Appendix E: Response to Comments

A. Darren Vogt, Environmental Director 1854 Treaty Authority:

Comment: The Forest Service must start to acknowledge the distinction between motorized recreation and access for hunting, fishing and gathering treaty rights. The Forest Service must consider treaty-right hunting activities as a use to be accommodated rather than a use to be curtailed. Management of temporary roads continues to be a primary concern. A need exists to access some of the units after treatment, primarily for moose hunting. Again we are not requesting or desire an extensive network of roads/trails, but simply motorized access into some of the treatment units, specifically a portion of those designed to regenerate aspen (ex. clearcuts with natural regeneration). Yet, the environmental assessment did not analyze such options.

Response: *We agree there is a difference between motorized recreation and access for hunting, gathering and treaty rights; and we recognize we have a responsibility to consider the interests of the bands that is more specific to their needs than a goal to provide recreation opportunities. The Cascade Interdisciplinary Team (IDT) did consider access opportunities for moose hunting within the Cascade Project Area but after many IDT discussions it was determined that access is limited in this area(Cascade Project EA, pg. 2-6). Two roads, FR 329 and FR 161 would remain open for OHV use after logging operations have been completed. In addition both roads have access to units that are proposed for clearcut and resulting forest types are either aspen or a mix of aspen, spruce, birch and balsam fir. Also, game foraging habitat (young aged aspen-birch and mixed aspen-conifer) is already accessible from within one-half mile of existing roads; and it is scattered throughout the project area with most of it located in the northern portion.*

Comment: Further, the document stated that decisions on temporary roads will not be reanalyzed because they are guided by the Forest Plan. We cannot accept this course of action, and it is contrary to what we were led to believe in discussions with the Forest Service over the past several years. When we discussed temporary road management at the Forest Plan level, we were told that it will be better handled on the project level. Now at the project level, we are being told by the districts that it is a Forest Plan issue. While management of roads, especially temporary roads, may be guided by forest-wide plans or policies, some flexibility and creativity must exist on the project level to properly address concerns and needs. If temporary access can be provided for other activities (vegetation management, special use permits, etc.), then why can't it be provided for the exercise of treaty rights? The Forest Service must address this concern. The Forest Service has the option to broaden their definitions of access and management needs to include hunting, fishing and gathering access and still manage temporary and existing roads within their own policies and standards. It could also be stated up front, during project planning, that the access roads into certain areas are NOT designed to be temporary in nature, or at the least could set a timeframe following the completed need for vegetative management that would serve as hunting access.

Response: *The Forest Plan requires closing temporary roads after their use for treatment has occurred and this will not be changed at the project level. We follow the direction in the 2004 Forest Plan which includes a guideline (G-TS-14, p.2-50) that temporary roads are generally not intended for public use and a standard (S-TS-3, p. 2-50) that requires closing temporary roads to motorized traffic as soon as access use is complete. We will not reanalyze that decision. Although the Devil Trout EA left two unclassified roads open for six years beyond the end of the treatment; there is a difference between temporary roads and unclassified roads and the Forest-wide Motorized Travel Management Project will address the future of the unclassified roads on the Forest.*

As far as broadening the definition of access and management needs, this should occur at the Forest level. From a conversation with Lisa Pattni, Tribal Liaison, Forest staff has been meeting with the bands and these discussions are still continuing at this time.

Comment: While we appreciate the effort to include effects on treaty rights in the EA, we still feel that proper consultation with the Forest Service must go further. In the EA, it states that "the federal trust doctrine requires that federal agencies manage the lands under their stewardship with full consideration of tribal rights and interests, particularly reserved rights, where they exist." The federal government must consider the interests of the bands, and work to find ways to accommodate needs and address concerns. We don't believe that the Forest Service is meeting this responsibility.

Response: *The Forest Service has made an effort to consult with the bands on motorized access and keeping temporary roads open through our staff in the Supervisor's Office. Forest staff has met with the bands and discussions are continuing. Also, District Rangers have made decisions that address treaty rights. For instance, the Devil Trout Decision Notice(DN) decided to leave two unclassified roads open for six years and the Mid-Temperance DN would allow parking pull-offs to be established that would provide access to numerous stands.*

Comment: Finally, we don't agree with the Forest Service classification of effects to treaty rights as a "non-significant issue" as outlined in the environmental assessment. Perhaps it is just the wording and terminology used, but such a classification does not capture the unique responsibility of all federal government (and Forest Service) to work with tribes on a government-to-government basis. We believe that effects of the project on the exercise of treaty rights and maintenance of tribal cultural practices are significant issues. The project area falls within the 1854 Ceded Territory, and management practices affect resources, use of those resources, and ultimately rights by treaty with the United States.

Response: *We recognize we have a unique responsibility to work with the tribes on the issue of motorized access for hunting, gathering, and treaty rights. Significant and Non-significant issues are terms that come from the Council on Environmental Quality (CEQ) regulations and the definition is more specific that the common usage of the word*

significant. In the case of significant issues in an EA, it does not denote importance, value or uniqueness; it relates to context, scope and magnitude of effects.

B. Ray Higgins, Minnesota Timber Producers Association (MTPA):

Comment: During the scooping process MTPA recommended that the Forest Service develop an alternative that would harvest overmature forests within the project area. Such an alternative would capture timber value prior to mortality, reduce the risk of wildfire, and improve forest health. All of these objectives are consistent with the Forest Plan direction.

The Forest Service discounted this alternative based on the rationale that the alternative would create too much young forest (0-9 years) within the project area. This was a correct assessment; the proposed alternative would create approximately 1,200 acres additional young forest than Alternative 2.

Using the Forest Service rationale, however, Alternative 2 does not meet the objectives of the Forest Plan, as well. The Forest Plan first decade objectives for the amount of forest acres within the 80-99 age class is 21 percent. Following implementation of the proposed alternative this age class would have 39 percent of the acres with this age class. This exceeds the objective of the Plan objective by 350 acres, or 2 percent.

Further, the age-class of 10-49 following forest plan implementation would be 11 percent below the first decade objectives of the Plan (1,553 acres). MTPA contends that our proposed alternative would allow the Forest Service to meet Forest Plan goals within the 10-49 old age-class more quickly while still maintaining "old" forest objectives. The Forest Service, however, has made a subjective decision that it is okay to greatly exceed objectives for "old" forests and not exceed these objectives for young forests. See Chart 1.

MTPA requests the following. An alternative be developed and analyzed that proposes additional final harvest acres with the 80-99 age-class. This analysis should include movement towards achieving forest objectives for age-classes 0-9 and 10-49; an economic analysis that assess contributions of timber harvest to local communities; reduction of hazardous fuels; and reduction of forest mortality. This analysis should also be conducted for the proposed alternative 2 for comparison.

Response: *MTPA's request to analyze another alternative which considers additional harvest in the 80-99 age-class would be as follows. There are 1,359 acres of the 80-99 age class within the Mesic-Birch-Aspen-Spruce-Fir (MBA) Landscape Ecosystem (LE) outside of the Roadless Area Conservation Rule (RACR) area. Removing the 826 acres already proposed for a treatment within this age-class results in 533 acres. Subtract another 242 acres for land classified as not suitable for a timber harvest brings the remaining acreage down to 291 acres. 249 of the remaining acres were considered but eliminated from alternative 2 due to low volume, poor operability, wildlife concerns,*

and/or poor access. The remaining 42 acres in the 80-99 age class is not enough to develop a new alternative.

The rationale behind the Cascade Project Area containing 39 percent of its acres in the 80-99 age class under Alternative 2 in 2014 is as follows. The Cascade EA states on page 3-6 that the largest age class in the project area is 50-79 (6,117 acres or 42% of the area). A stand replacement fire that burned approximately 25,000 acres in 1929 created this age class of which 70% fall within the RACR boundary. These stands will move into the 80-99 age class in 2009. The disproportionate amount of acres in this one age class makes it unreasonable to assume that this project would meet the forest plan objectives within every age-class. Each project area across the forest is unique and contributes towards the forest plan objectives collectively. Every project must consider the cumulative actions of other projects during the analysis. The average of all treatments and natural processes across the forest must move the current conditions toward forest plan goals and objectives.

Comment: The Forest Service is required to develop a reasonable range of alternatives to evaluate during project analysis. Only 2 alternatives were analyzed. Alternative 1 is required and is the do nothing alternative, and realistically would not be considered. This leaves only Alternative 2 to be considered for implementation. NEPA requires all Federal agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved concerning alternative uses of available resources."

Response: *Seven alternatives were considered in the Cascade Environmental Analysis. Alternatives 1 and 2 were considered in detail. Alternatives 3 through 7 were eliminated from detailed study with a brief analysis and discussion of the reasons for eliminating them. In determining the range of alternatives to be considered and the level analysis needed, the decision maker considers items such as the purpose and need, feasibility of an alternative, and potential for effects, rather than simply what is desirable from a certain viewpoint.*

Alternatives are not analyzed in detail based on definable reasons. For example, two reasons for eliminating the alternative to harvest overmature aspen to create more young age class were a) exceeding the purpose and need by creating too much young forest which is outside the scope for this project, and b) this alternative would be unreasonable or not feasible considering most of these stands were considered and not included in the current proposed action due to insufficient volume, poor soils, steep terrain, inadequate access, and/or wildlife habitat requirements.

Comment: MTPA recommends that the district develop an alternative that considers managing the forest to improve forest health and provide for higher timber outputs as described above. This alternative is supported by the following facts: (1) More than 12,500 (77 percent of the forest acres) acres are beyond the rotation ages; and (2) More than 4,800 acres of the aspen forest is beyond the 65.

Response: *There are currently 2000 acres of aspen forest type ≥ 40 years old outside the RACR. 1108 of these acres are included in the current proposed action leaving 892 acres. Subtracting 474 acres classified as unsuitable for a timber harvest from the 892 acres leaves 418 acres. Similar to response #1, most of the remaining 418 acres were not included in the current proposed action due to insufficient volume, poor soils, steep terrain, inadequate access, and/or wildlife habitat enhancement.*

Comment: MTPA provided comment during the scoping process regarding the lack of management in lowland conifer forest type. The response of the Forest Service to this comment was that TES surveys were not conducted in the lowland conifer type. This prevented them from being considered for harvest. MTPA recommends that the district perform required surveys in lowland conifers in future EA's.

Response: *The Cascade EA states on page 2-8 that the management of lowland conifers is outside the scope of this project. Not conducting TES surveys was not a reason given for not managing the lowland conifers. The EA also states that "there may be limited opportunities in the project area for lowland conifer management; these could be proposed in future projects".*

Comment: MTPA recommended, during the scoping process, that area proposed for non-harvest fuel reduction is evaluated in terms of merchantability. The Forest Service state that the Timber Management Assistant had evaluated these areas and determined that these sites were not economically feasible for harvest (EA PP2-9). MTPA often discovers that public land managers are not always up to date with current timber markets. Thus, please provide us with the information/criterion used to determine non-merchantability of the stands proposed as treatment without a timber harvest.

Response: *The EA states on page 2-9 that "all stands proposed for mechanical site preparation were considered for harvest. The general assumption was that 4 cords per acre of merchantable volume was needed for a viable timber sale. In December 2007, Resource Specialist Denise Dexter attended the Lake States Federal Timber Purchasers meeting in Hayward, Wisconsin. She was informed that given the current markets and fuel prices, purchasers cannot bid on a sale that is less than 10 cords per acre.*

Four stands were proposed for a non-harvest mechanical fuel reduction. Three have a non-harvest land suitability class and one is listed as isolated, mostly brush, and poor access.

C. Brian S. Pasko, Policy Director, Friends of the Boundary Waters Wilderness:

Comment: Beyond the Boundary Water Canoe Area Wilderness (BWCAW), there are very few remaining large tracts of land in the Superior National Forest that have been left wild- without roads and the ecological impacts associated with human-created transportation systems. These wild areas are a rare resource that should be preserved,

outside the boundaries of the BWCAW, as well as inside. The Cascade project would directly impact the Mississippi Creek Inventoried Roadless Area, and is in close proximity to the Brule Lake- Eagle Mountain Inventoried Roadless Area and the BWCAW.

Response: *Over a million acres of the Superior National Forest, or about one third, has been left wild, without roads and the associated ecological impacts. The Boundary Waters Canoe Area Wilderness (BWCAW) is a valuable resource that we work diligently to protect from human influence. The Cascade Environmental Assessment carefully analyzes effects to RACR areas and the BWCAW (section 3.9). There are very few direct effects to these resources.*

Comment: While these Inventoried Roadless Areas do not hold the same legal status as the congressionally established wilderness found inside the boundaries of the BWCAW, their value has been recognized both by scientists and lawmakers. The purpose of the Roadless Area Conservation Rule (RACR) was to "Provide lasting protection for Inventoried Roadless Areas within the National Forest System in the context of multiple use." The guiding purpose and intent of the RACR was to protect the scientific and ecological character of these lands, which do not stop at the border of a Wilderness or Inventoried Roadless Area. In particular, the Rule acknowledges that these areas "serve as bulwarks against the spread of non-native species and provide reference areas for study and research." We are hopeful that the Forest Service will strongly consider the intent and purposes of this Rule in analyzing options and making final decisions related to the Cascade project.

Response: *We are committed to fulfilling the intent and purpose of the RACR as discussed and described in the Code of Federal Regulations (CFR) 294.10 and the Preamble to CFR 294.10. This includes protecting the RACR areas as "large, relatively undisturbed landscapes" (Federal Register Vol. 66, No.9, 3245). However, we do not agree with the Friends interpretation of the regulations that the purpose is protecting the ecological character beyond the border of the RACR. Nowhere in the 28 pages of preamble and regulations do we find a reference that states the protection applies beyond the border of the RACR. To the contrary, throughout the pages, it speaks specifically to the acres <u>within</u> the RACRs when describing cost, benefits and effects.*

Comment: The Friends is particularly concerned about the potential for certain activities proposed in the preferred alternative to unnecessarily open pathways for invasive species migration into the interior of the Mississippi Creek Roadless area and adjacent un-fragmented forest areas. In that regard, we are concerned that the Forest Service has not identified and evaluated alternative and less threatening routes for proposed forest access roads. Potential techniques and impacts of several of the mechanical site preparation units were not adequately explained or discussed in the Environmental Assessment. And, we are concerned that the direct and cumulative impacts of certain treatment have not been analyzed specifically for the impact that they will have on the federally protected Mississippi Creek Roadless area.

Response: *The analysis in the EA (section 3.8 and section 3.9) shows treatments would not open new pathways for invasive species to migrate into the RACRs. Most of the invasive species on the Superior National Forest preferentially colonize disturbed areas such as roads, harvest units or site preparation units. None of these activities are proposed in the RACR so no new opportunities would occur. In undisturbed forest, invasive species have a hard time competing with existing native vegetation and are not as likely to get established. Currently there are invasive species established along the RACR. With these locations and if any new locations were established, it is possible animals or wind could disperse seed into the RACR but there is only a minute chance of establishment because existing vegetation is well established and undisturbed.*

Other possible access routes and impacts of site preparation techniques are discussed under subsequent responses. We assume in the statement "impacts of certain treatment have not been analyzed", the treatments being referred to are roads and site preparation since no mention is made of other treatments. The effects of all types of treatments were analyzed carefully and are displayed in the Environmental Assessment.

Comment: Because of these concerns, the Friends cannot agree that it is appropriate for the Forest Service to move forward in approving the preferred alternative without fully analyzing alternatives and environmental impacts. As you know, the Forest Service is obligated to analyze a reasonable range of alternatives and to perform and Environmental Impact Statement where there are substantial questions about whether a significant impact to the environment might occur.

Response: *We have analyzed a reasonable range of alternatives. Seven alternatives were considered in the Cascade Environmental Analysis. Alternatives 1 and 2 were considered in detail. Alternatives 3 through 7 were eliminated from detailed study with a brief analysis and discussion of the reasons for eliminating them. In determining the range of alternatives to be considered and the level analysis needed, the decision maker considers items such as the purpose and need, feasibility of an alternative, and potential for effects, rather than simply what is desirable from a certain viewpoint. The alternative proposed by the Friends (Alternative 4) was analyzed briefly (EA Chapter 2) but there were no measurable differences between it and Alternative 2 and therefore it was not analyzed further.*

Comment: However, while the Friends believe that the EA fails to adequately address alternatives and the significant environmental impacts stemming for the Cascade Project, we also believe that is possible for the Forest Service to modify the preferred alternative so as to substantially reduce the likelihood of significant environmental impacts on the Mississippi Creek Roadless Area. Specifically, the Friends request that the Forest Service:

- Adequately evaluate the merits of the proposed mechanical treatments identified as 176-039, 176-038, 178-001 and 179-020 by (1) providing a thorough discussion about the equipment needed to carry out the proposed mechanical treatments and any access requirements that would be required to deliver that equipment to the treatment site; (2) identify and require sufficient mitigation

measures as those treatment sites to prevent the spread of invasive species, and (3) identify and consider potential alternative mechanical treatment sites in the project area that would meet the Cascade Project's purpose and need but that would pose a reduced threat to the ecological health of the inventoried roadless area.

Response: *The Environmental Assessment contains adequate discussion of treatments, mitigation measures, monitoring and analysis on of effects. A description of site preparation is in Appendix B; mitigation measures are in Appendix C, Operational Standards and Guidelines; monitoring items are listed in Chapter 2 and unit cards list additional site specific treatment information and mitigation.*

The site preparation would be by winter shearing (see unit cards). Winter shearing is accomplished by a dozer. Brush and other competing vegetation are pushed into piles. Because it is done in the winter, the brush is snapped off at the base and minimal soil is disturbed.

An example of mitigation measures to minimize the spread of invasive species is:

CAS-WL-6 For occurrences of tansy, bull thistle, Canada thistle, spotted knapweed, leafy spurge, St. John's Wort, plumeless thistle, and goutweed: either re-locate skid trails, temporary roads, or landings if infested with one of these species and use will be in summer, OR treat (e.g. mow or pull) before use if use would be in summer. Plants of these species located within 50 feet of treatment units would be mowed before mechanical site preparation occurs. (From Operation Standards and Guidelines)

In addition, all of the units along the RACR would be treated in the winter which would substantially reduce the risk of spreading invasive species (Unit Cards).

Monitoring (from Chapter 2) includes:

Non-Native Invasive Species	
Objective	Avoid or minimize an increase in the extent of non-native plant infestation in the project area.
Methods	Monitor a sample of harvest units and newly constructed roads after harvest, site prep, or construction to determine if invasive plants have colonized areas where management activities have occurred.
Frequency	Between year one and year three, following the sale.
Responsibility	Forest Plant Ecologist

As stated in Chapter 3, Section 3.9, we have been monitoring effectiveness of the mitigation and effects of treatments on invasive species spread. Preliminary monitoring results suggest that Superior National Forest invasive plant mitigations are successful in minimizing the spread of these species (USDA Forest Service 2006, USDA Forest Service 2007).

Weed treatment areas for Summer 2008 have been finalized and include treatments for the whole Caribou Trail, all of the Grade, FR 329, the Bally Creek Road, and FR157,

totaling about 0.5 acre (all of the inventoried sites). This will be ahead of any proposed Cascade treatments and will further limit invasive species spread.

The combination of Operational Standards and Guidelines for invasive species, only treating units along the RACR in the winter, no disturbance within the RACR, pre-treatment of existing invasive species and monitoring of sites, all provide adequate protection to the RACR. The proposed actions do not pose an ecological threat to the RACR.

The purpose of the site preparation is to reforest poorly stocked stands. When we developed the proposed action we identified stands that may be poorly stocked. Originally, this was 1,313 acres. These stands were reviewed in the field to access the current condition and determine whether restoration was needed. Many of the stands had adequate regeneration of balsam fir, aspen, birch or spruce and no treatment was needed. Those stands without regeneration and little overstory were proposed for site preparation.

As proposed by the Friends, the site preparation stands along the RACR were dropped from Alternative 4. These acres would remain poorly stocked. There are no additional acres that need reforestation (all were included in the proposed action) therefore no additional treatment acres were added to Alternative 4.

Comment: Eliminate the proposed harvests identified as 179-030 and 179-027 or, in the alternative, identify an alternative assess route to those harvest sited from the Bally Creek Road (thereby eliminating the need for the proposed access route that stretches between those harvest sites and the proposed mechanical treatment site identified as 179-020). This lengthy proposed access route, which abuts the inventoried roadless area and that would in practice become an extension of FR 329, increases the risk of invasive species migration into the roadless area and a section of un-fragmented forest, and unnecessarily invites illegal abuse by ATV traffic. The potential environmental costs of this road are not justified by the purported benefit to be achieved by the proposed treatments.

Response: *Accessing these units from the Bally Creek Road would require crossing the Cascade River, a Minnesota designated trout stream, and this would not be practical from a natural resource or economic perspective. Building a bridge would be expensive and impacts to resources could increase. Currently, the access to units 179-20, 179-030 and 170-027 is on a temporary road that would be obliterated after logging operations and reforestation is completed. Operations would occur during the winter or when ground conditions are dry or frozen. This would reduce impacts to soils and the spread of non-native invasive plant species. Currently the road is not open to ATVs and it would not be open to ATVs once the road is obliterated.*

Comment: Identify, evaluate, and consider alternative routes for the proposed temporary access roads stretching between (1) Forest Road 170 (also known on some maps as "The Grade") and the proposed harvest site identified as 161-051, and (2) proposed harvest sites 157-020, 157-028, and 155-014. While it is apparent that these proposed routes were generally designed to avoid streams and wetland areas, a review of the relevant

topographic maps indicates that there may be alternative access routes that would have a smaller footprint on the landscape and therefore lead to less fragmentation and pose less of a risk for the transport of exotic-invasive species. While the Friends agree that it is generally desirable to avoid roads requiring stream crossings, we question whether in some cases a stream crossing might cause less environmental harm than the need to build the additional miles of temporary road access required by the current proposal. Regardless, the EA does not fully identify, evaluate and consider less intrusive alternatives to the current proposed access routes.

***Response*:** *Both of these temporary access roads would use old road beds. The temporary road proposed to access unit 161-51 is an old railroad grade which would require very little maintenance to re-use. More disturbance would take place by building a new temporary road and accessing these units from the Bally Creek Road. This would necessitate crossing the Cascade River and its riparian areas in addition to removing more trees and disturbing additional soil. The temporary road leading to units 157-20, 157-28, and 155-14 follows an old roadbed and would also create the least disturbance to the current landscape. Accessing these units from Forest Road 170 (The Grade) would involve additional tree removal, soil disturbance, and crossing McDonald Lake.*

Comment: Reverse the decision to re-classify Forest Road 329 for ATV use and in the alternative, issue a special use permit (or other legally appropriate mechanism) only to individuals who need to utilize the road for access to private property. Unmanaged recreation, in the form of off-road vehicle use, has been identified by the Forest Service as one of "Four Threats to the Health of the Nation's Forests and Grasslands." Impacts from legal and illegal ATV use may include: erosion, disturbance to wildlife, and the destruction of wildlife habitat. Moreover, ATV traffic is a leading cause of invasive-species transport into forest areas. Because FR 329 runs adjacent to and dead ends into the Mississippi Creek Roadless Area, allowing unlimited ATV traffic on FR 329 has a strong potential to degrade the ecological integrity of this reserve. Given the documented frequency of illegal and abusive ATV use throughout the forest and the lack of enforcement resources from state and federal agencies to control this problem, the Forest Service must be extremely careful in its decision to add additional ATV routes to its inventory, particularly when those routes are adjacent to or nearby Wilderness and Inventoried Roadless Areas.

From footnote: Rooney, T.P. Distribution of Ecologically Invasive Plants along off-road vehicle trails in the Chequamegon National Forest, Wisconsin. (discussing the fact that roads into adjacent environments and that ORV trails have been shown to serve as conduit for orange hawkweed (a NNIP of concern for the project area) and would likely serve to disperse other NNIP species.)

Response: *As the Friends proposed, Alternative 4 converts FR329 to a Special Use Permit Road. Differences in risk of invasive species between Alternative 4 and 2 are described in Chapter 2.*

We agree with the Rooney (2005) paper regarding the role of roads and trails as corridors for dispersal for invasive plants. However, the paper does not offer evidence to support dispersal perpendicular to travel corridors into undisturbed forest. While some species like common buckthorn or garlic mustard could very likely disperse and establish away from travel corridors in undisturbed vegetation, they are not known to be present in the project area. Other wind-dispersed species that are present, like orange hawkweed, could have seeds blown away from travel corridors into undisturbed areas such as the RACR, but these species are not likely to establish in the face of competition with native shrubs and forbs (e.g. see Dickens et al. 2005. Recreational portage trails as corridors facilitating non-native plant invasions of the BWCAW. Conservation Biology 19: 1653-1657).

Comment: Eliminate proposed harvest units 179-002 and 179-003 or, in the alternative, replace these harvest units with alternative harvest units elsewhere in the project area that would meet the purpose and need of the project but pose a substantially reduced threat to the ecological health of the Mississippi Creek Inventoried Roadless Area. Nowhere in the environmental assessment does it suggest that these two particular harvest units are specifically critical to achieving the diversity and age-class objectives of the Forest Plan; the Cascade Project encompasses a very large area of the Forest, yet the Forest Service has not identified and considered any alternative units that could achieve the project's purpose and need without unnecessarily compromising the integrity of an Inventoried Roadless Area. Because these two units are not critical to the Forest Services' objectives, the Forest Service should drop them from consideration or replace them with alternative harvest units. Especially where, as here, there are other means of achieving both the Cascade Project's goals and carrying the intent of the Roadless Area Conservation Rule.

Response: *As the Friends propose, these harvest units were dropped in Alternative 4. There are no other suitable stands in the project area to propose for treatment. As explained under responses to comments from Minnesota Timber Producers Association, there are very limited opportunities for harvesting beyond what was in the proposed action.*

Comment: In addition to the issues discussed above, the Friends is concerned that the EA generally fails to address impacts to water quality, even though there are treatments and roadways near surface waters (lakes and streams). Comments provided by the Friends during scoping state that "given the importance of this watershed and its component streams, it will be important for the analysis of the Cascade Project to carefully consider the impact of various treatments on waterways." Studies of timber harvest impacts to water quality show that "cumulative effects occurring on a watershed scale may result not only from activities at multiple sites within the watershed, but also from multiple types of activities, including timber harvest and post harvest site preparation, and forest roads."

Response: *In Chapter 3 of the EA, under 3.11 Other Determinations, a section was added addressing water quality and potential impacts to Regional Forester Sensitive Species (RFSS) fish, mussels, and aquatic invertebrates (Cascade EA, pg. 61-63). Indicators are used to measure impacts to water quality and the RFSS. They include*

stream crossings, road construction on both existing and new roads and examining watersheds that have more than 60 percent of their surface area in upland open or upland young forest condition. The Biological Evaluation for Sensitive Species: Aquatic Wildlife Cascade Project evaluated the potential direct, indirect and cumulative effects to the RFSS. The Forest Fisheries Biologist made the determination that the alternatives may impact individuals of the RFSS but are not likely to cause a trend to federal listing or loss of viability. Two RFSS would not be impacted since there are no records within the Cascade Project Area.

The Forest Fisheries Biologist did address cumulative effects from timber harvests on a watershed scale in the Biological Evaluation for Aquatic Wildlife. The Biologist ensures that actions carried out on the Superior National Forest do not result in watersheds that have more than 60 percent of their surface area in upland open or upland young forest condition (USDA Forest Service 2004b). It is important to examine these forest conditions in each 6-level (12 digit) hydrologic unit code because it has been shown to influence peak stream flows which can potentially reshape stream channels, increase erosion and decrease biological integrity (Verry 2000). There are seven, sixth code watersheds that overlap the Cascade Project Area and after implementation the percentage would range from 2-7 percent. This is well below 60 percent threshold.

The Cascade EA does mitigate for impacts to water quality through applying mitigation measures and operational standards and guidelines. Under Appendix C - Operational Standard and Guidelines, there are standards and guidelines for watershed health, riparian areas, soil resources, wetlands and aquatic communities that mitigate for impacts to water. In the Transportation System there are standards and guidelines identified for road and trail construction, reconstruction and maintenance which reduce impacts to water. We also utilize the Minnesota Forest Resources Council's Voluntary Site-level Forest Management Guidelines when applying mitigation measures.

The research cited in the comment, Rashin, E.B, C. J. Clishe, A. T. Loch & J. M. Bell, 2006, also supports use of Best Management Practices (BMP) such as buffer strips. "A notably high proportion of sites with stream buffers had no chronic sediment delivery from harvest features…This finding illustrates the overall effectiveness of stream buffers as a BMP to prevent chronic sediment delivery to streams."(Rashin, et all, 2006)

Each timber unit was reviewed by a resource specialist and mitigations for water resource concerns was taken into consideration and listed on the unit cards. Many of the streams and rivers are designated trout streams and mitigation measures are applied. For example, unit 180-008 is proposed for mechanical site preparation. The mitigation measure for this unit states under the riparian category on the unit card, "Designated Trout Stream, Mississippi Creek runs through the unit on north side of unit. G-WS-5-maintain a minimum 100 foot near bank zone along creek." We have considered the impacts to water quality and have mitigated for them.

Comment: As you know the Friends and Forest Service are currently in litigation about how to best manage the Superior National Forest and the Boundary Water Canoe Area

Wilderness. So, the Forest Service is well aware of the Friend's concerns, particularly with regard to the Forest Services' (1) continued failure to analyze the cumulative impacts of the Plan and activities conducted under the plan on the BWCAW and Inventoried Roadless Area, (2) inadequate analysis of the impacts of the Forest Plan and activities conducted under the plan to the Canada Lynx, and (3) inappropriate use of Management Indicator Habitats to assess wildlife impacts.

Suffice to say that the Friends believe that the Forest Plan is deeply flawed in a number of areas, and we are troubled that the Forest Service continues to use the objectives of the Forest Plan as justification for projects like this one, where there is still so much unresolved debate about the scientific credibility and legality of the Forest Plan. In particular, with regard to the Cascade Project, we are deeply frustrated with eth Forest Service's failure to meaningfully consider Alternative 4, and that potential impacts on the Boundary Waters and Inventoried Roadless Areas were almost wholly ignored by the Agency. It is simply inappropriate to summarily conclude that management projects like this one will have "no direct effects to the RACR or the BWCAW since no actions are proposed in these areas. (EA pg 2-7 and G-1)"

Response: *The Record of Decision for the Forest Plan was decided in 2004. The Forest Plan provides our management direction for the forest until it is withdrawn or enjoined. The Cascade Environmental Assessment is a site specific analysis of the potential direct, indirect and cumulative effects of the Cascade Project and not an analysis of all the activities conducted under the Forest Plan.*

Direct effects are "caused by the action and occur at the same time and place. Indirect effects, which are caused by the action and are at a later time or farther removed in distance...(CEQ1508.8)". The actions would not occur within the RACR, therefore the effects are not in the same place (direct) but are further removed (indirect). Although the sentence in Chapter 2 states there are no direct effects to the RACR, the next sentences go on to explain the indirect effects that would occur to the RACR as a result of the actions.

We have provided more analysis of Alternative 4 in Chapter 2. We have adequately analyzed Alternative 4 and potential effects to the BWCAW and RACR from Alternative 2. This includes

- *Alternative 4 analysis in Chapter 2,*
- *Appendix G analysis with nine indicators for RACR, four indicators for Forest Plan Inventoried Roadless, and 17 indicators for the BWCAW,*
- *Section 3.9 specifically on effects to the RACR and BWCAW,*
- *Section 3.5 and corresponding Biological Evaluation which addresses effects to large mature patches and related wildlife species*
- *Section 3.8 on Non-native Invasive plants.*

There is substantial analysis to back the conclusion that there would be no direct effects and limited indirect effects to the RACR or BWACW. The Friends have not provided any data, analysis or research that refutes this conclusion.

The Biological Assessment for the Cascade Project carefully analyzed the effects of proposed action on lynx. The analysis considered five different indicators covering habitat and roads. A summary of the Biological Assessment is in section 3.4 of the EA.

We are aware there is debate on the sufficiency of the Forest Plan's use of management indicator species (MIS) and validity of use of management indicator habitats (MIH). However, we are confident that our approach of using both MIS and MIH is adequate and valid. The Forest Service Chief's decision on the Forest Plan Revision ROD appeal included the following: "[t]he MIS program for the Superior NF monitors a suite of species sufficient to comply with NFMA regulations, demonstrated that it has an adequate framework in place to conduct the required monitoring, and uses habitat as an appropriate adjunct to species monitoring" (p. 54-55 of the Chief's Appeal Decision) (Letter to File, Shedd, 2007, Project Record).

D. Annah Gardner of the Sierra Club North Star Chapter

Comment: **Creating Young Age Class -** The EA states that the first purpose of this project is to "Create acres of young age class and increase the amount of white pine, white spruce and white cedar". The Sierra Club believes that this goal will have many significant, undesired and harmful effects and that this goal conflicts with many of the stated objectives and goals in the Forest Plan. The Sierra Club is concerned that by focusing on creating young age class instead of promoting older age classes several sensitive species and lynx will be harmed. Other concerns include loss of connectivity, loss of large patches of mature forest (especially so near the BWCAW), impacts on soil and water resources and loss of range of natural diversity. The Forest Plan states that the existing condition of the Mescic/Birch/Aspen/Spruce/Fir Landscape Ecosystem is 13% young age class as of 2003 (FP, 2-70, Table MBA-2). The Cascade EA states that it is only 5% as of 2007 (Cascade EA, 3-8, Table 3-VEG-1). How did this age class change from 13% forest wide to only 5% forest wide in 4 years? The Forest Plan calls for an increase in the 50-79 age class by 2014. The Cascade project focuses on creating more young age class, but how will creating more young age class affect and move toward achieving the goal of increasing the 50-79 year age class? The EA explains that an Assessment (the Cascade Mid-level Assessment) was done where all resources were considered before making recommendations to the District Ranger. Where is this Assessment? Exactly what resources were considered? What do you mean by "considered"? How were these resources considered? The Sierra Club is concerned with how the project goal of creating more young age class will hinder other Forest Plan objectives and desired conditions. The Sierra Club would like to see a discussion of how creating young forest will affect this area's ability to meet other Forest Plan objectives such as increasing other age classes and promoting habitat for sensitive species.

Response: *The forest wide young age-class (0-9 years) in the Mesic-Birch-Aspen-Spruce-Fir landscape ecosystem declined from 13% in 2003 to 5% in 2007. The single factor reducing the young age-class is the aging process. Stands reaching 10 years in age move into the next age-class (10-49 years). Factors generating an increase in the*

young age-class include even-aged timber harvesting and natural stand replacing disturbances such as wind, fire, and/or insects and disease. The acres of forest growing older and moving into the next age class exceeded the creation of young forest acres by even-aged timber harvesting and natural stand replacing disturbances during this time period.

The Cascade EA states on page 3-6 that the largest age class in the project area is 50-79 (6,117 acres or 42% of the area). A stand replacement fire that burned approximately 25,000 acres in 1929 created this age class of which 70% fall within the RACR boundary. These stands will move into the 80-99 age class in 2009. The disproportionate amount of acres in this one age class makes it unreasonable to assume that this project would meet the forest plan objectives within every age-class. Each project area across the forest is unique and contributes towards the forest plan objectives collectively. Every project must consider the cumulative actions of other projects during the analysis. The average of all treatments and natural processes across the forest must move the current conditions toward forest plan goals and objectives.

The mid-level analysis provides the opportunity for resource professionals to gather data and compare existing conditions with the forest plan goals and objectives for a single resource. The difference between the existing and desired condition is considered and suggestions for reducing the gap are offered. The Cascade Mid-level Analysis resides in the Project Record and includes the following reports: Aquatic wildlife, habitat, and watershed; Vegetation-spatial patterns; Restoration of tree diversity; Riparian; Transportation; Fuels; Disturbance processes and patterns; Recreation; Vegetation-landscape ecosystem objectives; Silvicultural priorities; Wildlife-sensitive species; Water resources; and Soils.

Comment: **Improving Species Habitat-** The Sierra Club fully supports efforts to reestablish the natural range of diversity and native species to the Superior National Forest. However, the Sierra Club does not believe that increasing young forest will achieve this. The Forest Service has failed to show how cutting older trees to create younger forest will reestablish native plants and a more natural range of diversity in the area.

Response: *One of the purpose and needs of the Cascade Project is to improve habitat for viable populations of native and desired non-native species. By moving towards the Management Indicator Habitats (MIHs) objectives in the Forest Plan, habitat would improve for most species, including threatened, sensitive and game species (grouse, deer and moose). Reestablishing the natural diversity of tree species and ages across the area would benefit the native fauna and flora within the Cascade Project Area. Two of the MIHs –MIH 4 (young aspen-birch forest) and MIH 6 (upland spruce-fir forest) would increase substantially in the old/old growth and multi-aged category If the Cascade Project is implemented (Cascade EA, pg. 3-39). Long-lived tree species would be planted within riparian areas to improve watershed conditions and the planting of white pine near lakes would benefit bald eagles. Reestablishing the native tree diversity to the areas burned in the 1929 fire would offer a taller, more varied and continuous canopy for the area's wildlife favored by such conditions. Many of the stands within the Cascade*

Project Area need some form of harvest to reestablish the trees. In some of the stands natural regeneration of balsam fir, spruce or aspen is occurring and in other stands shrub regeneration has prevented trees from regenerating; therefore, some form of harvest management needs to be conducted in order to establish other tree species such as pine, birch or spruce.

Comment: **Reduce Hazardous Fuels in Wildland Urban Interface Areas -** The Sierra Club urges the Forest Service to seriously consider the role of fire in promoting a healthy forest and in protecting public safety. Fire is a proven tool for alleviating high risk wildfire where it could threaten homes and communities, and the reintroduction of fire is an important management tool that can mimic ecological processes and reduce the buildup of high fuel loads due to past fire suppression. Incorporating prescribed burns into the Agency's routine would improve the health of the Superior National Forest and greatly reduce the risk of out of control forest fires. Fire ecologists and most forest scientists agree that long term ecological restoration with careful fire reintroduction - not increased commodity resource extraction or aggressive fire suppression - holds the best hope of preventing future large-scale severe wildfires in fire dependent ecosystems. To that end, where fuels reduction management is necessary, this objective should be achieved on as many acres as possible through hand release and prescribed burns. Commercial logging is not and should not be viewed as a tool for reducing wildland, home, and community fire risk. Clearcut harvesting does not emulate high-intensity stand replacing fires. Prescribed fire should be taken seriously as a management tool to mimic natural disturbance and restore natural processes and functions to ecosystems.

Response: *The Forest Service recognizes fire is an effective tool for reducing hazardous fuels, that reintroduction of fire is important, and that fire is an important ecological component of the landscape. Currently the Superior National Forest conducts prescribed burning on 1,000-14,000 acres a year for fuel reduction purposes and ecological benefits. Prescribed fire is used in the areas where it is most effective.*

The Forest is continually assessing the high priority areas to use prescribed burning as a tool to meet fuels reduction and forest health objectives. Currently focusing on areas where mechanical treatments are not an option, where fuel hazards create a high risk, and where logging would not meet the objectives of the treatments is where prescribed burning is being used. This includes areas of the BWCAW where blowdown fuels create a fire risk, inaccessible areas where mechanical treatments are not feasible, and pine stands where fire restoration is the objective.

The Forest is constrained in many ways with conducting more prescribed burning.

- *The number of days in which weather is acceptable to conduct prescribed burning is limited. Currently there are 15-20 days a year in which prescribed fire can be conducted in a safe manner and in a manner in which objectives can be met. The Forest Fire Management organization takes advantage of those days that are favorable and is conducting prescribed burns on the majority of those days. Often times several burns will be conducted on a single day to maximize the area that can be burned on favorable days.*

- *The Forest is also constrained by the costs of prescribed burning. The current Superior National Forest budget allows for the forest to accomplish between 1,000 and 5,000 acres of prescribed burn treatments in a year.*
- *The project area is near urban interface areas that have values at risk where conducting prescribed burning has a high risk associated with it. To minimize that risk, treatments that favor mechanical tools are desirable near urban interface areas and treatments that favor fire are desirable in more remote areas where there is less risk.*

Fuel hazards vary depending on vegetation type and therefore, fuel hazard treatments are focused on reducing the vegetation component which creates the fuel hazard. For this project area, the fuel hazard was composed of dead and down materials and ladder fuels. The dead and down materials included insect killed balsam fir and hardwood trees that have died. Therefore, the treatments were targeted at removing the overmature overstory and the young balsam overstory, then disposing of all slash materials and dead and down on the ground. There are a variety of tools that have been shown to be effective for achieving the objectives for fuels reduction, including prescribed burning, harvesting, and biomass removal. Considering this project area lies to the southwest of an urban interface area, harvesting, removing ladder fuels and disposing of all slash was the lowest risk treatment that could be used to achieve the fuels reduction objectives.

Furthermore, logging is identified as the primary tool to be used for fuel reduction projects where there is merchantable timber available. Because of concerns about the loss of commercial opportunities due to a prescribed burn precluding harvest, the Record of Decision for the Forest Plan states, "where areas are identified suitable and available for timber harvest, commercial timber sales will be used as the primary management tool. The use of fire will complement mechanical treatments in achieving objectives (Forest Plan ROD p. 14)." This means that harvesting will be used as a tool where there is merchantable timber and prescribed burning will be used in other areas.

The purpose of this project was not to emulate high-intensity stand replacing fires through clearcutting. The purposes included creating acres of young age class and increasing the amount of white pine, white spruce and white cedar, improving habitat for viable populations of native and desired non-native species, providing sustainable timber products, reforesting poorly stocked stands and reducing hazardous fuels in wildland urban interface areas (Chapter 1).

Comment: **Range of Alternatives -** The Forest Service did not consider a wide range of reasonable alternatives in the EA. The agency is required to study, develop and describe all reasonable alternatives. Alternatives eliminated from detailed consideration do not count in the range of alternatives. Mentioning issues raised in scoping comments and dismissing them all as non-significant issues does not count as considering a range of reasonable alternatives. The Sierra Club would like to see an actual range of alternatives considered, including an alternative that promotes older age classes and an alternative that focuses on planting, restoration, and restoring native plant species and the natural range of diversity to the area.

Response: *We have analyzed a reasonable range of alternatives. Seven alternatives were considered in the Cascade Environmental Analysis. Alternatives 1 and 2 were considered in detail. Alternatives 3 through 7 were eliminated from detailed study with a brief analysis and discussion of the reasons for eliminating them. We do not agree with the interpretation that alternatives eliminated from detailed consideration do not count in the range of alternatives. The Council of Environmental Quality specifically talks about eliminating alternatives from further study in 1502.14 "Rigorously explore and objectively evaluate all reasonable alternatives and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated."*

In determining the range of alternatives to be considered and the level analysis needed for an alternative, the decision maker considers items such as the purpose and need, feasibility of an alternative, and potential for effects, rather than simply what is desirable from a certain viewpoint.

Alternatives are developed based on significant issues according to Forest Service policy. The Environmental Policy and Procedures Handbook states "Consider a full range of reasonable alternatives that address the significant issues and meet the purpose and need for the proposed action (FSM 1909.15, 12.33)". There were not any significant issues raised in scoping for the Cascade Project. Therefore the Interdisciplinary Team considered developing alternatives based on non-significant issues (EA p. 2-1).

The alternative described by the Sierra Club does not provide sufficient detail to be able to analyze. The proposed action (Alternative 2) meets the objectives provided in the comments. Older ages classes would increase under the proposed action. Currently 16% of the MBA Landscape Ecosystem is in the 80-99 age class and 5% is in the 100+ age class. After implementation of the proposed action, in 2014, there would be 38% in the 80-99 and 6% in the 100+ age classes (EA p. 3-8).

Likewise, the proposed action includes a substantial amount of restoration of native plant species and diversity. There would be: 78 acres of seeding black spruce, jack pine and paper birch; 460 acres of planting black spruce, jack pine, tamarack, white spruce, white pine, red pine and white cedar; 867 acres of interplanting white pine, white spruce, red pine, black spruce, tamarack, paper birch, white cedar; and 165 acres of underplanting white pine, white spruce and white cedar.

Comment: **BWCAW and RACR -** The Sierra Club supports the Agency's efforts to not conduct any actions adjacent to the BWCAW or the FP inventoried roadless areas. The Sierra Club is concerned however, with the proposed actions adjacent to the RACR areas. The Sierra Club believes that no logging activities should occur adjacent to the Mississippi Creek Roadless Area. The EA concludes that this project will not affect the air and noise quality of the BWCAW and RACR areas. However, the agency fails to consider how forest-wide fragmentation and loss of corridors and connectivity will affect these areas, affect species, and affect the overall health of the Superior National Forest.

Response: *Fragmentation, corridors, connectivity and affected species are covered under sections 3.4 and 3.5 in the EA. Table F-1 in Appendix F shows a summary of the status of upland mature patches forest-wide in Spatial Zone 3, the zone which includes the Cascade Project. Comparing upland mature patches in 2004 (the year the Forest Plan was signed) with projected acres in 2014 (the end of the first decade), patch acres would slightly increase and the number of patches would slightly decrease, indicating larger patches. This trend is also documented in the 2006 Forest Monitoring and Evaluation Report. The Forest Plan Revision Final Environmental Impact Statement (FEIS) projected a decrease in upland mature patches in Spatial Zone 3 at the end of the first decade. Currently cumulative effects of this project and other projects in Spatial Zone 3 are having fewer effects than those disclosed in the FEIS (Fiscal Year 2006 Superior National Forest Monitoring Report, p. 47).*

The Sierra Club is also concerned about the potential for ATV's and snowmobile's having easier access to enter the Mississippi Creek Roadless Area. ATV's cause erosion, disturbance of species and destruction of habitat. The Sierra Club believes the Forest Service should not re-classify Forest Road 329 for ATV use due to its close proximity to the Mississippi Creek Roadless Area.

Response: *See responses to comments from the Friends relating to FR 329, ATV use and potential effects. There is no data to substantiate the claim that snowmobiles would have easier access to the Mississippi Creek RACR. All temporary roads will be obliterated and are outside the RACR; they will not create easier access to enter the RACR. FR 329 is currently open to snowmobiles and that would not change and would not provide easier access. No openings or disturbance of the forest in the RACR would occur that would provide easier access.*

Comment: **Threatened, Endangered and Sensitive Species -** The Sierra Club is very concerned with the effect this project will have on threatened, endangered and sensitive species. The EA concludes that because there has been no documentation of Gray Wolf, Bald Eagle and Northern Goshawk in this area, the project will not affect them. However, these animals may reside in this area but have avoided detection.

Response*: The EA did not conclude there is no documentation of Gray Wolf. Wolves are ubiquitous across the Superior NF and we expect them in the Cascade Project Area. To clarify this, we have added a statement in the EA that wolves occur in the project area. No Bald Eagles or Northern Goshawks are known to nest here, and the habitat is generally not good for either of them (EA pp.3-26 and 27); but nesting is possible.*

The EA did not conclude the project would not affect these species. To the contrary, the EA pages 3-23 to 3-35 describe potential effects of the proposed actions to the Gray Wolf, Bald Eagle and Northern Goshawk. Summarizing the determinations in the Biological Evaluation for each of these species, the EA states that the proposed management activities planned in the project area may impact individual wolves, eagles, and goshawks but are not likely to cause a trend to federal listing or loss of viability.

It is not clear from the comment where the conclusion "the project would not affect them" was made. It is possible there is confusion between the effects analysis and the determination that is required in a Biological Evaluation. The Biological Evaluation must make one of the following determinations based on the effects analysis:

- *No impact*
- *Beneficial effects – used when proposed alternative is determined to be wholly beneficial without potential negative impacts.*
- *May impact individuals but is not likely to cause a trend to federal listing or loss of viability – used when it is determined the proposed alternative may cause some negative effects, (even if overall effect to species may be beneficial)*
- *High risk of loss of viability in the planning area (National Forest), but not likely to cause a trend toward federal listing* or *likely to result in a loss of viability and a trend toward federal listing.*

The determination addresses the question of how alternatives affect species viability at the local level, and resulting implications for species viability and distribution throughout their individual ranges.

Comment: In addition, this area has the potential to someday provide nesting and denning opportunities for these animals, but logging this area destroys that potential. The EA itself states that as a result of this project upland mature forest in the project area will be reduced by 11% (Cascade EA, 2-14). This will result in a reduction of potential Northern Goshawk nesting and post-fledging habitat. Saying that this project will not affect these species is inaccurate and the EA fails to look at the future of the species and the future potential of the area. The Sierra Club is especially concerned with this project's effect on lynx.

Response*: The project area currently provides the variety and extent of habitats (EA pp 3-8, 9, 41; and BE p 21) sufficient for wolf denning, and eagle (EA p 3-26) and goshawk nesting (EA p 3-29). The likelihood of nesting is minimal for both bird species. Only two foraging lakes for eagles occur at the periphery of the project area (EA p 3-26), and the forest structure in the large forest patches is made up of small trees and low, open crowns, less than ideal for goshawk (3-29).*

Logging will change stand structure, but this does not equate to habitat destruction. Shopping malls lead to habitat destruction. The Biological Opinion (p 15) from the US Fish and Wildlife Service for the Superior NF Forest Plan, 2004, relays a lack of concern at the prospect of wolf den disturbance. Denning habitat has never been a concern and the recovery plans (1976 and 1998) have promoted logging to establish prey habitat. As documented in the Federal Register (Vol. 72, No. 26, 2007), the pre-listing (1974) population of <1,000 has expanded to >3,000 wolves in Minnesota (2004) and has led to their delisting (2/8/07). Obviously, logging activity in the intervening years has not significantly destroyed wolf denning habitat.

The white pine that eagle prefer as nest trees would not be included in the proposed logging activities (EA p 3-33).

The proposed logging would reduce the current amount of mature forest and particularly the mature forest patches. It could reduce goshawk nesting and post-fledging habitat as stated in the EA (pp 3-34 and 35). As the EA states, the large, mature forest patch in the Mississippi Creek RACR should provide sufficient habitat to support goshawks, and the remaining percentage of mature forest would still be within prescribed levels of between 40 and 80 percent (EA p 3-34). The potential for goshawk is questionable (EA p 3-29), particularly in the portions proposed for harvest. The actions would assuredly change the habitat from mature to young forest. The future habitat resulting from the proposed management should have better potential for goshawk, i.e. larger trees, more conifer, more stand diversity (EA p 3-35).

Comment: The EA concludes that while lynx habitat would be destroyed (from 97% of suitable habitat reduced to potentially 85%) as a result of this project, the cumulative effect to lynx would be "minimal" (Cascade EA, 2-13). The Sierra Club believes that the Forest Service is minimizing the potential negative effects this project will have on lynx. An ongoing concern is that the Forest Service is relying on the Forest Plan when considering project effects on species. The Sierra Club continues to question the legality scientific credibility of the Plan.

Response: *Neither the EA nor the Biological Assessment concluded that lynx habitat would be destroyed. Some habitat would change to an unsuitable condition with vegetation management. It would be unsuitable for three to five years, depending on forest type and then it would become prey habitat. The project area will remain over 90 percent suitable habitat through time. The Forest Plan standards and guidelines are based on the Lynx Conservation Assessment and Strategy, and this project violates none of them. The Fish and Wildlife Service concurred with the Forest Plan standards and guidelines for lynx and with the attendant Biological Assessment, and it concurs with the Biological Assessment for this project.*

Comment: **Roads -** The Sierra Club is concerned with how roads affect overall forest health and contribute to the decline of certain species. While no road building at all is the preference, the Sierra Club supports the Forest Service's effort to fully and completely obliterate all roads constructed for this project. The Sierra Club is concerned with the proposed access route that stretches between the 179-030,179-027 and 179-020 sites. There are serious concerns that this lengthy road that runs adjacent to the roadless area will lead to erosion, soil and water contamination, species disturbance, species habitat destruction, invasive species and OHV trespass.

Response: *Access to these units is on an existing road. After logging operations and reforestation is completed, the road would be obliterated. Logging operations would be conducted during the winter and/or dry frozen soil conditions; thus reducing impacts to soils, wetlands and the spread of invasive species. This is one of the many mitigation measures found on the unit cards. Species disturbance would be temporary and roads*

generally become forested after they are obliterated, once again providing habitat for species. Currently this road is not open to ATVs and once it is obliterated it would not be passable by ATVs.