

**Summary
Hoosier National Forest
Land and Resource Management Plan
Draft Environmental Impact Statement**

**Eastern Region
Milwaukee, Wisconsin
January 2005**

Responsible Agency	USDA Forest Service
Responsible Official	Randy Moore, Regional Forester 310 W. Wisconsin Avenue, Suite 580 Milwaukee, WI 53203 414-297-3600
For further Information or mail comments to:	Judi Perez, Forest Planner Hoosier National Forest 811 Constitution Avenue Bedford, IN 47421 812-275-5987
Hoosier National Forest	Brown, Crawford, Dubois, Jackson, Lawrence, Martin, Monroe, Orange, Perry Counties, Indiana

Abstract: This is the summary for the Draft Environmental Impact Statement (DEIS) of five alternatives developed for programmatic management of the Hoosier National Forest.

This document is available in large print.
Contact the Hoosier National Forest Office for a copy.
812-275-5987

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Introduction

This summary provides an overview of the DEIS for revision of the Hoosier National Forest's (Hoosier or Forest) Land and Resource Management Plan. The Draft Environmental Impact Statement (DEIS) and Proposed Land and Resource Management Plan represent a great deal of hard work by many people.

The Hoosier is located in southern Indiana, and contains approximately 199,150 acres (as of November 2003) of National Forest System (NFS) land. The land is located in two ranger districts: Brownstown Ranger District and Tell City Ranger District. There is a mix of public and private lands within each district boundary.

The Hoosier comprises approximately 25 percent of the public lands in Indiana, and is

within a day's drive of several major metropolitan areas, including Cincinnati, Chicago, Evansville, Fort Wayne, Indianapolis, Louisville, and St. Louis. The Forest includes areas of regional and national significance such as the Charles C. Deam Wilderness, the Paoli Experimental Forest, the Pioneer Mothers Memorial Forest Research Natural Area, and the Ohio River Scenic Byway.

Hardwood-covered rolling hills interspersed with small farms characterize southern Indiana. The unglaciated karst topography, with cave formations and sinkholes, provides opportunity for scenic and recreational experiences. Watersheds in the national forest support the headwaters of streams that provide drinking water for people throughout the region.

About the DEIS

The DEIS looks at five alternatives, each with a different mix of land management resulting in different effects for all resources. The DEIS discloses the direct, indirect, and cumulative environmental impacts that would result from each of the alternatives. Alternative 5 is the Preferred Alternative selected by the Regional Forester at this time, and forms the basis for the accompanying Proposed Forest Plan. The Proposed Forest Plan contains the management direction, land allocation descriptions, standards and guidelines for management practices, and monitoring requirements to implement Alternative 5.

In conjunction with laws, policies, executive orders, and Forest Service Manuals and Handbooks, the revised Forest Plan will

establish direction for managing the Forest's natural resources for the next 10 to 15 years.

Document Structure

DEIS - This DEIS is arranged into seven chapters with appendices.

- *Chapter 1 – Purpose and Need:* Describes the purpose and need for Forest Plan revision and the proposal for achieving that need; and how the public was informed and their input solicited in this process;
- *Chapter 2 – Management Alternatives:* This chapter presents five alternatives for the future management of the Forest. This chapter describes the process used to develop the alternatives, describes the

alternatives, and provides a tabular comparison of each alternative.

- *Chapter 3 – Affected Environment and Environmental Consequences:* This chapter describes the existing environment and details the effects of implementing each of the alternatives. This analysis is organized by the eight forest goals.
- *Chapter 4 – List of Preparers*
- *Chapter 5 – List of Recipients*

- *Chapter 6 – Index*
- *Chapter 7 – Literature Cited*
- *Appendices:* The appendices provide more detailed information which supports the analyses in this DEIS.

Chapter 1- Purpose and Need

Since 1985, the Forest Plan has provided the framework for management decisions related to the Hoosier. Amendments have kept the plan current and relevant; however, it has now been 20 years since its inception.

The Notice of Intent (NOI) in November 2000 began the process of revising the Forest Plan. The NOI discussed the Plan revision process and the role of the Forest, and identified potential revision needs. The NOI also established issues that would not be addressed in revision. Six topics were identified as areas of concern in the NOI and potentially should be looked at for change in plan revision.

Only the first three of the following topics were carried forward as issues for analysis in the DEIS.

Watershed Health – The Proposed Forest Plan identifies desired conditions for healthy watersheds and riparian areas. The revision would also include direction to protect and restore watershed health and include updated riparian guidance on NFS lands.

Ecosystem Sustainability – Ecosystem integrity provides the conditions needed to sustain a wide range of habitats and contribute to the viability of all native species and communities.

Recreation Management – The Forest reevaluated the 1987 decision to prohibit off highway vehicle trail use.

Roadless Area Inventory and Evaluation – The Forest roadless inventory was updated in accordance with Forest Service policy. No areas were identified as meeting the requirement for roadless.

Wild and Scenic, Recreation River Recommendations – The Forest does not plan to make a suitability determination during Forest Plan revision.

Scenery Management – Originally the Forest intended to replace the visual quality direction in the current Plan with a new system, but this decision was later reversed.

Issues

The Forest identifies public issues through a variety of means such as the NOI published in the Federal Register, public meetings held for the NOI, comments submitted on

the NOI, and public meetings held for alternative development. Public involvement is an essential element of environmental analysis. The Forest worked

closely with other agencies, universities, local governments, organizations, and individuals to ensure that issues and concerns were captured. As we worked through the revision, developed alternatives, and analyzed effects, we kept people informed through news releases, open houses, workshops, public meetings, and the internet.

As a result of public involvement and Forest Service staff efforts, all but three of the issues were dropped or resolved. The remaining three issues were used in the development of alternatives.

Each issue has indicators that measure existing conditions and potential effects of management activities. Indicators highlight differences between alternatives and summarize the environmental, economic, and social impacts of alternatives. Indicators are both quantitative and qualitative.

Watershed Health

The maintenance of watershed health has been an objective of the Forest Service since the agency began. The Hoosier provides watershed protection amid a variety of land ownerships and uses. Forests dominate the landscape and protect the watersheds by reducing erosion and sedimentation. Roads and trails are located and designed to minimize impacts to riparian areas.

Indicators of Response – Watershed Health

- Suitable Areas for Vegetation Management (acres in each management area)
- Roads (miles of construction and reconstruction)
- Vegetation Treatments (prescription and acres)

Ecosystem Sustainability

Ecosystem sustainability is the maintenance of the various functions of different plant and animal communities and species and their interactions with the non-living components of the environment.

Endangered, threatened and sensitive plant and animal species are important considerations for public land managers. The Hoosier provides a wide range of habitats including closed canopy hardwood forests, forest openings, cave and karst ecosystems, barrens, cliffs, riparian habitat, and limited amounts of early successional forested stands. There are several large parcels of NFS land, but the majority of it is interspersed to varying degrees with private land, offering challenges for sustaining viable populations.

The DEIS considers a new list of management indicator species (MIS) that better respond to current issues. In some alternatives, fire would play a larger role in maintaining forest ecosystems and biological diversity. Desired condition is to reduce the loss of oak-hickory habitat.

The Hoosier proposes to enhance and protect population viability of plant and animal species over time. A species viability evaluation (SVE) was used to identify measures for contributing to viability on NFS lands.

Indicators of Response – Ecosystem Sustainability

- Acres of Available Habitat (SVE species)
- Forest Openings Maintained (acres)
- Species Composition (acres and percent)
- Age Class Distribution (percent of forested area by age class)
- Vegetation Treatment (prescription and acres)

Recreation Management

The Hoosier provides recreational experiences on large blocks of public land and water based facilities.

Competing demands for space by a variety of forest users, such as horseback and mountain bike riders, hikers, anglers, hunters, and mushroom and berry pickers, add to complex issues that forest managers face.

A 1987 Plan amendment for off-road vehicle (ORV) use determined that the Forest would not provide for this use. For the purpose of this analysis, the term “ATV” (all-terrain vehicle) refers to motorized vehicles 50 inches or less in width, with at least three but no more than six low-pressure floatation tires. One alternative would allow for a limited ATV trail on the Forest.

The Forest’s most popular developed recreation facilities are located on reservoirs and provide swimming, boating, fishing, and camping opportunities. The Forest also provides outdoor recreational opportunities, such as dispersed camping, hunting, fishing, and gathering forest products.

The 12,953-acre Charles C. Deam Wilderness is dedicated to wilderness activities and offers the most primitive recreation.

Indicators of Response – Recreation Management

- Access/Transportation (miles of road)
- Output, Jobs, and Income Supported by Recreation
- National Forest Visits

Chapter 2 - Alternatives

- Alternatives provide different ways for meeting the purpose and need and addressing the issues. Each alternative has a different approach to managing natural resources.

The results of analysis of alternatives are detailed in Chapter 3 of the DEIS.

Elements Common to All Alternatives

Five alternatives were studied in detail. They have a number of elements in common including:

- Management of the 12,953 acre Charles C. Deam Wilderness, with no recommendation for additional wilderness designation made to Congress.

- All alternatives follow recovery plans for Federally threatened and endangered species and guidance in the “Biological Opinion on Implementation of the Hoosier National Forest Plan” from the USDI Fish and Wildlife Service.

- Twenty-four special areas and the one existing Research Natural Area are common to all alternatives.
- Oil and gas activities are not considered appropriate uses.
- The areas that surround the Lost and Little Blue Rivers would be managed to protect their future eligibility as Wild and Scenic Rivers.

Alternative Comparison

Each alternative results in a different type and amount of net public benefits and land uses. These five alternatives represent choices for the decision maker to determine the overall best choice, but the final selection may combine the best aspects of more than one alternative.

Alternative 1 – No Action (Current Forest Plan)

This alternative represents the 1985 Forest Plan, as amended. There would be essentially no change from the current operational and policy decisions in place.

- A designated system of multiple use trails would be maintained
- The Forest openings program would continue
- A variety of methods, including timber harvest, would be used to maintain biological diversity and habitat for wildlife
- Prescribed burning would be an important tool for use
- 41 percent of the forest would be available for timber harvest
- It would use mostly uneven-aged harvest methods
- Oil and gas activities would be restricted, though some activities would be allowed on portions of the Forest

Alternative 2

This alternative represents a preservation theme for management of the Hoosier. Only custodial management and that required to provide for Federally threatened and endangered species would occur.

- Areas of solitude would be maximized
- Other than trails and recreation facilities, there would be little visible signs of management
- Manual controls only for nonnative invasive species

- Wildlife habitat would change over time to a late successional seral stage and early successional habitat would be limited
- No timber management
- No oil and gas exploration or development

Alternative 3

This alternative would emphasize management to obtain and maintain a diversity of forest size and age classes including a 13,000-acre area focused on providing early successional forest habitat. It would develop an ATV trail system.

- A designated system of multiple use trails including those for ATVs would be maintained
- The Forest openings program would continue
- A variety of methods, including timber harvest, would be used to maintain biological diversity and habitat for both interior and early successional wildlife species
- Prescribed burning would be an important tool for use
- 55 percent of the forest would be available for timber harvest
- It would use a mix of even- and uneven-aged treatment methods.
- Oil and gas activities would not be allowed

Alternative 4

This alternative has the highest level of vegetation management of the five alternatives. It is similar to Alternative 3 but more aggressive in using even-aged harvests and prescribed fire to provide early successional habitat and oak-hickory restoration.

- A designated system of multiple use trails would be maintained
- The Forest openings program would continue

- A variety of methods, including timber harvest, would be used to maintain biological diversity and habitat for both interior and early successional wildlife species
- Prescribed burning would be an important tool for use
- 55 percent of the forest would be available for timber harvest
- It would use mostly even-aged harvest methods
- Oil and gas activities would not be allowed

- Prescribed burning would be an important tool for use
- 41 percent of the forest would be available for timber harvest
- It would use mostly uneven-aged harvest methods
- Oil and gas activities would not be allowed

Alternative 5 – Preferred Alternative

This alternative is similar to the existing Forest Plan, but adds features such as a 13,000-acre area focused on providing early successional forest habitat.

- A designated system of multiple use trails would be maintained
- The Forest openings program would continue
- A variety of methods, including timber harvest, would be used to maintain biological diversity and habitat for both interior and early successional wildlife species

Management Area Allocations

Fourteen different management areas were considered in the analysis. Each alternative uses a different mix of management areas to move towards the desired conditions.

Although the multiple-use philosophy guides each of the alternatives, multiple use is not interpreted as meaning every use is appropriate for every area or even for every national forest.

Table 1 displays which management areas are in each alternative and how many acres are assigned to each. The mix of activities allowed is often complex, but a short descriptor is provided to help identify the emphasis for the area.

Table 1

APPROXIMATE ACRES OF NFS LAND BY MANAGEMENT AREA (MA)

MA	Description	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
2.4	Major River Corridors	16,900	0	11,238	11,238	16,900
2.8	General Forest (primarily uneven-aged harvests)	102,127	0	0	0	88,919
3.1	General Forest (primarily even-aged management)	0	0	0	88,919	0
3.3	General Forest (even-aged harvest mix)	0	0	13,178	13,178	13,178
3.5	General Forest (uneven-aged harvest with ATV trails)	0	0	88,919	0	0
5.1	Wilderness	12,953	12,953	12,953	12,953	12,953
6.2	Natural Appearing Forest	18,564	41,885	18,564	18,564	18,564
6.4	Natural Appearing Forest (limited vegetative treatment)	23,321	0	23,321	23,321	23,321
7.1	Developed Recreation Areas	6,291	6,321	6,321	6,321	6,321
8.1	Research Natural Areas	88	88	88	88	88
8.2	Special Areas	18,274	18,274	18,274	18,274	18,274
8.3	Experimental Forest	632	632	632	632	632
9.2	Holding Category	0	5,662	5,662	5,662	0
9.3	Natural Appearing Forest	0	113,335	0	0	0

The alternatives are compared using the indicators for each issue. Suitable acres implies the areas appropriate for vegetation management. The watershed indicators are compared by alternative (Table 2).

Table 2

WATERSHED INDICATORS AFTER 10 YEARS

Indicators or Activities	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Suitable Acres for Vegetation Management	81,000	0	112,000	112,000	81,000
Road Reconstruction and Construction (miles projected) ¹	147	6	146	202	147
Even-aged Treatments (acres) ²	16,500	0	39,000	88,000	16,500
Uneven-aged Treatments (acres) ²	64,500	0	73,000	24,000	64,500

¹Based on recent planning efforts, about 18% of the road reconstruction and construction is expected to be construction.

²Available acres, not actual treatment acres, see Table 7.

The acres of available habitat by species were assessed for each of the 19 SVE species identified in the species viability assessment using Habitat Suitability Index models. Table 3 estimates the risk to viability for each species based on viable habitat.

Table 3

FINAL DETERMINATION OF RISK TO HABITAT VIABILITY FOR 19 SVE SPECIES
AT YEAR 150

Species	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
ANIMALS					
American woodcock	High	High	Low	Low	Low
cerulean warbler	Low	Low	Low	Low	Low
Henslow's sparrow	Low	High	Low	Low	Low
Indiana bat	Low	Low	Low	Low	Low
Indiana crayfish	Low	Low	Low	Low	Low
northern bobwhite	Low	Low	Low	Low	Low
northern cavefish	Low	Low	Low	Low	Low
northern river otter	Low	Low	Low	Low	Low
ruffed grouse	High	High	Low	Low	Low
spotted salamander	Low	Low	Low	Low	Low
wood thrush	Low	Low	Low	Low	Low
worm-eating warbler	Low	Low	Low	Low	Low
yellow-breasted chat	High	High	Low	Low	Low
PLANTS					
Carolina thistle	Low	Low	Low	Low	Low
climbing milkweed	Low	Low	Low	Low	Low
French's shootingstar	Low	Low	Low	Low	Low
Illinois Wood-sorrel	Low	Low	Low	Low	Low
prairie parsley	Low	Low	Low	Low	Low
yellow gentian	Low	Low	Low	Low	Low

Another indicator identified was forest openings (Table 4).

Table 4

PERCENTAGE OF THE FOREST IN MAINTAINED PERMANENT OPENINGS

Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
1.6	0	2.5	3	1.6

A shift in forest composition from oak-hickory to maple-beech dominated forest has implications for many wildlife species. The age of the forest and the percent in mature forest also has implications. The comparisons of this indicator are shown in Table 5 and 6.

Table 5

ACRES OF OAK-HICKORY PRESENT AFTER 150 YEARS

Existing	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
130,890	87,612	63,566	104,605	136,981	87,612

Table 6

FOREST AGE CLASS DISTRIBUTION
Projection of 150 Years from Today (Percent)

Age Class	Present Forest	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
0-9	1	1	0	2	3	1
10-39	19	5	3	6	11	5
40-59	12	4	0	3	8	4
60-79	14	3	2	4	7	3
80+	48	81	91	78	64	81
Non-Forested Areas	6	6	4	7	7	6

Non-forested areas related to maintained forest openings, lakes, ponds, streams, and power line right-of-ways

The last indicator for ecosystem management was vegetation treatments. Table 7 displays proposed treatments by alternative.

Table 7

SUMMARY OF PROJECTED VEGETATION TREATMENTS ACRES
(Acres in Decade 1)

Treatment or Activity	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Prescribed Burning in Combination with Timber Harvest ¹	5,720	0	11,350	19,240	5,720
Prescribed Burning Not Accompanied by Timber Harvest	14,280	0	38,650	80,760	14,280
Total Clearcut Projected ²	2,020	0	1,600	6,020	2,020
Total Shelterwood Projected ²	840	0	4,070	3,600	840
Total Single-tree Selection	1,110	0	3,820	5,160	1,110
Total Group Selection ³	2,850	0	1,270	0	2,850
Total Harvest	6,820	0	9,730	14,780	6,820

¹ Burning with timber harvest would burn half the stated acres but burn each acre twice.

² Includes both hardwood and pine acres

³ For group selections, the acreage shown is the area of actual treatment, which would take place in a total stand acreage approximately three times as large.

Indicators under the recreation issue do not demonstrate substantial differences by alternative (Table 8).

Table 8

SUMMARY OF RECREATION INDICATORS

Indicators	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Miles of road open for public vehicle travel	61	59	61	64	61
Recreation Visits	663,790	662,790	676,790	663,790	663,790
Output (\$ millions)	\$14.08	\$14.05	\$14.354	\$14.08	\$14.08
Employment (jobs)	185	184	189	185	185
Income (\$ millions)	\$3.618	\$3.608	\$3.702	\$3.618	\$3.618

Chapter 3 – Environmental Consequences

Chapter 3 describes the current condition for the Forest and the environmental effects that would be expected as a result of implementing each alternative.

This chapter is organized by the eight Forest goals that are common to all alternatives. Resources within each goal are discussed, first describing the current condition and then the effects of implementing the alternatives. Identified Forest goals are:

- Conserve Federally endangered and threatened species habitat
- Maintain and restore sustainable ecosystems
- Maintain and restore watershed health;
- Protect cultural heritage
- Provide for a visually pleasing landscape
- Provide recreation use in harmony with natural communities
- Provide a useable land base
- Provide for human and community development

The following is a summary of each resource section in Chapter 3 of the DEIS.

Conserve Federally endangered and threatened species habitat

The USDI Fish and Wildlife Service has identified five Federally listed species as having ranges that likely include the Hoosier:

- the endangered fanshell mussel
- the endangered gray bat
- the endangered Indiana bat
- the endangered rough pigtoe
- the threatened bald eagle

None of the alternatives would adversely affect habitat of any of these animals. Proposed activities have the potential to adversely affect individual animals, but measures will be incorporated to decrease that risk. In addition, some of the activities would tend to improve overall habitat for the species.

Maintain and restore sustainable ecosystems

This goal includes many different aspects of the ecosystem - air, sensitive species, nonnative invasive species, wildlife, aquatic ecosystems, etc.

Air Quality – The major impact to air quality would be from wildfires and prescribed burning implemented in Alternatives 1, 3, 4, and 5. The Hoosier implements most prescribed burning in the spring and fall when smoke would dissipate quickly. To minimize air quality impacts, all prescribed burns would have an approved burn plan and would include smoke management measures. Alternative 2 would not conduct any prescribed burning. Effects of dust from timber harvesting and smoke from prescribed burning would be negligible if mitigated. Emissions from wildfire are minimal.

Animal Communities – The DEIS discusses the various habitat components on the Forest: early, mid, and late-successional habitats as well as barrens and oak-hickory forests. Five management indicator species (MIS) were selected to represent habitat types found on the Forest.

- Acadian flycatcher – mature, mesic forests with shrubby understory
- American woodcock – early successional habitats, openings, and mixed age forests
- Louisiana waterthrush – mature riparian forests with sparse undergrowth
- Wood thrush – interior and edges of deciduous and mixed forests with moderate to dense understory
- Yellow-breasted chat – early successional habitat, moderate to dense understory

In addition, 19 species were analyzed in the species viability evaluation. Chapter 3 examines the effects on each of the 10 principal community types represented by one or more of these focal species.

As a result of the analysis, biologists realized the early successional and open/shrubland habitat was limited on the Forest and the viability of the species dependant on these habitat types was at risk. In response to this concern, we developed Management Area 3.3 and added it to Alternatives 3, 4, and 5. Early successional habitat could be concentrated

in that management area in proximity to mature forest to provide viability for species that need these interspersed habitats.

The DEIS analyzed the effects of vegetative treatments on habitat and the correlation to wildlife populations. A major concern is the projected change in forest type from oak-hickory to beech-maple and the effect this would have on wildlife species. The DEIS discusses the effects of converting nonnative pine stands to native hardwoods and how those few species that use pine would be affected by this conversion.

Plant Communities – Although central hardwood forests are dominated by oak-hickory, that component is now declining. Currently 77.7 percent of the Forest is in hardwoods.

Although 16.3 percent of the Forest is currently in conifer stands, these are nonnative species and were planted to stabilize soils. The remaining landbase includes 3.6 percent in openland and shrubland, 1.1 percent aquatic, and 1.3 percent in rocky area, roads, and other non forested areas.

Vegetative management activities play a key role by mimicking natural disturbance in plant communities, and the effects vary greatly in the amount and type of activity by alternative. Alternative 2 includes no vegetation management and provides for no early successional forest habitat. Each alternative varies in the mix of even and uneven-aged management, which result in different types of residual stands.

Caves and Karst – Management of cave and karst features does not vary by alternative. All caves on the Hoosier will be evaluated and managed under direction of the Federal Cave Resources Protection Act of 1988 and 36 CFR 290.

Fire and fuels - This includes the use of prescribed fire in managing fire dependant ecosystems, reducing fuel buildups, and

reducing the occurrence of wildfire. Road closures would reduce access and make fire suppression more difficult.

Insect and disease - Alternative 2 would only allow for manual control measures.

Nonnative invasive species (NNIS) - pose a threat to forest health and diversity. A comprehensive strategy is proposed, but the effectiveness of implementing it varies by alternative.

Special Areas and Research Natural Areas (RNA) – Management in these areas does not vary by alternative.

Maintain and Restore Watershed Health

Watershed health is closely linked with sustainable ecosystems. Portions of the Forest occur in 20 fifth-level watersheds that have different amounts of NFS ownership, roads, and developments. Proposed Plan direction, Best Management Practices, site-specific planning, and project design would result in negligible effects to these resources.

Soil – The DEIS looks at each of the proposed ground-disturbing activities and how the effects might be reduced. No cumulative adverse impacts are likely to result.

Water Quality – Miles of roads, number of road crossings, and potential vegetative management activities all have the potential to affect water quality. No cumulative adverse impacts are likely to result.

Aquatic Habitat – Habitat in streams, lakes, and ponds on the Forest are analyzed, and management challenges to improve these habitats were addressed. Effects from nonnative species, sedimentation, and other activities were compared by alternative.

Municipal Watersheds – No adverse impacts were found to Patoka Lake or Lake Monroe by any proposed activities.

Protect Cultural Heritage

All alternatives would provide protection for cultural resource sites, and all alternatives would conduct inventories on lands that could be affected by ground-disturbing projects.

Provide for a Visually Pleasing Landscape

Short-term effects from timber harvesting and prescribed burns are discussed. Permanent openings, barrens, and wetlands add visual variety through their small size, natural-shaped edges, wide distribution, and their diverse vegetation.

Provide Recreation Use in Harmony with Natural Communities

Under all alternatives, the Forest would continue to provide developed and dispersed recreational opportunities. Trails would be maintained in all alternatives, but Alternative 2 would limit future trail construction to hiking trails only. Alternative 2 would seasonally close trails. Alternative 3 would allow for development of an ATV trail system and close some trails seasonally.

Provide a Useable Land Base

Many of the issues arising on the Hoosier result from an inadequate land base. Current ownership has not been adequate to meet the demands placed on the Forest. A larger landbase could more easily provide areas for different uses. Under all alternatives, the Forest would continue to acquire land as opportunities arose.

Road maintenance would continue with any of the alternatives, but Alternative 2 would appreciably limit any new construction.

Provide for Human and Community Development

Social and Economic Impacts – In partnership with Indiana University, the Forest completed a social assessment in 2001. The assessment evaluated public perceptions about forest management and forest-related values.

There were few differences in the expected social and economic impacts of the

alternatives other than the effects of timber harvesting. Table 9 displays the projected output, income, and employment for the alternatives. Alternative 2 provides the most change from Alternative 1, due to decreased timber harvesting. Alternative 4 provides the greatest increase over Alternative 1, again primarily due to the level of timber harvest (increased). Alternatives 1 and 3 are very similar in their economic effects. Alternative 5 is identical to Alternative 1.

Table 9

OUTPUT AND INCOME SUPPORTED BY ALTERNATIVES

	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Output (\$ Millions)	47.154	24.520	49.038	52.942	47.154
Income (\$ Millions)	16.802	7.057	17.642	20.498	16.802
Employment (Jobs)	551	242	573	672	551

Source: Minnesota IMPLAN Group, IMPLAN model with modification by Northwest Economic Associates

As stated, the level of timber harvesting varies by alternative. Allowable sale quantity is the maximum amount that may be harvested from suitable lands in any alternative, while still maintaining a sustainable supply of timber products. Measured in million board feet per decade, the alternatives’ allowable sale quantities are:

- Alternatives 1 and 5 – 57.6 MMBF

- Alternative 2 – 0 MMBF
- Alternative 3 – 62.3 MMBF
- Alternative 4 – 94.7 MMBF

Minerals – Though Alternative 1 and 5 allow for gypsum exploration and development in one area of the Forest, mineral developments are otherwise prohibited in all alternatives.

Appendices

There are several appendices to the DEIS.

Appendix A – Issues, Concerns, and Opportunities and Public Involvement

Appendix B – The Analysis Process

Appendix C – Oil, Gas and Minerals

Appendix D – Roadless Area Inventory and Wilderness Evaluation

Appendix E – Recreation Opportunity Spectrum

Appendix F – Wild and Scenic Rivers

Appendix G – Management Indicator Species

Appendix H – Species Viability Evaluations

Appendix I – Glossary

Other Information

Included in the map folder accompanying the DEIS are maps for each alternative displaying management areas. This provides information on what activities are allowed in what areas of the Forest.

Maps, the DEIS, Proposed Plan, and other information are available on line at www.fs.fed.us/r9/hoosier/forestplaninfo.htm or copies are available on CD from the Hoosier National Forest office in Bedford.

For more information or to obtain a copy of the DEIS and Proposed Plan contact:

Judi Perez
Hoosier National Forest
811 Constitution Avenue
Bedford, IN 47421
812-275-5987

email: r9_hoosier_website@fs.fed.us

For deaf or hearing impaired, the Federal relay number is 1-800-877-8339.