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Record of Decision

Final Environmental Impact Statement
for the
Land and Resource Management Plan

Hoosier National Forest

Caring for the Land and Serving People

Final Environmental Impact Statement

Hoosier National Forest

Record of Decision

Brown, Crawford, Dubois, Jackson, Lawrence, Martin, Monroe, Orange, and Perry Counties, Indiana

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Preface

This Record of Decision (ROD) documents my decision to select Alternative 5 as the revised *Hoosier National Forest Land and Resource Management Plan* (Forest Plan). I have reviewed the range of alternatives, considered public input, and reviewed the evaluation of the alternatives in the Final Environmental Impact Statement (FEIS). Alternative 5 from the Draft Environmental Impact Statement (DEIS) was modified (using elements from the range of alternatives) based upon public comments received during the 90-day comment period and from internal review by Forest staff. The ROD also explains my reasons for changes made to the 1985 Forest Plan.

The restoration of the Hoosier National Forest (Hoosier or Forest) is an ideal example of ecological recovery following the broad-scale land clearing that occurred in Indiana from the 1800's to 1930's. The areas that now constitute the Hoosier have been used and inhabited continuously for the past 12,000 years, first by Native Americans and later by European and African Americans. Each group of people use the land in different ways.

The Hoosier has many values that contribute to the quality of life for the people of Indiana and the United States. Clean water, important historic and prehistoric sites, natural areas, outstanding scenery, recreation opportunities, terrestrial and aquatic ecosystems supporting a wide variety of wildlife and plants, timber production, unique cave and karst resources, and wilderness all contribute to the values that people find on the Hoosier. The USDA Forest Service manages the Hoosier to sustain the Forest's natural resources to meet the needs of people now and in the future.

The ecological and social conditions of the Forest are not static, and neither is the public's vision of the highest and best use of these natural resources. My decision will continue to move forward with the restoration of the terrestrial and aquatic ecosystems that is well underway. This work will enhance our ability to provide a wide array of sustainable goods and services. The management direction provided in the Forest Plan will be subject to periodic and timely change as new information comes to light and when the public demonstrates a desire for a changed focus in management. Amendments to the Forest Plan will be proposed when the need for change is evident and the public will be involved in those changes.

The process of revising the Forest Plan has been painstaking and lengthy. Over five years have passed since the Need for Change and Notice of Intent to prepare an EIS were published in 2000. In revising the Plan the Forest has collaborated and consulted with local communities, Indiana State agencies, the US Environmental Protection Agency, the US Department of Interior (USDI) Bureau of Land Management, and the USDI Fish and Wildlife Service. Collaboration with the general public and special interest groups provided information and insight into public values and needs. The revised plan is to a great degree based on years of collaboration with all of you, as we worked together to develop balanced management direction and vision for the Hoosier National Forest. We have listened to the public and your input has shaped the development of this Revised Forest Plan.

I believe you, along with the Forest Supervisor and staff of the Hoosier National Forest, have crafted a Forest Plan that is well balanced in terms of the goods and services that may be available from the Forest during the next 10 to 15 years and more importantly, in terms of the conditions that we will maintain and create on the land for the benefit of future generations. This decision strikes a reasonable balance between resource sustainability and the complex demands expressed by a wide variety of people, groups, and organizations. I also believe this revised Forest Plan provides a strong foundation for ecological, social, and economic sustainability over the long term.

Our work is not done. As we implement the plan we will continue to monitor, evaluate new information, and change plan direction when needed. For this forest Plan to be fully successful, we will need the help of people working collaboratively to develop projects, monitor resources, and adapt the plan as appropriate over the coming years. Thank you for your continued support, participation, and patience throughout this process, I thank you in advance for your continued partnership in keeping the Forest Plan relevant into the future.

Randy Moore

Regional Forester
Eastern Region, USDA Forest Service

Record of Decision

Final Environmental Impact Statement for the Hoosier National Forest Land and Resource Management Plan

USDA Forest Service
Hoosier National Forest
Brown, Crawford, Dubois, Jackson, Lawrence, Martin, Monroe, Orange, and Perry Counties, Indiana

Introduction

This Record of Decision (ROD) documents selection of a specific alternative from among those considered, and provides rationale for that selection.

The 2006 Hoosier National Forest Land and Resource Management Plan (Forest Plan) is a 10 to 15-year strategy for managing National Forest System (NFS) resources in Indiana. It was developed in accordance with the National Forest Management Act (16 C.S.C. 1604, et seq.) and the 1982 planning regulations (36 CFR 219)[1]. The strategy outlined is based on public input and our review of the best available and relevant scientific information. It provides a framework for environmentally sound management to provide desired ecological conditions and recreation settings, and to produce goods and services in a way that maximizes long-term net public benefits. This Forest Plan establishes a framework for future management of the Hoosier National Forest that will enhance ecological sustainability and contribute to the economic and social sustainability of Southern Indiana.

The Forest Plan emphasizes continued restoration of ecological conditions and settings and provides recreational settings and facilities to enhance recreation and tourism. The plan includes forest-wide goals, objectives and standards and guidelines as well as allocating the landbase to a variety of management areas that emphasize different uses, outputs and desired conditions. Management prescriptions for each of these management areas describe the conditions of the land, such as ecological conditions or recreational characteristics that are desired as well as the type of management practices and outputs expected and the uses that are generally suitable.

The revised Forest Plan replaces all previous resource management plans for the Forest. The Forest Plan provides a strategy for sound environmental management based on the best available information and scientific research. The Forest will amend or revise the Forest Plan as needed, to adapt to new information and changing conditions. Any action taken to amend or revise the Plan will include public involvement.

Six primary decisions are made within the Forest Plans:

1. Forest-wide multiple-use goals and objectives,
2. Forest-wide management requirements,
3. Management area direction,
4. Lands suited or not suited for timber management,
5. Monitoring and evaluation requirements, and

[1] The 2005 Planning Regulations, 36 CFR 219.14(e) (January 5, 2005) allow the use of the 1982 planning regulations for this Plan revision since the revision was initiated prior to the transition period defined at 26 CFR 219.12(b).

6. Recommendations to Congress, such as for Wilderness Study recommendations.

No recommendations to Congress for Wilderness Study or any other designations are included in this decision.

All goals and desired conditions in the Forest Plan can be achieved, however they represent a long-term (50-150 year) view of what we will strive to achieve. The proposed management practices may be implemented, as budgets and other resources permit, over the next 10-15 years guided by objectives or desired conditions.

The revised plan for the Hoosier National Forest is permissive in that it allows, but does not mandate projects and activities. Projects occur only after they are proposed, their environmental effects are considered, and a decision is made authorizing site-specific action. Analyses will be documented in an Environmental Impact Statement, an Environmental Assessment or categorically excluded as appropriate. Subsequent analysis for projects will be tiered to the final EIS for the revised Forest Plan, pursuant to 40 CFR 1508.28.

The Forest Plan and accompanying final environmental impact statement (EIS) are programmatic in nature. The Plan provides a long-range strategy for the Forest, and the EIS looks at general environmental effects both short and long term, with a focus on the effects of moving towards the desired conditions envisioned by the plan.

The standards contained in the revised Forest Plan set parameters within which projects must take place. Approval of any project must be consistent with these parameters (16 U.S.C. 1604 (i)). If a project cannot be implemented in accordance with the standards included in the revised Forest Plan, the project cannot go forward without amending the Forest Plan. Guidelines will generally be followed, but where deviations from guidelines are needed, we will not necessarily amend the plan, but will discuss the rationale for the deviation as part of the project analysis.

The standards, guidelines, and other management direction in the revised Forest Plan were developed with consideration of the issues (e.g. 36 CFR 219 requirements mandated by law. The revised Forest Plan Addresses these concerns and potential effects through Forest-wide guidance, management prescriptions, identification of possible management practices, and by ensuring careful consideration of environmental consequences and legal compliance at the project level of decision-making.

In summary, the revised Forest Plan establishes a programmatic framework for future multiple-use management. The Final EIS discloses the differences in the trends of the environmental consequences of the alternatives and how they respond to issues and concerns. The Final EIS discusses broad environmental effects and establishes a useful reference that can be tiered to for compliance with environmental laws at the site-specific project level. The level of effects disclosure is commensurate with the nature of the programmatic decision. Detailed analysis of specific environmental effects is not required when the agency has not yet proposed a specific project that may cause effects. Approval of this revised Forest Plan does not make any on the ground changes, nor dictate that any particular site-specific action must occur. This revised Forest Plan provides the framework for future decision-making, ensuring adequate consideration of site-specific effects during project analysis.

The Forest

The Hoosier National Forest is the only national forest in Indiana. National Forest System (NFS) lands are located in nine counties that extend from Lake Monroe in south-central Indiana to the Ohio River. Today, over 200,000 acres are Federally owned and managed by the Forest Service. These Federally owned tracts are discontinuous and scattered with privately owned lands interspersed. Within the Forest boundary approximately 54 percent of the land is in private ownership.

In the 1400's, Native Americans commonly used fire and cleared small areas of land for agriculture. European settlers replaced these practices with slash fires and widespread deforestation. At the time of European settlement, the landscape of southern Indiana was predominantly forested with significant areas of disturbance, prairie, and open forest scattered throughout. Periodic fire maintained the oak-hickory forests. Forestland in the East began to regenerate in the early 1900's as farms were abandoned. Beginning in 1935, the Federal government began purchasing abandoned parcels of land that would eventually become the Hoosier National Forest. Most of the lands acquired had been cut and burned, and only small woodlots remained.

To stabilize and rehabilitate soils, nonnative pines were planted. Restoration efforts began in the 1940's and continued to the early 1980's. As the pines matured they blocked most of the sunlight on the forest floor. Very little could grow in this deep shade, and the pine plantations became largely devoid of vegetation, with little biological diversity. The pines stands are now a mix of the nonnative pines and native hardwood species, with many of the pines dying. Accelerating the restoration of pine plantations to native hardwood communities will benefit an array of wildlife species, including forest bats, and will help connect currently fragmented native hardwood ecosystems.

During the twentieth century, successful fire suppression campaigns removed the use of this ecological process from the landscape. Fire has not been allowed to play the dominant ecological role that it did in the past. As a result, the forest composition is changing from predominantly oak-hickory forest to less fire tolerant and more shade tolerant species such as beech and maple. This shift in forest tree species composition will adversely impact many wildlife species and decrease biodiversity across the Forest.

The decline of early successional habitat across the forest poses a threat to wildlife that depends on these habitats. Many native wildlife species depend on this habitat and have experienced severe population decline. Data from roadside drumming routes in Indiana has shown a downward trend in grouse populations in the last few decades. Breeding bird surveys also show that grassland and early successional breeding birds have been experiencing much greater declines than woodland breeding birds. The viability of species associated with grasslands, shrublands, and young forest habitats are considered at high risk on the Hoosier.

The passage of the Organic Act of 1897 provided the framework for the establishment of the first national forests by specifying that "no national forests shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions

of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States." The Weeks Act of 1911 gave important impetus to the establishment of national forests in the eastern United States by authorizing the purchase of lands "as may be necessary to the regulation of the flow of navigable streams or for the production of timber." Indiana's governor, Paul V. McNutt, and Indiana's state legislature in 1935 asked the Forest Service to begin buying abandoned farmlands for the creation of a national forest.

Over the years the Hoosier, and the rest of the National Forest System lands, have been managed for more than just watershed protection and timber production. In 1960, Congress officially recognized the many additional uses of the national forest in the Multiple-Use Sustained-Yield Act. The Act specifically added fish, outdoor recreation, range, wildlife, and wilderness to timber and water as resources to manage on national forests. Subsequent laws added provisions for the protection of resources such as air quality and Federally-listed threatened and endangered species. As society's needs have changed, so has management of the national forests, following the multiple-use mission directed by Congress.

The Hoosier National Forest is a favorite destination for recreationists pursuing a broad variety of activities. The products harvested from national forests contribute to national needs and local economies. The Hoosier provides habitat for a substantial number of aquatic species, native plants, neotropical migrant birds and other types of wildlife, and the management direction contained in the Forest Plan will contribute to the continued abundance of these resources.

A Vision for the Future

Resources on the Hoosier will be managed to conserve, protect, and produce what the public desires: clean water, diverse recreation experiences, outstanding aquatic and terrestrial habitat, solitude, and wood products. The Forest will be seen as one of the natural and wild places in Indiana, but will also provide for many uses and products. Nature will continue to dominate changes to the Forest at its own pace. Management will work with these natural processes to adapt to changing conditions, protect resources, and provide the goods, services, and uses that the public desires.

The Hoosier will provide healthy ecosystems by maintaining or restoring natural ecological communities across the landscape. Healthy ecosystems are essential to providing a sustainable flow of goods and services requested by the public. These goods and services will contribute toward maintaining economic stability in the local communities.

A variety of recreational opportunities and experiences will be available on the Forest. Forest products will be made available as a result of managing for healthy ecosystems. Wood products, wildlife habitat, and recreation opportunities will contribute toward the economic sustainability of local communities.

The mosaic of forested ecosystems that occur across the landscape will include natural communities in early, mid, and late successional stages. This mosaic of healthy ecosystems will contribute to species viability and biological diversity. The management prescribed in the revised Forest Plan will continue to preserve and enhance habitat in support of the recovery of threatened and endangered species such as the Indiana bat. Conservation and recovery of

Federally-listed species remains a top priority when making resource management decisions for the Hoosier National Forest.

Achieving this vision for the Hoosier National Forest will require continued collaboration with the public and with our partners. We will strive to be good neighbors, work cooperatively with others, and share credit for accomplishments.

Decision and Reasons for the Decision

The Need for Change

The Eastern Regional Forester approved the Hoosier National Forest Land and Resource Management Plan in September 1985. The plan has been kept up-to-date through seven amendments, including a significant amendment in 1991.

The National Forest Management Act (NFMA) and its regulations require that forest plans be revised every 10 to 15 years, or when the Forest Supervisor determines that conditions or demands in the area covered by the plan have changed significantly, or when changes in the Forest and Rangeland Renewable Resources Planning Act policies, goals, or objectives would have significant effects on forest level programs.

Considering these factors, a "need for change" assessment was completed, with public participation, in August 1999. The findings of this assessment became the focal point of the Notice of Intent to prepare an Environmental Impact Statement for revising the 1985 Forest Plan. This Notice of Intent was issued in November 2000.

All sections of the 1985 Forest Plan as amended were reviewed. Many aspects were found to be working well and did not need to be changed. The revised Forest Plan continues much of the management direction found in the 1985 Forest Plan as amended. For example, direction for ATV use, land acquisitions, recreation, and wilderness management incorporates management direction from the 1985 Forest Plan.

The need for change identified 5 major revision topics: Role of the Forest, Watershed Health, Timber and Vegetation Management, Prescribed Fire, and Trails. Following public input on the need for change assessment and the comments received on the Notice of Intent three major areas were identified as revision topics (Chapter 1 of the Final EIS describes these topics in detail):

- Watershed Health – The maintenance of watershed health has been an objective of the Forest Service since its origin. The Hoosier provides watershed protection where there are many private forest, small farms, livestock operations, pastures, cultivated fields, houses and subdivisions, and small communities. Central hardwood forests dominate the landscape and protect watersheds by reducing erosion and sedimentation. Natural succession maintains riparian vegetation along streams, lakes, and rivers.
- Ecosystem Sustainability – Ecosystem sustainability is the maintenance of the various functions of different plant and animal communities, and their interactions with the non-living components such as air, soil, water, etc. Providing for ecosystem sustainability requires consideration of a many factors, such as biological communities, air quality, climate, genetic variability, habitat, interactions with humans, landscapes, species, water quality, and weather events. In our analysis, we considered the impacts on federally

threatened, and endangered species, as well as regionally sensitive species. We identified management indicator species and other monitoring requirements that will help gauge management success over time. We considered the role of fire in creating and maintaining the ecological integrity and functions. We examined the need to supply sustainable forest products over time and focused on sustaining viable populations of plant and animal communities.

- Recreation Management – We inventoried the Forest for areas that should be added to the inventory of roadless areas or recommended for wilderness study. We inventoried for rivers that were potentially eligible for designation as a Wild, Scenic, or Recreational River. We also considered whether the Hoosier should provide opportunities for ATV use.

The Forest Plan revision process has resulted in a few but important changes from the amended 1985 Forest Plan.

Decision Overview

Based on my review of all alternatives, I have decided to select Alternative 5 as described in the final EIS, for the revised Forest Plan. This alternative as presented in the DEIS was modified based on public comments and internal staff review (see Changes between Draft EIS and Final EIS on page 11 of this ROD). This decision complies with applicable federal law and is consistent with national direction and policy. Our focus is on the long-term condition and health of the forest, not commodity production. Alternative 5 is a collaboratively-developed framework founded upon sustainable multiple-use resource management. Managed, sustainable use of the Forest is compatible with the long-term maintenance of biological diversity and ecological integrity, as well as the recovery and conservation of threatened and endangered species. As summarized in the Record of Decision, the Forest balanced a host of sometimes conflicting goals and needs in formulating the overall revised Forest Plan, especially the management area prescriptions. The management direction developed for the revised Forest Plan responds to the requirements of NFMA and its regulations. Compliance with these requirements is also assured at the project level of analysis.

Alternative 5 includes area of mature, continuous canopy forest as well as areas managed to provide early-successional wildlife habitats, and opportunities for a wide variety of recreational experiences, including areas where one can experience a sense of solitude.

I used the following criteria for evaluating the alternatives and choosing Alternative 5 to be the revised plan (key indicators of the criteria are discussed in Chapter 2 of the final EIS):

1. The alternative's contribution to the continued protection and improvement of watershed conditions to provide the water quality and soil productivity necessary to support ecological functions in riparian and aquatic areas.
2. The alternative's contribution to the restoration and maintenance of ecosystem sustainability, including maintaining oak-hickory forest, protecting and managing unique ecological features, contributing to the maintenance of viable populations of native and desired nonnative plants and wildlife, and furthering the recovery of species listed as threatened or endangered by the USDI Fish and Wildlife Service.
3. The alternative's contribution to recreation experiences on the Forest, specifically opportunities for solitude that are so rare in Indiana.

4. The alternative's contribution to social and economic sustainability of local communities by providing desired and sustainable levels of uses, conditions, products, and services. I think it is important that the revised Plan provide a framework to guide projects and allows for a sustainable level of products and services.
5. The alternative selected must also provide clear direction that will assist managers in developing future project level decisions consistent with the broader social, economic, and ecological goals of the revised Plan.

My decision also considered how the revised Forest Plan responded to the public's comments, internal management concerns, and national direction and policy. My decision to adopt the management direction in the revised Forest Plan was made in consideration of the analysis of effects disclosed in the final EIS, the Biological Opinion of the USDI Fish and Wildlife Service, and is supported by the planning record in its entirety.

The revised Forest Plan meets our legal obligations and employs strong conservation measures to protect, maintain, improve, and restore sources of clean water, habitat for wildlife and plants, mature forest, and the scenic beauty of the Hoosier. The selected alternative will move the Hoosier toward a more diverse and resilient forest that will better resist the threats from insects, disease and wildfire. The Plan establishes an adaptive management framework that will enable us to adjust quickly to these threats.

I recognize that due to the diverse values and views on the best conditions and uses of the Forest, no alternative will satisfy everyone. The selected alternative provides an opportunity to improve ecological conditions, improve recreational experiences, while also providing a realistic level of commodity production that will result from our efforts to provide habitats that contribute toward sustaining viable populations of all native and desired nonnative species.

The selected alternative is described in the companion document, *The Hoosier National Forest Land and Resource Management Plan* (Forest Plan). The final EIS documents the analysis of the alternatives considered and the public comments received on the draft EIS and Proposed Forest Plan.

This decision applies only to National Forest System lands and does not apply to any other Federal, State, or private land, although the effects to these lands and the effects of my decision on lands surrounding the Forest were considered.

Decision Summary and Rationale

Biological Diversity and Ecological Health

The first priority in this decision was to assure that the Hoosier would continue the ecological restoration that has been so successful over the past 70 years. The Forest provides excellent habitat for most species and I believe we are doing everything practicable to aid the recovery of Federally-listed threatened and endangered species and to conserve species on the regional list of sensitive species. The *Hoosier-Shawnee Ecological Assessment* served as an important source of information for addressing issues related to species diversity, viability, and ecosystem sustainability. This assessment helped us develop a revised Forest Plan that addressed biological

diversity from a landscape perspective. Continued collaboration with the Shawnee National Forest and other central hardwood forests contributed to the development of this decision.

The science presented in the *Hoosier-Shawnee Ecological Assessment* in concert with over 45 pages of scientific citations listed in Chapter 7 of the EIS support the analysis and conclusions presented in the EIS and Record of Decision. A variety of Midwest species experts participated in the Hoosier's Species Viability Evaluation (SVE) process resulting in the selection of 19 SVE species. Researchers and Scientists at the USDA Forest Service North Central Research station and the University of Missouri, Columbia, assisted in modeling the availably of habitat for these 19 SVE species which represent all wildlife species present on the Forest. These models were used to predict the effects of each proposed alternative to ensure that we would be able to maintain viable populations of native and desired nonnative species across the Forest. The Midwest species experts reviewed and approved these models.

The habitat conditions needed for the protection and conservation of wildlife and plant habitats are integrated into desired conditions, goals, and standards and guidelines for the forest and into the specific management area direction. Development of future projects consistent with the revised Plan will move the Forest toward these desired conditions.

As we worked through the analysis of environmental effects, it was apparent that wildlife species dependent on early successional habitats were at risk. National and State monitoring data documents the decline of these species. In fact, monitoring and analysis indicated that we would not be able to support viable populations of those species without a change in management. My decision for the revised Forest Plan will continue to provide habitat for all species, but will focus on increasing habitat for early successional species, including the American woodcock, blue-winged warbler, bobcat, cotton-tailed rabbit, prairie warbler, ruffed grouse, and yellow-breasted chat, that have seen significant population declines over the past two decades. Please refer to "The Forest" on page 3 of this Record of Decision. Even with this adjustment, most of the Forest will continue to move toward mature, closed canopy forest conditions and provide late-successional and forest-interior habitat.

The *Hoosier-Shawnee Ecological Assessment* which considered parts of Southern Indiana, where the Hoosier National Forest occurs, as well as portions of Kentucky, and far southern Illinois where the Shawnee National Forest lies indicated concerns for early successional species and their habitat throughout the assessment area. Three species of concern were identified throughout the area, those being the American woodcock, ruffed grouse and yellow-breasted chat. Ruffed grouse is one of the most widely distributed of North America's resident game birds, historically occurring in Illinois, Indiana, and Kentucky (*Hoosier-Shawnee Ecological Assessment*, page 210). They persist in the assessment areas as remnant residents or reintroduced populations of restricted distribution. Illinois Breeding bird survey results indicate that grouse still populate two counties of the Shawnee National Forest. According to surveys conducted by the Indiana Department of Resources, Division of Fish and Wildlife, ruffed grouse numbers continue to decline in south-central Indiana. Historically, ruffed grouse were trapped in south-central Indiana for reintroduction programs in neighboring states. Results of the North America Breeding Bird Survey depict notable heterogeneity in the status and distribution of ruffed grouse, likely reflecting the declining availability of early successional forest habitats. These trends suggest that the species is declining nationally, regionally, and locally.

Suitable habitat for the American woodcock was modeled as part of the SVE process for the revision of the Forest Plan. The *Hoosier Shawnee Ecological Assessment* states that range wide, breeding Bird Survey results suggest a 1.02 percent annual decline in woodcock numbers between 1966 and 2000. In the Central Management Region, which encompasses Illinois and Indiana, results suggest an annual decline of 1.6 percent from 1968 to 2002, and a 1.5 percent annual decline from 1992 to 2002 (Hoosier-Shawnee Ecological Assessment). Changes in land use, maturation of mesic forests, and loss of disturbance all contribute to the loss of early successional mesic forest habitats desired by this species.

Population trends for the yellow-breasted Chat provided in the *Hoosier Shawnee Ecological Assessment* estimate a reduction of 2.5 percent from 1966 to 2000. Data from across the assessment area corresponds with the data collected during the SVE process for the revised Forest Plan showing that species dependent on early successional habitat are in decline due to a lack of disturbance that maintains early successional habitats.

Management Area (MA) 3.3 was created in response to the results of our species viability evaluation (SVE). We identified that there was a high risk that viable populations of early successional species could not be maintained unless some part of the Hoosier National Forest was managed with an emphasis on providing habitat for early-successional species. Management Area 3.3 was created from lands that were previously MA 2.8 (General Forest Lands), and was designed to emphasize diversity for wildlife species requiring a mix of early and late successional vegetative types and age classes. It will better provide habitat requirements for a suite of wildlife species represented in the species viability evaluation by American woodcock, ruffed grouse, and yellow-breasted chat. Management Areas 3.3 comprises only seven percent of the Forest. While even-aged management would likely be in the primary silviculture system used in MA 3.3, and even-aged management would also occur elsewhere on the Forest, only about one percent of the Forest per year is projected to be harvested using even-aged management techniques. However, with even-aged regeneration concentrated within MA 3.3, we believe the chances of retaining viable populations of species dependent on early-successional habitat will be significantly improved from the 1985 Forest Plan as amended. This analysis is documented in Chapter 3 of the final EIS.

While the revised Forest Plan identifies the proportion of probable method of timber harvest (16 U.S.C. 1604(f)(2), it does not decide when, where, or how timber harvest will occur at any particular site-specific location. The final determination of the appropriateness of even-aged management is a site-specific determination. Such determinations are better made at the project level of decision-making using site-specific resource information.

This decision includes five species as Management Indicator Species (MIS). The analysis and rationale for the selection of these species as MIS is described in Appendix G of the Final EIS.

I recognize some groups and individuals are concerned that timber harvest and prescribed fire may harm the endangered Indiana bat. Implementation of the Revised Plan will have a generally beneficial effect on Indiana bat habitat. The U.S. Fish and Wildlife Service Biological Opinion determined that the implementation of the Revised Forest Plan would not jeopardize the continued existence of the species, largely because of the ecological conditions envisioned in the

Plan and because the Plan's standards and guidelines provide protection for the bats and its habitat. Conservation and recovery of the Indiana bat was a paramount concern in revising the Forest Plan.

Caves and Karst Resources

My decision includes new standards and guidelines that will enhance the protection of cave and karst resources. Cave and karst resources on the Forest continued to be inventoried and when possible caves are nominated as "significant" which provides them added protections under the Federal Cave Resource Protection Act.

Management Area Allocation

The revised Forest Plan allocates National Forest System lands to the following management areas:

Management Area	Acres	Percent of Forest	Percent of Forest in 1985* as amended
2.4 – Major River Corridors	16,900	8	7
2.8 – General Forest (primary uneven-aged harvests	88,919	45	52
3.3 – General Forest (primarily even-aged harvests)	13,178	7	0
5.1 – Charles C. Deam Wilderness	12,953	6	7
6.2 – Natural Appearing Forest	18,564	9	10
6.4 – Natural Appearing Forest (with limited vegetation treatment)	23,321	12	13
7.1 – Developed Recreation	6,321	3	3
8.1 – Research Natural Areas	88	<1	<1
8.2 – Special Areas	18,274	9	6
8.3 – Experimental Forest	632	<1	<1
9.2 – Holding Category (intended for use when acquiring new land)	0	0	1

Minor differences occur in Management Areas 5.1, 6.2, 6.4, and 8.2. These changes are based on land base adjustments that occurred over the years. The acreage used for analysis in the most recent revision effort was 199,150 acres, while in 1992, the acreage used was 187,892

The inclusion of Management Area 3.3 is new from the amended 1985 Forest Plan. This area will provide habitat for wildlife species dependent on early successional habitat.

Management Area 7.1 has increased slightly (approximately 30 acres) from the 1985 Forest Plan, with the addition of horse camps, the Hickory Ridge Fire tower and other areas of high interest and use.

Minerals and Geology

My decision allows for oil and gas exploration and development with no surface occupancy or surface disturbance in the Crawford Upland and Brown County Hills ecological subsections of

Management areas 2.8 and 3.3. This enables the Federal government to collect royalties from Federally-owned oil and gas that could be drained from operations located on private lands adjacent to the Forest.

The 1985 Forest Plan, as amended, did not allow for any oil and gas exploration or development. The requirement that there be no surface occupancy will assure protection of the resources of the Hoosier National Forest, while the provision to make parts of the Forest available for lease is responsive to the National Energy Policy (Executive Order 13212), and the Energy Policy Act of 2005.

Plant Communities

The revised Forest Plan incorporates long-term goals for forest age, composition, and plant community diversity. In general, the objectives call for an increase in the amount of oak and hickory regeneration, a reduction in the amount of nonnative pine stands, and an increase in the amount of early-successional habitat. The revised Forest Plan allows for an increased use of prescribed fire to maintain oak and hickory stands and increase regeneration. Areas of the Forest will remain undisturbed in the future as examples of important undisturbed forest ecosystems. In taking these actions we will ensure that oak-hickory and early successional habitat are maintained. This will result in an increase in diversity of plant and animal communities.

Preventing the spread of nonnative species and controlling those already present are included in my decision to continue ecological restoration on the Forest. An aggressive programmatic framework for the inventory and control of these species has been adopted in the revised Forest Plan. Integrated pest management techniques will be used in development of project proposals to control existing populations of nonnative invasive species as well as any insect and disease infestations that may arise. The revised Plan includes guidelines for the future analysis and use of tools, such as applying pesticides and prescribed fire, which will allow Forest managers to address these situations in the most efficient and effective way after further site-specific analysis.

Recreation

Developed and Dispersed

My decision will add a small acreage to the developed recreation management areas (7.1). These areas were formally in various management areas including, 2.8 and 6.4. The inclusion of the horse camps and other improvements into this management area will provide these areas with clear direction for the maintenance and enhancement of these facilities. The Forest will continue to provide a variety of non-motorized recreation opportunities on large blocks of public land and water based recreation facilities that complement other recreation opportunities in south-central Indiana.

All-Terrain Vehicles

The use of all-terrain vehicles (ATV's) on the Forest has been a long-standing and controversial issue. My decision to adopt this revised Forest Plan does not change the current policy, which was decided in the 1987 amendment to the 1985 Forest Plan. The rationale for determining that ATV use on the Forest was not appropriate in 1987 focused on the impacts to fragile soils and the potential for trespass on neighboring lands. These resources and projected impacts have not

changed over the years. The fragmented ownership pattern presents no areas that are large enough to provide more than a marginal ATV trail system.

Social and Economic Contributions

Although we anticipate that there may be some shift in the mix of goods, services and uses from the Hoosier, local communities will continue to enjoy the existing types of experiences, settings, products, and uses that have helped support community stability in the past.

Special Areas

The revised Forest Plan continues the existing Research Natural Areas and Special Areas (Management Areas 8.1 and 8.2) land allocations which serve as ecological reference areas, providing conditions that represent the array of native ecosystems that would naturally occur in this area. The primary management goal for these areas is the protection and maintenance of unique features. The only Research Natural Areas on the Forest, Pioneer Mothers Memorial Forest, will continue to contribute to a nation-wide network of areas set aside for scientific research.

Timber Production

The revised Forest Plan identifies approximately 81,650 acres, or 41 percent of the Forest as suitable timberland. The allowable sale quantity (ASQ) for the first decade of the planning period is 57.6 million board feet. I have provided direction in the revised Forest Plan to allow sustainable timber harvest on this portion of the Forest to achieve biological diversity and maintain suitable wildlife habitat. The ASQ presented in the revised Forest Plan is based on same amount of acreage classified as suitable for timber production as used in the previous plan. The allowable sale quantity is an upper limit on timber harvest over the next decade. The ASQ volume is calculated based on projections of what may result from the management prescribed for those lands classified as suitable for timber production to move toward the various desired conditions. The ASQ volume may or may not be achieved depending on land conditions, budgets and resources available to develop future projects.

Watershed Health

The revised Forest Plan clarifies management direction for aquatic ecosystems. This Forest Plan sets forth a programmatic framework to proactively manage watersheds and riparian areas for their inherent values. Watershed and riparian areas will continue to be protected and restored to provide the water quality and soil productivity necessary to support ecological functions and beneficial uses. The revised Forest Plan maintains the overall integrity of aquatic ecosystems and the associated habitat for aquatic and riparian wildlife species.

Changes Made Between Draft EIS and Final EIS

Alterative 5, as it appears in the final EIS, has been modified from the original Alternative 5 that appeared in the draft EIS and Proposed Forest Plan released for public review in March 2005. Based on public comment, there were three major changes made for the final plan:

- The standard for the maximum size of temporary openings in hardwood stands created through even-aged management treatments in Management Area (MA) 2.8 has been

increased to 10 acres. In the Proposed Forest Plan, temporary opening size created through even-aged management practices was limited to 5 acres in hardwood stands and 10 acres in pine stands. The increase up to 10 acres for temporary opening size in hardwoods in Management Area 2.8 will allow habitat for early successional species to be created while reducing fragmentation of the landscape. The Proposed Forest Plan would have limited opening size to 5 acres in hardwood stands, and could potentially have resulted in twice as many openings created across the landscape, resulting in a more fragmented landscape.

- Oil and gas resources will be available for exploration and development in the Crawford Uplands and Brown County Hills Ecological Subsections in Management Areas 2.8 and 3.3; however standards and guidelines for these management areas will specify that there will be no surface occupancy for those activities. In the Proposed Forest Plan, oil and gas development was prohibited except to prevent Federal mineral rights from being drained by adjacent development. Modifications to the Forest Plan's provisions for minerals management resulted from consultation with the USDI Bureau of Land Management. The requirement that there be no surface occupancy reduces potential impacts to NFS lands. Modification of minerals management direction allows the Forest to collect revenues that would result from the tapping of Federal minerals from developments on lands adjacent to the Forest
- Visual Quality Objectives (VQO) were modified in the selected alternative:
  - The VQO for Management Area 2.4, except for the Lost and Little Blue River corridors, was changed from retention to partial retention. This aligns the visual quality objectives for this management area with the need to use even-aged management practice to provide habitat for wildlife species dependent on early successional habitat.
  - VQO's for areas seen as foreground from all secondary roads were changed from partial retention to the VQO for the areas in which the roads occur. This will make these objectives clearer and easier to implement on the ground.
  - To better meet the intent of the Ohio River Scenic Byway along the Ohio River, VQO's for Interstate 64, State Highways 37, 50, 60, 64, 66, 150, and 446, and the Tower Ridge Road were changed to retention. This will make these objectives clearer and easier to implement on the ground.

These three changes stem from public comment on these provisions of the Proposed Forest Plan and draft EIS. The changes made were within the scope of the analysis of effects disclosed in the EIS.

Public Involvement

The public has been involved throughout the Forest Plan revision process. Public involvement began in August 1999. A proposed need for change was mailed to nearly 7,000 people in August 1999.

The Hoosier National Forest hosted two open houses in September of 1999, one in Bedford, Indiana and one in Jasper, Indiana to further collect input on these issues and topics for plan revision. In November 1999, two focus group meetings on the role of the Forest were held, one in Martinsville, Indiana and one in Corydon, Indiana. A trail group meeting was held in Bedford in December 1999 and a need for change meeting was held in French Lick, Indiana in September

2000. All of these meetings provided the public an opportunity to provide input concerning the need for change and what should be in the revised Forest Plan.

The Forest mailed a draft Need for Change document and a request for comment to over 6,500 people on July 27, 2000. The Forest received several hundred comments, but most comments were similar to those received earlier. As a result only minor modifications were made to the Notice of Intent.

The Notice of Intent (NOI) to prepare an EIS for Forest Plan revision was published in the Federal Register on November 1, 2000, and the Forest mailed approximately 860 copies of the NOI to interested parties.

During the scoping period, the Forest held public meetings to receive comment on the NOI and to provide additional explanation of the forest planning process. The Forest held meetings in Martinsville and Corydon, Indiana. The Forest used the comments received at these meetings to refine the issues that were addressed through the plan revision process.

Using the comments from the public, other agencies, and organizations, the interdisciplinary team identified issues regarding the effects of the proposed action. The issues are discussed in the Final EIS in Chapter 1 on pages 1-6 through 1-10. To address these issues, the Forest Service considered the alternatives described below.

The Notice of Availability for the draft EIS and Proposed Forest Plan was published in the Federal Register on March 25, 2005. This Notice also began a 3-month public comment period which closed on June 27, 2005.

Several meetings were held in conjunction with the 3-month comment period. These meetings were designed to facilitate understanding of the documents and help the public provide focused and substantive comments on the draft EIS, and Proposed Forest Plan. Public meetings were hosted in Martinsville, Paoli, and Troy, Indiana in May 2005. Over 100 people attended the three meetings. Other meetings were held when requested. The public involvement process is further detailed in Appendix A of the EIS.

At the close of the 3-month comment period, over 1,550 letters, emails, and phone calls were received providing comments on the draft EIS and Proposed Forest Plan.

Alternatives Considered

Alternative Development

Alternatives were developed to meet the purpose and need and address the identified goals, objectives, and issues concerning the plan revision. The range of alternatives was not based on predetermined outputs, but rather on themes responding to issues raised by the public.

In addition to the selected alternative, I considered eight other alternatives. Four alternatives were eliminated from detailed study in the final EIS. These and the four other alternatives considered in detail are discussed below. A more detailed comparison of these alternatives is in the final EIS, Chapter 2 on pages 2-27 through 2-35.

Alternatives Eliminated from Detailed Study

The National Environmental Policy Act requires Federal agencies to explore and objectively evaluate a range of reasonable alternatives and briefly discuss the reason for eliminating alternatives that were not considered in detail (40 CFR 1502.14). Alternatives may be eliminated from further study if they:

- may be illegal
- may not meet the purpose and need
- may be technologically unable or infeasible to implement
- may be a duplication of an alternative considered in detail
- may be one on which a decision has already been made at a higher level
- may be determined to cause unreasonable environmental harm
- may be remote or speculative in nature

The four alternatives and rationale for why they were not analyzed are summarized below.

Combined Alternative

An alternative was considered but not analyzed in detail that combined elements of Alternatives 1, 3, and 4 as presented in the EIS. The alternative combined various aspects of each of the alternatives to display what the decision could do in creating the final selected alternative. However, analysis of this alternative would have resulted in effects that were already displayed in the analysis. Further development of this alternative would show little difference in effects from the alternatives already being considered. Therefore the alternative was dropped from further consideration.

Public Lands Coalition Alternative

The Indiana Public Lands Coalition presented an alternative for the Forest Plan in September of 2000. This alternative was the "result of research, discussion, and labor by the environmental community of Indiana" (Public Lands Coalition Alternative, September 2000). The alternative presented a "four-part framework of goals to be met for ecological and human interaction paradigms" on the Forest.

The Public Lands Coalition Alternative included the following:

- Prohibit commercial logging.
- Discontinue commercial uses beyond existing commercial rights and leases.
- Discontinue the forest openings program.
- Restrict the use of prescribed fire to barrens.
- Designate additional wilderness areas.
- Designate identified roadless areas.
- Prevent further road construction.
- Emphasize high quality, primitive recreational experiences.
- Continue to exclude off-road vehicle use.
- Develop a system of hiker only trails.
- Place a moratorium on land exchange until a plan is in place that assures the public of fair compensation for Federal lands.

Because the intent and expected outcomes of this alternative so closely matched those of Alternative 2 the Public Lands Coalition alternative was eliminated from detailed study. The Public Lands Coalition alternative did allow for burning in barrens communities, which was not considered in Alternative 2. However, the effects associated with prescribed burning in barrens communities were analyzed in other alternatives.

Modified Alternative 4

During the 3-month comment period of the draft EIS two additional alternatives were submitted for consideration. Following careful analysis and consideration, it was determined that neither alternative should be carried forward in detailed study. However, some of the information presented in the alternatives was used to modify Alternative 5 for the selected alternative in the Final EIS.

The first proposed alternative would have modified Alternative 4 by:

- Shifting MA 6.2 and 6.4 into either a modified MA 2.8 or a proposed research MA 8.3 for ruffed grouse and early successional species. The desired condition for the MA 2.8 or MA 8.3 areas would be to maintain 8 to 12 percent of the areas in early successional forest habitat (0 to 9 years), with 1 to 2 percent in permanent openings. For group selection harvests treatment size would be increased to 5 acres, and for even-aged management treatment size would be increased to 10 acres for both pine and hardwood species.
- For MA 3.1, 10 to 16 percent of the management area would be maintained in early successional forest habitat (0 to 9 years) and 2 to 3 percent in permanent openings. Temporary opening size for group selection would be 2 to 4 acres, and the temporary openings size for even-aged management would be 10 to 30 acres.
- Visual quality "retention" distances in MA 2.4 would be more consistent with the definition presented in the draft EIS. This change will allow for the creation of habitat for along river corridors and would have reduced the amount of retention VQO in MA 2.4.
- Even-aged timber harvests would include 80 to 100-year rotation in addition to the 120-year rotations analyzed in the EIS.

This alternative was not studied in detail. The shift of acres from MA 6.2 and 6.4 to management areas with completely different desired conditions and goals, would not meet the purpose and need, specifically the need to provide mature forest and associated habitats and recreational settings. If areas of the Forest assigned to MA's 6.2 and 6.4 under Alternative 4 were managed instead using even-aged management practices to create early successional habitat, the alternative would not meet the purpose and need to provide mature closed canopy forest habitats. Management Areas 6.2 and 6.4 were developed to provide for the continued development and enhancement of mature forest characteristics and habitat conditions for old growth species and forest birds that favor interior forest conditions. With the addition of Management Area 3.3 there was no need to increase rotation ages elsewhere on the Forest.

Additional MA 3.3 Areas Alternative

The second alternative presented during the 3-month comment period recommended that if Alternative 4 was not modified, then four areas of MA 3.3 should be located throughout the Forest. Each of these 3.3 management areas would be at least 10,000 acres. This alternative was intended to provide additional areas in which even-aged silvicultural treatments would be used to increase early successional habitat.

This alternative was not carried further into detailed study. A geographic information system (GIS) mapping analysis determined that the Hoosier National Forest does not currently have a large enough general forest landbase (the existing MA 2.8 areas) to host three additional blocks of MA 3.3. Alternatives 3, 4, and 5 would include Management Area 3.3 on the Tell City Ranger District. Other than the area on the Tell City Ranger District, there were no blocks of "general forest" National Forest System land large enough to provide a contiguous block of 10,000 acres or more.

Some recommendations presented in the alternatives described above, as well as suggestions from other commenters, were incorporated into Alternative 5, the selected alternative. Specifically, those changes were:

- The opening size in Management Area 2.8 was changed to allow up to 10 acre temporary openings for both hardwoods and pine stands. The effects of this change are discussed in Chapter 3 of the final EIS.
- Visual Quality Objective's were modified. This will result in clearer Forest Plan direction, and be more consistent with the intent to create habitat for species dependent on early successional habitat. The effects of this change are discussed in Chapter 3 of the final EIS.

Alternatives Considered in Detail

Alternative 1 – No Action (1985 Forest Plan as amended)

This alternative represents the 1985 Forest Plan as amended. This alternative provides a strategy to create areas reserved for continuous canopy mature forest and areas managed to provide recreation opportunities, wildlife habitat, and other opportunities. This alternative maintains a designated trail system with most trails providing for use by hikers, mountain bikers, and horseback riders. It does not allow off-highway vehicle use. Developed and dispersed recreation use opportunities would continue generally the same as currently exists.

The No Action alternative permits restoration of streams and historic wetlands where feasible and new lakes and ponds could be constructed. Current forest wildlife openings would be maintained, and those that feature fescue and other nonnative species would gradually to be converted to native species. Prescribed fire would be used to maintain fire-dependent ecosystems and reduce fuel buildup. This alternative would provide for diversity of plant and animal communities and forested habitat for wildlife using a variety of methods including timber harvest. Timber management would be used to create and maintain wildlife habitat, with approximately 41 percent of the Forest designated as suitable for timber production. Oil and gas activities would be prohibited. Gypsum exploration and development would be permitted on a portion of the Forest.

Decision Rationale

I did not select this alternative because it does not meet the legal requirement to maintain viable populations of all native and desired nonnative species. Specifically, this alternative poses a high risk of failing to maintain habitat for viable populations of native and desired nonnative species that are dependent on early successional habitats. Although the selected alternative varies only slightly from this alternative it does include the creation of Management Area 3.3 to meet maintain viable habitat for wildlife. Many other aspects of managing the Hoosier this alternative will move the Forest toward the desired conditions. With the exclusion of the additional management area there are only slight variations between Alternative 1 (the current Forest Plan), and the Selected Alternative.

This alternative does not allow for oil and gas exploration and development and thus cannot respond to the increased current and future needs in using the nation's resources which is not responsive to the National Energy Policy (Executive Order 13212), and the Energy Policy Act of 2005.

The Forest did not fully implement the current Forest Plan during the past planning period. Project appeals and litigation have resulted in only 27 percent of the ASQ (green timber sales) of the 1985 plan being harvested. The trade-off associated with the high risk of not maintaining viable habitat for early successional dependent species and the inability for oil and gas exploration and development makes it difficult to select this alternative.

Alternative 2

Alternative 2 represents a preservation theme for management of the Forest. The focus on limited vegetation management would result in the development of large areas of continuous forest canopy over the long-term. This type of management would provide a continual progression toward old growth and mature forest characteristics and an increased availability of late-successional habitat.

This alternative would maximize areas that provide for a degree of solitude. Other than trails, these areas would exhibit little visible signs of management and natural processes would predominate. This alternative would pose a high risk of failing to maintain habitat for viable populations of native and desired nonnative wildlife dependent on early successional habitats.

Alternative 2 would maintain existing recreation developments. No additional major recreation sites would be allowed. Existing trail systems and trailhead facilities would be maintained and additional hiking trails could be constructed. Selected trails would be closed seasonally to horse and mountain bike use to minimize impacts to the resources during inclement weather. No off-highway vehicle trails would be established. Developed recreation sites including horse camps and other sites would be included in the developed recreation management area (7.1).

Under Alternative 2, construction of new ponds or lakes would not be permitted. Existing ponds would be maintained to minimal standards to protect public safety. No restoration of wetlands would be allowed and stream enhancement projects would not be proposed.

Nonnative invasive species would be treated using mowing and manual methods only. Chemical treatments would only be allowed in recreation areas.

None of the forest would be classified as suitable for timber production and no commercial timber harvest would occur. Trees would only be removed when they pose a threat to human health and safety. No wildlife openings would be maintained, current openings would revert to forested habitat, and roads used to access openings and ponds would be closed.

Oil, gas, and mineral activities would be prohibited.

Decision Rationale

I did not select this alternative because it does not meet the legal requirement to maintain viable populations of all native and desired nonnative species. This alternative also would seasonally close trails in the Wilderness. Past monitoring does not indicate a need to seasonally close trails. The Forest is working to harden natural surface trails to further reduce negative impacts that could occur from precipitation and increased use.

The limited tools available to reduce current and future nonnative invasive species populations would not meet the need to maintain healthy ecosystems. For example, no sanitation would occur to reduce insect damage from species such as emerald ash borer or gypsy moth.

Forest habitats would move toward late successional habitat only, which does not meet the direction in the National Forest Management Act to provide for biological diversity. Selection of this alternative would provide increases in primitive type recreational experiences however, other recreational experiences, such as bird watching or wildlife viewing, would decrease. However, the loss of early successional habitat and the transition to a mature forested habitat which relies only on natural disturbance would not make this a viable decision. Many substantive comments requested that the Forest be used to provide wood products and to provide a diversity of wildlife habitat. This alternative is very limited in the ability to meet those needs.

Alternative 3

Alternative 3 would emphasize a diversity of forest size and age classes including areas of continuous canopy, mature forest. Many areas of the Forest, including Management Areas 5.1, 6.2, 6.4, 7.1, and parts of 8.2 would be managed solely for recreational uses and to provide late-successional wildlife habitat. Following further site-specific analysis, this alternative would allow additional trail construction and development of a limited ATV trail system through site-specific decision-making. This alternative does not authorize any trial construction.

Much of the Forest would provide wildlife habitat for a variety of species, as well as areas for dispersed recreation. This alternative would focus on maintaining healthy and vigorous forest conditions and increased biological diversity. Some expansion of existing recreational facilities could occur as well as the development of additional facilities, as needed. The Forest trail system would provide multiple-use trails open to hikers, mountain bikers, and horseback riders. Trails in the Charles C. Deam Wilderness would be seasonally closed to horseback riders to minimize resource damage and maintenance costs.

The addition of new recreation sites or improvements would increase the ability of the Forest to meet demand. Group sites would be developed where extensive use requires hardened sites to protect resources and provide for visitor health and safety concerns. This alternative allows for future development of more hardened pull-off sites along public roads to provide better access to the Forest. Developed recreation sites including horse camps and other sites would be included in the developed recreation management areas (7.1).

Alternative 3 provides wildlife habitat for all native and desired nonnative species, including forest interior and early successional forest species. Permanent forest openings for wildlife would be maintained, and as the Forest acquires land, new openings could be developed, with a preference for larger openings or complexes. Openings would be maintained using a variety of methods including but not limited to tree removal, disking, mowing, burning, and chemical methods. This alternative would facilitate restoration of streams and historic wetlands where possible and would propose construction of new lakes and ponds.

Timber harvest would be proposed in future project development to create young forested habitat in MA 3.3. This management area would emphasize the creation of young forested habitats for species that depend on this type of habitat for some or all of their life cycle.

This alternative would classify 56 percent of the National Forest System lands as suitable for timber production. These areas would provide a variety of forest age classes and species. Harvest would likely be accelerated during the next 30 years to convert nonnative pine plantations to native hardwoods. Currently, pine stand represent 16 percent of the total forested acres on the Hoosier National Forest. This alternative projects harvest of up to 3,610 acres of pine per decade, mostly using shelterwood harvests. While even-aged treatments could occur throughout the Forest, a portion of these treatments would likely be focused in Management Area 3.3. Temporary openings created through even-aged management treatment in MA 3.3 could be up to 40 acres in size. Management Area 3.3 would be located on the Tell City Ranger District. This management area is only included in Alternatives 3, 4, and 5. This management area was designed to increase the likelihood of maintaining viable habitat for early successional species. In MA 2.8, temporary openings from even-aged treatments would be limited to 5 acres in hardwoods and 10 acres in pines. Timber stand improvement techniques would move stands toward native species and improve stand health and vigor, resulting in better disease resistance and increased mast production.

Alternative 3 would allow the use prescribed fire in conjunction with timber harvest to increase regeneration of the oak-hickory type. Prescribed fire would also maintain fire-dependent ecosystems and reduce fuels buildups.

Oil, gas, and mineral activities would be prohibited.

Decision Rationale

The alternative would include an All-Terrain Vehicle (ATV) trail system in the desired conditions. I decided not to select this alternative. While many comments received by the Forest supported implementation of an ATV trail system, many others did not. The controversy that arose following the 1985 Forest Plan and the public concern over developing an ATV trail system was great. Implementing an ATV trail system would result in impacts to fragile soils

similar to what occurred in the 1985 Forest Plan. Noise and trespass could be mitigated through trail design and law enforcement. Protection of fragile soil resources would be a concern due to high annual maintenance costs. Given the highly unconsolidated land ownership pattern of the Hoosier National Forest, the opportunity for construction of such a system is limited. This analysis is included in Chapter 3 of the final EIS.

I am not selecting this alternative due in part to the increase in management activities. Management proposed in this alternative and Alternative 4 is more aggressive than Alternatives 1, 2 or 5, especially in terms of the amount of timber harvest, the amount of prescribed fire, and the rate at which pine plantations would be converted to native hardwoods. Many letters were received that asked that no timber harvest or vegetation management occur on the Forest. However, other letters suggested the need to create and maintain early successional habitat for wildlife. Under the existing Plan, ASQ for the first decade is 44 million board feet (MMBF). During the ten years from 1994-2003, the Forest actually cut 12.08 MMBF or 27 percent of the ASQ. Of that 12.08 MMBF, 10 MMBF or 83 percent, was damaged and down trees resulting in salvage operations. Alternative 3 proposes an ASQ of 62.3 MMBF. This also ties in with Indiana Department of Natural Resources strategy to increase timber harvest State owned properties.

Twenty seven percent of the public lands in Indiana occur on the Hoosier National Forest. All alternatives provide acres for non-market values such as beautiful landscapes, clean air, clear water, wildlife, and solitude. This alternative proposes an increase in vegetation management; however, there is no consensus among members of the public as to how the Forest should be managed or used. This alternative presents a more aggressive approach to managing vegetation than Alternatives 1, 2, or 5. The social assessment conducted for the Plan revision process showed that there was no consensus among the respondents on how the Forest should be managed. From the social assessment prepared for Forest Plan revision, 25 percent of the respondents strongly agreed with the viewpoint that Forest lands could sustain more usage than they currently get. As well, 35 percent strongly agreed that lands on the Forest need to be preserved, and 26 percent that felt the Forest lands should be conserved. Some respondents feared the health and integrity of the Forest would decrease because interest groups cannot agree on one management direction (Welch *et al.* 2001).

Alternative 3 and 4 have similar decision rationale with the exclusion of the ATV use. Refer to Decision Rationale for Alternative 4 as well.

Alternative 4

Alternative 4 is very similar to Alternative 3 with a slightly more aggressive timber harvest and prescribed burn program proposed. Alternative 4 differs from Alternative 3 in that

- There are no seasonal trail closures proposed
- There is no ATV trail system proposed
- In addition to using MA 3.3 Alternative 4.4 applies MA 3.1. Management Area 3.1 allows for a mix of even-aged and uneven-aged forest management techniques but predominantly applies even-aged techniques across the landscape.

- Fifty-five percent of the Hoosier National Forest is considered suitable for timber harvest. The ASQ allowed under this alternative is 94.6 MMBF for the first decade of implementation.
- Currently, pine stand represent 16 percent of the total forested acres on the Hoosier National Forest. This alternative would harvest up to 3,580 acres of pine per decade. This is slightly less than Alternative 3. However, the harvest would favor the use of clearcut harvests. This alternative would treat nonnative pine more aggressively than any of the other alternatives considered. Under Alternative 4, 3,580 acres of pine would be treated with even-aged management techniques in the first decade.
- This alternative also proposes to burn up to 100,000 acre in the first decade. This is compared to 50,000 under Alternative 3, and 20,000 under Alternatives 1 and 5.

Decision Rationale

Because there is no strong consensus among members of the public, I did not select this alternative and I do not believe the public will support an approach to forest management that is this aggressive. The ASQ for the existing Plan for the first decade was 44 MMBF. During the ten years from 1994-2003, the Forest actually cut only 27 percent of that ASQ. Of that 27 percent, 83 percent was harvested as salvage resulting from natural events. Alternative 4 proposes an ASQ of 94.7 MMBF. Because the Forest did not fully implement the current Forest Plan, I hesitate to select an alternative that implements increases in timber harvest.

More land is considered suitable for vegetation management in Alternatives 3 and 4. Alternative 4 proposes to harvest more timber than any other alternative considered. A lack of consensus of members of the public made it difficult to select this alternative. During the public comment period the Forest received many letters asking that no timber harvest occur on the Forest. Increased levels of timber harvest as proposed in Alternative 4 would be in conflict with those commenters. However, it would be in agreement with letters from individuals, the Ruffed Grouse society, the National Wild Turkey Federation, and the Indiana Department of Natural Resources.

Alternative 3 and 4 have similar decision rationale with the exclusion of the ATV use. Refer to Decision Rationale for Alternative 3 as well.

Alternative 5 (Selected Alternative)

This alternative is very similar to Alternative 1. Changes included implementation of a new management area to focus even-aged management to reduce the risk of maintaining viable habitat for all species. Other changes include a change in the exploration and development for oil and gas management on the Forest. This change is in line with national direction for minerals owned by the Federal government as requested by the Bureau of Land Management.

The current Forest Plan, Alternative 1, was acceptable to many members of the public. However, Alternative 1 presented a high risk for maintaining viable populations of native and desired nonnative species. With implementation of Management Area 3.3, Alternative 5 reduces the risk to species viability. The Selected Alternative includes Management Area 3.3 on the Tell

City Ranger District to provide habitat for early successional species. Alternative 5 was discussed in detail previously in this Record of Decision.

Some people will be dissatisfied because their alternative is not selected. It is important to remember that the selected alternative is a balance of views. It is no one person or group's suggested alternative. The selected alternative strikes a balance between competing uses and interests and reflects public demands. This alternative provides many acres that will be managed using natural processes to continue to provide solitude, and primitive and developed recreation experiences. In addition it will provide wildlife habitat for all native and desired nonnative species, as well as federally threatened and endangered species. This alternative will also support healthy watersheds for use by the residents of Indiana.

Environmentally Preferred Alternative

NEPA regulations require agencies to specify the alternative or alternatives which are considered to be environmentally preferable, 40 CFR 1502.2(b). In addition, Forest Service NEPA policy (FSH 1909.15, Section 05) defines "environmentally preferable" as:

> "An alternative that best meets the goals of Sections 101 of NEPA… Ordinarily this is the alternative that causes the least damage to the biological and physical environment and best protects, preserves and enhances historical, cultural, and natural resources."

Given this guidance, I am identifying Alternative 4 as the environmentally preferred alternative. Alternative 4 would more quickly move forest resources towards desired conditions. Alternative 4 provided a more aggressive approach to reducing the presence of nonnative pine plantations, creating early successional habitat, and promoting oak hickory regeneration. Alternative 4 also provided management direction to protect, preserve, and enhance the historic, cultural, and natural resources of the Hoosier National Forest. Alternative 4 would provide for the highest levels of plant and animal community diversity, achieve disturbance levels closest to historical trends, increase oak-hickory habitat on the Forest, and maintain 46 percent of the Forest to succeed naturally. Alternative 4 would result in a landscape that is more representative of pre-settlement conditions than the other alternatives.

Public comment during the revision process indicated that many members of the public were in agreement with the current Forest Plan. However, the current Forest Plan as written was not being fully implemented. While Alternative 4 would move resources toward desired condition more quickly I do not feel the public would be comfortable with an increase in timber harvest as proposed in Alternative 4. My decision is a result of reviewing public input on the Proposed Forest Plan and continuing input on other projects across the Forest.

Rationale for selecting Alternative 5 over Alternative 4 is discussed in the decision rationale sections following the descriptions of the alternatives considered.

Findings Required by Other Laws and Regulations

The Forest Service manages the Hoosier National Forest in compliance with many laws, regulations, executive orders, and policies. The list provided here is not a complete list of all

governing statutes that apply to the revision of Forest Plans, but it highlights the primary statutes guiding the preparation of this plan revision. In all cases, the revised Forest Plan is consistent with national law, policy, and direction.

National Environmental Policy Act (NEPA)

The Forest has compiled and generated an enormous amount of information relevant to the effects of each of the alternatives considered in the final EIS. I find that the environmental analysis and public involvement process complies with each of the major elements of the requirements set forth by the Council on Environmental Quality for implementing NEPA (40 CFR 1500-1508). These include:

- Considering a broad range of reasonable alternatives;
- Disclosing cumulative effects;
- Using the best scientific information available;
- Consideration of long-term and short-term effects; and
- Disclosure of unavoidable adverse effects.

The decision does not directly authorize any new ground-disturbing activities or projects. Ground-disturbing activities and projects will be subject to additional site-specific environmental analysis that will tier to the final EIS and follow applicable environmental analysis, public involvement, and administrative appeal procedures.

The revised Forest Plan has adopted practicable means to avoid or minimize environmental harm. These means include provisions for providing those ecological conditions needed to support biological diversity and standards and guidelines to mitigate adverse environmental effects that may result from implementing various management practices. The revised Forest Plan includes monitoring requirements and an adaptive management approach to assure needed adjustments are made over time.

National Forest Management Act (NFMA)

The NFMA and its implementing regulations specify a number of requirements for forest plan development. Congress has mandated that forest plan revision assure that the plans provide for multiple-use and sustained yield of products and services. Not every use can or should occur on every acre. Our goal is to blend multiple-use of the Forest in such a way that is sustainable and best meets the needs of the American people.

The Hoosier National Forest developed an integrated land and resource management plan using a systematic interdisciplinary approach to integrate consideration of physical, biological, economic, and other sciences. The revised Forest Plan maximizes net public benefit and contains strong conservation measures to protect, maintain, and improve soil and water resources, wildlife habitat, and other forest resources within a multiple-use context. The revised Forest Plan complies with each of the NFMA and regulatory requirements, as explained elsewhere in this Record of Decision, accompanying final EIS, and Appendices. Certain requirements are discussed in further detail below.

The 1982 NFMA regulations require fish and wildlife habitat to be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area (36 CFR 219.19; (1982). A key part of forest plan revision was the evaluation of plant and animal species for viability concerns. Neither NFMA nor its implementing regulations create a concrete, precise standard for diversity. The original Committee of Scientists noted in the development of the early planning regulations for NFMA that "it is impossible to write specific regulations to provide for diversity" and thus "there remains a great deal of room for honest debate on the translation of policy into management programs." (44 Federal Register 26600-26608). Because absolute certainty cannot be obtained regarding plant and animal community diversity, the planning process involves projections or estimates of distribution and abundance of plants and animals based upon ecological conditions necessary to maintain viable populations.

Using an ecological or "coarse filter" approach, broad land categories of wildlife habitat were identified. The mix of ecological conditions to be maintained or established through implementation of the revised Forest Plan will provide for most species that occur on the Forest. A relatively small change in the abundance and quality of wildlife habitats is likely to occur in the next decade as a result of implementing the revised Forest Plan. An important component of the revised plan's ecological approach is the allocation about seven percent of the Forest to management area 3.3, where the emphasis will be on creating sufficient early-successional habitat to provide for viable populations of species such as American woodcock, ruffed grouse, and yellow-breasted chat. Some changes in the quality and quantity of wildlife habitat will also occur through natural succession and disturbances. These natural changes are not anticipated to create any species viability concerns.

The Species Viability Evaluation also used a species, or "fine filter" approach to assure that standards and guidelines were in place to provide for the needs of threatened, endangered, or sensitive species. Specific standards and guidelines were developed for 19 species that we concluded needed special protection measures. Forest plan direction was developed to conserve habitat and avoid any adverse effects of the future management actions. The analysis presented in the final EIS indicates that, under Alternatives 3, 4, and 5 there is a high likelihood of continued representation of all species and important wildlife habitats on the Forest.

Management Indicator Species (MIS) were chosen that will respond to forest management activities and assist in predicting the effects of implementing the forest plan over time. The selected MIS for the revised Forest Plan were: Acadian Flycatcher (*Empidomax virescens*), American woodcock (*Philohela minor*), Louisiana waterthrush (*Seiurus motacilla*), wood thrush (*Hylocichla mustelina*), and yellow-breasted chat (*Icteria virens*). The choice of MIS was based upon experience implementing the amended 1985 Forest Plan and the best available scientific information. Monitoring and management experience has shown that some species that were selected as MIS in the previous plan were not good indicators. Some of the MIS species that were not retained have populations that are substantially affected by "off-forest" activities and conditions. Other species were habitat generalists that are not very responsive to changes in management. Others occurred on only a small portion of the Hoosier so were of limited use in indicating overall effects. Lastly, some species were difficult to find so that regular monitoring was either impossible or unreliable.

Management Indicator Species are just one part of the overall monitoring effort. Species that are not designated as MIS may still be monitored. Recognizing the discretion provided by the 1982 NFMA regulations (36 CFR 219.19(a)(1)), the Forest carefully selected MIS that will meet the intent of the NFMA regulations, but not impose an unattainable or unnecessarily burdensome monitoring requirement on the Forest.

Forest Plans are required to identify the proportion of harvest methods that are proposed for implementation. The revised Forest Plan includes a forecast of the harvest methods that are likely to be chosen as the plan is implemented. The revised Forest Plan does not mandate that any particular harvest method be applied to any specific project. The choice of when, where and how to harvest timber is deferred as a future site-specific decision.

Adaptive management is an important part of ensuring compliance with the NFMA. Adaptive management is a management philosophy that runs throughout the revised Forest Plan. Recognizing that perfect information and resource inventories are impossible in an imperfect world, we anticipate that new scientific information and changes in resource conditions will require "course corrections" during the 10-15 year life of this plan. The Forest Plan is dynamic and will respond to new information.

The 1982 Planning Rule requires identification of the alternative that maximizes the present net value (PNV) and how the selected alternative compares to this alternative. According to the economic analysis displayed in the final EIS, Alternative 3, because of its emphasis on even-aged timber management, maximizes PNV. The selected alternative, Alternative 5, has the third highest PNV of the five alternatives considered. Appendix B of the final EIS includes a detailed description of the economic analysis.

Endangered Species Act

The Endangered Species Act creates an affirmative obligation "…that all Federal departments and agencies shall seek to conserve endangered and threatened (and proposed) species" of fish, wildlife, and plants. This obligation is further clarified in the national Interagency Memorandum of Agreement (dated August 30, 2000) which states our shared mission to "…enhance conservation of imperiled species while delivering appropriate goods and services provided by the lands and resources."

All of the alternatives considered the protection of threatened, endangered, and sensitive species. The revised Forest Plan was developed with our responsibilities concerning conservation of listed species (Section 7(a)(1)) foremost in mind. Based upon consultation with the USDI Fish and Wildlife Service, their concurrence with our Biological Assessment, and the non-jeopardy finding in their Biological Opinion, I have determined that the revised Forest Plan complies with the Endangered Species Act.

Forest and Rangeland Renewable Resources Planning Act (RPA) and Forest Service Strategic Plan 2004 – 2008

The 1982 Planning regulations (36 CFR 219.12 (f) (6)) require that at least one alternative be developed that responds to and incorporates the Resources Planning Act Program's tentative resource objectives for each National Forest as displayed in Regional Guides. The Forest

Service Strategic Plan 2004 – 2008, in lieu of a Resource Planning Act Program, was completed in accordance with the Government Performance Results Act (GPRA) and the Interior and Related Agencies Appropriations Act. While forest plans should be consistent with the broad guidance provided in the Strategic Plan, and should consider the information provided by the Resource Planning Act Assessment along with other available and relevant science, neither the Strategic Plan nor the Assessment contain recommended outputs to incorporate in specific forest plans. I find the revised Forest Plan to comply with the Forest Service Strategic Plan, and to contribute towards its goals, which are:

Reduce the risk from catastrophic wildland fire

The revised Forest Plan contains management direction in the form of desired conditions and objectives to increase the amount of forest restored to or maintained in a healthy condition to reduce risk and damage from wildland fires.

Reduce the impacts from invasive species

The revised Forest Plan addresses the spread of terrestrial or aquatic non-native invasive species that pose a threat to native ecosystems through the establishment of forest wide direction as well as desired conditions on the ground that foster native species. The Plan allows non-native invasive species to be treated on all National Forest System lands. Site-specific analysis with public involvement would occur prior to any areas being treated.

Provide outdoor recreation opportunities

As outlined elsewhere in this Record of Decision, the revised Forest Plan places emphasis on recreational use of the Hoosier National Forest. This decision continues the prohibition on ATV use. It also incorporates horse camps and other highly developed recreation use areas into MA 7.1 so that management direction is provided specific to that type of use. My decision continues to provide areas for Forest users to experience solitude and remote experiences.

Help meet energy resource needs

As discussed elsewhere in this Record of Decision, the revised Forest Plan allows for the development of energy resources that may be under the Hoosier National Forest. While no surface occupancy is allowed, the new direction will allow the Forest to collect royalties and be reimbursed for extraction of minerals owned by the Federal government.

Improve watershed conditions

The revised Forest Plan employs a proactive approach to the management of watersheds and riparian areas.

Mission-related work in addition to that which supports agency goals

This goal deals mostly with processes. While the revised Forest Plan specifically focuses on desired conditions and objectives, and not the process to achieve them, we will strive to improve our productivity and efficiency as we implement the revised Forest Plan.

Healthy Forest Restoration Act

I find the revised Forest Plan is consistent with the Healthy Forest Restoration Act in that it provides for the protection of old growth when conducting covered projects, provides for public involvement in assessing and conducting hazardous fuels reduction projects, and prioritizes areas for hazardous fuels reduction based on condition class and fire regime. The revised Forest Plan also emphasizes protection and enhancement of riparian areas and watershed health as directed under the Healthy Forest Restoration Act.

Environmental Justice (Executive Order 12898)

Executive Order 12898 (59 Federal Register 7629, 1994) directs federal agencies to identify and address, as appropriate, any disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. I have determined, from the analysis disclosed in the Final Environmental Impact Statement, that the revised Forest Plan is in compliance with Executive Order 12898.

My conclusion, based upon the analysis in the final EIS, is that the risk of disproportionate effects on minority or low-income populations resulting from the programmatic revised Forest Plan is very low. The selected alternative was developed as a programmatic framework to avoid adverse environmental effects in future decisions. The risk of environmental justice issues may be greater under Alternative 2, due to a decrease in labor and income during the next decade (Final EIS, Chapter 3).

National Historic Preservation Act (NHPA)

The revised Forest Plan is a programmatic action and does not authorize any site-specific activity. Projects undertaken in response to direction of the revised Forest Plan will fully comply with the laws and regulations that ensure protection of cultural resources. The revised Forest Plan contains direction for cultural resource management, including direction to integrate cultural resource management with other resource management activities.

Several other laws apply to the preservation of cultural resources on federal land. Since the revised Forest Plan does not authorize ground-disturbing activities, consultation with the State Historic Preservation Offices (SHPO) under the NHPA is not required.

It is my determination that the revised Forest Plan complies with the National Historic Preservation Act and other statutes that pertain to the protection of cultural resources.

Migratory Bird Treaty Act and Executive Order 13186

The revised Forest Plan is a programmatic framework guiding future decision-making and is permissive in nature. As such, it does not authorize, fund, or implement any site-specific activity. The revised Forest Plan focuses on enhancing ecological health and plant and animal community diversity to the benefit of wildlife species, including migratory birds. The management direction in the revised Forest Plan complies with the Migratory Bird Treaty Act (MBTA) and was developed with full consideration of the broad objectives and intent of Executive Order 13186.

In developing the revised Forest Plan, we were guided by the discussion of the MBTA set forth in the Federal District Court for the Southern District of Indiana's review of the 1991 programmatic Hoosier Forest Plan amendment and a timber harvest project, Mahler v. Forest Service, 927 F. Supp. 1559, 1583 (S.D. Ind. 1996). The court's decision (included in the planning record) provided extensive discussion of the application of the MBTA to activities on the Hoosier National Forest and concluded that "[t]he better reading of the [MBTA] is to find that the prohibitions apply only to activity that is intended to kill or capture birds or to traffic in their bodies or parts."

Data Quality Act

The Data Quality Act and its federal guidelines concern the quality of information used in the work of federal agencies. An interdisciplinary team of agency scientists and resource specialists using the best available scientific information developed the revised Forest Plan and its accompanying EIS. Data quality was a paramount concern, as the objectivity and quality of scientific data is key to development of a realistic resource plan. The interdisciplinary team was aware of the USDA information guidelines and devoted considerable effort towards ensuring that the information used in plan development was credible and appropriate for the context.

Scientific information was solicited from other federal agencies, State resource agencies, and other recognized experts and scientists. Although the USDA Data Quality Act guidelines are not intended to be legally binding regulations, they were carefully considering during development of the revised Forest Plan and EIS.

Access and Travel Management Rule and Policy

The Travel Management Rule (70 Federal Register 68264), dated November 9, 2005 (36 CFR Parts 212, 251, 261, and 295) revised regulations regarding travel management on NFS lands to clarify policy related to motor vehicle use. This rule prohibits the use of motor vehicles off the designated system or use which is inconsistent with those designations once designations are published. This process will occur subsequent to the decision made in the revised Forest Plan, and recognizing that the majority of the National Forest transportation system is already in place. Further site-specific analysis will be required, as appropriate, when changing the transportation system in designating those roads.

Other Laws, Policy, and Regulations

I also find that the final EIS and the revised Forest Plan are consistent with the following body of policy and regulation: the National Energy Policy (Executive Order 13212); the Energy Policy Act of 2005; the Clean Air Act; the Clean Water Act; the Energy Requirement and Conservation Potential; Executive Order 13112 on Invasive Species; Secretary of Agriculture's Memorandum #1827 on Prime Farmland, Rangeland and Forestland; Executive Order 1099 on the Protection of Wetlands and Floodplains; and the existing body of national direction for managing National Forests.

Implementation

The revised Forest Plan becomes effective 30 calendar days after the Notice of Availability of the Record of Decision and Final EIS is published in the Federal Register (36 CFR 219.10 (c)(1), 1982).

Transition to the revised Forest Plan

The revised Forest Plan direction will apply to all projects that have decisions made on or after the effective date of this Record of Decision. Because this was a revision of the amended 1985 Hoosier National Forest Plan, many aspects and much of the management direction from the 1985 Forest Plan are carried forward into the revised Forest Plan. Therefore, many existing projects and ongoing actions that were consistent with the 1985 Forest Plan, as amended, will continue to be so with the revised Forest Plan.

Many management actions decided prior to the issuance of the Record of Decision are routine and ongoing. Those decisions will generally be allowed to continue unchanged because the projected effects of these actions are part of the baseline analysis considered in the Final EIS and Biological Assessments for the revision.

The National Forest Management Act requires that "permits, contracts and other instruments for use and occupancy" of NFS lands be "consistent" with the Forest Plan (16 U.S.C. 1604(i)). In the context of a revised Forest Plan, the National Forest Management Act specifically conditions this requirement in three ways:

1. These documents must be revised only "when necessary;"
2. These documents must be revised as "soon as practicable;"
3. Any revisions are "subject to valid existing rights."

As the decision maker, I have the discretion, on a case-by-case basis, to modify pre-existing authorizations to bring them into compliance with the revised Forest Plan standards and guidelines. I find that the statutory criteria of "as soon as practicable" and excepting "valid existing rights" useful in exercising that discretion.

I have decided not to modify any existing timber sale contracts solely due to the revised Forest Plan. These contracts will be executed according to their terms, and these effects and conditions were considered in the final EIS. Existing timber contracts, in most cases, will be completed within three years. The discretion is left to the Forest Supervisor to determine whether to modify decisions authorizing timber sales not currently under contract.

Other uses and occupancy agreements are substantially longer than timber contracts. These uses and occupancy agreements will be reviewed to determine whether or when the Forest Supervisor should exercise discretion to bring them into compliance with the revised Forest Plan. Recent project decisions that have not yet been implemented will be reviewed and adjusted by the decision maker, if necessary, to be consistent with the revised Forest Plan.

Key Considerations in Plan Implementation

The revised Forest Plan provides broad, strategic, landscape-level direction for managing the Hoosier. Working toward the desired conditions and achieving the objectives in the revised Forest Plan will be accomplished through site-specific project decisions, using the appropriate analyses and processes to meet the requirements of the NEPA and other laws and regulations. The revised Forest Plan itself makes no project-level decisions.

The final EIS for the revised Forest Plan did consider and evaluate the overall management that likely would be necessary to implement the objectives of the revised Forest Plan. It also dealt with those issues and concerns relevant at a larger landscape or forest-wide level. Therefore, in essence, the final EIS is itself a cumulative effects document, because it analyzed the broad effects of the management direction that may be expected in the first decade (and longer term) and disclosed the forest-wide effects of those activities considered in total.

By tiering to the final EIS, we will make use of this forest-wide analysis to streamline our environmental analysis for project-level decisions. We will not duplicate landscape or forest-wide scale issues and effects because those effects have already been considered and disclosed in the final EIS. This has applicability to a wide range of findings that are appropriately done at the Forest-wide level. Analysis and findings related to species viability and effects on threatened or endangered species should be greatly simplified when projects are within the parameters of the revised Forest Plan and the final EIS. Project-level analysis will not revisit Forest Plan decisions, but rather, will determine which management techniques (if any) and mitigations (beyond those in the revised Forest Plan) are best suited to each individual project.

Implementation of the revised Forest Plan is dynamic and depends upon many factors. Plan Appendices contain information concerning proposed management techniques and projected outputs. The projected outputs, shown in Appendix B, are a forecast of what may occur over the lifetime of this Plan. However, final implementation will depend on demand for products and uses, available funding, natural events such as fire or windstorm, and other factors. There is no certainty that the projected outputs will actually occur at the estimated levels.

Future Changes to the Plan

Monitoring and Evaluation

Monitoring is designed to answer questions regarding implementation of the revised Forest Plan. Monitoring and evaluation will focus on accomplishment of the Goals and Objectives in the Forest Plan and whether there is a need for change in the plan. Elements in monitoring will include requirements from NFMA regulation as well as other pertinent laws and regulations.

Evaluation reports will display how Forest Plan decisions have been implemented and how effective the implementation has proved to be in accomplishing desired outcomes, as well as what we learned along the way. This will allow a check and review of the validity of the assumptions on which decisions were based.

The Monitoring Framework in Chapter 4 ties well with the strategic nature of forest plans, with increasingly specificity as the Plan is stepped down to specific projects. This monitoring framework has four key monitoring components. The first component is the

direction provided in Chapter 4 of the revised Forest Plan. The remaining three are implementation tools to ensure a common approach in monitoring Forest Plan direction.

1. The Forest Plan (Chapter 4) direction that provides broad, strategic guidance.
2. A monitoring implementation guide that is not part of the plan, but will include details about how monitoring will be accomplished.
3. A monitoring plan that outlines specific tasks for the current year.
4. A monitoring and evaluation review that provides a forum to review current findings and identify specific modifications if necessary.

Another important part of our adaptive management approach will be to establish an environmental management system (EMS) for the Forest as required by 36 CFR 219.5 (2005). The EMS for the Hoosier will focus on monitoring, improving performance, and reducing environmental effects for some selected significant aspects of the management under the revised Forest Plan. The EMS will complement the overall monitoring and evaluation strategy for the Forest.

Amending the Forest Plan and Adaptive Management

This revision of the Forest Plan is shaped by a central idea: how we manage the Forest should adapt to changes in how we understand the ecological, social, and economic environments. The revised Forest Plan is well structured for this type of adaptive management because it describes the desired conditions toward which we will strive as we implement the Forest Plan. In fact, those desired conditions will be the very basis for the projects we will accomplish during the life of the Forest Plan.

In making the decision on the revised Forest Plan, I am also deciding that this plan will be adaptive and subject to change as we monitor, learn, and gain new information. The revision of the Hoosier Forest Plan has incorporated much that has been learned since the previous Forest Plan and even as the revised Forest Plan was developed. However, this Plan can still be improved as we learn more about ecosystem functions and processes. This Forest Plan is not cast in stone to be unquestioningly adhered to for the next 15 years. We will track progress toward reaching the desired conditions identified in the Plan, and modify management actions when needed, depending on the results of our actions. If a particular management strategy, technique, or practice is applied, its results will be monitored to see if the desired effect is occurring, and if not, a modified or new strategy will be developed and implemented. That new strategy will also be subject to monitoring, evaluation, and, if needed, change.

Changes to the Plan will generally take the form of plan amendments and will follow the appropriate procedures specified in NFMA and its implementing regulations. The need to amend the plan may result from:

- Recommendations of an interdisciplinary team based on monitoring and evaluation results;
- Review of relevant new information;
- Determinations by the Forest Supervisor that existing or proposed projects, permits, contracts, cooperating agreements or other instruments authorizing occupancy and use are appropriate, but are not consistent with elements of the Plan's management direction;
- Administrative appeal decisions;

- Changes in physical, biological, social, or economic conditions.

The Forest Supervisor will determine whether changes to the Forest Plan require an amendment or can be made through an administrative correction.

Administrative Review or Appeal Opportunities

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 217.3. A written notice of appeal must be filed with the Chief of the Forest Service within 90 days of the date that the legal notice of this decision appears in the Milwaukee Journal. The appeal must be filed (regular mail, fax, email, hand-delivery, or express delivery) with the Appeal Deciding Officer.

Regular Mail:
USDA Forest Service
Ecosystem Management Coordination
1400 Independence Avenue, SW
Mailstop Code 1104
Washington DC, 20250-1104

FedEx:
USDA Forest Service
Ecosystem Management Coordination
201 14th Street SW
3rd Floor, Central Wing
Washington DC, 20024
Phone: 202.205.0895

Electronic Mail: Appeals may also be filed via e-mail to: appeals-chief@fs.fed.us. The use of Microsoft Word (.doc), WordPerfect (.wpd), or Adobe (.pdf) is recommended.

A copy of the appeal must simultaneously be sent to the deciding officer:

Regional Forester of the Eastern Region
USDA Forest Service
Eastern Region
626 East Wisconsin Avenue
Milwaukee, WI 53202

Simultaneous electronic filing with the Deciding Officer should be sent to: appeals-eastern-regional-office@fs.fed.us.

Any notice of appeal must be fully consistent with 36 CFR 217.9 and include at a minimum:

- A statement that the document is a Notice of Appeal filed pursuant to 36 CFR Part 217.
- The name, address, and telephone number of the appellant.
- Identification of the decision to which the objection is being made.
- Identification of the document in which the decision is contained, by title and subject.
- Date of the decision and name of and title of the Deciding Officer.
- Identification of the specific portion of the decision to which objection is made.
- The reason for the appeal including issues of fact, law, regulation, or policy.
- Identification of the specific change(s) in the decision that the appellant seeks.

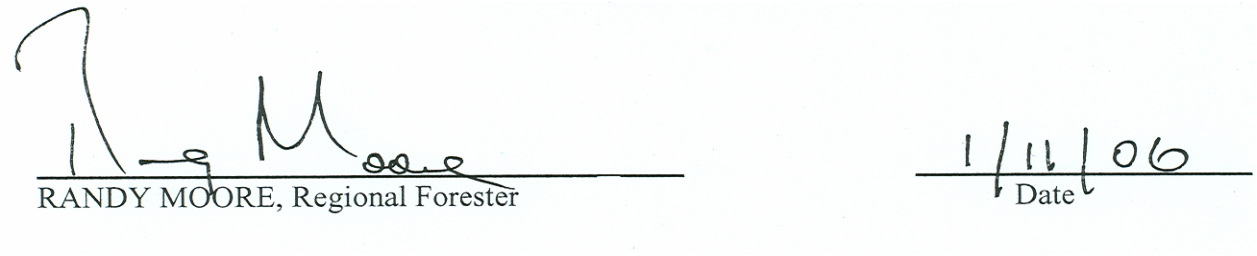
Contacts

For additional information concerning this revised Hoosier National Forest Land and Resource Management Plan and/or the Final Environmental Impact Statement can be obtained by contacting:

Franklin Lewis Public Affairs Officer	or	Judi Pérez Forest Planner

at

Hoosier National Forest
811 Constitution Avenue
Bedford, Indiana 47421



This document is available in large print. Contact the Hoosier National Forest office 812.275.5987