

Decision Notice and Finding of No Significant Impact for Tornado Blowdown Fuels Reduction Project

USDA Forest Service
Hoosier National Forest
Brownstown Ranger District
Jackson and Lawrence Counties, Indiana

1.0 Decision

I, James E. Denoncour, District Ranger of the Brownstown Ranger District of the Hoosier National Forest, have decided to implement the proposed action, Alternative A, as described in the December 2002 Tornado Blowdown Fuels Reduction Environmental Assessment (EA). The alternative includes the following fuels reduction treatments on a 1,759-acre area in the Pleasant Run Unit: broadcast burns on 80 percent (1401 acres), pile burns on 2 percent (35 acres), and treatment by isolation on 18 percent (323 acres) of the Project Area (see Tables 1 and 2). The decision is based on the project analysis provided in the EA, supports the goals and objectives outlined in the Hoosier National Forest Land and Resource Management Plan (*Forest Plan*), and complies with the standards and guidelines for vegetation management, visual and recreation quality, and moving the Hoosier National Forest Management Areas toward desired future conditions. These standards and guidelines are discussed in detail in section 3.0.

2.0 Introduction

The Hoosier NF proposed to reduce fuel loading in 1,759 forested acres within the Pleasant Run Unit of the Brownstown Ranger District of the Hoosier NF. The Project Area is located in Jackson and Lawrence Counties, Township 6N, Range 2E, sections 1, 2, 3, and 4; Township 6N, Range 3E, sections 5 and 6; Township 7N, Range 2E, sections 23, 24, 25, 26, 27, 28, 33, 34, 35 and 36; and Township 7N Range 3E, sections 19, 28, 29, 30, 31, 32 and 33.

An interdisciplinary team prepared the EA using information provided by the following sources: public scoping, field review, environmental studies, personal information, Hoosier National Forest Land and Resource Management Plan (*Forest Plan*; USDA FS 1991), and Forest Plan Draft Environmental Impact Statement (DEIS). The Final Environmental Impact Statement (FEIS) is an “abbreviated” document. All of the information in the DEIS is incorporated into the FEIS, but is not repeated.

The EA, prepared in compliance with the National Environmental Policy Act (NEPA), provides documentation of the environmental effects of the proposed action and alternatives to those actions. The EA is available at USDA Forest Service, 811 Constitution Avenue, Bedford, Indiana 47421.

Table 1: Proposed Fuels Reduction Treatments

Location	Unit	Level of Damage	Harvested?	Background Fuel Loading (tons / acre)	Current Fuel Loading (tons /acre)	Type of Fuel	Acres Proposed to be Treated	Proposed Treatment	Firebreak (Existing) (feet)	Fire Line (Constructed) (feet)
STARNES	A	Heavy	No	4.4	13.7	Softwood	53	Broadcast burn	7,221	5,489
	B	Heavy	Yes	4.4	14.1	Softwood	35	Pile burn	0	0
	C	Heavy	Yes	10.7	27.7	Hardwood	67	Treat by isolation, treat surrounding area	0	0
	D	Moderate	Yes	10.7	23.7	Hardwood	95	Treat by isolation, treat surrounding area	0	0
SALT CREEK	E	Heavy	Yes	9.0	17.0	Hardwood	50	Treat by isolation, treat surrounding area	1,647	13,682
	F	Moderate	Yes	9.0	20.3	Hardwood	763	Broadcast burn	42,331	13,813
PIPELINE	G	Heavy	No	9.0	25.2	Hardwood	26	Broadcast burn	1,096	1,148
	H	Moderate	No	9.0	14.2	Hardwood	80	Broadcast burn	669	9,033
	I	Moderate	Yes	9.0	25.0	Hardwood	340	Broadcast burn	22,888	7,281
HICKORY	J	Heavy	Yes	1.5	14.6	Softwood	58	Treat by isolation	0	0
	K	Moderate	Yes	1.5	13.4	Softwood	21	Broadcast burn	5,174	1,381
	L	Moderate	Yes	8.3	11.7	Softwood	23	Treat by isolation	0	0
FORK RIDGE	M	Heavy	No	2.9	26.6	Hardwood	30	Treat by isolation, treat surrounding area	0	0
	N	Moderate	No	2.9	16.9	Hardwood	118	Broadcast burn	0	16,051

Table 2: Proposed Fuels Treatment Summary

Proposed Treatment	Number of Units	Total Acreage	Percentage of Total Acreage
Broadcast burn	7	1401	80
Pile burn	1	35	2
Treatment by isolation	6	323	18
All treatments	14	1759	100

3.0 Reasons for the Decision

Most of the Project Area is in MA 2.8 (94 percent), with small areas of MA 2.4 (6 percent) and 6.4 (less than 0.5 percent).

3.1 Fuel load and safety risk reduction

The severe windstorm and tornado that touched down in the Pleasant Run unit on April 19, 1996 resulted in varying levels of damage in stands located in the Starnes Branch, Salt Creek, Pipeline, Hickory Ridge, and Fork Ridge areas. Downed wood from this event substantially increased the fuel load in this region of Hoosier NF. Although timber salvage operations were conducted in the affected area from 1997 to 1999 (USDA FS 1996a and 1996b), a recent fuels assessment has determined that the fuel load is still unusually high, and that a wildfire hazard and threats to firefighter and public safety still exist. The alternative selected provides the greatest reduction in fuel load and the greatest potential decrease in safety risk to firefighters and the public.

3.2 Reduce wildfire potential and improve recreation and visual quality

Reducing the hazardous fuel load will reduce the potential for wildfire and may improve the visual and recreation quality of the area by eliminating some of the coarse woody debris on the forest floor that makes hiking difficult. General standards and guidelines in the *Forest Plan* state: "...downed logs, limbs, and other scattered ground materials resulting from vegetative management or natural causes are left on the site. Exceptions to this may be made for visual concerns, reducing fire hazards in certain situations, firewood gathering, and recreation area cleanup"(USDA FS 1991).

Forest Plan standards and guidelines for MA 2.8 state that "visual quality and recreation opportunities" should be enhanced and "snags will not be left where they might fall on roads, trails or recreation sites or conflict with visual quality objectives" (USDA FS 1991). In addition to negative effects on visual quality, storm-damaged trees could fall, which poses a safety threat to visitors since most areas proposed for treatment in MA 2.8 are close to roads and trails. Visual quality will improve because prescribed burns often stimulate profuse wildflower blooming due to increased nutrient availability and snags that pose a hazard to trail users will be removed.

3.3 Move the present conditions of the affected areas to desired future conditions

For MA 2.4, *Forest Plan* standards and guidelines state that the desired condition is "characterized by forested shorelines or corridors... that protect and enhance water-based recreation opportunities, visual quality, and riparian values" (USDA FS 1991). The low intensity type fires of prescribed burns should not change the forested nature of

shorelines and riparian corridors. However, as an additional precaution, mitigation measures for prescribed burns outlined in the EA will be implemented to ensure maintenance of water quality, visual quality and riparian values of MA 2.4.

Management Area 6.4 is managed for its natural characteristics and provides opportunities for solitude, tranquility, and a feeling of closeness to nature. Vegetation is managed to provide diverse ecosystems and an aesthetically pleasing landscape (USDA FS 1991). Reducing fuel loads in this area will help maintain the natural appearance of the forest, improve the forest aesthetically, and decrease the likelihood of severe, stand-replacing wildfires in the future that would damage the forest canopy. The use of prescribed burns will also encourage regeneration of fire adapted tree species, which will enhance the species diversity of the area.

4.0 Why Alternative A Was Selected

Four alternatives were considered in detail including three action alternatives (A, B, and C) composed of various burn and isolation treatments, and the no-action alternative, Alternative D. Alternative A was selected because it has the greatest potential to reduce unnaturally high fuel loads while maintaining the lowest level of safety hazards for firefighters and the public, and lowest level of ground disturbance.

4.1 Protect and Manage Ecosystems

4.1.1 Pest Management

One of the goals of the project is to aid in prevention of the spread of diseases and insects in the forest. This goal complies with the forest-wide guidance that states, “The emphasis of insect and disease control programs is on prevention and control through biological means, including silvicultural treatments, maintaining species diversity, and introduction of insect predators or parasites” (USDA FS 1991). Since Alternative A provides a high level of fuel load reduction, it will also provide great benefits in terms of disease prevention and control of insect infestation.

4.1.2 Fire Management

The primary purpose of the project, to reduce fuel loads, abides by the forest-wide guidance for fire management. The *Forest Plan* states, “Prescribed fire is also used to promote a more diverse community of plants and animals and for purposes of managing volumes of accumulated fuels to protect other resource values” (USDA FS 1991). Alternative A includes prescribed burn treatments on 82 percent of the Project Area (80 percent broadcast burns and 2 percent pile burns). Reducing the fuel load will decrease the risk of high intensity wildfires that could cause damage to soils and other forest resources.

4.1.3 Manage Vegetation to Provide Diverse Ecosystems

The *Forest Plan* states, “Native plant and animal species and communities are emphasized in management. Timber harvest and vegetation management are used within the context of perpetuating and enhancing biological diversity at different special scales and of differing desired conditions in different management areas” (USDA FS 1991). The prescribed burn treatments in Alternative A will help stimulate growth of native vegetation that is adapted to fire, allowing it to better compete with exotic plants, provide habitat for native animal species, and improve floral and woody vegetation diversity.

4.2 Provide a Visually Pleasing Landscape

Reducing woody debris accumulated on the forest floor will improve the visual quality of the area. Alternative A will reduce woody debris on the forest floor that contributes to reduced visual quality of the forest for some forest visitors. Prescribed burns will also stimulate wildflower blooming, which enhances the visual quality for recreationists.

4.3 Provide for Recreation Use in Harmony with natural Communities

Reducing fuel loads will allow recreationists to move through the Project Area more easily, improving their recreation experience on the forest. Alternative A will greatly reduce fuel loads, which will improve the recreational quality by facilitating the movement of recreationists through the forest.

4.4 Mitigation Measures

To minimize impacts on heritage, wildlife, vegetation, soils, water quality, and aquatic resources, mitigation measures will be implemented. These measures are described in detail in the EA and summarized below.

Mitigation Measure A - All heritage sites that are potentially eligible for the National Register of Historic Places require protection and must be avoided. Each of these potentially eligible heritage sites will be flagged for identification and avoidance by the forest archaeologist.

Mitigation Measure B - Fire lines, whether dug to contain a broadcast burn fire or to exclude heritage site areas that are potentially eligible for the National Register, must be established with the assistance of the forest archaeologist.

Mitigation Measure C – For heritage sites, maintain a 10-meter protective buffer zone around all flagged site boundaries

Mitigation Measure D - Surveys for rare species have been conducted. Known populations of rare species are marked, and all operations will stay outside of the flagged boundary. If new populations of rare species are found, operations will cease until appropriate mitigation can be determined.

Mitigation Measure E - To reduce the amount of soil compaction the normal operating season for machine piling downed debris will be between May 1-October 31 (firm ground conditions). Operation of all heavy equipment will be limited to periods when the soil is frozen or not saturated. Machine Operators may operate outside the operating season only if other mitigation measures or suitable conditions would protect the soil resource.

Mitigation Measure F - To reduce the amount of soil pushed into the burn piles a root rake dozer blade should be used.

Mitigation Measure G - Informational signs will be posted along the multiple use trail during activities (or when working within 100 feet of the trail). The signs will inform trail users about the activities and if the trail is temporarily closed for safety. Administration will ensure that at least 75 percent of the trail system be kept open at all times.

Mitigation Measure H - If active raptor nest is discovered during operations, we will suspend operations in a buffered area around the nest until 3 to 6 weeks after the young have fledged, depending on the species found.

Mitigation Measure I - Exposed mineral soil (if any) in locations such as trails will be seeded using either a native plant seed mix or a seed mix of non-invasive, non-persistent species when the sale is complete. Exposed mineral soil will be seeded and mulched to prevent erosion until vegetation becomes reestablished on the site. These actions will be taken as soon as practical after disturbance. Seed mixes for sunny and shady locations are as follows:

For SUNNY locations :

Spring (March 15-May 15): spring oats (1/2 bu/ac.), red clover/alsike clover (6 lbs/ac), orchard grass (4 lbs/ac), redtop (3 lbs/ac), timothy grass (3 lbs/ac).

Summer (May 15-July 31): winter wheat (1/2 bu/ac), alsike clover (3 lbs/ac), perennial rye (2 lbs/ac), orchard grass

Fall (August 1-October 15): winter wheat (1 bu/ac), perennial rye (1 lb/ac), timothy grass (4 lbs/ac), white/alsike clover (3lbs/ ac)

For SHADED locations:

All seasons: winter wheat (1 bu/ac), alsike/white clover (3 lbs/ac), orchard grass (4 lbs/ac)

Clovers should not be sown after September. No mulch is necessary on shady areas unless slopes are greater than 15 percent.

Mitigation Measure J - Soil movement into the aquatic systems will be minimized by requiring effective erosion control measures during and after the machine piling operation. Some effective erosion control measures include installing waterbars on trails, temporary mulching, permanent seeding and mulching, and placement of straw bales in diversion ditches and small drainages (*Forest Plan*, J-5; K-1 and K-2).

Mitigation Measure K - There will be a minimum number of temporary stream crossings, with locations designated by the USDA Forest Service. Where needed, crossings will utilize approved structures to be removed after the project is complete.

Mitigation Measure L – If stream crossings are necessary, construct crossings during the dry months of the year (May 1 to October 31). This minimizes the potential for erosion from high water events.

Mitigation Measure M - USDA Forest Service administrators will design stream crossings to allow fish passage during low water (*Forest Plan*, p. 2-8, 1991)

Mitigation Measure N - USDA Forest Service administrators will locate crossing approaches to minimize erosion and sediment introduction to the stream. For example, they locate crossings where the stream banks or side-slope grades are gently sloping or where past disturbances have occurred (old roads or fords).

Mitigation Measure O - Contractors will return stream crossings to the same elevation they were before construction, removing rock placed in the channel during use so it does not block fish passage or flow.

Mitigation Measure P - USDA Forest Service administrators will not allow or authorize heavy equipment within streambeds (*Forest Plan*, p. J-4, 1991).

Mitigation Measure Q – Contractors will be required to use erosion control measures to reduce sediment movement from trails and roads into stream channels. Measures include: placement of straw bales in ephemeral channels and ditch lines; use of diversion ditches; placement of check dams in ditch lines and ephemeral channels; sediment fences; and, in the riparian area and riparian filter strip, four inches of gravel surfacing (*Forest Plan*, p. J-5, 1991).

Mitigation Measure R – Contractors shall protect ephemeral channels by using existing roads and trails to cross these areas to minimize adverse effects. Operators will avoid piling uphill within the ephemeral channel.

Mitigation Measure S - The USDA Forest Service administrator will limit machine piling when short wet periods occur, through increased inspection.

Mitigation Measure T – Piling will occur on slope contours where possible to prevent downhill soil movement, which would encourage soil displacement during water run-off periods.

Mitigation Measure U – Debris will not be piled in riparian areas. Root wads will be kept attached to stream banks. Root wads, when anchored in or against the bank, provide stability to the riparian area and provide cover for aquatic organisms. To prevent bank erosion, large woody debris (LWD) used as a bank cover must not be removed.

Mitigation Measure V - In sections of the stream with sand, gravel, and cobble substrates, digger logs or scour logs will be maintained by securely anchoring them to the bank. These are trees without treetops, or partial treetops, that are stable (large and anchored). The logs need to be facing downstream. Digger logs are generally located in existing pools, or in sections of the stream in which pools are desired. They are used to change the scour and depositional pattern, and increase the depth of the pool (Lyons and Courtney 1990). Maintaining one of these per meander, when appropriate LWD is available, may improve pool depths and complexity, and provide a nutritional source for macroinvertebrates.

Mitigation Measure W - Fallen, stable logs will be left at periodic intervals along the length of the stream to improve riparian habitat for terrestrial and semi-aquatic species

Mitigation Measures for the Indiana Bat

As discussed in the Biological Evaluation for this proposed project, the following mitigation measures shall be followed to avoid potential effects to Indiana bats:

1. Avoid Taking of Indiana Bat through Seasonal Burning.

Because of the risk of Indiana bats roosting in the standing dead trees, areas with standing damaged trees will be treated September 15 through April 15. This period of time is outside the Indiana bat summer roosting season.

It is possible that during project implementation, conditions will require the removal of a hazard tree or a tree that blocks operations. If a tree must be cut during the Indiana bat reproductive season (April 15-September 15), a bat exit survey should be conducted during the evening to determine if the tree is an active roost tree. If bats are detected in the tree, we will contact the Bloomington Field Office of the USDI Fish and Wildlife Service for additional measures to minimize take of those individuals.

2. Comply with the Terms and Conditions of the USDI Fish and Wildlife Service July 31, 2002 Biological Opinion.

To be exempt from the prohibitions of section 9 of the Endangered Species Act, the Hoosier National Forest will comply with the terms and

conditions of the USDI Fish and Wildlife Service July 31, 2001 biological opinion. Those terms and conditions include:

- (1) When conducting uneven-aged hardwood timber harvests and completing TSI within hardwood stands, maintain at least 60% canopy cover on a stand-by-stand basis, depending on the size of the stands.
- (2) Shagbark (*Carya ovata*) or shellbark hickory (*Carya laciniosa*) trees shall not be harvested or manipulated during TSI activities, unless the density of trees of these two species combined exceeds 16 trees per acre. If present, at least 16 live shagbark and shellbark hickory trees (combined) greater than 11 inches diameter at breast height (DBH) must be maintained per acre.
- (3) Snags shall not be removed for TSI purposes, unless they are safety hazards. [Snags shall not be removed during this project unless they pose safety hazards.]
- (4) To maintain a component of large, over-mature trees in harvest areas, at least three live trees per acre greater than 20 inches DBH of these species should always be maintained in the stand:
 - shagbark hickory (*Carya ovata*)
 - shellbark hickory (*C. laciniosa*)
 - bitternut hickory (*C. cordiformis*)
 - silver maple (*Acer saccharinum*)
 - green ash (*Fraxinus pennsylvanica*)
 - white ash (*F. americana*)
 - eastern cottonwood (*Populus deltoides*)
 - northern red oak (*Quercus rubra*)
 - post oak (*Q. stellata*)
 - white oak (*Q. alba*)
 - slippery elm (*Ulmus rubra*)
 - American elm (*U. americana*)
 - black locust (*Robinia pseudoacacia*).

A tree with less than 10% live canopy should be considered a snag. These must be the largest trees of these species remaining in the stand. An additional six live trees per acre greater than 11 inches DBH of the species listed above must also be maintained.

If there are no trees greater than 20 inches DBH to leave, then 16 live trees per acre must be left, and these must include the largest specimens of the preferred species remaining in the stand.

5.0 Considerations of Alternatives B, C, and D and Reasons for Not Selecting Them

I did not select Alternative B because of the additional ground disturbance that would result. Although this alternative would treat approximately the same acreage of forest with prescribed burns, utilization of the machine pile burn method would create additional scarification of soils in the area. Because some of the treatment units contain areas of moderate to severe slopes, the scarification could cause increased erosion and sedimentation into nearby streams affecting aquatic resources (EA pp. 24-26 and 49-55). Machine pile burns are also more costly compared to other types of burn treatments (EA p. 68).

Alternative C was not selected because it provides considerably less fuel reduction and also includes machine pile burn treatments that would cause additional scarification of soils. Alternative C includes burn treatments on 35 percent of the area compared to 82 percent in Alternative A, and machine pile and burn treatments are increased to 23 percent from 0 percent in Alternative A (EA pp. 27-29).

Alternative D was not selected because it provides no reduction in fuel loads and does not address the need to reduce the threat to firefighter and public safety from high intensity wildfires (EA pp. 30-31).

Other alternatives were considered, but not analyzed in detail for reasons such as prohibitive expense and safety risk to firefighters. These alternatives are described briefly in the EA (p. 31) and include broadcast burning the entire Project Area, allowing the public to remove downed timber and debris as firewood, and chipping the excess fuels.

6.0 Public Involvement

Public involvement was an important component of the decision making process. Issues and management concerns related to the proposed project were identified by reviewing *Forest Plan* direction for the area, soliciting comments from USDA Forest Service employees and gathering input from interested and affected members of the public. On August 21, 2001, scoping letters were sent to approximately 467 individuals and organizations requesting comments on the proposed action. In addition, a news release was sent out on August 24, 2001 notifying the public about the proposal and requesting comments. The news release elicited several articles in local and regional newspapers. Public scoping comments were accepted from August 22, 2001 through September 28, 2001. A total of 30 responses were received with comments on the proposed project. The comments were utilized to develop issues of concern that are addressed in the EA. Specific comments are addressed directly in the EA (Appendix A).

The *Hoosier Quarterly* included a description of the project in the following issues: November 2001, February 2002, May 2002, August 2002, November 2002, and February 2003. The February 2003 issue also notified the public that the pre-decisional EA was available for review and comment.

On January 13, 2003, interested members of the public were sent copies of the pre-decisional EA and an electronic copy was made available for review on the Hoosier NF website. The Sunday edition of the *Bloomington Hoosier Times* published a legal notice on January 19, 2003, which announced the release of the pre-decisional EA and requested comments by February 18, 2003. Ten individuals or organizations submitted public comments by the end of the comment period. Specific comments and responses to these comments are provided in Appendix D of the EA.

7.0 Finding of No Significant Impact

Implementing the proposed fuels reduction project is not a major Federal action, individually or cumulatively, and will not significantly affect the quality of the human environment. Therefore, an environmental impact statement will not be prepared. Both the context (local in this case) and intensity (severity of the impact) of the Federal action were considered in determining whether or not the impact is “significant” as stated in the National Environmental Policy Act (NEPA).

7.1 Context

The fuels reduction treatments described in the proposed action are within the context of the *Forest Plan*. This action is consistent with the forest-wide guidance as well as the standards and guidelines for MA’s 2.4, 2.8 and 6.4. Short and long-term effects of the proposed project are not significant in this local area (EA, pp. 32-83).

7.2 Intensity

1. Alternative A will benefit the environment by reducing the fuel load and thereby decreasing the risk of stand-replacing wildfires that could damage underlying soils and cause increased sedimentation in area streams. The prescribed burn treatments will also stimulate growth of fire-adapted herbaceous and woody species, allowing increased competition with non-native invasive species. Minimal short-term negative effects on herbaceous and woody vegetation may occur, but the long-term benefits of reduced fuel loads and improved forest health are greater.
2. Alternative A could potentially increase public safety by reducing the likelihood of intense wildfires that has increased due to fire suppression and accumulation of woody debris (EA pp. 4-6, 61-63).

3. There are no unique characteristics of the geographical area that will be adversely affected by project activities (EA pp. 11-17).
4. Based on the opinions of resource specialists from within the USDA Forest Service, the effects of project activities are not expected to be highly controversial from a scientific perspective. Mitigation measures to protect the health of soils and aquatic resources and to minimize potential effects on Federally listed threatened and endangered species and Regional Forester sensitive species will be applied as described in the EA (pp. 17-19 and B-1 to B-3).
5. The effects of the project on the human environment are not highly uncertain and do not involve unique or unknown risks (EA pp. 32-83).
6. The project activities do not set a precedent for future actions with significant effects that may be proposed to meet the direction of the *Forest Plan*. Any future project will require its own analysis and its own decision. Forest Service personnel have implemented similar actions under similar circumstances on smaller areas (EA pp. 20-21). All actions are consistent with the *Forest Plan*. Therefore, this decision does not represent a decision in principle about a future consideration.
7. There are no known significant cumulative effects between this project and other past or reasonable foreseeable projects in the Project Area or adjacent areas. This determination is based on the cumulative effects analyses in the EA (pp. 32-83).
8. The proposed action will not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of significant scientific, cultural, or historical resources. All treatment areas have been surveyed for heritage resources. Eight of the 17 previously recorded historic and prehistoric sites occurring in the treatment areas are considered potentially eligible for listing on the National Register of Historic Places and must be protected from ground disturbing activities. Mitigation measures to protect heritage resources will be implemented as described in the EA (p. 19-20, 82-83 and B-1 to B-3).
9. Of the four Federally endangered or threatened species known to occur on the Hoosier NF, only the Indiana bat has been documented in the Project Area. A biological evaluation (BE) for the proposed action was completed and found that the project may affect but is not likely to adversely affect the Indiana bat (*Myotis sodalis*), gray bat (*Myotis grisescens*) and eastern fanshell (*Cyprogenia stegaria*); and will have no effect on the bald eagle (*Haliaeetus leucocephalus*). Implementation will abide by the terms and conditions of the USDI Fish and Wildlife Service's biological opinion of July 31, 2001.

The BE also determined that three Regional Forester sensitive species (butternut, *Juglans cinerea*; ginseng, *Panax quinquefolia*; and Illinois wood sorrel, *Oxalis illinoensis*) may have individuals that are impacted by the proposed action, but the impacts would not likely cause a trend to Federal listing or loss of viability of the species. The EA includes mitigation measures for Federally listed and Regional Forester sensitive species that will be implemented to minimize potential effects on those species and their habitats (EA pp. 17-19 and Appendix B).

10. The actions proposed in Alternative A do not threaten a violation of Federal, state, or local environmental protection laws or requirements.

8.0 Findings Required by Other Laws

8.1 Compliance with the National Forest Management Act Requirements

The Regional Forester approved the *Forest Plan* on April 8, 1991 to meet the requirements of implementing the National Forest Management Act (NFMA) of 1976 (as amended). The proposed project is consistent with the management direction and follows the standards and guidelines in the *Forest Plan*. In addition, on May 7, 1996 Judge David F. Hamilton of the Federal District Court for the Southern District of Indiana ruled that adoption of the *Forest Plan* complies with the National Forest Management Act and National Environmental Policy Act (U.S. District Court, Southern District of Indiana, New Albany Division 1996, p. 33).

8.2 Vegetative Manipulation (36 CFR 219.27 [b])

Project activities must comply with the NFMA as specified in the management requirements section of the Code of Federal Regulations (36 CFR 219.27[b]). Any future project will require its own analysis and its own decision. Compliance for the Tornado Blowdown Fuels Reduction will be ensured by selection of activities, location of activities, implementing *Forest Plan* standards and guidelines, and utilizing site-specific mitigation measures. The regulations require that projects involving manipulation of tree cover abide by with the following:

1. Be best suited to the multiple-use goals for the area, with potential environmental, biological, cultural resource, aesthetic, engineering, and economic impacts as stated in the regional guides and forest plans, being considered in this determination;
 - This decision is consistent with the goals and objectives of the *Forest Plan* forest-wide guidance and guidance for MA's 2.4, 2.8 and 6.4. Forest-wide goals are to protect and manage ecosystems; protect cultural heritage; provide for visually pleasing landscape; provide recreation use in harmony with natural communities; provide a useable land base; and provide for human and community development. Goals for each of the management areas are described in the *Forest Plan* and are summarized as follows.

- Forested shorelines or corridors characterize the desired future condition for MA 2.4. Protection and enhancement of water-based recreation opportunities, visual quality and riparian values are emphasized in this MA. Natural succession is featured in MA 2.4, and in general, there will only be limited manipulation of natural vegetative communities. The emphasis on recreation and visuals in MA 2.4 results in it not being suited for timber production.
 - MA 2.8 is associated with a variety of forest plant communities and visual quality and recreation opportunities are protected and enhanced. Forests in MA 2.8 are suited for timber production and areas are harvested to provide different types of habitats and conditions for a variety of species and communities. In MA 2.8, habitat for early successional plant and animal species and communities is emphasized, and timber harvesting techniques are used to meet desired habitat conditions.
 - In contrast, the goals for MA 6.4 are to create a physical setting that provides an opportunity for solitude and a feeling of closeness to nature. Forests in MA 6.4 will move towards old growth and be characterized by extensive natural forest comprised of native plant and animal communities. Commercial harvesting or other timber management activities are generally not planned, except where harvest is determined to be the best means of achieving desired resource conditions.
2. Assure that lands can be adequately restocked;
 - The aim of the project activities is not stand regeneration. However, reduction of woody debris will improve conditions for regeneration, especially for fire-adapted species, and adequate regeneration (fully stocked stands) is expected within five years.
 3. Not chosen primarily for greatest dollar return or output of timber, although these factors shall be considered;
 - Timber harvest is not a component of the proposed action. Therefore, this regulation does not apply.
 4. Be chosen after considering impacts on residual trees and adjacent stands;
 - When conducted under the proper conditions, prescribed burns are of a low intensity. Although there may be some top kill of shrubs and saplings, root systems should remain intact, allowing the vegetation to resprout. The growth of vegetation that is adapted to frequent fires will actually be stimulated by the treatments (EA pp. 64-66). Due to

mitigation measures such as the use of existing and constructed firebreaks, and conducting burns under specific weather and forest conditions and providing equipment and personnel to suppress any threatened escape of a fire, adjacent stands should not be affected by the proposed project activities.

5. Avoid permanent impairment of site productivity and ensure conservation of soil and water resources;
 - Because prescribed burns are conducted under specific conditions to produce a low intensity fire, root systems and a layer of organic matter will likely be left intact, preventing erosion and sedimentation into streams. Therefore, the treatments are unlikely to adversely affect soil and water resources and there should be no change in the long-term productivity of the land (EA pp. 49-55).
6. Provide the desired effects on water quantity and quality, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation uses, aesthetic values and other resource yields.
 - This project provides the desired effects and is consistent with the objectives of the *Forest Plan* to protect and manage ecosystems, provide for a visually pleasing landscape and provide for recreation use in harmony with natural communities (EA pp. 1-7).
7. Be practical in terms of transportation and harvesting requirements and total costs of preparation, logging and administration.
 - This action does not include logging activities. Therefore, this regulation is not applicable.

9.0 Project Implementation

Implementation of this decision may occur, but not prior to five business days following the close of the appeal filing period. If an appeal is submitted, implementation may not occur for 15 days following the date of appeal disposition (36 CFR 215.10).

10.0 Approval

/s/ James E. Denoncour on April 18, 2003

Signed by JAMES E. DENONCOUR, District Ranger

11.0 Appeal Rights

This decision is subject to the USDA Forest Service process for administrative review. An individual may request that the decision be remanded or reversed. However, appeals must meet the requirements specified in USDA Forest Service CFR 215.14. A written Notice of Appeal must be postmarked and submitted within 45 days following publication of the decision notice in the Sunday edition of the Bloomington Hoosier Times Newspaper. The appeal should be submitted to:

USDA Forest Service, Eastern Region (R9)
Attn: Appeals Deciding Officer
310 West Wisconsin Avenue, Suite 500
Milwaukee, WI 53203

Detailed records of the EA are available for public review at USDA Forest Service, 811 Constitution Avenue, Bedford, IN 47421

Responsible Official:

James E. Denoncour, District Ranger
Hoosier National Forest
Brownstown Ranger District
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Questions regarding the EA for this decision should be directed to:

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12.0 References

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