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Commenting on: Lutsen Mountains Expansion Draft Environmental Impact Statement (DEIS)
Submitted: December 9, 2021 ONLINE

The Nature Conservancy (TNC) appreciates the opportunity to comment on the Lutsen Mountains Expansion (Project) Draft Environmental Impact Statement (DEIS) and respectfully submits these comments below with the understanding they will become part of the public record for this project.

TNC is a global conservation organization working to conserve the lands and waters on which all life depends. We work in all 50 U.S. states and 76 countries around the world through the dedicated efforts of a diverse staff, including more than 400 scientists. In the 70 years since our founding in 1951, we have protected more than 125 million acres of land and have a base of more than one million members and supporters worldwide. Using science to guide our work, TNC works collaboratively with partners to conserve Minnesota's most significant lands and waters for the benefit of nature, people and climate. We own and manage more than 12,350 acres in northeast Minnesota alone, and more than 90,000 acres across the three states in which we operate. For decades, we have worked with partners in northeastern Minnesota, including the U.S. Forest Service (USFS), to help conserve the lands and waters of the Superior National Forest (SNF), the Boundary Waters Canoe Area Wilderness, the Sand Lake-Seven Beavers landscape, the Manitou Forest, and the Lake Superior Headwaters, including the Manitou and North Shore Forest and the Arrowhead Landscape collaboratives. The Conservancy also collaborated with the USFS and other partners on the Superior National Forest (Land and Resource Management) Plan of 2004 ("Forest Management Plan").

It is unusual for the Conservancy to comment on a specific project, but the nature of the proposed action described in the DEIS compels us to provide our perspective on what could be, if approved, a troubling and precedent-setting loss of conservation values, treaty rights for indigenous nations and access to public lands in an area of high biodiversity significance that we do not believe is in the best interest of the public. We strongly recommend Alternative 1 - No Action and urge the Forest Supervisor and the Secretary of Agriculture to choose this alternative when considering whether to grant a Special Use Permit (SUP) for the Project. Our comments supporting this recommendation are detailed below. Our review also suggests that the DEIS is missing important analyses and discussion of impacts, also detailed below, that limit its usefulness in informing decisions on the SUP application.

Central to these comments and our concerns are the loss of rights of access and traditional use of the lands in the footprint of the Project by the Grand Portage Band of Lake Superior Chippewa, Fond du Lac Band of Lake Superior Chippewa, and the Bois Forte Band of Chippewa under the Treaty of 1854, herein referred to as "The Bands."

1.Incompatibility of Proposed Action with Intent of Special Use Permit

While TNC acknowledges the specific direction given in the 1986 National Forest Ski Area Permit Act regarding recreational ski areas, we fundamentally disagree that the kinds of substantial and permanent impacts on the

conservation values of the landscape, the forest ecosystem, on species and on access and traditional use by the Bands that would occur with Alternatives 2 and 3 are at all consistent with the concept of a "Special Use Permit." The combination of new built environment, dramatic intensification of land uses, encroachment on non-USFS protected areas, removal of mature parts of the forest ecosystem and degradation of remaining forests represents a permanent, nearly irreversible change in the landscape that is inconsistent with permits designed to accommodate temporary uses that benefit and support the national forest's management goals. Instead, we view the proposed action (Alternatives 2 or 3), if approved, as a net loss of natural lands from the public domain, an erosion of treaty rights for access and traditional use by the Bands, and a loss of conservation value for one of the most important natural areas in the Great Lakes region.
Activities resulting in severe, permanent impacts that are nearly impossible to restore are not in keeping with the intent of Special Use permits that more frequently apply to activities such as grazing, construction of cabins, concessions, or other activities that:
*Are consistent with the standards and guidelines in the applicable Land and Resource Management Plan.
*Do not require exclusive or perpetual right of use or occupancy.
*Do not unreasonably conflict or interfere with administrative uses, other scheduled or authorized existing uses, or use of adjacent non-Forest Service lands.

The economic investments required to expand the ski area in the way proposed (Alternatives 2 and 3), the permanent nature of the impacts, and the 40-year term of the permit (with opportunity for renewal) do in fact represent near-perpetual rights of use and occupancy, to the detriment of other, low-intensity uses that are guaranteed through treaty, and which sustain, rather than degrade conservation values. TNC also believes the proposed use conflicts, even prevents, the SNF from achieving its stated uses and management goals identified in the Forest Management Plan. Issuance of a Special Use Permit must be consistent with the Forest Management Plan for the national forest unit. This issue is not discussed in the DEIS and TNC does not see how stated forest/stand diversity and other management goals in the Forest Management Plan-- whether the lands are categorized as General Forestry or Recreational, Within a Scenic Landscape-- can be achieved through the proposed actions.
TNC does not believe the trade-off between a permanent loss of a high-quality and highly functioning forest ecosystem and a private recreational business enterprise that will likely become less economically, and environmentally sustainable as northern Minnesota's winters continue to warm is in the best interests of the public.

2.Landscape Context, Planning and Protected Areas.
Superior Highlands. The Conservancy considers the forested Superior Highlands ecosystem where the proposed project would occur as one of the most important in the state for maintaining older growth, mature forest, contiguous forest cover, habitat connectivity and especially interior forest breeding and nesting habitat for migratory songbirds (The Nature Conservancy, 2000; Nature Conservancy Canada and The Nature Conservancy, 2002). The Lake Superior Highlands (or "Northern Highlands") subregion that includes the slopes of Moose Mountain and Eagle Mountain are among the most biodiverse landscapes in the state. This northern forest ecosystem hosts a diversity of life unlike any other in the continental U.S., including more breeding bird species than anywhere in North America north of Mexico. (Green 1995). The importance and biodiversity of the region are not mentioned in the DEIS. Most of the new development areas in Alternatives 2 and 3 are within areas designated by the State of Minnesota as Outstanding Biodiversity Significance, the state's highest category of biodiversity significance.
Development within Small Watershed Catchments. Alternatives 2 and 3 both represent nearly a doubling of developed or built footprint and more than a doubling of guest capacity, visitation and intensive recreational use in the area. Most of this footprint, including new ski areas, base areas, and parking areas will occur in the small frontal Lake Superior stream catchments draining Moose Mountain, with a smaller footprint on Eagle Mountain. From the perspective of these small catchments, Alternatives 2 and 3 represent a significant intensification of land use and loss of natural habitat values. The state's Watershed Health Assessment Framework component

scores for the frontal Lake Superior watersheds that include these small catchments currently rank among the healthiest and highest quality in Minnesota (DEIS pp 230-232; https://arcgis.dnr.state.mn.us/ewr/whaf2/). The DEIS acknowledges that impacts to many of the highest component scores would be noticeable at the smaller study watershed scale but discounts these impacts as negligible at larger watershed scales. However, the numerous small streams and undeveloped catchments that drain directly to Lake Superior have been identified as highly important to coastal resilience and climate adaptation in the context of multiple Great Lakes Restoration Initiative projects and assessments (see, e.g., https://www.lakesuperiorstreams.org/northshore/; https://www.glri.us/).

On both Moose Mountain and Eagle Mountain, the proposed development footprint comprises a significant portion of these small catchments, almost guaranteeing degradation of water quality, even if best management practices (BMPs) are employed.

Encroachment on Protected Areas. The proposed expansion area (Alternative 2) comes right to the boundary of the Lutsen Scientific and Natural Area (SNA), which was expressly created to protect the natural and scientific values of the Lake Superior Highlands. SNAs are afforded the highest level of protection of any category of state public lands in Minnesota, yet there is neither a mention of this SNA or even acknowledgement of its existence in the DEIS, nor an assessment of the potential impacts of a dramatic intensification of land use right along its boundary. Likewise, the proposed development areas, especially those on Moose Mountain, come to the very edge of the Superior Hiking Trail for over a mile of its length, which to our understanding would require re-routing the trail.

State and Local Plans. The proposed expansion area is identified as high priority for continued protection in almost every state and local plan of significance, and TNC's review indicates that the proposed expansion is incompatible with the goals of those plans, which include the Lake Superior North One Watershed One Plan, Total Maximum Daily Loads and Implementation Plans for the affected watersheds, , Lower Poplar River Alternative Urban Areawide Review for Cook County, MN and the state's Tiered Aquatic Life Use Framework (MN Rules 7050.0222 Part). On Moose Mountain, the proposed development footprint comprises a significant portion of several small Lake Superior stream catchments as well as a portion of the headwaters of Rollins Creek. The proposed development footprint on Eagle Mountain is smaller, but nevertheless comprises a substantial potential impact. Additional development in these watersheds runs counter to goals of these state and local plans and adds additional costs to the taxpayers to pay for ways to mitigate the impacts.

Resilient and Connected Lands and Climate Adaptation. The Superior Highlands, including the Project area, is an area of high significance for helping nature adapt to climate, especially given its high topographic relief and diversity. TNC's nationwide Resilient Lands Mapping Tool shows the area of Lutsen, especially the undeveloped slopes of Eagle Mountain and Moose Mountain, to be among the highest- ranked lands in northern Minnesota for resilience, climate flow and confirmed biodiversity (https://maps.tnc.org/resilientland/). As such these lands are a critical component of the Resilient and Connected Lands Network that identifies lands most important to maintain in their natural state to helping nature adapt to climate change.

3.Loss of mature forest and impacts to rare plants.

Ecologically, loss of mature forest anywhere in the Superior Highlands region is cause for concern. The sugar maple-dominated forests with paper birch and upland cedar are unique to this part of the state, occurring in relatively narrow zones along the lower and middle slopes of the larger hills and mountains near the eastern edge of the SNF. The Forest Management Plan identifies this forest type as a distinct management unit comprising both "General Forestry" and "Recreational within a Scenic Landscape," each of which have specific management, composition, and diversity goals.

Importance of Mature Sugar Maple and Upland White Cedar. Both maple and cedar have important cultural uses by the Bands, and loss of significant stands of these trees represent a diminishment of traditional use and loss of treaty rights if this forest is cleared or converted, as would occur in Alternatives 2 and 3, even though ownership of the property would not change hands. Areas proposed to be cleared and eliminated in Alternative 2 include some of the best stands of maple along the North Shore and high-quality stands of white cedar, in a context of overall high quality forest habitat. Upland white cedar is designated as S3, or vulnerable to extirpation

(https://files.dnr.state.mn.us/natural_resources/npc/s-and-g-ranks-for-native-plant-communities.pdf), yet under Alternative 2 these stands would be completely removed, and the DEIS lacks any in-depth discussion of the ecological implications of this removal. It is likely that the intensive land uses associated with Alternatives 2 and 3 would also hasten the demise of paper birch in an area where it is rapidly declining due to senescence, disease, and disturbance. Alternative 3 appears to avoid impacts to upland white cedar but sustains the same level of impacts to mature maple and maple-birch forest as Alternative 2.

Degradation of the Forest Ecosystem. While the DEIS frames the loss of forest as the loss of acres of individual species that are ecologically or culturally important, it misses completely the fact that even the forest that remains after clearing and conversion is rendered significantly less functional. A migratory songbird, for instance, relies on many species for habitat, food, shelter from predators and nesting. Loss of affiliated canopy species, understory, and connectivity between remaining patches, as well as long-term impacts from the proposed land uses (e.g., glade skiing between the developed runs) that would degrade or eliminate understory will render any remaining forests essentially non-functional as forest ecosystems. The DEIS inadequately analyzes the impact to intact forest ecosystems, as opposed to impacts to individual species.

Forests along the south-facing slopes in a region where winters have already warmed dramatically are increasingly vulnerable to impacts of climate change. Reducing the connectivity of these forests as is proposed in Alternatives 2 and 3, significantly reduces their ability to adapt to a changing climate.

Impacts to Rare Plants. As noted above, Alternatives 2 and 3 would result in direct loss of high-quality, mature and old-growth habitat of Outstanding Biodiversity Significance. The DEIS suggests site-specific Project Design Criteria (PDC) to minimize impacts to rare plants. However, details and evidence supporting effectiveness of PDC are absent from the DEIS, and some of them are recommendations rather than requirements. For example, here is a suggested PDC for rare plants:

"In areas proposed for glading on Moose Mountain, a buffer around trees with rare lichens should be considered to maintain suitable humidity, temperature, and light conditions as much as possible. The size of this buffer will be developed in coordination with the Forest Service or Minnesota Department of National Resources, as applicable" (DEIS Appendix p. A4)."

The suggestive rather than directive nature of this PDC does not give confidence that it will be carried out, and the latitude given the Responsible Official in selecting all or parts of different Alternatives and in requiring the suggested or additional PDCs or not leaves the entire question of impacts to rare species uncertain. Combined with the lack of discussion of best management practices, or monitoring to determine effectiveness of PDC's, the Conservancy considers this section of the DEIS inadequate for decision making.

Furthermore, the summary of impacts in the DEIS (Chapter 2) does not consider how fragmenting the forest into smaller patches will impact rare species. Smaller patches have a higher edge-to-area ratio, another factor that tends to raise temperature and light and increase potential exposure to invasive species.

4.Hydrologic and water quality impacts related to forest clearing and additional snowmaking.

Impact of Development within Small Catchments on Storm Runoff. The DEIS frames potential water impacts almost solely as a neutral impact on catchment water yield caused by increased snowmaking compensating for water withdrawals and evaporative losses. Yet, the largest changes to hydrology in these small but important catchment areas will stem from the development itself and any associated clearing of natural land cover, discussion of which is missing from the DEIS. Because the catchments are small, the proposed development footprint represents a substantial proportion of the catchment area. 495 acres of proposed development and infrastructure in the small catchments draining Moose Mountain and Eagle Mountain will have significant impacts on water and snow retention, evapotranspiration and erosion, runoff volume, sediment load and timing, especially at the locations where it enters Lake Superior. In short, when small catchments are cleared or developed, the

entire hydrologic cycle is altered, typically toward more rapid and concentrated runoff. Numerous studies have shown that when the footprint of development reaches 10-20% of the catchment area, significant changes occur in the timing, amount, and quality of runoff, even if BMPs are in place. (Verry 1987; Mao and Cherkauer 2009; Dahl and Selegean 2014)

Climate Change. Climate change in this part of Minnesota is a very real threat to the long-term sustainability of any snow-based recreation development and the trend toward significantly warmer and shorter winters, decreased snowpack, and increased precipitation occurring as rain will increase reliance on artificial snowmaking and associated use of chemicals (which allow snowmaking at higher temperatures). This is not discussed in the DEIS, nor is any increase in runoff from developed areas because of climate change. Little is yet known about how snowmaking chemicals interact with terrestrial and aquatic ecosystems, and in some places (e.g., Germany near a national park) use of snowmaking chemicals such as the widely used Snowmax® snow inducer has been banned because of uncertainty about impacts in alpine environments. (Siegwald and de Jong 2020)

5.Net Loss of Traditional Use Rights under the 1854 Treaty.

TNC believes that Alternatives 2 and 3 represent unacceptable loss of treaty rights for the Bands' access and traditional uses within the project area. Although this issue is embedded in many of our comments above, it is especially important to call it out separately. Under the terms of the Treaty of 1854 ("Treaty") between the United States and the Lake Superior Chippewa Tribes governing use of lands in the 1854 Ceded Territories, lands of the U.S. or federal public lands confer to highest level of access and rights for hunting, trapping, gathering for food, medicinal and other traditional uses. (TREATY WITH THE CHIPPEWA September 30, 1854. | 10 Stats., 1109. | Ratified Jan. 10, 1855. | Proclaimed Jan. 29, 1855.) Traditional uses by the Bands within the proposed project include all of these, and especially use of mature sugar maples for sugaring and use of upland white cedar for medicinal and ceremonial purposes. These traditional uses are low-intensity, beneficial uses of natural lands that sustain, rather than degrade conservation values.

While federal ownership does not change in any of the scenarios assessed in the DEIS, Alternatives 2 and 3 represent a de facto taking of rights of access and use over the footprint of the project due to:

1)The permanent elimination of key forest resources (mature maples, upland white cedar) used by the Bands as per the Treaty,

2)The intensification of land uses and built area within the footprint of the project, in some cases to the edge of protected areas, resulting in significant loss of area available for traditional uses,

3)The degradation of remaining forest habitat within the project footprint, rendering remaining forest resources less useful,

4)The hindrance of access due to intensive recreational use, built infrastructure and crowds incompatible with quiet enjoyment of the forest for traditional uses.

A 40-year permit for a special use (with opportunity for renewal) that requires significant private investment to develop and conversion of mature native forest to intensive recreational uses with substantial built footprint is essentially a permanent change in the use of the affected public lands and a permanent loss of treaty rights for the Bands. Elimination of mature sugar maple and upland white cedar is not only a loss of something increasingly rare but a disproportionate loss of rights of traditional use of those stands for sugaring, medicinal purposes, traditional foods, and wildlife habitat that far exceeds the acres directly impacted.

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