, Forest Plan Standards and Guidelines will be followed and applicable State and National Core BMPs will be implemented to minimize erosion and sedimentation. Therefore, no measurable changes to water quality or quantity are expected (EA, p. 19). [ID#87]

Concern: [Seq#86]

Commenters disagree with the WMNF finding of no significance in regard to intensity factor #9 due to the newly eligible up-listing from Threatened to Endangered for the Northern Long-Eared Bat. [ID#88]

Response: [Seq#86]

See C/R #79, no further response required. [ID#88]

Concern: [Seq#87]

Project activities, including clear cutting will deny access to hiking areas and negatively affect the hiking experience in the project area. [ID#89]

Response: [Seq#87]

The White Mountain National Forest manages and formally recognizes 1200 miles of trail. Project design is in compliance with Forest Plan direction in regard to vegetation management in the Appalachian Trail corridor. In addition to these miles, there are numerous additional miles including historic non maintained and unauthorized trails on the National Forest including many of the 1921 Tarleton Club Trails. The Forest Plan does not recognize trails that are not formally included in the WMNF trails system. The Forest Plan limits the amount of new trail constructed and designated as part of the Forest trail system and we balance needs for new trail by decommissioning trails that are no longer sustainable or causing damage to other resources. As a multiple use agency, the Forest Service strives to balance competing uses for the needs of present and future generations.

[ID#89]

Concern: [Seq#88]

Commenter states that cutting will be done within 100 feet of Lake Tarleton's shoreline and that will have a negative effect on the hiking experience in the area. [ID#90]

Response: [Seq#88]

The responsible official has approved a 100-foot no-cut buffer along Lake Tarleton specifically to preserve the dispersed recreation experience in the area (EA, pg. 16). [ID#90]

Concern: [Seq#89]

Commenter states that winter recreation activities are abundant in the area and doing the project during the winter will have negative effects on those activities. [ID#91]

Response: [Seq#89]

Although the USFS does not manage developed winter recreational opportunities in this area, it is recognized that opportunities for primitive undeveloped recreation do exist in the project area. The preeminent recreational trail in this area is the Appalachian trail; however, the nearest treatment units are more than 500 feet from the trail in any location. Winter users of the Appalachian trail should be minimally affected. Other winter recreational users in some places at some times seeking naturally silent activities may experience some disturbance during periods of activity. [ID#91]

Concern: [Seq#90]

The ATC is concerned that impacts to users of the Ore Hill tentsite were not considered during project analysis. [ID#92]

Response: [Seq#90]

The Ore Hill Tent-site is on MA 8.3 lands adjacent to the Sentinel Mountain Area treatment units, all treatment units are located on MA 2.1 lands. The prescription for these units has been reduced in scope and consists of group selection, an improvement cut, a two-acre clear cut and a unit reserved for seed trees. Winter visitors to the tent-site can expect some noise disturbance, mostly midweek during daylight hours. Visual and noise disturbance to Ore Hill tent-site will be dampened by the MA 8.3 lands between the Appalachian Trail and the treatment units on MA 2.1 lands, and the Ore Hill Tent-site itself is about 1000 feet away from the nearest proposed unit. [ID#92]

Concern: [Seq#91]

Commenter request that the WMNF award the contract for Tarleton to logging companies that have a positive history of abiding by state best management practices. [ID#93]

Response: [Seq#91]

Comment is outside the scope of the decision to be made. Federal law requires us to solicit bids from all interested bidders so long as they have not been officially debarred from bidding. The Regional Headquarters does a thorough background check on the winning bidder before awarding the contract. A district timber sale administrator will be on the ground during implementation to ensure all project design features and forest plan direction is followed. [ID#93]

Concern: [Seq#92]

SPNHF comment that the project is consistent with activities recommended by the IPCC to combat the effects of climate change. [ID#94]

Response: [Seq#92]

No response required [ID#94]

Concern: [Seq#93]

SPNHF suggests that the WMNF use interpretive signage for educational and informative purposes during project implementation where recreational activities and vegetation management may intersect. [ID#95]

Response: [Seq#93]

The Forest Service appreciates the suggestion and will try to work interpretation and education signage into the timber sale, especially where vegetation management and recreation uses intersect. [ID#95]

Concern: [Seq#94]

commenters state that the project will marr the landscape which will make it unattractive to tourists, dissuade any from returning, and thus negatively affect the local economy. [ID#96]

Response: [Seq#94]

Based on the visual analysis conducted by the Forest Service the visual character of the project area is not expected to change much and will likely not be noticeable to most people. From some viewpoints observers may notice slight changes to color, texture and shadows and possibly a small amount of ground visibility for a short time. Based on this the recreation experience is not expected to be significantly affected for seasonal users of the area. [ID#96]

Concern: [Seq#95]

Opportunities exist to expand and connect the trail network in the area, including to the AT. [ID#98]

Response: [Seq#95]

Additional trail construction is outside the scope of the current proposal. In addition, new trail development is restricted by the Forest Plan. See C/R # 55 for further information to hiking trail limitations on the WMNF. [ID#98]

Concern: [Seq#96]

Commenter states the proposed action would involve adopting and maintaining one apple orchard while not managing four others. [ID#99]

Response: [Seq#96]

The Forest Service is aware of other apple orchards within the project area. However, it is not feasible to perpetuate all existing apple orchards within the project area or on the WMNF as a whole. Moreover, the Forest Plan limits the acreage of land that can be maintained as wildlife openings. Historic apple trees not actively managed for wildlife will remain in their current condition. [ID#99]

Concern: [Seq#97]

Commenter states that EAB will cause independent damage to the area and the EA needs to be revised to review this issue. [ID#100]
Response: [Seq#97]

To date, emerald ash borer (EAB) has not been detected in Piermont or Warren, although it has been detected in the nearby towns of Wentworth and Orford. Ash species are well distributed across the project area in small quantities, typically encompassing less than 5% of stand composition. Without treatment, EAB will likely cause individual tree mortality of ash species that will emulate small scale disturbance patterns described in the Consequences of No Action section on pages 7-8 of the EA. Silvicultural prescriptions within the Tarleton Project aim to increase resiliency by regenerating ash species where suitable. [ID#100]

Concern: [Seq#98]

Commenter states that Charleston and the spur roads in the area should not be improved and should be left inaccessible. [ID#101]
Response: [Seq#98]

The purpose of proposed reconstruction for Charleston Road and all other roads in the project area is for facilitation of other project activities as well as long term site management and resource protection. The Pemigewasset ranger district is managing unauthorized access by proposing gate installation at several points in the project area, including both ends of Charleston Road and both access roads where illegal dumping is occurring. The illegal dump sites are currently being cleaned up; the proposed activities should minimize such activity in the area in the future. [ID#101]

Concern: [Seq#100]

Commenter suggest the land be managed to benefit the ecosystem to the best extent possible. [ID#103]
Response: [Seq#100]

Attaining maximum potential biomass is not one of the goals and objectives for vegetation management according to the forest plan (Forest Plan, pg. 1-21). The primary goal of the vegetation management proposal is to increase wildlife habitat diversity and improve forest health, vitality, and resiliency, which have similar outcomes to what the commenter wishes to see come from area management. Effects from the proposed action on vegetation, climate change, water quality, and recreation can be found in the "Environmental Effects" section of the EA. [ID#103]

Concern: [Seq#102]

Commenters state the project will negatively affect boreal bird species that have habitat in the area, or that the EA does not discuss these species and effects adequately. [ID#105]

Response: [Seq#102]

The Canada warbler is not listed under the Endangered Species Act nor is it listed as a Regional Forester Sensitive species; therefore, it was not addressed in the Biological Evaluation. Canada warbler breeding habitat (wet areas with limited canopy closure and thick understory growth) are not areas likely to be harvested. Moreover, there is evidence that timber harvests can enhance or create Canada warbler breeding habitat (Becker et al. 2012, Harding et al. 2017).

The Forest Service does acknowledge that project activities would affect the composition of breeding birds. Harvested areas would favor species that prefer early successional habitats, however since most of the HMU would not be harvested, there would remain an abundance of habitat available for species that prefer mature forest.

It is worthwhile to note that since all timber harvest activities would occur during the winter, we do not anticipate any direct effects to neotropical migrant birds.

References:

Becker, D.A., P.B. Wood, and P.D.Keyser. 2012. Canada Warbler use of harvested stands following timber management in the southern portion of their range. Forest Ecology and Management 27:1-9. Available: https://www.sciencedirect.com/science/article/pii/S0378112712001739?via%3Dihub

Harding, C., L. Reitsma, and J.D. Lambert. 2017. Guidelines for managing Canada warbler habitat in the Northeast and Mid-Atlantic regions. High Branch Conservation Services, Hartland, VT. Available: http://highbranchconservation.com/wp-content/uploads/2017/02/Guidelines-for-Managing-Canada-Warbler-Habitat-in-the-Northeast-and-Mid-Atlantic-Regions-2017.pdf [ID#105]

Concern: [Seq#104]

Commenter thinks group selection units are spread over the entire project area and the sheer amount of skid trails and access roads needed to reach these group selections will cause major damage to the

rest of the forest. [ID#107]
Response: [Seq#104]

Skid trails are laid out by the Forest Service in conjunction with the purchaser. The Forest Service must approve all skid trails before they are cut out and used. The Forest Service follows all Best Management Practices during skid trail layout and use. When trail in use the Forest Service works with the purchaser to make sure there is no unacceptable resource damage. When skid trail use is done the Forest Service works with the purchaser to restore skid trails where needed including waterbars and seeding. [ID#107]

Concern: [Seq#105]

Commenter states that timber management is not a great help to the economy and does little to create jobs does to technological advancements. [ID#108]
Response: [Seq#105]

Timber management is a component of the greater economy. Timber management will provide to the local town 10% of the stumpage through the New Hampshire Yield Tax. Twenty-five percent of all White Mountain National Forest revenue is shared with local communities that have national forest land through the Secure Rural Schools Program. Timber sales provide direct employment to loggers and truckers, raw materials to local sawmills, firewood for local home heating. Supporting businesses are benefitted from fuel sales, mechanical services, and other types of services and sales. [ID#108]

Concern: [Seq#106]

Commenter inquires about the productivity of the apple orchard proposed to be adopted by the WMNF, the accuracy of the term "permanent" in regard to forest longevity and cycle, and what percentage of all forest wildlife openings can be considered "naturally" permanent. [ID#109]
Response: [Seq#106]

The Forest Service has not assessed the productivity of the orchard, although we acknowledge that many apple trees on the WMNF are old and relatively unproductive. However, exposing these trees to more sunlight by removing competing vegetation could improve the vigor and stimulate fruit production of some trees. Even if there were no change in fruit production, the larger opening that would result from the proposed activity would serve as valuable habitat for a variety of wildlife. It would also foster other soft mast-producing species, like raspberries.

The term "permanent wildlife opening" is used to described open areas the Forest Service maintains over the long term. These are typically mowed, brushed, or burned every three to five years to maintain their open character. This term does not encompass openings that are created naturally or openings

that are created through timber harvests that are allowed to naturally revegetate. It is true that few open areas, besides managed wildlife openings, on the WMNF remain that way over the long term. Exceptions include some wetlands and the alpine zone.

The Forest Service Final EIS (2005) summarizes the role that natural disturbances play in creating open areas and young forest habitat on the WMNF. As stated in the FEIS (pg. #3-79), an estimated one to three percent of hardwood forests and three to six percent of softwood forests would be in a seedling-sapling stage at any given time under natural conditions. Unlike the permanent wildlife openings managed by the Forest Service, these areas would eventually succeed into mature forests, barring additional natural disturbances.

The Forest Plan includes desired future conditions for wildlife openings on p. 1-21, and the HMU rationale for the Tarleton Project includes an analysis of the difference between the existing and desired future conditions. In addition, the terrestrial habitat management documented cited on p. 6 of the EA provides further background on the need for the creation and maintenance of wildlife habitat, including permanent wildlife openings. These documents inform the need for wildlife habitat management as stated on pp. 8-9 of the EA.

References:

United States Department of Agriculture Forest Service. 2005. Final Environmental Impact Statement for the White Mountain National Forest Land and Resource Management Plan. Laconia, NH. Available: https://www.fs.usda.gov/detailfull/whitemountain/landmanagement/planning/?cid=STELPRDB5199941&width=full. [ID#109]

Concern: [Seq#107]

Commenter suggest that forestry management in the project area be restricted to projects that focus on waterbody health and clarity. [ID#110]

Response: [Seq#107]

The wildlife habitat objectives for this project (EA, p. 6) cannot be achieved with minimally intrusive work described in the comment. These objectives benefit wildlife and forest health by improving biodiversity and a more resilient landscape to unknown future stressors, such as insects, disease, and climatic conditions. [ID#110]

Concern: [Seq#108]

Commenters state that the Consequences of No Action section paints a very negative picture of the future forest condition if the project does not occur, and is not consistent with other management area conditions with healthy forest where active forestry is not conducted, and leaving the forest to natural

processes is the better outcome than active management. [ID#111]
Response: [Seq#108]

The CONA section is being reviewed and revised for final EA publishing. The HMU rationale will also be published prior to Final EA publishing which has further rationale as to the needs for the project. [ID#111]

Concern: [Seq#109]

Commenters state that there in insufficient analysis done for multiple different resources in the EA, the EA was not written in plain language, the EA was written very generically with not enough detail, a baseline was not established for every resource, the impacts to every resource was not explained, that consistency with standards, values, and desired future conditions was not explained, and how potential impacts to every resource would be avoided was not explained. [ID#112]
Response: [Seq#109]

The EA is written to focus on specific issues identified during early internal screening and throughout the environmental analysis process. No issues with potential significance were identified in association with the proposed action to date. Portions of the EA will be updated and clarified prior to the objection comment period.

[ID#112]

Concern: [Seq#110]

Commenters state that the project is not a true IRP, that was done in a way that adaptive management was not possible, and that resource extraction was the main objective for the WMNF. [ID#113]
Response: [Seq#110]

The Tarleton project is referred to as an Integrated Resource Project, not an Integrated Resource Plan, simply because it includes goals and objectives for multiple resources including timber, wildlife habitat, and recreation.

According to the commenter: "An integrated plan would include actions to manage recreation, monitor invasive species, and remediate biological issues resulting from the recreation." The Tarleton IRP has a recreation management proposal included in the proposed action section. Invasive species monitoring and remediation was conducted under a separate analysis in 2007 (NNIS EA, project website). No biological issues were found during the NEPA effects analysis regarding the Lake Katherine boat launch improvement, invasive species monitoring, informational material on site, and stewardship are all

addressed in the proposed action or design features table in the EA. Future forest management needs beyond the life of the Tarleton project are unknown at this time and will be determined at a later date.

Adaptive management is a tool meant to give project proponents flexibility during implementation if they are unsure of the outcomes for a certain area while implementation is being conducted, similar to a "if X happens, then we will do Y" situation. No adaptive management needs were identified during the NEPA process. [ID#113]

Concern: [Seq#111]

Commenter states that the WMNF analyzed effects on a forest level scale only and that is the only reason that they were able to come to a FONSI, instead of looking at the proper scale based on resource effects. [ID#114]

Response: [Seq#111]

Context and intensity were taken into account for the local area and the forest as a whole. As stated in the EA on pg. 22, the project "would occur over an area totaling less than about one percent of the total acreage within the WMNF. Management actions are anticipated to begin in spring 2023 continuing over a 5- to 10-year period. Based on consideration of past projects, the project is a continuation of similar types of management actions that have occurred for the past 16 years under the current Forest Plan."

The total proposed acreage to be harvested is less than 900 acres, which may not be the total proposed amount decided on during preparation of the Final EA or during implementation. To compare similar projects across the district over the last ten years: Wanosha IRP - 2955 acres, Bowen Brook IRP - 3333 acres, Pemi Northwest - 3642 acres. These project are all similar in activity and scope, and historically have not shown to have significant effects on the human environment due to the forest service following forest plan direction, national core and state best management practices, and project specific design features listed in the EA. Moreover, the project would be conducted over a 5 to 10 year period, so effects would be spread out temporally. Due to these factors, the interdisciplinary team did not find any adverse effects likely to be significant that would warrant further analysis in an Environmental Impact Statement. [ID#114]

Concern: [Seq#112]

Commenter disagrees with intensity finding #3 of the FONSI and claims that the Lake Tarleton area can be considered a "unique feature". [ID#115]

Response: [Seq#112]

The effects to the lakes were considered in the EA effects analysis, effects were found to be de minimus during the analysis. The Lake Tarleton area has not been found to be unique in its features, as there are

several lakes across the forest with a similar landscape (Lower Baker Pond, Basin Pond, Long Pond, Oliverian Pond, Russell Pond). Due to the Forest Service complying with all Forest Plan direction as well as all National Core and State best management practices, as well as project specific design features listed in the EA, no significant effects to the area that warrant further analysis in an environmental impact statement are expected. [ID#115]

Concern: [Seq#113]

Commenter states that the public was not provided sufficient reason for why the treatment types were chosen for the areas they are being proposed, and not enough information as to the desired future condition of the areas based on the treatment types. [ID#116]

Response: [Seq#113]

Before a vegetation management project begins, an inventory of the area of interest is completed in each stand to inform a stand diagnosis, which is defined as the process of examination, analysis, description, and delineation of silvicultural opportunities, limitations, and management options of a stand. This stand level diagnosis provides current conditions such as composition, density, age, forest health, and informs the Habitat Management Unit (HMU) analysis. The HMU analysis summarizes stand composition and compares to potential natural vegetation (PNV) to create habitat management objectives and goals described on page 1-20 of the Forest Plan. A rational for habitat objectives in the Lake Tarleton HMU can be found in the project record. Silvicultural treatments listed on page 10-14 of the Tarleton EA describe the intensity and expected outcome of each treatment. Commercial thinning and improvement cutting intensities are not defined because they are stand specific. Tools such as stocking charts and silvicultural guides are used to determine optimal residual densities given other considerations such as health conditions, composition, age, future goals, etc. Reference Leak et. al 2014 as an example. [ID#116]

Concern: [Seq#114]

Commenter states that the Purpose and Need section states a purpose but not a need for the project that describes the desired future condition. [ID#117]

Response: [Seq#114]

The need for the proposal can be found in the EA on pgs. 5-7. The HMU rationale describes the current condition of the HMU and the desired future condition to be attained through the proposed action, which will be published prior to the Final EA being available. [ID#117]

Concern: [Seq#115]

Commenter concerned that wetland habitat was not considered due to species in wetland habitat not attracting recreation users to the area. [ID#119]

Response: [Seq#115]

The Forest Service acknowledges there may be effects to wetland-dependent wildlife species, primarily in the form of changes to their habitats. However, there are a number of Standards and Guidelines in the Forest Plan that protect wetlands and other water resources and would minimize these effects (p. 2-24 to 2-26 and p. 2-30 to 2-32). There are also several project-specific design criteria in the EA (p. 16-17) that would further protect these important and sensitive wetland habitats.

All timber harvests would occur in the winter when the ground is frozen or has adequate snow cover. This limits effects to both upland and lowland habitats. In addition, it minimizes the chance for direct effects to reptiles and amphibians while they are present and hibernating in their upland habitats.

The silvicultural treatments were carefully planned to ensure that impacts to existing habitats, including wetlands, would be minimized. As documented in the BE, the proposed action would not result in a trend toward federal listing or loss of viability of any RFSS. No wildlife habitat would be impacted to a degree that would threaten any federally listed, sensitive or, by extension, common wildlife species in the affected area. [ID#119]

Concern: [Seq#116]

Commenters state that the cumulative effects analysis was insufficient in spatial boundaries and the spatial boundaries should be extended far beyond the project area to be adequate, and that the effects analysis did not take into account climate change, increased access of Charleston road, or other projects on the Pemigewasset district. [ID#120]

Response: [Seq#116]

Due to the scale and scope of the project, effects to climate change were determined to be minimal (see C/R #63). Spatial and temporal boundaries vary by resource and are recorded in the project record. The improvements proposed for Charleston road include bridge construction and bank stabilization that would reduce current erosion issues that exist along the road. The Forest Service will follow forest plan direction, all national core and state best management practices, and project specific design features in the EA to minimize effects to the human environment. [ID#120]

Concern: [Seq#117]

The ATC does not understand what led to the decision of buffering the AT corridor for the vegetation management piece of the proposed action, which they estimate is about 500 feet, and would like to go on the ground to discuss. [ID#121]
Response: [Seq#117]

The proposed action does not include a 500-foot buffer. Rather, the proposal was modified such that the nearest treatment units to the Appalachian Trail are more than 500 feet away at the Sentinel Mountain area. The recreation section will be modified to clarify this situation. All vegetation management activities in the Sentinel Mountain portion of the project area are entirely within MA 2.1 land. [ID#121]

Concern: [Seq#118]

Commenter asks why there are different buffer lengths for different areas of the project, ie. the 500 buffer on the AT corridor vs the 100-foot buffer along the lake's shorelines. [ID#122]
Response: [Seq#118]

Different buffers around the project area are in place to ensure the conservation of different resources with different needs and sensitivities. In addition, no treatment units are within 500 feet of the Appalachian trail. Since the AT is a nationally recognized trail, there are additional protections in place along this corridor versus the user created trails and camping areas on the back of lake Tarleton, which will have a 300-foot buffer to conserve the recreation resources on the back side of the lake. The 100-foot vegetated buffer along Lake Katherine is needed to establish a forested area between the wildlife opening and the lake, to improve water quality and provide fish habitat. [ID#122]

Concern: [Seq#119]

Commenter states that a silviculturalist he consulted with suggests that the project is a preparation harvest for further, more extensive clearcutting in the future. [ID#123]
Response: [Seq#119]

The wildlife goals and objectives described on pages 1-20 and 1-21 of the Forest Plan cannot be attained in a single entry. As regeneration-aged forests mature into young-aged forests, more regeneration-aged forests will be needed to maintain age class objectives. It is disclosed that it takes up to 70 years for a mature forest to develop from regeneration and thus a long-term objective for some habitats. Promoting lower stocking levels, or reducing density/competition, promotes growth as individual trees are retained and have increased access to resources such as water, nutrients, and growing space while other trees are removed that exhibit defects, disease, etc. that negatively affect overall stand growth.

[ID#123]

Concern: [Seq#120]

Commenter is concerned that the harvest wood will be exported oversees or across national borders and not bought/sold within the local community. [ID#124]

Response: [Seq#120]

Once the purchaser has ownership of the forest products, the Forest Service has no authority over how the purchaser merchandises the wood products or the end product(s). The purchaser has the right to use the wood products as they see fit, and these end products are often determined by local, regional, and global markets and the location of pulp, sawlog, and biomass mills. [ID#124]

Concern: [Seq#121]

Commenter states that overstory removal as a vegetation management strategy is based on outdated science and will lead to a number of issues that the Forest Service will have to dedicate a large amount of time and money towards dealing with if overstory removal is carried out. [ID#125]

Response: [Seq#121]

Dudney et al. 2021 was conducted in the Sierra Nevada Mountain Range in the context of a significantly drier and fire-prone ecosystem. Although using similar terminology, forest dynamics in the Northeast are not comparable to the study area and therefore, this study is not applicable to forest management related to the Tarleton IRP. Seymour 1992 discusses removing the overstory to release advanced understory stems established from a previous harvest as a successful practice for spruce-fir forest types, especially if they are rooted in mineral soil and protected with shade. Observations during field work indicated Unit 36 was heavily cut in the recent past, which inadvertently created partial canopy gaps and lead to the establishment of a spruce-fir understory that is now ready for release. Leak et al 2014 describes overstory removal as "appropriate in one or more entries using harvesting guidelines/equipment to protect the regeneration." During harvest operations, the desired understory is protected by frozen soils, snow cover, careful skid trail layout, and residual mature trees left for shade, seed, and protection. In these conditions, shrub competition is only temporary as established spruce-fir species react vigorously to release and quickly outgrow shrub competition. A follow up weed and release treatment may be necessary to manage hardwood competition one to three years after the harvest, which is funded by the timber sale if the treatment is necessary. Regarding establishment of invasive species, all harvest units use the same design features, BMPs, and monitoring, consistent with the forest plan and the terms of the timber sale contract. [ID#125]

Concern: [Seq#122]

Commenter states the scenery analysis does not include the following viewpoints:

-Piermont Mountain

-Tarleton Lake Dam

-The Beach at the lake's south end

-The DOC cabin

-The lake islands

-Anywhere on the water surface

Commenter also states the negative impacts to the viewshed were not described adequately, and expected photographic or cartographic examples of expected impacts. [ID#126]

Response: [Seq#122]

All viewpoints selected for analysis are included in the project record. Viewpoints are chosen by the highest potential opportunity and volume of public access as well as having the best proximity and quality of viewshed of the project area. Viewpoints on private land are not considered high potential opportunity for public access therefore they are not eligible as viewpoints to be selected for analysis. Some viewpoints are chosen for alternative views (alternate angles) to expose as much of the project area as possible for analysis (again meeting previously mention criteria). The analysis included computer modeling depicting and highlighting any potential impacts and GIS analysis derived data, both of which are included in the project record. [ID#126]

Concern: [Seq#123]

Commenter states that the project prevents the land from developing and evolving naturally. [ID#127]

Response: [Seq#123]

The Tarleton IRP is needed to achieve the goals and objectives discussed in chapter 1 of the Forest Plan. Vegetation management is suitable on approximately 40% of the WMNF landbase, meaning that 60% of the landbase is being managed to transition naturally through succession. [ID#127]

Concern: [Seq#124]

Commenter states that old trees are essential for providing nutrients to younger trees in the forest and this helps young trees stay healthy, and that the Forest Service did not consider this during proposal

development. [ID#128]
Response: [Seq#124]

As trees mature and fill out the canopy, they shade smaller (which can mean younger) trees which reduces growth rates and will sometimes kill shade intolerant tree species. Overstory removal as proposed in the Tarleton Project provides benefit to certain species of young trees as it will create growing space, provide additional sunlight, and nutrients for growth. [ID#128]

Concern: [Seq#125]

Commenter states the project is being conducted too soon after the previous harvest that decimated the area, and that cutting Beech leads to Beech spreading too rapidly. [ID#129]
Response: [Seq#125]

American beech exhibits characteristics of having slow early height growth compared to that of paper birch (fast), black cherry (fast), and aspen (very fast) (Leak et al. 2014). If appropriate light conditions are created through management, such as clearcuts, patch cuts, and group selection accompanied by mechanical site preparation to removed residual suppressed understory stems, the species listed above will outcompete beech regeneration within 5 years of harvest. There are stands around Lake Tarleton and included in this project proposal where the objective is to create canopy openings of varying sizes to recruit established softwood regeneration, which over time, will return to softwood dominated stands. [ID#129]

Concern: [Seq#126]

Commenters state that there is not enough information on current stand conditions, current percentages of aspen-birch, spruce-fir, and hemlock habitats, how harvest selections are determined, how the habitats will be changed to achieve the goals and objectives laid out in the project purpose and need, what qualifies as "poor quality", "low vigor" or "adequate growing space", and what determines if a stand is "overstocked". [ID#130]
Response: [Seq#126]

Reference Comment/Response #116. Reference Rationale for Habitat Objectives in the Lake Tarleton Habitat Management Unit for compositional acres and percentages by forest type. Ecological Land Types (ELT's) are associated with forest cover types and describe their capabilities. Definitions and/or interpretations requested:

-Poor Quality - A tree with low value potential (ecologic and/or economic) determined by existing defect or in an unhealthy condition.

-Low Vigor - Reference Smallidge 2020 "What is Tree Vigor and Why is it Important".

-Adequate Growing Space - Determined by stocking charts or silvicultural guides.

-Reducing Overstory Density - Partial removal of trees with crowns occupying overstory space.

-Overstocked - Determined by stocking charts which compare basal area, trees per acre, and mean stand data. In layperson terms, overstocked generally means stands that are overcrowded. [ID#130]

Concern: [Seq#128]

Commenter states that the Forest Service as an agency harvests too many large trees which takes away from the national carbon storage of 30% from the largest 1% of trees as opposed to 50% of carbon storage from the largest 1% of trees on a global scale.

Literature cited:

Lutz, J. A., Furniss, T. J., Johnson, D. J., Davies, S. J., Allen, D., Alonso, A., et al. (2018)

Glob. Ecol. Biogeogr. 27, 849-864. doi: 10.1111/geb.12747

Brown et. al., March 12, 2018, 115 (11) 2563-2570, 'Issues with Data and Analyses: Errors, Underlying Themes, and Potential Solutions' https://doi.org/10.1073/pnas.1708279115

Ives et. al. 2017. [ID#132]

Response: [Seq#128]

Comment is not project-specific and takes issue with agency-wide approach to forest management, which is outside the scope of this project.

The Forest Plan guides management in the project area to "use an ecological approach to provide both healthy ecosystems and a sustainable yield of

high-quality

forest products" (Forest Plan, p. 1-17) and to "use sustainable ecosystem management practices to provide a diversity of habitats across the Forest, including various habitat types, age classes, and non-forested habitats" (Forest Plan, p. 1-20). [ID#132]

Concern: [Seq#129]

Commenter states that species diversity and abundance are affected by high-intensity agriculture.

Literature cited:

Karp et. al in 2012, (Ecology Letters, (2012) doi: 10.1111/j.1461-0248.2012.01815.x Intensive agriculture erodes b- at large scales Daniel S. Karp,* Andrew J. Rominger, Jim Zook, Jai Ranganathan, Paul R. Ehrlich and Gretchen C. Daily

[ID#133]

Response: [Seq#129]

This paper considers the loss of biodiversity resulting from high-intensity agriculture, i.e. vast expanses of land under homogeneous, intensive production. It is not appropriate to compare the results of this type of land management to the management actions proposed by the Forest Service under this project. We are not proposing to convert the forest into cropland or grazing land. Harvested stands would continue to support a diverse array of native plants and the wildlife species that depend on them.

The proposed silvicultural treatments were carefully planned, and as documented in the BE, the proposed action would not result in a trend toward federal listing or loss of viability of any RFSS. No wildlife habitat would be impacted to a degree that would threaten any federally listed, sensitive or, by extension, common wildlife species in the affected area. [ID#133]

Concern: [Seq#130]

Commenter states that the Forest Service is misguided in their view of needing to create early successional habitat through active forest management, and that scientific articles prove that natural processes provide the most benefit. Commenter also requested the Forest Service provide scientific citations to validate their need to establish early successional habitat as a general forest management practice.

Literature Cited:

05 November 2020 doi: 10.3389/ffgc.2020.594274. Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest. David J. Mildrexler1*, Logan T. Berner2, Beverly E. Law3, Richard A. Birdsey4 and William R. Moomaw4,5

Simard, S. et. al. (NATURE, vol. 388, 7 August 1997, Net Transfer of Carbon Between Ectomycorrhizal Tree Species in the Field)

(Popkin, G, Forest Fight, SCIENCE, 02, December 2021, 1184-1189)

Lutz et. al., 2018. "Global importance of large-diameter trees." Global Ecology and Biogeography. https://doi.org/10.1111/geb.12747

Mildrexler et. al, "Large-diameter trees store disproportionally massive amounts of carbon and are a major driver of carbon cycle dynamics in forests worldwide. [ID#134]

Response: [Seq#130]

"Most disturbance-dependent species, especially birds, are declining throughout the region whereas species affiliated with mature forests are generally increasing or maintaining populations. Disturbance must be simulated for conservation of early-successional species, many of which are habitat specialists compared to those associated with mature forests." (DeGraaf and Yamasaki 2003). The Tarleton IRP uses guidance from this paper which suggests using habitat composition goals to maintain a balanced and integrated set of forest conditions that includes early-successional habitats and young as well as mature and old forest for a broad diversity of species over time, also summarized in DeGraaf et al. 1992. [ID#134]

Concern: [Seq#131]

Commenter states that a cited article provides evidence that is contrary to the Forest Service argument that active forest management is done to increase biodiversity.

Literature Cited:

Chaudhary, A., Burivalova, Z., Koh, L. et al. Impact of Forest Management on Species Richness: Global Meta-Analysis and Economic Trade-Offs. Sci Rep 6, 23954 (2016). https://doi.org/10.1038/srep23954. [ID#135]

Response: [Seq#131]

The proposed silvicultural treatments align with how the authors of the referenced paper define Retention and Selection regimes. According to their analysis, these regimes do not alter species richness. While the authors do not define the term "clearcut," it seems as though they are referring to projects that leave no trees standing across the full extent of a given project area. The clearcuts proposed under this project would cover 30 acres or less and include reserve trees. This type of treatment seems to correspond with "green tree retention," a treatment the authors include under the Retention regime. The vast majority of the project area would remain forested.

The response variable analyzed in the referenced paper is species richness, or the total number of species occupying a given area. The Forest Service has not claimed that the proposed treatments would increase species richness within the project area. It is likely that many species associated with early-successional habitat already occur within the project area, albeit at low numbers. Rather, a key objective of the proposed project is to increase habitat diversity by fostering less common habitats or under-represented habitats and the wildlife species that utilize them. Similarly, choosing not to conduct vegetation management would not necessarily lead to a loss in species richness. Instead, uncommon species would remain uncommon. To be clear, the goals and objectives of the Forest Plan are intended not to increase biodiversity, but to increase wildlife habitat diversity.

The Forest Service agrees that timber harvests can reduce species richness if conducted haphazardly. However, the proposed silvicultural treatments were carefully planned, and as documented in the BE, the proposed action would not result in a trend toward federal listing or loss of viability of any RFSS. No wildlife habitat would be impacted to a degree that would threaten any federally listed, sensitive or, by extension, common wildlife species in the affected area. [ID#135]