McCaslin EIS – Appendix I
Responses to Public Comments on the Draft EIS

The following individuals and organizations provided comments on the Draft EIS for the McCaslin Project. Below is a list of the commentors, their comments, and the Forest Service's responses to those comments.

1 Mr. Robert Gross, Mountain, WI
2 Mr. David Bartz, Sturgeon Bay, WI
3 Mr. Douglas Erdmann, Marinette, WI
4 Mr. Henry Bruse, Wisconsin Audubon Council, Wisconsin Rapids, WI
5 Mr. David Oberstar, Lake States Lumber Association, Duluth, MN
6 Mr. Terry Moore, Lake States Resource Alliance, Rhinelander, WI
7 Mr. Gary Zimmer, The Ruffed Grouse Society, Laona, WI
8 Mr. Michael Chezik, US Dept. of the Interior, Philadelphia, PA
9 Mr. Paul DeLong, Wisconsin Department of Natural Resources, Madison, WI
10 Mr. Kenneth Westlake, Environmental Protection Agency, Chicago, IL
11 Mr. Ricardo Jomarron, Madison, WI
12 Mr. David Zaber, Sierra Club, Monona, WI

"I'm in favor of Alternative 3." 1A (Robert Gross, Mountain, WI)

Comment noted

"The amount of forest management relating to timber harvest in general and aspen clear cutting/regeneration in particular has decreased to an alarming level in the last decade in all districts of the Chequamegon-Nicolet National Forest… A resulting loss of habitat for many plant and animal species that depend on early successional forest is a major concern to many of us sportsman." 2A (Dave Bartz, Sturgeon Bay, WI)

Comment noted

"If Alternative #4 called for over 2200 acres of clearcut and Alternative #2 has about 1100 acres of clearcutting, I believe the final alternative could have a much higher component of aspen clearcut/regeneration." 2B (Dave Bartz, Sturgeon Bay, WI)

Comment noted

"I am in favor of Alternative 4 (aspen emphasis)." 3A (Douglas Erdmann, Marinette, WI)

Comment noted

"I have seen a decline in the past twenty five years in the number of aspen stands in Wisconsin. The US Fish and Wildlife Service in their 2002 report on woodcock identified one reason for the decline of the woodcock was the loss of suitable habitat. A focus on aspen management with rotating age classes, would help ensure that their would be grouse and woodcock to hunt for future generations." 3B (Douglas Erdmann, Marinette, WI)

Comment noted

"The Wisconsin Audubon Council believes Alternative 3 needs more protection against forest fragmentation. In any case, Alternative 3 is superior to Alternative 2, the preferred alternative."
4A (Henry Bruse, Wisconsin Audubon Council, Wisconsin Rapids, WI)

Comment noted

"The maps for the alternatives reveal potential for degradation to riparian areas along shorelines and streams in the project area. The map for Alternative 2 (preferred alternative) shows planned clear-cuts along Penna Creek in sites 174006, 174029, and 174020. Site 176001 is a planned clear cut near Turtle Lake and Shawano Creek.

Alternative 2 calls for commercial thinning (site 014010) along Blue Gill Creek, a tributary to the North Branch of the Oconto River. The North Branch itself will be subjected to nearby commercial thinning in sites 014015, 015017, 011019, 009017, 009001, 008016, and 008005. Alternative 2 actually plans clear-cuts along the North Branch in sites 011024 and 010022. The East Fork of Thunder Creek has a proposed clear-cut (site 005045) and commercial thinning (site 005033)."
4B (Henry Bruse, Wisconsin Audubon Council, Wisconsin Rapids, WI)

During the alternative development process, resource concerns such as these were identified and the ID Team looked at ways to avoid or lessen potential impacts. In many cases, closer investigation revealed that the areas of proposed harvest were a sufficient distance from the water body to avoid any impact. Such was the case with stands 174006, 174029, 176001, 014010, 015017, 009017, 009001, 008016, and 008005. Therefore, for these stands, no further mitigation measure was identified.

For other stands close to riparian areas, the potential for impact was greater due to the stand's proximity to the water or due to the type of treatment proposed. For these stands, the ID Team recommended Mitigation Measure Y (section 2.3, DEIS) to avoid impacts to water quality. The remaining harvest units that you've mentioned include the use of this mitigation measure (see Appendix A, DEIS).

As is discussed in sections 4.3 and 4.8 of the DEIS, no impacts to water quality or fish would be expected with the incorporation of the mitigation and design discussed.

"Some of the clearcuts and commercial thinning along the North Branch (sites 010022, 011024, 011002, and 011019) proposed for Alternative 2 are retained in Alternative 3."
4C (Henry Bruse, Wisconsin Audubon Council, Wisconsin Rapids, WI)

No clearcuts are included in Alternative 3 (see DEIS, p. 15). This is a mapping error. Only stand 011019 is proposed for treatment in Alternative 3 (Refer to Alternative 3 Treatment Tables, Appendix A, p. 8). Somehow, by accident, Map 4 of Alternative 3 includes a number of even-aged harvests that are actually part of Alternative 2. We regret the error and thank you for bringing it to our attention.

"Alternative 2 (preferred alternative) calls for a 41+ year age class of only 14%, well below the recommended percentage. This could indicate a preference for restraining the process of succession for aspen stands. In light of the findings in Wisconsin Forests at the Millennium November 2000 and its conclusion ("…aspen-birch forest area has decreased steadily, although it is still much more common than at the beginning of the Cutover.", Summary p6) it seems

prudent to plan the oldest age classes for aspen that are at or greater than the recommended percentages."
4D (Henry Bruse, Wisconsin Audubon Council, Wisconsin Rapids, WI)

As you point out and as Table 9 (page viii, DEIS) shows, the amount of aspen in the 41+ year age class remaining (14%) following the implementation of Alternative 2 would, in fact, be lower than the recommended percentage of 23%. At first glance, this might seem to indicate that Alternative 2 is overly aggressive in regenerating 41+ year old stands.

However, when one takes a closer look, they will also notice that, following the implementation of Alternative 2, the 31-40 year age class would considerably exceed the recommended percentage (32% vs. 17% recommended.). Many acres within this age class are close to moving into the 41+ year age class. Thus, in the next several years, acres in the 31-40 year age class would decrease, acres in the 41+ year age class would increase, and both groups would move closer to their recommended percentages.

"The Wisconsin Audubon Council believes that Alternative 3, while better at addressing conservation values on the forest is still too similar to the Alternative 2, 4, and 5. With strengthening, especially in the area of forest fragmentation, it could be a comfortable compromise that would do much to preserve the integrity and stability of the McCaslin Area biotic community."
4E (Henry Bruse, Wisconsin Audubon Council, Wisconsin Rapids, WI)

Comment noted. No specific recommendations are given as to what would further strengthen Alternative 3 in regard to forest fragmentation. Also, no indication is given as to what would have made Alternative 3 adequately different from the other action alternatives. Without more specific comments, the ID Team is unable to give further consideration to this recommendation.

"LSLA believes that alternative 4 presents the best option of the alternatives analyzed in the DEIS."
5A (David Oberstar, Lake States Lumber Association, Duluth MN)

Comment noted

"…additional alternatives which harvest more of the hardwood sawtimber and remove more of the over mature trees should be developed and analyzed."
5B (David Oberstar, Lake States Lumber Association, Duluth MN)

See response to comment 5I.

"The Forest Service needs to consider in detail the economic and social benefits to the local and regional areas from the timber sale program. While some of the economic data is referenced in the DEIS, additional data would be beneficial to the analysis…..The payments to counties are estimated in the DEIS, but the benefits to other local units of government are ignored. These funds help local schools and communities meet their financial needs. The federal money also reduces some of the tax burden on local citizens. If harvest volumes decrease on the Chequamegon/Nicolet National Forest, these lost revenues to the small communities become a significant problem for local government."
5C (David Oberstar, Lake States Lumber Association, Duluth MN)

The DEIS states under section 4.13.2, "The Forest Service is limiting the economic efficiency and impact analyses to those monetary values that are readily available and market-defined. This analysis is not intended to show every possible tradeoff, but, rather, to consistently and reasonably compare the costs, benefits, and efficiencies between the alternatives."

Table 4.13-1 shows the payments to counties anticipated to be generated by alternative. Section 4.13.3.2 states that "Twenty-five percent of gross receipts from timber sales on the Chequamegon-Nicolet National Forest are collected and paid to the State of Wisconsin. These monies are then distributed to each respective county of origin." We recognize that these funds are subsequently further distributed to local townships and schools. We also recognize that these monies are very important to these local entities. But the intent of this economic impact analysis was not to go into that level of detail. The intent was, rather, to offer a consistent comparison and give the reader a sense of the comparative efficiency and impact of each alternative.

The issue of the harvest levels on the Chequamegon-Nicolet as a whole and their effects on local taxes, school revenue, etc… is a forest level issue that is addressed at the forest plan level.

"The social impact of the federal timber sale program must also be considered. There is no meaningful discussion of this issue in the DEIS. Many loggers in the areas surrounding the Chequamegon/Nicolet National Forest have grown up in logging families…. In many of the small local communities, logging is the dominant industry, and the major employer…Loss of these industries would be devestating to the communities and families."
5D (David Oberstar, Lake States Lumber Association, Duluth MN)

The social impact of the federal timber sale program is addressed at the Forest Plan level and is currently being revisited in the ongoing forest plan revision. For this project, the economic impacts can be found in section 4.13 of the DEIS. The commodities produced, jobs created, income created, and payments to counties can be compared to the larger economy as a whole (in section 3.13) to get a sense of what effect each alternative would have on the local communities.

"The Nicolet National Forest is violating the existing Forest Plan by designating, and now enhancing, LAD areas. LADs are not recognized in the Forest Plan. Yet, the McCaslin DEIS discusses the designated LADs and is proposing to manage them as proposed in the Revision Process. This provision of the McCaslin DEIS violates the existing Forest Plan and is illegal."
5E (David Oberstar, Lake States Lumber Association, Duluth MN)

We disagree. Nothing in this project is being proposed that either directly or indirectly enhances LAD areas. No designation of LAD areas is taking place in any of the McCaslin Project alternatives. The DEIS does discuss LAD areas as part of the Landscape Pattern discussion in sections 3.6.4 and 4.6. There is no proposal to manage them at this time as proposed in the Revision Process. If that were the case, there would be proposals in the Knowles Creek Pines LAD and Glocke Lake LAD to enhance old growth conditions and other characteristics that are special to the areas.

Alternatives which would have included harvests within LAD areas were considered during the development of the McCaslin Project. The Deciding Officer reviewed the proposal and decided that, due to the overall large size of the project area and the amount of available lands in it, harvests in LAD areas would not be considered in detail; all options for them would be maintained for the Forest Plan Revision.

"It is critical that the National Forest maintain a timber program that harvests timber at consistent, stable levels over the years. Harvest levels should be equal to the allowable cut in the Forest Plan, which would provide for a long-term, continued harvest at sustainable levels."
5F (David Oberstar, Lake States Lumber Association, Duluth MN)

This project would contribute to maintaining a timber harvest level that is stable. Allowable Sale Quantity (ASQ) does not equal annual harvest but rather defines the upper level of harvest that could be done while maintaining sustainability. This level of analysis was completed in the Socioeconomic Impact Analysis at the Forest Plan Level (pp 487-490 and Sec. B-5 of the Forest Plan FEIS). Further analysis at this broad scale level was conducted and documented in "A report on the Socioeconomic Roundtable Convened by the CNNF" completed in 1995. This concern is beyond the scope of project level analysis.

"The Forest Service must assure that it has sufficient access to manage the forest and deal with wildfire and other catastrophic events. Accordingly, LSLA is concerned about the proposal to decommission about 22 miles of road in alternative 2, more than 30 miles of road in alternative 3, and about 26 miles in alternative 4. DEIS, pp.125-34."
5G (David Oberstar, Lake States Lumber Association, Duluth MN)

This concern was addressed for the McCaslin Project Area when the ID team conducted a roads analysis for the area. The team did a road-by-road review to determine which roads were critical for such access. At the same time, the team identified roads that were causing resource damage or that were no longer needed for access.

"The DEIS references fragmentation in several places, with a more detailed discussion beginning at page 44 of the DEIS. LSLA does not believe there is any credible scientific evidence of within forest fragmentation… Negative references to forest or habitat fragmentation due to silvicultural practices in forest settings are not appropriate in the Forest Service analysis."
5H (David Oberstar, Lake States Lumber Association, Duluth MN)

Fragmentation was identified as an issue of concern during the scoping phase of the project and is discussed on pages 44 and 45 of the DEIS. Much research has focused on the effects of fragmentation within agricultural landscapes. Some research has also identified possible concerns regarding fragmentation within forested landscapes due to management activities such as roads and timber harvest. These effects appear to be less dramatic than those identified in predominately agricultural landscapes.

"The Forest Service needs to expand its analysis of reasonable alternatives. These alternatives should include actions that would further emphasize removal of overmature trees in the project area. Additional harvest of hardwood sawtimber should also be considered. NEPA requires that the government vigorously explore and objectively evaluate all reasonable alternatives…Alternatives that identify more acres to harvest should be evaluated."
5I (David Oberstar, Lake States Lumber Association, Duluth MN)

It is assumed that you are not suggesting an expansion of the project area, but are suggesting additional areas within the project area should have been included for harvesting. Through the alternative development process, many additional acres were considered for harvest. In effect, therefore, alternatives to harvest more than Alternatives 2-5 were considered, but eliminated from further detailed study as a result of site-specific considerations.

All stands analyzed within the project area, classified as suitable for timber harvest, were reviewed and only those that meet minimum stocking levels for thinning within the next 5 year period (hardwood, red pine, white spruce) or age of maturity for stands managed as even-age (aspen, jack pine) were included as part of this project. Stands lacking this stocking criterion were not identified for treatment. In addition, other stands were eliminated from further consideration for harvest in order to meet visual quality objectives, provide a variety of wildlife habitats, or to protect wetlands (to name just a few examples). Reasons for not harvesting specific stands in the area can be found throughout the project analysis file.

"LSRA does not support the selection of alternative 2, which has been proposed by the Forest Service. Of the identified alternatives, we favor alternative 4."
6A (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

Comment noted.

"The EA contains a good discussion about the economic impacts of the project on the forest products industry. DEIS p. 68. However, the economic impact on the tourism and recreation industry are largely ignored."
6B (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

Page 70 of the McCaslin DEIS recognized the importance of tourism and recreation in the area surrounding the McCaslin Project Area, stating that "in northeast Wisconsin almost 30% of the regional output is somehow tied to wood products and tourism sensitive businesses." It also cited a study which found that timber management and recreational uses are largely compatible on forest lands in Wisconsin. In the discussion on recreation (p. 134), it states that "effects would be essentially the same across all action alternatives". While recognizing the importance of tourism and recreation, the DEIS limits the economic discussion to those factors that are expected to measurably change as a direct result of the McCaslin Project- specifically benefits and costs resulting from timber harvest. Therefore, since little change to recreation or tourism opportunities are expected, economic impacts to recreation and tourism will not be analyzed for this project.

"The social impact of the programs maintained by the Forest Service must also be considered in more detail…The National Forest not only provides jobs, but also hunting, fishing, and recreational opportunities. National Forests support a wide range of jobs and opportunities which are an important component of the social environment in the communities. Loss of these jobs and the cultural opportunities would be devestating to the local communities. The National Forest timber program is critical in keeping this social environment intact. Omitting a discussion of the social issues violates NEPA requirements."
6C (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

The recreational opportunities have been and will continue to be available following this project. Therefore, no changes in culture and tradition are expected. Regarding jobs tied to timber harvest levels, the issue of a sustainable timber program was addressed in the Forest Plan Projected volume outputs for the Chequamegon-Nicolet National Forest. The McCaslin project is working towards the desired future condition identified by the Forest Plan concerning timber products.

"Local government also benefits from the federal timber program. The EA references the amount of money available to local governments as a result of the Chequamegon/Nicolet's federal timber program (DEIS p. 144), but does not provide detailed information on the impact of this project on

local government. It would also be helpful to discuss the units of government that receive these funds and the resulting tax savings to local citizens."
6D (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

See response to Comment 5C.

"The DEIS must contain a broader discussion of forest health issues, with a detailed discussion of the present condition of the project area and the potential for disease and insect outbreaks and wind damage."
6E (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

Forest health was not identified as an issue in scoping for this project so it was not analyzed in great detail. Insect and disease concerns were raised however throughout Section 3.1 especially in regards to the maturing condition of much of the aspen and jack pine forests. The discussion concerning selection harvests in hardwood forests mentions an objective to increase stand quality, health and vigor by removing insect and diseased trees. The greatest risk factor for potential insect and disease outbreaks and wind damage is the mature age of aspen and jack pine. The age class distribution of all species is shown in Table 3.1.2-5. Annual maps of insect defoliation are available. Insect and disease presence and damage is recorded during compartment examination (vegetative inventory). This information is available in vegetative data base. No catastrophic insect or disease problems have surfaced from this inventory. There are 115 acres of mature jack pine in the project that could under the right environmental conditions, pose a high fire risk. These areas are proposed for harvest with all three action alternatives.

"LSRA is concerned about the proposal to decommission about 22 miles of road in alternative 2, more than 30 miles of road in alternative 3, and about 26 miles in alternative 4. The loss of these roads could affect access for recreational use. Recreational use generates economic benefits to the local economy. The discussion of these economic impacts should be included in the economic analysis section of the DEIS…the Forest Service should carefully review the road closures in light of the recreational needs, and assure that roads and trails eliminated from use will not have an adverse economic impact on the local economy."
6F (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

See response to Comment 5G. As stated on pages 137-8 of the DEIS, "… the open road density would be reduced under all action alternatives by a range of 6-13%. The majority of the roads proposed for closure under the action alternatives are infrequently used sections and are generally dead end spur roads. Many of these roads, while currently classified as "open" are, in reality, very difficult to travel on due to brush and competing vegetation…. As a result of the changes in the road system under the action alternatives, no notable effects are expected on the recreation resource." In light of this, no adverse economic impact is expected on the local economy and there will be no further analysis on this issue.

"National Forests should maintain steady, consistent timber programs that harvest at levels equal to the allowable cut in the forest plan."
6G (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

See response to comment 5F.

"The alternatives presented in the DEIS should be expanded to include additional timber harvest activities. NEPA requires that the government vigorously explore and objectively evaluate all

reasonable alternatives….Additional harvest activities should be identified in overstocked hardwood stands and in stands that are overmature."
6H (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

See response to comment 5 I.

"The McCaslin DEIS discusses in detail the relationship of this project to the Revision Process. Many of the management decisions on McCaslin appear to have been made in reference to the Revision Process. For example, rather than manage the area in accordance with the existing Forest Plan, great care was taken to reserve areas that might be set asides in the next Forest Plan. McCaslin proposes to eliminate any activity in the proposed LAD areas (DEIS p. 107) even though LAD areas are not recognized in the current Forest Plan. This improperly restricts management options in the project."
6I (J. Terry Moore, Lake States Resource Alliance, Rhinelander WI)

See response to Comment 5E.

"The Ruffed Grouse Society is disappointed in the District's tentative selection of Alternative 2 as it does little to meet the project's purpose and need and makes no attempt to move toward the Forest Plan DFC goals for aspen in two out of the three MA's."
7A (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

Comment noted.

"Only in MA 1 does this alternative (2) show a slight increase in aspen acreage and only through a little creative bookkeeping where spruce stands receive overstory removal treatments and magically turn them into aspen/spruce (95) stands."
7B (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

This was not "creative bookkeeping" as the commentor suggests. The stands in question are currently white spruce types with a poorly-stocked aspen overstory. When the overstory removals take place, much aspen regeneration would be expected, thus resulting in aspen/spruce types.

"Please document how the alternatives will move the specific landscape in question towards these explicit requirements with regards to aspen composition, or document how the proposed project will move MA's taken as a whole (Forestwide) towards the clear direction outlined in the existing Forest Plan."
7C (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

Section 4.5 of the DEIS documents how the alternatives modify the forest composition and age class distribution in relation to the Forest Plan objectives. This section also specifically discusses the age class distribution and amount of aspen that would result from each alternative. The degree of composition resulting from this project is expected to be so small that there would be no change to forest-wide composition. Therefore, it is not discussed in the DEIS.

"The Society is also concerned that if selected, Alternative 2 fails to fully consider the effects of not regenerating hundreds of acres of mature aspen (approximately half of the existing mature aspen)."
7D (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

Section 4.5 analyzes and discusses the effects of the proposed activities on the composition and age class distribution of forests in the project area. This includes considerations of what would happen if we either regenerate or do not regenerate mature aspen in the area. Section 4.6 analyzes the landscape pattern that would result if various aspen harvests take place or fail to take place. This information and the information from Section 4.5 is then incorporated into the analysis in Section 4.7. This section discloses the effects of the proposals- as well as effects resulting from inaction in some areas- on wildlife resources. To a lesser degree, the results of both harvesting and failing to harvest areas of mature aspen are incorporated into the effects on various other issues in the McCaslin Project Area. Some examples include recreation, visual resources, and economics.

"The Society is quite concerned about the use of blanket standards in treatment areas that are adjacent to lakes and streams (Mitigation measure Y, page 20) especially the restriction that "selective harvesting (if any harvesting) would be used within the RMZ to promote long-lived species". This practice is not ecologically sound and does not match natural disturbance regimes. While watershed protection is important and this management strategy has merit, it adds to the reduction of early successional riparian habitats….The Society recommends that the District utilize less stringent standards that ensure water quality while also considering the importance of young forest habitats in close proximity to stream courses."
7E (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

This mitigation measure is one of the Wisconsin Best Management Practices (Wisconsin's Forestry Best Management Practices Field Manual, pp. 18-20). The Chequamegon-Nicolet National Forest has made a commitment to comply with these guidelines for the protection of water quality. In regards to early-successional riparian habitats, the guidelines do allow the possibility of even-aged regeneration harvests along non-navigable streams (see p. 21, DEIS).

"The estimate for ruffed grouse populations in the project area, as shown in Table 3.7-1, appear in error. First of all, 6,461 acres of ruffed grouse habitat are listed in the project area, yet more than 7,100 acres of aspen habitat alone are present according to other tables in the document (Table 3.5-10, page 40). While it is assumed that certain habitats were not included in these calculations it is more than likely that somewhat similar acreage of potential ruffed grouse habitat exists as habitat for chestnut-sided warblers in this project area. Even utilizing Kubisiak and McCaffery's (1985) data (134 per square mile of aspen/birch habitat) for 6,461 acres of aspen habitat would result in a population estimate of over 1350 grouse in the project area, far greater than the 337 indicated."
7F (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

The estimated grouse population in Table 3.7-1 page 51 of the DEIS was for drumming males per 100 acres of grouse habitat. This included the following timber types; aspen-birch, oak, northern hardwood, pine and fir (after Kubisiak and McCaffery, 1985). Using the same reference and timber types, but calculating total fall grouse population by square mile of habitat, the McCaslin project area has an estimated population of 2,016 birds.

"Similarily, numbers shown for chestnut-sided warbler and golden-winged warbler as a result of the various alternatives in Tables 4.71a and 4.71b seem far from accurate. In Table 4.71a none of the alternatives show any acreage change yet the populations show tremendous changes in Table 4.71b but are far different than the biology of these species suggests." 7G (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

Golden-winged warbler (GWWA) population estimates in Table 4.7.1b for Alternative 2 were miscalculated. The estimated population should have been 293 birds, which would be a decline of 9 birds from the current estimated population. This recalculation also affects data in Table 4.7b. GWWA estimated population in Alt 2 would have declined by 3.1 % and would now be ranked as the 3rd highest estimated population after implementation of an Alternative.

Population estimates for GWWA and chestnut-sided warbler (CSWA) were calculated using all age classes (all available acres) of preferred habitat. This was because the NNF BBS data indicated high population densities in all age classes of habitat- even though the literature indicates they primarily utilize early successional habitat. Thus, the total acreage of habitat does not change. But the acres of habitat in each age class does change over time as some areas grow into the next respective age classes. As a result, there is no apparent change in the *total area* of habitat over time .

On the other hand, the estimated populations for the birds do change. This is because the population densities vary by the *age class* of the habitats present. Because of this, given an equal amount of total habitat under each alternative, the populations of the birds may increase or decrease, depending on the predominant age class of habitat present. Page 120 of the McCaslin DEIS recognizes that there would be immediate increases in populations of early successional neotropical migratory birds. However, it points out that, due to timeframe of the "snapshot" of information (15 years post-harvest), these changes would not appear to be as dramatic as expected immediately following harvests. It does go on to say that Alternative 4 would be expected to result in the greatest benefit to these species.

"Golden-winged warblers are a shrub dependent species. As noted in the document (page 119) *"they are usually located in lowland conifers and regenerating aspen/birch stands"*. Yet the highest decreases for this species are shown to occur in Alternatives 2 and 4 that regenerate the largest amounts of aspen habitat. The statement that *"golden winged warbler's populations would decline somewhat due to the harvest of aspen stands that currently have high population densities"* (page 120) is not accurate. Researchers have reported that the highest density of golden-winged warblers occurred in one to four year old aspen stands with densities dropping quickly after 10 years of age (Roth 2001). In a Forest Service study, golden-winged warblers were more common in aspen regeneration 1.9-4.0 meters high than in other regeneration heights (Probst et al. 1992), a finding similar to what Roth found.
7H (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

See response to comment 7G for discussion on GWWA population numbers. The issue of population numbers and acres of regenerating aspen was acknowledged /identified and discussed in 4.7.5.5 Neotropical Migrants, Alternative 2 on page 120. , … "*Species that utilize early successional habitat (0-10 years old) like the golden-winged and chestnut-sided warblers, would be expected to show an increase in the alternatives that include harvest treatments that create this habitat. The analysis did not indicate this because it was conducted at 15 years post harvest and that age class was not represented at that time. However, in the years preceding this date, those bird populations would have increased as early successional vegetation became established in these post clearcut, overstory removal and shelterwood stands. This trend is repeated in all action alternatives and would especially apparent with Alternative 4"*

"The Nicolet's Breeding Bird Survey data and density data does not currently break out the age classes of aspen and should not be used in this analysis for this species or any species utilizing young forest habitat. Continuing to use this data in this way is providing inaccurate conclusions and will lead to improperly informed decisions."

7I (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

The bird modeling program that was used to estimate bird species abundance categorizes aspen stand ages as the following: 0-10 years as regenerating; 11-20 as young; 21-40 as intermediate and 41+ as mature. See file for document from Robert W. Howe, University of Wisconsin-Green Bay, Cofrin Center for Biodiversity for scientific rationale for the methods used in estimating bird populations in McCaslin EIS.

"The Ruffed Grouse Society remains concerned about the continuing decline in aspen forest communities nationwide, regionally, and on the Forest. During the past 18 years, aspen forests in Wisconsin have declined by 265,000 acres. Since the mid 1960's, the total area of aspen in Michigan, Minnesota, and Wisconsin, which contains 80 percent of the aspen in the Eastern US, has decreased by 21 percent. In Wisconsin, private individuals own nearly 9 million acres (57%). A majority of these private landowners (54%) have not harvested timber and thus have declining opportunities to perpetuate aspen habitats. The Wisconsin National Forests provide one of the last opportunities to maintain early successional landscapes."
7J (Gary Zimmer, The Ruffed Grouse Society, Laona WI)

Maintaining aspen was one of the objectives for this project as well as a component of a major issue. Decline of aspen in Wisconsin was considered in the DEIS (pp. 9, 36, 88). A total of 744 acres of aspen forest would be regenerated as a result of Alternative 2. A total of 1,936 acres of aspen forest would be regenerated as a result of Alternative 4. A total of 203 acres of aspen forest would be regenerated as a result of Alternative 5. The amount of aspen maintained at the Forest level and regionally is beyond the scope of this analysis.

"The Department of the Interior has reviewed the Draft Environmental Impact Statement (DEIS) for the McCaslin Project, Chequamegon-Nicolet National Forest, Oconto and Forest Counties, Wisconsin, dated February 2003. The U.S. Forest Service coordinated with the U.S. Fish and Wildlife Service during the development of the alternative management plans and preparation of the DEIS. Based on information provided by the FWS, we have determined that the DEIS adequately addresses the concerns of the Department regarding fish and wildlife resources, as well as species protected by the Endangered Species Act. The Department has also determined that the preferred action is acceptable with respect to these resources and species."
8A (Michael Chezik, Regional Environmental Officer, US Dept. of the Interior, Philadephia, PA)

Comment noted.

"In general, we've found the document to be comprehensive and thorough. The concerns we expressed during the scoping phase have been addressed either directly or indirectly. The mitigation measures outlined in the project are consistent with the Department's management and current science."
9A (Paul DeLong, Administrator, Wisconsin DNR, Madison, WI)

Comment noted.

"I took interest in the compatibility with the Forest Plan revision's DRAFT preferred alternative. While the Department is concerned with the 36% decline in aspen over the last 35 years, the selected alternative (#2) appears to deviate from some efforts in the proposed Forest Plan. The additional 260 acres of "temporary openings" moves away from the goal of managing for interior habitat northern hardwoods. This is small in scope compared to the total forest acreage however

there is concern that this would limit future opportunities towards large block management as outlined in the Forest Plan."
9B (Paul DeLong, Administrator, Wisconsin DNR, Madison, WI)

Comment noted. See response to Comment 10C regarding the Forest Plan Revision.

"In comparing the alternatives, the Department feels you've reached a reasonable decision in selecting Alternative #2. There are tradeoffs, however this alternative most effectively balances the Department's concerns… Lastly, I would like to applaud your philosophy of using commercial timber harvests to accomplish your vegetation management practices. The ability to contribute revenue to the local economy while improving our forest lands creates a win-win situation."
9C (Paul DeLong, Administrator, Wisconsin DNR, Madison, WI)

Comment noted.

"We are concerned about forest fragmentation cause by the proposed action, since the proposed action appears to increase fragmentation over most of the other alternatives. According to the DEIS, the proposed action implements the highest road reconstruction miles, the second highest road construction miles, the lowest road closure miles, and the lowest road deconstruction miles (when compared to the other four alternatives). Under this scenario, the proposed action would cause the largest increase in miles of edge (1.7%), the second largest decrease in interior acres (9.7%), and the second largest increase in edge-affected acres (9.44%). The DEIS states that forest fragmentation causes negative impacts on neotropical migratory birds. These impacts include habitat discontinuity, parasitism, predation, area sensitivity, patch isolation and habitat isolation."
10A (Kenneth Westlake, US Environmental Protection Agency, Chicago, IL)

Based upon analysis in the EIS, Alternative 2 provides a better balance of desirable habitats than the other alternatives (EIS, Section 2.5, Tables 2.5-2 through 5; 2.5-7 and 8). Fragmentation in and of itself is not an adverse impact. The desired balance of habitats in the National Forest is determined by public involvement and environmental review. The 1986 Forest Plan is the result of both, as is the current Forest Plan revision effort. Habitats that may be considered by the EPA to be somewhat fragmented are considered desirable in this area under both the Plan and proposed revised Plan. The EIS appropriately identifies habitat trade-offs to NTMB in order to provide habitat desired by many other species of importance to Forest users. The magnitude and context of effects from these tradeoffs are disclosed as required by NEPA, so that the responsible official can make a reasoned decision between choices (EIS, section s 4.5 and 4.7).

In terms of road impacts, Alternative 2 results in fewer open roads and a lower road density on the landscape than no action (see EIS Tables 2.5-11; 2.5-12; 4.9-1; 4.9-2; 4.9-3; and 4.9-4). The reconstruction of poor condition existing roads is anticipated to result in reduced environmental impacts than occur with the roads in their current condition (DEIS, pp. 75-77; Appendix D, pp. 28, 33, 35). Therefore, more road reconstruction means fewer effects from roads.

Effects of fragmentation on neotropical migrants (NTM's) were analyzed in section 4.7.5 of the of the EIS. Tables 4.7-2a and 4.7-2b outline the potential changes to habitat acres and population estimates for the analyzed species. Habitat acres for the NTM's analyzed is expected to increase for all species in Alternative 2, with the exception of Pine warbler which shows a decline across all alternatives. Population levels of the analyzed NTM's show similar trends across alternatives

with the exception of the Golden-winged warbler, which is described under Alternative 2 in Section 4.7.5 of the EIS.

The DEIS does not state that "forest fragmentation causes negative impacts on neotropical migratory birds." Rather, on pages 52-3 of the DEIS, the following discussion can be found:

1. "Fragmentation is a primary concern associated with habitat manipulation, and can cause or exacerbate other effects such as parasitism, predation, area sensitivity, and in extreme cases, patch or habitat isolation. Fragmentation has been defined as the disruption in the continuity of habitat (Robinson, 1996). This definition includes the extreme case of insularization of habitat patches by agricultural or residential land use (where contiguous forests are reduced to small patches) as well as more subtle forest fragmentation. Forest fragmentation can occur when activities such as clearcutting create a mosaic of successional stages within a large forest matrix. Fragmentation caused by permanent forest removal is thought to be more damaging to bird populations and can result in a permanent loss of habitat. The second type (forest fragmentation), which has also been referred to as "temporal fragmentation" (Manolis et al., 2000), represents the situation in the MPA proposal. This type may only cause temporary reductions in quantity or quality of habitat. Much of what is known about the effects of habitat fragmentation on breeding birds is based on evidence from studies of forest fragmentation within agricultural and urban areas. Much less is known about the effects in extensively forested landscapes, although more recent studies are focusing on this situation. Some researchers have suggested that the results of studies in agricultural areas should not be directly applied to contiguously forested areas (McRae, 1995)." (p. 52, McCaslin DEIS)

2. "From a regional perspective, they felt that the extensive forests of northern Wisconsin, the Missouri Ozarks, and south-central Indiana could provide a surplus of birds to maintain populations in more fragmented forest areas. Brood parasitism can almost eliminate reproduction in heavily fragmented agricultural lands. However, in extensively forested tracts of northern Wisconsin and the Missouri Ozarks, insignificant levels of parasitism were reported. The north end of the MPA is not heavily impacted by agriculture or human settlement, and while the southern section is slightly more developed, most of the NNF can still be described as remote. Therefore wildlife species composition and predation in the project area, including predators and parasites (such as raccoons, blue jays, crows, ravens, cowbirds) should be at levels that would be found in a natural forested systems." (p. 52, McCaslin DEIS)

3. "It should be noted, however, that this concept applies primarily to more heavily fragmented habitats, as opposed to a large area of continuous forest as in northern Wisconsin. For example, area sensitivity was found to be more pronounced in a highly fragmented landscape in Illinois than in a heavily forested landscape in Ontario (Robinson, 1996). There are, however, some bird species that are attracted to edges for feeding and nesting. The golden-winged warblers have incorporated forested edge along at least 25% of its territory. Golden-winged warblers seldom occupy large areas of suitable forest interior habitat >100 acres due to the lack of forested edge (Hunter et al., 2001). Hunter also identifies the black-billed cuckoo, least flycatcher, and chestnut-sided warbler as shrub-type bird species that are associated with edge habitat." (pp.52-3, McCaslin DEIS)

In numerous locations in the EIS, it is pointed out that edge (caused by fragmentation) can benefit some species and be adverse to other species (ref. DEIS pp. v, vi, 9, 44-5, 52-3, 118-21). Early

successional habitat and edge caused by fragmentation is also indicated to be beneficial to some species of neotropical migratory birds (DEIS, pp. 51-3; Appendix D, pp. 72-80).

"We are also concerned about the cumulative impact of forest fragmentation. According to the DEIS, *"Private lands would likely continue to be fragmented as large parcels are broken into smaller lots for rural home development and associated road construction."* The combined forest fragmentation activities from the proposed action and private development projects would have a cumulative impact on wildlife habitat in northern Wisconsin. For the final environmental impact statement (FEIS), USFS should consider implementing an alternative other than the proposed action in order to reduce the direct and cumulative forest fragmentation impacts from the proposed action. The no-action alternative and the interior habitat alternative appear to be the environmentally preferable alternatives for this case, since each alternative would not significantly change the current landscape pattern. Alternatively, USFS may consider developing mitigation activities for fragmentation impacts in its proposed action."
10B (Kenneth Westlake, US Environmental Protection Agency, Chicago, IL)

The Responsible Official will consider the EPA's preference for less fragmentation and more interior habitat in the ROD. However, changes in management goals and objectives are beyond the framework of this decision. Issues such as this are being addressed in the ongoing Forest Plan Revision, which is considered in the McCaslin analysis (EIS, Section 4.14).
Fragmentation (EIS, Section 1.7) was determined to be a significant issue. The EIS disclosed the effects, including cumulative (EIS, Section 4.6.7) and alternatives were designed to address it (EIS, Section 2.2). Private lands trends were considered in the EIS as the EPA has noted.

McCaslin Alternative 3 was created to address the concerns of fragmentation and landscape pattern by eliminating the use of even-aged management. All action alternatives include design features so that mitigation measures would not be needed to reduce the effects to acceptable (not significant) levels. For example, design feature LL (EIS Section 2.3) was created to minimize fragmentation effects of road activities. See also the response to Comment 10A regarding the effects of forest fragmentation.

"We are concerned because certain vegetation management activities in the proposed action may conflict with management goals in future programmatic guidelines. Specifically, the proposed action includes about 260 acres of openings. This activity would not be consistent with northern hardwood management goals listed in seven alternatives of the upcoming Chequamegon-Nicolet Forest Plan Revision. If USFS chooses to implement the proposed action and one of the seven alternatives in the Forest Plan Revision, then USFS would be acting against its own long-term goals for the Chequamegon-Nicolet Forest. It would be prudent for the USFS to ensure that its short and long-term goals reflect a consistent and unified strategy. Therefore, USFS should consider implementing an alternative with goals that are consistent with the long-term goals in the Forest Plan Revision, or it should reconcile the significant differences in goals between the proposed action and the Forest Plan Revision Alternatives."
10C (Kenneth Westlake, US Environmental Protection Agency, Chicago, IL)

At the time the McCaslin DEIS was being prepared, a Proposed Land and Resource Management Plan for the Chequamegon-Nicolet was not available. Early assumptions in the McCaslin DEIS were made which are now found to be incorrect. Although the original conflict was found to be very small and not an important consideration in weighing alternative actions (a few hundred acres in the context of hundreds of thousands of acres of interior forest management), these potential conflicts were reviewed in more detail in response to EPA concerns. Proposed and alternative actions analyzed in the McCaslin DEIS were reconsidered for conflicts using the

Chequamegon-Nicolet Proposed Land and Resource Management Plan ("Proposed Plan"), and DEIS (April 11, 2003).

This closer look considered Proposed Plan goals, objectives, standards, and guidelines (pp 3-8 through 3-10). It revealed no inconsistency or conflict with McCaslin proposed or alternative actions. This current absence of any conflict will be clarified in the final McCaslin EIS and Record of Decision. The analysis documents supporting this conclusion have been amended to reflect the release of the Proposed Plan and DEIS.

"We are concerned about the proposed action's impact on the Golden-Winged Warbler. According to the DEIS, the proposed action would reduce this warbler's population by 78.8%, due to the harvest of aspen stands that currently have high population densities. The DEIS lists the Golden-winged warbler as a management indicator species. The DEIS defines a management indicator species as "*a wildlife species whose population will indicate the health of the ecosystem in which it lives and, consequently, the effects of forest management activities to that ecosystem"* This would indicate that aspen ecosystem health associated with the Golden-Winged Warbler would greatly decrease under the proposed action.

On April 18, 2003, Scott Anderson of USFS spoke with Newton Ellens of my staff. Mr. Anderson stated that the data showing a 78.8% decline in the Golden-Winged Warbler's population under the proposed action is incorrect. Mr. Anderson stated that the warbler's population would actually decline 3 percent, which is more acceptable to our agency. USFS should correct this discrepancy in the FEIS."
10D (Kenneth Westlake, US Environmental Protection Agency, Chicago, IL)

The above correction has been made. See Tables 2.5-7 and 4.7-2b in the FEIS.

"At the bottom of page 29 of McCaslin DEIS Appendix D- Additional Wildlife Information it says, "The amount of young (Goshawk) taken by falconers is determined by the previous years known number of young fledged, with 10% of that being available for legal collection the following year. No take has occurred on the west side of the CNNF in recent years due to little or no reproduction. The east side has more suitable habitat and birds, therefore in 2001 there were 2 young allowed to be removed form (sic) nests."

Two young allowed from the "more suitable habitat" of the east side that represent "10%" of the previous year's (2000's) "known number of young fledged" is already a significant impact on such a low number (20) of known fledglings of Goshawk. On what basis is allowing a 10% fledgling harvest okay. None is giving (sic) in the DEIS."
11A (Ricardo Jomarron, Madison, WI)

The basis for the 10% fledgling take is from the Northern States Bald Eagle Recovery Plan (USFWS, 1983). This recommendation was adjusted to address the Forest's goshawk population and was made following input by USFWS, WDNR, WI Falconry Association, Tom Erdman (WI Goshawk Biologist), and other mid west goshawk researchers. Take permits are based on yearly population estimates. When goshawk populations decline so does the number of permits.

The Forest has established a threshold within the estimated population (<1 bird) such that 10% does not allow for a take on the Forest; no permits issued. Estimated goshawk populations for 2002 were at such a level that the Forest did not allow for any take on the CNNF for 2003. Further, take is also regulated by the WDNR through NR 18 (State of Wisconsin Regulations for Falconry) and the State is responsible to ensure statewide population sustainability. The forest

uses this approach to ensure that a take wouldn't jeopardize the continued sustainability of this species within the habitats on the Nicolet portion of the Forest.

However, the Forest continues to evaluate this process annually to ensure its continued appropriateness. Tom Doolittle, WI Goshawk Specialist, indicates that the falconry take on a statewide spatial scale has nominal effects to goshawks (unpublished Draft Goshawk Conservation Assessment (CA)). While a take on one segment may be detrimental, the Forest protocol tool for takes manages them in a way that prevents this from occurring.

"If known fledgling production remained flat at 20 for 2001, we know that 10% won't be growing up in the CNNF to reproduce-leaving only 18 fledglings to possibly live long enough (24 months for males) to reproduce. Then there's the question, "will they be able to find suitable habitat to successfully reproduce in? As they wouldn't be able to find suitable habitat in the Western or Chequamegon half, where in Wisconsin could they successfully breed?"
11B (Ricardo Jomarron, Madison, WI)

Goshawks would be able to find potential nesting habitat in the McCaslin project area because not all nesting habitat is being harvested. In the DEIS BE (Appendix D, pp. 27-9), potentially available goshawk habitat within aspen stands was presented by alternative. There would also be the following acres available in high and medium potential nesting habitat in upland hardwood stands that have no timber harvest proposed: Alternative 2 = 994 acres (112 high, 882 medium); Alternative 3 = 1,283 acres (264 high, 1,019 medium); Alternative 4 = 1,002 (120 high, 1,002 medium) and Alternative 5 = 1,015 (120 high, 895 medium).

Also, as indicated in the DEIS BE on page 27, selection harvest would have minimal affects on goshawk nesting habitat. This would be because canopy closure would remain high after harvest and thinning would make the stand unsuitable for only several years.

We disagree that there is no habitat on the Chequamegon half of the Forest. The Medford-Park Falls (MDPF) Ranger District has approximately 14 historical territories and a record 5 of them are active this spring. That district also has areas with good topography, stands of old hardwoods with inclusions of hemlock, and white pine that could support more goshawk territories (pers. comm. Susanne Adams, MDPF District Biologist). The Great Divide Range District (GD RD) does not have as much goshawk activity as the MDPF district for unknown reasons. There are a few historic territories on the district that have several inactive nests and occasionally have birds occupying them. The District may have more goshawks nesting on the district than is known and does have good quality habitat that is unoccupied (pers. comm. Tom Matthiae, GD District Biologist). The Washburn RD also does not have a lot of goshawk habitat when compared to MDPF RD. However, the western half of the southern section of the district is being managed for Hemlock-Hardwood Continuous Canopy. These areas have had goshawk sightings and nesting was recently documented near Lake Owen (Scott Anderson, personal observation).

"At the top of page 30 of "McCaslin DEIS Appendix D-Additional Wildlife Information it says, "Also occurring is the illegal taking of young goshawks and the magnitude of this on the NNF is unknown. The legal and illegal taking of young goshawks by falconers can negatively impact the local population by affecting the number of birds available for recruitment."

The above DEIS page 30 quote tells us that the status of Goshawk fledgling availability for recruitment in CNNF is "unknown". It indicates that more than 10% of the Goshawk fledgling removal is "occurring" by falconers alone. It also states that the magnitude or number of fledglings removed by falconers is "unknown"…Clearly there should be no take of goshawk

throughout the entire CNNF. So now our remaining 18 known fledglings could be down to 16 or 14- it's "unknown" ".
11C (Ricardo Jomarron, Madison, WI)

See response to Comment 11A. The illegal take of any species of fish and wildlife is very difficult and at times impossible to measure. The regulatory controls implemented by the Forest and the cooperative relationship with the Wisconsin Falconers Association has likely had a positive effect on reducing the illegal take of goshawks on the CNNF. (D. Eklund, CNN Forest Biologist, and Tom Doolittle, unpublished Draft Goshawk CA).

"An even larger factor affecting the number of available fledglings to recruit future breeding pairs of Goshawk on the CNNF is predation by Fisher. Fisher predation is omitted in the McCaslin DEIS. On page 17, Erdman et al 1998, Canadien field naturalist 112(1) it states that, "The reintroduced Fisher is largely responsible for increased nest failure and adult female mortality, with the turnover of nesting females having doubled to over 40%."

…Fisher are already at or near the highest populations levels in the Erdman study and rapidly climbing. Thus we can expect Fisher pressure on Goshawk to be as large or larger, and that it is likely that the Goshawk are now even farther below the sustainable reproduction threshold depicted below in Erdman (1998)."
11D (Ricardo Jomarron, Madison, WI)

Comment noted. The Wisconsin DNR is responsible for the management of Fisher within the state and implements annual take allowances based on various data sources. Additionally, fisher harvest is also greatly influenced by a number of factors such as fur market prices, climatic conditions etc. that are beyond the CNNF's control. Tom Erdman indicates that fisher populations are problematic for goshawks but that the Forest cannot control the number of fisher on the landscape (Letter to DNR, 1998). Exact percentage of fisher predation on goshawks is unknown and difficult to quantify.

"Another significant omission in the McCaslin DEIS's Goshawk discussion is that Goshawk reproduction is dangerously low. According to Erdman (1998) page 17, "Since 1985, reproduction has fallen below the estimated threshold of 1.7 young fledged/active nest needed to maintain a stable population."

As page 26 of "McCaslin DEIS Appendix D, Page 26 quotes to the above Erdman study, the lack of any mention of Fisher predation or the drop in reproduction below stable population maintenance levels), shows a lack of professionalism, effort and a disregard for Goshawk and an avoidance of living up to NFMA standards.

With such and (sic) exceedingly small number of known Goshawk fledglings, it is critical not to decrease or disturb any of the Goshawk's limited "suitable" nesting habitat."
11E (Ricardo Jomarron, Madison, WI)

The goshawk is classified as a Regional Forest Sensitive Species (RFSS). This indicates that its population numbers are low and, therefore, a concern. Thus, it receives additional considerations to ensure compliance with the National Forest Management Act of 1976 (NFMA). Additionally, Forest regulatory controls have been implemented to ensure stable population levels.

Fisher predation is accounted for when the Forest evaluates the number of take permits available on the Forest each year. Also, to ensure that goshawk-nesting habitat does not decline and nests

are protected, the DEIS has established woodland hawk nesting habitat blocks (DEIS BE pg.29) and the CNNF has implemented successful Standards and Guidelines (DEIS pg. 19) (John Jacobs pers comm. Tom Doolittle pers. comm., USDA General Tech, Report RM-217, 1992, and Tom Erdman, 2003, letter to FS).

" "Forest management activities over the past 10 years in potential Goshawk habitat have been selected harvest of northern hardwoods (7,645 ac.) and even aged management (2,578 ac.). Selection harvests (17% of area) conducted in hardwood stands may have resulted in the loss of potential nesting trees on private lands."

The above page 29 (DEIS) quote suggests a lack of assessing Goshawk habitat outside of the CNNF holdings." (Other quotes from pages 27-9 of the DEIS are given that state that there would be additional losses of Goshawk habitat through timber harvests).
11F (Ricardo Jomarron, Madison, WI)

We disagree. The above statements were made on Appendix D, page 29 in the Cumulative Effects section. Information presented after this statement discussed the effects of these harvest treatments that have occurred outside the project area on private lands and concluded "these activities would not have made conditions unsuitable for goshawks to affect their viability."

As indicated on page 28 of Appendix D, losses to goshawk habitat would be short-term, but would subsequently develop into more preferred habitat. Timber harvest conducted in potential goshawk habitat would not cause the stand to be "lost". As indicated in DEIS Appendix D, page 26, goshawks are "well adapted for life in forested lands and is considered a habitat generalist as it occupies most of the forested types in its range". Some stands that were harvested with selection treatment could still be used as nesting habitat, thinned stands as roosting or feeding sites and clearcut stands could be used as feeding areas on grouse and/or hare. Also, the establishment of woodland hawk nest blocks and implementation of Forest Goshawk Standard and Guidelines protect and maintain goshawk habitat in the McCaslin project area.

"Managing for more prey through sacrificing nesting habitat as mentioned in the next DEIS quote (p. 28) makes no beneficial sense for Goshawk management….While the DEIS sites no study supporting a need or benefit of expanding goshawk prey habitat by reducing potential nesting habitat, Figure 2 of Erdman et al 1998, Canadien field naturalist 112 (1): page 19 shows that while Grouse populations soared to a 20 year high between 1984 and 1992, Northern Goshawk reproductive success dropped by as much as 50% strongly pointing to a need for maintaining not reducing Goshawk nesting habitat."
11G (Ricardo Jomarron, Madison, WI)

As indicated in DEIS Appendix D, page 26, goshawks are "well adapted for life in forested lands and is considered a habitat generalist as it occupies most of the forested types in its range". Harvest treatments in aspen stands would provide early successional habitat for hare and grouse that are preferred goshawk prey. Nesting habitat would still be available under each alternative as indicated in the BE (see Appendix D). Also see response to Comment 11B.

"…on the Region 9 Goshawk page… I found this evidence of the Forest Service becoming aware of or had access to this information on 8/06/02 or sooner: "Management agencies usually attempt to reduce disturbance during nesting period by delineating protected areas around nest trees (Reynolds 1983). Crocker-Bedford (1990) found that, between 1985 and 1987, 66% of control nests were reoccupied at least once compared with only 12% of buffered nests. Occupancy was

low in both small (1.2-2.4 ha) and large (16-200 ha) buffered nests, a result suggesting that the sizes of the buffer areas were inadequate."

The above low success rate of buffered Goshawk nests date found through the Region 9 Forest Service website begs that McCaslin DEIS and EIS justify the McCaslin DEIS 30 acre recommendation as an effective tool in protecting the already precipitously low Goshawk reproduction in CNNF. This lack also points to an avoidance of taking responsibility for Goshawk and NFMA."
11H (Ricardo Jomarron, Madison, WI)

The 30-acre woodland hawk nesting block was recommended by John Jacobs who has been conducting woodland hawk research on the NNF for over 30 years. This size nesting habitat block was also obtained from recommendations in the Management Recommendations for the Northern Goshawk in the Southwestern United States (USDA Gen. tech, Report RM-217, 1992). Tom Erdman, Goshawk Biologist, has indicated in a letter to the Forest Service that his research on the NNF has "evidence that the current reserve areas work. The new Forest Plan will actually set aside more area and be more restricting of forestry outside the reserve." Tom has identified 9 sights on the NNF where new pairs of nesting raptors moved into an existing territory with reserve areas established.

"The McCaslin DEIS sites no data or studies in its discussion of Goshawk population, its assumptions on buffer size or on the population trends of Northern Goshawk."
11I (Ricardo Jomarron, Madison, WI)

The goshawk is classified as a Regional Forester's sensitive species (RFSS). This indicates its population numbers are low and are a concern. Because we are already aware that its populations are low and are a concern, no further detailed discussion on its population status was conducted. However, the following general comment on its population status was presented on Appendix D, page 26 of the DEIS, "Currently, it is an uncommon resident in the north and an uncommon migrant in the central and southern parts of the state. However, exceptional numbers of birds may occur approximately every 8-10 years when ruffed grouse and snowshoe hare populations are low in its northern range." See Comment 11H in regard to buffer sizes. Information on goshawk populations and population trends at the state and forest level was considered during project design and analysis and can be found in the McCaslin analysis file.

"A proper DEIS analysis of the Goshawk should follow Risk Evaluation form for Sensitive species which I easily downloaded from the Region 9 website. Below… are some quotes from the "high risk" column of the US Forest Service's Risk Evaluation form for sensitive species. (these quotes are then followed by the commenter's follow-up)
"Distribution: Very restricted or endemic, disjunct or isolated population or restricted to a rare habitat on NF or majority of occurrences in state or region on NF" *In this case the NNF. Table 1 (Erdman 1998, p. 21) "40 of 77 breeding territories (17 of 25 active) in NNF* "Population Trend: Documented significant decline on NF (i.e., 20% decline in 10 years or 3 generations.) Habitat integrity limited or no specific management focused on sustaining quality habitat on NF at this time; known natural or human threats may be affecting species." *Also occurring is the illegal taking of young goshawks(by falconers) and the magnitude of this on the NNF is unknown- McCaslin DEIS Appendix D.*
"The reintroduced Fisher is largely responsible for increased nest failure and adult female mortality, with the turnover of nesting females having doubled to over 40%" page 17 Erdman et al 1998, Canadien field naturalist 112(1) (The study was submitted in 1994 and the data runs to 1992)."Population vulnerability: Fragile; not resilient" According to Erdman (1998) page 17,

"Since 1985, reproduction has fallen below the estimated threshold of 1.7 young fledged/active nest needed to maintain a stable population."
"The reintroduced Fisher is largely responsible for increased nest failure and adult female mortality, with the turnover of nesting females having doubled to over 40%" page 17 Erdman et al 1998, Canadien field naturalist 112(1)
"Marten populations are high and rebounding." As per Fisher Population Analysis 2001 by Bruce E Kohn, Robert E Rolley, and James E Woodford."
11J (Ricardo Jomarron, Madison, WI)

The goshawk is already classified as Regional Forest Sensitive Species on the CNNF and therefore has had a Risk Evaluation document completed.

"The Northern Goshawk is clearly a high risk species by the US Forest Service's own criteria. The loose undocumented assumptions and lack of taking advantage of Goshawk population date the Forest Service already possesses shows a failure in assessing the state of Goshawk and the risks inherent in the proposed McCaslin timber sale. Clearly, the McCaslin timber sale would push the Goshawk farther along its obvious trajectory toward federal listing and loss of viability-making the McCaslin sale in violation of NFMA."
11K (Ricardo Jomarron, Madison, WI)

We disagree. The listing of goshawks as a RFSS utilizes current research papers and reproduction and population trend data that have been collected for 30 years on the NNF by Tom Erdman. The effects from the proposed projects on goshawk populations were presented on Appendix D, page 30 of the DEIS. It concluded that, "*Short term there may be impacts to individuals but not likely to cause a trend towards federal listing or loss of viability. Long-term beneficial effects would occur with the improvement and development of nesting habitat, as larger diameter trees become established to improve stand structure. Prey base habitat (early successional) would also improve to provide addition foraging habitat*". See Comment 11B for more information on available habitat.

Also, establishment to ensure population viability are mitigation measures to protect nesting areas and woodland hawk nesting blocks. Finally, the NNF goshawk population is part of a regional population (Wisconsin and Midwest region); it is not a distinct population occurring only on the National Forest.

"The purpose and need for the MVMP reflects a bias towards timber production (especially growing aspen for pulpwood production) and ignores significant issues including the need to recover populations of various species (including the state endangered pine marten), and the need to contribute to the recovery of the federally endangered timber wolf and Canada lynx. Given the multiple use mandate, we object to Forest Service's insistence on timber harvest as the *"…overriding purpose of the McCaslin Project is to implement vegetation management activities…" (p. 2 DEIS).*"
12A (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted. Ordinarily, species recovery programs are much larger in scope than is a project the size of McCaslin. They are usually regional or statewide in scope. Examples include the Recovery Plan for the Wolf in Wisconsin and the Regional Lynx Assessment. At the project level and where appropriate, we consider species such as these and try to incorporate their needs into project design and mitigation. However, we feel that it isn't practical to take an area as small as McCaslin and as far removed from core population areas and base the need of the project on

species recovery. This is more appropriately done at the Forest Plan scale and issues exactly like these are currently being considered in the Chequamegon-Nicolet Forest Plan Revision.

"The purpose and need statement reflects an outdated perspective which ignores the possibility of restoring the project area and protecting ecological health in the CNNF. Even if the outdated forest plan indicates that the management of this area should be primarily for aspen production, the project cannot ignore other mandates in the LRMP and NFMA. The strong emphasis on timber harvest and the preparation of stands for future harvest violates the multiple use mandate of the forest service and ignores the overwhelming public opinion supporting wildland restoration and roadless area protection."
12B (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The commentor does not specify what, in their opinion, would constitute restoration and the protection of ecological health. Without this baseline information, it is impossible for us specifically address his concern vis-à-vis the current forest plan.

In response to similar related comments, the IDT developed alternatives 3 and 5 which would limit the open road densities, the amount of fragmentation, and aspen regeneration in varying parts of the area.

We disagree that the harvests proposed within the project area and the preparation of stands for future timber harvest somehow violate the Forest Service's multiple use mandate. These areas currently provide multiple uses and will continue to do so following implementation. Without more specific charges, it is impossible to respond to this claim.

"Claims made in this section are based upon artificial need dictated by the outdated Forest Plan. Reliance upon this document for determining the need for aspen regeneration, forest growth and diversity "improvement", maintain wildlife openings, and wood products ignores the scientific information developed since adoption of the 1986 plan."
12C (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Refer to pp. 159-164 of the McCaslin DEIS for a listing of some of the scientific information that was used to develop and analyze this project. The majority of the literature was published since the adoption of the plan.

"Selection of Alternative 2 also fails to move towards the Desired Future Condition for birch, a species prized by visitors to the CNNF."
12D (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

This is noted on page 92 of the McCaslin DEIS. Section 4.5.1 (p. 87 DEIS) also notes that "the most notable changes are in the amount of aspen and hardwood. In some cases, the proposals move portions of the project area away from Forest Plan DFC's. This was sometimes the result of an alternative's emphasis of a particular condition, such as early successional habitat. In other cases, one type was moved away from the DFC to move another type closer to its DFC." Tables 4.5-2 through 4.5-4 summarize the tradeoffs that would be expected between forest types under each alternative.

"Since the revised plan has yet to be adopted, it is unclear as to what management prescriptions will be adopted for aspen in general, and the McCaslin VMP area specifically. Despite the growing concerns over excessive aspen management on the CNNF, Alternative 2 proposes even more aspen in MA 1.1 and 1.2. Our organizations and others with interests in Region 9 management direction for aspen have repeatedly raised the issue of large-scale aspen cultivation and associated adverse ecological impacts."
12E (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Both of these concerns have been considered and addressed in the McCaslin DEIS. The IDT used Draft Forest Plan Revision information to compare the McCaslin alternative to that the direction that is proposed for the area under the Chequamegon-Nicolet Forest Plan Revision. Discussion on this can be found in Section 4.14 of the McCaslin FEIS.

The second issue (concern over aspen management) was addressed through the development and analysis of Alternative 3 which doesn't regenerate any aspen and which pushes the project area towards large block interior habitat conditions.

"We agree that there is a need to modify forest age and composition (DEIS p. i).

- For MA 1.1/1.2, early age class aspen is excessive and should be reduced to address deer population issues. Where white pine is found in the understory of aspen, white pine should be favored in management. Allow white pine regeneration in aspen.
- For MA 3.1/3.2, white pine must be increased and aspen decreased. Similarly for MA 4.1/4.2.
- Regeneration of eastern hemlock should be encouraged.
- American butternut should be conserved; methods proposed in the DEIS for accomplishing this are unproven and may worsen infestation with butternut canker.
- Access management should focus on reducing road densities throughout the project area. Proposed road closures and "decommissioning" are inadequate to compensate for the added mileage of new roads and reconstructed roads. Erosion control at Lincoln Lake and the N. Br. Oconto River is needed.
- Improvement of fish habitat and construction of osprey nest platforms is desirable. Maintenance of permanent openings provides unnecessary fragmentation and should be discontinued; openings should be allowed to age without further management. Sufficient opening habitat is available across the planning area and to a greater extent across the region.
- Archeological Evaluation and Interpretation should be allowed to proceed before land altering activities begin. Prehistoric archeological sites are often difficult to identify, particularly when they occur in natural areas. Determining the extent of archeological sites is critical to their protection and preservation."

12F (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Response:

1. Alternative 3 addresses this concern. Under this alternative, aspen would not be regenerated. Much of the older aspen would, however, be thinned. This would create conditions that would result in understory regeneration to hardwood and white pine, which has been widespread in similar stands throughout the project area. In addition, white pine would be planted in many of these stands. (see pages 95-6, Appendix A McCaslin DEIS)
2. See response 1.

3. We agree. This is why we are planting hemlock and encouraging natural hemlock regeneration in all action alternatives. We are also refraining from cutting hemlock trees and proposing to put fencing up to protect young hemlock from deer browse. (see Section 2.2, Appendix A, and Section 2.3 McCaslin DEIS)
4. We agree that butternut should be conserved, but we disagree that the methods we proposed are unproven and may worsen butternut canker. Our proposal to create gaps and areas of lower canopy closure for butternut regeneration are based on district experience in butternut management, the autecology of butternut, and recommendations from scientists involved with butternut research. On the concern of spreading butternut canker, we consulted with Mike Ostry, a forest pathologist who is active in butternut canker research. He stated: *"We have no evidence that disturbance in stands containing butternut will increase either the incidence or severity of butternut canker. The fungus and disease has been found throughout the range of butternut in disturbed and undisturbed landscapes alike. Often butternut remote from any other butternut are severely affected."*
5. Erosion control of the said locations is included in all of the action alternatives. Reductions in road density are a component in all action alternatives. The commentor, however, gives no reason why closures and decommissioning is not adequate.
6. Alternative 3 (and to a lesser degree, Alternative 5) does not include wildlife opening maintenance. All action alternatives include fish and wildlife habitat improvement projects, such as installing nesting platforms. (see Section 2.2)
7. All action alternative include the evaluation and interpretation of heritage resources (see sections 2.2 and 4.12). However, they will not necessarily take place prior to harvest activities. Section 2.3, measures R and T outline measures that would be used to prevent impacts to heritage resource sites.

"The purpose and need for this project are based on the old Forest Plan, including both forest composition objectives, and economic goals. If the objective is vegetative management, why has the project limited itself to only considering commercial harvests? A management option that uses other than commercial harvests has not been considered."
12G (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Section 2.4, page 22 of the McCaslin DEIS discusses an alternative that was considered that does not include commercial timber harvest. As it states, "This alternative is not being analyzed in detail because it does not meet the scope of the Purpose and Need identified in Chapter 1. One of the key purposes of the project is to use timber sales as the primary method for making desired changes to forest vegetation. While the Forest Service could develop an alternative that includes only such activities as planting, riparian restoration, and prescribed burning, it would be at an unreasonable cost and effort and would not meet this key purpose of the project. Wherever reasonable, achieving the purpose and need without timber harvest is incorporated into all action alternatives analyzed in detail."

"The MVMP DEIS should have included a minimum of two additional alternatives for full consideration: 1) Active Restoration and 2) Passive Restoration. These alternatives should include protections for lands suitable for special protection, restoration of native species and elimination of active aspen management as a component of multiple use management, among other activities. At least one fully analyzed alternative should include designation of Research Natural Areas (RNAs) and access management that actually reaches the Forest Plan's target road density levels. A fully analyzed alternative should also include deer reduction mechanisms based upon habitat manipulation."

12H (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See the response to comment 12G for discussion on the restoration-only alternative that was considered but eliminated from detailed analysis. The commentor does not specify what they mean by Active and Passive Restoration so it is difficult to tell how this would greatly differ from the Forest Service's restoration-only alternative. In response to the elements given:

1) Special areas and potential RNA's have been identified in the Forest Plan Revision process and would not be entered as part of the McCaslin Project. Formal designation may take place in the Forest Plan Record of Decision;
2) The McCaslin Project proposes only the management of native species. If the commentor's intent was the restoration of species such as wolf, marten, or lynx, see the response to Comment 12A;
3) the elimination of active aspen management was a key element of Alternative 3, which was analyzed in detail;
4) During the Road Analysis Process and the Alternative Development Process, the ID Team identified sets of road closures that could be practicably implemented. The specific issue of reducing open road density to target levels in this entry was discussed. However, past experience has shown us that effective road closure works best when done in gradually in phases, starting with the dead end spurs and least-used roads first. Attempting to close multiple roads that get a lot of use has consistently failed as users reopen closures and cause additional damage in the process.
5) Deer reduction mechanisms through habitat manipulation was an element in Alternative 3. This alternative didn't include even-aged regeneration harvest and actively pushed aspen stands toward long-term hardwood management.

"Given that the proposed Forest Plan revision DEIS is out for review, one would also think that the Forest Service would propose an alternative that complies with all propose Forest Plan alternatives. Alternative 1 would provide the greatest flexibility for compliance with a new Forest Plan, regardless of whether the final selected alternative was one of the analyzed alternatives, a combination of alternatives or a significantly modified alternative. All actions alternatives proposed for the MVMP preclude options for management that will be raised (successfully) during the plan revision process."
12I (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Section 4.14 of the FEIS and the supporting documentation in the analysis file identifies that there would be no inconsistencies between the McCaslin alternatives and the alternative management area prescriptions of the Forest Plan Revision. See Response to Comment 10C for further discussion.

"At the same time, the "No Action" alternative is dismissed without any clear rational justification. The DEIS implies that the "No Action" alternative does not meet Forest Plan Goals, but it does not make clear as to why – with the exception of timber and pulp production levels. The discussion of Alternative A also does not even consider the possible benefits to waiting until the new forest plan is finalized before authorizing new management."
12J (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The commentor doesn't give examples of how they feel Alternative 1 is dismissed so it is difficult to respond to the claim. However, the effects of Alternative 1 are consistently and thoroughly

discussed throughout Section 4 of the DEIS (pp. 72-158) . Section 4.14.4 (p. 153 DEIS) explains that Alternative 1 would result in no limitations in Forest Plan Revision management options.

"The DEIS is incomplete since it fails to include maps showing harvest areas logged over the past 30-50 years."
12K (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The supporting analysis file contains this information. NEPA regulations support concise documentation and not the inclusion of "encyclopedic" or unnecessary information in the DEIS.

"The measurement variables selected for assessment in the MVMP, edge to interior ratios, average patch size and number of patches, provides little relevant ecological information for impact assessment in the absence of real-world spatial context. Further, average patch size is also biologically irrelevant since patch quality and landscape location are unknown. Forest Service provides no scientific documentation establishing casual links between the selected measures of landscape pattern and wildlife or ecological condition. The failure to provide real-world spatial information prevents meaningful impact assessment by the public or by decision makers."
12L (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The indicators mentioned by the commenter: edge to interior ratio, average patch size, and number of patches were not used in the McCaslin analysis. The fragmentation indicators used to analyze the McCaslin project area included: acres of interior habitat, acres of edge-affected habitat, and miles of edge. These indicators are listed in Table 4.6-1 on page 105 of the DEIS and discussed in section 4.6.

"Forest Service should identify all timber harvests that have taken place in and around the project area since acquisition. Ages of stands should be included in all treatment information contained in the DEIS. Suitable habitat patches for Red-Shouldered hawk and Northern goshawk as well as Canada lynx should be displayed and assessment made of the degree of habitat security and connectivity in relation to the needs of these species. Maps should also display locations of likely temporary wetland crossings for timber harvest."
12M (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

This information is part of the McCaslin analysis file and was used during project development and analysis.

"Maps should indicate clearly all past, present and future timber management activities within and surrounding the project area. Providing information on past management actions in various locations in the DEIS without placing those sale boundaries on a map prevents the public from understanding the spatial array of cutting units and reserve areas. Understanding these factors is critical for informed cumulative effects analysis."
12N (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Detailed information such as this was not included in the main body of the McCaslin DEIS because that document attempts to give more of a concise discussion of effects. Supporting information like past sale maps and stand information for the project area is available to the Deciding Official and to the public in the analysis file.

"There is no evidence in the DEIS that the Forest Service has consultation with USFWS over this project. This may be a violation of the ESA."
12O (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Consultation with the USFWS was addressed in Section 3.7.3, pg. 49 of the DEIS. Per letter received from Janet Smith, May 1,2001; USFWS concluded "no need for further consultation on this projects under the ESA of 1973." Therefore, consultation has already been concluded.

"The MVMP DEIS fails to address the problem of excessive deer numbers and fails to reflect the potential for high deer populations to influence spread of disease including but not limited to chronic wasting disease. The failure to address the cumulative impacts of maintaining excessive whitetail deer populations ignores the growing body of scientific evidence regarding adverse ecological impacts to flora, fauna and human health. It also ignores the recent reductions in deer hunting pressure following discovery of CWD in Wisconsin."
12P (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The WDNR is responsible for white-tailed deer population management within the state and implements annual harvest quotas based on various data sources. The concern about deer populations and their impacts to flora and fauna is addressed in Sections 3.7.7 pg. 53-54, of the DEIS. Chronic Wasting Disease is a statewide issue that is being monitored by the DNR. To date, no CWD has been found outside of the CWD Management Zone (near Madison). This issue is beyond the scope of this EIS.

"Mitigation measures proposed in the DEIS (e.g. grape fern community buffers) are based upon edge effect determinations that ignore the fact that white tail deer, an edge species, can have effects well past 250 feet into habitat patches."
12Q (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Design features G and H (DEIS p. 18-19) are targeted at rare ferns and come from the Conservation Approach for Goblin fern, *Botrychium mormo* W. H. Wagner (available at http://www.fs.fed.us/r9/wildlife/tes/ca-overview/docs/Goblin-Fern-Approach_0602.doc). These design features were created to mitigate some of the effects of timber management. Whitetail deer are known to preferentially browse certain herbaceous and woody plant species. However, no data is available to indicate that whitetail deer preferentially browse the species addressed by design features G and H. The effects of whitetail deer are discussed in sections 3.7.7 and 4.7.5.2 of the DEIS.

"Given the fact that the DEIS itself clearly shows improvements to deer habitat suitability as a result of planned logging, it is reasonable to include, at a minimum, a discussion of the effects this will have on the project area and surrounding lands, including LADs. This has not been done for the MVMP."
12R (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Discussion on effects of the project to deer and deer habitat can be found in section 4.7.5.2 (pp. 111-113). Discussion on effects to vegetation in the project area can be found in section 4.5 (pp.86-105). Discussion on effects to landscape pattern (including LAD) can be found in section

4.6 (pp.105-110). Discussion on potential impacts to surrounding lands can be found in the cumulative effects sections for the various resources in Chapter 4. However, it should be noted that this varies greatly since the cumulative effects analysis area varies by issue being analyzed. In some cases, such as soil and heritage resource concerns, no impacts are expected beyond those specific areas with proposed activities. In other cases, such as wildlife, the cumulative effects discussion includes an area that extends a certain distance outside of the project area.

"The CNNF has not analyzed adequately the impacts to the state-endangered American marten. The BE fails to include or reference the most up-to-date information regarding pine marten sightings and signs, as well as ongoing pine marten monitoring. The MVMP preferred alternative fails to provide analysis and project activities that will improve the viability of pine marten in the planning area and across the state. Much of the northern sections of the MVMP area are suitable for pine marten reintroduction and natural colonization. Proposed activities will harm marten viability across the CNNF by degrading marten habitat suitability."
12S (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We disagree. Current research information on pine martin populations was included in the analysis and is on file. Contacts were made with state pine marten experts Adrian Wydeven, WDNR, and Jonathan Gilbert, Great Lakes Indian Fish and Wildlife Commission. Both referenced the most up-to-date track surveys conducted on the District by the WDNR. These indicated only scattered reports of marten on the District (no major population centers) and no records within the McCaslin area. This included results in American Marten Surveys in Northern Wisconsin 2002 (Wydeven, A., J.E. Wiedenhoeft and J. E. Ashbrenner, 2002) and from track surveys conducted in the winters of 1990 through 2001 by WDNR that included the McCaslin project area. Also, in the winter of 2002-03, the WDNR and USFS conducted winter track surveys on 18 miles of roads in the McCaslin project area and found no presence of marten.

The DEIS determined there were no marten present, habitat was limited, and the project area was not close enough to an established population to consider it a dispersal area. Therefore, no analysis by alternative was completed. Finally, population viability analysis (PVA) information done for the forest plan revision describes the Nicolet National Forest as marginal for a viable population of pine marten.

"The DEIS fails to mention the fact that only 19 American marten were detected along 224.3 miles of survey in this time period. That is 50% of the number found the year before (2000 – 2001) with slightly less intensive monitoring (15 miles less). Given the project's location near the southeastern edge of the marten distribution range (eastern population), Forest Service should have addressed expansion of recovery via restoration of suitable forest conditions."
12T (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comments noted. The commenter is correct in noting that recent numbers are down based on the past two years of winter track surveys (Wisconsin Wildlife Surveys, August 2001 and August 2002 editions). Also, the comment regarding the location of the project area to the southern edge of the marten distribution range is noted. However, the McCaslin project area is approximately 20-25 miles from the nearest core range of marten located to the northwest. This distance would not be considered a reasonable distance for marten to travel and expand their range. Marten lack strong dispersal capabilities and generally only move 1-2 miles. This must be through good habitat which does not exist in the area due to large blocks of unsuitable private and public lands

between these two locations (PVA notes). See Comment 12S in regard to information used in marten analysis.

"Proposed logging will reduce the amount of existing snags and standing woody debris in the cutting units; mitigation proposed in the DEIS is insufficient to provide suitable habitat for marten and other species requiring large woody debris, both standing and on the ground. Selective logging will also significantly reduce the amount of future snags of suitable size developing in the cutting units."
12U (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See responses to Comments 12S, 12T, and 12W. Commentor provides no information to support the claim that the mitigation proposed in the DEIS would be insufficient in terms of large woody debris.

"Forest Service has failed to work to improve habitat conditions and population viability for marten in Wisconsin. The Forest Service has an obligation to protect and restore wildlife populations across the planning unit. Proposed logging and road building does not protect marten populations and does not help to restore the species to a semblance of its original numbers, numbers that would put it out of danger of extinction in Wisconsin."
12V (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The DEIS determined there were no marten present, habitat was limited, and expansion from other populations was not plausible in the project area. Therefore, no marten management was recommended. See also response to Comment 12A.

The CNNF is currently involved with others in study of Marten populations and habitat issues. No trap zones have been established and studies with the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) are underway.

"The DEIS fails to reflect the importance of standing and down woody debris for marten and other species and fails to recognize the loss of critical stand characteristics following logging. The cumulative effects analysis for the MVMP is flawed with respect to pine marten and other species requiring intact, thermally stable, rich soil northern hardwood stands. The BE and the DEIS fail to provide any data whatsoever on the levels of coarse woody debris in proposed cutting units and the amount of coarse woody debris (particularly CWD suitable for den sites) that remains across previously treated stands."
12W (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The issue of standing and down woody debris was not discussed for marten due to reasons stated in the responses to Comments 12 S and 12T. The importance of standing woody debris (which would also be available for species such as marten) was addressed with MIS pileated woodpecker and barred owl in the DEIS on pages 79 and 80, respectively. These two species were classified in the Forest Plan as indicators to habitat that includes cavity and snag tree habitat.

Section 3.5.5.4 of the DEIS (pg. 43) discussed the status of snags, cavity trees and down woody material in the McCaslin project area. It gives qualitative discussion, concluding that not much natural development of large snag and cavity trees or woody debris has occurred because of the relatively young age of the forest. It also states that detailed information on the amount and sizes

of snags, cavity trees and down woody debris in the McCaslin Area is not available. In section 4.5, more general expected trends were discussed by alternative. Standard and guides have been identified (see mitigation measures) to provide for long-term maintenance of standing and down woody debris.

"Predictably, Forest Service glosses over the fact that all forms of logging treatments proposed in the MVMP will reduce the number of large trees, their overall biomass in the cutting units and set back development of sufficient large down woody debris (and standing snags)."
12X (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We disagree. The majority of the acreage proposed for timber harvests would be treated by selective harvests and intermediate thinnings. At this stage in stand development, the overall biomass of these stands is steadily increasing. Each entry does temporarily reduce total stand volume, but the result of this stocking control is that the remaining trees would put on growth at higher rates.

In the case of the thinning treatments, the average remaining tree size increases following each entry. This is because we are removing smaller trees to give the remaining crop (larger) trees space to grow.

In the case of the selection harvest treatments, at this point in stand development, the vast majority of the treatments are also geared toward "crop tree" (the biggest and best) development. In general, most of the trees cut out of these stands are in pole size classes. However, in the selection treatments, some larger trees are also being removed. The reason for doing this is to create openings in the canopy to allow for understory regeneration. But, on the whole and at this stage, the number of large trees is increasing as a result of density management.

Regarding snag development and retention, standing dead trees are generally left if they are not merchantable (generally 3+ years dead) and if they do not pose a safety hazard to workers during logging operations. See McCaslin DEIS Section 4.5 for discussion on the project's effects on snags, cavity trees, and down wood.

"The MVMP DEIS fails to provide for viability of pine marten across the planning area and across the CNNF itself. Why haven't marten moved south from their original release sites? Given the failure of pine marten to recolonize parts of the CNNF, analysis of potential impacts should include an examination of why this is so."
12Y (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The issues of species viability and recovery of populations are beyond the scope of a single project area analysis and are being addressed in the Forest Plan Revision. These issues have been a significant part of the current Forest Plan revision process, including the Species Viability Evaluation, preparation of the Biological Evaluation and Biological Assessment, and development of standards and guidelines.

Marten viability and colonization is a complex issue currently being studied by Great Lakes Indian Fish Wildlife Commission, North Central Experimental Station, and others on the Chequamegon portion of the Forest. No management recommendations have been provided from this research. However, any that come will be evaluated and may be implemented on the Forest in the future.

The McCaslin project does nevertheless propose some activities, which are aimed at improving habitat for threatened, endangered, and sensitive species. Examples include decommissioning of roads, underplanting of long-lived conifer species and establish no-activity buffer units around breeding sites. Mitigation measures and design features that addressed these species were also identified in the DEIS BE. Response to marten habitat and recolonization in McCaslin, see responses to Comments 12A, 12S, and 12T.

"The MVMP fails to work towards recovery of the timber wolf and Canada lynx. The Forest Service has an affirmative responsibility to contribute to the recovery and viability of the timber wolf and the Canada lynx across the CNNF."
12Z (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The USFWS Biological Opinion on National Forest Lands and Resource Management Plans and BLM Land Use plans concluded the Forest does not contain adequate or sufficient suitable habitat for Lynx. Therefore, our means to contribute to viability and recovery of the Canada Lynx are minimal at best.

In regards to timber wolf recovery, the Forest continues to coordinate activities with the WDNR and the USFWS in regard to the management of timber wolves. The Forest regularly contributes to and receives data from the WDNR regarding Timber Wolf pack locations, rendezvous sites and den sites. It also implements standards and guides to protect critical habitat sites from disturbance. Further, data from the DNR indicates that wolf populations continue to increase across the Forest and the state and are at their highest-level known since the recovery program began. The Forest received a letter from USFWS dated April 3, 2003 indicating the reclassification of timber wolf from endangered to threatened because populations have successfully increased to the level that flexible management of the Districts population segment is desired. Also see responses to Comments 12A and 12Y.

"The MVMP DEIS ignores the fact that a well-documented population of lynx is found in Minnesota and recovery of a Great Lakes population will require CNNF land. Had it been done as required, habitat analysis for lynx would reveal a lack of security habitat and forest structural components such as downed woody debris and low winter disturbance in and around the project area. It would also reveal the role Sailor Creek roadless area with its remote condition could have on lynx recovery; and the threats posed to this important habitat block by many proposed cutting units."
12AA (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to Comment 12Z. Analysis of potential effects on lynx and their habitats will be reported in a Biological Assessment for the selected alternative, and this will meet compliance with the requirements of the ESA.

There is no evidence of a breeding population of lynx on the CNNF, although transient individuals have been recorded from time to time. In the Biological Opinion on the effects of National Forest and Bureau of Land Management activities on Canada lynx in the contiguous United States (10/25/2000), the U.S. Fish and Wildlife Service documented that:

1. Much of the Great Lakes area is considered marginal habitat for lynx because it is a transitional forest type at the edge of the snowshoe hare range.
2. Snow depths that allow a competitive advantage for lynx occur only in limited areas in

northeastern Minnesota, extreme northern Wisconsin, and Michigan's Upper Peninsula.
3. The historical and current status of lynx in the area is uncertain, with population dynamics probably driven mostly by immigration.
4. Using the best information available, it is not possible to determine whether resident populations of lynx exist currently or existed historically in the Great Lakes region (it is recognized that lynx breeding has recently been documented on the Superior National Forest). Past records from Wisconsin and Michigan were most likely transient, dispersing animals.

We are working with the U.S. Fish and Wildlife Service to assure that all requirements of the Endangered Species Act are met, including the preparation of a Biological Assessment for the selected alternative. The completed BA will be presented to the FWS for review and concurrence. A request for formal consultation will be made only if there is a determination that the project "may adversely effect" the lynx.

There is no roadless area called Sailor Creek on the Forest. The Sailor Creek Area is located in the Medford/Park Falls Ranger District. Any actions occurring in that area would be outside the scope as it applies to lynx. In the McCaslin Project, no direct or indirect effects to the lynx are expected as a result of this project. Therefore, no cumulative effects resulting from this project and other past, present, and future actions are expected to the lynx.

"The Forest Service's contention that lynx are rare in the region is not a valid reason to ignore the species' needs according to the Endangered Species Act."
12AB (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to Comments 12A, 12Z, and 12AA. Further, the CNNF has not been designated as having critical habitat for the Lynx (as has NE Minnesota) under ESA. Therefore, there is no identified critical lynx habitat to manage in the McCaslin project area. Also, it is approximately 300 miles from the McCaslin Project area to northeastern Minnesota where this lynx habitat is located. Due to this distance and large amounts of unsuitable habitat between the two locations, dispersal for recolonization is highly unlikely from the Superior NF.

"Forest Service should analyze relationships among wolf, coyote and lynx recovery across the CNNF and in the project area prior to initiating any further timber harvest planning for this and other projects across the CNNF."
12AC (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We assume the commenter suggests that the absence of wolf packs on the Nicolet may be a threat to lynx viability since wolves have a controlling effect on coyotes. The Chequamegon side of the forest has had, and continues to have a number of wolf packs, yet there is no documentation of increased lynx colonization/observations.

"The CNNF must comply fully with all portions of the recent court decision (Defenders of Wildlife et. Al v. Gale Norton et. al. 2002; 00-2996 (GK). To do so, the CNNF must withdraw the MVMP project from further consideration, prepare a new EIS for a new Forest Plan that actively takes into account lynx conservation (the current one does not do so) and take affirmative actions to restore and protect lynx habitat and habitat security. The MVMP does the contrary and is a violation of the recent court decision."

12AD (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

There is currently no court direction to withdraw projects such as McCaslin EIS from further consideration. The FS is working with the USFWS to assure that all requirements of the Endangered Species Act are met, including the preparation of a Biological Assessment for the selected alternative. Also, consultation concerning the lynx and habitat affected by this project has been concluded (May 01, 2001). The USFWS has not asked for additional consultation for the McCaslin Project as a result of the Defender's court decision.

"In fact, the treatments proposed in the project will damage potential lynx habitat by increasing fragmentation, decreasing interior habitat, improving road networks, reducing recruitments of large downed woody debris in managed stands and logging in some of the most remote areas on the CNNF. Lynx have been known to use the CNNF and are confirmed to breed in the Superior NF, even during periods of lower than normal snowfall. The extremely cursory treatment of lynx and wolf conservation in the DEIS fails to meet the minimal standards of NEPA, NFMA and the ESA. **Continuation with any of the five timber sales planned for the CNNF (Northwest Howell, Cayuga, McCaslin, Hoffman-Sailor West, Sunken Moose) without full consultation with the Fish and Wildlife Service violates the Endangered Species Act.**"
12AE (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See responses to Comments 12AA, 12AB, and 12AD. A Biological Assessment will be prepared for all federally threatened and endangered species known to occur, or with potential to occur in the project area. The completed BA will be presented to the FWS for courtesy review.

"The recent court decision in Washington, D.C. has determined that the decision by the Fish and Wildlife Service to not include the Great Lakes in the range of the lynx was in error. Clearly, the best available science demonstrates the historic use of the Northwoods by Lynx. Even the Forest Service admits that the FWS considers the MVMP to fall within lynx habitat. Failure to consider lynx recovery in the MVMP violates"
12AF (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See responses to Comments 12AA, 12AB, and 12AD. Based on our assessment of the Forest using the interagency Lynx Conservation Assessment and Strategy guidelines, the Forest determined there were no resident lynx or suitable habitat. Fish and Wildlife Service confirmed such in the B.O. Forest Lands/BLM decision and again was confirmed by the USFWS in an April 28, 2000 letter regarding on-going Forest Projects.

"The following are general concerns related to lynx recovery and management.

- Current management and conservation policies for lynx and their habitat are not adequate to address the threats to lynx survival.
- Loss and fragmentation of lynx habitat due to forestry practices, roads, and other human activities and developments is the major factor in the decline of lynx that needs to be addressed.
- Past and ongoing forestry practices present a unique threat to lynx.
- Current silvicultural techniques are often detrimental to lynx.

- Logging is not an effective substitution for fire and other natural disturbances, because fire and other disturbances will continue to occur, and differences with roading, coarse woody debris, forest structure, and the larger forest mosaic.
- Logging and the subsequent increased access into lynx habitat via the associated forest roads may be contributing to fragmentation and enhancing competition from other "generalist" predators.
- Lynx conservation today requires a larger spatial scale than has been considered under past and current management, where federal protection and even international protection is required.

The MVMP DEIS fails to address these issues related to the lynx in any meaningful way."
12AG (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See above responses to Comments 12 AA-AF.

"The DEIS and the BE generally ignore the issue of road density as it relates to wolf populations. Road densities are essential factors in determining wolf habitat suitability but the DEIS makes no mention of it in regards to the needs of wolf. Why not? Such an oversight is a violation of the ESA."
12AH (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We disagree. We conducted analysis of the McCaslin project area for wolves and determined that no wolves or critical habitat were present and due to this the proposed activities will have no effect on wolves or their habitat (pg. 50 DEIS). The issue of road density as it relates to wolf reintroduction is beyond the scope of this analysis. The re-introduction of rare species was not the purpose of this project. However the potential for re-introduction and the issue of road densities are being discussed with the Forest Plan Revision and WDNR Management Plan. Under the current Forest Plan certain Management Area's strive to have less than 2-miles per square mile of open road density (Table 1-5, pg. 6). This was in part to provide for potential wolf habitat (NNF LRMP FEIS pg. 3-30). See also response to Comment 12A.

"Forest Service has an obligation to evaluate why the eastern timber wolf is not well-distributed across the planning area, with a specific focus on why the McCaslin VMP area does not support wolves."
12AI (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Discussions with WDNR indicate that this issue is difficult to define and may be the result of other reasons. (D. Eklund Pers. Comm.). Adrian Wydeven, WDNR Wolf Biologist, suggests it may be a result of lack of local acceptance of wolves in this area by the public. The Forest Plan Revision is evaluating wolves across the CNNF and identifies management that would assist in wolf recovery. See also response to Comment 12A.

"High road densities throughout the project area contribute to degradation of habitat conditions for wolves. Forest Plan guidelines for road densities are inadequate to protect species such as wolves and lynx. Proposed alternatives in the Forest Plan revision process do not address adequately, the issue of road density reduction. Forest Service must explain why wolves are not reproducing in the project area and why project plans do not call for sufficient road density reductions, via obliteration."

12AJ (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See responses to Comments 12A, 12F, 12H, 12Z, 12AC, 12AE, 12AH, and 12AI for discussion on wolf and lynx management and road density management in the McCaslin Project. The commentor provides no new information which suggests why current Forest Plan guidelines for road densities are inadequate for wolf and lynx protection and provides no information that suggests what would be adequate. Concerns related to Forest Plan revision alternatives should be submitted to the planning team for that effort since these issues are outside of the scope of the McCaslin analysis.

"In fact, of the three known goshawk nests, two are in proposed cutting units. Why? Why is a species such as the goshawk, whose current population numbers and trends are apparently unknown to anyone in the state (or one would presume the MVMP DEIS would reveal that number) found to be nesting in stands proposed for timber harvest?"
12AK (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

These stands are being occupied by goshawks because they provide suitable nesting habitat. We feel that with incorporated design features that suitable nesting habitat would be retained.

Current population and trend numbers have been discussed and presented by goshawk specialists in research papers, workshops and personal communications.
One of the two mentioned historical nest trees within a proposed timber sale no longer exists and no nesting activity has been documented in that area. Due to this historic goshawk use, a woodland hawk nesting habitat block (DEIS Appendix D, pg. 26) will be established in this area that would continue to provide habitat for re-establishment of nesting birds. The second area has had more recent nesting activity and this year a nest was located and a no-cut protective buffer was placed around the nest site.

"How can the Forest Service determine that there will be no impact to goshawk and red-shouldered hawk when riparian logging will reduce canopy levels to 60% closer (sic), clear cuts will be made adjacent to riparian areas, increased light penetration will take place across thousands of acres of potentially suitable habitat, old aspen and birch forests will be logged, road activity will increase and basal areas of thinned and selectively logged stands will be below levels suitable for goshawk and red-shouldered hawk life cycles."
12AL (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The impacts from the proposed projects on goshawk and red-shouldered hawks and their habitats were presented on pages 30 and 35 respectively of the DEIS Appendix D. It concluded for both birds that, "Short term there may be impacts to individuals but not likely to cause a trend towards federal listing or loss of viability. Long-term beneficial effects would occur with the improvement and development of nesting habitat, as larger diameter trees become established to improve stand structure." Also, for goshawks, "Prey base habitat (early successional) would also improve to provide addition foraging habitat". This conclusion resulted from analysis input from goshawk and red-shouldered specialists and Forest biologists. Also, nest surveys were conducted in all potential hawk habitats that had proposed timber management. Clearcuts are not being proposed in stands that have nesting goshawks or red-shouldered hawks.

Mitigation measure Y in page 20, DEIS states, "as a minimum, harvesting in the RMZ would leave at least 60 ft basal area in trees 5 inches DBH and greater". We assume that this is were you obtained the figure of 60% canopy closure. However, in practice, with few exceptions, canopy closure in RMZ far exceeds 60% canopy closure.
Recommended BA in selectively harvested stands will be 84 square ft in merchantable size classes (>5 inches dbh). For information on effects of timber management see response to Comment 11F.

"Furthermore, how can Forest Service suggest that goshawk will not be harmed by increased amounts of vegetation growing in stands as a result of more light? These stands become less useful for goshawk since they impede maneuverability and prey acquisition (even when there may be a spike in some prey species numbers)."
12AM (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

As indicated in DEIS Appendix D, page 26, goshawks are "well adapted for life in forested lands and is considered a habitat generalist as it occupies most of the forested types in its range". Nesting and foraging habitat would still be available as indicated in the discussion in pp. 27-9 of Appendix D. See also response to Comment 11B.

Goshawks are active hunters that prey upon species that occupy the ground-shrub layer; tree squirrels, rabbits, hares, grouse and small birds. They are also opportunistic hunters that use habitats for foraging. This probably changes according to geography, vegetation, season and target prey species (PVA notes). Anderson and Kennedy (2001) reported that goshawks in Minnesota have evolved a morphology for pursuing prey in moderately dense forests. Initially, the ground cover will be dense to supply the above species with habitat. The understory will return to a more open habitat through competition and also as these stands' canopy close, reducing the amount of light in the understory. The conditions that would result would still provide prey habitat and thus foraging areas for goshawks.

"According to the DEIS (Appendix D p. 29), "No take has occurred on the west side of the CNNF in recent years due to little or no reproduction." Is this the case? If there has been no reproduction of goshawk on the entire Chequamegon (western) side of the forest, and most known nest sites are not being used, how can a determination of "no effect" be supported?"
12AN (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Analysis of effects was for the McCaslin project area only. The effects from the proposed projects on goshawk populations were presented on page 30 of the DEIS Appendix D. A determination of "no effect" was not made. Rather, it concluded that, "*Short term there may be impacts to individuals but not likely to cause a trend towards federal listing or loss of viability. Long-term beneficial effects would occur with the improvement and development of nesting habitat, as larger diameter trees become established to improve stand structure. Prey base habitat (early successional) would also improve to provide addition foraging habitat*". See response to Comment 11B for more information on available habitat and goshawk populations on the Chequamegon side.

"The DEIS ignores the most important available science regarding goshawk numbers and population trends in the upper Midwest, a violation of NEPA."
12AO (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Commenter does not indicate which science they feel is being ignored in the McCaslin analysis. No references are given for the Forest Service to consider. The DEIS Appendix D (pg. 26-27) referenced several scientific papers related on goshawks in the Midwest. Data was also collected in research done by Tom Erdman who has been conducting goshawk research on the Nicolet National Forest for the past 30 years. In addition, the WDNR has been conducting goshawk research on non-federal ownership across northern Wisconsin. This information has been incorporated into the McCaslin analysis.

"Failure to address cumulative impacts of 21 timber sales that have been conducted in the area violates NEPA."
12AP (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Relevant past activities, such as timber sales, have been considered in the cumulative effects analyses and are referenced throughout McCaslin DEIS, Chapter 4 (examples include pp. 79, 84, 104, 109, 121, 124, 141, and 150). Additional detailed information, such as past sale maps and stand history data, is located in the McCaslin analysis file.

"Forest Service has essentially ignored the cumulative effects of past actions, despite admitting that past actions have contributed to cumulative effects in the MVMP DEIS, and has once again determined that large scale industrial logging has had no effect and will continue to have no effect on ecosystem status or the viability of the northern goshawk. What are the current population levels of goshawks in the planning area and in the region as a whole? How successful have goshawk nest site protection measures been where they have been applied?"
12AQ (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to comment 12AP.

"The DEIS makes no substantial mention of wildlife monitoring and leaves the public without accurate and trustworthy information regarding existing populations of TES and RFSS within and around the project area."
12AR (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The best available information on gray wolf monitoring and existing population was obtained from WDNR reports and was identified on page 50 of the DEIS. Similar information on Canada lynx, Fassett's locoweed and American burying beetle were obtained from USFWS reports and/or correspondence letter and was identified on page 50 of the DEIS. Population status on bald eagles and karner blue butterfly was obtained from FS and WDNR reports. The best available information on monitoring and existing population status for RFSS was referenced in the RFSS species analysis within Appendix D of DEIS. Also, a general description on what resources were used in RFSS analysis was identified on page 25 of the DEIS BE.

"A final relevant regulatory requirement of the agency in preparing a proposal such as the MVMP timber sales is that the proposal must go through a hard look and public scrutiny in compliance with NEPA."
"None of this has been done in the case of goshawk or red-shouldered hawk viability and the impacts of the proposed project and related projects on the CNNF NF and adjacent state and private lands."

12AS, 12AT (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The commentor gives no specific statement of what they feel was lacking in the cumulative effects analysis. Past, present, and future activities taking place in and around the McCaslin Project area were identified and discussed in various sections of Chapter 4 of the DEIS. Those most relevant to goshawk are summarized in pp. 103-105 and pp. 121-122. Supporting information, including maps, spreadsheets, stand history data, and other information was also used and is in the project analysis file. Discussion on cumulative effects to the goshawk and red-shouldered hawk can be found in Appendix D, pp. 29-30 and 34-5, respectively. Without a more specific statement of what the commentor feels is lacking in the cumulative effects analysis, the Forest Service is unable to further address the concern.

"The CNNF presents no evidence that goshawk and red-shouldered hawks, two species with already low population numbers, are being protected by current mitigation measures and will be protected over time. Goshawks do not live by nest site alone; they need large areas to forage and red-shouldered hawks are likely to be even more sensitive to logging in their habitat ranges than goshawk. This area sensitivity is ignored in the DEIS analysis and in the BE."
12AU (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to Comment 11H. Area sensitivity for goshawks was discussed on Appendix D page 26 of the DEIS. Due to similarities with RDSH it was also referenced in that species section on page 31. John Jacobs indicates that his red-shouldered hawk research on the NNF has "good information to support that buffers are working to protect nest sites" (J. Jacobs personal communication with Scott Anderson, 2003)

"Goshawks have never been identified as common or abundant, so population numbers would be expected to be low compared to some other species. The low goshawk numbers located locally could be evidence of a population decline, a result of survey methodology or search effort, on an indication of their uncommon and cyclic nature. Because little is known about local limiting factors, it is difficult to determine if the current population could be considered viable. The cumulative effects of harvesting available suitable habitat could reduce the chances of the goshawk locating a suitable nest site. Past harvest across the forest has opened canopies and created thick shrub layers that may have deterred goshawk nesting and foraging. Alternatives that propose harvest, especially in northern hardwood stands, could reduce suitability for nesting."
12AV (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted. Goshawks are not as abundant or as common as other raptor species, thus they have been placed on the Forest's RFSS list. Due to this listing we use special management guidelines to protect this species and its habitat (see section 2.3, McCaslin DEIS). This includes no cut buffers around nest sites, timing restrictions, and establishment of woodland hawk nesting blocks.

Research methodology was obtained from scientifically published paper (Kennedy and Stachlecker, 1993) and adjusted for this area with input from state goshawk specialists and Forest biologists. The Forest continues to support research on the Forest and across the state to better understand the population dynamics of the goshawk. Recent information indicates that mammalian predation and severe spring weather variables play an important role in the year-to-

year population levels. See response to Comment 12AM in regard to vegetation response to past and present harvests in suitable habitat.

"The impact of the continuing reduction of basal area in potentially suitable stands for goshawk is unknown but precaution suggests that there may be a serious problem, particularly since goshawk require closed canopy forests. Speaker Recommendations from the Summary of a Workshop on the Management of the Northern Goshawk in Wisconsin (3/12/93 – Madison, WI; Attachment 2) including the following recommendation:

"Given the current state of knowledge (or lack of knowledge) about the long-term effects of the extent and different kinds of silvicultural activities on goshawk foraging habitat, forest/wildlife planners should be conservative in planning timber harvest activities at this time. Further, forest management agencies should monitor and manage more than just goshawk "nest site areas"; instead, the management of goshawks and other large, wide-ranging forest predators should occur at the landscape level and take on a more holistic approach." (Page 19)"
12AW (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted. Assuming the commentor is referring to the goshawk's complete territory, the statement that goshawks require closed canopy forests is incorrect. In thinned and selectively harvested stands, the resulting basal area is expected to continue to provide goshawk habitat (Appendix D, p. 27).

"The Forest Service has a responsibility to address the issue of excessive deer populations and their effects on fisher populations, identify on maps suitable and unsuitable habitat and plan for recruitment of future habitat for goshawk and red-shouldered hawks in and around the project area. This has not been done, yet proposed logging and road construction will take place directly along waterways and other aquatic features and in stands that currently support goshawk."
12AX (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The FS is not aware of any connection between white-tailed deer and fisher populations and, therefore, cannot speculate on the writer's intent.

Identification of suitable and non-suitable habitats for goshawks and red-shouldered hawks was completed using guidelines described on pg. 26 and 31 in the DEIS Appendix D. The results are located in the project file. Recruitment of future habitat for goshawk and red-shouldered hawks in the project area was addressed with the establishment of woodland nesting habitat blocks for goshawks and red-shouldered hawks on pages 29 and pg. 34 of the DEIS Appendix D. Recruitment of future habitat is also partially addressed since current habitat will largely be available for these species following harvests.

See letter 12, comment AL in regards to the wetlands issue.

"Forest Service should withdraw from harvest or road activity all northern hardwood stands proposed for thinning in the northern half of the project area. All stands with goshawk nests or within ¼ mile of stands with nest sites should be deferred from harvest throughout the project area and the CNNF. Opening maintenance should be ended in the northern section of the project area and substantial road density reductions, via obliteration, should be undertaken in this part of the project area. The large stands of northern hardwoods in the northern sections of the project

area represent the type of large, unbroken stands of interior forest necessary for ensuring viability of a range of plants and animals on the CNNF."
12AY (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comments noted. Opening maintenance and large block management of northern hardwoods were issues addressed by the development of Alternative 3. Section 2.3 outlines mitigation measures that would be used to avoid or reduce impacts to the northern goshawk. The commentor gives no reference as to why a ¼ mile buffer would be necessary or what scientific information would support this need.

"In "Red Shouldered Hawk Nests," by Dijak et al, published in The Wilson's Bulletin in 1990, the authors found that the mean canopy closure of successful nesting sites was 90%, and the mean canopy height was 22.3 meters. The woods were relatively dense, and the basal area 25.4 square meters/ha. In a study on red-shouldered hawks, entitled "Nest-Site Selection of Red-Shouldered and Red-Tailed Hawks in a Managed Forest, "by Moorman and Chapman, published in the Wilson's Bulletin in 1996, researchers found that red-shouldered hawks nested in sites with 87% canopy cover. Another important finding in this study is that red-shouldered hawk nests "were located in larger stands (mean of 194.15 ha)," a finding of area sensitivity they supported with similar findings from other studies.

Alteration of the dense, mature forest habitat clearly has an adverse effect upon the species. As Bednarz and Dinsmore stated, in "Hawk Nest-Sites and Habitat", published in 1982, in the Wilson's Bulletin, "Selective cutting in sense woodlots could possibly open habitats currently used by red-shouldered hawks to competition with red-tailed hawks," and "As harvest of the Midwestern forests continues, the Red-shouldered hawk undoubtedly will lose some of its optimum habitat, allowing competition and replacement by the larger red-tailed hawk." Dijak et al recommended that, "Management to enhance lowland hardwood forests for red-shouldered hawk nesting habitat should provide for large diameter trees with many large diameter perches in areas with a high percentage of canopy closure and high densities of small diameter trees."

There are also studies from the northern forest, which support these findings. For example, Bryant, A. A., 1986, in a paper entitled "Influence of selective logging on Red-shouldered hawks, Buteo lineatus, in the Waterloo region, Ontario, 1953-1978," published in the Canadian Field-Naturalist, 100 (4) 520-525, Bryant finds that "Incursions by red-tailed hawks were strongly associated with reductions in mean tree density and tree-crown diameter. This suggests that selective cutting in woodlots may result in the replacement of red-shouldered hawks by red-tailed hawks. Failure to maintain uncut buffer zones around traditional red-shouldered hawk nest sites may result in the local extirpation of this species." He goes on to find that "Red-tailed hawk incursions were associated with tree densities and crown diameters, suggesting that these incursions were a response to selective logging in woodlots…I believe that selective logging permits territory appropriation by the larger, more aggressive but less maneuverable red-tails, and that cutting for timber or firewood may be ultimately responsible for the decline of Red-shouldered hawks in the Waterloo region." Yet, this information is not discussed at all in the DEIS."
12AZ (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We disagree. The issue of forested landscapes with open canopy and its relation to red-tailed hawks displacing red-shouldered hawks from their territories was addressed on page 30 of the DEIS Appendix D. Red-shouldered hawk management in the McCaslin project area will provide large diameter trees in

uncut stands and woodland hawk nesting blocks (page 29 of the DEIS Appendix D). They will also be provided in stands that have selection cuts (page 31 of the DEIS Appendix D) and with harvest prescriptions that protect beech and yellow birch trees that are favorite nesting trees of the hawks. Also, no cut buffers have been established around all known nests within stands that have harvest treatments. It is also stated in the Red shouldered hawk Conservation Assessment pg. 41, *" Selective harvesting of hardwoods, if done properly, can be compatible with red-shouldered hawks."*

References regarding Red-shouldered hawk nest site criteria: Specific references listed by commenter include Dijak (1990), Moorman and Chapman (1996), Dednarz and Dinsmore (1982), and A.A. Bryant (1986). This literature was not reviewed specific to this DEIS because the forest utilizes site specific research conducted on the Nicolet National Forest by Thomas Erdman for goshawk habitat analysis, and John Jacobs for red-shouldered hawk habitat analysis. These researchers provide yearly survey results and have suggested management guidelines for past projects that are specific to the forest types of northern Wisconsin. Both the southern climate and forest habitat characteristics in Georgia are considerably different and probably are not appropriate for comparison with the less species diverse north woods.

"Forest Service provides no support for the effectiveness of proposed goshawk and red-shouldered hawk mitigation measures. The cumulative effects analysis on goshawk and red-shouldered hawk is inadequate and ignores forest-wide threats to both species. The viability of the northern goshawk and red-shouldered hawk across the forest is threatened by this project and by other projects now being proposed across the CNNF."
12BA (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to Comments 11H and 12AU in regard to effectiveness of mitigation measure for goshawk and red-shouldered hawk nest sites.

Forest Service records indicate that there are some cases of the nesting birds completing their nesting, but relocating from or abandoning the site the following year. In other cases, the birds remained and successfully reproduced. Also, in some cases birds abandoned the area only to return some years later. In at least one case, they successfully nested in the previously treated sale area. That is, they left the untreated area, and relocated in to the treated area (personal observations from Mike Peczynski, District Biologist Eagle River/Florence Ranger District).

"The DEIS state that,

> Some reuses (sic) of nesting territories have occurred in stands that have had select timber harvests take place during non-breeding months."

Were these "reuses" only of the territory or were they of the original nest site? If they were only of the "nesting territory", how big were those territories? Also, were these "reuses" successful nesting attempts or something else? The weight of evidence suggests that red-shouldered hawks require large tracts of riparian-associated mature forest and are intolerant of timber harvest."
12BB (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The statement regarding reuse of nesting sites by red-shouldered hawks was not made specific to any nest sites in the McCaslin project area. It was a general statement related to red-shouldered hawk nesting behavior across the Nicolet National Forest. This information was also presented in

the Conservation Assessment (Jacobs 2002). See response to Comment 12 BE for more information on the reuse of nesting sites by red-shouldered hawks.

We agree that red-shouldered hawks do require large tracts of riparian-associated mature forest. We disagree that they are intolerant of timber harvests. The red shouldered hawk Conservation Assessment (Jacobs 2002) pg. 41, states, *"Selective harvesting of hardwoods, if done properly, can be compatible with red-shouldered hawks."*

"Does the 5,315 – 5.600 acre figure for red-shouldered hawk habitat include proximity to water?"
12BC (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The DEIS BE identified 5,315 – 5,600 acres through GIS analysis. This was not able to determine proximity to all water sources. These acres were described as potential habitat and further classification was completed in the field while conducting red-shouldered hawk broadcast surveys.

"What evidence does Forest Service have that winter and selective harvest only does not impair a stand's value for red-shouldered hawk and/or goshawk? Why doesn't Forest Service survey all proposed cutting units for goshawk and red-shouldered hawk before proposing logging in suitable habitat? Does the Forest Service have information on the number of goshawk and red-shouldered hawks on the CNNF? In the MVMP project area? If not, why not? How can a full cumulative effects analysis be completed without some understanding of the number of successfully reproducing individuals of these species in the region and across the planning area? Why are surveys for Red-shouldered hawk being proposed for after the release of the DEIS? These questions need to be answered in full before a final decision on the MVMP is made."
12BD (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The statement, "potential habitat that had winter and selective harvests only treatments were excluded from call-back surveys" was for only red-shouldered hawks. It would not apply to goshawks because they are not migratory and may be occupying these stands during the non-breeding months of winter. This management recommendation was developed in conversations with John Jacobs, who has been conducting red-shouldered hawk research on the NNF for the past 30 years. It was also stated in the RDSH Conservation Assessment pg. 41, *"Selective harvesting of hardwoods, if done properly, can be compatible with red-shouldered hawks."*

The Forest Service surveys all potential red-shouldered hawk and goshawk habitat that has proposed timber management prior to any harvest activity. This is stated on Appendix D page 31 for red-shouldered hawks and inferred on page 26 for goshawks of the DEIS Appendix D. At this time, surveys have been competed for both red-shouldered hawk and goshawk habitat wherever harvest activities have been proposed.

The FS receives yearly survey reports from goshawk and red-shouldered hawk research specialists that discuss production and population status of these birds on the NNF and statewide. Red-shouldered hawk surveys were conducted after the release of the DEIS because new information was obtained about survey protocol. Upon completion of the surveys, no new hawks or nesting territories were found. Known existing territories were found to still be active.

Population trends and productivity information at the project and regional level (mentioned above) has been collected and was used in the determination of cumulative effects to these species.

"On page 30 of the MVMP DEIS Appendix D, Forest Service states that selective harvest in the winter months would not harm red-shouldered hawk. What evidence does Forest Service have to support this contention? The public has no way to evaluate personal communications and the agency must rely upon more than anecdotal evidence to make such critical claims. Furthermore, if "historical (sic) nesting territories were obtained from J. Jacobs, how many of those sites are currently in use and how many are producing young? If historic sites are not being used currently, why not?"
12BE (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to 12BD in regard to winter and selective harvest and red-shouldered hawk habitat. Personal communication is a commonly used reference citation that is accepted in scientific journals.

Five nesting territories were identified in the McCaslin project area. In 2001, 4 of these 5 territories were active (the 4th wasn't checked); 2 of the nests failed to produce young, 1 of the nests produced 2 young, and no information was obtained on the fourth nest site. In 2002, 3 of the 5 sites were active and 2 were inactive; 1 nest failed to produce young, 1 of the nests produced 2 young, and no information was obtained on the other nest site.

In regard to the comment on the re-use of nest sites, the following excerpt from Red-shouldered hawk Conservation Assessment (Jacobs and Jacobs, 2002, p. 30) can be found: *"Most Red-shouldered Hawk nests are not reused the following year on the Nicolet NF (11% reuse rate, only 2 of 18 active nests reused in 2000). Sometimes the site is reoccupied but the new nest is not found. Red-shouldered hawk pairs were "believed" to "mate for life" i.e. a pair remains together or reunites each breeding season at the same nest site until one of them dies. It was also believed that since hawks are long lived, a breeding pair would return for many breeding seasons. Based on a long-term study of over 100 nest sites in Wisconsin by J. & E. Jacobs (unpub. data), it appears most Red-shouldered Hawks return to the nest site they occupied during the previous year. The majority of nesting Red-shouldered Hawks will "disappear" from the nest site within 4 years. Only 10% will return to a site for 10 years or longer. If a red-shouldered hawk does not return, it probably has died. However, possibly 20% of these no-shows could have moved to another site. Very little data has been published on this part of Red-shouldered Hawk population dynamics. Long term telemetry studies are needed."*

"The DEIS states,

> "Additional RDSH habitat with past activity would include about 90 acres of oak and 15 acres of lowland hardwood selection or improvement harvests."

What does this mean exactly?

Or this?

> "Other management that could have affects (sic) are those that altered vegetative conditions in riparian areas. There are no records of these activities occurring in the past, present or future.""

12BF (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

These comments were from the red-shouldered hawk Cumulative Effects section of the DEIS Appendix D (p.34). They are describing past, present, and reasonably foreseeable timber management activities occurring on private lands and that may have the potential of affecting red-shouldered hawk habitat.

"If BMPs to protect water quality had to be used in the Scatter Shot, Peanut and King Lake timber sales, then there is a high likelihood that logging occurred in Red-shouldered hawk habitat. Did these projects reduce habitat suitability for RDSH? How did these sales impact the establishment of nesting territories and foraging territories for RDSH and northern goshawk? Why weren't these timber sales mentioned in the cumulative effects analysis for other species that may be affected by riparian logging? What other timber sales in or around the project are include logging in riparian areas or areas with suitable RDSH habitat? How many of those sales contained active RDSH nest sites and how many of those nest sites continued to produce young after logging?"
12BG (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Best Management Practices are used to protect all types of water resources on the landscape. Implementation of them does not imply they occurred within red-shouldered hawk habitats.

The Scattershot Sale was a red pine thinning project which did not include any red-shouldered hawk habitat. The EA for the Peanut and King Timber Sales reported that red-shouldered hawks "do not nest within the project area". Since this EA was completed, the Forest Service has had no new records of red-shouldered hawks nesting in this area. There was very little high potential habitat that had harvest treatments in these sales (24 acres Peanut and 39 acres King). There were 325 and 203 acres of selective harvests in potentially medium red-shouldered hawk habitat in the Peanut and Kings Sales respectively. However, the harvest treatments that did occur in this potential habitat were selective harvests and is not expected to negatively impact hawk habitat (see Comment 12BD).

The sales mentioned were not specifically named in the discussions of past Forest Service activities in an attempt to keep the discussion concise (in accordance with CEQ Regulations §1502.2). However, they were considered during the determination of past effects. Spreadsheets, maps, and other data related to them is included in the project analysis file.

The cumulative effects section on red-shouldered hawks addressed the existing habitat conditions of this species which included effects from past Forest Service timber sales. It was not presented in detail in this section, but referenced the reader to the goshawk cumulative effects section; "Cumulative effects on private and public upland hardwood habitat would be similar to those discussed in the goshawk section" (p. 34 DEIS Appendix D).

"All potential red-shouldered hawk habitat in the project area should be reserved from timber harvest until full population viability assessments can be undertaken for goshawk and red-shouldered hawk in the CNNF."
12BH (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted. The Forest is assessing these raptors' populations continuously with yearly reports from John Jacobs (red-shouldered) and Tom Erdman (goshawk) on the Nicolet portion. The Forest continues to do the same on the Chequamegon portion. Also, see response to Comment 12BD for compatibility of timber harvests and raptors (RDSH).

"The proposed project fails to protect habitat for cerulean warbler, a species now under formal review for listing under the Endangered Species Act."
12BI (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Determination of potential cerulean warbler habitat with proposed timber management was conducted with GIS analysis (p. 38 DEIS Appendix D) and surveys were conducted in all these stands. Surveys identified a singing male in one stand and, due to this, the stand was removed from all proposed alternatives. This stand has a history of timber management activities (p. 38 DEIS Appendix D) that are similar to those proposed in this EIS. Since the bird occupied this stand it could suggest these activities might not negatively affect their habitat but rather improve it.

"Despite the overwhelming evidence that the cerulean warbler is a sensitive species that needs landscapes with intact mature riparian forest cover, **98% of all potential habitat for the cerulean warbler in the project area is proposed for logging in the MVMP.**"
12BJ (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The determination that "98% of all potential habitat for the cerulean warbler in the project area is proposed for logging" was calculated from the statement on page 38 of the DEIS Appendix D. It reads, *"1,770 of potential cerulean warbler habitat was identified within the MPA by GIS habitat analysis"*. This statement should have been expanded with the following additional statement , *"that had proposed harvest treatments"*. The total acres of potential cerulean warbler habitat in the McCaslin project area is 2,420 acres. Alternative 2, 4 and 5 have proposed harvest treatments in 73% of potential warbler habitat and Alternative 3 has 63%.

However, all of these stands were surveyed for the cerulean and only one bird was identified. That stand was subsequently dropped from all alternatives. As stated in the DEIS Appendix D (pg. 37-38), cerulean warblers are not considered well established on the NNF. This is because this area is on the extreme edge of the cerulean's range. Also, there is a lack of credible observation records from 16 years of breeding bird survey data. To date, there is one and only one confirmed observation of a cerulean warbler within the McCaslin Project Area (and Nicolet NF as a whole).

"Logging these stands will degrade habitat for cerulean warbler by altering microhabitat conditions in ways that allow for more wind and more exposure to elements. These factors can seriously change conditions in forest canopies where this species builds its nests."
12BK (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The commenter provides no information from scientific journals or research to support the above statement. Evidence found in the McCaslin stand where the cerulean was found indicates that selective logging likely has *been beneficial* to cerulean habitat. This is due to the creation of canopy gaps and understory development. This is consistent with some of the descriptions of preferred cerulean habitat. See DEIS Appendix D, p. 37 for discussion.

"If cerulean warblers have been identified in other areas of the forest during monitoring, why doesn't the DEIS include those stand characteristics in their discussion of impacts to this species?"
12BL (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The cerulean warbler observations from the NNF-BBS are questionable (pg. 38, DEIS Appendix D) and there is only one confirmed report from surveys conducted for the McCaslin project. Due to this small sample size, it would not be credible to utilize that stand data to make any conclusions on habitat use by this species. We have, however, considered a number of literature sources on cerulean habitat (p. 37 Appendix D). These are consistent with what was found in the stand where the birds were found.

"The DEIS fails to protect habitat for cerulean warbler and taking of any individual will contribute to a trend in federal listing under ESA." 12BM (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We disagree. The commenter provides no evidence of why or how the taking of one individual will contribute to the trend for federal listing. See also response to Comments 12BI and BJ.

"The Forest Service provides absolutely no supporting documentation for their assertions that logging 98% of cerulean warbler habitat in the project area poses no threat to a species that has been experiencing population declines. Forest Service should defer all potential cerulean warbler habitat from any timber harvest or transportation activities."
12BN (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted. See response to Comments 12BI and BJ.

"Models used to estimate population changes in neotropical migratory warblers (and other sensitive and /or rare species) are flawed and do not provide a sound scientific basis for estimating impacts. These models of impact to neotropical migrants ignore the fact that habitat suitability for these species is not uniformly distributed across the landscape. The idea that the number of supposedly suitable acres divided by average territory size for a given species reveals populations levels or trends in those species is ludicrous and lacking in scientific support. Use of these models to predict wildlife populations or responses of wildlife populations to management activities does not meet the minimal requirements for sound scientific information required by NEPA. Forest Service must verify models with on the ground monitoring before models can be considered sufficiently accurate for management decisions to be made on their basis."
12BO (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The commentor does not provide any information as to what the Forest Service could use that would be better than what was used. The Forest Service believes that this model- along with 16 years of local data- represents the best available information for estimating impacts to neotropical migratory birds. Like any model, it is constantly undergoing monitoring, evaluation, and improvement. In response to concerns about the utility and accuracy of this model, the Forest Service consulted with Dr. Robert Howe, an ornithologist from the University of Wisconsin at Green Bay. Dr. Howe was a key participant in the design and development of the model. The

project file contains a document written by Dr. Howe, discussing the scientific credibility of the model.

"The proposed activities will have adverse impacts on riparian areas and wildlife that utilize those areas, particularly where even-aged logging is proposed adjacent to or within riparian areas. Even selective logging and thinning will reduce the recruitment of large woody debris in the riparian area. Forest Service asserts that 60 sq. feet of basal area would remain in riparian area and "The result of such treatments would be increased shade and large woody debris inputs for years to come." Increased shade and large woody debris relative to what? The shading and large woody debris that would develop without logging? How does basal area relate to canopy cover in the proposed cutting units near waterways? How will these cutting units affect wildlife such as red-shouldered hawk?"
12BP (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

McCaslin DEIS (Section 4.3 and 4.8) does not agree with your conclusion regarding adverse impacts on riparian areas and wildlife. See response to Comment 12AL for discussion on the BMP guideline for 60 sq. feet BA. This is the minimum basal area that would remain in these areas. We typically leave more than this and the riparian management zones are typically much larger than the minimum requirement. Canopy closure is expected to slightly greater than the given basal area (eg., 70% cc for 60 ft^2/acre basal area).

"**The DEIS fails to address the issue of exotic invasive species in the project area and the effects the project will have on their spread and persistence.**

The failure to analyze the extent and dynamics of exotic invasive species in the project area violates NFMA since their invasion may impact rare species with viability concerns and NEPA. Without a formal monitoring effort, it is difficult to believe that exotic species are found in only a handful of locations in the project area. Nonetheless, evidence is growing that logging activity increases the invasion of exotic species into management units yet this situation is not addressed in any meaningful way in the DEIS. The Forest Service has an affirmative responsibility to protect the CNNF from invasive and exotic species; this has not been done in the DEIS. The CNNF must fully analyze and address this issue. Where are the current infestations of noxious and exotic species in the project area? What is the status of those infestations? If they are worsening, why? What mitigation measures are being proposed to reduce infestations from current levels and prevent worsening of infestations? How does timber harvest worsen infestations?"
12BQ (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The existing condition of NNIS (Non-Native Invasive Species) in the project area is discussed in section 3.5.4.3 (DEIS p. 39-40). Also discussed in this section are the effects logging and other activities have on the spread of NNIS. Potential effects from activities proposed in each alternative are discussed in Chapter 4 (DEIS p. 90, 93, 96, 99, 101). A monitoring and control plan for NNIS is identified on page 157 of the DEIS. Forestwide inventory and monitoring efforts are being carried out on an ongoing basis. Design features targeting NNIS were not explicitly labeled as such in the DEIS but were included as part of design feature LL (DEIS p 22). Parts 3 and 4 of design feature LL were intended primarily to help control the spread of NNIS along roadways (which have been found to be a primary pathway for NNIS dispersal).

"The DEIS violates NEPA requirements pertaining to disclosure of mitigation measures. In Northwest Indian Cemetery Protective Association v. Peterson, 764 F.2d 581 (9th Circuit 1985), the court determined that NEPA requires agencies to analyze the mitigation measures in detail [and] explain how effective the measure would be. A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA. Further, monitoring of implementation is critical and requires timely and ongoing assessments using formal methodologies. Casual observation, while obviously critical, cannot substitute for real analysis, particularly when it comes to public review. The CNNF must come up with better support justifying use of mitigation measures, particularly those addressing forest structure, raptor protection, wetland protection and other critical issues."
12BR (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

We agree that monitoring of implementation is critical. Because of this, the Forest Service has actively monitored many aspects of Forest Management since its inception. We disagree that monitoring necessarily requires formal methodologies. Field observations of past results are an invaluable source of information regarding the validation of assumptions and determining the effectiveness of actions. Other monitoring commonly done is more formal and methodical in nature. Examples of this include breeding bird surveys, stand examinations, stocking surveys, and timber sale inspection reports.

Other planned observations by professional resource specialists, such as forest and regional timber sale reviews, BMP monitoring, and plant and animal surveys, also provide invaluable information that provides feedback for mitigation measures and design features.

It should be pointed out that Section 2.3 (pp. 18-22) of the DEIS is entitled "Mitigation Measures and Design Features". It is not limited to mitigation measures only. The majority of the items in this section are design features that would be implemented as part of the project alternatives. The design features are primarily geared toward avoidance or minimization of potential impacts, rather than after-the-fact amelioration of impacts.

The commentor is not specific in which design features or mitigation measures are of concern and which, therefore, require justification. Long-term monitoring of forest structure has been ongoing through districtwide stand examinations and stocking surveys. Breeding bird surveys, numerous wildlife surveys, and forestwide monitoring have also been ongoing to track wildlife trends in response to vegetative management actions. Raptor research has been ongoing across the forest and in the McCaslin project area for many years. Regarding wetland protection, effectiveness monitoring has been and continues to be done. Results have consistently shown that the Best Management Practices have been implemented and have been effective (DEIS, p.33).

The following references give some locations in the DEIS where monitoring of mitigation and design features is discussed: pp. 31, 33, 39, 53-58, 67-68, 76, 78-9, 81-2, 114, 144; Appendix D pp. 26, 30-1, 34-5, 37-8, 44, 47-50; Responses to Comments 9A, 11H, 12Q, 12AY, and 12BQ.

"We do note the use of monitoring in Section 4.15 of the DEIS. We support inclusion of monitoring for compliance with mitigation measures. However, we must ask why this type of monitoring has not been conducted on previous timber sales on the CNNF? Are these provisions newly proposed in the MVMP DEIS?"
12BS (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted. Our more recent environmental documents related to timber management have included such monitoring plans. In response to your question, most of this type of monitoring has, in fact, been done for many years. It is documented in timber sale inspection reports, harvest reviews, Wisconsin BMP monitoring documents, timber stand database information, stocking surveys, post-burn reports, photographs, and many other sources of information. Recently, we've recognized that while we actually do substantial monitoring, we could do a better job at tracking and consolidating this information for future follow-up. This is why we've begun to include formal monitoring plans in our documents.

"In the case of wildlife, the DEIS states that, "Identifying trends and effects, and validating assumptions would occur through long-term surveys." Monitoring cannot substitute for conservation. In those cases where impacts are significant enough to trigger mitigation measures Forest Service cannot wait to validate their model assumptions through long-term surveys. Assumptions underlying MIS and other monitoring programs as well as the effectiveness and success of mitigation measures must be verified before damage is done**.**"
12BT (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Design features established for the McCaslin Project area have the support of goshawk and red-shouldered hawk researchers (see response to comment 11H and 12AU) and the DNR for bald eagles. Design features for plants (goblin and grape fern) have just recently been developed through a regional conservation assessment. They are based on scientific literature and expert opinion. Monitoring of effectiveness is currently underway.

Contrary to the comment's implication, impacts are not considered significant enough to trigger mitigation measures. Rather, with the use of area and timing restrictions that are part of the project design, we are avoiding potentially significant impacts.

Evaluating the success of these design features is an ongoing process. The Forest is continuing to collect data (e.g., goshawk, red-shouldered hawks, bald eagle, wolf, breeding bird, ruffed grouse, sharp-tailed grouse, woodcock, frog and toad, dragonflies, butterflies, lake and stream fish surveys, and wood turtle surveys) to make adjustments on these protective management guidelines when needed.

"The MVMP DEIS provides no evidence that measures taken to regenerate butternut are effective and fails to evaluate the role timber harvest has on spread of butternut canker. Many forest pathogens are transported and/or augmented in some way by human activity, including timber harvest and road construction. What evidence does Forest Service have supporting use of timber harvest to improve survival rates of infected butternut trees or reduce infestation spread?"
12BU (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See pages 39 and 92 of the McCaslin DEIS. See also response to comment 12F. Butternut is a short-lived and shade-intolerant species. It seldom lives past 75 years of age and does not regenerate in the shade. Butternut canker is resulting in significant mortality throughout its range. The only hope in maintaining this species lies in regenerating new trees wherever possible and monitoring all butternut trees for any evidence of resistance to butternut canker. The most basic information on the butternut shows that it is a species that requires open conditions and disturbance to successfully regenerate. This is explained in the McCaslin DEIS. If this is not done, what few butternuts that are left will soon be dead since they are already 60-70 years of age.

As discussed on page 39 of the DEIS, the Forest Service has conducted regeneration trials near the McCaslin Area. Preliminary findings (and information from other sources) suggest that butternut regenerates best in <30% crown closure. Other silvical information tells us that it also does well in large canopy gaps. This is why we've proposed these methods for butternut regeneration.

Regarding the concern about the spread of the disease by logging activities, refer to the response to comment 12F.

"Excessive road densities are outside of Forest Plan objectives and proposed actions do not achieve forest plan direction for road density in affected management areas. Why haven't road density objectives for the MVMP area been met during the past 17 years since the existing Forest Plan was adopted? Although all alternatives fail to address the road density problem effectively, the selection of the Alternative 2 demonstrated the Forest Service's unwillingness to follow the Forest Plan when directions are not conducive to industrial logging."
12BV (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to comment 12H.

"Even after the minor adjustment to road density in the project area, road density will still remain well outside that which is tolerated by wolves and lynx. Excessive road density also leads to changes accelerated infestations by exotic species."
12BW (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

See response to comment 12AJ. The Forest Service recognizes that roads can enhance the spread of non-native invasive species (NNIS). This is why all of the action alternatives reduce the miles of road. The Forest Service has also included mitigation measures and design features to reduce the spread of NNIS (p.89, DEIS)

"As currently written, the DEIS provides information cataloguing the heavy logging that has occurred in and around the project area in the form of 21 timber sales since 1978. In addition, significant logging is planned for the next decade in and around the project area. (DEIS Section 4.5.8).

Where on the landscape have these projects taken place? What relationship do these have to interior habitat, forest fragmentation and other adverse ecological impacts? What effects have these timber sales had on TES and MIS and RFSS in the CNNF up to this point in time? How many of these sales affected habitat for goshawk, red-shouldered hawk, cerulean warbler, goblin fern or other sensitive species? What is the proportion of goshawk and red-shouldered hawk nest sites that were affected by these timber sales? Are these territories still active and producing young? A proper cumulative effects analysis would evaluate the impact these sales have had on critical wildlife species such a goshawk and red-shouldered hawk and cerulean warbler. Forest Service has data on many of these past actions. Why haven't these data been collected and analyzed and the results of these analyses made public? If these data are not available, then why should the public take the Forest Service at its word when it states that mitigation measures will be monitored?"
12BX(David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

1. The locations of past harvests can be referenced in maps and stand history data, which is in the McCaslin analysis file.
2. The relationship of these activities can be quickly determined by comparing them to the maps and other information used in the Landscape Pattern section.
3. Page 122 of the McCaslin DEIS concludes that no additional impacts (beyond those discussed in the direct/indirect effects section) would result from past actions, other present actions, or reasonably foreseeable actions. The existing conditions of the species mentioned include the effects of past actions.
4. Two of the three known goshawks nests were in stands that had past harvest treatments. One of these nesting territories is still active and has protective design features in place around the nest tree. The nest tree no longer exists at the second goshawk site. However, this area has a woodland hawk nesting block established. Of the five known red-shouldered territories, two have had past timber harvest within the stands. One has produced 2 young in each of the past 2 years. Success of the second nest has not checked by the researchers. For reproductive data on red-shouldered hawks see response to comment 12BE.
5. This data is being collected. The Forest uses site specific research conducted on the Chequamegon-Nicolet National Forest by Thomas Erdman for goshawk habitat analysis and research by John Jacobs for red-shouldered hawk habitat analysis. These researchers provide annual survey results and have suggested forest-specific management guidelines for past projects.

"In Section 3, the DEIS states "In addition, an estimated 564 jobs are created/sustained from the timber harvested on the [Lakewood/Laona] district. (p. 68) However, section 4 of the DEIS states that 737 jobs will be created/sustained by the MVMP. How do these two values relate to each other? Also, the total income generated from jobs appears to be just over $60,000/year. This value is double the value of average income from timber industry jobs as reported by the state of Wisconsin. How does Forest Service explain this discrepancy?"
12BY (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Chapter 3 describes the existing condition of the issues. Given the historical harvest level on the Lakewood/Laona district over the past several years, approximately 564 jobs have been created/sustained on an annual basis. In Chapter 4 (Environmental Consequences) it states that Alternative 2 would result in the creation/sustenance of 734 jobs. This is based on the volume of timber produced and makes no assumption that the effect would take place in one year- or would be spread out over a longer period. At this point in time, we anticipate the district will continue to sell about the same amount of timber volume as discussed in Chapter 3. The intent of the figures in Chapter 4 was merely to give a consistent comparison between the alternatives.

Income generated should not be confused with wages or salaries. This is because income generated results from the multiplier effect that results from "value added" materials, such as finished flooring, molding, etc… and their sales.

"Why has Forest Service not designated additional old – growth stands in the project area? The project area is well below 10% old growth, a minimal standard used in many other national forests. The lack of old growth is threatening the viability of species requiring older forests. Forest Service should designate several additional stands in the project area as old growth, including many that are within proposed cutting units….

Failure to designate suitable stands as old growth at this time will constrain future forest plan options."
12BZ (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

As stated on page 49 of the McCaslin DEIS, "Because the analysis area already exceeds the Forest Plan DFC for old growth designation, no additional stands are proposed for old growth designation in the project area. However, there are undesignated old stands that have not been proposed for harvest; these may contribute old growth values to the landscape." In addition to these areas, as discussed on pages 47 and 48 of the DEIS, there are hundreds of acres (see Table 3.6-4) of old forest in Research Natural Areas and Landscape Analysis and Design areas. These areas would be retained in all alternatives and would, therefore, constitute no constraints on future forest plan options.

"Our organizations oppose any further planning and /or implementation of the MVMP on the aforementioned factors. Continuing with this project will signify to the public that the CNNF is not interested in sound science or compliance with the law when managing our public forests. It will also signify that the CNNF is not interested in having a working relationship with the public based upon mutual respect and full informed discussion."
12CA (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

Comment noted.

"Note: DEIS mitigation measures for woodland plant communities suggests that 250 feet buffer is sufficient to protect against edge effects. However, for birds in northern forests, Hanowski, et al (1993) *Seasonal abundance and composition of forest bird communities adjacent to a right-of-way in northern forests USA*. Proceedings Fifth Int. Symposium on Environmental Concerns in Rifhts-of-Way management. September 19-22, Montreal, Quebec (Canada). 276-283 found edge effects to **at least** (emphasis added) 200 m into adjacent forest habitat.

This work, which has been conducted in northern Wisconsin, demonstrates edge effects extending further into forest habitat than admitted by Forest Service. The MVMP must address the issue of fragmentation using the best available science. All fragmenting forces must be included in analysis of fragmentation; the MVMP fragmentation analysis excludes utility rights-of-way from calculations of forest fragmentation and uses inappropriately low estimates of edge effects to estimate available interior habitat. This is a violation of NEPA. Basing decisions on information using flawed methods will result in underestimates of the true level of ecological fragmentation in the project area."
12CB (David Zaber, Sierra Club, American Lands Alliance, Habitat Education Center, and Defenders of Wildlife, Madison, WI)

The commenter does not identify which utility right-of-ways were excluded from the calculations. All non-forested stands on National Forest lands were included in the model. Non-forested stands on private lands that were visible on an aerial photo were also included in the model. This included the only major utility corridor within the project area- which runs along Highway 32. A GIS model was used to analyze fragmentation effects in the project area. As with any model, certain assumptions and parameters were used to define the model, and these were described on page 45 of the DEIS. A survey of the literature provides widely varying estimates of the depth of edge influence. Estimates of depth of edge vary depending on a variety of factors including: geographic location, habitat type, forest stand type, species group of interest, type of

edge-producing feature, composition of surrounding landscape, and other factors. While recognizing a diversity of opinion and research findings, the Forest Service chose to use a 100 meter depth of edge influence for the McCaslin analysis. Some research concluded greater depth of edge influence and other research concluded a smaller depth of edge influence- the majority of sources suggested a zone of influence of about 100 meters. Therefore, the Forest Service used this assumption to estimate edge effects (p. 45, DEIS).