USDA United States Department of Agriculture | Forest Service | Hiawatha National Forest Supervisor's Office | 820 Rains Drive Gladstone, MI 49837 906-428-5800

File Code: 1950
Date: May 14, 2014

Dear Interested Party,

I am writing to inform you of the release of the Final Decision Notice and Finding of No Significant Impact (DN/FONSI) for the Rudyard Project. The DN/FONSI documents my selection of the proposed action alternative as described in the June 2013 Environmental Assessment (EA) with one modification.

You are receiving this document because you provided comments during scoping, the EA comment period, or submitted an objection in accordance with the regulations for the Forest Service's pre-decisional administrative review process outlined in 36 Code of Federal Regulations (CFR) 218.

The enclosed DN/FONSI includes clarifications resulting from the objections process and one modification to the transportation system. This information has been incorporated in consideration of the negotiations discussed between the Objectors, Regional Forester, and myself to address concerns raised during the objection period.

Pursuant to 36 CFR 218.12, this Final Decision can be implemented immediately.

Detailed records of the environmental analysis for the Rudyard Project are available for public review at the St. Ignace Ranger District office, W1900 West US 2, St. Ignace, MI 49781. More information is also available on the Forest's website: http://fs.usda.gov/goto/hiawatha/projects.

If you need additional information, please contact Martha Sjogren, Interdisciplinary Team Leader, at (906) 643-7900, ext. 117, or email msjogren@fs.fed.us.

Sincerely,

Jo Reyer

JO REYER
Forest Supervisor

Enclosure

cc: Robert West, Jim Ozenberger, Martha Sjogren

Final Decision Notice and Finding of No Significant Impact

United States Department of Agriculture

RUDYARD PROJECT

Forest Service

December 2013

Hiawatha National Forest, St. Ignace & Sault Ste. Marie Ranger Districts

Mackinac and Chippewa Counties, Michigan

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I. Introduction

This Final Decision Notice and Finding of No Significant Impact (Final Decision) documents my selection of management activities in the project area as analyzed in the Proposed Action (modified), Alternative 1, and the No Action Alternative of the June 2013 Environmental Assessment (EA). This Final Decision will also be sent directly to those commenters who submitted comments during the 30-day comment period held for the EA, which ended on August 7, 2013.

The project area is located on the East Administrative Unit (St. Ignace and Sault Ste. Marie Ranger Districts) of the Hiawatha National Forest (HNF). The project area primarily lies east of East Lake Road (FR 3119), south of H-40, and west of I-75.

The project area is located within portions or all of the following legal description: Mackinac and Chippewa Counties, Michigan: Township (T) 42N, Range (R) 2W, sections 4-6; T42N R3W, sections 1, 2; T43N R2W, sections 2-8, 17-20, 29, 30-32; T43N R3W, sections 1-16, 22-24, 25-27, 34-36; T43N R4W, sections 1, 2, 11, 12; T44N R3W, sections 18, 19, 27-34; T44N R4W, sections 23, 24, 25-28, 33-36.

A. Objection Process

Regulations pursuant to 36 CFR 218 required that I prepare a Draft Decision for your review as part of the pre-decisional, administrative review process that is now required for environmental assessments. This new process became effective on March 27, 2013, as part of the Department of Agriculture's final rule for replacing the Forest Service's appeals process (36 CFR 215) with an objections process as outlined in 36 CFR 218 (Federal Register, Volume 73, No. 59, pp. 18481 to 18504).

One primary difference of the objections process is that eligible parties are able to seek resolution of their unresolved concerns based on the actions outlined in this Final Decision, through filing an objection, prior to a final Decision being made. A legal notice was published December 11, 2013, to announce the release of the Draft Decision, which initiated a 45-day objection period (reference project record Proof of Publication, Tab G DN and Associated Docs). Individuals who submitted a comment regarding the proposed project during any designated opportunity for public comment (e.g. the Scoping Period and/or EA comment period) and whose comment contains the required elements outlined in 36 CFR 218.8, were eligible to file an objection for this project. Instructions for filing an objection were outlined in the Draft Decision.

This Final Decision has been prepared pursuant to 36 CFR 218.12, which states that a decision can only be signed once the project's Reviewing Officer has responded in writing to all pending objections, and concerns and instructions identified by the Reviewing Officer have been addressed.

The project's objections Reviewing Officer, Kathleen Atkinson, Regional Forester, received two objections to the December 2013 Draft Decision. Ms. Atkinson and the project's Responsible Official, Jo Reyer, held meetings with one of the two Objectors. This meeting provided an opportunity to discuss objection points raised in accordance with 36 CFR 218.11. As a result of the resolution meeting and internal review of the points raised in both objections, the Reviewing Officer has decided that the Rudyard Project can be authorized with implementation of three instructions (reference project file, Tab H Objection Dcouments, Regional Forester Documents). The following is a summary of how this Final Decision responds to the Reviewing Officer's instructions. More detailed information on the responses is available in Appendix A.

Reviewing Officer Instructions Summary:

- **Further explain and document the following in the project record: the reasons that mature aspen stands are not being proposed for treatment at this time (including the reasons that any specific mature aspen stands were ultimately dropped from the proposal); and how monitoring data from any adjacent project (which identified issues with treating certain mature aspen stands) and other information about the current environment informed this project's purpose and need.** An Objector raised concerns about why other mature aspen stands were not proposed for treatment. The ID team added a map and table to the project record to document the reason no harvest action was proposed for aspen stands 35 years and older on suited land. The silviculturist also added some explanation about how she considered Forest Plan vegetation goals and objectives when proposing aspen treatments, including rationale for allowing some stands to convert naturally to midseral stages without a harvest treatment.

- **Further address in the PR the Objector's concerns related to acceptable management practices for aspen under current Forest Plan direction.** An Objector expressed concern about acceptable management practices for aspen. The silviculturist explained the use of the Manager's Handbook for Aspen, as well as the technical guide for vegetation and pest management provided as a guide for implementing the Forest Plan. She also described the suited uses and desired conditions for MA 1.2.

- **Further explain and document in the PR the HNF's analysis and conclusions regarding climate change implications on this project's alternatives (adaptation), as well as the effects of each alternative on climate change (mitigation).** The project record contains additional explanation of the ID team's analysis and conclusions. The project record contains three references related to climate change as well as the eight references submitted by an Objector during the EA comment period.

B. Background Information

In preparation of this Final Decision, I have taken into consideration the objection points raised as well as the analyses performed in the EA and the associated documentation in the project record. The EA documented the results of the effects analysis for three alternatives: No Action Alternative, Proposed Action (modified), and Alternative 1 (an action alternative developed to address issues identified from public comments). Development of the EA was performed in accordance with the requirements of the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), and the Council on Environmental Quality (CEQ) regulations at 40 CFR 1500-1508. The EA is available for public review at the St. Ignace Ranger District office, and at the following website: http://www.fs.usda.gov/projects/hiawatha/landmanagement/projects.

Public Involvement

Public involvement for the Rudyard Project was sought during scoping and the comment period for the EA. These phases of public involvement allowed the Forest Service to inform interested and affected parties about the proposed actions and the ID Team's environmental analyses. The information prepared by the ID Team during project planning has permitted me to make this Final Decision with an understanding of the actions proposed and their environmental consequences.

The scoping letter, describing the project's purpose and need and the proposed action, was mailed to over 250 individuals, groups, tribes, and public agencies. Notification of the project's scoping period was published through a legal notice in the Sault Ste. Marie, Michigan's *The Evening News* on March 29, 2012. Documentation for the Rudyard Project was posted to the Hiawatha's internet site, and proposed activities were listed in the Schedule of Proposed Actions beginning in the Spring 2012 edition. As further described in the following section, comments received during the scoping period were used by the ID Team to identify issues regarding the effects of the proposed action. Main issues identified from scoping comments were: (1) effects to cultural resources; (2) effects on vegetation including timber management and wildlife habitat (from non-significant Forest Plan amendments); (3) spread of NNIS; (4) effects on recreational experience; and (5) sedimentation from improvement cuts.

In an effort to determine what actions were driving the issues, an invitation for a field trip was sent on June 22, 2012 to all who responded in scoping. The field trip included four locations to show the different types of proposed treatments and discuss the purpose and need for the various treatments. The purpose and need for the non-significant Forest Plan amendments was also discussed. The field trip was scheduled for the afternoon of July 12, but due to a scheduling conflict, the trip was rescheduled to that morning. Two respondents participated in the field trip.

The EA was sent to over 20 interested parties; the legal notice beginning the 30-day comment period was published in the July 8, 2013 edition of the Sault Ste. Marie *Evening News*. Six comments were received (see project file, F.1.1 Public Comments), which have been thoroughly reviewed and responses documented in the project record (F.1.1 Public Comments and Response to Comments Rudyard).

I carefully reviewed the comments received during these comment periods and evaluated the basis for developing all issues and how the concerns comprising the issues were addressed by each alternative.

II. Final Decision and Rationale

A. Authority

As Forest Supervisor I am authorized to make site specific decisions to manage the Hiawatha National Forest (HNF) in accordance with applicable laws, regulations and policies that govern National Forest System lands. This authority includes the power to decide between alternatives for the site specific harvest of timber and wildlife habitat improvement, the transportation system necessary to access and transport forest products, and to implement control measures for non-native invasive plants. This authority is granted to me though agency policy found at Forest Service Manual (FSM) 1236.51.

I am also authorized to make decisions on two non-significant Forest Plan amendments that are necessary to more appropriately implement the Forest Plan (Forest Service Handbook 1909.12, section 25.4).

B. Final Decision

My Final decision includes two components, (1) the site specific projects needed to implement the Forest Plan; and (2) decision on any potentially needed amendments to the Forest Plan resulting from the selected site specific actions.

Site Specific Decision:

Based on the analysis documented in the *Rudyard Project EA* and comments received during initial scoping, I have decided to implement the Proposed Action with the following modification:

- Close two roads (Forests Roads S132J and S132H) rather than obliterate them as originally proposed during scoping. The two roads may be used as a portion of the North Country Trail in the future. This potential use will be analyzed in a future document (EA p. 7).

The remainder of the activities would be implemented as summarized below (locations of activities listed in Appendix G – Maps in the EA):

Table 1. Vegetation Management Actions to Implement

Vegetation Management			
Activity	**Acres/Miles**	**Activity**	**Acres/Miles**
Commercial Thin	141 ac.	Wildlife Habitat Improvement	
Commercial Thin/Liberation Cut	409 ac.	Wildlife Imp. Clearcuts	63 ac.
Coppice Cut	154 ac.	Convert Wildlife Openings to Forested Lands	174 ac.
Improvement Cut	309 ac.		
Single-tree Selection Cut	144 ac.	Convert Forested Lands to Openings	55 ac.
Clearcut	302 ac.	Maintain Wildlife Openings	25 ac.
		Mechanical Site Preparation	56 ac.
		Mechanical or Manual Site Preparation	667 ac.
		Natural Regeneration	667 ac.
		Plant Trees	142 ac.

Table 2. NNIP Treatment Actions to Implement

NNIP Treatment			
Location (Roadside)	**NNIP Species Present**	**Infested Area (Miles)**	**Treatment Method**
Co Rd 230	Wild parsnip, spotted knapweed, St. Johnswort, white sweet clover, Canada thistle	1 mile	Hand pull, mow, or chemical
FR 3800	St. Johnswort	<¼ mile	
FR 3320	Spotted knapweed, St. Johnswort, white sweet clover	¼ mile	
FR 3801	St. Johnswort	<¼ mile	
Co Rd 235	Leafy spurge	<¼ mile	
FR 3822	Spotted knapweed	<¼ mile	
Co Rd 230 (near I-75)	Spotted knapweed, leafy spurge, St. Johnswort	½ mile	
FR 3783	Spotted knapweed, St. Johnswort	½ mile	
FR 3521 at FH-84	Wild parsnip, St. Johnswort	½ mile	
FR 3497B	Spotted knapweed, white sweet clover	¼ mile	
FR 3511G	Bull thistle, marsh thistle	¼ mile	
FR 3371	St. Johnswort	<¼ mile	
H-40	Spotted knapweed, St. Johnswort, white sweet clover	1½ miles	
FR 3318	Spotted knapweed	<¼ mile	Hand pull or mow
Location (Compartment, Stand)	**NNIP Species Present**	**Infested Area (Acres)**	**Treatment Method**
C 98, S 12 (near Co Rd 324)	Wild parsnip, spotted knapweed	2 acres	Hand pull or chemical
C97, S43 (near FR 3744)	Marsh thistle	<1 acres	
C 28, S 12 (FR 3497 near Mackinac Trail)	Marsh thistle	8 acres	
C 130, S 1 Pipeline corridor	Reed canary grass	<1 acre	Chemical
Big Spring Gravel Pit	Spotted knapweed, Canada thistle, white sweet clover	9 acres	
H-40	Scotch pine	64 acres	Mechanical

The above NNIP treatment acreages and methods are consistent with the direction provided in the two HNF Non-native Invasive Plant Control Project Decisions (USDA 2007, USDA 2012) referenced on Page 10 of this Final Decision Notice.

Table 3. Transportation Management Actions to Implement

Transportation Management	
Activity	**Approx. length/amount**
Construct system roads	4.3 miles
Construct temporary roads	2.1 miles
Construct 2 log landings	400 feet total
Existing roads added to system	1.4 miles
Reconstruct existing system roads to access veg management	26.9 miles
Decommission roads	0.6 miles
Road closures	0.2 miles

Forest Plan Amendment Final Decision:
Based on the Final decision to select the Proposed Action and the analysis documented in the Rudyard Project EA, I have decided to amend the Forest Plan with the following project-specific amendments:

Amendment 1: Allow harvest of 52 acres of aspen younger than the Forest Plan Guideline of 35 -70 years in MA 1.2 to meet purpose and need of improving early successional habitat and creating structural and age class diversity. (EA, Appendix I)

Amendment 2: Reclassify 158 acres of wildlife openings to suited for timber production; and reclassify 50 acres of suitable timber production land to unsuitable wildlife openings to better meet goals and objectives of the Forest Plan. Additionally, about 14 acres of openings, adjacent to areas already designated unsuitable for timber management, would be reclassified from Non-Forest permanent openings (Forest Plan Final Environmental Impact Statement (FEIS), Appendix F-1, Category 2) to Forest lands not suitable for timber management (Forest Plan FEIS, Appendix F-1, Category 8) (EA, Appendix I). **Note: please see Erratum #3 at the end of this document.**

C. Rationale for the Final Decision

Rationale

I weighed several factors in making my Final decision, including compliance with federal and state laws (EA, Appendix D), environmental impacts on the social, economic, and biological environment and the public comments and concerns raised during scoping, the EA comment period, and the objection process. No single factor was solely responsible for my Final decision. The Proposed Action (modified), here-in-after referred to as the "*Final Selected Alternative*" was selected as the alternative that will best meet the purpose and need for the Rudyard Project, respond to public issues and provide net public benefits, while providing an acceptable level of effects to the environment.

I believe the implementation of the *Final Selected Alternative* will best achieve the specific needs identified in the EA (pp. 1-6). It will move the area closer to the overall desired condition described for Management Areas (MA) 1.2 and 2.3 (Forest Plan, pp. 3-5 to 3-10). All practicable means have been employed to avoid and/or minimize environmental harm.

Although this Final decision does not completely satisfy all comments and concerns raised, I believe it represents a reasonable compromise amongst the five issues raised during the scoping period and comments received during the EA comment period (For issues description see EA, pp. 9-11).

My rationale is organized to document the degree to which the *Final Selected Alternative* does the following:

- Meets the purpose of and need statements as described in the *Rudyard Project EA* (EA, pp. 3-6).
- Addresses or resolves public issues that drove alternative development and responds to public comments (EA, pp. 8-11).
- Meets and complies with the Forest Plan.

Decision Criteria:
As with all land management decisions, the overall goal is to achieve the project objectives while avoiding substantial harm to other resource values. With this goal in mind, I identified the following criteria that I used to make a decision between the alternatives.

1. How the *Final Selected Alternative* addresses the Purpose of and Need for action for the Rudyard Project and responds to public issues that drove alternatives.

I selected the *Final Selected Alternative* because it best meets the purpose and need stated in the EA and addresses the issues that were used to develop alternatives. With the exception of the No Action Alternative, I find that both alternatives result in progress towards desired conditions established in the Forest Plan. I have reviewed the *Final Selected Alternative* in terms of the direction, goals and objectives, and standards and guidelines specified in the Forest Plan. The purpose of and need for the project included three elements that are listed in Chapter 1 of the EA (pp. 3-6). I considered how well the alternatives met each Purpose and Need element. I also considered the degree to which each alternative resolved the public issues that drove alternative development. My rationale follows:

a. Vegetation Management including Wildlife Habitat Improvements (Purpose and Need Element 1.4.1 and Issue 1.8.2)

The *Final Selected Alternative* responds best to the need to reduce the number of older, larger aspen seral stage acres and increase the number of acres in the younger, smaller aspen seral stage by accomplishing the highest level of even aged regeneration harvest. This leads to a more balanced age class structure as described in the Forest Plan Vegetation Composition guides, breaks up and redistributes more of the aspen seral stages into the desired stand size of 10-25 acres (49 percent of aspen seral stage) (EA, p. 66). This responds to an issue raised by the public to provide a more balanced age class structure (EA, pp. 4-5).

The *Final Selected Alternative* provides more early successional habitat by harvesting 52 acres of aspen that is below rotation age of 35-70 years (Forest Plan Guideline found on page 2-12, Table 2400-2) to improve structural and age class diversity across the landscape in MA 1.2. This would require a non-significant amendment to the Forest Plan to allow this activity. Some members of the public felt Forest Plan Amendment #1 as described in Appendix I of the Rudyard Project EA was being driven by the potential demand of a proposed cellulosic ethanol plant when in fact it was being driven by vegetation composition and early seral wildlife goals established by the Forest Plan (EA, p. 10).

The *Final Selected Alternative* is most responsive to the need to reclassify wildlife openings that are no longer effective in meeting Forest Plan direction to suitable timber lands (158 acres). Some undesired openings are located on an ELT where openings are not listed as a Forest Plan vegetation goal (EA, Table 1-2, p. 4). Other undesired openings are in areas that are not well suited to meet Forest Plan opening goals (limitations to management such as size/age of current vegetation, access, etc.). There is also a need to change some areas classified as suited timber lands to wildlife openings (50 acres) and reclassify 14 acres of openings, adjacent to areas already designated unsuitable for timber management, from Non-Forest permanent openings (Forest Plan FEIS, Appendix F-1, Category 2) to Forest lands not suitable for timber management (Forest Plan FEIS, Appendix F-1, Category 8) (EA, Appendix I). These activities would require a second non-significant amendment to the Forest plan to change the land suitability classification. Some members of the public felt Forest Plan Amendment #2 as described in Appendix I of the Rudyard Project EA was being driven by the potential demand of a proposed cellulosic ethanol plant when in fact it was being driven by vegetation composition early seral wildlife goals established by the Forest Plan (EA, pp. 4-5).

In addition to the early seral and wildlife benefits described above, the *Final Selected Alternative* moves the Rudyard area closer to Forest Plan midseral and late seral vegetative composition objectives and meets the stated Purpose and Need to provide commercial wood products to the Upper Great Lakes region.

Based on the rationale above and environmental effects disclosed in the Rudyard Project EA, I find that the *Final Selected Alternative* provides the best range of vegetative treatments to move the Rudyard area closer the vegetation composition desired condition described in the Forest Plan.

I also find that the two non-significant Forest Plan amendments described in Appendix I of the Rudyard EA have been evaluated, disclosed to the public and are desirable to implement to support this project-specific decision.

b. Transportation system (Purpose and Need Element 1.4.2)

The Final Selected Alternative best meets the purpose and need to manage an efficient transportation system that balances access for management of the National Forest and protection of resources. It is consistent with the intent of the Forest Service Road Management and Transportation Rule for managing the most efficient transportation system. A roads analysis process using geographical information system (GIS) software was completed for this project area and can be found in the project record.

Four miles of permanent roads will be constructed to access areas for vegetative management. These roads will be designed as maintenance level 1 roads for winter time use to protect sensitive soils and wetlands and will be closed to motor vehicles after the National Forest Management work is complete. An additional two miles of temporary roads will be constructed to provide short-term access and will be decommissioned after use (EA, p. 136-137).

By closing 0.2 miles and decommissioning 0.6 miles of existing road we are eliminating roads that are causing resource damage, as well as providing for a safe, manageable transportation system (EA, p. 136).

Road densities will increase by 0.1 mile per square miles to 2.2 miles per square mile in Management Area (MA) 1.2 (EA, p. 134 Table 3-50). Forest Plan maximum road density for MA 1.2 is 3.0 miles per square mile.

I find that the combination of constructing new roads that are closed after resource management is complete, coupled with the closure or obliteration of existing roads that are causing resource damage results in an efficient transportation system for the Rudyard Project Area. Specifically, the transportation system developed in the Final Selected Alternative allows for benefits in managing vegetation towards the Forest Plan desired condition described in Section 1A above, provides access for Forest users, and protects the other resources.

c. Non-Native Invasive Plants (NNIP) (Purpose and Need Element 1.4.3 and Issue 1.8.3)

The EA established that there was a need to treat existing and future NNIP infestations. Several commenters raised the issue of increased risk of NNIP spread as a result of ground disturbing activities on 1,459 acres of timber activities, 292 acres of wildlife habitat improvement activities, 865 acres of reforestation activities and construction of 4.3 miles of permanent roads and 2.1 miles of temporary roads.

I share the public and professional concern about the spread of NNIP species and the effects they can have on our resources. I recognize that preventing the spread is important. Unfortunately, management actions that disturb the soil and increase sunlight increase the risk of spreading NNIP. Not managing the vegetation to meet Forest Plan vegetative objectives and wildlife habitat objectives is not acceptable to me.

Requiring that off-road logging and site preparation equipment be cleaned so that it is free from visible vegetation and soil that could contain NNIP seeds before coming on Forest is a reasonable way to reduce the risk of spreading NNIP. Additional cleaning of off-road equipment within a sale area when some areas are known to have NNIP and some are known to be NNIP free also helps reduce risk.

The HNF has also been developing a program to control NNIP. Recent decisions have improved our ability to use herbicides to combat NNIP (Non-Native Invasive Plant Control Project Decision Notice 6/4/07 and Non-Native Invasive Plant Control Project Decision Notice 2/28/12), as well as the more traditional treatments such as hand pulling, mowing or cutting. The Final Selected Alternative will treat known infestations of NNIP (EA, Table 2-3, pp. 15-16), which will reduce the spread of NNIP from these sources. The treatment methods and acreages indicated on Table 2 of this document are consistent with the direction found in the above programmatic decisions.

I find that required mitigations are in place to discourage introductions of new populations of NNIP, activities are prescribed to reduce or eradicate some of the existing NNIP populations, and that my Final decision to implement the *Final Selected Alternative* is reasonable.

d. Recreational Experience (Issue 1.8.4) and Sedimentation (Issue 1.8.5)

Two additional issues that were identified from scoping were the impacts on recreational experience from timber harvesting operations and sedimentation of waterways from improvement cuts. I determined that neither of these issues were alternative-driving issues and would appropriately be addressed in effects analysis.

The effects on recreational experience were analyzed in the Recreation Effects section of the EA (pp. 104-119) and addressed in the mitigations for the recreation resource (p. 20). The effects of timber harvesting activities on water quality were analyzed in the Water Quality and Quantity Effects section of the EA (pp. 52-54).

2. How the *Final Selected Alternative* Complies with the Forest Plan.

My decision is based on a review of the record that shows consideration of relevant scientific information, needed actions to meet law, regulation, and policy, and all points of view articulated by the public. My decision helps to implement the Forest Plan direction in general and specifically in the vegetation composition guidelines for MA's 1.2 and 2.3 (Forest Plan, pp. 3-5 to 3-10). As required by the National Forest Management Act, (NFMA) section 1694(i) I find this project to be consistent with Forest wide goals, the physical, biological and social desired conditions and objectives, and the standards and guidelines included in the Forest Plan. I affirm we have used the best reasonably available science in completing the environmental analyses and disclosing the effects of management actions to the public.

The rationale for my decision has been focused on the purpose and need for this project and the significant/relevant issues brought up by the public. In addition I have fully considered the environmental and social effects of all the affected resources and have fully reviewed the analysis presented on Chapter 3 of the EA. The effects of the Rudyard Project on all resources will be within the standards and guidelines of the Forest Plan for all resources with two exceptions, which require two amendments to the Forest Plan that are described on page 7 of this document. **Note: please see Erratum #3 at the end of this document.**

In my judgment any negative or detrimental effects are minimal and acceptable when I consider the tradeoffs between taking action to move the vegetation towards the desired condition and not taking action. Specifically,

- The actions taken will maintain long-term soil productivity, and will meet Soil Quality Management standards (EA, p. 48).
- Harvest on wetlands will cause some compaction on 16 acres and road work will result in a net loss of wetlands on 0.9 miles of road (3 acres). Effects to wetlands from harvest and road building will both be within Forest Standards and will comply with BMPs (EA p. 55).
- Temporary increase in runoff and stream flow will result within the analysis area, with low potential for increased sediment delivery to streams. Harvest and road building activities will not cause stream destabilization (EA, p. 49).
- Because of karst features within the areas, such as caves and sinkholes, there is risk that sediment, natural organic matter, or fuel from logging equipment might enter caves and/or sinkholes, and potentially affect the associated groundwater. Design criteria that require establishing a reserve area of 200 feet from the edge of caves and sinkholes will adequately protect these features (EA, p. 20). The risk of increased sedimentation and organic material introduction will only occur until new ground cover (grasses and leaf cover) is established, usually within one year of harvesting activities and I find the risk is low.
- Vegetation Composition goals in MAs 1.2 and 2.3 will be enhanced by: 1) Thinning red pine stands to create larger diameter trees and later seral conditions, 2) Treating 170 acres of aspen to shift species composition to midseral, 3) Treating 530 acres of aspen to increase small

diameter early seral aspen, 4) Clear-cutting older larger diameter aspen trees and converting them to younger, more vigorous aspen (EA, p. 66).

- There are no known occurrences or potential for their habitat of federally listed threatened or endangered plant species in the project area (EA, p. 83). The determination is "No Effect" (EA, Appendix E, Table 9)
- There are six Regional Forester Sensitive Plants (RFSS) with occupied habitat and 31 with suitable but unoccupied habitat in the project area (EA, p. 83). The determinations are: "no impact" to 18 species and "may impact individuals but not likely to cause a trend toward federal listing" for the remaining 19. Most species of the latter group have that determination because there may be undetected individuals even though we surveyed the areas for rare plants. It is never possible to completely ensure that survey will identify all individuals. (EA, Appendix E, Table 9). **Note: The EA states that there are 32 species with suitable but unoccupied habitat in the project area. See Errata #1 and #2 at the end of this document for an explanation of this difference.**
- There are three federally listed wildlife species (Hine's emerald dragonfly, Kirtland's warbler, piping plover) with a determination of "no effect" (EA, p. 92, EA Appendix E, Table 9).
- Federally threatened Canada lynx has a determination of "not likely to adversely affect" (EA, p. 92, EA Appendix E, Table 9).
- There are eighteen RFSS wildlife species with known occurrences or habitat within the project area. The determination for four of them is "no impact." The determination for the remaining fourteen is "may impact individuals but not likely to cause a trend toward federal listing" (EA p. 92-93, EA Appendix E, Table 9).
- The Final Selected Alternative affects Management Indicator Species (EA, pp. 96,100-103) when compared to no action as follows:
  - o American marten – habitat availability decreases
  - o Ruffed grouse – habitat availability increases
  - o Sharp-tailed grouse – project area doesn't contain habitat
  - o Brook trout – no change in habitat availability
- There is risk of NNIP becoming established from implementing the prescribed management activities. Road closures and off-road equipment cleaning required under timber sale contracts and Forest Service off-road equipment will continue to mitigate the spread of NNIP due to timber harvest in the project area (EA, p. 19, 76).

I have reviewed the effects of the transportation system and its effects on other resources. Four miles of permanent roads will be constructed to access areas for vegetative management. An additional two miles of temporary roads will be constructed to provide short-term access and will be decommissioned after use. By closing 0.2 miles and decommissioning 0.6 miles of existing road we are eliminating roads that are causing resource damage, as well as providing for a safe, manageable transportation system (EA, p. 136).

- Road densities in MA 1.2 will be 2.2 miles per square mile, an increase of 0.1 miles per square mile. This is less than the Forest Plan maximum of 3.0 miles per square mile (EA, p.134, Table 3-50).
- The management activities prescribed will have little to no effect on fisheries (FEIS, p. 103-104).
- Air quality standards will be maintained (EA, p. 37).

- I have reviewed the effects of the Rudyard Project to the Recreation Experience and in particular the Visual Quality Objectives (VQO). VQO of Retention along the North Country Trail would not be met during harvest related activities along 0.3 miles, but will be met overall once the equipment is removed, and all design criteria are utilized. (EA, p. 20, Section 2.3.4; EA, p. 120, Table 3-41; and EA, pp. 123-126).
- There will be no adverse effects on heritage resources due to design criteria put in place to avoid the heritage sites (Design Criteria, EA, p. 20-21 and EA, p. 133).
- This project is not identified as a potential environmental justice case based on EPA definitions and US Census data for Chippewa and Mackinac counties (EA, p. 144).

Cumulative effects are woven into each resource section in Chapter 3. I have considered those effects and also reviewed section 3.2 Past, Present, and Reasonably Foreseeable Future Actions (FEIS, pp. 31-35) as well as Appendix H – Past, Present, and Future NEPA projects. These tools were used by the ID team to facilitate their consideration of cumulative effects.

III. Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions would not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Therefore, I have determined that an environmental impact statement is not required. I base my findings on the following factors:

A. Context

In the case of site-specific actions, significance depends on the effects in the project's locale rather than the world as a whole. Both short and long-term effects are relevant (FSH 1909.15, 65.1, Part 02).

This project is a site-specific action that by itself does not have international, national, region-wide, or state-wide importance. Discussion of the significance criteria that follows applies to the intended action and is within the context of local importance in the area associated with the Rudyard Project area. In the short-term, there would be normal activity associated with timber harvesting and other resource projects. Chapters 1 and 2 in the EA describe the locations and current conditions of the various resources. The resource effects sections in Chapter 3, along with the specialist information in the project record, reveal that most of the environmental effects are confined to the project area.

The long-term effect of this project would move or maintain resource conditions toward the desired conditions as described by the Forest Plan for MAs 1.2 and 2.3. The cumulative effects of past management, combined with the current proposal, and reasonably foreseeable future actions for each resource are displayed in the EA (Chapter 3). These analyses were reviewed in consideration of the Council on Environmental Quality (CEQ) guidance on cumulative effects analysis and results were disclosed in the EA (see project record, CEQ Memo). I am considering these effects for making the following determinations. This Final Decision is consistent with the management direction and Standards and Guidelines outlined in the Forest Plan. Therefore, it is my determination that the effects of implementing the *Final Selected Alternative* would not be significant locally, regionally, or nationally.

B. Intensity

This refers to the severity of impact and the following areas should be considered in evaluating the intensity of the actions. Discussion is organized around the ten significance criteria described in the National Environmental Policy Act (NEPA) regulations (40 CFR 1508.27).

1. Consideration of both beneficial and adverse impacts. I am considering both beneficial and adverse impacts associated with the alternatives as presented in the EA. Overall impacts of implementing this decision would have both beneficial and adverse impacts to resources within the project area; however, the EA's effects analyses found that no significant impacts would occur.

Benefits of this decision include, but are not limited to, silvicultural practices to restore and/or maintain healthy, diverse and resilient forests to work towards meeting direction outlined in the Forest Plan. These practices would subsequently maintain a range of forest habitats in the project area and provide wood products for the local economy. Other habitat enhancements for wildlife would occur through vegetation management activities. These enhancements, along with designated access would provide opportunities for recreational experiences within the project area consistent with Forest Plan expectations.

The potential for adverse impacts from this decision includes impacts to habitat for sensitive plant and animal species. However, my choice of the *Final Selected Alternative* would not likely contribute to a trend towards Federal listing or cause a loss of viability (see project record, Appendix E, Biological Evaluation). There are other adverse impacts I am taking into consideration, which include the impacts from non-native invasive species; effects to the soil resource from timber harvest; and management effects upon visual quality objectives and recreational experience. These impacts are similar to other projects previous to this one and are not unique to this project (see HNF M&E Reports). Some impacts would be minimized and/or avoided using the design criteria as disclosed in the EA (Appendix B). Previous projects, with similar activities using these or similar design criteria, have been found to be effective in avoiding or minimizing adverse effects (see Effects Analysis in Chapter 3; HNF M&E Reports).

Impacts from the *Final Selected Alternative* would be within the range of effects identified in the Forest Plan's Final Environmental Impact Statement (FEIS) (pp. 3-1 to 3-404). In consideration of the EA, and its associated project file, I have evaluated the beneficial and negative impacts of my decision and have made a determination that these impacts are not significant.

2. Consideration of the effects on public health and safety. The *Final Selected Alternative* would not significantly affect public health and safety. Harvesting timber is a common activity in the Eastern Upper Peninsula of Michigan and local residents and seasonal visitors are accustomed to seeing harvest activities. Maintaining a transportation system that facilitates multiple-use management of Forest resources is part of the purpose and need for the EA. During timber harvest, roads used by logging equipment are signed and posted to alert the public. The effects analyses for air quality (EA, pp. 37-38) and water quality (EA, pp. 52-54) demonstrate that these important resources for public health will not be unduly affected. Based on this discussion, I find that there are no significant impacts to public health and safety.

3. Consideration of the unique characteristics of the geographic area (e.g. such as historic features, park lands, prime farmlands, wild and scenic rivers or wetlands). There are no park lands, prime farmlands, or wild and scenic rivers in the project area. However, the project area does include historic features/cultural sites; all sites would be avoided and protected through implementation of mitigation measures found in Chapter 2 of the EA (pp. 20-21).

The southern, western, and eastern edges of the project area boundary are adjacent to the Niagara Escarpment. The Niagara Escarpment is a geologic landform that stretches from the Door Peninsula in Wisconsin through perhaps its best-known feature, the Niagara Falls in Ontario and New York. This feature includes dolomitic limestone, which may be below ground; including caves, sinkholes, and fissures. Sometimes surface features such as cliffs and boulder fields are present. The limestone-influence of the Niagara Escarpment creates a rich environment for some unique plants and animals, as well as a very productive environment for tree diversity and growth. If these features are found within activities in the Rudyard Project, mitigation measures found in Chapter 2 (p. 20) will be followed, as well as guidance found in the Forest Plan (p. 2-21). The Biological Evaluation found in Appendix E addresses cumulative effects for the Niagara landtype associations (LTA) listed above. I have determined that implementing the *Final Selected Alternative* would have no adverse effects on this unique feature.

There are approximately 11,549 acres of wetlands within the Rudyard Project Area. Timber harvesting activities will occur on approximately 239 acres of forested wetlands in the *Final Selected Alternative.* Soil protection measures found in the EA (Appendix B) minimize or mitigate the impacts to wetland soil types.

Based on this discussion, I find that there are no significant impacts to any of the unique characteristics of the geographic area.

4. The degree to which the effects on the quality of the human environment are not likely to be highly controversial. I interpret controversy criteria in a FONSI to be the degree to which there is scientific controversy relative to the results of the effects analysis, not whether one favors or opposes a specific alternative. All actions proposed for implementation are similar in type and intensity to activities that have occurred in the past (see HNF M&E Reports). Based upon previous implementation of similar projects, the effects of the *Final Selected Alternative* actions on the quality of the human environment are not considered as highly controversial. Timber harvesting, refinements of the transportation system, wildlife habitat improvements are typical of the management actions which occur across the Hiawatha and on many non-National Forest properties. While there are many different views about some of these specific management actions, the activities included in this Final Decision would be consistent with Forest Plan direction and the effects analysis is based on the best available science. Based on this discussion, I find that the effects as displayed in the EA and supporting documentation in the project file are not likely to be highly controversial.

5. Consideration of the degree to which effects on the human environment are highly uncertain or involve unique or unknown risks. The human environment is the natural and physical environment, and the relationship of people with that environment (40 CFR 1508.14). This decision is similar to many past actions in this analysis area and across the Hiawatha, and its effects upon the human environment are reasonably expected to be similar (see HNF M&E Reports). The project file demonstrates a thorough review of the best available and relevant scientific information, consideration of opposing views, and, where appropriate, the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk. We have considerable experience with the types of activities being implemented. Actions proposed by this decision are similar to the types of activities that have been used for many years on the Hiawatha.

The effects of climate change on this decision and the effects of this decision on climate change do have a level of uncertainty. However, the decision is extremely small in the global atmospheric greenhouse

gas context. Project-level effects are not significant when other variables are taken into consideration, including how much greenhouse gas concentrations will change globally, the sensitivity of the earth system to a unit change in greenhouse gases, and how global temperature changes will lead to regional climate impacts. See the EA (pp. 70-71) and response to comment 6-8 in Appendix 1 (pp. A-21 to A-22) of this document for more discussion on the effects of climate change.

There are no unique or unusual characteristics about the area or that the *Final Selected Alternative* would indicate an unknown risk to the human environment. Based on this discussion, I find that no significant effects will result in, or from, highly uncertain or unique risks.

6. The degree to which this action may establish a precedent for future actions with significant effects or represents a decision in principle about future considerations. As previously stated, this decision includes activities that are similar to many past actions in this analysis area and across the Hiawatha. Therefore, the effects are expected to be similar. The associated effects analysis is site-specific to the Rudyard Project area and is consistent with the Forest Plan. It is apparent that there was some concern from scoping comments that the cutting of aspen before rotation age would create a precedent for future actions. The proposed cutting and associated non-significant Forest Plan amendment are site-specific and designed to bring these stands in MA 1.2 closer to the vegetation composition goals set forth in the Forest Plan. Therefore, there are no precedent-setting actions proposed in the EA. Based on this discussion, I find that this decision is not a decision in principle about future considerations and does not establish a precedent.

7. Consideration of the action in relation to other actions within individually insignificant, but cumulatively significant effects. Cumulative effects analysis for the project area, by resource, was conducted in the EA and associated specialist resource analyses (EA, pp. 36-146, Specialist input in project record). The EA analyzed multiple management actions that have been implemented before, as well as on-going projects and those proposed in the future. In addition, the analysis reviewed private land management activities and considered them in the cumulative effects analysis. Cumulative effects of this decision, when considered in conjunction with other past, ongoing and reasonably foreseeable activities are not expected to be significant due to timeframes for implementation, protective measures developed in the proposed design criteria, and application of Forest-wide Standards and Guidelines. Based on this discussion, I find that there are no expected cumulatively significant effects.

8. The degree to which the action may affect listed or eligible historic places. This project would meet federal, state and local laws for protection of historic places. A project specific inventory of the area has been conducted. As described in the EA (Appendix B, section B.6), all known or newly discovered sites would be protected. Design criteria would ensure protection of heritage resources in accordance with Federal laws and regulations. See the *Context* discussion for more information. Based on this discussion, I find that there are no significant effects to eligible historic places or other heritage resources.

9. The degree to which the action may affect an endangered species or their habitat. The action would not adversely affect any proposed, endangered or threatened species or its habitat. The analysis completed in the Biological Evaluation resulted in a Finding of May Affect, Not Likely to Adversely Affect for Canada lynx (Biological Evaluation). The analysis conducted for wildlife species showed that Hine's emerald dragonfly, Kirtland's warbler, and piping plover do not have known suitable habitat within the Rudyard project area (EA, pp. 92-93, Appendix E – Biological Evaluation). Additionally, analysis for the plant species showed that American Hart's tongue fern, Pitcher's thistle, dwarf lake iris, lakeside daisy,

and Houghton's goldenrod have no suitable habitat within the project (EA, p. 84, Appendix E – Biological Evaluation). Design criteria for threatened, endangered, and sensitive species are found in Appendix B (Section B.3 and B.4). Therefore, a no effect determination was made for the above listed species and no further effects analysis was conducted. The U.S. Fish and Wildlife Service (USFWS) concurred with these findings in a concurrence letter dated on September 24, 2013, located in the project record (D.6.1 Project Record, Section 7 Concurrence)

There is no indication that implementing the proposed vegetation treatments would move a species proposed for listing towards federal listing, or increase a currently threatened or endangered species' present federal listing. If any federally proposed or listed animal or plant species are found at a later date or, if any new information relevant to potential effects of an activity on these species becomes available, the activity would be stopped and the Section 7 consultation process, as per the Endangered Species Act of 1973, as amended, would be initiated.

Based on this discussion, I find that there are no significant effects on endangered species or their habitat.

10. Whether the proposed action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. The *Final Selected Alternative* is consistent with the Forest Plan. Actions to be implemented under this Final Decision would not threaten a violation of federal, state, or local environmental protection laws. Project design criteria listed in Appendix B would assure compliance with these laws. Documentation associated with the Rudyard Project does meet National Environmental Policy Act disclosure requirements.

IV. Findings Required by Other Laws, Regulations and Policy

Numerous laws, regulations and agency directives require that this Final Decision be consistent with their provisions. I have determined that this decision is consistent with all laws, regulations and policy. The following summarizes findings required by major environmental laws.

National Forest Management Act (16 USC 1600 ET SEQ.)

The National Forest Management Act (NFMA) and accompanying regulations require that several specific findings be documented at the project level as follows.

1. ***Consistency with Forest Plan (16 USC 1604[i]):*** This project implements the Hiawatha's Forest Plan. The EA discusses the Forest Plan and the goals, objectives, standards and guidelines applicable to the Rudyard Project. The alternative development process and the management goals of the alternatives, in relation to Forest Plan standards and guidelines and effects, are also displayed in Chapter 2 of the EA. This decision moves toward the desired conditions of MAs 1.2 and 2.3.

   Two amendments to the Forest Plan are part of this Final decision, and listed below. They are both consistent with 36 CFR §219.11(b) and §219.13.

   Forest Plan Amendment 1:
   The Forest Plan guideline for timber rotation age of Aspen in MA 1.2 is 35-70 years (See Forest Plan, Table 2400-2, p. 2-12) (See Forest Plan, Table 3-2, p. 3-7). It has been determined that more early

successional habitat is desired, which prompted the need to harvest eight aspen stands that are not at rotation age. There is also a need to create structural and age class diversity across the landscape within MA 1.2. The Rudyard Project will harvest 52 acres in approximately 10 acre treatments to reach this objective.

Forest Plan Amendment 2:
Some wildlife openings do not meet Forest Plan direction (See Forest Plan, Table 3-2, p. 3-7) and need to be reclassified as suitable for timber production. There is also a need to remove some areas that are classified as suitable for timber production to create wildlife openings in more desirable areas. There are about 158 acres proposed to convert from unsuitable wildlife openings to suitable timber production and about 50 acres of suitable timber production land to be converted to wildlife openings. Additionally, about 14 acres of openings, adjacent to areas already designated unsuitable for timber management, would be reclassified from Non-Forest permanent openings (Forest Plan FEIS, Appendix F-1, Category 2) to Forest lands not suitable for timber management (Forest Plan FEIS, Appendix F-1, Category 8) (EA, Appendix I). **Note: please see Erratum #3 at the end of this document.**

All of the expected impacts from implementing this analysis are consistent with the expected impacts disclosed in the HNF Final Environmental Impact Statement (FEIS) for the HNF 2006 Forest Plan.

2. ***Suitability for Timber Production (16 USC 1604(g)(2)):*** All lands treated by timber management in this project within MAs 1.2 and 2.3 have been identified as suitable for timber production (Forest Plan's FEIS, Volume II, Appendix A, pp. A-12 to A-13), or changed to suitable for timber production through Forest Plan Amendment 2 of this Final decision. The classification of land as suited or unsuited is also tied closely to the Ecological Classification and Inventory and Monitoring System, which provided ecological potential and capabilities for various landtype phases.

3. ***Optimality Determination and Appropriateness of Even-aged Management (16 USC 1604(g)(3)(f)(i)):*** When the silvicultural treatment of clearcut harvest is proposed for use on National Forest System lands, a determination must be made that it is the optimum method to meet the objectives and requirements of the relevant Forest Plan. Even-aged management, where used, must be the appropriate silvicultural system to meet the objectives and requirements of the Forest Plan.

   Using even-aged management would meet the purpose and need for the EA. This decision ensures that the aspen forest type is maintained within MA 1.2 portions of the project area through regenerating aspen. Clearcut harvest is the optimum method for promoting regeneration of the aspen forest type as this species requires full sunlight for vigorous growth and successful competition with shade-tolerant species.

   The optimality of clearcutting to regenerate the forest types for which it is prescribed is further supported by the discussion of clearcutting rationale in the Forest Plan (Table 2400-1, p. 2-11).

4. ***Vegetative Treatments - (16 USC 1604 [e] [f]):*** All proposals that involve vegetative treatments of tree cover for any purpose must comply with the following requirements. Based upon my review of the EA, along with the Biological Evaluation and project record, the vegetative treatments will meet the seven requirements discussed below.

a) **Be best suited to the multiple-use goals stated in the Forest Plan**. Development of the EA and subsequent analysis was completed in an integrated fashion using an ID Team and public input. The ID Team utilized the Ecological Classification System, which provided site-specific capability information to determine appropriate land uses within the framework of the Forest Plan. In addition, the purpose and need section in the EA (Chapter 1) discusses the link to the goals and objectives for MAs 1.2 and 2.3.

b) **Assures that technology and knowledge exists to adequately restock lands within five years after the final harvest.** The knowledge and technology currently exists to adequately restock the harvested areas and the stocking surveys for similar areas are filed in a national database and available to review at the district office. Analysis of current and historical regeneration data for similar treatments across the Hiawatha supports the conclusion that adequate stocking of the proposed regeneration harvest units is assured with site preparation efforts occurring in a timely manner following regeneration harvest. This conclusion is supported by a reforestation accomplishment summary offered in the HNF M&E Reports.

c) **Not to be chosen primarily because they will give the greatest dollar return.** This decision is based on a variety of reasons as discussed earlier, and not solely on economics. Economic analysis for the EA (p. 143) showed that Alternative 1 produced slightly higher revenues than the Proposed Action Alternative (*Final Selected Alternative*), however this alternative was chosen for reasons stated earlier, and not solely based on dollars returned. As this analysis is performed to provide a method to compare the economic efficiency of alternatives, the actual volume harvested is dependent upon several factors, including final volume available per acre, market conditions and operating conditions.

d) **Be chosen after considering potential effects on residual trees and adjacent stands**. In this decision, I am considering the effects on residual trees and adjacent stands. I considered the impacts of reducing the tree density along with the need to provide wildlife habitat and watershed benefits. Based on the analysis disclosed in the EA, Biological Evaluation and project record, the *Final Selected Alternative* provides the best balance of management practices to meet all resource values.

e) **Be selected to avoid permanent impairment of site productivity and to ensure conservation of soil and water resources.** By adhering to Forest-wide Standards and Guidelines and site-specific design criteria, the Final decision would avoid impairment of site productivity and ensure conservation of soil and water resources. During the analysis, areas that were identified for treatment that were of concern to the ID Team were evaluated in the field and determined to meet the objective of avoiding impairment of site productivity. This determination is supported by the project record, the Vegetation Effects section (p.64) and the Soils Effects section (p. 48) in the EA.

f) **Be selected to provide the desired effects on water quality and quantity, wildlife, regeneration of desired tree species, forage production, recreation uses, aesthetic values, and other resource yields.** This decision provides the desired effect on the above resources (EA, pp. 30-146). All harvest units are designed to maintain the ecological function of adjacent riparian types, using logging systems and layout that minimize ground disturbance, implementing buffers to all streams by category, and applying Michigan Best Management Practices to all activities.

Project design criteria, as well as application of Forest Plan Standards and Guidelines, will be used in concert with vegetative management to provide the desired effects on other resource values, including forage production, recreation uses (Forest Plan, pp. 2-3 to 2-9), and aesthetic values (Forest Plan, p. 2-8).

g) **Be practical in terms of transportation and harvesting requirements and total costs of preparation, logging and administration.** The ID Team assessed the existing transportation system within the project area and proposed changes only when necessary to meet resource objectives. All road activities were evaluated to find a balance between the benefits and the costs of road-associated effects on resources (see Socio-economics section, Table 3-54 of the EA). This decision's transportation system will meet the objectives of the *Final Selected Alternative*. These actions will facilitate timber harvest and provide for recreational access where applicable. The economic analysis conducted considered the costs of sale preparation, logging, and administration.

5. ***Sensitive Species:*** Federal law and direction applicable to Regional Forester's Sensitive Species (RFSS) include the National Forest Management Act and the Forest Service Manual 2670. In making this Final Decision, I have reviewed the analysis and projected effects on all RFSS plant and animal species listed as occurring or possibly occurring on the Hiawatha. There is no indication that implementing the vegetation treatments or other proposed actions under this decision would cause effects different than those disclosed in the Biological Evaluation. For all RFSS species indicated in the Biological Evaluation, either a no impact, or may impact individuals but not likely to cause a trend to federal listing or loss of viability determination was made (see Appendix E, Biological Evaluation). These determinations serve as the basis for the Final Decision regarding sensitive species. **Note: The EA states that there are 32 species with suitable but unoccupied habitat in the project area. See Errata #1 and #2 at the end of this document for an explanation of this difference.**

   I concur with the findings documented for these species in the Biological Evaluation.

The Clean Water Act and State Water Quality Standards

The integrity of the Final Decision area's water and riparian features will be maintained as a result of the application of general Forest Plan Standards and Guidelines (pp. 2-13 to 2-15) and Michigan's Best Management Practices, as well as site-specific protective design criteria (see EA, Appendix B). The project's riparian design criteria will provide additional site-specific measures to assure riparian areas retain their ecological function. Supporting information in the project record indicates that implementation of this decision will not produce appreciable impacts on aquatic resources; the Clean Water Act and State Water Quality Standards will be met (EA, pp. 52-53 and project record, Watershed Resource Report).

The Endangered Species Act (ESA) (16 USC 1531 ET. SEQ.)

As required by the Endangered Species Act, a Biological Assessment, included in the project's Biological Evaluation was prepared addressing the potential effects to proposed, threatened or endangered species (see Appendix E, Biological Evaluation). Evaluations resulted in a finding of "may affect, not likely to adversely affect" for Canada lynx (federally listed threatened). This finding was also included in the concurrence letter from the USFWS dated September 24, 2013 (D.6.1 Project Record, Section 7 Concurrence).

National Historic Preservation Act

A total of sixteen archaeological sites were identified within the project area. All sites will be avoided and protected following Forest Plan direction and implementation of proposed design criteria that are included as part of this decision to protect heritage resources.

A project-specific inventory of all activity areas has been conducted and has been placed in the archaeological files. A consultation was conducted with the Michigan State Historical Preservation Office (SHPO) and a letter dated August 2, 2012 expressed the opinion of the SHPO that no historic properties are affected from this Final decision (see Project Record, D.9 Heritage). If any unknown sites are found within an area of potential effect during project implementation, the project would be redesigned to avoid the site or measures would be designed to mitigate the effects of the project on the site and submitted to the Michigan State Historical Preservation Office as required by law for their review and consultation. Based upon analysis in the project record, no direct, indirect, or cumulative effects to heritage resources from implementation of the proposed alternative are anticipated; therefore this decision is consistent with the National Historic Preservation Act (EA, p. 133).

Wild and Scenic Rivers Act

There are no Wild and Scenic Rivers within the project area for this Final decision. Therefore, this decision is consistent with the Wild and Scenic Rivers Act (EA, p. 105).

Compliance with Other Regulations and Policies

The Environmental Justice Act of 1994 requires consideration of whether projects would disproportionately impact minority or low-income populations. Public involvement occurred for this project, the results did not identify any adversely impacted local minority or low-income populations (EA, pp. 145-146). I have considered the effects of this project on low income and minority populations and concluded that my selection of the Proposed Action Alternative would be consistent with the intent of Executive Order 12898. The local community was notified of this project through the public participation process (Project Record, B.1.3 Scoping Mailing and F.1 30 Day Comments).

Summary of Findings

My review of the analysis prepared by the ID Team indicates that this decision is consistent with Forest Plan management direction, compliant with other applicable laws, and responds to public concerns. After thorough consideration, I have determined that this decision would not constitute a major federal action, individually or cumulatively, and the Proposed Action Alternative would not significantly affect the quality of the human environment. The site-specific actions of the proposed alternative, in both the short and long-term, would not be significant. Therefore, I have determined that preparation of an environmental impact statement is not needed.

Implementation

Pursuant to 36 CFR 218.12, this Final Decision can be implemented immediately. Timber harvesting will be implemented over time starting in the year 2014. Harvesting, implemented through timber sales, typically allows a three to five year contract time period. Not all changes under my Final Decision will be immediately reflected on the next version of the Motor Vehicle Use Map – in some cases, changes to

the public transportation system will be made only after the road conditions are improved and are no longer needed for timber sale operations.

Contact

For additional information concerning this Final Decision or the USDA Forest Service objection process, contact Martha Sjogren, Interdisciplinary Team Leader, at (906) 643-7900 ext. 117; or Robert West, Eastside District Ranger, at (906) 643-7900, ext. 113.

Jo Reyer

JO REYER
Forest Supervisor

May 14, 2014

DATE

Errata

These changes are to the June 2013 EA and associated Biological Evaluation in Appendix E of the EA.

Erratum # 1:
The bottom paragraph of page 83 **currently** states:

"Field visits and historical survey data identified six RFSS plant species with occupied habitat and 32 RFSS plant species with suitable but unoccupied habitat in the project area. The Rudyard Project would have no impact on 34 RFSS plants without suitable habitat in the project activity areas; these species were not analyzed further."

The paragraph **should** state:

"Field visits and historical survey data identified six RFSS plant species with occupied habitat and **31** RFSS plant species with suitable but unoccupied habitat in the project area. The Rudyard Project would have no impact on **35** RFSS plants without suitable habitat in the project activity areas; these species were not analyzed further."

This difference is due to an error in table 7 of the Biological Evaluation, which is addressed in Errata #2 below.

Erratum #2:
Table 7 of the Biological Evaluation (EA, Appendix E) states:

Common Name	Scientific Name	Status	Documented in Project Area?	Habitat in Project Area?
Flatstem spikerush	*Eleocharis compressa*	RFSS/ST	No	Yes

The cell under the "Habitat in Project Area?" column should state **No** as indicated in the correct table below.

Common Name	Scientific Name	Status	Documented in Project Area?	Habitat in Project Area?
Flatstem spikerush	*Eleocharis compressa*	RFSS/ST	No	No

Erratum # 3:

Forest Plan Amendment 2, found in Appendix I of the EA **currently** states in the last sentence:

"Additionally, about 14 acres of openings are within areas currently identified as old growth by the Forest Plan, so these openings would be reclassified from openings to unsuitable for timber production."

The sentence **should** state:

"Additionally, about 14 acres of openings, adjacent to areas already designated unsuitable for timber management, would be reclassified from Non-Forest permanent openings (Forest Plan FEIS, Appendix F-1, Category 2) to Forest lands not suitable for timber management (Forest Plan FEIS, Appendix F-1, Category 8) (EA, Appendix I)."

Appendix A
Responses to Instruction

Instructions to the Responsible Official, Forest Supervisor Jo Reyer:

- **Further explain and document the following in the project record (PR):**
    - **The reasons that mature aspen stands are not being proposed for treatment at this time (including the reasons that any specific mature aspen stands were ultimately dropped from the proposal); and**
    - **How monitoring data from any adjacent project (which identified issues with treating certain mature aspen stands) and other information about the current environment informed this project's purpose and need.**

Response from ID Team:

Silviculturist Allmaras created a layer in GIS which documents the reason no harvest action was proposed for each aspen stands 35 years and older, on suited timber land. (See project record: AspenDeferredMap&Table).

The following table summarizes the reasons:

Reason	*Approximate Acres*
Healthy aspen stand that will still be there in 10-15 years (next entry)	*1050*
Marginally operable due to quality and quantity of timber and access issues	*950*
Already regenerating without harvest	*900*
Adjacent to existing clearcuts (temporary opening size limitations)	*750*
Adjacent to clearcuts proposed in Rudyard project (temporary opening size limitations)	*550*
Within 500 foot buffers of coldwater streams identified in the Forest Plan to not encourage aspen regeneration	*300*
Not proposed for treatment because they are currently needed to meet minimum Forest Plan vegetation composition goals	*200*

This data documents the site-specific reason for each stand and is intended to support the Response to Mr. Johnson's comments on the EA as documented in the Draft DN/FONSI Appendix A, Comment 6-1 (p. A-17), Comment 6-4 (p. A-19), and Comment 6-7 (p. A-21).

The Rudyard Midscale Assessment was used as a starting point in developing the proposed action. It identified where the forest vegetation composition goals are outside of the desired range. This influences the choice of treatments. For example, if an aspen stand is on an ELT 60, the first step during field visits is to determine if the stand is commercially viable for a timber harvest. This includes considering stand condition, stand age, access and what the surrounding stands are. If it is a commercially viable stand the midscale assessment would be used to determine possible desired future conditions. If the stand on ELT 60 already had a fully stocked understory of midseral species and a sparse overstory of aspen, silvicultural options include: salvaging the overstory aspen, accepting some

damage to the understory; salvaging overstory with site preparation cutting all advanced regeneration; or letting the stand continue to naturally convert into a midseral stand. According to the midscale, both conversion to midseral and conversion to aspen size class 1 are desirable.

No specific, formal monitoring data from any adjacent project identified issues with treating certain mature aspen stands. However, ID Team members noted during the implementation of the adjacent Sprinkler project, which also involved aspen treatments on similar soils, that harvest activities were not pursued in a few of the stands or in portions of the stands due to the limited amount of merchantable timber. Recent experience with an adjacent project area has highlighted the operational difficulty of freezing down temporary roads in similar areas. Chainsaw site preparation is also expensive. Therefore, low volume stands that could convert to midseral with no harvesting were sometimes left to convert naturally.

- **Further address in the PR the Objector's concerns related to acceptable management practices for aspen under current Forest Plan direction.**

Response from ID Team:

Acceptable management practices for aspen are guided by the Manager's Handbook for Aspen in the North Central States (in project record and available here: http://www.ncrs.fs.fed.us/pubs/viewpub.asp?key=101. *Manager's handbook for Aspen in the North Central States was used as a general guide. It does always recommend cutting the overstory aspen, no matter what the desired future condition is to maximize economic returns. The forest plan does give us the option to allow for natural succession. A technical guide has been developed for vegetation and pests and is found in the project record:* TechnicalGuideVeg&Pest.

MA 1.2's identified suited uses are "to manage aspen for fiber production to the regional economy; to provide habitat and hunting opportunities for wildlife species such as deer and grouse and to provide dispersed recreation (FP p 3-5).

MA 1.2 (FP 3-5) desired conditions also states vegetation management is directed at providing age diversity in aspen stands which range from 10 to 25 acres. Forest Plan guidelines (p 2-12) state: A temporary opening should be considered forested when the reestablished stand has reached a height that is greater than 20 percent of the height of the surrounding trees. Openings should be separated by a stand of at least the minimum stand size, normally 10 acres.

From his comments, Mr. Johnson indicates he wants all acres of mature aspen to be regenerated to aspen. The Forest Plan does not require that, nor is the Hiawatha NF currently funded to fully implement the Forest Plan. The most recent Monitoring and Evaluation Report (FY10) indicates that the Forest is currently obtaining 42% of the allowable sale quantity. The Forest Plan establishes Vegetation Composition and Size Goals by Ecological Land Types (FP p 3-7 for MA 1.2). Table 3-24 Change in Size Class and Seral Class by ELT from Sprinkler and Rudyard Proposed Action (EA p. 67) displays data indicating that implementation of the Proposed Action will move the project area closer to the desired Forest-wide vegetation composition goals in several of the size classes for each of the ELTs.

- **Further explain and document in the PR the HNF's analysis and conclusions regarding climate change implications on this project's alternatives (adaptation), as well as the effects of each alternative on climate change (mitigation).**

Response from ID Team:

The project record contains two references related to climate change that were used in the HNF's analysis: Niagara EIS Climate Change written by former Forest NEPA Coordinator Anne Davy (January 2009) and Climate Change and Forests of the Future: Managing in the Face of Uncertainty (Millar et. al. 2007). Within the EA, section 3.8.8 Climate Change and Effects to Vegetation (p. 71) discusses climate change.

In terms of adaptation and mitigation, the framework of the Forest Plan's Vegetation Composition Goals and Objectives is designed to meet the Vegetation Management goal "native vegetation communities are diverse, productive, healthy, and resilient" (FP p. 2-10) and the Wildlife, Fish and Sensitive Plant Habitat Management goal "diverse, healthy, productive and resilient habitats for aquatic and terrestrial wildlife are provided" (FP p. 2-16). It is with this understanding that the ID team reflected the following: promoting species diversity (EA p. 64), improving resistance to insect and disease outbreaks (p.68), mitigation and action to reduce NNIP spread (EA p. 81), and manage vegetation and disclose the changes to habitat as a result of this project (EA p. 96-101). Again referring to Table 3-24 Change in Size Class and Seral Class by ELT from Sprinkler and Rudyard Proposed Action (EA p. 67), by moving closer to the forest-wide composition goals, the Rudyard project alternatives are consistent with Forest Plan direction and emphasize resiliency.

Mr. Johnson's comments on the EA specifically included Global Warming – Forest Mitigation and Adaptation and he shared several references related to global warming:

- U.S. EPA website: http://epa.gov/climatechange/impacts-adaptation/midwest.html
- *Three issues of National Concern that Need to be Addresses in National Forest Projects (a white paper written by Mr. Johnson)*
- *Bradford, John B. and Kastendick, Douglas N. (2010) Age-related patterns of forest complexity and carbon storage in pine and aspen-birch ecosystems of northern Minnesota, USA: Canadian Journal of Forest Research. 40: 401-409.* (http://www.nrs.fs.fed.us/pubs/jrnl/2010/nrs_2010_bradford_002.pdf)
- [1] *Birdsey, R.A. (1996) Regional Estimates of Timber Volume and Forest Carbon for Fully Stocked Timberland, Average Management After Final Clearcut Harvest. In Forests and Global Change: Volume 2, Forest Management Opportunities for Mitigating Carbon Emissions, eds. R.N. Sampson and D. Hair, American Forests, Washington, DC.*
- [1] *U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2011, April 12, 2013,* (http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2013-Main-Text.pdf)
- [1] *U.S. Department of Energy, DOE/EE-0837, January 2013, Mascoma Frontier Biorefinery Demonstraton-scale Project,* (http://www1.eere.energy.gov/biomass/pdfs/ibr_demonstration_mascoma.pdf).
- [1] *Marvin Roberson, Sierra Club, Comments on Draft Environmental Assessment and Notice of Wetland Involvement for the Construction and Operation of a Proposed Cellulosic Biorefinery,*

Mascoma Corporation, Kinross Charter Township, Michigan (DOE/EA-1705), (http://michigan.sierraclub.org/pdfs/Sierra_Club_Comments_on_DOE_EA-1705.pdf)

- [1] *MIT Technology Review, U.S. Will Be Hard-Pressed To Meet Its Biofuel Mandates, May 9, 2012,* (http://www.technologyreview.com/news/427874/us-will-be-hard-pressed-to-meet-its-biofuel-mandates

Members of the ID team and District Ranger Stevan Christiansen carefully reviewed and considered all of this material before responding to his comments in the Appendix to the Draft DN/FONSI (p. A-17 through A-24).

The project record now includes a document from the Eastern Region titled "Climate Change Considerations in Project Level NEPA Analysis."