

United States  
Department of  
Agriculture

Forest  
Service

Eastern  
Region

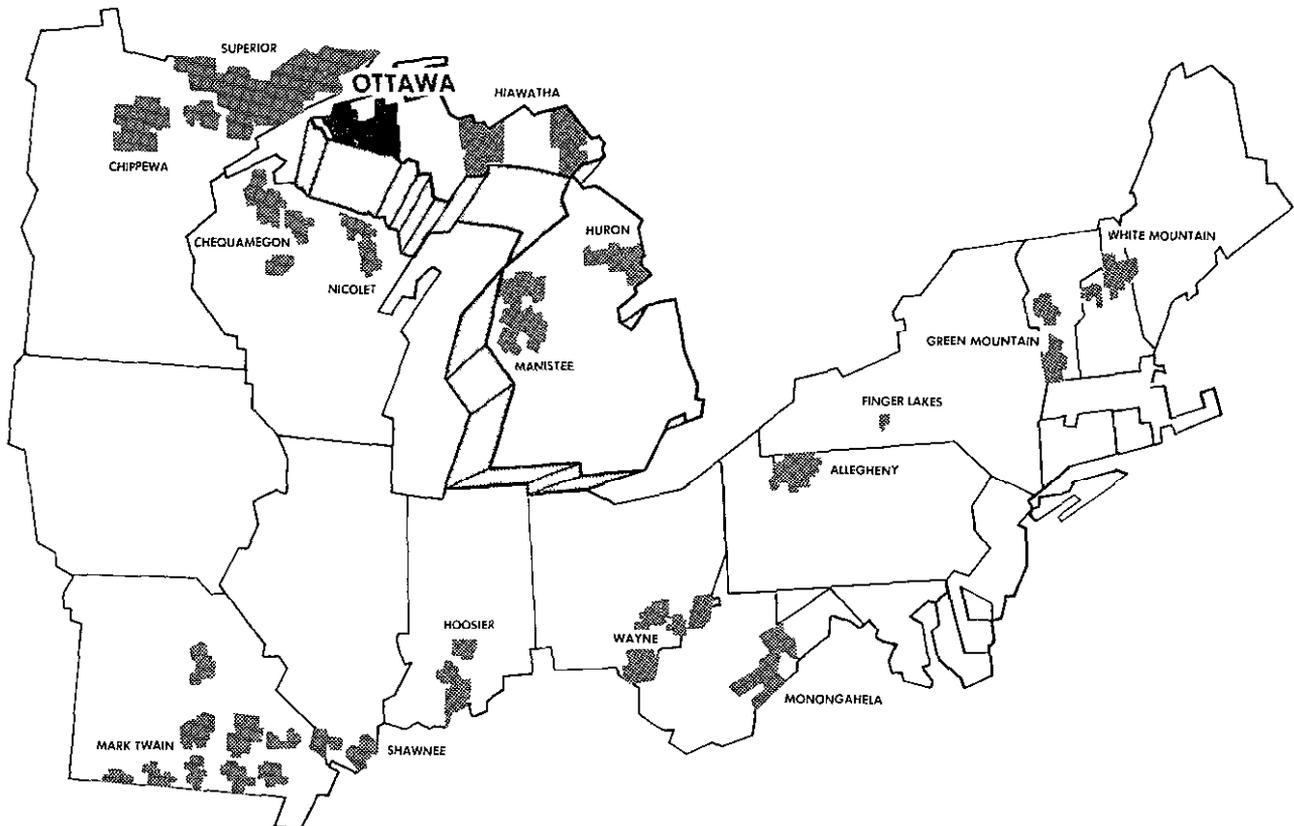


1986

# Record of Decision

## Final Environmental Impact Statement Land and Resource Management Plan

### OTTAWA NATIONAL FOREST



RECORD OF DECISION  
FOR  
USDA, FOREST SERVICE

Final Environmental Impact Statement  
Ottawa National Forest  
Land and Resource Management Plan

Baraga, Gogebic, Houghton, Iron, Marquette,  
and Ontonagon counties,  
Michigan

Ottawa National Forest  
Record of Decision  
Forest Plan

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## Introduction

This Record of Decision approves the Ottawa National Forest Land and Resource Management Plan (Forest Plan) and gives reasons for the selection of the preferred alternative as the Forest Plan.

A Forest Plan for each National Forest is required by the regulations implementing the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA). The purpose of the Forest Plan is to provide for multiple-use and sustained-yield of goods and services from National Forest System lands in an environmentally sound manner.

A revision of the Forest Plan will be scheduled at the end of 10 to 15 years. The Plan may be revised sooner if conditions or demands change significantly. The Forest Plan has been prepared following the Code of Federal Regulations established for National Forest System land and resource management planning. These regulations were published in the Federal Register, Volume 47, page 43,026, on September 30, 1982.

The Forest Plan is a companion document to the Final Environmental Impact Statement (Final EIS). The Final EIS has been prepared following Forest Service and Council on Environmental Quality regulations implementing the National Environmental Policy Act (NEPA).

The Final EIS describes the range of alternatives that were considered and discloses their significant environmental effects. Each alternative could have been the basis of the Forest Plan. One alternative has been further developed as the Ottawa National Forest Land and Resource Management Plan.

Planning records contain the detailed information and decisions used in developing the Forest Plan and Final EIS. These records are available for review at the Forest Supervisor's Office, located at:

Ottawa National Forest  
East US-2  
Ironwood, MI 49938  
(906) 932-1330

Legal references are incorporated in Attachment A of this document.

## The Ottawa National Forest

Established in 1931, the Ottawa National Forest is located in the extreme western end of Michigan's Upper Peninsula. Its 928,441 acres are within a day's drive of Detroit and Lansing, Michigan; Chicago, Illinois; Milwaukee, Madison, and Green Bay, Wisconsin; and St. Paul-Minneapolis, Minnesota. The Forest borders Lake Superior on the north and Wisconsin on the west and south. Some of the south boundary adjoins the Nicolet National Forest.

In the 19th and early 20th centuries, the forest that is now the Ottawa National Forest was cut to provide raw materials for a growing country, including the burgeoning iron mines of the western Upper Peninsula. The pines were cut first. Later, the hardwoods and hemlock were cut starting about 1910.

Wildfires followed much of the early logging. These fires not only consumed the logging debris, but also drastically altered the soils and the forest vegetation.

In 1911, Congress passed the Weeks Law which authorized the federal government to purchase "forested, cutover, or denuded" land for soil and water protection. While the Weeks Law enabled the creation and expansion of the Ottawa National Forest, it also gave the Forest a legacy of heavily roaded and mostly cut-out and burned-over land.

As the towns and villages grew with the iron mining industry, tourism began to become an important industry about 1920.

Unlike the western National Forests, which are characterized by solid public ownership, the Ottawa National Forest is a mixture of public and private lands. About 40 percent of the land within the boundary of the Forest is still privately owned.

The acquisition of cutover and unwanted lands coupled with a new nationwide natural resource consciousness in part led to the creation of the Civilian Conservation Corps (CCC). From 1933 to 1942, the CCC had a great deal to do with making the Ottawa National Forest the working forest it is today.

The boys of the CCC planted trees on more than 44,000 acres, manned fire towers, put out forest fires, built roads, offices and dwellings, improved fish and wildlife habitat, built recreation facilities, and helped develop the J.W. Toumey Nursery at Watersmeet, Michigan.

As William E. Shands and Robert G. Healy wrote in The Lands Nobody Wanted, "The rehabilitation of the eastern national forests ranks as one of the most remarkable conservation achievements of this century. These national forests are now a treasure store of scenic, timber, wildlife, mineral, wilderness, and recreational resources. The land that nobody wanted is back in demand."

Over the years, the people who have worked on the Ottawa National Forest have carried on in the CCC tradition. Because of this, the Forest today offers a full spectrum of opportunities to live, work, and recreate in a diverse wooded setting that changes with the seasons.

Outstanding scenic beauty abounds in the Forest's steep to level terrain, rock outcrops and ledges, lakes and rivers of many shapes and sizes, and a mix of forest vegetation. The Forest's scenery is ever-changing. Most spectacular is the northern hardwoods' autumn color display.

The Ottawa National Forest contains more than 500 lakes and 1,500 miles of streams and rivers. Most are remote but they attract anglers, campers, hikers, and other recreationists. Most of the Forest's campgrounds and picnic areas are located on lakes or rivers.

Walleye pike, bass, and the ever popular pumpkinseed sunfish, bluegill, and perch cruise the depths of the forest's many fishing lakes. Almost all the lakes have little to no shoreline development. Campers and fishermen often hear the distinctive call of the loon.

The streams and rivers sport some of the finest trout fishing and white water canoeing found in the upper Midwest. Spectacular waterfalls are common. Most of these same rivers offer excellent steelhead trout and salmon fishing in the spring and fall as these fish make their annual spawning runs from Lake Superior.

Wildlife, including the white-tailed deer, ruffed grouse, black bear, beaver, otter, and mink, are plentiful. A wide variety of songbirds and waterfowl inhabit lake and stream edges.

The Ottawa National Forest is bald eagle country. More than 30 pairs nest here. They are commonly sighted near the lakes in the southern part of the Forest and especially in the Sylvania Recreation Area.

Hiking, backpacking, hunting, and wildlife viewing opportunities are abundant on the Forest. The North Country National Scenic trail crosses the northern part of the Forest linking Black River Harbor on Lake Superior with the Porcupine Mountains Wilderness State Park and the scenic and historical Norwich Bluffs.

Hunters on the Ottawa National Forest find the bucks big and the woods uncrowded.

Off-road vehicle users find year-round fun, including opportunities for snowmobiles and all-terrain vehicles. Use of the designated trail system is encouraged. This system of trails spans the Forest and is operated and maintained in cooperation with other government agencies and private organizations.

The winters are cold and long with an abundance of snow. But the over 200 inches received in some areas turns the Forest into a

winter wonderland. Ice fishing, cross-country and downhill skiing make winter as popular for recreation as summer. The Forest provides outstanding opportunities to downhill ski at one of several area ski resorts or to cross-country ski at one of several popular areas operated in cooperation with private organizations.

The Forest today is composed of predominantly broadleaf trees such as sugar and red maple, aspen, ash, and birch. Small to medium size northern hardwoods and mature aspen are most common. Mixed stands of deciduous and conifer trees are also common. Many of the aspen and balsam fir stands are rapidly maturing and converting naturally to hardwoods.

However, today's forest has more species and ages of trees than the forest of the mid-1800s. It is this present mix of tree species and ages that provides the scenic beauty through the changing seasons, the variety of timber products available from the Forest, and the diverse habitats needed to sustain the variety of wildlife species.

## Vision of the Future

The basic role of the Forest Service is caring for the land in its charge and serving people. This requires a balanced consideration of all forest resources in meeting the present needs of society, as well as those of future generations. The Forest Service follows a prudent land ethic to ensure protection of the land and to maintain its long-term productivity. An integrated interdisciplinary approach is required to make this ethic effective in on-the-ground management of National Forest programs and projects.

Through the implementation of the Forest Plan, the Ottawa National Forest will provide a variety of resource uses, recreational opportunities, and services to the public while ensuring protection of soil, water, visual, and cultural resources, and all native plant and animal species.

The Forest will continue to be a diverse forest. The visitor will find a mosaic of lakes, streams, rivers, and wetlands among stands of northern hardwoods, aspen, and pines. Stands of mature, large diameter trees will be found as well as stands of younger, smaller trees. The forest canopy will be interspersed with temporary and permanent openings to provide a diverse landscape and wildlife habitat. Some of these openings will be intermittently used for log landings and dispersed camping sites. Tree species will remain about the same type and abundance as now but may be arranged differently to increase diversity. Such diversity will benefit both visual and wildlife resources.

Habitat conditions for game and nongame wildlife species will be managed to maintain current wildlife populations on the Forest. Special emphasis will continue in the management and protection of the threatened bald eagle to increase the numbers of our national symbol. Suitable habitat for the endangered gray wolf and peregrine falcon will be provided to increase their numbers.

Habitat conditions within lakes, rivers, and streams for warm- and cold-water fish species will be improved. Emphasis will be on lakes with existing recreation facilities and streams with top quality trout habitat potential.

Cooperative wildlife and fisheries management efforts with other public agencies and private organizations will continue.

Recreational opportunities on the Forest will range from highly developed recreation sites to dispersed recreation uses within semiprimitive nonmotorized areas. No new campgrounds or picnic areas or boat access facilities will be constructed. Instead, opportunities for dispersed recreation uses will be emphasized. These uses include hunting, fishing, hiking, cross-country skiing, canoeing, snowmobiling, remote camping, and the observation of natural features and wildlife.

Thirty-two areas totaling about 219,000 acres will receive special management. These include an existing research natural area, semiprimitive motorized and nonmotorized areas, and other unique areas. Two areas will be evaluated for their potential as research natural areas. Fifteen rivers will be studied to determine their potential for nomination to the National Wild/Scenic River System. Three areas will be studied or recommended for wilderness designation. One area will be dedicated for possible development for downhill skiing.



Timber management activities will be closely coordinated with wildlife habitat needs. Commercial timber sales will provide the most cost-efficient opportunity to manage wildlife habitats with minimum costs or no investment. Timber harvesting will be used to regenerate mature stands of trees. This will provide better habitat conditions for deer, grouse and many wildlife species that inhabit young forests. Other stands of trees will be managed as "old growth" to provide larger and older trees for visual diversity and for those wildlife species associated with old growth, such as the barred owl and goshawk.

In response to a growing demand for timber products, timber output is scheduled to increase with the most significant increase occurring in the production of hardwood pulpwood. Moderate increases in the production of hardwood sawtimber and aspen products will help satisfy the increasing demand for wood products. Management of the northern hardwoods will emphasize uneven-aged management. Considerable hardwood acreage will still be managed under the even-aged silvicultural system.

Emphasis will be on natural reforestation rather than tree planting.

The Forest will have fewer roads. Many of the roads built before the establishment of the Ottawa National Forest will not be used and will be allowed to return to vegetative productivity.

About 30 miles of local road will be built annually, primarily to provide access for timber management. Most of these roads will be designed as low-standard roads that lay lightly on the land. Most will be built on old existing road locations. Many will be closed after timber harvesting to protect other resources and to provide nonmotorized recreation opportunities such as hunting.

Standards and guidelines will be followed for all management practices to ensure the protection of all the natural resources of the Forest and to meet all minimum legal requirements.

Many practices and activities will not change. The standards and guidelines that have been successfully used in the past will be continued. New standards and guidelines have been established where previous guidance was lacking.

Accomplishment of this vision will require Forest Service employees to listen to the public and respond to their needs promptly and with courtesy and fairness. It will require an understanding of National Forest objectives and being good neighbors, working together, and inviting the involvement of others.

## The Decision

This decision is to approve the Forest Plan identified as Alternative 7 in the Final EIS. This alternative is further developed in the companion document entitled Ottawa National Forest Land and Resource Management Plan. The Forest Plan provides for the multiple-use and sustained-yield of goods and services in an environmentally sound manner.

The Plan provides for the flexibility to meet changing social and economic demands.

The environmental consequences of the Forest Plan and all other alternatives have been fully analyzed. These are described in the Final EIS, Chapter IV and compared in Chapter II.

The positive and negative qualitative effects of all alternatives were also considered, along with responses to the issues, concerns, and management problems. The analysis of the public comments is discussed in Chapter XI of the Final EIS.

By this decision, the Forest Plan will guide the application of all natural resource management practices on the Ottawa National Forest. Management direction in the form of standards and guidelines will be used to work toward attainment of the desired future condition of each management prescription described in Chapter IV of the Plan. The Forest Plan Management Area Map displays the location of these prescriptions.

No decisions on site-specific projects are made in the Forest Plan. The projects identified in various parts of the Plan or Final EIS are included in order to clarify discussions, illustrate Forest Service intent, or to demonstrate that the Forest Plan goals and objectives can be achieved. Decisions on site-specific projects will be made after appropriate analyses and public involvement meeting National Environmental Policy Act (NEPA) requirements through the integrated resource management process.

This decision narrows the scope of future environmental analyses to be performed for actions arising from the Forest Plan. Plan direction and the Final EIS information will be used in future environmental analyses and documents through tiering. The Forest Plan and Final EIS are treated as combined documents for purposes of National Environmental Policy Act (NEPA) disclosure and tiering. Environmental analyses will focus on issues, concerns, alternatives, and environmental consequences specific to the actions being considered.

Future options are not foreclosed by this Plan. For example, timber outputs could increase significantly in the future if the wood-using industry continued to expand and the public supported increased timber outputs. The Plan is flexible and can be changed, as needed, to respond to new issues or to keep pace with changing public needs and desires.

Some of the major aspects of the decision are:

Habitat Conditions Habitat will be provided to support viable populations of all native wildlife species, including endangered and threatened species such as the bald eagle. This will be done by providing a mix of forested and nonforested vegetative conditions in sufficient quantity and appropriate spatial arrangements. These conditions will include permanent and temporary openings, wetlands, a variety of forest cover types and age classes from young regenerating conditions to mature, old growth conditions. In addition to this vegetative variety, human access will also be controlled in some areas to provide suitable habitat for some species such as the gray wolf.

Deer and Grouse Habitat Habitat for white-tailed deer and ruffed grouse will be emphasized where there is the greatest opportunity to enhance this habitat and the associated recreation uses through integrated management of the vegetation. About 138,000 acres of aspen type will be maintained. Management of the aspen type will be emphasized where it is most beneficial to deer and grouse and the associated recreational use. About 150,000 acres of thermal cover will be retained in association with deer habitat.

Remote Habitat About 256,000 contiguous acres with adequate prey base and road density of less than 1 mile of open road per square mile have been established for the gray wolf and other wildlife species that require remote habitat conditions.

Fish Habitat Improvement Fish habitat improvement will be emphasized in top quality trout streams, lakes with existing recreation developments, and other selected lakes.

Management Indicator Species Thirteen wildlife and fish management indicator species have been selected and will be monitored to indicate the effects of management practices.

Roadless Areas Three of the four roadless areas totaling about 50,000 acres are recommended for wilderness designation (Sturgeon Gorge) or wilderness study (Sylvania and McCormick). Norwich Plains is recommended for nonwilderness and will be managed for semiprimitive motorized recreation opportunities.

Semiprimitive Areas About 51,000 acres of semiprimitive motorized and 164,000 acres of semiprimitive nonmotorized areas have been established throughout the Forest.

Roads	<p>An average of 30 miles of local roads will be constructed annually, much of which will be on existing old road locations (reconstruction). Emphasis will be on lower standard roads, most of which will be built on existing old road locations in short, dead-end segments. Maximum use of existing roads will be made for access purposes.</p> <p>Road closures will increase noticeably throughout the Forest to provide remote habitat conditions for wildlife and nonmotorized hunting and fishing opportunities, to protect road investments, and to provide other semiprimitive recreational opportunities.</p>
Special Areas	<p>Fifteen federally inventoried candidate wild/scenic rivers will be protected until evaluated for possible inclusion in the National Wild and Scenic Rivers System.</p> <p>Two proposed candidate Research Natural Areas will be evaluated. Bergland Hill will be protected to retain its potential for development as a winter sports area.</p> <p>That portion of the North Country National Scenic Trail that crosses National Forest System lands on the Ottawa National Forest will be completed.</p>
Allowable Sale Quantity	<p>The allowable sale quantity for the 10-year Forest Plan period is 131 million cubic feet (MMCF) (780 million board feet (MMBF)), which would average 13.1 MMCF (78 MMBF) per year.</p>
Product Mix	<p>The allowable sale quantity will include a mix of sawtimber and pulpwood products of different species consistent with demand for those products. The volume of hardwood sawtimber will be increased slightly from current levels; aspen products will be increased a moderate amount. Substantial increases in the output of hardwood pulpwood are planned, while the production of softwood products will decline slightly from current levels.</p>
Hardwood Management	<p>The northern hardwood forest type will be managed using a combination of both uneven-aged and even-aged management. The uneven-aged system will be the predominant system (60 percent of the type where vegetative management practices are planned).</p>
Reforestation	<p>Natural reforestation will be emphasized. Artificial reforestation will be reduced from current levels by about 45 percent.</p>
Clearcutting	<p>The amount of clearcutting will remain at about the current level of 4,800 acres per year. The acreage of temporary openings created from shelterwood removal cuts will increase by about 200 acres per year over current levels.</p>

## Reasons for the Decision

This section describes the reasons for the decisions in the Forest Plan. These reasons were derived from the issues, concerns, and opportunities identified through the planning process, as well as the public comments on the Draft EIS and proposed Plan. (Chapter XI, Response to Public Comments in the Final EIS summarizes the comments received and the responses.)

No single factor determined the decision. Rather, all factors were considered and weighed in making the decision. Based on consideration of all factors, including monetary and nonmonetary costs and benefits, the approved Plan sets a course that is expected to result in the greatest net benefit to the public. Factors including supply potential, demand, economic efficiency, responsiveness to public issues and comments, and environmental effects were considered in a systematic, interdisciplinary manner in reaching this decision. This information was used to analyze trade-offs among alternatives and to determine the course of action that will maximize net public benefit.

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### Response to the Issues and Concerns

One of the major reasons for selecting a proposed course of action is how well it responds to public issues and management concerns. Since many issues and concerns conflict, it is not possible to resolve all issues and concerns to everyone's satisfaction. Also, resolution of an issue or concern is perceived differently by different people. The major issues that influenced the decision are discussed below.

### Habitat Conditions

When compared to the other alternatives in the final EIS, the Forest Plan does not maximize the habitat conditions for any one particular group of wildlife species. However, it does provide for a great variety of habitat conditions.

The Forest Plan maintains a relatively high acreage of aspen type compared to the other alternatives. It also provides a more balanced mix of uneven-aged and even-aged hardwoods and the resulting multiple use benefits than most of the other alternatives. This will result in a great variety of habitat conditions within the hardwood type from young growth to old growth conditions. The acreage of conifer type also increases slightly.

Some comments received expressed concern that the proposed Plan emphasized habitat for game species of wildlife at the expense of nongame species.

Some species such as deer and grouse are discussed at length in the Plan due to a high level of public interest. This Forest Plan continues to maintain viable populations of both game and nongame species of wildlife by providing a wide range of vegetative community types. The variety of habitat conditions provided are designed to provide adequate habitat conditions for all species of wildlife including game and nongame species. These conditions include old growth, snags, cavity trees,

riparian areas, and openings. Nongame species given special attention are those listed as threatened or endangered in the Plan.

Deer and Grouse  
Habitat

Deer and grouse depend on young forests and aspen. The Forest Plan provides for management of aspen and thermal cover and creation and maintenance of a moderate acreage of temporary and permanent openings in order to maintain Forestwide populations of deer and grouse at present levels. Deer and grouse habitat improvement will be emphasized to increase hunting opportunities in areas of the Forest more commonly hunted and in winter deer ranges.

The Forest Plan increases the emphasis on aspen management to maintain the aspen type and to provide important habitat for deer, grouse, and many other species of wildlife. It provides for a relatively high level of aspen products as compared to the past and nearly accommodates projected demands.

Although some of the aspen type acreage will be lost due to natural succession to hardwoods or conifers, the amount of aspen type maintained was the second highest of any of the alternatives considered in the Final EIS. The amount of aspen type maintained was increased in the Final Plan to 138,000 acres from 126,000 acres in proposed Forest Plan.

The comments received strongly supported management of aspen type due to aspen's importance to many species of wildlife as well as its importance to the local forest products industry.

An adequate amount of thermal cover type will be retained to maintain the current population of deer. The hemlock type will be retained and regenerated over time to the extent practicable.

Remote Habitat  
and Endangered  
and Threatened  
Species

Endangered and threatened species receive the highest priority and full consideration in the management of all wildlife and fish species habitats.

Forestwide management direction, standards, and guidelines have been developed to protect and provide habitat for threatened and endangered wildlife species. The standards for habitat objectives and protection for the gray wolf, bald eagle, and peregrine falcon were established in the Forest Service Regional Guide, and are identified in Plan, Chapter IV, 2600 Wildlife Habitat Management.

The population goal of four viable wolf packs is the Forest's share of a Regional goal for recovery of the wolf. The available prey base was analyzed and indications are that it is adequate to support the goal of four wolf packs. The planning involved consultation with the Michigan and Wisconsin Departments of Natural Resources, U.S. Fish and Wildlife Service, and the other National Forests in Wisconsin and Michigan.

As a result of those consultations with others and through an analysis of potential habitat conditions on the Forest, an area

of 256,000 contiguous acres in the southern portion of the Forest has been identified as potential wolf habitat. This area is adjacent to similar habitat in Wisconsin. This is in response to public comments on the proposed Plan that the size of areas for wolf habitat was too small and fragmented.

In the Fish and Wildlife Service's official biological opinion, the Forest Plan meets federal laws and regulations and is in compliance with federal recovery plans for all endangered and threatened species including the gray wolf, bald eagle, and peregrine falcon.

The active timber harvest program of the Forest Plan is essential to maintaining an adequate prey base for gray wolf, which consists primarily of white-tailed deer and beaver.

The area will also provide suitable habitat for other species requiring remote habitat such as the black bear, lynx, and pine marten.

Road management and public acceptance are the key factors in wolf recovery. Roads will be managed in the area to provide no more than one mile per square mile of road open to public travel which can support four-wheel drive vehicles. For the most part, the existing road density in this area is below this density now. Some existing roads and most new roads will be closed. Roads built in the future in excess of that density will be gated or otherwise closed to vehicular access.

Efforts will be made to enlist public support and to further public understanding of the need to protect and provide suitable habitat for the gray wolf.

Fish Habitat  
Improvement

Fisheries habitat improvement will be emphasized in top quality trout streams, lakes with existing recreation developments, and other selected lakes. The reason for this decision is to invest fisheries habitat improvement funds in areas that are most heavily fished. These are generally the top quality trout streams and lakes with existing recreational developments. The intent is to enhance the greatest number of recreational opportunities associated with fishing.

This direction was essentially the same for all the Forest Plan alternatives in the Final EIS.

The trade-off may be that some lakes with a high biological potential for certain species of fish are a low priority for fish habitat improvement work, if no recreational developments exist.

Management  
Indicator  
Species

Management indicator species (MIS) are animals selected as representatives of Forest management's effects on fish and wildlife habitat. Thirteen species were selected for one or more of the following three reasons.

- (1) They are emphasis species, that is species to be managed as key resources on the basis of issues, concerns, and opportunities, (for example endangered, threatened, sensitive, game, or special interest species). Species selected as emphasis species for the Ottawa National Forest are white-tailed deer, ruffed grouse, bald eagle, and brook trout.
- (2) They are indicators of special habitat conditions or species that require special habitat such as riparian or old growth vegetation. Species selected because of special habitat needs are white-tailed deer, ruffed grouse, osprey, bald eagle, goshawk, blackburnian warbler, common loon, American bittern, barred owl, northern pike, and brook trout.
- (3) They are indicators of cumulative forest ecosystem change, generally species with large home range and requiring a diversity of habitats. Species selected as cumulative effects indicators are white-tailed deer, black bear, goshawk, brook trout, smallmouth bass, and barred owl.

Management indicator species will be monitored according to the monitoring requirements identified in the Forest Plan, Chapter V, Implementation, Monitoring, and Evaluation.

#### Roadless Areas

The Forest Plan includes a decision as to which of the four existing roadless areas on the Forest should be recommended for wilderness designation, for wilderness study, or for nonwilderness. Public comments were received both for and against wilderness. Specific comments included concern about use of motors on lakes in Sylvania where the use is currently allowed, fire protection, air quality restrictions, and whether hunting, fishing, and trapping would be affected by wilderness designation.

The Forest Plan recommends Sturgeon Gorge for wilderness designation and Sylvania and Cyrus H. McCormick Experimental Forest for wilderness study. In total, this involves about 50,000 acres, or about 5 percent of the Forest.

The Norwich Plains roadless area will be managed as semiprimitive motorized area under management prescription 6.2.

The Ottawa National Forest currently contains no designated wilderness. A portion of designated wilderness within the Forest would be consistent with multiple use management practices by adding to the biological and physical variety including wildlife habitat in an old growth setting and increasing the range of recreation opportunities.

Based on public comment, there was very little support for recommending Norwich Plains for wilderness study. The management of Norwich Plains as a semiprimitive motorized area is also considered more compatible with the existing uses on National Forest and adjacent private lands.

Timber within Sturgeon Gorge, Sylvania, and McCormick is not included in the Forest timber inventory nor is it considered in determining the Forest's allowable sale quantity. Therefore, if all three areas were designated wilderness, there should be no loss of planned timber production. Regardless of designation, it is doubtful that any of the three areas would be considered for timber sales because of the unique values other than timber that they provide.

Motorboat usage on Crooked, Big Bateau, and Devil's Head lakes in Sylvania would continue unless specifically prohibited or restricted in legislation designating Sylvania as wilderness.

All fires within wilderness will be promptly suppressed. No prescribed fires, either natural or human caused, will be allowed.

There are no special air quality restrictions for wilderness. The State of Michigan has categorized all of the Upper Peninsula of Michigan as Class II air quality. Any change in air quality classifications can only be made by the State of Michigan.

The Ottawa National Forest will continue to coordinate with the State of Michigan concerning air quality including atmospheric deposition (acid rain).

Hunting, trapping, and fishing are allowed in wildernesses. Hunting, trapping, and fishing regulations are established and enforced by the State of Michigan. Management of these areas as wilderness or wilderness study areas will not specifically result in any change in the current hunting, trapping, or fishing regulations of the areas.

#### Semiprimitive Areas

The Forest Plan directs the management of 164,000 acres of National Forest System land for semiprimitive nonmotorized recreation opportunities and 51,000 acres for semiprimitive motorized recreation opportunities, for a total of 215,000 acres managed for semiprimitive values.

This is an 18 percent increase from the proposed Plan in response to many public comments that specifically requested more semiprimitive recreation opportunities. This represents a major change from the current situation where no areas other than the four roadless areas, are managed for semiprimitive recreation opportunities.

The remaining 711,000 acres of National Forest System land will be managed to provide roaded natural recreation opportunities. This type of recreation opportunity is similar to traditional management and use of the Forest and adjacent private lands, which many commenters wanted to see continued.

The amount of semiprimitive management is somewhat less than the maximum amount possible, as in alternative 4. However, the Forest Plan emphasizes those areas that have the highest

potential for quality semiprimitive experiences and would result in less conflict with established or traditional uses.

The areas to be managed for semiprimitive values are generally large units that include some of the more distinctive natural features of the Forest, such as rock outcrops, lakes and rivers. National Forest System lands adjacent to the Porcupine Mountains Wilderness State Park will be managed for semiprimitive nonmotorized recreation opportunities. These areas also include major segments of the North Country National Scenic Trail as well as the Trap Hills and Norwich Bluffs, which provide rugged terrain and scenic vistas. The corridors adjacent to the inventoried candidate wild and scenic river segments will also be managed for semiprimitive recreation opportunities.

An intermediate amount of semiprimitive acreage as proposed in the Forest Plan seemed most appropriate since the demand for dispersed recreation activities within different recreation opportunity spectrum (ROS) classes is not well understood and difficult, if not impossible, to accurately quantify at this time.

Future plans will have an opportunity to increase or decrease the amount of semiprimitive management based on a better understanding of the demand for recreational activities. The information gained through the implementation and monitoring of this Forest Plan, including administrative studies, will help define this demand.

#### Roads

At issue was what type of transportation system is needed to provide access for a variety of recreational opportunities and to provide access and transportation of timber products in a timely manner. Public comments were received about the amount of roads to be constructed, standards of road construction to be used, the cost of road construction, closure of roads, and maintenance of existing roads.

The Plan provides a variety of recreation opportunities including a moderate amount of semiprimitive motorized and semiprimitive nonmotorized recreation opportunities. It emphasizes low standard roads Forestwide and selective closure of roads to vehicular traffic to minimize operation and maintenance costs, to provide remote habitat, and to provide semiprimitive recreation opportunities. It also maintains low road densities in semiprimitive areas.

No new arterial or collector road construction is anticipated (or planned) during this plan period.

The amount of local road construction in the proposed Forest Plan called for a reduction from the current level of 41 miles per year to 34 miles per year.

In the final Forest Plan, the amount of local road construction has been reduced further to 30 miles per year. This was in part possible due to the reduction in the allowable sale quantity and

increased emphasis on the use of existing roads. Of these 30 miles, about 60 to 90 percent or 18 to 27 miles of local road construction will be on existing old road locations (reconstruction).

In comparison with the other alternatives, the Forest Plan provides the second highest amount of local road construction. This is due primarily to the Plan's emphasis on selection harvest and thinnings. The other alternatives have higher amounts of clearcutting and/or shelterwood cutting which require fewer roads to provide the same amount of timber volume.

Forest Plan standards and guidelines provide direction to ensure roads are planned and built in a cost-effective manner and located and designed to meet the access objectives of the management area they service. To further reduce road costs, transportation planning and field location of roads are being emphasized while surveying and designing efforts are being de-emphasized. Also, the Forest Plan emphasizes low standards for the construction of local roads. Lower standard roads generally have less impact on the land. Higher standard local roads are emphasized in areas of the Forest where the season of woods operation is longer and road costs are lower. Clearing limits are established in the standards and guidelines.

The Forest Plan provides road management to achieve a mix of motorized and nonmotorized recreation opportunities and to provide habitat for wildlife species requiring remoteness and access to private land. Some roads will be closed to vehicular traffic. Some will be closed seasonally and many will remain open. Newly constructed roads will generally be closed to vehicular traffic for part or all of the year. The Plan provides for a level of maintenance of collector roads comparable to the current level of maintenance. Reconstruction of some existing collector roads is also planned. The major emphasis for this practice will be to provide for safety and resource protection.

#### Special Areas

The Plan recommends protection of all rivers within the Ottawa National Forest listed on the Nationwide Rivers Inventory prepared by the National Park Service, U.S. Department of the Interior, Washington, DC. January 1982. These rivers will be protected until studied individually. Each study will determine the advisability of recommending to the Administration that the river be added to the National Wild and Scenic Rivers System.

The Forest Plan directs the protection of these 15 river segments under management prescription 9.2.

This decision will have no major environmental consequences. No management proposals in any of the alternatives recommends any action that will adversely affect the free-flowing and/or natural characteristics of the National Forest System portion of any of these rivers.

In addition, this decision will not have any serious economic consequences because all forest products can be provided

elsewhere within the Forest more efficiently to meet needs and demand. Existing uses of these rivers will not change.

Two proposed candidate research natural areas (RNAs) were identified during the preparation of the Forest Plan and will be evaluated. Both areas have Society of American Forester's (SAF) cover type or unique landform features that are not fully represented in any established research natural areas.

Both of these proposed candidate RNAs have been and will continue to be protected until they are evaluated and their final management direction determined. The RNA in Sturgeon River Gorge is within the area recommended for wilderness designation. The area within Sylvania is included in the area recommended for wilderness study.

A program to locate additional research natural areas will be coordinated with the Forest's Ecological Classification System. The principal effort will be to locate common soil/landform/vegetation/aquatic ecosystems, preferably in combination, that are representative of managed forest conditions. Unique potential RNAs may be proposed at any time and will be evaluated.

The direction on RNAs is the same in all Forest Plan alternatives. No opportunities will be foregone due to this decision.

Bergland Hill, long recognized as having excellent physical characteristics for development as an outstanding downhill ski facility, will be protected to retain its potential for development as a winter sports area. This decision was the same for all Forest Plan alternatives; no significant opportunities would be foregone due to this decision.

Allowable Sale  
Quantity

The amount of timber planned for harvest has many important implications beyond the obvious one of contributing to the timber supply. Many of vegetation, wildlife, visual and recreational management objectives are only achievable if active harvest of timber is allowed to occur in the management of stands of trees.

The Forest Plan sets the maximum amount of timber that may be sold for the period 1987-1996. This level of 131 million cubic feet (MMCF), or 780 million board feet (MMBF) is referred to as the allowable sale quantity, or ASQ. The ASQ selected was that level of timber supply that was responsive to known industry needs for timber products and was compatible with and complemented the resolution of other nontimber issues. The selected ASQ equals the timber volume of the alternative that maximizes present net value.

The ASQ was set after consideration of the demands upon the Ottawa National Forest for timber, the costs and benefits of approaching those levels of production, and the ability of the Forest to respond to other nontimber objectives. Recent history

of timber harvest on the Ottawa National Forest was reviewed along with expected changes in demand for National Forest timber.

Some important changes in the market for wood products have occurred. The amount of timber sold on the Forest in recent years is generally increasing but not to levels earlier expected. In addition, a number of new mills have or will enter the wood market in the near future. These include the completion of a new pulp mill at Quinnesec, Michigan and the announced construction of a new waferboard plant at Sagola, Michigan. Also, the Iron Wood Products plywood plant at Bessemer, Michigan, which was closed for three years, was recently sold and will reopen in the fall of 1986 as the Bessemer Plywood Corporation. However, the Procter and Gamble mill at Green Bay, Wisconsin announced they will no longer be buying local pulpwood.

The impact of these changes on the demand for timber from the Ottawa National Forest was estimated and a final set of demand estimates was developed. This demand was the maximum level of supply the Forest could justify offering, should it be found to be compatible with other Forest objectives. This level, 131 million cubic feet over the Plan period, was found to be both compatible with and complementary to the resolution of other Forest issues and was economically efficient.

Table 1  
Allowable Sale Quantity 1/

	1976 3/ TM Plan	Maximum 4/ Potential	Demand Level	Proposed Plan	Final Plan
MMCF/Year	12.6 2/	33.4	13.1	16.0	13.1
MMBF/Year	75.0	198.7	78.0	96.0	78.0

- 1/ The allowable sale quantity is the maximum level of live timber which can be sold under the Plan for the first 10 years. Actual sale levels will depend upon a number of factors, including timber sale funding and market conditions.
- 2/ Annual average over the 10-year period. Individual years may be above or below the annual average. MMCF = million cubic feet. MMBF = million board feet.
- 3/ Based on the programmed allowable harvest statement in the 1976 Ottawa National Forest timber management plan which applied to the period 1976 to 1983.
- 4/ Based on the maximum timber benchmark.

*similar ASQ in alternatives* { The ASQ in the Final Plan is equal to the level demanded and the ASQ of the maximum efficiency alternative (alternative 1). Because it is economically efficient for the Ottawa National Forest to provide an ASQ equal to demand, several alternatives had a similar ASQ.

The ASQ level approximates the Ottawa National Forest historical share of the wood products market in the western Upper Peninsula of Michigan. While estimates of wood consumption in the western Upper Peninsula have changed over time reflecting a combination of market forces, the role of the Forest in that market has and is expected to remain about the same.

Harvest cutting in the Forest Plan is at about 39 percent of the maximum amount which could be harvested during the Plan period and is equal to about 37 percent of current net timber growth on the Forest.

The Ottawa National Forest has the ability to offer and sustain higher levels of timber products. The proposed Ottawa National Forest Plan, published in November 1985, showed an ASQ for the 10-year plan period of 160 million cubic feet (MMCF), or 960 million board feet (MMBF). This demonstrates that an additional 30 million cubic feet, or 180 million board feet, could be harvested over the period. It is particularly important to note that this addition is possible while at the same time meeting other vegetation, wildlife, and recreation objectives. However, a Plan amendment would be required to permit this higher level of harvest.

The ASQ in the Plan is achieved by producing timber on about 560,000 forested acres. Additional acres, up to about 170,000, could produce additional timber, should it be desirable to respond to increasing demands. No proposed wilderness study or designation areas, research natural areas, or wild and scenic river study corridors are included in any of the estimates discussed above.

Timber sale programs for individual years within the planned period can exceed the average yearly ASQ of 78 MMBF as long as the total for the period, 780 MMBF, is not exceeded. If the Ottawa National Forest timber harvest program for the first several years of the planned period is below the average annual ASQ, timber harvest programs in subsequent years may be higher than the average annual ASQ, as permitted by law. On the other hand, if the Ottawa National Forest timber harvest program exceeds the average annual ASQ early in the period, timber harvest programs in subsequent years will have to be reduced to avoid exceeding the total ASQ for the period, unless the Plan is amended or revised.

Changes in the timber markets that directly affect the Ottawa National Forest will be monitored over the course of implementing the Plan. If and when significant changes in demand are foreseen such as expansion of mills or new mill construction, the Ottawa

National Forest would consider amendments to the Plan. This process would also include public review.

Several comments on the proposed Plan relating to allowable sale quantity were also concerned with the economics of timber sales. Below-cost timber sales are a concern to both the public and National Forest managers.

The Ottawa National Forest Plan maximizes long-term net public benefits even though the timber program in the first decade generates less revenue than total costs. The timber program generates positive cash flows in the later decades, and thus the cash flow problem is short-term. This can be explained in that the Ottawa National Forest is a relatively young forest and as it grows older, the timber product values will increase dramatically as the timber reaches sawtimber size. Also, the total cost for capital investments such as roads and landlines will decline in later decades.

The timber management program is an important means of achieving multiple use objectives, such as:

- ✓ Enhancing visual quality,
- ✓ Maintaining vegetative diversity for wildlife,
- ✓ Reducing the potential for insect and disease problems,
- ✓ Generating revenues to the U.S. Treasury,
- ✓ Generating revenues to local units of government,
- ✓ Improving the growth and quality of the timber resources, and
- ✓ Maintaining local income and employment.

These nontimber objectives, particularly those associated with wildlife habitat improvement and insect and disease management, are accomplished much more effectively and efficiently through the use of commercial timber sales than if they were accomplished by other means. Many of these activities require the cutting and removal of trees. Use of commercial timber sales to accomplish this eliminates an additional expense to the government and unnecessary waste of a commercially valuable resource.

Some of the costs that are often counted against sale revenues are in fact capital costs. As such, they more properly should be viewed as long-term investments from which total benefits may not be realized for many years. Road costs are a good example of such a long-term investment.

Roads benefit more than just a timber sale, and are really joint costs. A road built for timber removal may provide for improved access for motorized recreational uses, if roads are left open, or nonmotorized use, if roads are closed. Roads also provide for activities such as firewood cutting, fire protection, and administrative needs. When such roads are designed to meet nontimber multiple uses, such as improved year-round access for recreational uses, they may cost more than if the road were designed for timber purposes only.

The Forest Plan seeks to improve the economic efficiency of the Forest's timber program. The Forest Plan emphasizes the use of existing roads to reduce total road cost. The standards and cost for such activities as sale preparation, sale administration, road construction, landline location, and reforestation will continue to be evaluated and reduced to the extent practicable while still meeting all legal requirements and integrated resource management objectives. These measures will reduce the total average unit cost associated with the timber sale program.

Timber sale revenues are also expected to increase through the sale of more higher value products.

Product Mix

The mix of products was adjusted in the Plan to be more responsive to demands for individual products.

Table 2  
Timber Product Mix

	Current Level	Demand Level	Proposed Plan	Final Plan
	(MMCF per year)			
Hardwood sawtimber	1.5	2.1	1.8	1.8
Hardwood pulpwood	1.8	3.3	5.3	4.3 2/
Softwood products 1/	3.1	3.6	4.7	2.9
Aspen products 1/	2.9	4.1	4.2	4.1
Total	9.3	13.1	16.0	13.1

1/ Includes both sawtimber and pulpwood products.

2/ Planned production of hardwood pulpwood exceeds the level demanded but this product could be substituted for another which is in short supply or less efficient to produce.

The level of hardwood sawtimber production will remain at 1.8 MMCF per year (9.7 MMBF) as in the proposed Forest Plan. Hardwood pulpwood was reduced from 5.3 MMCF per year to 4.3 MMCF per year (47,000 cords). Softwood products were reduced from 4.7 MMCF per year to about 2.9 MMCF per year (35,000 cords). Aspen products were reduced slightly from 4.2 MMCF per year in the proposed Plan to 4.1 MMCF (47,000 cords).

Hardwood sawtimber production will be increased from current levels in response to concern that the supply of hardwood sawtimber is very important to the local economy.

The increased output of hardwood sawtimber will also increase the revenues generated from timber sales. The increase in hardwood sawlog production is possible in great part due to the improved market for hardwood pulpwood.

Although the level of hardwood pulpwood production has been reduced from the proposed Plan, the Plan's production level still represents the most substantial increase in any product from the

current level. This is primarily due to the increased demand for hardwood pulpwood generated by the recent opening of the new pulp mill at Quinnesec, Michigan.

The other major change in product mix is the increase in aspen products from current levels. Although the local aspen market was recently depressed due to the closure of the Iron Wood Products mill and Proctor and Gamble's decision not to purchase local pulpwood, the future market for aspen products should be stronger than ever.

The Iron Wood Products plant, which used aspen products, was sold and will reopen in the fall of 1986 as the Bessemer Plywood Corporation. The other major reason for increased demand for aspen products is the construction of a new waferboard plant in Sagola, Michigan which will use approximately 200,000 cords annually. A substantial portion of this is planned to come from the Ottawa National Forest.

Hardwood  
Management

Management of the northern hardwoods in the Forest Plan will incorporate a mix of both uneven-aged and even-aged management.

Uneven-aged management will be emphasized Forestwide with particular emphasis in areas of high visual resource sensitivity, areas managed for semiprimitive recreation opportunities, and for production of high quality hardwood sawtimber and veneer. Uneven-aged management of the hardwood type has been widely accepted by the public and a majority of comments received favored uneven-aged management of northern hardwoods.

Even-aged management of northern hardwoods will also be used to maintain or increase the composition of mid-tolerant hardwood species and to provide for improved age class diversity in the hardwood type. Even-aged management will also be used to provide more young growth habitat and increase the available browse within winter deer ranges.

The mix of uneven-aged and even-aged management in the Forest Plan will result in multiple use benefits including a variety of wildlife habitats and visual resources and will create a more diverse forest while providing for higher quantity and quality of hardwood sawtimber in the future.

Reforestation

The Forest Plan emphasizes natural reforestation practices over tree planting to reduce cost, improve species diversity, and provide a more natural appearing landscape.

The amount of tree planting will be reduced from the current level of about 960 acres per year to about 530 acres per year. This reduction is considered appropriate in response to public concern to reduce cost of reforestation, to reduce the need for and cost of chemical release of planted pine, and to improve the economics of timber sales.

Clearcutting

The use of clearcutting is the optimum harvest method in achieving several of the multiple use objectives in the Forest

Plan. The acreage of clearcutting will remain at about the current level of 4,800 acres per year. About 75 percent of the clearcutting will be to regenerate the aspen forest type. Maintaining an appropriate amount of aspen type is very important in providing habitat for wildlife species that prefer early successional habitat including the white-tailed deer and the ruffed grouse. Clearcutting of aspen is the optimum method to regenerate and retain the aspen type. The remaining 25 percent of the clearcutting will be composed primarily of jack pine and spruce-fir.

About 138,000 acres of aspen type will be maintained. This is a reduction from the current acreage of the type but an increase from the 126,000 acres in the proposed Plan. The decline in aspen acreage is due primarily to natural succession to more shade tolerant species, such as sugar maple and balsam fir, in areas where mature aspen is not harvested and regenerated.

Several comments were received expressing concern about the use of clearcutting due to potential impacts on soil, water, visual, recreation, and wildlife resources.

The Forest Plan contains standards and guidelines that ensure clearcutting is conducted in a manner that will not cause unacceptable impacts on soil and water resources. Standards and guidelines also limit the size of clearcuts to 40 acres or less and provide criteria for spacing of clearcuts. The size, shape, location, and spacing of clearcuts are designed to meet a variety of resource objectives which include visual quality, recreation, wildlife habitat, and timber management.

The average size clearcut during the period 1980 to 1985 has been about 23 acres. The recent trend has been toward smaller average clearcut sizes.

In comparison to the other alternatives in the Final EIS, the Forest Plan would involve the second highest amount of clearcutting. This is consistent with the amount of aspen type being maintained, which is also the second highest in comparison to the other alternatives. A reduction in the acreage of clearcutting from the levels in the Plan would result in trade-offs associated with the maintenance of the aspen type. Public support for the maintenance of the aspen type for the many multiple use benefits it provides was much greater than the general concern expressed about clearcutting.

*Aspen  
clearcutting*

Compatibility  
With Other  
Plans

It is important to consider the plans of others so that those of the Forest Service are not unnecessarily duplicative or conflicting. Both the National Forest Management Act and National Environmental Policy Act require this.

Cooperative efforts of many organizations led to the establishment of the Ottawa National Forest. Cooperative

ventures have been an integral element in the management of the Forest since its origin and will continue in the future.

During this planning process, agencies, organizations, landowners within the Forest, and other interested citizens were consulted. This provided early insight to determine if Forest Service actions were compatible with the plans of others (see Final EIS Appendix Volume, Appendix A).

The following is a summary of activities that will be compatible with the plans of others.

The Forest Plan meets federal laws and regulations and is in compliance with federal recovery plans for all endangered and threatened species.

The general wildlife and fish program is compatible with the objectives of the Sikes Act agreement with the State of Michigan.

Fire protection agreements with the Michigan Department of Natural Resources are compatible with the Plan's fire management direction.

The Forest will continue to cooperate and coordinate with the Environmental Protection Agency, North Central Forest Experiment Station (Forest Service research), Michigan Department of Natural Resources, and other agencies or organizations on determining atmospheric deposition (acid rain) effects within the Forest.

The identification of potential candidate research natural areas (RNAs) is compatible with the goals of The Nature Conservancy, Michigan Natural Heritage Program, Michigan Natural Features Inventory, Michigan Natural Areas Council, Michigan Department of Natural Resources, and Forest Service research. The Ottawa National Forest will continue to cooperate with these organizations in the identification and evaluation of additional candidate RNAs and identification and location of endangered and threatened plant and animal species and other species of special concern in Michigan.

Location and management of the North Country National Scenic Trail is compatible with objectives and the Environmental Impact Statement of the United States Department of the Interior (USDI) National Park Service and plans of the North Country Trail Council.

The availability of National Forest System lands for mineral exploration is compatible with the plans of those companies that have pending requests for exploration permits.

Protection of the 15 wild/scenic inventory river corridors within the Ottawa National Forest boundary is compatible with the Wild and Scenic Rivers program for the U.S. Department of the Interior.

The dispersed recreation activities are compatible with the State Comprehensive Outdoor Recreation Plan (SCORP) for the State of Michigan.

The Forest Human Resource Program is compatible with objectives of state, county, and local labor departments and programs.

Michigan's  
Statewide Forest  
Resources Plan

In 1983, the State of Michigan completed a planning process for the orderly development of its forest resources for the purposes of social and economic development. The resultant plan, "Michigan's Statewide Forest Resources Plan - Direction for the Future," involved broad public participation of many persuasions. This plan has the full support of Michigan's Governor and the Michigan Department of Natural Resources.

The basic program direction concludes that Michigan's public and private forest land can best serve the people of Michigan if management of Michigan forests emphasizes economic development. Michigan's forests can increase outputs of all their products, including timber products, wildlife, fish, and forest recreation. Providing these outputs will help to create jobs by bringing outside dollars into the state and keeping Michigan dollars in the state. At the same time, Michigan's people will obtain expanded wildlife, fish, and recreational opportunities. All forest resources and values, including timber productivity, wildlife and fish habitats, and outdoor recreation, can and will be protected for the benefit of present and future generations. The four major goals of the State Plan are:

- Strengthen and diversify Michigan's economy through forest resource development.
- Increase public forest outputs for all forest uses while protecting forest resources.
- Increase the productivity of Michigan's nonindustrial private forests consistent with landowner objectives.
- Improve Michigan's energy situation through energy-responsive forest management.

Subsequently, the State of Michigan has implemented an assertive forest products industry development program. Over \$1 billion have been invested in Michigan by forest products companies since 1981. Additional investments are anticipated during the next decade.

The Statewide Forest Resource Plan and the subsequent industry development program have been considered in the development of the Forest Plan. The intent of the Ottawa National Forest Plan is to be compatible with the goals of the State's Plan to provide jobs, recreation uses, wildlife habitat, and timber products while protecting the forest resources.

Although the Forest Plan's allowable sale quantity is not as high as desired by the Michigan Department of Natural Resources, the allowable sale quantity of 131 MMCF over the 10-year plan period does provide for a moderate growth in the demand for forest products from the Ottawa National Forest.

Consumption estimates for existing mills and mills that have firm plans for construction were considered in establishing the allowable sale quantity.

The allowable sale quantity is economically efficient in responding to the demand for timber products as it is expected to exist and is compatible with and/or complementary in providing desired levels of nontimber benefits.

The allowable sale quantity in the Forest Plan is equal to the level in the maximum economic efficiency alternative (alternative 1).

In terms of timber supply, the Ottawa National Forest intends to supply approximately the same share of market demand as in the past. This means the amount of timber offered for sale should grow at approximately the same rate as the growth in markets for timber in the western Upper Peninsula, subject to available budgets and workforce capabilities.

Industry's needs for Ottawa National Forest timber will be monitored over the course of implementing the Plan. If and when significant changes occur, the Ottawa National Forest will consider amendments to the Forest Plan to respond to those changes. Amending the Plan to provide for an increase in the allowable sale quantity will require evidence of substantive changes in the market for timber products or a rate of timber harvest that over the Plan period would exceed the ASQ.

These increases would be based on indicators of increased demand such as:

- Construction of new mills within the western Upper Peninsula or northern Wisconsin.
- Major expansions of existing mills.
- Increases in real prices being paid for various timber products.
- Noticeable reduction of no-bid sales.

Any changes will be within the appropriate federal laws, specifically the National Environmental Policy Act and National Forest Management Act. Also, the Forest Plan covers a 10-year period and it allows variations in outputs between years. On an annual basis, there is flexibility to make adjustments for annual demands as long as the 10-year Plan totals are not exceeded, unless the Forest Plan is amended.

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Potential for  
Controversy

One of the major reasons for Forest planning is to attempt resolution of public issues. During the planning process, many issues on the Ottawa National Forest were identified.

In response to the public issues, a range of alternatives were developed and analyzed. The views of various interests are reflected in the alternatives. The Forest Plan provides the

widest range of environmental conditions and choices for goods, services, and uses.

During Plan implementation, Forest Service personnel will continue to work with the public as specific projects are implemented. Because of national, state, and local concerns, the following items are expected to remain sensitive to some groups and individuals. These are:

- Wilderness designation,
- Semiprimitive recreation management,
- Allowable sale quantity and product mix,
- Minimum level management and unsuitable lands,
- Wild/scenic inventory rivers,
- Wildlife management,
- Road construction/closure.

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#### Cost Efficiency

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Throughout the planning process, the Forest sought to analyze ways to improve the overall cost efficiency of resource management. Each Forest Plan alternative represents the most cost-efficient set of prescriptions needed to meet the goals and objectives of the respective alternative.

Early in the process, the prescriptions were reviewed and screened to ensure they represented a cost-efficient means to accomplish the purpose of the prescription.

The Forest Service uses an estimate of present net value (PNV) to measure cost efficiency. PNV is the difference between the discounted value of priced outputs and all Forest Service management and investment costs. Discounting benefits and costs reflects the time value of money. Costs and benefits were discounted over time using a four percent discount rate.

Although PNV is an important factor to consider in the decision making process, it is only one of many factors to be considered when determining net public benefit. A large PNV is an indicator that taxpayers, as owners of the National Forest, could realize a large return on their investments whereas a smaller PNV indicates a smaller return.

Table 3 presents the present net value amounts for each alternative, ranked from highest present net value to the lowest. Alternative 1 has the highest PNV of all the alternatives. Opportunity costs, measured as reductions from the maximum present net value alternative, indicate the net benefits foregone to provide the nonpriced benefits needed to address the issues.

Table 3  
Present Net Value

<u>Alternative</u>	<u>Present Net Value</u> (million dollars)	<u>Opportunity Cost</u>
1	275	-
4	267	8
7	248	27
8	247	28
6	244	31
2	244	31
3	242	33
5	201	74

Most alternatives were similar in terms of PNV with the exception of alternative 5. Timber harvesting method restrictions imposed in alternative 5 drastically reduce the ability of many Forest acres to make a positive contribution to PNV. The other alternatives are similar because all are limited by demand on the production of forest products, including timber products, recreation uses and hunting. Most alternatives could efficiently supply more production if demand for these products was higher.

The Forest Plan has the third highest present net value of any alternative considered in the Final EIS. See Final EIS, Chapter II, for a comparison of the differences, including economic, between alternatives.

Table 4 is a brief comparison of some of the differences between the highest present net value alternative (alternative 1) and the Forest Plan (alternative 7). These differences account for a large portion of the change in present net value.

Table 4  
Comparison of Alternative 1 and Alternative 7

	Alternative 1 (Highest PNV)	Alternative 7 (Forest Plan)
Acres of even-aged hardwood management (thousand acres)	289	113
Acres of uneven-aged hardwood management (thousand acres)	114	165
Acres of aspen type maintained (thousand acres)	97	138
Average annual timber harvest volume (MMCF per year)		
Aspen products	3.0	4.1
Hardwood sawtimber	2.1	1.8
Average annual acreage of aspen regeneration by wildlife opportunity area (first 2 decades)		
High opportunity area (acres per year)	530	1,660
Medium opportunity area (acres per year)	90	962
Low opportunity area (acres per year)	<u>222</u>	<u>630</u>
Total	840	3,252
Average annual reforestation acreage		
Artificial reforestation (acres per year)	150	530
Natural reforestation with site preparation (acres per year)	4,150	3,800
Average annual miles of road construction	24	30

The Forest Plan, while favoring the uneven-aged system, provides a more balanced mixture of even-aged and uneven-aged management of hardwoods than alternative 1. The portion of the hardwood type managed as even-aged increases cover type and age class diversity with opportunities for increasing mid-tolerant species. The components of uneven-aged hardwood management in the Forest Plan, along with old growth vegetation, add to vegetative diversity.

The Forest Plan provides for over 40,000 more acres of aspen type to be maintained than alternative 1. The aspen type is very important for both the benefits to many species of wildlife and for producing future supplies of aspen timber products. The aspen type also provides an important element of vegetative diversity and maintenance of the aspen type was strongly supported by the public comment.

The combination of even-aged hardwood management and aspen management will result in increased acres of regeneration cutting

and temporary openings on the Forest. The openings will make important contributions to habitat needs of species such as deer and grouse. The visual impacts can be mitigated through the distribution, size, shaping, and location of harvest cuts to meet visual quality objectives.

The Plan produces the same total timber harvest volume as alternative 1 but ensures a volume of aspen more closely approaching that demanded by area industry. The significant increase in aspen regeneration associated with this volume will be focused in areas of the Forest with the greatest opportunity to increase the quantity and quality of wildlife-based recreation, such as hunting.

The volume of hardwood sawtimber is less in the Forest Plan than in alternative 1. This is because the Forest Plan emphasizes uneven-aged management and has a much lower acreage of shelterwood harvest in the hardwood type. Public comment was very strong in support of uneven-aged management of northern hardwoods, and there was also some concern with the high amount of shelterwood cutting in the hardwood type in alternative 1.

While the total road mileage in the Forest Plan is greater over the decade than alternative 1, it does represent a decline from recent years. Additional road miles were needed, as compared to alternative 1, to manage vegetation in specific areas of high wildlife benefit and to access the additional acres necessary under uneven-aged management to reach the projected levels of hardwood sawtimber volume production. The need for more roads is due in great part to the increased emphasis on selection harvest and thinning as compared to the much higher amount of shelterwood cutting which was emphasized in alternative 1. It is estimated that 60 to 90 percent of those roads will be constructed on old existing roads.

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Environmental  
Consequences

Protection of the environment has also been a major factor in developing the Forest Plan. The Plan could result in adverse environmental effects, affect the long-term productivity of the Forest, or irretrievably or irreversibly commit natural resources. There could be significant direct, indirect, or cumulative effects.

The Final EIS, Chapter IV, describes the cumulative effects, the relationship of short-term uses on the long-term productivity of the land and its resources, the irretrievable and irreversible commitments of resources, and the unavoidable adverse effects. These sections discuss the direct, indirect, and cumulative effects of the Forest Plan.

The Final EIS indicates that while there may be instances where a practice could have a significant, but temporary, adverse effect on soils; air quality; water quality; riparian areas; wetlands; threatened, endangered and sensitive species; wildlife; fish; vegetation, or visual resources, there will be no significant permanent impairment of the productivity of the land. In fact,

the effects on environmental conditions are mostly positive except as noted below.

Relationship of Short-Term Uses and Long-Term Productivity

Management of the Forest under any alternative balances the demand for services against the need to maintain long-term productivity of the resource base.

Short-term decisions on vegetation manipulation could have long-term effects on the Forest. Thinning not accomplished now, particularly in northern hardwoods, will result in smaller size trees at harvest with no increase in wildlife habitat. Regeneration not started now will not be of sufficient size to replace older trees when they decline in vigor and die in the future. The result can be a lower long-term sustained yield.

If aspen stands are not harvested, they will naturally convert to late successional sugar maple or mid-successional balsam fir. This will result in the loss of wildlife habitat in the future and cause fluctuations in future wildlife populations. Populations of deer, grouse, and associated nongame species that depend on young aspen stands would decline.

Management practices will generally maintain or improve the long-term productivity of the land and its resources. There are, however, some differences among alternatives in the effects on long-term productivity. Trends are shown in the Final EIS, Chapter IV.

Irretrievable or Irreversible Commitments of Resources

Irreversible effects result from the removal of minerals, road construction, and loss of timber volume due to mortality and loss of potential growth.

- There is a loss of timber volume production in areas where active vegetation management is not the primary objective, such as in management prescriptions 6.1 and 6.2 (semiprimitive motorized and semiprimitive nonmotorized), 9.1 (wilderness study/protection), 9.2 (wild/scenic rivers protection), and 9.3 (protection).
- Once minerals are removed and used, those minerals will no longer be available for use.
- An irreversible effect on the soil resource is the soils lost through road construction and borrow pits.

Unavoidable Adverse Effects

The following unavoidable adverse effects of implementing the Forest Plan are recognized. Their severity is minimized by adhering to the direction in the Forest Plan standards and guidelines (Plan, Chapter IV).

- Some erosion and sedimentation from soil disturbance due to construction of roads, skid trails and landings.

- Alteration of natural landforms due to borrow pit development.
- Changes in visual quality due to timber management and road construction for short durations, some of which may be objectionable to observers.
- Disruption or displacement of some recreation users and wildlife species due to timber activities, road construction/reconstruction, and road closures.
- Long-term changes in recreation opportunities and wildlife diversity, to which some people may object.

These effects would be avoided if these practices were not used. However, the benefits that are provided by these management practices produce a high level of public goods and services which would be foregone. The value of the goods and services produced in each of the alternatives is far more beneficial in achieving multiple use objectives than the cost in terms of unavoidable adverse impacts.

## Public Participation

The Forest Service conducted an active public involvement program throughout the planning process. Federal, state, and local agencies were informed and consulted. Forest users had an opportunity to participate. Appendix A of the Final EIS describes the public participation activities.

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### Determination of the Issues

A notice of intent to prepare a Draft EIS for the Forest Plan was published in the Federal Register on Friday, February 20, 1980, (Vol. 45, No. 42, p. 13,490). This notice started the process of identifying issues and concerns. Federal, state, and local agencies and the public were asked to comment on a preliminary list of issues and concerns that had been developed by the Forest, and to add new issues that they felt were appropriate. These public issues and management concerns established the scope of the Draft EIS.

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### Major Changes Made in Response to Public Comments

A notice of availability of the Draft EIS and proposed Plan was published in the Federal Register on Friday, November 22, 1985 (Vol. 50, No. 226, p. 48264). Over 700 copies of the draft documents were distributed.

During the public comment period which ended on February 28, 1986, Forest personnel attended over 40 meetings and open houses sponsored by various interest groups, professional organizations, government agencies, environmental groups, and the general public.

Three thousand fifty-nine responses were received prior to the close of the comment period. Over 21,000 comments in these responses were considered in preparation of the final documents and in this decision.

Public comments on the Draft EIS and proposed Plan resulted in changes in the final documents and in this decision. These changes are the result of the Forest trying to make this Forest Plan and its accompanying documents as responsive to the public as possible. These are discussed in Chapter XI of the Final EIS.

The major areas of change made in preparing the Final EIS and Forest Plan include:

### Transportation

In the Forest Plan, there will be a reduction in the amount of new local road construction. The proposed Forest Plan provided a reduction in road construction to 34 miles per year from the current level of 41 miles per year. In response to public comment, the level of road construction in the Forest Plan will be further reduced to about 30 miles per year. This reduction is possible, in part, due to increased emphasis on maximum use of existing roads and also due to the reduction in the allowable sale quantity. In addition, unneeded roads are to be identified and obliterated to prevent use.

The Forest Plan increases emphasis on closing roads to vehicular traffic to provide habitat conditions for wildlife species that require more remote habitat conditions and to provide nonmotorized recreation opportunities in all management areas. Particular emphasis is placed on the 164,000 acres that will be managed primarily for semiprimitive nonmotorized recreation opportunities and the 256,000 acres being managed to provide habitat for the gray wolf.

#### Wildlife

Endangered and threatened species habitat requirements were reevaluated (see Final EIS Appendix Volume, Appendix H). The Forest Plan was changed to provide suitable habitat including a 256,000-acre contiguous area for the gray wolf and other species requiring remote habitat. Management direction for this area provides for maintaining an adequate prey base through active management of the vegetation (habitat) and for a road density of less than one mile of open road per square mile.

Future habitat conditions in this area will emphasize remoteness along with vegetative management as recommended by the Fish and Wildlife Service's biological opinion on the proposed Plan.

The wildlife and fish management indicator species were reevaluated (see Final EIS Appendix Volume, Appendix I) and changes were made. The pumpkinseed sunfish was replaced by the smallmouth bass and northern pike. In addition, the loon, barred owl, and American bittern were added as management indicator species.

#### Vegetation

The Forest Plan emphasizes uneven-aged management of the northern hardwood type. Sixty percent of the northern hardwood type subject to vegetation management will be managed uneven-aged, up from 43 percent in the proposed Forest Plan. Conversely, even-aged management was reduced from 57 percent to 40 percent of the northern hardwood type. Although uneven-aged management is emphasized, even-aged management will be utilized to increase browse within winter deer range and to maintain mid-tolerant hardwood tree species on the most suitable sites.

The Forest Plan reduces the allowable sale quantity from the 16.0 MMCF per year in the proposed Forest Plan to 13.1 MMCF per year. This reduction was made in response to comments received and a reevaluation of estimated demand for timber products.

The level of hardwood sawtimber production will remain at 1.8 million cubic feet (MMCF) per year (9.7 million board feet (MMBF)) as in the proposed Forest Plan. The remaining mix of timber products was changed in the Forest Plan to be more responsive to demand for individual products. Hardwood pulpwood was reduced from 5.3 MMCF per year to 4.3 MMCF per year (54,000 cords). Softwood products were reduced from 4.7 MMCF per year to about 2.9 MMCF per year (35,000 cords). Aspen products were reduced slightly from 4.2 MMCF per year to 4.1 MMCF per year (47,000 cords).

In the Forest Plan, the acreage of aspen is maintained at 138,000 acres, up from 126,000 acres in the proposed Forest Plan.

In the Forest Plan, the acreage of tree planting is 530 acres per year, an increase from the 330 acres per year in the proposed Forest Plan. However, the Forest Plan will still emphasize natural reforestation, and represent a substantial reduction in tree planting from the current level, which has been about 1,000 acres per year.

The acreage of release was also increased in the Forest Plan from 250 acres per year to 900 acres per year. This was in response to comments, the increase in pine planting, and a reevaluation of current needs. This, too, is a reduction from the current level of about 1,300 acres per year.

Semiprimitive  
Areas

The Forest Plan provides an increase in semiprimitive nonmotorized acreage to 164,000 acres, up from 133,000 acres in the proposed Forest Plan. The acreage of semiprimitive motorized management areas was increased from 46,000 acres to 51,000 acres. This results in a total increase of 36,000 acres of semiprimitive recreation opportunities from the proposed Forest Plan.

## Alternatives Considered

The National Forest Management Act requires that a broad range of reasonable alternatives be formulated. This was done by an interdisciplinary team in order to provide an adequate basis for identifying the alternative that comes nearest to maximizing net public benefits.

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### Alternatives Considered in Detail

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The process used to formulate the alternatives considered in detail is described in the Final EIS, Chapter II and Final EIS Appendix Volume, Appendix B. The alternatives are:

- Alternative 1 This alternative maximizes present net value of priced benefits while meeting legal requirements. This alternative responds to a concern for economic efficiency.
- Alternative 2 This alternative continues the trend of current management direction into the future. This alternative is considered the "no action" alternative.
- Alternative 3 This alternative emphasizes wildlife habitat with particular emphasis on habitat for deer and grouse. This alternative responds to public concern for deer and grouse and for aspen timber products.
- Alternative 4 This alternative emphasizes semiprimitive recreation opportunities and wilderness. This alternative responds to wilderness and transportation problems.
- Alternative 5 This alternative emphasizes management of the Forest without the use of chemicals or even-aged management. It responds to the clearcutting and chemical use issues.
- Alternative 6 This alternative emphasizes uneven-aged management of hardwoods for hardwood sawtimber production and associated wildlife species. It responds to concerns about hardwood timber management and visual quality.
- Alternative 7 (preferred) This alternative emphasizes habitat for game and nongame species of wildlife. It provides a variety of vegetative conditions, recreation opportunities, and mix of timber products. It responds to wilderness, roading, game habitat, and uneven-aged/even-aged hardwood management issues. **Alternative 7 is the preferred alternative.**

Alternative 8 This alternative emphasizes a variety of vegetative conditions and recreation opportunities while providing moderate amounts of habitat for game and nongame species of wildlife. It responds to the roading, even-aged/uneven-aged hardwood management, and wildlife habitat issues.

Alternatives  
Considered but  
Eliminated

The following alternatives were formulated and analyzed, but were eliminated from any further detailed study.

An alternative emphasizing the production of quality softwood sawtimber was proposed and eliminated from further consideration. Public issues and management concerns, the basis for the design of alternatives, did not call for increased softwood sawtimber volume production. Furthermore, no emphasis was placed on it by the timber industry. Public concerns about vegetation management involving chemical use and the high costs of softwood reforestation actually ran counter to a softwood sawtimber emphasis alternative. Other alternatives satisfied estimated demands for softwood sawtimber.

The NFMA planning regulations permit alternatives that could require a change in law or policy in order to respond to public issues. There were no such alternatives needed for the Forest. All issues addressed in Forest planning can be satisfied within the range of alternatives considered in detail. For more information about these alternatives, see Final EIS, Chapter II and Final EIS Appendix Volume, Appendix B.

Environmentally  
Preferable  
Alternative

All alternatives are environmentally, technically, and legally feasible. An environmentally preferable alternative is one that will cause less impact on the physical and biological environment than the Forest Plan alternative. It is also one that better protects, preserves, and enhances historic, cultural, and natural resources.

The physical and biological environmental effects are caused by the management practices and are described in the Final EIS, Chapter IV.

All of the alternatives meet the minimum legal environmental standards as required by the National Forest Management Act. Beyond that point, alternatives vary in the number and amount of management practices that are applied as shown in Table 5. Reduced levels of management practice activity are indicative of reduced human activity and, thus, a reduced potential to adversely affect the biological and physical environment.

Table 5 lists those management practices that significantly affect the Forest environment. The management practices considered were local road construction, harvest-clearcut, harvest-thinning, harvest-selection, harvest-shelterwood, reforestation-artificial, reforestation-natural, and release.

Table 5 includes only those management practices that cause change in an environmental condition and that show a difference between alternatives. The figures displayed are expressed on an average annual basis for the Forest Plan, decade 1, and projected for decade 5 to show the short-term and long term-effects. The short-term effects in many alternatives show less change than the long-term effects. Both short- and long-term effects were considered in determination of the environmentally preferable alternative.

Road miles have been converted to an acreage value based on an average clearing width of 20 feet.

Using this criteria, Alternative 5 is the environmentally preferable alternative. It is the alternative that will cause the least disturbance to the physical and biological environment. Its direction contains no even-aged management and emphasizes uneven-aged management of all vegetation and semiprimitive environments.

The Forest Plan provides a much higher present net value, more job opportunities, and a greater variety of plant and animal communities and more than doubles the timber output. The even-aged management of aspen and northern hardwoods provides desired habitat for deer, grouse, and other wildlife species for wildlife-based recreation opportunities. The Forest Plan also provides suitable habitat (forage, prey, and remoteness) for the gray wolf and other wildlife species.

The Forest Plan provides the greatest net public benefit, responds well to the issues and concerns, and does so in an environmentally sound manner.

Table 5  
Comparison of Management Practice Amount by Alternative

Management Practice	Alternative							
	1	2	3	4	5	6	7	8
	(Acres/Year)							
Local Road Construction 1/								
Planned (decade 1)	58	67	46	58	67	72	72	58
Projected (decade 5)	26	19	14	19	0	17	12	12
Harvest-Clearcut								
Planned (decade 1)	2,570	2,300	6,790	1,600	0	3,090	4,860	5,470
Projected (decade 5)	7,340	5,240	8,800	6,590	0	4,040	6,600	4,925
Harvest-Thinning								
Planned (decade 1)	710	3,980	0	960	0	400	2,900	0
Projected (decade 5)	1,330	7,420	7,750	2,970	0	3,670	3,420	1,840
Harvest-Selection								
Planned (decade 1)	380	1,500	3,000	3,000	6,450	4,000	3,800	2,500
Projected (decade 5)	5,160	4,630	3,000	6,680	8,940	5,830	8,000	6,600
Harvest-Shelterwood								
Planned (decade 1)	5,350	1,580	0	4,280	0	290	1,550	410
Projected (decade 5)	5,430	4,020	5,650	3,130	0	2,300	3,520	3,100
Reforestation-Artificial								
Planned (decade 1)	150	580	0	120	0	960	530	220
Projected (decade 5)	2,280	1,180	1,710	2,020	0	2,450	1,180	1,190
Reforestation-Natural								
Planned (decade 1)	4,150	1,390	5,770	1,800	0	2,260	3,800	4,860
Projected (decade 5)	6,540	5,370	9,890	3,770	0	2,210	4,580	6,420
Release								
Planned (decade 1)	0	140	0	0	0	1,000	900	180
Projected (decade 5)	1,100	530	1,360	1,000	0	3,000	930	720
Total								
Planned (decade 1)	13,368	11,537	15,606	11,818	6,517	13,172	18,412	13,698
Projected (decade 5)	23,776	28,409	38,174	26,179	8,940	23,617	28,242	24,807
Difference from Alt. 5								
Planned (decade 1)	6,851	5,020	9,089	5,301	0	6,655	11,895	7,181
Projected (decade 5)	14,836	19,469	29,234	17,239	0	14,677	19,302	15,867
Total Difference	21,687	24,489	38,323	22,540	0	21,332	31,197	23,048

1/ Miles of local road construction converted to acres based on an average clearing width of 20 feet.

## Implementation, Monitoring, and Mitigation

The Forest Plan will be implemented no sooner than 30 days after the Notice of Availability of the Plan, Final EIS, and Record of Decision appears in the Federal Register. The time needed to bring all activities into compliance with the Plan will vary, depending on the type of project.

The Forest Plan is not a plan for the many activities needed to carry on the Forest Service's day-to-day internal operations. For example, the Plan does not address personnel matters, fleet equipment, or organizational changes. However, it is a plan for managing the public lands and resources in an environmentally sound and prudent manner to produce goods, services, and uses in a way that maximizes long-term public benefits.

The emphasis of the Plan is not on site-specific decisions or specific outputs. Rather, it is the application of management practices to areas of land to achieve multiple-use goals and objectives with economic efficiency. However, to respond to changing needs and opportunities, Congressional actions, catastrophic events, or new technologies, the Plan may have to be amended or revised. If the change significantly affects the Plan, it must be made by the same procedure used in the development and approval of the original Plan. If the change does not significantly affect the Plan, the Forest Supervisor may amend it by a less formal process which includes public notice and compliance with the National Environmental Policy Act.

It is important to note that all proposals in the Forest Plan can be accomplished from a physical, biological, social, economical, and legal perspective. It is not certain that they will be accomplished. First, the outputs proposed by the Plan are projections or targets, such as the allowable sale quantity. Allowable sale quantity is the maximum volume of timber that can be sold over the 10-year planning period - not the volume that will be sold.

All outputs may be affected by the budget. Inherent in the Plan's proposed outputs is the budget needed to achieve them. The Plan is implemented by way of various site-specific projects such as the building of a road, development of a wildlife opening, or the sale of timber.

If the budget is changed in any given year, the projects scheduled for that year may have to be rescheduled; however, the management prescriptions and the areas to which they are applied in the Plan will not change unless the Forest Plan is amended or revised. On the other hand, amendment or revision of the Forest Plan will not necessarily change the management prescriptions and the areas to which they apply. If the budget is significantly different from that in the Plan, over a period of several years, the Plan itself may have to be amended (36 CFR 219.10 (e)) and, consequently, will reflect different target outputs.

As a long-range strategy for the Forest, this Plan and accompanying Final EIS are programmatic in nature. During implementation, when various projects are designed, more site-specific analyses will be developed. These analyses (Forest Service Handbook 1909.15) may result in environmental assessments (40 CFR 1508.9), environmental impact statements (40 CFR 1508.11), or categorical exclusions (40 CFR 1508.4) and, possibly, amendment or revision of the Plan (36 CFR 219.10(f) and (g)). Any resulting documents will be tiered to the Final EIS and the Forest Plan (40 CFR 1508.28).

Existing projects, as well as contractual obligations, will continue as originally planned. During implementation, however, the following minimum requirements, subject to valid existing rights, will be met. The Forest Supervisor will ensure that 1) annual program proposals and projects are consistent with the Forest Plan, 2) program budget proposals and objectives are consistent with management direction specified in the Forest Plan, and 3) implementation of the Forest Plan is in compliance with the Regional Guide and the National Forest Management Act regulations.

Proposals to use National Forest System lands will be reviewed for consistency with the Forest Plan. Management direction contained in Chapter IV of the Plan will be used to analyze any proposal involving use of National Forest System lands. All permits, contracts, and other instruments for occupancy and use of the National Forest System lands must be consistent with the management direction in Chapter IV.

Implementation is guided by the management requirements contained in the Forest Plan, including the management prescriptions found in Chapter IV. These management requirements were developed through an interdisciplinary effort and contain measures necessary to mitigate or avoid any long-term adverse effects.

Any unavoidable adverse environmental effects, such as the disruptive effect of timber harvest on recreation use or aesthetics, will be temporary and will involve only a small percentage of the Forest at any one time. All known practical mitigative measures are included in Chapter IV of the Plan. These measures are hereby adopted.

The monitoring and evaluation requirements established in the Forest Plan, Chapter V, are hereby adopted. Management practices will be observed and their effects recorded in order to ensure that the goals and objectives of the Forest Plan are being met and that anticipated results are the actual results.

The monitoring results will be evaluated at intervals established in the Forest Plan to determine whether changes are needed to make it more effective or to respond to changed or unexpected conditions. Data gathered during monitoring will be used to modify implementation schedules, improve mitigation measures, and to assess the need for amending or revising the Plan.

Amendment of the Plan may be done at any time as needed to carry out the goals and objectives of the Plan. Copies of future amendments to the Forest Plan and Final EIS will be made available to the public.

This Forest Plan is not a rigid tool developed to forever manage the Ottawa National Forest. Change can and will be made when it is revised in 10 to 15 years. This decision, made today, will be reviewed periodically and changes will take place whenever and wherever needed, including changes in any management practices. Future management needs and other resource uses require the Forest Service to maintain this Land and Resource Management Plan as a dynamic document.

## Right to Appeal

This decision is subject to appeal in accordance with the provisions of 36 CFR 211.18. Notice of appeal must be in writing and submitted to:

Acting Regional Forester, Eastern Region  
USDA-Forest Service  
310 W. Wisconsin Avenue  
Suite 500  
Milwaukee, WI 53203

The notice of appeal must be submitted within 45 days after the date of this decision, or 30 days after the Notice of Availability of the Final EIS is published in the Federal Register, whichever is later. A statement of reason to support the appeal and a request for oral presentation, if desired, must also be submitted within these time limits.

An appeal of this decision does not halt Forest Plan implementation. A stay of the decision must be requested. A stay may be requested at any time during the appeal period until a decision on the appeal is made by the Chief, USDA-Forest Service.

No decisions on site-specific projects are made in this document, although a number of projects are identified. Those projects identified in various parts of the Plan or Final EIS are only included to indicate approximate scheduling, location, and prescribed practice.

Final decisions on site-specific projects will be made during the Forest Plan implementation after appropriate analysis and documentation meeting National Environmental Policy Act requirements. Parties dissatisfied with a specific project should appeal the site-specific decision once it is made.

The appeal process for projects is the same as that described above for the Forest Plan, except notice of appeal must be sent to the person making the decision. This will normally be a District Ranger or the Forest Supervisor.

  
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FLOYD J. MARITA  
Acting Regional Forester

OCT 14 1986  
\_\_\_\_\_  
DATE

Ottawa National Forest Land and Resource Management Plan  
Record of Decision

Attachment A - Legal References

The following references and citations are included here to make the text of the Record of Decision more readable.

<u>ROD Page</u>	<u>Topic</u>	<u>Citation</u>
1	National Forests Management Act Planning Regulations-----	36 CFR Part 219 47 FR 43026, 9/30/82
1	Council on Environmental Quality rules implementing National Environmental Policy Act-----	40 CFR Part 1500
1	Planning Records incorporated by reference---	36 CFR 219.12
8	Decision to approve the Forest Plan-----	36 CFR 219.1
8	Public comments on the Draft EIS-----	36 CFR 219.6
8	Tiering from Forest Plan-----	40 CFR 1502.20 40 CFR 1502.28
8	Forest Plan and Final EIS as combined documents-----	40 CFR 1506.4
8	Scope of the Final EIS-----	40 CFR 1501.7 40 CFR 1508.25
11	Maximizing net public benefit-----	36 CFR 219.1(a)
28	Cost efficiency of alternatives-----	36 CFR 219.12(f)(8)
28	Alternative that maximizes present net value-----	36 CFR 219.12(j)(2)
34	Notice of intent to prepare Draft EIS-----	45 FR 13490, 2/20/80
34	Notice of availability of Draft EIS and proposed Plan-----	50 FR 48264, 11/22/85
37	Alternatives considered-----	36 CFR 219.12(f)
41	Implementation of Forest Plan-----	36 CFR 219.10(e) 36 CFR 219.11(d) 36 CFR 219.27
41	Changing implementation schedules-----	36 CFR 219.10(e) 40 CFR 1500.2(d)
42	Permits, contracts, and other instruments---	16 USC 1604(i) 36 CFR 219.10(e)
42	Forest Plan Implementation:	
	Site-specific analysis-----	FSH 1909.15
	Environmental assessments-----	40 CFR 1508.9
	Environmental impact statement-----	40 CFR 1508.11
	Categorical exclusions-----	40 CFR 1508.4
	Plan amendment or revision-----	36 CFR 219.10(f)(g)
	Tiering to Forest Plan-----	40 CFR 1508.28
43	Amending the Forest Plan-----	36 CFR 219.10(e)
43	Forest Plan revision-----	36 CFR 219.10(f)(g)
44	Decision subject to appeal-----	36 CFR 211.18
44	Extent of the appeal period-----	40 CFR 1506.10(b)(2) 36 CFR 211.18(c)(3)