

DECISION NOTICE
and
FINDING of NO SIGNIFICANT IMPACT
for the
BIGELOW-NEWAYGO PROJECT

USDA Forest Service
Huron-Manistee National Forests
Baldwin-White Cloud Ranger District
Mecosta, Montcalm, and Newaygo Counties, Michigan

Introduction

This Decision Notice documents the decision I have made to implement the proposed activities described in the Bigelow-Newaygo Project Environmental Assessment (EA). The Bigelow-Newaygo Project Area (Project Area) is located on the Baldwin-White Cloud (BWC) Ranger District of the Huron-Manistee National Forests (HMNF) in the following locations (see the attached Selected Alternative maps):

- T13N, R10W, Section 30 of Aetna Township, Mecosta County, MI
- T12N, R10W, Section 20 of Reynolds Township, Montcalm County, MI
- T12N, R11W, Sections 13, 30, and 31 of Croton Township, Newaygo County, MI
- T12N, R12W, Sections 1-4, 8-10, 25-27, and 34-36 of Brooks Township, Newaygo County, MI
- T13N, R11W, Sections 30-32 of Big Prairie Township, Newaygo County, MI
- T13N, R12W, Sections 22, 23, 27, 34, and 35 of Everett Township, Newaygo County, MI

This document also describes the reasons for my decision and my findings for not preparing an Environmental Impact Statement. This finding is in accordance with the National Environmental Policy Act (NEPA). The decision and findings are based on the analysis of the proposed activities and alternatives to those actions in the Environmental Assessment (EA) for this project.

In developing the EA, Decision Notice, and Finding of No Significant Impact, I recognize that less than complete knowledge exists about many relationships and conditions of wildlife, fish, forests, jobs, and communities. The ecology, inventory, and management of a large forest area is complex and our knowledge and public perceptions are always developing. The biology of wildlife species prompts questions about population dynamics and habitat relationships. The interaction between resource supply, the economy, and communities is not an exact science. Perfect knowledge and absolute guarantees are not attainable, but we believe we used the Best Available Science at this time to analyze potential effects of the actions and meet the varied needs of the public.

This environmental analysis is tiered to the 2006 Huron-Manistee Land and Resource Management Plan as Amended (Forest Plan) (HMNF 2006a) and Final Environmental Impact Statement (HMNF 2006b). The Management Areas (MA) in the Project Area are MA 4.4, MA 8.2, MA 8.3, MA 8.4, and MA 9.2W. Relevant discussion from this document and the Planning Record has been incorporated by reference rather than repeated (40 CFR 1502.21). I have reviewed the EA and associated project information. This decision is based upon that review.

Decision

This Decision Notice documents my decision to implement the proposed management activities, including vegetation management, fish and wildlife habitat improvement, recreation management, and transportation management in the Bigelow-Newaygo Project Area. **It is my decision to implement Alternative 3 as documented in the EA, with modifications.** Alternative 3 will be referred to as the Selected Alternative from this point forward (see the attached Selected Alternative map). This decision meets the Purpose and Need for the project. It is responsive to issues raised during scoping, follows all relevant laws and regulations, and is consistent with the Forest Plan.

The following modifications to Alternative 3 will be implemented with the Selected Alternative:

Under Alternative 3, as initially proposed, stands adjacent to the Coolbaugh property would only have been broadcast burned. These included Stands 23, 24, 25, 26, and 27 in Compartment 521. These five stands will still be treated with broadcast burning, but in addition savanna creation activities will occur as well. The entire stands will not be converted, but small areas situated away from the North Country Trail will be treated with a suite of activities associated with savanna restoration (i.e. mechanical/manual woody vegetation removal, woody vegetation herbicide treatment, prescribed burning, native plant seeding, site preparation, and habitat protection measures). The reason for this modification can be found below under *Reason for the Decision*.

In addition, the EA identified resource damage from illegal ORV use in the Basswood area; in particular was resource damage in stands 5, 7 and 8 in Compartment 513. The Forest Service received a grant in Fiscal Year 15 to address this concern and therefore chose to pull this aspect of the proposed action out of this EA and instead address it separately under a Categorical Exclusion so the project work could be initiated in Fiscal Year 15. The Basswood Decision Memo was signed on June 12, 2015 after appropriate public scoping. No comments were received specifically about these actions in either the EA or Decision Memo. Stand 7 will continue to have opening restoration activities performed, while Stand 8 will continue to be restored to a savanna as described under the EA. Stand 5 will no longer be treated under the Bigelow-Newaygo EA. The reduction in damage restoration acres will be reflected in the Final EA.

The following is a list of the activities that will be implemented under the Selected Alternative. These activities are displayed on the attached Selected Alternative maps.

Treatments to be Implemented

Table 1

Treatment Types	Measurement	Compartment-Stand
Commercial Thin	1,457 acres	517-2,4,7,8,12,13,15,16,21,22,26,29,31,34,36,42,58,62,67,68; 519-6,10,17,18,19,21,22,25,26,27,28,29,31,32,34,40,44; 520-10; 522-2,3,6,12,15,20; 573-7,8,10,11,14,18,19; 576-1,3,4,6,22,25
Overstory Removal Harvest	45 acres	517-11,17
Opening Creation	58 acres	517-16,29,62,67; 519-3,15; 522-54,55,56,57; 576-15

Opening Restoration/Maintenance	343 acres	513-6,7,9; 517-24,25,41,43,50,51,56,63,72; 519-7,8,9,14,36,37,38,39,41,45,46; 520-15; 521-29; 522-31,32,33,38,39,49; 576-5,12,21,28,29; 578-9; 582-16; 586-30
Savanna Restoration	353 acres	513-8; 517-23,40; 519-2,33,40,42,43,47; 520-9,11,12; 521-13,17,23,24,25,26,27; 576-4,6,10,13,16,17,19,22,25; 578-6; 582-7,8; 586-25
Broadcast Burning	746 acres	517-5,6,7,8,9,10,11,12,21,22,29,42,60,61,62,67,69,70; 519-1,15,42; 573-1,2,4,5; 576-1,3,4,6,19,22,31,32
Mechanical/Manual Woody Vegetation Removal	up to 700 acres within these stands	513-6,7,8,9; 517-16,23,24,25,40,41,43,50,51,56,63,72; 519-2,3,7,8,9,14,15,33,36,37,38,39,40,41,42,43,45,46,47; 520-9,11,12,15; 521-13,17,23,24,25,26,27,29; 522-31,32,33,38,39,49,54,55,56,57; 576-4,5,6,10,12,13,15,16,17,19,21,22,25,28,29; 578-6,9; 582-7,8,16; 586-25,30
Woody Vegetation Herbicide Treatment	up to 100 acres within these stands	513-6,7,8,9; 517-16,23,24,25,40,41,43,50,51,56,63,72; 519-2,3,7,8,9,14,15,33,36,37,38,39,40,41,42,43,45,46,47; 520-9,11,12,15; 521-13,17,23,24,25,26,27,29; 522-31,32,33,38,39,49,54,55,56,57; 576-4,5,6,10,12,13,15,16,17,19,21,22,25,28,29; 578-6,9; 582-7,8,16; 586-25,30
Prescribed Burning	up to 700 acres within these stands	513-6,7,8,9; 517-16,23,24,25,40,41,43,50,51,56,63,72; 519-2,3,7,8,9,14,15,33,36,37,38,39,40,41,42,43,45,46,47; 520-9,11,12,15; 521-13,17,23,24,25,26,27,29; 522-31,32,33,38,39,49,54,55,56,57; 576-4,5,6,10,12,13,15,16,17,19,21,22,25,28,29; 578-6,9; 582-7,8,16; 586-25,30
Native Plant Seeding	up to 152 acres within these stands	513-6,7,8,9; 517-16,23,24,25,40,41,43,50,51,56,63,72; 519-2,3,7,8,9,14,15,33,36,37,38,39,40,41,42,43,45,46,47; 520-9,11,12,15; 521-13,17,23,24,25,26,27,29; 522-31,32,33,38,39,49,54,55,56,57; 576-4,5,6,10,12,13,15,16,17,19,21,22,25,28,29; 578-6,9; 582-7,8,16; 586-25,30
Site Preparation	up to 100 acres within these stands	513-6,7,8,9; 517-16,23,24,25,40,41,43,50,51,56,63,72; 519-2,3,7,8,9,14,15,33,36,37,38,39,40,41,42,43,45,46,47; 520-9,11,12,15; 521-13,17,23,24,25,26,27,29; 522-31,32,33,38,39,49,54,55,56,57; 576-4,5,6,10,12,13,15,16,17,19,21,22,25,28,29; 578-6,9; 582-7,8,16; 586-25,30
Habitat Protection Measures	up to 700 acres within these stands	513-6,7,8,9; 517-16,23,24,25,40,41,43,50,51,56,63,72; 519-2,3,7,8,9,14,15,33,36,37,38,39,40,41,42,43,45,46,47; 520-9,11,12,15; 521-13,17,23,24,25,26,27,29; 522-31,32,33,38,39,49,54,55,56,57; 576-4,5,6,10,12,13,15,16,17,19,21,22,25,28,29; 578-6,9; 582-7,8,16; 586-25,30
Non-native Invasive Plant Treatment	108 acres	513-8; 517-2,5,6,10,11,12,14,16,23,29,34,40,60,61,62,67; 519-1,2,3,15,19,25,26,27,28,29,33,34,36,37,38,39,40,42,43,47; 520-9,10,11,12; 521-13,17,20,21,22,23,25,26,27,28,29; 522-20,54,55,56,57; 576-1,4,6,10,13,15,16,17,19,21,22,25; 578-6; 582-7,8; 586-25

Repair Resource Damage	147 acres	513-9,25,27; 517-14,16,49; 520-9,11,12,15; 521-29; 573-13
Maintenance of Bigelow Creek Instream Structures	up to 28	520-13
Riparian Planting	17 acres	520-13

In addition to the activities listed in Table 1, nine road stream crossings will be improved. These nine sites are not associated with the forested stands being treated in this Project, but are located within the project boundary.

The 58 acres of opening creation and the 353 acres of savanna restoration shown above will be converted from a Land Suitability Class (LSC) 500, land that is suitable for timber production, to an LSC 200, non-forested wildlife openings, and LSC 800, unsuitable-not appropriate, respectively .

Road system activity includes the following:

- 0.6 miles of road construction or re-designation from a Maintenance Level 1 (for administrative use only and not open to the public) to a Maintenance Level 2 (open to public motorized use)
- 4.9 miles of road reconstruction of Maintenance Level 2 Forest roads and Newaygo County roads
- 2.8 miles of road closure or re-designation from a Maintenance Level 2 to a Maintenance Level 1

The net loss of roads open to the public for motorized use will be 2.2 miles. Minor adjustments in road clearing limits, realignment of the existing roads, and gravel stabilization in some locations may be necessary to reduce the potential for erosion. In addition to the road activities listed above, unauthorized, user-developed roads and trails may be closed.

The following mitigation measures will be required for implementing the Selected Alternative:

Project-wide Conservation Measures

Archaeology

- Protect known heritage resource sites in accordance with State Historic Preservation Office guidelines. Mitigation measures used to avoid site disturbance would be applied to all action alternatives. If any unknown heritage resource sites are found during ground disturbing activities, the activity would stop until a professional heritage resource specialist is informed and adequate protection measures are applied to avoid potential impacts.

Botany

- Following the Forest Service Native Plant Framework, seed for this project will be native Michigan genotype, or non-persistent non-native species which do not have invasive characteristics in the event that a native species is not the best choice for short term seeding of the site. If Michigan genotype is not available, then Laurentian genotype may be substituted.
- Cleaning of timber equipment and in-house equipment would be implemented if travel occurs from a stand with invasive species present to a stand with those invasive species not present. The list of target NNIP would be expanded in areas with Karner blue butterfly (KBB) habitat.
- The *Bigelow Botany Matrix*, which includes a summary of non-native invasive plants (NNIP) by stand, will be consulted prior to initiating any ground disturbing activity (including mowing) to determine the

appropriate actions needed to avoid the spread of NNIP. Actions could include: equipment cleaning, which could include dry brushing or power washing; avoidance of areas of infestation; or, limiting operations to dormant seasons. The *Bigelow Botany Matrix* is available in the Planning Record.

Research Natural Area

- Prescribed Burning:
 - Prescribed fire would use a broadcast burn with a sufficient energy release component to top kill target woody vegetation less than 8 inches in diameter at the ground line. Operations would occur during the growing season, approximately May-September; control lines would be established using a combination of mowing, leaf-blowing, and wet (water only) line.
 - Girdling would use chain saws within 5 days of the prescribed fire.
- NNIP Treatment:
 - Herbicides would be applied using back pack or hand spraying tools, approximately May-October.
 - Hand pulling would occur approximately April-September.

Resource Protection

- Recommendations included in the State of Michigan Sustainable Soil and Water Quality Practices on Forest Land (BMPs) (MDNR 2009) and (USDA-Forest Service Handbook 2550, supplement No. R9 RO 2550-2012-1) would be incorporated to provide protection of soil and water resources.
- Protect known threatened, endangered, or sensitive species (ETS) and the immediate habitat in which they are found. If any additional ETS species are found during project implementation, the project would stop until the District Wildlife Biologist or District Botanist is informed and adequate protection measures applied if needed to avoid potential impacts.

Timber

- Reserve existing snags that are not a safety hazard in all treatment units to maintain cavity nester habitat. Table II-12 (Forest Plan) displays numbers of snags, den trees, mast trees and down wood as per acre minimums and minimum size objectives. Size objectives are minimums, and the largest diameter trees practical should be used.
- Overstory removal harvest unit cutting would occur between October 1st and March 31st to promote natural regeneration.
- Retain tipwood (<4 inches diameter inside bark) in overstory removal harvest areas to facilitate organic matter retention and mitigate soil compaction and displacement. The amount retained would depend on other management considerations, but the goal would be to retain as much as practicable.
- In pine thinnings that are *not to be treated with broadcast prescribed fire*, approximately 25% of the tipwood <4 inches in diameter will be retained within thinning harvest units to help sustain soil productivity.
- Rehabilitate landings after harvest activities are completed to reduce the amount of logging residue, reduce compaction, reduce non-native invasive species colonization, and promote re-vegetation.

Wildlife

- Implement The Final Karner Blue Butterfly Recovery Plan (USDI 2003) and guidance for KBB included in the Biological Opinion for the Forest Plan (USDI 2006).

- The District Wildlife Biologist will update where occupied and unoccupied KBB sites occur within the Project Area when new survey data becomes available.
- The District Wildlife Biologist will assist the Silviculturist in the development of site specific prescriptions to meet management objectives for KBB opening/savanna habitat restoration.
- Train operators and contractors to identify KBB and wild lupine when working within occupied KBB sites.
- Avoid damaging wild lupine and other nectar plants during project activities. Avoid parking, driving, and operating/staging in occupied KBB habitat.
- Motorized vehicles will stay on existing roads and will not drive, park, or operate within occupied KBB sites.
- Implement the Northern Long-Eared Bat (NLEB) Interim Conference and Planning Guidance (USDI 2014).
 - Except for prescribed fire and road construction/reconstruction, all activities that would fell trees larger than 3 inches DBH would be prohibited during the summer occupancy period, between May 1st and August 31st.
 - Reserve snags, den trees, and trees that have features beneficial to the NLEB such as cavities, crevices, and loose or sloughing bark.
 - Conduct low to moderate intensity prescribed burns when possible.
 - Retain burning snags by extinguishing fire rather than felling when possible.
- When possible, use artificial or existing natural breaks such as roads, and minimize soil disturbance when constructing fireline by using methods such as using rotovated or disced breaks, wet lines, or hand lines.

Additional site-specific conservation measures by compartment and stand are described in detail in Appendix A of the EA.

The following monitoring and evaluation will be conducted with the Selected Alternative:

Implementation Monitoring

Mitigation Measure Implementation

Objective: Ensure mitigation measures for each treatment unit are being implemented.

Desired Results: Mitigation measures are effective in addressing resource issues.

Methods: Select treatment units would be visited by district personnel. Reviews would be documented in inspection reports regarding contract compliance.

Responsibility: District Assistant Rangers for timber, recreation, and wildlife

Contract Administration

Objective: Ensure that mitigation measures are implemented for treatment units with commercial harvesting.

Desired Result: All contract requirements are met.

Method: All treatment units would be visited by the timber sale administrator.

Responsibility: District Timber Sales Administrator

Invasive Plants

Objective: Ensure that the spread of invasive plants is minimized.

Desired Result: No spread of invasive plants due to treatments would occur.

Method: Ocular inspection within the first two years after the treatment of a unit.

Responsibility: District Botanist

Controlled Burn Implementation

Objective: Ensure controlled burn parameters are implemented to maintain control of the controlled burn.

Desired Result: Completion of controlled burn goals and objectives without containment and/or control problems.

Method: A controlled burn plan would be developed which sets environmental and fire equipment/personnel parameters required to meet the goals and objectives of the burn. All personnel would be briefed on burn objectives and safety measures. Personnel would be assigned to monitor fire behavior and the effectiveness of burn control measures. Upon completion of every burn, fire behavior and effectiveness of control actions would be documented.

Responsibility: Assistant Fire Management Officer

Effectiveness Monitoring

Reforestation

Objective: Ensure that reforestation occurs within 5 years of treatment.

Desired Result: Adequately reforested stands.

Method: Stocking surveys within the first 5 years after the treatment of a unit.

Responsibility: District Silviculturist

Forest Plan Monitoring

The National Forest Management Act requires that national forests monitor and evaluate their forest plans. Forest plan monitoring is conducted over the entire forest on a periodic basis. Samples for Forest Plan monitoring may or may not be taken in the Project Area; however, monitoring results are designed to answer questions regarding the implementation and effectiveness of mitigation. Forest Plan monitoring results can be found in the FY2012-FY2013 Monitoring and Evaluation Report found in the Planning Record.

Reason for the Decision

In making my decision, I considered all issues and took into account the competing interests and values of the public. I carefully considered the appropriate type and level of treatment needed to: restore and maintain savannas, prairies, dry grasslands, and mesic grasslands where they were known to previously occur for habitat diversity and to meet species viability needs; manage wildlife and fisheries habitat; manage native plant communities; maintain viable populations of existing native and desired non-native species; reduce life-threatening and property damaging wildfire potential; and, provide recreational opportunities while protecting the unique ecosystem characteristics of the Project Area. There were divergent opinions expressed by the public during the analysis. This decision will likely not satisfy any one particular group or individual completely. However, I have considered all views and believe that the decision I have made is reasonable. The Selected Alternative provides the best mix of benefits for the public within the framework of existing laws, regulations, policies, public needs and desires, and capabilities of the land, while meeting the stated Purpose and Need for this project. The Purpose and Need for this project include the following:

- **Restore and maintain savannas, prairies, dry grasslands, and mesic grasslands where they were known to previously occur for habitat diversity and to meet species viability needs**
- **Wildlife and fisheries habitat, and native plant communities managed to maintain viable**

populations of existing native and desired non-native species

- **Reduce life-threatening and property damaging wildfire potential**
- **Provide recreational opportunities while protecting the unique ecosystem characteristics of the Project Area**

Although Alternatives 2 and 3 achieve the Purpose and Need for this project, the Selected Alternative has several characteristics that led it to being chosen for implementation. My decision to choose Alternative 3 as the Selected Alternative was based on my review of the Environmental Assessment and a combination of biological, social, and economic factors. It is my judgment after evaluating the effects of the proposed alternatives, as described in Chapter 3 of the EA, that the Selected Alternative has the best balance of benefits from a biological, social, and economic standpoint. The activities discussed below may pertain to one or more of the Purpose and Need statement outlined above. As mentioned in Chapter 2 of the EA in Table 2-1: *Treatment Activities by Alternative*, the proposed actions meet multiple objectives and therefore address one or more of the Project's Purpose and Need.

The Selected Alternative accomplishes fewer acres of ecosystem restoration/maintenance and habitat improvement than the Proposed Action (Alternative 2). The Selected Alternative, as compared to the Proposed Action, would create fewer acres of opening creation (from 102 acres to 58 acres); reduce the number of acres of savanna restoration (from 485 acres to 329 acres); and increase the amount of broadcast burning (from 696 acres to 746 acres). Other management activities that changed in the Selected Alternative are (acres mentioned are the maximum amount that would be considered, with the likelihood being that fewer acres would be treated): mechanical/manual wood vegetation removal (from 932 acres to 700 acres); prescribed burning (from 932 acres to 700 acres); native plant seeding (from 242 acres to 152 acres); and, habitat protection (from 932 acres to 700 acres). In addition, there would be fewer road closures with the total length of roads to be closed reduced from 3.9 miles down to 2.8 miles of road closures. All other activities remain the same or have very minor changes in acres treated.

The maintenance of instream structures on Bigelow Creek, riparian planting, and road/stream crossing improvements remain unchanged.

The Selected Alternative would accomplish more acres of fuels reduction activities, and increase the amount of pine stands thinned from 1,412 acres to 1,457 acres. The additional acres come not from adding new stands to be thinned, but from changing the prescription of some stands from savanna restoration to thinning. In addition, although the number of acres of broadcast burning increased from 696 acres to 746 acres, the amount of potential burning associated with the restoration activities discussed above is reduced from a maximum of 932 acres to a maximum of 700 acres.

The Selected Alternative would provide recreational opportunities while protecting the unique characteristics of the Project Area. All other activities associated with the Purpose and Need are unchanged between alternatives.

The Selected Alternative includes the modifications described above on page 2 of this Decision Notice. The modification includes savanna restoration activities adjacent to the Coolbaugh property in Stands 23, 24, 25, 26, and 27 in Compartment 521. The importance of these stands as potential savanna habitat was recognized well in advance of the original project proposal by the adjoining landowners as an opportunity to partner in the landscape scale restoration of savannas across property boundaries. By including these stands, opportunities to partner with others to meet restoration goals would be enhanced. Adjacent landowners, including Brooks Township, were interested in partnering with the Forest Service to conduct work in this area.

During the alternative development process of the Bigelow-Newaygo Project, it was recognized that access issues

would limit the amount of large-scale habitat restoration activities that could take place in these stands. In addition, the cost of boundary lines associated with these stands, and the fact that the North Country Trail runs through the area, further limited the opportunity to conduct large-scale activities in this area as initially proposed. As a compromise, smaller areas within these stands will be converted to savanna habitat while maintaining the visual integrity of the North Country Trail.

In addition, resource damage from illegal ORV use was identified in the EA; in particular was resource damage in stands 5, 7 and 8 in Compartment 513. The Forest Service received a grant in Fiscal Year 15 to address this concern and therefore chose to pull this aspect of the proposed action out of this EA and instead address it separately under a Categorical Exclusion so the project work could be initiated in Fiscal Year 15. The Basswood Decision Memo was signed on June 12, 2015 after appropriate public scoping. No comments were received specifically about these actions in either the EA or Decision Memo. Stand 7 will continue to have opening restoration activities performed, while Stand 8 will continue to be restored to a savanna as described under the EA. Stand 5 will no longer be treated under the Bigelow-Newaygo EA. The reduction in damage restoration acres will be reflected in the Final EA.

Public Involvement

The Forest Service uses public involvement and an Interdisciplinary Team (IDT) of resource specialists to determine issues of concern and develop possible solutions. Scoping is a process for gathering comments about a site-specific proposed federal action to determine the scope of issues to be addressed and for identifying unresolved issues related to the proposed action (40 CFR 1501.7). Opportunities for comments enable concerned citizens, resource specialists from other agencies, and local governments to express their ideas and views. Public involvement for the project included listing in the HMNF's Schedule of Proposed Actions and a direct mailing on March 20, 2014, to approximately 325 individuals, organizations, and adjacent landowners; and, a listing on the HMNF's website. During the scoping period, 33 responses were received.

Public comments were used to refine the issues, alternatives, and the potential environmental effects. A copy of the scoping letter, mailing list of individuals, government agencies, and organizations contacted, comments received, news releases, and other public involvement information are included in the Planning Record. The IDT developed a list of issues from internal and external scoping. According to NEPA, issues are points of discussion, debate, or dispute concerning the proposed action of the project. Three relevant issues were identified and used to develop alternatives and are addressed in the Purpose and Need section of the EA (see page 1-3 of the EA); listed below. Other issues and management concerns identified were addressed in the environmental effects section, but were not used to develop alternatives.

During the 30-day comment period for the Bigelow-Newaygo Project, comments from two individuals were received. These comments are included with this document as Appendix A. These comments did not change the issues used to formulate alternatives, the effects analysis, or the decision to proceed with implementation of the Selected Alternative, but did result in minor clarifications and the addition of one mitigation measure.

In making my decision, I also considered the main relevant issues identified through the public involvement process. In the following summary, I disclose how the Selected Alternative addresses these issues. Table 2-1 on page 2-7 of the EA and Chapter 3 of the EA supplement the following discussion and provide a comparison of the alternatives.

The Selected Alternative accomplishes important goals and objectives of the Purpose and Need while responding to those comments received by the public and those elicited from within the Forest Service.

Issue: Conversion of red pine stands to prairie

There were concerns that converting forested stands to non-forested stands would affect the aesthetics for adjacent landowners, contribute to increased unauthorized use of the Project Area by encouraging users to expand their activities to newly opened areas, and converting productive forested stands to openings.

In response to this issue, portions of red pine stands that were to be converted to prairie (this does not include portions of red pine stands that would be converted to upland openings) will be thinned only, and therefore expansion of current prairie areas would be reduced. Overall, this reduced the number of opening creation acres proposed.

Specifically, the amount of red pine converted to prairie was reduced from 95 acres, as initially proposed, to 37 acres under the Selected Alternative. All of the acres of red pine that will no longer be converted to prairie will instead be thinned. Therefore, the amount of red pine stands to be thinned increased from the 1,412 acres, as initially proposed, to 1,457 acres under the Selected Alternative.

Issue: Savanna restoration activities in areas with difficult access and high boundary line costs

There were concerns that the lack of access and the high cost of surveying boundary lines would make the conversion of some stands economically non-viable. Other comments were received that mirrored those mentioned above for opening creation, namely that additional open land would increase the possibility of continued, and potentially increased, unauthorized use of the Project Area by those primarily using ORVs. In response to this issue, several isolated stands that were originally identified for savanna restoration were dropped from consideration. Overall, this reduced the number of savanna restoration acres proposed.

Specifically, the amount of stands to be converted to savanna was reduced from 485 acres, as initially proposed, to 329 acres under the Selected Alternative.

Issue: Road closures

Road closures proposed throughout the Project Area were questioned as to the resource concerns addressed by the closures. In the road system analysis conducted for the Project, roads were identified for closure if they were duplicating access that another road was providing or the road usage was causing resource damage. Some commenters questioned the need to close any roads at all.

In the Selected Alternative, if a road was proposed to be closed due to resource damage, that road would continue to be designated for closure. However, those roads that were proposed to be closed to reduce duplication of access would remain open.

Specifically, the amount of roads to be closed was reduced from 3.9 miles, as initially proposed, to 2.8 miles under the Selected Alternative.

Alternatives Developed for Detailed Evaluation

One action alternative was developed to specifically address the major relevant issues identified in Chapter 1 of the EA, while meeting the Purpose and Need objectives. This action alternative is consistent with the standards and guidelines of the Forest Plan. The alternatives that were developed for this project are briefly described below. Chapter 2 of the EA describes the alternatives and their development in more detail.

Alternative 1 - Alternative 1 is the No Action Alternative. Under Alternative 1, none of the proposed vegetative

treatments or other management activities would occur in the Project Area on National Forest System (NFS) lands. Some activities, such as resource protection, would continue as funds/time allow within the Project Area. Selection of Alternative 1 would not preclude future analysis or implementation of on-going management proposals within the Project Area.

Alternative 2 - Alternative 2 is the Modified Proposed Action that was described during scoping with minor changes to the original proposal. These changes are the result of further discussion within the IDT including dropping an original proposal to develop pot holes out of wetlands. Alternative 2 would implement the most vegetative treatments and the most wildlife habitat improvement activities in the Project Area. It would also close the greatest number of miles of roads.

Alternative 3 - Alternative 3 was developed in response to comments received during the scoping period and from IDT members. It responds to comments regarding the amount and locations of savanna restoration and opening creation. As a result, the amount of savanna restoration and opening creation was reduced. Comments were also received requesting fewer road closures in the Project Area. As a result, those roads proposed for closure under Alternative 2 that were not causing resource damage were dropped in this Alternative.

Alternative Considered but Eliminated from Detailed Study

The IDT considered an additional alternative during the analysis before a reasonable set of alternatives was considered for detailed study. The alternative that was eliminated from detailed study is described as follows: **Developing additional trails within the Project Area** - Comments were received expressing a desire to see motorized and horse trails designated in the Project Area. Part of the Purpose and Need for the Bigelow-Newaygo Project is to provide recreational opportunities while protecting the unique ecosystem characteristics of the Project Area; therefore, the designation of additional recreation trails was considered.

This alternative was eliminated from detailed study because of the limitations on developing contiguous trail systems within a fragmented ownership. Public land is scattered with some parcels as small as 10 acres. Although opportunities to develop trail systems in the Project Area are limited, there are currently options available to those wanting to ride off-road vehicles (ORV) and horses. The majority of Newaygo County roads are open to ORVs. Additionally, the M-20 Motorsport Trail and the Trail 3 Snowmobile Trail are located just north of the Project Area. A trail for horseback riding is located in the Coolbaugh Natural Area and riding is allowed on County and Forest Service roads as well as the general forest area. The only areas not open to horseback riding in the Project Area are the North Country National Scenic Trail and the Newaygo Prairies RNA.

Finding of No Significant Impact

I have determined, based on the discussion of effects in the EA, and from past experience with similar activities, that these actions are not a major federal action, individually or cumulatively, and will not significantly affect the quality of the human environment (40 CFR 1508.27) and that an environmental impact statement is not needed. I have made this determination based on the following factors:

1) Both beneficial and adverse impacts are expected. The beneficial impacts will outweigh expected short term, adverse impacts.

The Selected Alternative responds to public comments while achieving the Purpose and Need objectives. Mitigation measures will be implemented with the Selected Alternative to reduce the negative effects of the proposed activities on the environment (see Appendix A of the EA). Beneficial impacts will outweigh expected short-term, adverse impacts.

2) Public health and safety are minimally affected by the proposed actions, and proposed actions will reduce life-threatening and property-damaging wildfire potential.

There will be minimal risks to public health and safety as a result of this decision. The areas of risk will occur where public use of the Forest coincides in time and space with implementing management activities. Timber sale operations, prescribed burning, and herbicide applications will have warning signs posted. Snags that pose a safety hazard to timber sale operations or the public may be removed. Mitigation measures will be implemented with the Selected Alternative to reduce the negative effects of the proposed activities on the environment (see Appendix A of the EA). The Selected Alternative would reduce wildfire potential risks to the public and people living in the Project Area.

3) The Selected Alternative is not expected to negatively impact any unique geographic area.

The Project Area is not in a wilderness area (see page III-5.1-1 of the Forest Plan) or other unique geographic area (see pages III-6.1-1, III-6.2-1, III-7.1-1, III-8.1-1, and III-9.1-1 of the Forest Plan). Portions of the Project Area do take place in the following Management Areas:

- Management Area 8.2 - Research Natural Areas - According to the Forest Plan (page III-8.2-2), management of designated Research Natural Areas (RNA) will protect unique areas that have scientific, biological, geological or historical characteristics of local, regional or national significance. Goals and Objectives for MA 8.2 include: maintain the characteristics of each RNA for which they were designated. The approximately 180 acres of the Newaygo Prairies RNA is within the Project Area.

Activities within this management area include NNIP treatment and prescribed burning.

- Management Area 8.3 - Experimental Forests - According to the Forest Plan (page III-8.3-1), management of designated Experimental Forests will provide a land base for research activities. Goals and Objectives for MA 8.3 include: The Experimental Forests will be managed as a roaded natural setting and provide a variety of management activities so that research opportunities exist to evaluate the effects of management practices. The approximately 460 acres of the Newaygo Experimental Forest is within the Project Area.

For Management Area 8.3, the Forest has received approval from the Northern Research Station (formerly the North Central Research Station) for our proposed activities to protect the environmental conditions of this area. The Northern Research Station directs management of the Experimental Forests, as directed in the Forest Plan (page III-8.3-2).

Activities within this management area include pine thinning, savanna restoration, and opening restoration.

- Management Area 8.4 - Special Areas - According to the Forest Plan (page III-8.4-2), management of Special Areas will protect areas that have scientific, biological, geological, historical, social, or recreational characteristics of local, regional, or national significance. Goals and Objectives for MA 8.4 include: maintain the characteristics of each area for which it was identified. The Special Area within the Project Area is the approximately 80 acres of the Newaygo Prairie Ecological Study Area.

The activity within this management area includes only opening restoration.

- Management Area 9.2W - Study Wild and Scenic Rivers/Wildlife Emphasis Area - According to the Forest Plan (page III-9.2-1), these are lands in holding until studies and environmental documentation for

designation are completed. Management activities provide for Wild and Scenic River attributes and values. Goals and Objectives for MA 9.2W include: maintain the unique characteristics of each river for which they were identified. The Wildlife Emphasis Area is the approximately 2,200 acres of the Croton Prairie, within the Little Muskegon Study Wild and Scenic River.

Activities within this management area include savanna restoration and opening restoration.

There are no caves, mines, or other unusual landforms in the Project Area. Various riparian and wetland areas are located within the Project Area, including, but not limited to, the Muskegon River, Little Muskegon River, Rogue River, Tamarack Creek, and Bigelow Creek. All activities which are anticipated to take place in or near these waterbodies will meet the recommendations included in the *State of Michigan Sustainable Soil and Water Quality Practices on Forest Land* and the Forest Service Handbook 2550 (Appendix A of the EA), and are designed to enhance these features.

4) Based on public participation, the effects on the quality of the human environment are not likely to be highly controversial.

There has been public interest in this project. Thirty-three written comments and numerous phone calls have been received from the public in regards to the proposed activities during the scoping process (see page 1-9 of the EA and pages 8 and 9 of the DN). During the 30-day comment period comments were received from two individuals. Based on the level of response to the project by the public and past experiences with similar projects, I have determined that this project is not highly controversial. This does not mean that implementation of the project will be acceptable to all people, because some people will neither agree nor be pleased with the decision. However, the effects of the project are not likely to be a source of substantial controversial scientific disagreement.

5) There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks.

The activities in this project are similar to many past actions, both in the analysis area and adjacent areas. Project activities, including harvesting operations and controlled burning on these soils, terrain, and vegetative types have taken place in this, and similar areas, and have produced no apparent adverse effects (see Chapter 3 of the EA for the various resource cumulative effects).

After the preparation of the EA, the U.S. Forest Service became aware of the listing by the International Agency for Research on Cancer that glyphosate may be a "probable" carcinogen. The EPA is evaluating the information leading to the listing, but has not yet made a final assessment on the issue.

6) This action will not establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The decision made on activities within this Project Area does not commit me to actions on lands outside the Project Area. This decision will not establish a precedent for future actions, nor limit future options for management.

7) There are no known significant cumulative effects between this project and other projects implemented or planned on areas separated from the affected area of this project.

There are no known significant cumulative effects between this project and other projects currently implemented or planned in the Project Area or adjacent areas. The direct, indirect, and cumulative effects are disclosed in the EA (see Chapter 3 of the EA for the various resource cumulative effects).

8) This project will not result in the loss or destruction of any scientific, cultural, or historic resources.

Treatments will take place on the Newaygo Experimental Forest (MA 8.3). The Forest has received approval from the Northern Research Station (formerly the North Central Research Station), the organization that directs management of the Experimental Forests, to conduct the activities proposed.

Known heritage resource sites will be protected as recommended by a Forest Heritage Resource Specialist, and in accordance with State Historic Preservation Office guidelines. Mitigation measures used to avoid disturbance to the sites will be applied to the Selected Alternative. These heritage resource mitigation measures are incorporated into the treatment units they are found in (see Appendix A of the EA). If any unknown heritage resource sites are identified during project implementation, then the project work will stop and the Forest Archaeologist must be contacted (Appendix A). Project work in this area will not be allowed to resume until the heritage resources in question have been documented and the site area is preserved from any potential impacts. Because the heritage resources sites have been documented, protected, and/or removed from the area of potential effect, there are no expected impacts to heritage resources (see pages 3-103 through 3-105 and Appendix A).

9) The Selected Alternative has been designed to minimize all possible adverse effects to any endangered or threatened species or their designated critical habitat under the Endangered Species Act of 1973, as amended.

A Biological Evaluation (BE) was prepared for the Bigelow-Newaygo Project (see the Planning Record). The BE evaluated the effects of this project on federally listed or proposed species and Regional Forester's Sensitive Species (RFSS) that may inhabit the Project Area. There is no designated critical habitat within the Project Area; therefore, none would be affected. The BE documented the determinations of effects of project activities on proposed, endangered, and threatened species and on RFSS by each alternative.

Although the Selected Alternative has been designed to help achieve recovery of the Karner blue butterfly through the protection and enhancement of their habitat, limited impacts to habitat and butterflies were unavoidable to achieve the goals of this Project. In addition, impacts to northern long-eared bats were mitigated to the greatest extent possible, but some impacts could not be avoided. The Forest Service initiated formal consultation with the U.S. Fish and Wildlife Service in March 2015. Prior to this submittal, we informally consulted with the U.S. Fish and Wildlife Service regarding this Project and they were supportive of the proposed savanna restoration activities (see scoping comments). The U.S. Fish and Wildlife Service concluded consultation for this Project on September 15, 2015. All Reasonable and Prudent Measures and mandatory Terms and Conditions to minimize the incidental take of these species will be incorporated into this Decision (see Appendix A Addendum) which include compliance with all described measures contained in the EA to minimize impacts to federally listed species, educate contractors and employees on means to minimize potential impacts to the species and to conduct and report on monitoring efforts.

10) The actions will not violate any federal, state or local laws or requirements imposed for the protection of the environment and will not result in a loss of federally controlled wetland or floodplain as defined by Executive Order 11988 and 11990.

Floodplains and riparian areas are located within the Project Area. The Project Area occurs within the Bigelow Creek, Muskegon River, Rogue River, Little Muskegon River, and Tamarack Creek Watersheds. Implementation of this project will not result in a loss of wetlands or floodplains in the Project Area.

The riparian areas along the rivers and tributaries within the Project Area will remain vegetated, thereby minimizing the potential for soil movement from the harvested units. Because of the distance between the majority of the treatment units and the riparian areas in the Project Area, minimal erosion or sedimentation

impacts are expected (see pages 3-35 through 3-39 of the EA). The small number of treatment units that are adjacent to riparian areas will protect the water resource through the use of mitigation measures and BMPs and minimal erosion or sedimentation impacts are expected (see pages 3-35 through 3-39). All activities which are anticipated to take place will meet the recommendations included in the *State of Michigan Sustainable Soil and Water Quality Practices on Forest Land* and the Forest Service Handbook 2550 (Appendix A of the EA).

Findings Required By Law

National Forest Management Act

It is my finding that the actions of this decision comply with the requirements of the National Forest Management Act of 1976 (NFMA), NFMA implementing regulations in 36 CFR Section 219, and the 2006 Huron-Manistee National Forests' Land and Resource Management Plan as Amended.

The actions to be implemented are consistent with the Forest Plan's Standards and Guidelines for Management Prescription Area 4.4, 8.2, 8.3, 8.4, and 9.2W (see pages III-4.4-1-8 (MA 4.4), III-8.2-1-6 (MA 8.2), III-8.3-1-5 (MA 8.3), III-8.4-1-14, and III-9.2-1-4 (MA 9.2W)). The Selected Alternative results in applying management practices that meet the Forest Plan's Forest-wide Management Area Direction of complying with Federal laws and regulations, and provides an optimum economic mixture of market and non-market outputs and benefits (see pages II-1 through II-40).

Endangered Species Act

A BE was prepared for the Bigelow-Newaygo Project (see the Planning Record). The BE evaluated the effects of this project on federally listed or proposed species, designated critical habitat, and RFSS that may inhabit the Project Area. The BE documented the determinations of effects of the Bigelow-Newaygo Project activities on proposed, endangered, and threatened species and critical habitat, and on RFSS by each alternative.

The BE determined that due to unavoidable circumstances adverse effects may occur to Karner blue butterflies and northern long-eared bats. The determinations for RFSS plant and wildlife species that could occur within the Project Area are listed in Tables 3-27 and 3-52 in Chapter 3 of the EA. The determinations were made contingent on implementation of the mitigation measures listed in the BE. The mitigation measures in the BE would be implemented with the Selected Alternative. In addition, the Reasonable and Prudent Measures and their associated mandatory Terms and Conditions will be incorporated into the Project based on the U.S. Fish and Wildlife Service's September 15, 2015 Biological Opinion (see Addendum to Appendix A). All other RFSS wildlife and plant species for the HMNF were considered but were not expected to occur within the Project Area. Therefore, they would not be affected by the Selected Alternative.

Clean Water Act

This Act is designed to restore and maintain the integrity of water resources. The Forest Service complies with this Act through the use of Best Management Practices. Because of the distance between the majority of the treatment units and the riparian areas in the Project Area, minimal erosion or sedimentation impacts are expected (see pages 3-35 through 3-39 of the EA). All activities which are anticipated to take place will meet the recommendations included in *State of Michigan Sustainable Soil and Water Quality Practices on Forest Land* and Forest Service Handbook 2550 (Appendix A of the EA).

Clean Air Act

The Project Area is not in a protected airshed. The effects of the project activities on air quality are expected to

be temporary, minor, and localized (see pages 3-96 through 3-100 of the EA). Smoke, particulate and exhaust emissions, and some additional road dust from logging equipment and the controlled burn activity will negatively affect short-term air quality to residents and visitors immediately adjacent to harvest units, roads used by logging trucks, and controlled burn treatments units. A burn plan will be written for prescribed burn projects that detail the management objectives and the wind and temperature conditions that provide for public safety, private property protection, and maximize smoke dispersal (see pages 6 and 7 of the Decision Notice).

National Historic Preservation Act, Archaeological Resources Protection Act and Native American Graves Protection and Repatriation Act

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in, the National Register. The Archeological Resources Protection Act covers the discovery and protection of historic properties that are excavated or discovered on federal lands. The federal government has trust responsibilities to tribes under a government-to-government relationship to insure that the tribe's rights are protected. Consultation with tribes helps insure that these trust responsibilities are met. The Forest consulted with potentially affected tribes.

The known heritage resource sites will be protected as recommended by a heritage resource specialist, and in accordance with State Historic Preservation Office guidelines. Mitigation measures used to avoid disturbance to the sites will be applied to the Selected Alternative. These heritage resource mitigation measures are incorporated into the treatment units they are found in (see Appendix A of the EA). If any unknown heritage resource sites are identified during project implementation, then the project work will stop and a Forest Cultural Resource Professional must be contacted. Project work in this area will not be allowed to resume until the heritage resources in question have been documented and the site area is preserved from any potential impacts (see Appendix A of the EA). Because the heritage resources sites have been documented and protected from the area of potential effect, there are no expected impacts to heritage resources (see pages 3-102 through 3-105 of the EA).

National Environmental Policy Act

This Act requires public involvement and consideration of environmental effects. The entirety of documentation for this decision supports compliance with this Act (see Chapter 1 and page 2-1 of the EA).

Administrative Review

This decision was subject to objection pursuant to 36 CFR 218 Subparts A and B. The Objection Reviewing Officer for this Decision was Forest Supervisor Leslie Auriemmo.

Two objections were received on the Draft Decision Notice and EA. These objections were administratively reviewed by an independent panel and the Reviewing Officer. As a result of that review, the following instructions were provided to the Deciding Official:

- Clarify in the BE for Basswood to explain that when there is no effect to threatened or endangered species, no consultation is needed.
- Identify in the EA and DN the projects identified in the Basswood CE that were removed from consideration in this analysis and were decided on in a separate decision document.
- Correct Chapter 4 to include all of the EA preparers.

All of the above instructions have been completed through modification of this Decision Notice and EA by 1) describing the Basswood decision as previously made, 2) clarifying in the Basswood BE that consultation with the U.S. Fish and Wildlife Service is not required due to a no effect determination, 3) listing the

complete Interdisciplinary Team in Chapter 4 of the EA, and 4) clarifying the completion of section 7 consultation with the U.S. Fish and Wildlife Service on the Bigelow-Newaygo Project and the incorporation of all mandatory Terms and Conditions in an Addendum to Appendix A of the EA.

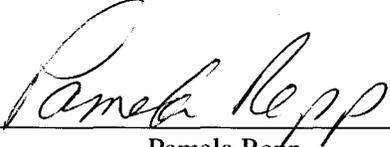
Project Implementation

If no objection is received, signature and implementation of this decision may occur on, but not before, 5 business days from the close of the objection filing period and upon receipt of the U.S. Fish and Wildlife Service's Biological Opinion. If an objection is received, signature of the decision and project implementation may not occur until a written objection response is issued by the reviewing official and any instructions issued to the responsible official have been completed.

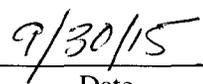
Contact Person

For more information about the specific activities authorized with this decision, or to request a copy of the Environmental Assessment, please contact Mark Herberger, Cadillac-Manistee Ranger District, 412 Red Apple Road, Manistee, Michigan 49660; Telephone (231) 723-2211, ext. 3109; Fax: (231) 723-8642; email: mherberger@fs.fed.us.

RESPONSIBLE OFFICIAL



Pamela Repp
District Ranger
Baldwin-White Cloud Ranger District



Date

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means of communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington DC 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.