

# **MICHIGAN FOREST LEGACY PROGRAM**

## **ASSESSMENT OF NEED**



**A REPORT FROM THE  
MICHIGAN DEPARTMENT OF NATURAL  
RESOURCES**

JULY 2003



The Michigan Department of Natural Resources (DNR) wishes to acknowledge that this Assessment of Need (AON) is based on an earlier report developed for the DNR by the Michigan Chapter of The Nature Conservancy (TNC) entitled, "State of Michigan Forest Legacy Program, Assessment of Need", published in December of 2002. The December 2002 report is available from either TNC or the DNR. The DNR also wishes to acknowledge Richard Hausler, Environmental Forest Specialist, and Margaret Spagnuolo, Management Assistant, Forest, Mineral and Fire Management, Michigan Department of Natural Resources, for their work editing and compiling this report. For further information regarding this report and Michigan's Forest Legacy Program, please contact Mr. Hausler at Forest, Mineral and Fire Management, Michigan Department of Natural Resources, P.O. Box 30452, Lansing, MI 48909-7952, or email him at [hauslerr@michigan.gov](mailto:hauslerr@michigan.gov).



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## **ACKNOWLEDGEMENTS**

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- Members of the Michigan Chapter of The Nature Conservancy for their work in the assessment process and the Conservation Fund, Midwest Division in their facilitating stakeholder and public outreach/participation activities.
- Members of the Forest Stewardship Advisory Committee, the Forest Legacy Subcommittee and Ms. Deirdre Raimo, Regional Program Manager, USDA Forest Service, State and Private Forestry, Northeastern Area.

## **INTRODUCTION**

Michigan is a state rich in forest resources. Its 19.3 million acres of forest land cover 53 percent of the State, with 18.6 million considered timberland. Timberland acreage is the fifth largest in the United States. Michigan's temperate forests are an abundant, diverse, healthy, and productive asset providing a multitude of benefits to its citizens. These benefits include, but are not limited to, habitat for flora and fauna, recreational and sightseeing opportunities, filtration for air and water quality, and timber for social consumption. Economic benefits to Michigan's economy are significant. Over \$12 billion of value added and 200,000 jobs are annually supported statewide through forest-based industries and tourism/recreation. Michigan's forests contribute significantly toward the values and quality-of-life shared by its residents.

This document provides an Assessment of Need for Michigan's potential participation in the federally-funded Forest Legacy Program, a matching grant program that works in partnership with states, local government and non-profits. The Forest Legacy Program (FLP) protects private forest lands from being converted to non-forest uses using primarily conservation easements. The Forest Legacy Program is a cost-share program of which the federal government pays no more than 75 percent of total program costs. Landowner participation in the Forest Legacy Program is entirely voluntary.

## **BACKGROUND**

The Michigan Department of Natural Resources (DNR) Forest, Mineral and Fire Management Division is charged with preparing an Assessment of Need (AON) of the State of Michigan in preparation for the Forest Legacy Program. The DNR contracted with the Michigan Chapter of The Nature Conservancy and its sub-contractor, The Conservation Fund, to conduct Michigan's Assessment of Need.

The work conducted by the Michigan Chapter of The Nature Conservancy is the fundamental core of Michigan's Assessment of Need; revisions and edits are based on additional comments that have been incorporated into the current version.

The Forest Legacy Program is a program that resulted from the federal Cooperative Forestry Assistance Act, amended in the 1990 Farm Bill. The Forest Legacy Program was established to protect environmentally important forest areas that are threatened by conversion to non-forest uses. Michigan's rich forest resource base and rapidly changing landscape makes discussion of the Forest Legacy Program both timely and relevant. The development of Michigan's privately owned forest areas poses an ever-increasing threat to maintaining the economic, recreational, and ecological benefits forests provide to our State.

Privately owned forests not only supply timber products, but also provide wildlife habitat, watershed protection, and recreation and aesthetic values. Increasing fragmentation

and parcelization of forests across our State is resulting in the loss of these valuable ecosystems and the biological, economic and social values they provide. The Forest Legacy Program is a voluntary program that could help protect Michigan's forests from these and other threats.

The Forest Legacy Program encourages and supports the acquisition of conservation easements on privately owned forestlands. These easements are legally binding agreements that transfer a negotiated set of property rights from one party to another. The property remains in private ownership. There is also the option of acquiring the property through a full fee purchase, though this is used sparingly under the Forest Legacy Program.

A property that is within an approved Forest Legacy Area must meet several Federal requirements to be enrolled in the FLP. The proposed property must:

- Be located within an approved Forest Legacy Area that has been determined to be an environmentally important forest area that is threatened with conversion to non-forest uses;
- Complement Federal lands or Federal investments;
- Provide Public access to the greatest extent practicable ;
- Provide opportunities for the continuation of **traditional forest uses**, like timber harvesting and recreation;
- Have a multi-resource management plan for the land prepared and approved.

The Forest Legacy Program is a federal program of which the state can request a grant to operate the FLP in the state, including the acquisition of lands or interests in lands. In order to become a participant in the Forest Legacy Program, Michigan must conduct an Assessment of Need (AON). The AON provides information on specific critical forested areas in Michigan and identifies programs that already exist in Michigan that address these areas. Once the AON is completed and reviewed by the USDA Forest Service and approved by the Secretary of Agriculture, lands within the approved Forest Legacy Areas become eligible for FLP funds.



*Copies to:  
George  
H. Jones  
To: Case*

STATE OF MICHIGAN  
OFFICE OF THE GOVERNOR  
LANSING

JOHN ENGLER  
GOVERNOR

October 5, 2001

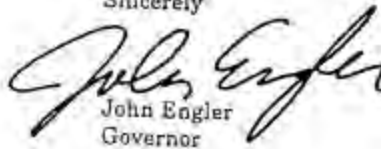
Mr. Dale Bosworth, Chief  
USDA Forest Service  
P.O. Box 96090  
Washington, D.C. 20090

Dear Mr. Bosworth:

The State of Michigan has long valued natural resources for their biological, social, and economic benefits. We are continually exploring opportunities to conserve, protect, and manage natural resources for current and future generations. The USDA Forest Legacy program, through conservation easements and other methods, presents an avenue for protecting landowner rights while providing for a long-term stable forest base. We are interested in pursuing options related to this program.

To meet the requirements for Michigan to participate in the USDA Forest Legacy program, I am designating our Department of Natural Resources as the State of Michigan's lead agency. Director K. L. Cool, or his designee, will be the official representative and has my authorization to conduct activities related to the Forest Legacy program. Our first step will be to conduct the Assessment of Need by working with private landowners, land conservation groups, and other stakeholders. Once the Assessment of Need is complete, we will evaluate how the opportunities provided by the Forest Legacy program match up with our State's needs.

Sincerely

  
John Engler  
Governor

JE/mhjt

cc: Mr. Larry Payne, Director, USDA Forest Service, State & Private Forestry  
Ms. Kathryn Maloney, Director, USDA Forest Service  
Dr. Gerald Thiede, Michigan State Forester  
Mr. K. L. Cool

<b>MICHIGAN STEWARDSHIP ADVISORY COMMITTEE</b>		
Dale	Allen	Farm Service Agency
Cara	Boucher	MDNR FMFM
Mike	Brock	Trout Unlimited
Lloyd	Casey	USDA Forest Service
Bill	Cook	MSUE, Upper Peninsula
Ruth	Dake	
Dennis	Fox	MUCC
Gerald	Grossman	Grossman Forestry Company
Andy	Hayhoe	Louisiana-Pacific
Ernie	Houghton	MDNR FMFM
Jim	Hudgins	US Fish & Wildlife Service
Garret	Johnson	The Nature Conservancy
Des	Jones	Michigan Tree Farm System
Steve	Kalisz	MDNR FMFM
Russ	Kidd	MSUE, Northern Lower Peninsula
Mindy	Koch	MDNR FMFM
Melvin	Koelling	MSU Forestry Department
Louis	Kurtis	
Doug	Lee	Michigan Association of Timbermen
Howard	Lindberg	Mead Corp., Woodlands Division
Keith	Martell	USDA NRCS
Rick	Moore	Grand Traverse Conservation District
Dave	Neumann	MDNR FMFM
Janet	Persons	Antrim County Conservation District
Georgia	Peterson	MSU Extension - Forestry
Roger	Rasmussen	
Kathleen	Ryan	Huron Pines RC&D
Byron	Sailor	MDNR FMFM
Mark	Sargent	MDNR Wildlife Division
Marilyn	Shy	Michigan Association of Conservation Districts
Dean	Solomon	MSUE, Southwest Michigan
Judy	Soule	MNFI
Ron	Spenski	MDA Environmental Stewardship Division
Tom	Stadt	Michigan Association of Consulting Foresters
Tom	Stone	MDNR FMFM

<b>MICHIGAN STEWARDSHIP ADVISORY COMMITTEE</b>		
Warren	Suchovsky	FSP State Advisory Committee
Gordon	Terry	Michigan Forest Association
Mark	Tonello	MDNR Fisheries Division
Pat	Turkington	Farm Service Agency
John	VanDyke	Landowner/MFA
Rich	Wiest	USDA Forest Service
Randy	Wilkinson	Upper Peninsula RC&D
Ann	Woiwode	Sierra Club, Mack Chapter
Shannon	Zezula	Natural Resources Conservation Service
		Michigan Farm Bureau

## **I. OVERVIEW OF FORESTED AREAS**

### **A. Size and Location of Forested Areas in Michigan**

Of the 36 million acres of land in Michigan, 19.3 million are forested, and 18.6 million acres are classified as timberland, land suitable for production of timber crops and not administratively withdrawn from timber production (USFS, 2002). By some measures, Michigan forest cover has been increasing, and the 1993 acreage represented a 7% increase since 1980. However, much of the new forest cover occurs on inactive farmland and does not support sustainable timber harvests or full ecosystem functions.

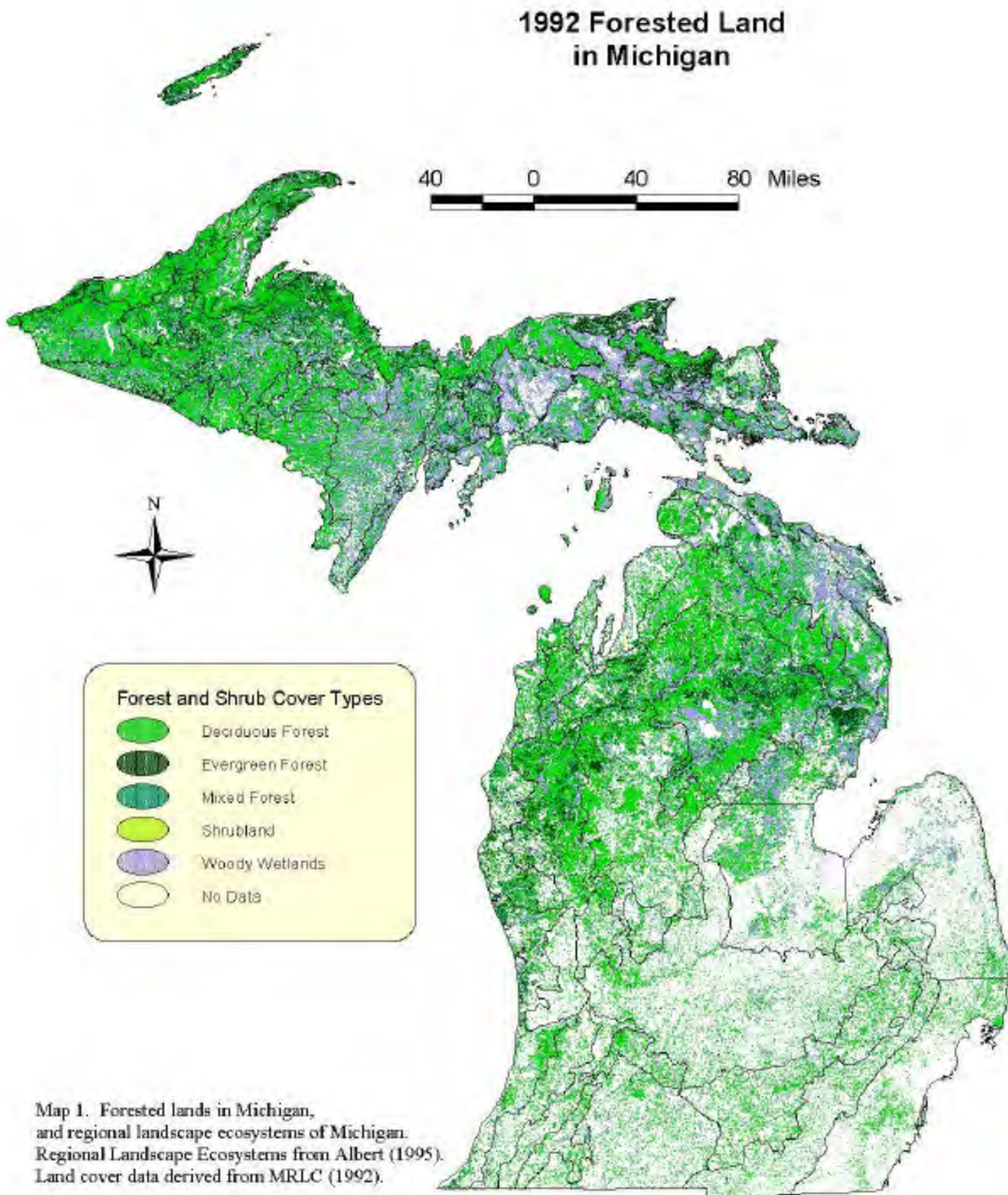
Forests are primarily located in the northern 2/3 of the State (**Map 1**), and the total area of forest is the fifth largest among all states. The percentage of forest cover varies dramatically from south to north (**Map 2**) reflecting the influence of agriculture in the more productive soils and climate of the southern Lower Peninsula, as compared to the northern Lower and Upper Peninsula.

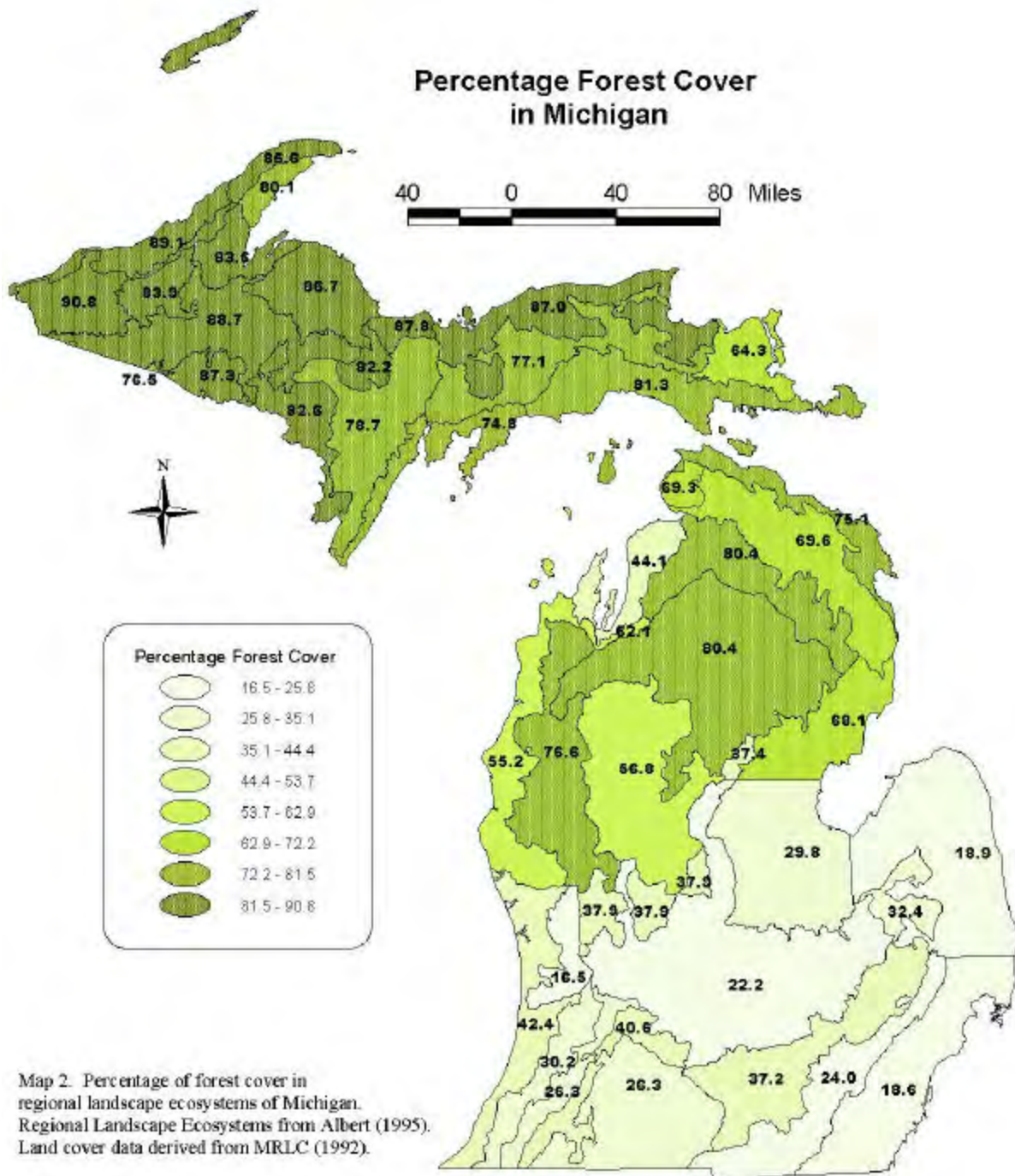
### **B. Cultural Heritage and Social Value**

Michigan's cultural heritage could be said, without exaggeration, to have been built using Michigan's forests. From the historic logging camps in the Upper Peninsula to the establishment of timber shipping communities like Port Huron, the people of Michigan have depended on forests for recreation, jobs, and their very survival since well before statehood. Indeed, long before European settlement and industrialization, the area's forests provided a foundation for the rich Native American culture found across the Great Lakes region.

Michigan's forests and their proximity to the Great Lakes played a key role in Michigan's history over the last two centuries. When the earliest European immigrants came to Michigan in the 1660's, the land was mostly covered by forests. That began to change rapidly after the 1825 opening of the Erie Canal, which provided a direct link with the eastern states. The first influx of new settlers to Michigan came to farm, and as farming replaced fur trading as the dominant economic activity, the forests in the southern part of the state were cleared to make way for agriculture.

In the years after the Civil War, a major timber industry took root in Michigan as increasing industrialization and national expansion fueled demand for timber products. By 1869, Michigan was producing more lumber than any other state (Michigan Historical Center). The ready availability of jobs in Michigan timber camps, difficult though they were, gave rise to further immigration. By the end of the nineteenth century, continued growth in demand and technological advances like the Big Wheel (invented in Michigan by Silas Overpack of Manistee as an alternative to transporting timber on sleds) led to further increases in timber production.





The early timber companies, however, had little interest in continuing to own or manage large tracts of land after the land had been logged, and often simply abandoned the land after cutting or sold parcels to families for farming. Many of the newly established farms were doomed to failure because the land was not suitable for farming. Land that had been cut was no longer protected from erosion, and the remaining debris occasionally caught fire and caused widespread damage across the State.

The Nineteenth Century push for timber helped give rise to the Twentieth Century conservation movement in Michigan. Efforts like the work of the Depression-era Civilian Conservation Corps (CCC) helped assure reforestation of many areas of the State now forested. Even in places where forests are no longer present, traces of forest history remain. Towns, parks, lakes and rivers across Michigan have been named after timber camps or families formerly associated with the timber industry. And much of the public land now owned by the State of Michigan is tax delinquent land that was either abandoned by early timber companies or by families who failed at attempts to farm it.

From the creation of “plank roads” used to ease travel before the rise of the automobile, to the use of forest products in the early automobile manufacturing process, Michigan’s forests have touched virtually all walks of life and contributed to much of the State’s history. Today, forest-based industries, recreation and tourism continue to support hundreds of thousands of jobs that sustain working families across Michigan, whether in cities or small towns (see **Section III. B.** below for further information on economic benefit.).

In addition to providing livelihoods, Michigan’s remaining forests and abundant freshwater lakes and streams draw thousands of outdoor enthusiasts interested in hunting, fishing, snowmobiling, or just catching a glimpse of a bear, rare bird or plant. Michigan residents and visitors alike thrive on hiking, biking, camping and hunting in the Michigan forests. Michigan’s forests are, and always have been, central to the State’s way-of-life.

### **C. Physical Make-up of Michigan Forests**

Due to its past glacial activity, geology, climate and geographical position relative to the Great Lakes, Michigan contains southern broadleaf forests, needleleaf boreal forests and a variety of mixed forest types in between. The variety of forest communities in Michigan reflects the diversity of weather conditions, geology, topographic features, soil types, and hydrologic conditions throughout the State. Because of the interactions of these factors and their effects on vegetation, one can think of Michigan as a mosaic of different *landscape ecosystems*.

Landscape ecosystems are units of land that can be identified and mapped at broad (regional) and fine (local) scales, providing a useful framework for understanding forest communities and their characteristic structure, composition, successional patterns, potential interactions, and the importance they hold for rare and common wildlife species.

Landscape ecosystems also provide a context for understanding human uses of forests such as timber production, recreation, conservation, aesthetic enjoyment, food gathering, and other uses. When considering the nature and value of the forests in Michigan and the need for a program such as Forest Legacy, it is helpful to be able to break the State up into operational components. Counties are familiar units of the State and have been used by other states in their Assessments of Need, but landscape ecosystems are a more ecologically meaningful system of units, and the ecological characteristics and human uses of forests are better understood through such a system.

#### **D. Michigan's Landscape Ecosystems**

The regional landscape ecosystems of Michigan have been identified, classified, and mapped (Albert et al. 1986, Albert 1995), and these ecosystems form the framework for some of this Assessment of Need (**Map 3**). In brief, the State can be divided into four ecological sections, which can then be subdivided into various subsections and sub-subsections, each a finer level of the classification representing more subtle distinctions in climate, geology, and general vegetation communities. Characteristics of each of these landscape ecosystems have been described in detail (Albert et al. 1986, Albert 1995), and the U.S. Forest Service has summarized the characteristics (1995).

The Michigan Natural Features Inventory (MNFI) (1986) has described the forested communities that occur in Michigan (**Table 1**). This classification is also useful at the state level for describing broad patterns of vegetation. Each of these broad communities includes a good deal of variability, depending on local variation in climate, geology, topography, and soils, and at the local level many more forest communities can be identified, some of them rare (see below).

**Table 1. Forest Communities in Michigan (Chapman 1986)**

##### **Wetland Forest**

Poor conifer swamp  
Rich conifer swamp  
Relict conifer swamp  
Hardwood-conifer swamp  
Southern swamp  
Southern floodplain forest

##### **Forest/marsh**

Wooded dune and swale complex

##### **Upland Forest**

Mesic southern forest (southern hardwood forest)  
Dry-mesic southern forest (oak-hardwood forest)  
Dry southern forest (oak forest)  
Mesic northern forest (northern hardwood forest & hemlock-hardwood forest)  
Dry-mesic northern forest (pine-hardwood forest)  
Dry northern forest (pine forest)  
Boreal forest





Map 3. Regional Landscape Ecosystems of Michigan from Albert (1995).

## **II. EVALUATION OF SIGNIFICANT FEATURES OF MICHIGAN FOREST LAND**

### **A. Aesthetic and Scenic Values**

The aesthetic and scenic characteristics of Michigan are, for many residents, the first thing that comes to mind when they think of their state. In fact, Michigan's official state motto is, "Si Quaeris Peninsulam Amoenam Circumspice" (if you seek a pleasant peninsula, look about you). The Upper and Lower Peninsulas of Michigan border four of the largest freshwater lakes in the world and consequently has more coastline than any other state in the United States. Michigan's two great freshwater peninsulas are thus a scenic mix of woods, water and coastline. One of the benefits of Michigan forests to citizens and visitors alike that should not be overlooked when considering the Forest Legacy Program is the aesthetic richness provided by Michigan forests.

Michigan's forests, strikingly beautiful when considered on their own, are also often found in spectacular natural settings. For example, the coastal sand dunes of western Michigan, many of which are forested, are especially scenic features. Similarly, coastlines along much of the Lower and Upper Peninsulas are known for their open vistas and forested scenery. Also, there are many other forested areas inland that provide no less aesthetic pleasure due to the dramatic character of the landscape, often reflective of their underlying geology or topography. There are, for example, more than 100 waterfalls in the Upper Peninsula, including the second largest waterfall east of the Mississippi. Statewide, Michigan's forests are completed by more than 35,000 inland lakes and 36,000 miles of river (Fridgen, 1995).

The scenic values of Michigan forests are evident in every season of the year, from summer camping and hiking opportunities in Michigan's national forests, to winter snowmobiling on State and federal lands, to fall color tours in each of the State's 83 counties.

In recognition of the scenic and aesthetic values of Michigan's forests, the Eligibility Criteria used for identifying Forest Legacy Areas in this Assessment of Need include whether forested lands are near Great Lakes coastline (i.e., within five miles); whether forested lands are part of one of Michigan's many publicized fall color tours; or are near a major hiking trail like the North Country Trail (**Map 4**).

### **B. Important Wildlife Habitat**

Forests are important for many, if not most, of the wildlife species in Michigan. Their importance can be thought of with respect to the common types of forested communities that provide habitat for many species and the rare or uncommon forest types or other rare communities that are nested within a forested landscape. Additionally, many rare, declining, and wide ranging species depend on forests as habitat for nesting, shelter, foraging, or resting during migration. And there are other, more common wildlife species for which forests play a critical role at one time or another in their lives.



## 1. Rare Natural Communities

Within the broad forest communities identified by MNFI (1986), *further distinctions* can be made based on more local variation in forest composition. In addition, there are some unique ecological conditions, such as cliffs or seepage areas, that support forest communities that may have very narrow ecological ranges. This is what is described in Table 2. Please note that for purposes of this document, the communities listed in Table 2 can be assigned to a given community listed in Table 1. At this time, MNFI does not have a publication illustrating how the forested communities in Table 2 relate to the set of forested communities listed in Table 1. Some of these narrowly defined forest communities are globally rare. These types of communities are considered *globally imperiled*, and have been assigned a rank of imperilment (G-rank<sup>1</sup>) of G1-G3 (G4 and G5 are not considered imperiled).

Rare natural communities occur throughout the State, but are concentrated on shorelines and in the few relatively intact areas of the southern Lower Peninsula. For example, the Jackson Interlobate (Sub-subsection VI.1.3) comprises relatively steep and gravelly land forms, which have restricted agricultural use and resulted in a relatively high percentage of forest cover in that landscape ecosystem.

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<sup>1</sup> G-rank refers to the degree of imperilment of a species or natural community. It is based on the number of individuals, populations, or occurrences and ranges from G1 (critically imperiled globally; 5 or fewer occurrences or very few individuals or acres) to G5 (demonstrably secure globally). Globally imperiled species and communities include G1, G2 (imperiled globally; 6 to 20 occurrences or few remaining individuals or acres), and G3 (either very rare and local throughout its range or found locally (even abundantly) in a restricted range or because of other factors making it vulnerable to extinction; 21 to 100 occurrences). G-ranks that are uncertain are indicated by a G?, a GQ, or by a range, such as G3G5.

**Table 2. Globally Imperiled Forest Communities of Michigan based on The Nature Conservancy Classification.**

Community Name	Global Imperilment Ranking
Basswood - Ash - Maple Woodland	G3G5
Beech - Maple Glaciated Forest	G3G4
Beech - Oak - Maple Mesic Floodplain Forest	G1Q
Bur Oak - Swamp White Oak Mixed Bottomland Forest	G2G3
Chinquapin Oak / Nodding Onion Alvar Woodland	G1?
Eastern Hemlock - Beech Hardwood Forest	G3?
Eastern White Cedar - Yellow Birch Forest	G2Q
Great Lakes Dune Pine Forest	G3Q
Great Lakes White Pine - Hemlock Forest	G3?
Hemlock - Yellow Birch Wet-Mesic Forest	G3
Hemlock Mesic Forest	G3G4
Jack Pine - Red Pine / Scrub Oak Woodland	G3G4
Lakeplain Mesic Oak Woodland	G2
Maple - Yellow Birch Northern Hardwoods Forest	G3G4
Mixed Conifer / Common Juniper Alvar Woodland	G2?
Northern Dry-Mesic Oak Woodland	G3G4
Northern Hardwood Forest	G3G5
Northern Maple - Basswood Forest	G3?
Pin Oak Mixed Hardwood Forest	G3G5
Red Pine / Blueberry Dry Forest	G3
Spruce-Cedar Wet Alvar Woodland	G1G2
Sugar Maple-Oak-Hickory Limestone Woodland	G3
Swamp White Oak Woodland	G1
Sycamore-silver Maple Floodplain Forest	G3G4
White Cedar - (Hemlock) Mesic Forest	G3?
White Cedar Bluff Woodland	G2Q
White Cedar Limestone Bedrock Woodland	G3
White Cedar Limestone Talus Woodland	G3G4
White Cedar Seepage Swamp	G3G4
White Pine - Oak Morainial Ridge Forest	G3Q
White Pine - Red Maple Swamp	G3G4
White Pine - Red Oak Forest	G3
White Pine - White Oak Forest	G3
White Pine - White Oak Sand Woodland	G1Q
White Pine / Blueberry Dry-Mesic Forest	G3G4
White Pine / Mountain Maple Mesic Forest	G3G4
White Pine Inland Dune Ridge Forest	G3?
Wooded Dune and Swale Complex	G3

## 2. Rare Species

Michigan forests are important habitat for many rare species, and maintaining forests with appropriate structure and composition and of sufficient size is critical for the survival of these species. For example, the Hart's-tongue fern (*Asplenium scolopendrium* var. *americanum*) is a rare plant (G3G4) that prefers shaded, moist conditions in mature forests and is sensitive to disturbance (Penskar and Higman, 1996). Another example is the pine marten (*Martes americana*) that requires a mature or uneven-aged, well stocked stand of deciduous or coniferous forest as optimal habitat (Earle et al., 2001). Both of these rare species occur in forests of Michigan, as do many others (see Table 3 below). All of these species depend on forests for some portion of their life history, though they may differ in their habitat requirements. In contrast to the marten and the fern described above, some species may benefit from management for early successional forests. The Kirtland's warbler (G1), for example, requires young jack pine stands to provide suitable nesting habitat.

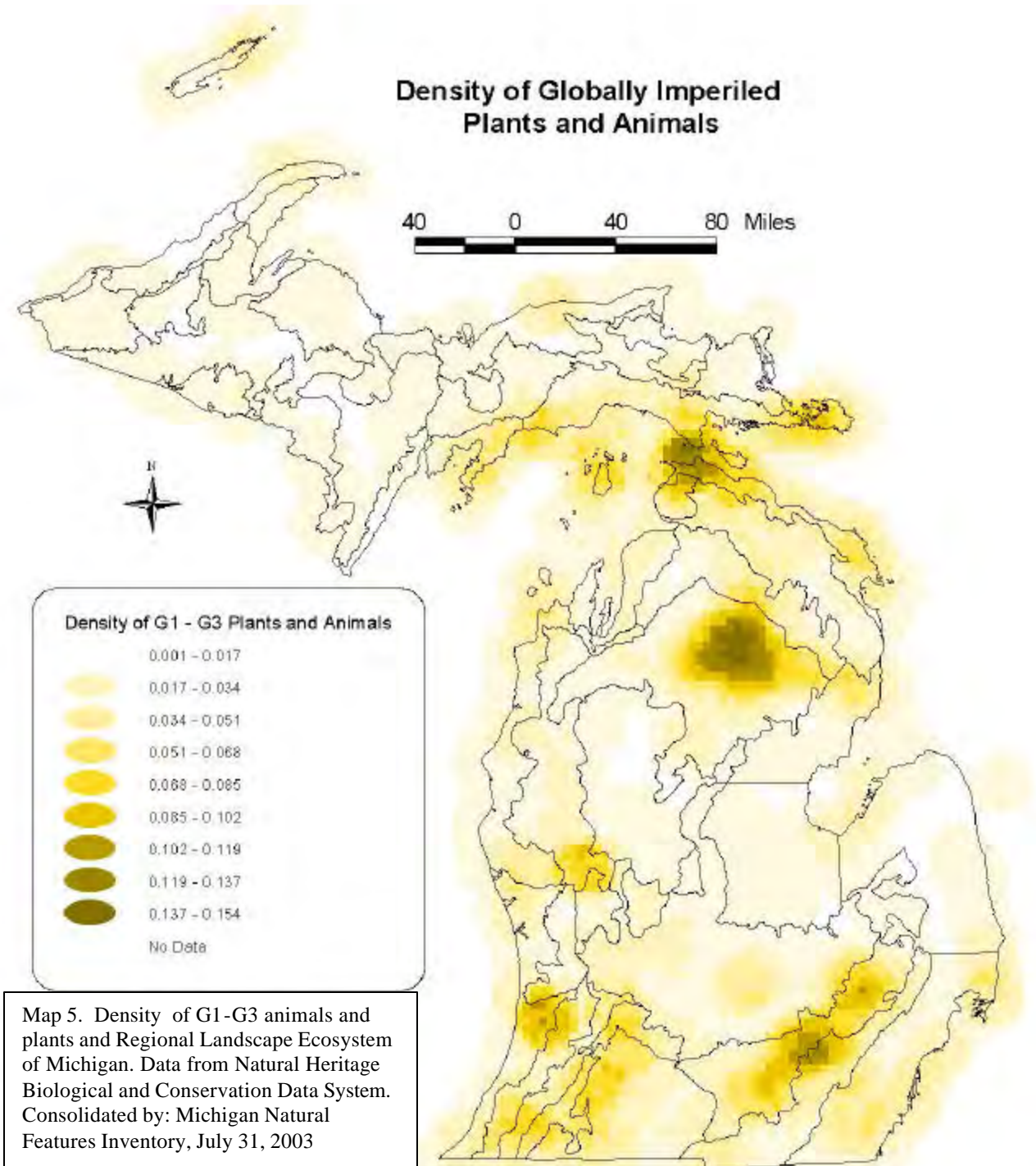
Rare species tend to be concentrated in many of the same areas of the State as rare communities (**Map 5**): near shorelines and in areas of remnant natural systems, especially forests.

## 3. Declining and Vulnerable Species and Migratory Songbirds

There are many species that are not yet considered rare or globally imperiled, but are declining, including many species of neotropical migratory birds and several reptiles and amphibians. In some cases, observed decreases in populations or disappearances of local populations are dramatic, as illustrated by the cerulean warbler. Numbers of this forest-dwelling species declined at a rate of 4.7 percent *per year* between 1966 and 2000 (Sauer et al. 2001). Similarly, the wood thrush declined at a rate of 0.9 percent over the same period. Most of these species depend on forests, either as habitat during some part of their life history or as buffer or recharge areas for their habitat. Because they depend directly on forests for their habitat and are relatively well understood, birds can serve as a surrogate for the broader group of declining and vulnerable species for the purposes of this Assessment of Need.

The Nature Conservancy, in partnership with other organizations, has identified declining species of birds for which the Great Lakes region provides critical forested habitat for breeding or stopover, and has taken the step to develop a map of those places most significant for conservation of those species (Ewert 1999). Much of this critical habitat may disappear due to increased conversion of forested land to urban and home development.

It is clear that large, contiguous forests, such as those in the Upper Peninsula and the northern Lower Peninsula, support large populations of many birds, including neotropical migratory species. Researchers have found that in early spring the first birds to reach the Upper Peninsula and other areas of Michigan



depend on insects hatching from near-shore areas in lakes. These insects mature from aquatic larvae and then breed and roost in the forests along lake shores, making shoreline forests particularly important for migratory birds that cannot find insect food in interior forests.

In summary, the large contiguous forests of the north are critical to declining and vulnerable birds because they support large populations and serve as a stronghold for many species. Of particular importance are those forests that support the earliest spring migrants, such as the shoreline forests of the northern lower peninsula, which are under strong pressure for use as property for secondary housing development.

#### **4. Wide-ranging Species**

In addition to rare and declining species, the forests of Michigan are important for several species that require large, intact areas to support viable populations. Wide ranging species, such as the gray wolf, the moose, the lynx, the fisher, and the black bear, though they may be able to tolerate close proximity to human activities under some circumstances, survive best when they have the ability to roam widely through undeveloped landscapes. In the upper Great Lakes, connectivity is provided by the mostly contiguous forests that stretch from the Upper Peninsula through northern Wisconsin and Minnesota and across Canada.

#### **5. Winter Deer Yards**

It is well established that the deer herd in Michigan makes a significant contribution to the economy and culture of Michigan (U.S. Fish and Wildlife Service and Bureau of the Census, 1998). In the Upper Peninsula, forests of northern white-cedar provide food and thermal cover for deer in winter. Areas where deer concentrate in winter, known as deer yards, are familiar to wildlife managers and hunters alike and have been studied for decades by the DNR. An important factor in determining these areas of winter deer concentration (depicted in **Map 6**) is the pattern of winter snow depth. In general, the northern half of the Upper Peninsula gets far more snow (many areas average 200 inches per winter) than the southern half and the Lower Peninsula. These extreme snowfalls force species, such as deer, that have a hard time traveling or finding food in deep snow, to move to areas of lesser snowfall. Other species that can move around more easily in deep snow (e.g., moose) or that hibernate (e.g., black bear) do not show similar patterns of winter distribution; their summer and winter ranges are the same.

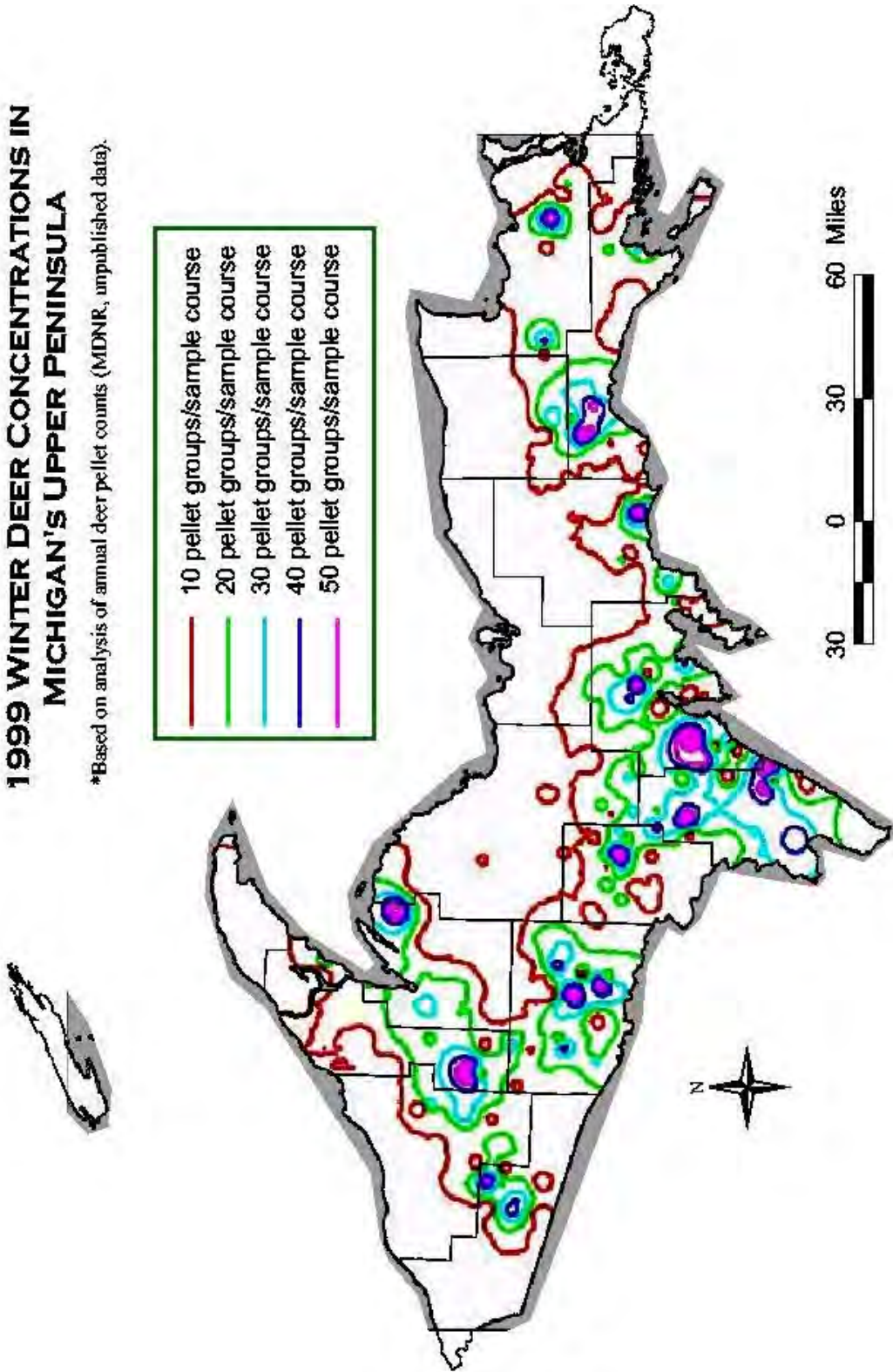
#### **6. Summary and Assessment**

Intact and relatively unfragmented forests are important for wildlife for a variety of reasons. The importance of forested areas for rare natural communities, rare species, declining and vulnerable species and migratory song birds, wide-ranging species, or as winter concentrations of white-tailed deer have thus been included in the Eligibility Criteria for Forest Legacy Areas.



# 1999 WINTER DEER CONCENTRATIONS IN MICHIGAN'S UPPER PENINSULA

\*Based on analysis of annual deer pellet counts (MDNR, unpublished data).



Map 6. Concentrations of deer in the Upper Peninsula of Michigan in the winter of 1999, based on analysis of annual deer pellet counts (MDNR, unpublished data)

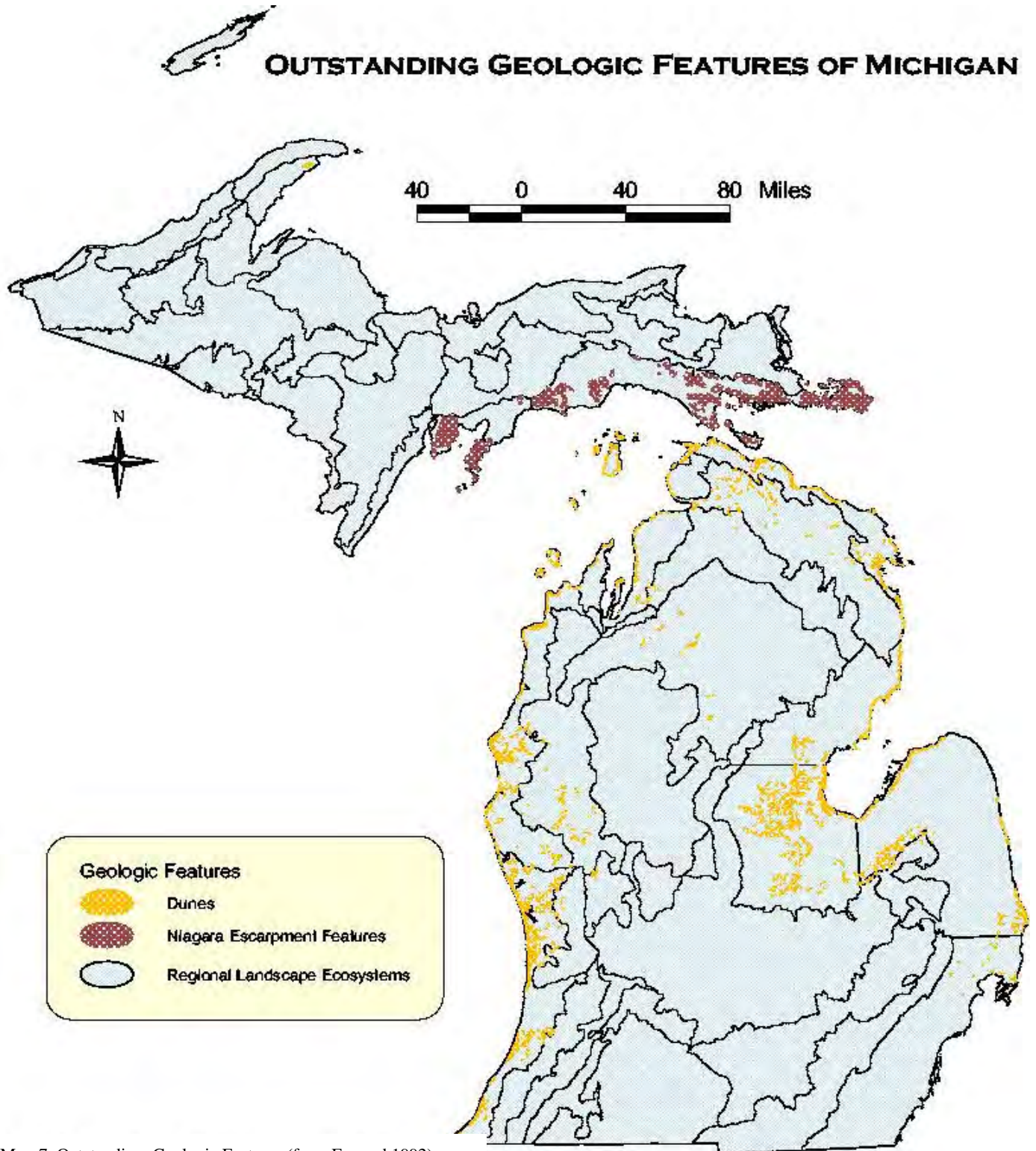
### C. Geology and Outstanding Geologic Features

The geology of Michigan is complex, consisting not only of a variety of bedrock strata underlying the surface, but also layers of drift (material deposited through glacial processes) piled in various land forms through successive glacial advances and retreats (Dorr and Eschman 1970). Bedrock geology is most strongly expressed in the western Upper Peninsula, where formations dating to the Precambrian era (1.6 to 3.5 billion years ago) punctuate the landscape with dramatic ridges and steep ravines. Bedrock of more recent origin is exposed in the eastern Upper Peninsula and along the eastern shore of the northern Lower Peninsula, much of it being part of the Niagara Escarpment. This limestone and dolomite formation stretches from central New York through Ontario and Michigan and around the western side of Lake Michigan. The forests that grow on these bedrock surfaces are distinct in tree species composition and productivity, and they support very different associated plant and animal species.

Much of the eastern Upper Peninsula and almost the entirety of the Lower Peninsula are covered in glacial drift, and different glacial land forms are characterized by distinct topography and soil types and provide the ecological setting for the development of ecosystems, forested and otherwise. For example, forests that develop on moraines (material deposited directly by glaciers and composed of mixed sands, clays, gravel and boulders) often are northern hardwoods or beech maple, and are typically more productive than those on outwash plains (typically level or pitted and composed of well sorted sands and gravels). The soils on outwash plains are typically less fertile, and often more excessively drained, commonly resulting in oak or oak-pine barrens or forests as the predominant plant community. The diversity of forests in Michigan is a direct result of the diversity of geology, coupled with broad climatic patterns and related differences in soils.

Among the variety of geological features in Michigan, some stand out as unique or unusual and deserve special consideration. Over the last several thousand years, as the land has rebounded from the weight of continental glaciers and the Great Lakes have filled and receded several times, several systems of freshwater dunes have formed. The most notable are those along the east coast of Lake Michigan, but also occur in many other places, including areas that are well inland from any lakes (**Map 7**). As the largest system of freshwater dunes in the world, the dunes (both open and forested) are a unique feature. They hold special cultural significance as some of the most picturesque landscapes in Michigan and host several rare natural communities and species, including the Federally Threatened Pitcher's thistle (*Cirsium pitcheri*). The dunes that are near the Great Lakes shorelines are of particular significance and will be included in the Eligibility Criteria for Forest Legacy Areas.

The Niagara Escarpment is another notable geologic feature. Formed of limestone and dolomite resulting from the deposition of calciferous marine organisms on an ancient ocean floor (400 – 500 million years ago), the Niagara Escarpment extends from the Door Peninsula in Wisconsin through the Garden Peninsula (near Manistique), arches around the northern shores of Lakes Michigan and Huron, and continues through Lake



Map 7. Outstanding Geologic Features (from Farrand 1992)

Huron then eastward to Niagara Falls and central New York (**Map 7**). In Ontario, the significance of the escarpment has been globally recognized; it has been a UNESCO World Biosphere Reserve since 1990 due to its biological and cultural importance. In Michigan, the Niagara Escarpment supports unusual natural communities (such as northern fens in low-lying areas; alvars on flat, droughty areas; and old growth northern white-cedar forests on bluffs), as well as rare species (such as the federally Endangered Hines Emerald dragonfly [*Somatochlora hineana*]), and is an important source of cedar for posts, poles, and other uses.

Because these geologic features are both largely near the shores of the Great Lakes, they are under relatively higher pressure for the development of second homes and roads. In addition to their geological, biological, and cultural significance, their susceptibility to development warrants consideration in the Eligibility Criteria. The Niagara Escarpment and the system of coastal freshwater sand dunes will make up one of the Eligibility Criteria for Forest Legacy Areas.

#### **D. Soils and Groundwater Recharge Areas**

The soils in Michigan reflect their geologic origin, whether being derived from bedrock or the result of glacial activity. There is tremendous diversity in soil texture, chemistry, and drainage class, and the age of Michigan soils spans several thousand years. Broad patterns of soil types are helpful in understanding differences among forests in Michigan. Differences in forest composition, structure, and productivity can be partly interpreted at this broad scale, though there is also much variation at the local scale.

Forest composition and structure is closely linked to soil characteristics, and intact forests also provide protection to supporting soils. Intensive forest management or conversion of forests to other land uses often results in compaction or erosion of the soil, which not only can dramatically change the ecology of an ecosystem, but can negatively affect aquatic and terrestrial ecosystems that are downstream. Conservation of forests and compatible forest management not only benefits forests, forest species, and soils, it also is critical to maintaining water quality in both surface and subsurface aquatic systems.

Forests capture a much greater proportion of water than land that has been converted to other uses, that is, they allow more water to infiltrate the soil where it can be used by resident plants or enter the groundwater. Formerly forested watersheds that are currently in agriculture or developed uses experience elevated runoff and erosion, resulting in changes to aquatic ecosystems and reduction of water quality (citation). Because of the predominance of glacial drift and its ability to soak up water, the cycle of infiltration, groundwater flow, and groundwater discharge is extremely important to ecosystems throughout Michigan. For example, the dry pine barrens of the Grayling Outwash Plain (landscape Sub-subsection VII.2.2, see **Map 3**) take in great amounts of precipitation and are considered an area of *groundwater recharge*. In contrast, the tamarack swamps of the Jackson Interlobate (landscape Sub-subsection VI.1.3, **Map 3**)

and the coldwater lakes of the Traverse City Sub-subsection (VII.5.2, **Map 3**) depend on *groundwater discharge*. The role of forests in maintaining and benefiting from this cycle of recharge and discharge is central. Due to differences in geology, topography, and soil, some areas are more significant recharge areas than others; researchers at the Institute for Fisheries Research (IFR) in Ann Arbor have mapped these patterns for the Lower Peninsula, and are soon to have the same information for the Upper Peninsula (**Map 8**). The areas that IFR has determined are significant will make up one of the Eligibility Criteria under Ecological Values for Legacy Areas.

## **E. Minerals Resource Potential**

In the Northern Lower Peninsula, much of the economic development related to mineral extraction is that coming from extraction of oil and gas in the Northern Lower Peninsula. Wells created to extract oil and gas do little to impair traditional uses and benefits of the surrounding forests in which these wells reside. Michigan's Forest Legacy Program (FLP) will consider those forested lands containing oil and gas well for participation in the FLP.

In certain areas where extraction would result in extensive surface disturbance, such as open pit mining, mineral extraction is at complete odds with the goals of the FLP. Michigan's FLP will exclude these lands from consideration. An exception will be made only if the mineral rights have been or can be reasonably purchased, with the intent of excluding any mining development.

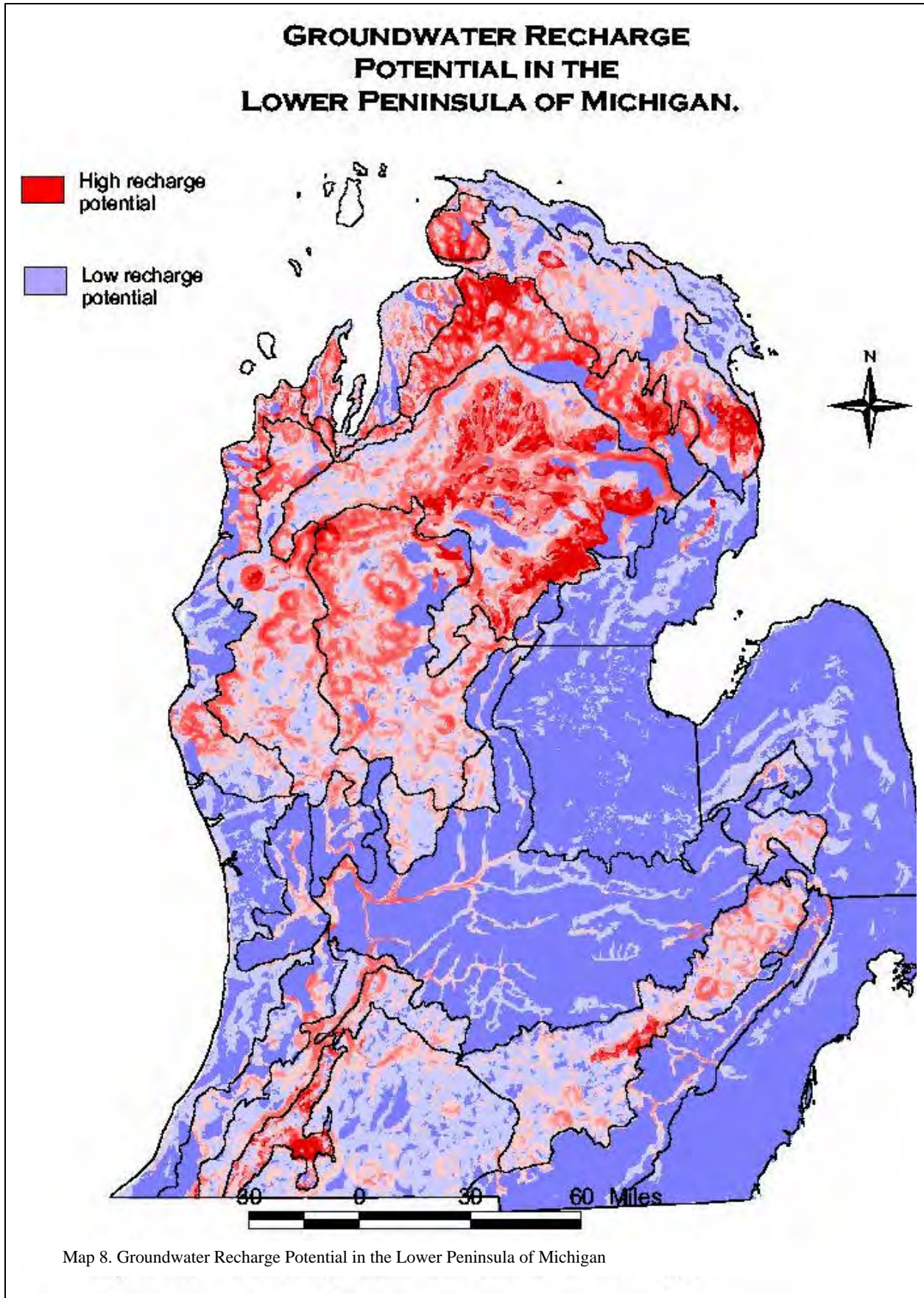
## **III. TIMBERING AND MICHIGAN FORESTLAND**

### **A. Timber Management Trends**

The forests of Michigan have long been a source of timber products. The nature of the forests has changed dramatically over the past 150 years and continues to change, and the timber products industry will evolve in response.

On the 18.6 million acres currently classified as timberland, several trends are worth noting. In the current forest, softwoods represent 25% and hardwoods 75% of the total acreage. Among forest types, maple-birch and aspen are predominant; pine, oak-hickory and elm-ash-soft maple follow in abundance. In terms of timber classes, sawtimber stands represent 46%; poletimber stands represent 30%; and seedling/sapling stands represent 24% of the total timberland acreage (MDNR 2002).

Forests are, in general, aging, and early successional species are giving way to late-successional species. Of note, aspen forests have declined from 4.2 million to 2.7 million acres between 1966 and 1993. Continued demand for aspen pulp and for management of wildlife species that prefer aspen should slow this decline. Overall, the growing stock has increased by roughly 35% to 27 billion cubic feet since 1980. Among forest types, red pine had the greatest average growing stock volume per acre over this period (U.S. Forest Service, 2002).



Map 8. Groundwater Recharge Potential in the Lower Peninsula of Michigan

Annual timber growth has exceeded the volume of timber extracted from the forests for over 30 years, representing a “surplus” of wood. Michigan’s surplus is one of the largest in the country (USDA, Forest Service, North Central Research Station 2002), and if considered from a timber products perspective, represents an opportunity for increased output of products and an increase in economic benefits. The growth in volume also relates to the aging of the forest that creates additional opportunities for management for older forests and for conservation of large, unfragmented forest blocks and the associated species that proliferate only in large, mature forests. These two seemingly contradictory opportunities are both at risk of diminishment due to a number of threats and concerns.

## **B. Timber Product Output**

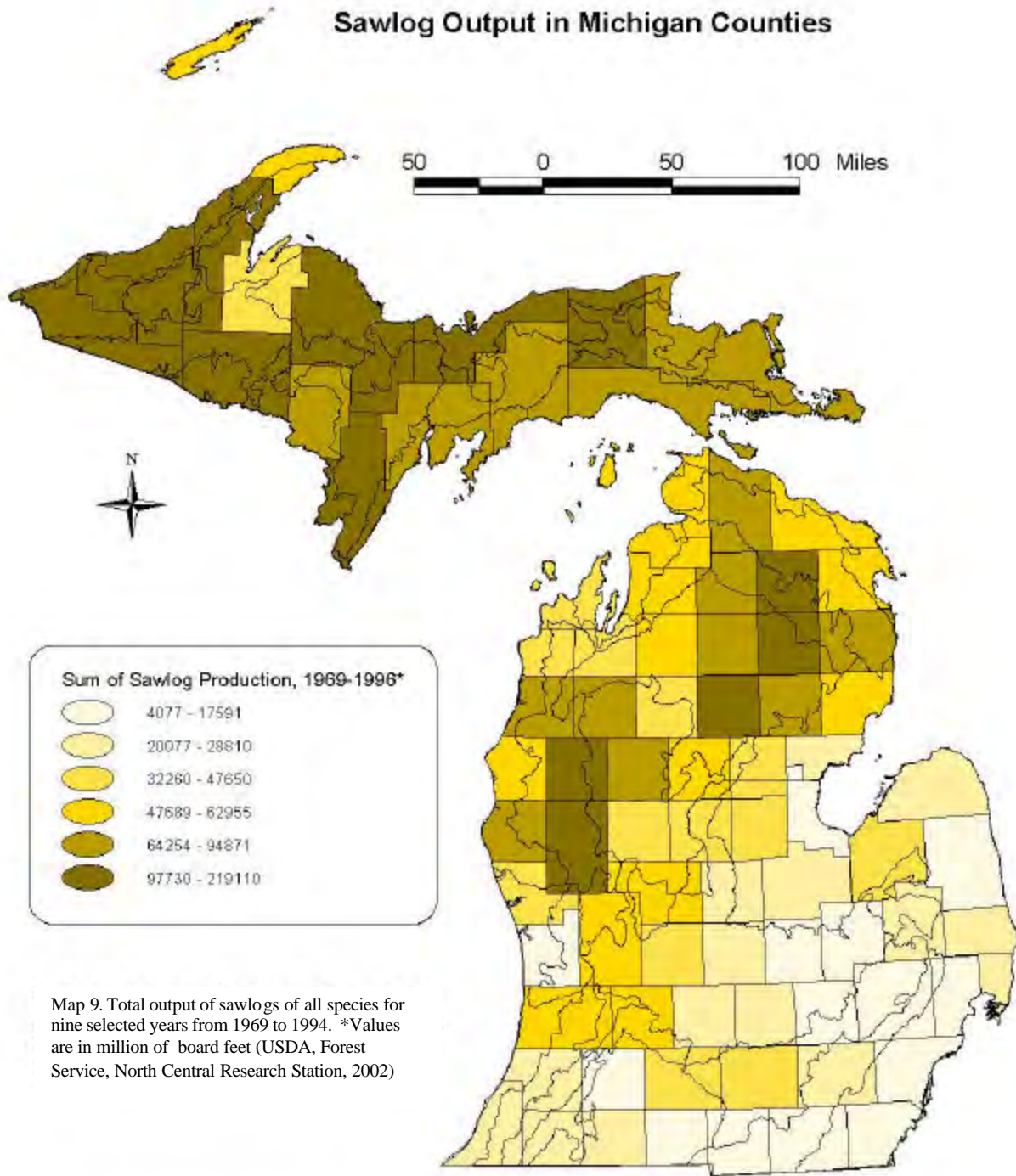
Timber product output varies among counties, depending on the type, quality, and accessibility of timberlands and the demand for products. The output from any single county varies from year to year in response to these and other factors, but the relative amounts of output stay roughly the same. Total output of sawlogs in nine selected years from 1969 to 1994 varied considerably, from 4 MMBF in Bay County to 219 MMBF in Gogebic County (**Map 9**; USDA, Forest Service, North Central Research Station 2002). Total pulpwood outputs from 1970 to 1996 showed a similar but slightly different pattern among counties (**Map 10**). Six counties, all in southeast Michigan, had no recorded production of pulpwood for this period. Marquette County, in contrast, produced over 5 million cords.

Timber products are a significant value derived from Michigan’s forests. Michigan’s potential to produce timber products, based on an increasing trend in volume, could increase or at least remain the same, if the oppositional trends of fragmentation and development can be avoided or prevented. The relative productivity of sawlogs and pulpwood is thus included in the criteria for Forest Legacy Areas.

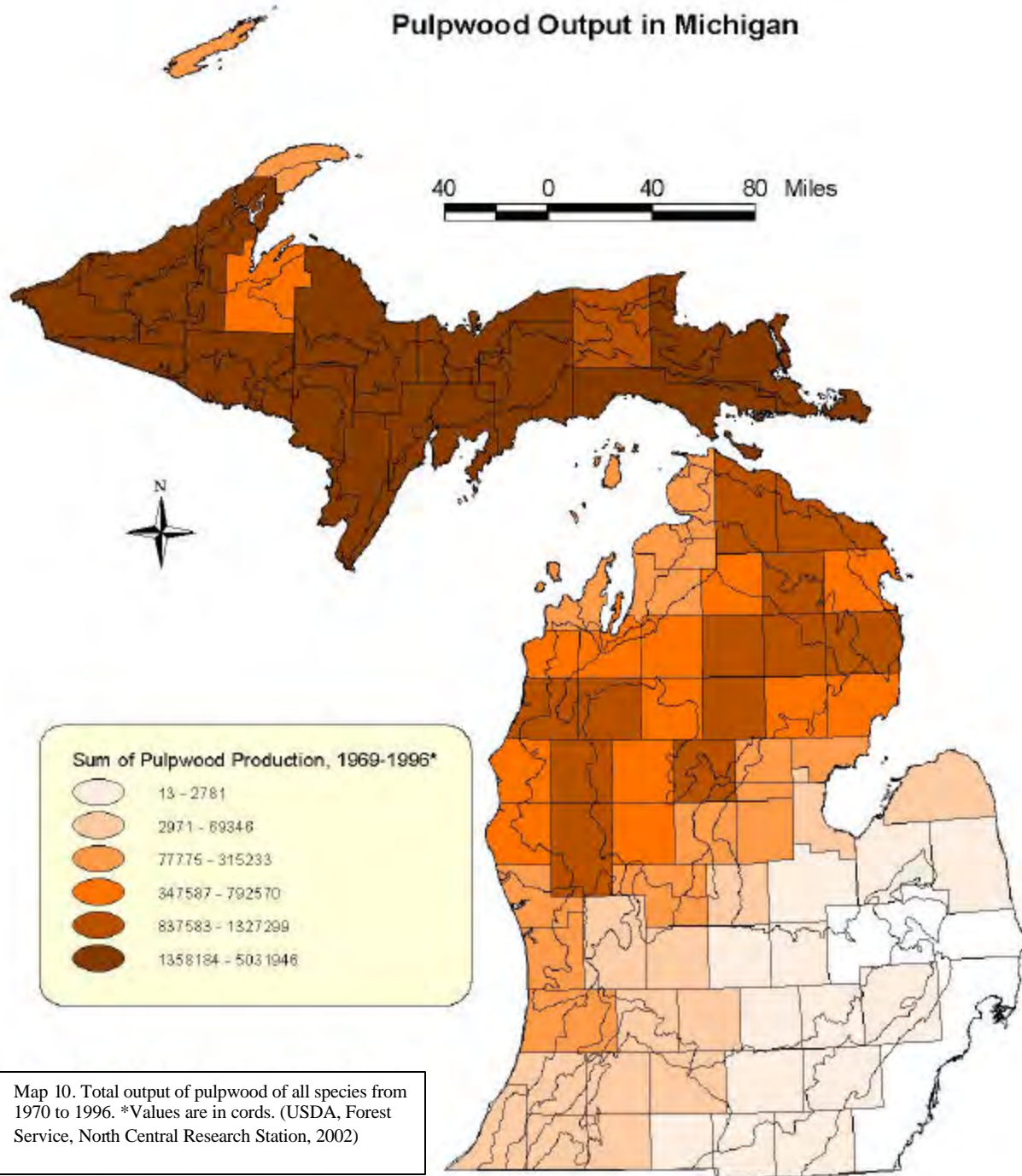
## **C. Economic Importance of Forests in Michigan**

Michigan’s growing, aging forests contribute significantly to the economy of the State. The total estimated benefits (including recreation and tourism) to the economy exceed \$9 billion, and forest-based industry supports 150,000 jobs in the State (Moore and Rockwell 2001). Over 2,600 businesses in Michigan are engaged in this industry, including five firms with over 1,000 employees (MDNR 2002) and nearly 400 companies with annual sales in excess of \$1 million. Included among these businesses are mills of various types: 273 sawmills, 4 veneer mills, 8 pulp mills, 4 particleboard mills, 10 post, pole, and piling mills, and 19 other mills scattered around the State (USDA, Forest Service, North Central Research Station 2002).

The extent to which an economy depends on wildland resources varies among counties but is, in Michigan, a fairly good indicator of the importance of forests to the State’s economy, especially in counties that are mostly forested. Economic dependency in the form of direct benefits varies from 0 percent in Genesee and Midland Counties to 49







and 50 percent in Alger and Ontonagon Counties, respectively (**Map 11**; Stewart et al. 1996).

Economic dependency is a good indicator of the importance of forests and other wildlands to a *local* economy. The criteria for selecting Forest Legacy Areas include the percentage of this economic dependency (see section on criteria for details).

## **IV. OUTDOOR RECREATION AND TOURISM**

### **A. Importance of Outdoor Recreation in Michigan**

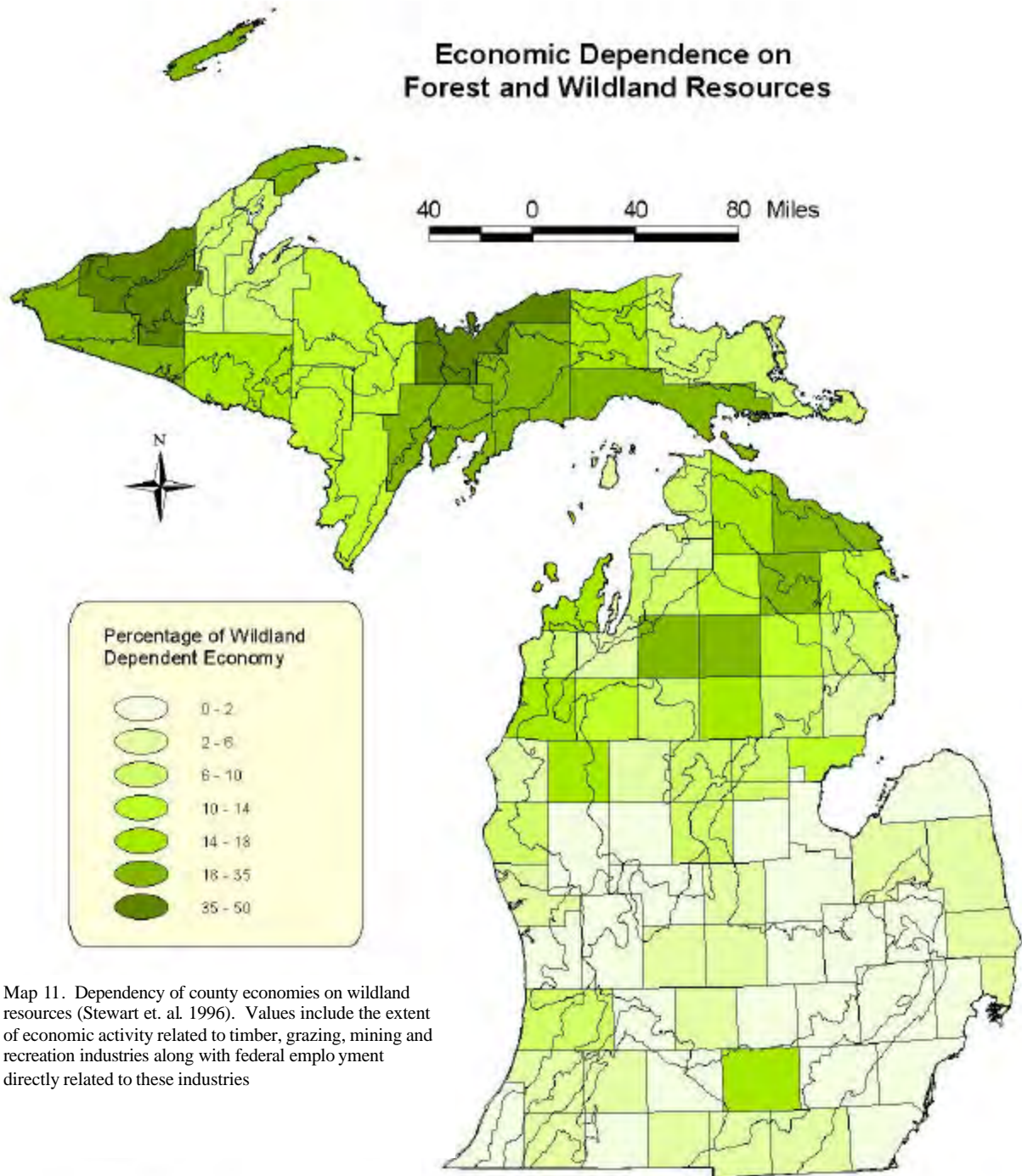
Michigan is a state closely identified with outdoor recreation opportunities, and the State actively promotes its outdoor recreation attractions to audiences around the country through marketing efforts like the current “Great Lakes/Great Times” campaign. Tourism and outdoor recreation account for a significant part of Michigan’s overall economy, rivaled only by manufacturing and agriculture.

Outdoor recreation is one of the mainstays of Michigan culture, and the State’s own residents are the heart of the outdoor recreation economy. A brief summary of Michigan outdoor recreation statistics (Nelson 2001) conveys the exceptional importance of recreation to the State’s quality-of-life and economy:

- Michigan has more hunters than any other state, with 935,000 persons hunting annually for a combined 18.4 million days hunted. Hunters contribute approximately \$304 million to local economies while hunting.
- Snowmobiling trail permits sold now total 200,000, and snowmobilers spend roughly 2.4 million days riding. Expenditures on snowmobiling equipment alone amounts to \$235 million annually.
- Michigan ranks fourth among states in terms of number of fishers, 1.8 million, fishing for a combined 28.7 million days. Fishers contribute approximately \$583 million to the economy for trips and boating expenses.

With 3.9 million acres of State forest, Michigan has the largest state-operated forest recreation system east of the Mississippi, including 150 State forest campgrounds, thousands of miles of trails, 7,500 miles of rivers for fishing, canoeing or kayaking, and hundreds of miles of Great Lakes shoreline (Sandell 1998).

This public system is supplemented by publicly available land in private ownership through the Michigan Commercial Forest Act. Numerous privately owned hunting clubs operate in Michigan, as do privately run campgrounds.



## **B. Forest Conservation and Outdoor Recreation**

Forest fragmentation on private lands represents a significant threat to each of these traditional activities. Hunttable lands open to the public on privately owned forests are being lost due to increased development. Roughly one-half of Michigan's 6,000 miles of snowmobile trails are on privately held lands and can be easily fragmented by development. Also, the degradation of forests around inland lakes and streams, and increasing conflicts over shoreline use, are significant threats to fishing opportunities.

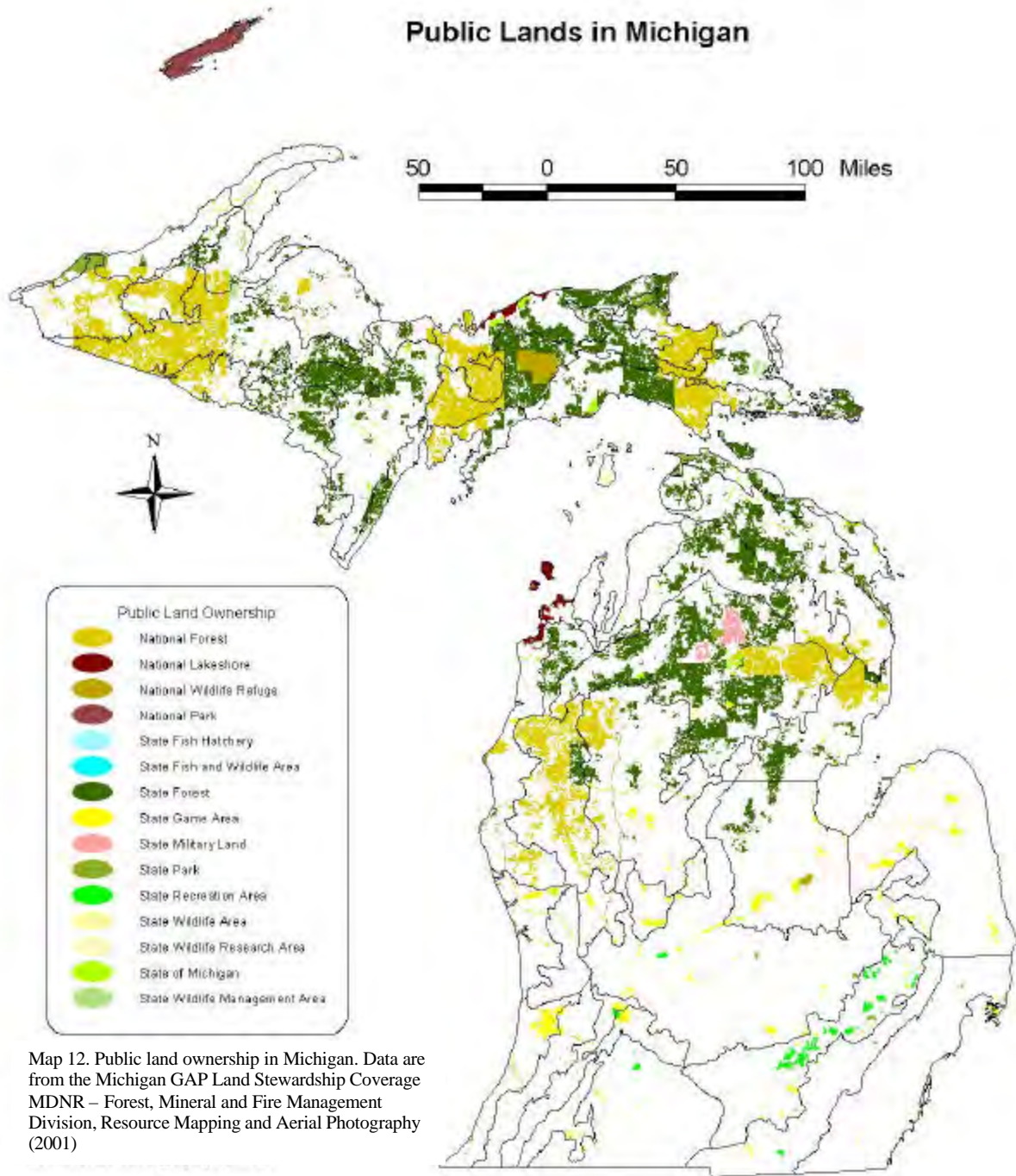
Though it is clear that recreation in forested lands is important and that opportunities for such recreation on private lands are being lost, the geographic distribution of these opportunities is such that it is difficult to develop a criterion for use in defining Forest Legacy Areas. Rather, this value is best addressed in the criteria for determining priority of acquisitions. In that process, the attributes that relate to the existence and quality of recreational opportunities can be addressed through the size and accessibility of the property, as well as the presence of surface water features and other attributes.

## **V. LAND TENURE**

Michigan has a relatively large amount of public land (**Map 12**), but Michigan's forest resource is owned predominately by the private sector (65%; Michigan DNR, 2002). Non-industrial private owners and farmers collectively own 57% (farmers-4%, other private-53%) of the total forested acres, while the forest industry owns 8%. The remaining 35% is controlled by the public sector (21% State owned, 14% federally owned).

Private timberland ownership is spread among more than 353,500 individuals, and non-industrial private owners are the predominant group. Coupled with the trend towards increasing development and parcelization of private lands, it is clear that the private working forests of Michigan are in danger of serious reduction.

Preventing conversion of private forestlands to non-forest uses protects unique ecological, social and economic benefits that private forestlands provide. In addition, it is recognized that the habitat needs of threatened, endangered and other fish, wildlife and plant species of concern cannot be met on the public forest land base alone.



## VI. THREATS TO MICHIGAN FORESTS

Below are key threats to Michigan's forestland base and the traditional uses associated with it:

1. Conversion of forests for the purposes of residential and commercial development.
2. Sell-off of industry lands due to corporation directives to reduce debt and increase overall competitiveness.
3. A significant increase in second-home development, particularly in the Northern Lower Peninsula and along the shorelines of Lake Michigan and Lake Huron.
4. Increasing development accruing an increased tax burden on private individuals holding forestland, thereby creating incentives to sell such land for residential development.
5. Current property tax law in Michigan allows townships to assess a property on its highest potential use, not its current use, unless a modification to the property deed, such as a conservation easement, states that the use of the property cannot be changed from its current state (e.g. forestland) to another state (e.g. residential use).
6. Influx of aggressive, non-native plant and animal species.
7. An increase in which commercial or residential uses of land adjacent to forests conflict with the traditional uses of Michigan's forests.

With development pressure also come changes in land economics and land values, and these factors become increasingly difficult for private landowners and communities to resist when making land use decisions. All too often land value in excess of the timber value on large tracts of forestlands can be generated simply by breaking the land into smaller units for sale. In forested places along Michigan's Great Lakes coastline—places where scenic value is at a high premium, but also high demand—this pressure may be simply too great to resist for many landowners over time. Conservation easements could provide some assistance for landowners interested in preserving the forested nature of these areas.

In addition to threats related to development, there are some management practices that are incompatible with maintaining the viability of some forests. Lack of understanding by both private landowners and the public at large creates significant management challenges that could threaten the long-term health of much of Michigan's private forestland. As development increases and fragmentation occurs, the interface between "wild" and "urban" areas also increases, bringing social pressures on private forest landowners to alter or modify their forestry practices. Easements, especially

when used in concert with other state and federal programs, can provide an additional tool to help address these management issues.

Another issue that is threatening the traditional uses and health of Michigan's forests is a type of ecological contamination in which aggressive non-native plants and animals begin using Michigan's forests and trees as food and habitat, threatening the health and viability of Michigan's forests. Plant species such as garlic mustard, Asian honeysuckle and Eurasian buckthorn are degrading the quality and ability of Michigan's forests to provide habitat for native understory plants and native herbs collected for recreational and commercial use.

Aggressive non-native insects are another major threat to Michigan's forests. Already, the gypsy moth is found throughout most, if not all, of Michigan's forests. The gypsy moth threatens Michigan's forests by its sizeable appetite for the leaves of deciduous trees, especially oak and aspen and weakening attacked trees in the process. Attacked trees must then expend energy to create new leaves, thereby leaving less energy and resources for Michigan's forests to fight off traditional pests, such as the two-lined chestnut borer.

Another non-native insect that has quickly become a major concern and threat to Michigan's forests is the *emerald ash borer* (EAB). Native to China and other parts of eastern Asia, this little known insect feeds on the cambium layer of all varieties of ash which girdles the affected tree. Death is usually the result. Just detected in Michigan in June, 2002, the destruction caused by the EAB has resulted in the quarantine of five counties in southeastern Michigan to prevent spread of this insect. To date, the EAB has damaged or killed millions of ash trees in southeastern Michigan and has the potential to kill or damage millions more throughout Michigan.

The Michigan timber industry is restructuring, with major industrial landowners selling large tracts of land as the industry consolidates and reduces debt. Financial services companies are increasingly investing in timberlands, though the nature of these investments sometimes leads to increasing fragmentation of developable lands. Easements secured as these ownership changes take place could offer an opportunity to achieve conservation on a vast scale.

In the Upper Peninsula, the areas surrounding Marquette and Escanaba are projected to see the most intensive development. The newly built locations, according to the Land Transformation Model employed in the analysis, are otherwise scattered throughout the southern Lower Peninsula and less prevalently in the northern Lower and Upper Peninsulas. These areas of projected concentrations of development are included in the criteria for Forest Legacy Areas.

Population shifts may be compounded by an aging Michigan population and broader sociological changes. The population in many of Michigan's rural areas is aging, and younger generations are less inclined to maintain family ownership as they migrate to

urban centers, reflecting a national trend. Non-industrial owners of private forest are unlikely to be immune from this larger trend, meaning changing ownership patterns.

The retirement and more affluent lifestyle of baby boomers is often cited as a driving force behind the increase in second-home development. These factors, coupled with the economic considerations above, may be behind the trend of increasing parcelization of forests into smaller tracts. Because development and parcelization is really happening in many areas, and not necessarily limited to areas of denser population concentrations, the threat of development of a particular tract is recognized in the criteria for prioritizing parcels for acquisition.

Lastly, increasing urbanization of rural forested areas brings about a situation in which new residents or users resent some the traditional uses of Michigan's forests, particularly providing wood products. Such resentment may lead to harassment of loggers and forest landowners and attempts by newer residents of urban lineage to attempt to restrict the ability of forest landowners to manage their land for forest products or deter them from seeking out forest management expertise.

## **VII. EXISTING CONSERVATION MEASURES**

### **A. State Commercial Forest Program**

The Commercial Forest Program provides a property tax reduction to private landowners as an incentive to retain and manage forestland for long-term timber production. Landowners participating in this program pay a reduced property tax of \$1.10 per acre listed in the program. Additionally, the State of Michigan pays \$1.20 per acre annually to each county where land is listed in the program. There are approximately 2.2 million acres listed in this program under the ownership of nearly 1,300 private landowners. Landowners include private individuals, clubs, forest industry, and other businesses. Landowners in this program agree to develop, maintain and manage the land as commercial forest through planting, natural reproduction, or other silvicultural practices.

### **B. Forest Stewardship Program**

The purpose of the Federal Forest Stewardship program is "to encourage the long-term stewardship of non-industrial forest lands by assisting owners of such lands to more actively manage their forests and related resources by utilizing existing state, federal and private sector resource management expertise and assistance programs." The program provides information and assistance to help owners understand and evaluate alternative actions they take, including managing and enhancing productivity of timber, fish and wildlife habitat, water quality, wetlands, recreation resources, and aesthetic value of forest lands. A key component of the Forest Stewardship Program is the development of a stewardship plan, which provides the landowner with baseline information about the timber, wildlife, soils, and water and recreation opportunities on the property. The plan provides specific recommendations to accomplish the landowner



goals and objectives. A companion program, the Forest Land Enhancement Program, will provide cost-share assistance to forest landowners for development of the plan and to implement recommended improvements.

### **C. Forest Land Enhancement Program**

The 2002 Farm Bill provides significant support for conservation of private lands through a variety of programs. One of these is the Forest Land Enhancement Program (FLEP), which has the purpose of “providing financial, technical, educational and related assistance to State Foresters to assist private landowners in actively managing their land.” The FLEP supports the existing Federal Forest Stewardship Program of preparing multi-resource management plans. The criteria for the FLEP program are set by advisory committees in each state, following guidelines established at the national level. Landowners can seek cost-share assistance for implementation of a management plan on up to 1,000 acres, for not less than 10 years. The FLEP replaces the Stewardship Incentive Program (SIP) and implements the landowners’ Forest Stewardship Program.

### **D. Enhanced Community Fire Protection**

Also part of the 2002 Farm Bill, this program is designed to enhance community protection from wildfire. Again, working through the State Foresters, the program helps to: “(1) focus the Federal role in promoting optimal firefighting efficiency at the Federal, State and local levels; (2) expand outreach and education programs to homeowners and communities about fire protection; and (3) establish space around homes and property that is defensible against wildfire.”

### **E. Cooperative Protection**

A cooperative effort between local, state, and federal fire agencies plays a major role in the protection of Michigan's forest lands. Active fire prevention programs, the use of aerial detection techniques, highly specialized equipment development and use, and progressive ideas have brought recognition to Michigan as a leader in the protection of its natural resources. Prescribed burning is readily employed to reduce fire risk, as well as improve silvicultural and wildlife habitat objectives. Forest health protection is an integral part of resource protection. Insect and disease outbreaks, as well as other stresses such as climate and air pollution, are detected through ground and aerial surveys. Biological and socio-economic factors are evaluated: then silvicultural, biological, and chemical management alternatives are considered; and finally the most appropriate alleviatory methods are implemented. Federal funds are provided through the USDA Forest Service for State Fire Protection, Volunteer Fire Programs, and detection surveys and suppression of insect and disease outbreaks.

### **F. Urban and Community Forestry**

The USDA Forest Service Urban and Community Forestry Program supports State efforts to enhance cities and towns through planning and managing urban forest resources in a manner that promotes their environmental, cultural, and biological health. This is done through a statewide Urban and Community Forestry Council, along with a financial grants program for projects and infrastructure development. For example, the Michigan Department of Natural Resources, with Detroit Edison Energy Company, continues to plant trees in both urban and rural settings through The Greening of Detroit program. In the last five years, nearly \$300,000 has been provided for urban tree planting in southeast Michigan.

### **G. Conservation Reserve Program**

The Conservation Reserve Program (CRP) offers landowners incentives to conserve soil, water, and wildlife habitat. Landowners can apply to enroll highly erodible land and other environmentally sensitive areas in the CRP. By enrolling land, a landowner can receive annual rental payments and cost-share benefits to implement conservation practices. Permanent vegetation which may include trees, grasses, or wildlife foods must be maintained for the contract period.

### **H. Wetlands Reserve Program**

The Wetlands Reserve Program (WRP) is designed to help eligible landowners restore wetlands. Under this program, landowners enter into easements in exchange for a portion of restoration costs. The landowner maintains full control over access and use of WRP easements. Acceptable uses of WRP land may include activities such as hunting, fishing and other compatible uses. The primary objective is to restore altered wetlands as closely as possible to the natural hydrology, native vegetation, and natural topography, protecting the functions and values of wetlands in a farming context.

### **I. Wildlife Habitat Incentives Program**

The Wildlife Habitat Incentives Program (WHIP) was established in the 1996 Farm Bill and is administered by the USDA Natural Resource Conservation Service. Its purpose is making technical and financial assistance available to landowners to develop, enhance, and restore upland wildlife, wetland wildlife, threatened and endangered species, fish, and other types of wildlife habitat. In the 2002 Farm Bill, additional funds were added and the program, in Michigan, is evolving to allow more of a focus on improving existing habitat, with an emphasis on rare natural communities and habitat for sensitive species.

### **J. Environmental Quality Incentives Program**

The Environmental Quality Incentives Program (EQIP) is designed to identify conservation concerns and set conservation priorities to address soil erosion, water quality, wildlife habitat, and other resource issues through a community-based process.

## K. Michigan Natural Resources Trust Fund

The Michigan Natural Resources Trust Fund, created in the State Constitution, provides a constitutionally dedicated fund for the acquisition of land and rights in land to enhance outdoor recreation opportunities, protect environmentally sensitive lands and preserve scenic places in Michigan. The State of Michigan and local units of government are eligible for grants from the Trust Fund. For local units, a 25% match is required. The fund also provides assistance to local units for recreational development projects.

## L. National Forests in Michigan

The three National Forests in Michigan are: The Huron-Manistee (formerly two separate forests now managed jointly); the Ottawa, and the Hiawatha. Together, they comprise almost 2.8 million acres. Each forest will be revising their Forest Plans within the next three years. Overall, the volume of timber extracted from Michigan's National Forests has declined dramatically since 1989, from 12 billion to 3 billion board feet per year (Moore and Rockwell 2001).

- The Huron-Manistee National Forest comprises almost one million acres of public lands extending across the northern lower peninsula of Michigan. The Huron-Manistee National Forest provides recreation opportunities for visitors, habitat for fish and wildlife, and resources for local industry. The Huron-Manistee boasts thousands of lakes and miles of sparkling rivers and streams. The nationally-known Pere Marquette and Au Sable Rivers offer quality canoeing and fishing. The forests of northern Michigan are rich in history. In the late 1800's, logging was at its peak and these forests were quickly cut and cleared. In 1909, the Huron National Forest was established and the Manistee National Forest was formed in 1938. In 1945, these two National Forests were administratively combined. Working hand in hand with the Michigan Department of Natural Resources and other partners, the Forest Service has changed the "lands that nobody wanted" to healthy forests again. Great progress has been made in recovering these lands, but a great deal of work remains, much of which is being done through partnerships.
- The Ottawa National Forest contains almost one million acres, and is located in the western Upper Peninsula of Michigan. It extends from the south shore of Lake Superior down to Wisconsin and the Nicolet National Forest. The area is rich in wildlife viewing opportunities; topography in the northern portion is the most dramatic, with breathtaking views of rolling hills dotted with lakes, rivers and spectacular waterfalls.
- The Hiawatha National Forest was named after Longfellow's poem, "The Song of Hiawatha", and is located in the central and eastern Upper Peninsula of Michigan. The Forest encompasses approximately 880,000 acres (net), and receives over 1.5 million recreational visits per year. The Forest affords visitors access to white sand, scenic beaches and relatively undeveloped shorelines along three of America's

Inland Seas--Lakes Superior, Michigan, and Huron. From scenic and historic lighthouses to Great Lakes islands, from spectacular shorelines to the Midwest's finest winter playland, the Hiawatha National Forest brings to life a myriad of fascinating and exciting natural, historical, and unique recreation opportunities.

### **M. State Forests of Michigan**

Michigan has the largest State Forest system in the United States, totaling 3.9 million acres, or roughly 20% of the forested land in the State. State Forests are managed by the Forest, Mineral, and Fire Management Division (FMFM), in coordination with other divisions of the MDNR such as Wildlife and Fisheries. Michigan's State Forests are managed for forest products, wildlife, and recreation. In doing so, they must balance the needs of multiple users including the forest products industry and millions of hunters, fishers, hikers, mountain bikers, snowmobile riders, campers, birders, and other nature lovers. Currently, the MDNR is developing an Old Growth and Biodiversity Stewardship program whereby a portion of State forestlands will be identified and managed primarily for biodiversity objectives.

### **N. Land Trusts Active in Michigan**

National, regional and local conservation organizations play a vital role in the protection of private lands in Michigan. These organizations will be important partners in the success of Forest Legacy in Michigan. Local land trusts, working in particular service areas, will play an especially important role. These local non-profit groups were created and are sustained in order to preserve and enrich the natural heritage of Michigan's countryside through direct land protection, using appropriate tools such as conservation easements, voluntary protection agreements, estate planning, donations, and bargain sales. Organized at local levels, these land trusts provide people and communities with choices of how rural and urban green spaces can be used. Michigan is fortunate to have more than 40 land trusts active in communities across the State.

#### **Michigan's Local Land Trusts:**

Cadillac Area Land Conservancy	Michigan Audubon Society
Central LK superior Land Conservancy	Michigan Karst Conservancy
Chikaming Open Lands	Michigan Nature Association
Chippewa Watershed Conservancy	Monroe County Land Conservancy
Detroit Audubon Society	Natural Areas Association
Grand Traverse Regional Land Conservancy	North Oakland Headwaters Land Conservancy
Grass River Natural Area, Inc.	North Woods Conservancy
Gratiot Lake Conservancy	Oakland Land Conservancy
Great Lakes Bioregional LC	Rails-to-Trails Conservancy
Grosse Isle Nature & Land Conservancy	Raisin Valley Land Trust
Keweenaw Land Trust, Inc.	Saginaw Basin Land Conservancy
Land Conservancy of West Michigan	Southeast Michigan Land Conservancy

Leelanau Conservancy  
Les Cheneaux Foundation  
Little Forks Conservancy  
Little Traverse Conservancy  
Livingston Land Conservancy  
Macomb Land Conservancy

Southwest Michigan Land Conservancy  
Walloon Lake Trust & Conservancy  
West Bloomfield Land Conservancy  
Woldumar Nature Center  
Yellow Dog Watershed Preserve, Inc.

## **VIII. NEED FOR FOREST LEGACY PROGRAM**

### **A. Summary**

Michigan's forests are of incredible value to the people, animals, plants, and other organisms that live in and travel through the State. Forested ecosystems of numerous types provide homes for common and rare species and resting places for species that are moving through the State. They also are critical for maintaining the quality of surface and sub-surface waters, and ultimately the Great Lakes. Forest products from Michigan are significant in the global marketplace in terms of their volume and quality, and the forest products industry is a sizeable component of Michigan's economy. A substantial portion of the economy of many counties depends on forested areas and other wildlands, and many people in public agencies and private commercial enterprises depend, for their livelihood, on the timber products industry. Lastly, people simply enjoy seeing the variety of colorful forests in Michigan as they live in, travel through, and recreate in the State.

Without a doubt, Michigan's forest lands play a vital role in the economic, cultural and biological health of the State. They provide multiple benefits to Michigan citizens including habitat for flora and fauna, recreational and sightseeing opportunities, filtration for air and water quality, and timber for social consumption. Forest lands cover more than 50% of the State, with timberland acreage the 5<sup>th</sup> largest in the United States. Forest-based industries, tourism and recreation support 200,000 of the State's jobs, with over \$12 billion of value added to its economy. Over 2,600 businesses are engaged in the forestry industry in Michigan.

The forests of Michigan are also under significant threat. Though the total area of forest increased throughout the Twentieth Century through re-growth of areas that had been cleared for agriculture, current trends of urban sprawl and second-home development are resulting in increased destruction and fragmentation of forests. An increase in the splitting of large tracts, both commercial and non-commercial, is facilitating the process of development. In addition, there is recognition that some management practices are not sustainable.

While Michigan has long been a leader in conservation of its abundant natural resources, and existing programs make an important contribution toward protection of

its forest lands, the threat to the future health and size of this vital resource is great--and growing with each passing year. These threats include conversion of forests to residential and commercial development, parcelization, invasive species, unsustainable timber management practices and forest fragmentation. By offering private forest owners the option of voluntary conservation easements, the Forest Legacy Program provides a powerful new tool to keep working forest lands contributing to Michigan's economy and quality-of-life, as well as offering protection of a vital natural resource for future generations.

## **B. Goals and Objectives of the Forest Legacy Program in Michigan**

The goal of the Forest Legacy Program in Michigan is to ensure the continuity of economic, ecologic, aesthetic, and cultural benefits derived from the forests of Michigan by enabling the persistence of sustainable, traditional uses of environmentally important, threatened forests on private lands.

To achieve this goal, the Forest Legacy Program has the following objectives:

- Identify and protect environmentally important, privately owned forests threatened by conversion to uses inconsistent with traditional forest uses.
- Reduce forest fragmentation caused by parcelization/subdivision and development.
- Provide environmental benefits through the protection of riparian areas, native forest plants and animals, and natural ecosystem functions.
- Maintain scenic resources.
- Enhance recreational opportunities.
- Promote forest stewardship.
- Provide undeveloped buffer areas to already protected areas.
- Complement other state or federal interests or assistance programs.
- Protect rare, threatened, endangered species.
- Enhance habitat connectivity.

## **IX. IDENTIFICATION OF APPLICABLE ELIGIBILITY CRITERIA**

### **A. Eligibility Criteria for Forest Legacy Areas**

To be eligible as a Michigan Forest Legacy Area, an area's forestland must meet all of the following criteria:

- Be an environmentally important forest area that is threatened by present or future conversion to nonforest uses;
- Be threatened with conversion by encroaching development or be subject to subdivision into small non-contiguous forest tracts, separated by non-forest land;
- Possess two or more of the following important public values:

- Scenic resources and public recreation opportunities, recognized by proximity to a national trail, major fall color tour, or one of the Great Lake shorelines.
- Wetlands, riparian areas, floodplains and/or areas of predominantly high groundwater recharge potential.
- Fish and wildlife habitat, as determined through an agency or organization ecoregional conservation planning document.
- Habitat for known rare, threatened and endangered species.
- Known historic, cultural and archeological resources, such as Native American burial sites and areas with artifacts related to early European settlements.
- Other ecological values. Examples include areas of dense globally imperiled natural communities or species, coastal dune area or Niagara Escarpment based communities.
- Provide for opportunities for continuation of traditional forests uses and benefits including: 1) forest management, 2) timber harvesting, 3) outdoor recreation such as hiking, hunting and fishing, 4) protection of watersheds and high quality cold water habitat and 5) continued economic stability and development of Michigan's rural areas via the forest products and tourism industries.
- Large blocks of contiguous forest land.
- Rivers, streams or lakes recognized as important to the State of Michigan.
- Public access for recreational opportunities.

## **B. Process for Identification of Forest Legacy Areas (FLA)**

Information on the above criteria was compiled in a GIS, and areas that met each criterion were overlain to produce a map of potential FLA's.

The above criteria were assessed as follows. Areas of scenic or aesthetic importance were identified through information made available by the Michigan Office of Tourism and a map of surficial geology. Color tour routes and the North Country Trail were each buffered by 0.5 miles, and the Great Lakes shorelines were buffered by 5 miles in ArcView.

Areas of dense concentrations of G1-G3 animals and plants were identified through analysis of the spatial Heritage data made available by the Michigan Natural Features Inventory (MNFI 2002). ArcView GIS was used to generate a density layer, which was classified into nine categories of density. Lands in the top five categories (density greater than 0.67) were included as potential FLA's. A similar process was implemented for G1-G3 natural communities; the top four of the nine categories (density greater than 0.33) were included. Areas that have high potential as wolf habitat (Mladenoff et al., 1995) were used as a surrogate for wide-ranging species and were added to the set of potential FLA's.

Ecoregionally significant conservation areas, as identified by The Nature Conservancy and its partners through ecoregional conservation planning, were included in the set of potential FLA's. These areas include the significant bird areas, as well as areas identified for many other natural communities and species, including aquatic systems. In the Lower Peninsula, recharge potential is strongly related to surficial geology, and the Regional Landscape Ecosystems (Albert 1995), being delineated in large part by geomorphologic boundaries, serve well as units of high or low recharge potential. The Lower Peninsula Regional Landscape Ecosystems that are predominantly of positive recharge potential were added to the potential FLA set. There is no corresponding data set for the Upper Peninsula.

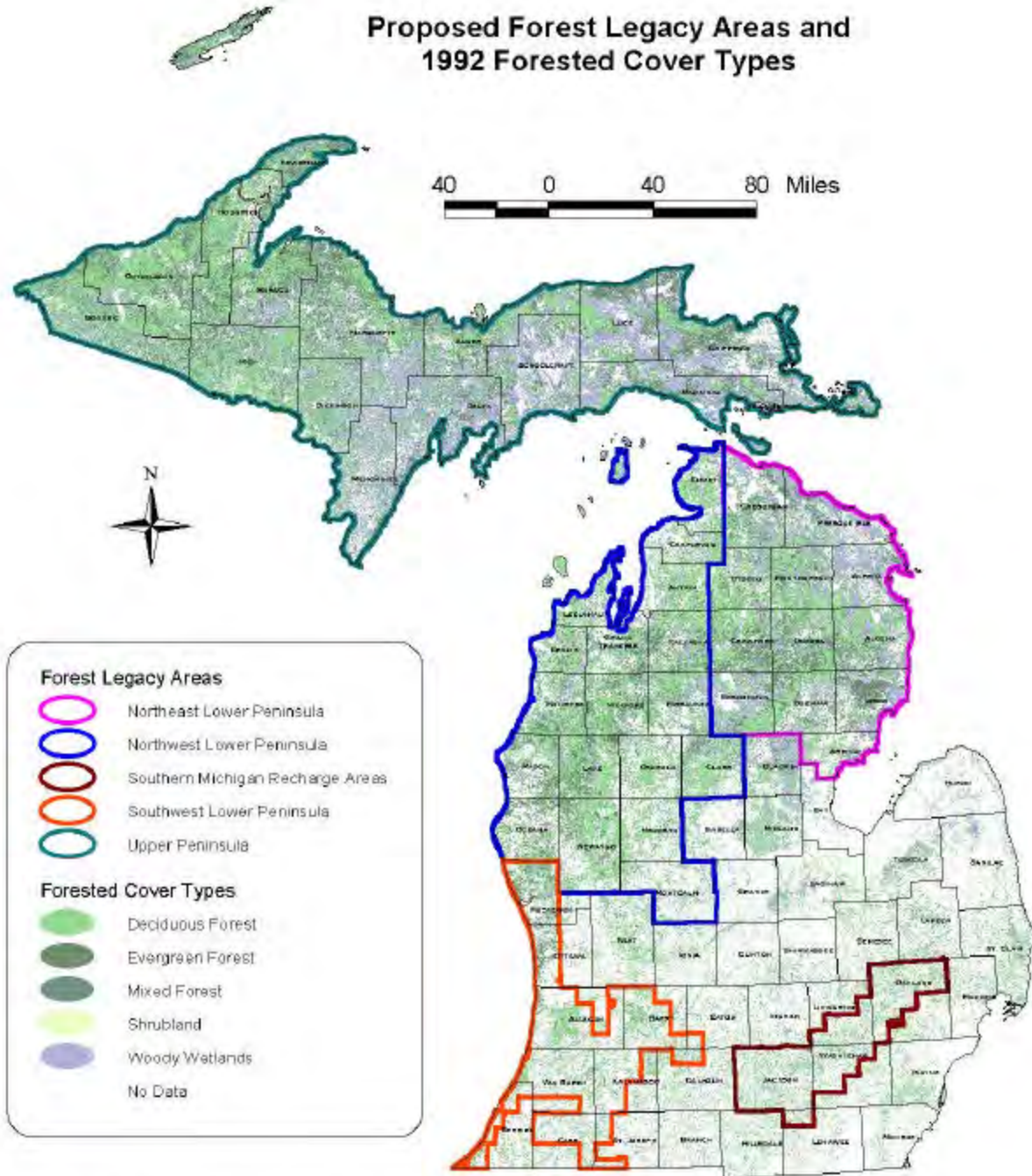
Timber production was included by summing the outputs of two types of products: sawlogs and pulpwood. Sawlog production for all species was summed for the nine years for which data were available for the period 1969 – 1994. ArcView was then used to classify counties into six groups, and counties in the top three groups (with total output of sawlogs in excess of 47,650 MMBF) were added to the FLA set. Pulpwood production for all species was summed for the period 1970 – 1996, and of the six categories of output, counties in the top three (with total output of pulpwood in excess of 315,233 cords) were added to the potential FLA's. Economic dependency was assessed using data that apply to all wildland resources and include recreational activity. These data are a good surrogate for economic benefits derived from forests, especially in counties that are mostly forested. Counties with an economic dependency greater than 10 percent were included in the set of potential FLA's.

## **X. PROPOSED FOREST LEGACY AREAS**

There are five areas that meet the Eligibility Criteria and are recommended as Forest Legacy Areas (**Map 13**). Some of these areas are contiguous, but were separated based on ecological, economic, cultural or aesthetic differences that relate to their inclusion among the FLA's. The FLA's are not entirely forested and include significant public lands. It is the private, forested lands within each FLA that would qualify for Forest Legacy Program funds. Each of the FLA's is described below in terms of its general character and the potential benefits of the Forest Legacy Program to that area.

The FLA's vary in size and in the percent of forest cover and public lands within them. The largest is the Upper Peninsula, which covers almost 10.6 million acres (it does not include Isle Royale National Park). The smallest is the Southern Michigan Recharge Area, which includes about 1.6 million acres. The total area of forest varies from 589,000 to 8.8 million acres, with corresponding percentages of 36.5% and 83.4% for the Southern Michigan Recharge Area and the Upper Peninsula, respectively. Both southern Michigan FLA's have less than 40% forest cover, whereas the others exceed 60%. It is the southern forests, though, that are most at risk.





Map 13. Proposed Forest Legacy Areas in Michigan, and 1992 Forested Cover Types

**Table 3.** Total acres and acres of five forest cover classes in the proposed Forest Legacy Areas (shrubland is included as land that could potentially be forested within ten years).

	<b>Upper Peninsula</b>	<b>Northeast Lower Peninsula</b>	<b>Northwest Lower Peninsula</b>	<b>Southwest Lower Peninsula</b>	<b>Southern Michigan Recharge Area</b>
<b>Total Acres</b>	10,598,689	4,546,572	6,278,646	2,204,023	1,261,999
<b>Deciduous Forest</b>	3,513,667	1,452,777	2,431,761	581,156	347,102
<b>Evergreen Forest</b>	1,392,008	443,021	640,340	94,378	14,512
<b>Mixed Forest</b>	1,138,709	501,791	285,191	50,719	1,660
<b>Shrubland</b>	0	0	5,651	785	0
<b>Woody Wetlands</b>	2,804,810	1,070,111	649,843	133,189	110,944
<b>Total Forested Acres</b>	8,849,194	3,467,700	4,012,785	860,227	474,218
<b>Percent Forested</b>	83.5%	76.3%	63.9%	39.0%	37.6%

The area of public land also varies dramatically among the FLA's. The Upper Peninsula has easily the most acres of public land, but the Northeast Lower Peninsula has an almost equally high percentage of public land. Public land in the two southern Lower Peninsula FLA's is below eight percent of the total area.

**Table 4.** Public ownership in the proposed Forest Legacy Areas (USFWS is the US Fish and Wildlife Service; USFS is the US Forest Service; NPS is the National Park Service; MI is the State of Michigan).

	Upper Peninsula	Northeast Lower Peninsula	Northwest Lower Peninsula	Southwest Lower Peninsula	Southern Michigan Recharge Area
USFWS	93,483	0	0	0	0
USFS	1,875,502	430,611	517,194	13,138	0
NPS	171,178	0	38,828	0	0
MI	2,167,099	1,202,959	907,247	127,999	99,365
Total	4,307,261	1,633,570	1,463,269	141,137	99,365
Percent Public	40.6%	35.9%	23.3%	6.4%	7.9%

Those items common to all Forest Legacy Areas are the government entities that may be assigned management responsibility and the means for Protection, addressed below.

### Identification of Government Entity or Entities That May Be Assigned Management Responsibility

The Forest Legacy Program in Michigan will be implemented through a State Grant Option, by which the State of Michigan will hold title to all conservation easements or deeds for acquired tracts of forest land entered into this program. The Michigan Department of Natural Resources, Forest Mineral and Fire Management is the lead agency for this program, with consultation by the State Forest Stewardship Coordinating Committee.

The MDNR may elect to delegate management and administration of individual tracts of land within the program to another division within the MDNR or to another organization or government entity, including land trust, land conservancy or other conservation groups.

### Means for Protection of Forest Legacy Area Tracts:

- A. Acquisition of tracts of forest land will primarily be accomplished through conservation easements. However, the State of Michigan may consider acquisition of full-fee as an appropriate method of acquisition in certain cases.
- B. Acquire development rights on all tracts. Those rights include, but are not limited to, the right to construct buildings and other improvements, remove forest cover

for non-forest uses and control utility right-of-way locations (all future utility installations shall be placed underground if feasible).

- C. Timber rights retained by the landowner shall follow guidelines set forth in the Forest Stewardship Plan or other multi-resource management plans written by Michigan Forest Stewardship Program (FSP) certified plan writers, and other natural resource professionals, that have completed Michigan Sustainable Forestry Initiative (SFI) training. All resource management plans must include the use of Best Management Practices (BMP's), applicable laws and regulations and with the following provisions:
1. Timber harvesting or cutting or other forest management operations must be done in accordance with BMP's stated in the MDNR manual, "Water Quality Management on Forestlands" and within the guidelines of the individual Stewardship Management or Multi-Resource Management Plan.
  2. Forest Stewardship and other Multi-Resource Management Plans shall be reviewed and updated every five years or earlier, if circumstances deem necessary.
  3. "Natural resources professional" means a person who is acknowledged by the Department as having the education, knowledge, experience, and skills to identify, schedule, and implement appropriate forest management practices needed to achieve the purpose of this part on land to be subject to this part.
  4. Departures from sustained yield are permitted only in limited response to forest health concerns or the event of fire or other natural catastrophe.
- D. Consider acquisition of public access rights on each tract. Determine on a case-by-case basis the need for public access. Final determination and decision will be made by the SFSCC prior to the start of negotiations.
- E. Restrict development of mineral or oil and gas rights to allow no more than 10 percent of the surface occupancy of the Forest Legacy tract, with total area of all non-forest uses not exceeding 10 percent of the total tract area. Upon landowner completion of operations, the land shall be reclaimed as much as practical to its original contour and reforested.
- F. No disposal of waste or hazardous material will be allowed on properties in the Forest Legacy Program.
- G. Prohibit the use of signs and billboards on all properties, except to state the name and address of the property owner and /or provide Forest Legacy or other forest land incentive program information and Forest Legacy Boundary information.
- H. Existing dams or water impoundments or similar structures may be allowed to remain and be maintained. Exceptions or new impoundments will be agreed upon prior to negotiations with the landowners.

- I. Any revision to the easement regarding existing structures may be made only upon approval by the unit of government holding title to the easement.
- J. Industrial, commercial and residential activities, except traditional forest uses, are prohibited.
- K. A parcel must have a stewardship plan or a multi-resource management plan completed by a professional forester and approved by the Forest Legacy Subcommittee before entering the Forest Legacy Program. The plan must be current and updated as needed to meet Forest Legacy Program requirements.
- L. Each conservation easement will contain appropriate clauses to address the goals and objectives of the individual Forest Legacy Area. Such clauses may include, but are not limited to, the following:
  - Scenic Resources – Where local, state, or national designated scenic routes or areas would be impacted, limit the size and location of clearcuts and other regeneration openings during timber harvests, limit locations and design of access roads and log yards and design timber stand improvement projects to minimize aesthetic impacts.
  - Lakes, Streams, Wetlands and Riparian Areas – All plant and animal stocking and species control measures in aquatic communities should be in accordance with guidelines established by the Michigan Invasive Species Council. The landowner should use plant and animal species native to Michigan wherever possible. All stocking and species control measures must be addressed in the stewardship plan.
  - Rare, Threatened or Endangered Species of Plants or Animals – All areas being considered for participation in the Forest Legacy Program should be reviewed by the State Endangered Species coordinator. If rare, threatened or endangered species of plants or animals are identified within the easement area, the stewardship plan for that area must address their protection. Seek fee simple acquisition as appropriate.
  - Known Cultural Resources – If a parcel contains known cultural resources, historic or prehistoric, the stewardship plan for the area must address their protection. All areas being considered for participation in the Forest Legacy Program should be reviewed by the State Historic Preservation Officer.
  - Other Ecological Values – All terrestrial plant and animal stocking activities and species control measure should be in accordance with the guidelines established by the Michigan Native Species Council. The landowners should use plants and animals native to Michigan for all stocking activities wherever possible. All stocking and species control measures should be addressed in the stewardship plan.

## **The Upper Peninsula Forest Legacy Area**

The Upper Peninsula (UP) FLA includes all of the land in all counties of the UP, and includes all the islands that are part of those counties:

ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONOGAN, SCHOOLCRAFT.

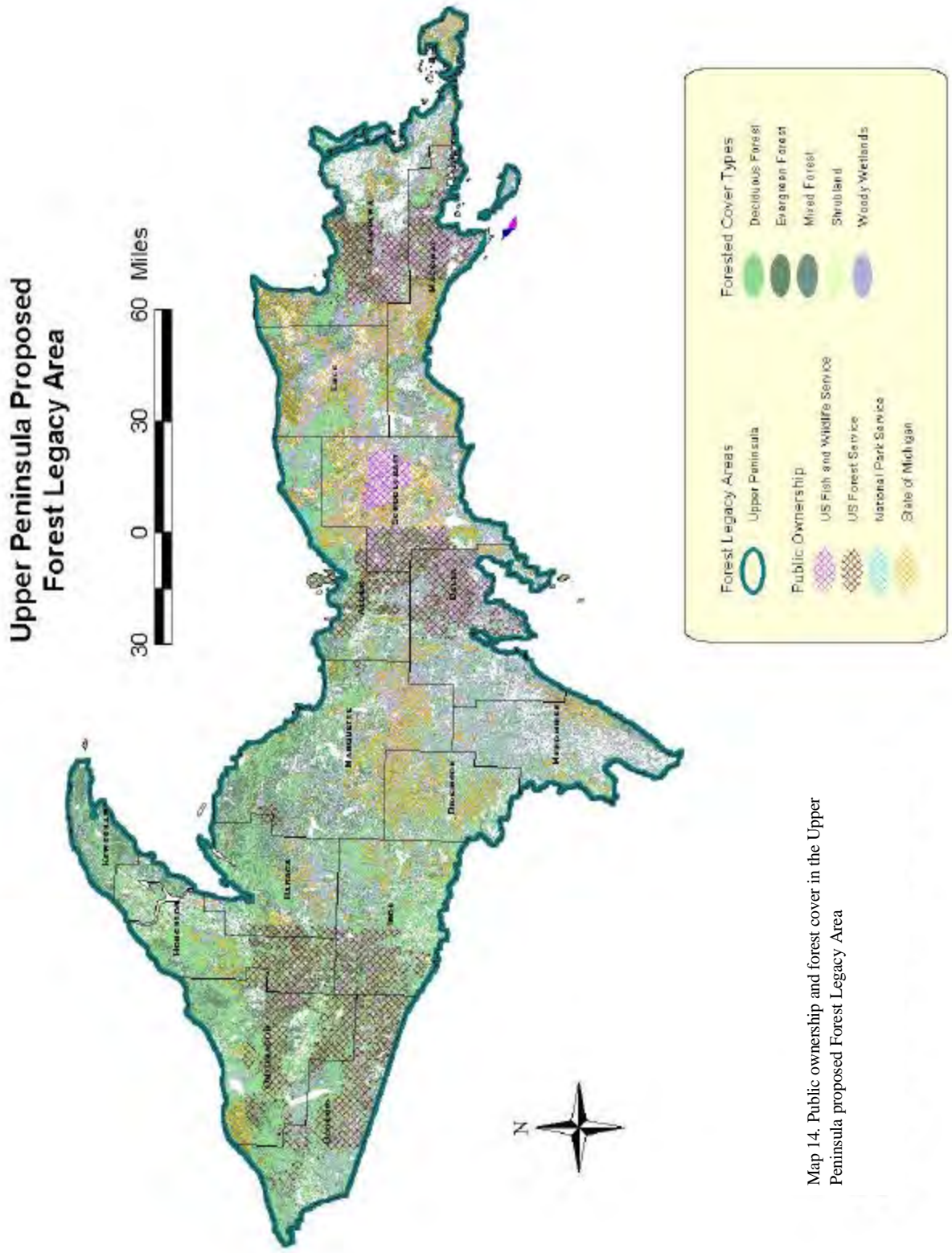
This is the largest FLA, and the one that has the most forest and the most public land (**Map 14**). All of the counties, with the exception of Keweenaw, produce significant pulpwood, and most produce large volumes of sawlogs. The economies of all counties, except for Baraga and Houghton, are at least ten percent dependent on forests and wildland resources as well. While it is true that the pressures we commonly think of as threatening to forest values (i.e., urban sprawl and second home development) are not as prevalent in most of the UP as many other parts of the State, UP forests have some unique features and qualities that make them well suited to the Forest Legacy Program.

First, the UP is the only place in the State that supports wide ranging species such as the gray wolf and the moose, and it supports larger populations of black bears and neotropical migratory songbirds. These features are in large part a direct result of the large, contiguous character of the forests in the UP. Fragmentation of the UP forests could result in losses of values or features that the other parts of the State cannot support at all.

Second, the significant holdings of commercial forest industry are unique to the Upper Peninsula. These holdings, in several cases totaling several hundred thousand acres, present the scenario of large blocks of land being put on the market at once, possibly resulting in parcelization and forest fragmentation. This scenario has occurred in the northeast (e.g., in New York and Maine) and at a small scale in Michigan (the recent sale of 6,000 acres of International Paper lands), and is almost certain to occur in the future at a large scale in Michigan.

### **Public Benefits**

The public will benefit from the Forest Legacy Program in a number of ways. First, the economy of the Upper Peninsula is closely tied to the forests. The forest products industry and tourism are both significant components of the economy and culture throughout the UP. Additionally, recreation associated with forests is important, and by maintaining public access through FLP easements, many traditional recreational activities including hunting, fishing, snowmobiling, hiking, and bird watching will remain possible. Finally, the ecological benefits of having large, contiguous forests that support wide ranging species and most of their potential biodiversity are a benefit to all.



Map 14. Public ownership and forest cover in the Upper Peninsula proposed Forest Legacy Area

In summary, the features of Upper Peninsula forests that could benefit from the Forest Legacy Program include:

- Rare natural communities and rare and declining species
- Wide-ranging species
- Other important wildlife habitat (e.g., areas of winter deer concentration)
- Forest and wildland-dependent economies
- Significantly productive forests
- Scenic forests
- Outstanding geologic features

### **Analysis: Meeting Eligibility Criteria**

In order to qualify for inclusion in the Forest Legacy Program, an identified Forest Legacy Area must meet the Eligibility Criteria as established by the State in its Assessment of Need. In Michigan, the Eligibility Criteria are listed on pages 35 and 36 of this document.

The Upper Peninsula FLA meets the Eligibility Criteria in the following ways:

1. The forest products industry currently owns approximately 1.5 million acres of forestland. However, due to recent changes in the forest products industry, conversion of a portion of this forestland to nonforest uses is beginning due to sell-off of a portion of these lands to development interests for the purposes residential and secondary home development.
2. Consumer demand for forested areas near or on shorelines is rapidly increasing. This accrues a corresponding increase in property value, thereby making the sell-off of said lands more attractive to those private individuals now owning these lands.
3. The above may result in increased fragmentation of lands and a decrease in the amount of land available for traditional forest uses, as well as negatively impacting habitat for threatened and endangered species.
4. Important public values provided by the Upper Peninsula Forest Legacy Area:
  - a. **Scenic resources and public recreational opportunities** – The UP FLA has over 1700 miles of continuous as well as hundreds of miles of roads designated as part of Michigan's fall color tour. Also, The UP FLA contains over 500 miles the North Country National Scenic Trail (see Map 4) which runs from the southeastern portion of the Upper Peninsula and runs along the Lake Superior Shoreline, and through bedrock formation of the western Upper Peninsula..
  - b. **Fish and Wildlife Habitat** - The Michigan Department of Natural Resources has designated over 200 miles of cold water streams in the Upper Peninsula as blue ribbon trout habitat. In addition, the Seney National Wildlife Refuge is located there as well. The large expanses of northern white-cedar provide food and thermal cover for the Upper



- Peninsula's thriving deer population. As stated above, the UP is the only place in the State that supports wide ranging species such as the gray wolf and the moose, and it supports larger populations of black bears and neotropical migratory songbirds. These features are in large part a direct result of the large, contiguous character of the forests in the UP.
- c. **Habitat for Rare, Threatened and Endangered Species** – With respect to mammals, the Upper Peninsula is home to the gray wolf and Canada lynx, which are listed by the United States Fish and Wildlife Service as threatened species under the auspices of the Endangered Species Act. Also, this FLA contains a variety of threatened and endangered plants including dwarf lake iris, Houghton's goldenrod and pitcher's thistle.
  - d. **Traditional forest uses** - The Upper Peninsula is home to a thriving forest products industry and over 1.5 million of its 8.4 million forested acres is owned and managed by the forest products industry for wood products. Also, this abundance of industrial/corporate owned forests allow public access throughout their properties as a condition for enrolling Michigan's Commercial Forest Program, which provides tax breaks to participating forest landowners.
  - e. **Other Ecological Values** – The UP FLA has over 20, acres of coast dune area and has variety of high quality natural communities based on the habitat provided by Niagara Escarpment on the southern coastline of the Upper Peninsula.

## Public Involvement and Concerns

Five public meetings were held throughout Michigan to discuss and receive comments about the Assessment of Need. One meeting was held in Marquette, a town located in the central portion of Upper Peninsula; seven persons attended this meeting. Only one concern was expressed that specifically addressed how the Forest Legacy Program could affect forestlands in the Upper Peninsula Legacy Area. This concern was regarding lands owned by the Kamehameha Foundation. This Foundation was established to provide monies for the education of those Hawaiians of native descent. Monies come from a variety of investments, one of which includes the investments of monies in land. At the time this meeting was held, the Kamehameha Foundation owned approximately 250,000 acres of forestland in the Upper Peninsula. The lands were up for sale and some speculation arose that Forest Legacy Funds could be used to purchase a conservation easement for these lands to ensure that traditional uses of these lands would remain intact. Since this meeting, these lands have been sold to a timberlands investment firm located in the continental United States who will have these lands managed for the output of timber products and will allow public access.

With respect to local government, no local government entity responded or commented on Michigan's AON.

## **The Northeast Lower Peninsula Forest Legacy Area**

The Northeast Lower Peninsula FLA includes all lands (islands too) in the following counties:

ALCONA, ALPENA, ARENAC, CHEBOYGAN, CRAWFORD, IOSCO, MONTMORENCY, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, AND ROSCOMMON.

Of the roughly 4.5 million acres in this proposed FLA, over 75% percent is forested (**Map 15**). Like the Upper Peninsula, nearly 40% of the land is in public ownership, yet large forested areas exist in private ownership. Many of the features are also similar to those of the UP, with the exception of the wide-ranging species. The counties of this area also produce large volumes of sawlogs or timber and are, in many cases, economically dependent on forests and wildlands. Also, this FLA contains a large and important groundwater recharge zone in the Grayling Outwash Plain regional landscape ecosystem. There is greater pressure from development in this FLA than in the UP.

### **Public Benefits**

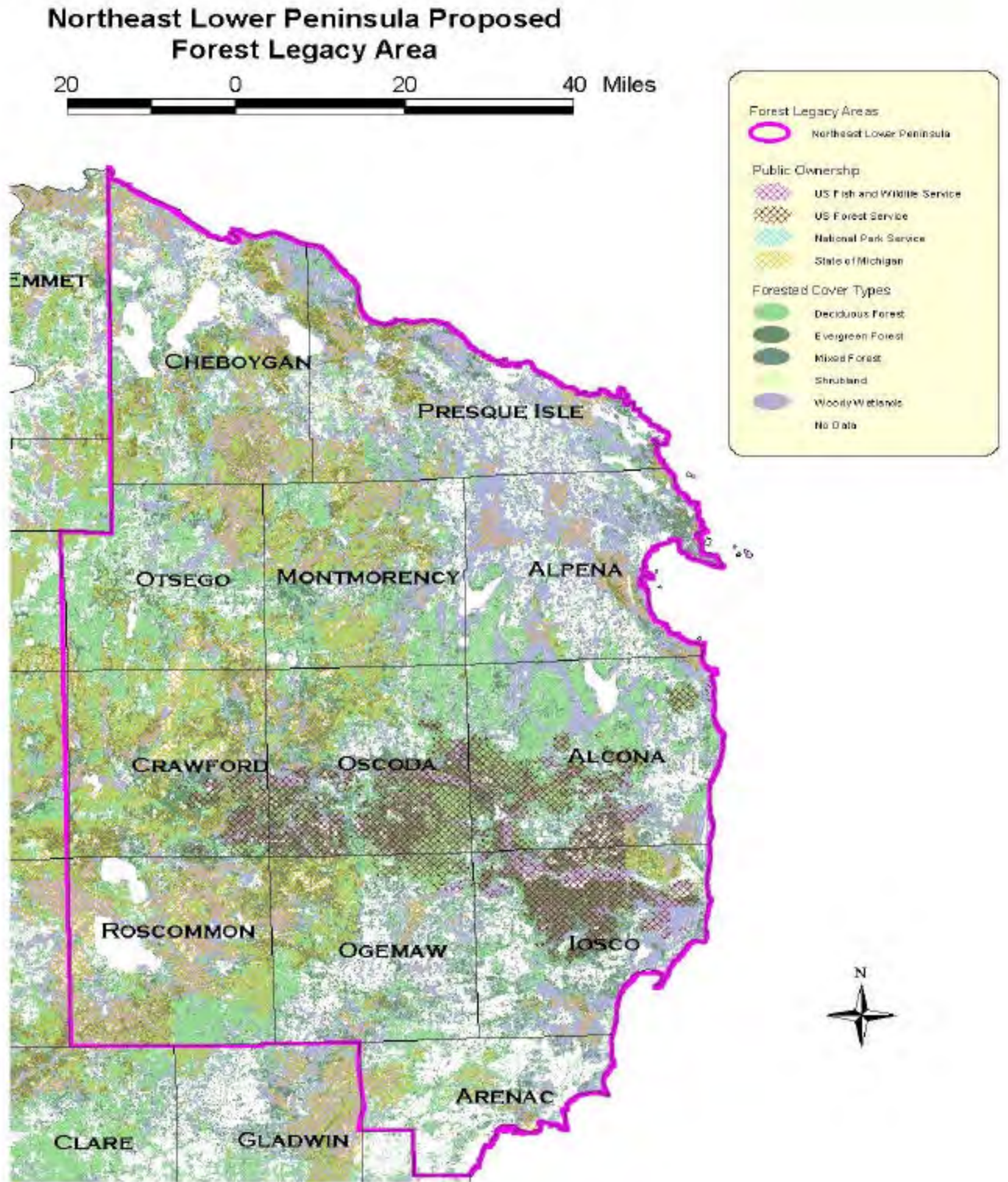
Public benefits that would derive from implementation of the FLP in this FLA include buffering of public lands and protection of groundwater recharge areas that feed the many streams and lakes in the area. Continued or even increased public access to private forests could result in improved opportunities for recreationists as well.

The features of the Northeast Lower Peninsula forests that could benefit from the Forest Legacy Program include:

- Rare natural communities and rare and declining species
- Other important wildlife habitat (elk herd and neotropical migratory birds)
- Forest and wildland-dependent economies
- Significantly productive forests
- Groundwater recharge areas
- Scenic forests

### **Analysis: Meeting Eligibility Criteria**

In order to qualify for inclusion in the Forest Legacy Program, an identified Forest Legacy Area must meet the Eligibility Criteria as established by the State in its Assessment of Need. In Michigan, the Eligibility Criteria are listed on pages 35 and 36 of this document.



Map 15. Public ownership and forest in the Northeast Lower Peninsula proposed Forest Legacy Area

The Northeast Lower Peninsula Forest Legacy Areas meets the Eligibility Criteria in the following ways:

1. Consumer demand for forested areas near or on shorelines is rapidly increasing. This accrues a corresponding increase in property value thereby making the sell-off of said lands more attractive to those private individuals now owning these lands.
2. Given Michigan's current tax laws to tax lands for their highest potential use, tax assessments per acre for forestlands adjacent to developed areas will increase, increasing the tax burden for forestland owners, making sale of said lands more likely due to inability to pay future taxes.
3. The Michigan Department of Transportation has and is considering expanding the primary coastal highway, M-23, from two to four lanes. Should this occur, this will increase tourism, second home and commercial development.
4. The above may result in increased fragmentation of lands and a decrease in the amount of land available for traditional forest uses, as well as negatively impacting habitat for threatened and endangered species.
5. Important public values provided by the Northeast Lower Peninsula Legacy Area include:
  - a) **Scenic resources and public recreation opportunities** - In addition to over one hundred miles of Lake Huron shoreline, the NELP FLA contains many miles of roads designated as part of Michigan's major fall color tour network.
  - b) **Habitat for known rare, threatened and endangered species** - It is within this FLA that the primary breeding habitat for the endangered Kirtland's warbler exists. The Kirtland's warbler was the first specie to have a recovery plan developed for it under the auspices of the federal Endangered Species Act. The piping plover is another bird federally listed as endangered that uses this FLA as nesting habitat. Threatened and endangered plants include Houghton's goldenrod, Michigan monkey flower and the dwarf lake iris.
  - c) **Fish and wildlife habitat** - In an area known the Pigeon River Country State Forest (located in southeast Cheboygan and northeast Otsego counties), approximately 1000 elk make their home. These are the only elk in Michigan and were originally brought in from the Rocky Mountains in 1917 as elk native to Michigan were extirpated in the 19<sup>th</sup> century. In addition, this FLA contains over 300 miles of Blue Ribbon Trout Streams as designated the Michigan Department of Natural Resources.
  - d) **Traditional Forest Uses** – The harvesting of timber and the forest products industry contribute significantly to the economy in this FLA. Within this FLA two international forest product corporations operate large plants for the production oriented-strand board and particleboard and rely heavily on wood products harvested from privately owned forest lands within this FLA. This

area is also popular with Michigan's residents for its cold water stream and lakes which provide for a wide variety of fishing and boating experiences.

### **Public Involvement and Concerns**

With respect to this FLA, one meeting was held in Gaylord, Michigan. Gaylord is centrally located between the Northeast and Northwest Lower Peninsula (LP) FLA's. Only one person attended this meeting. This person expressed no concerns regarding the Northeast LP FLA. No local units of governments provided any comments regarding Michigan's AON.

## **The Northwest Lower Peninsula Forest Legacy Area**

The Northwest Lower Peninsula FLA includes all the land (including islands) in the following counties:

ANTRIM, BENZIE, CHARLEVOIX, CLARE, EMMET, GRAND TRAVERSE, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, NEWAYGO, OCEANA, OSCEOLA, AND WEXFORD.

Somewhat larger, at 6.3 million acres, than the Northeast Lower Peninsula, this FLA is 63% forested and is less than 25% in public ownership (**Map 16**). It is less dependent on forests and wildlands than the previous two FLA's, though many counties do produce significant sawlogs or pulpwood. Significant groundwater recharge areas occur throughout the FLA, and there are many scenic forest areas. Of the forested land, less is in private ownership than in the UP or the northeast Lower Peninsula, but there is greater development pressure on the private forests.

### **Public Benefits**

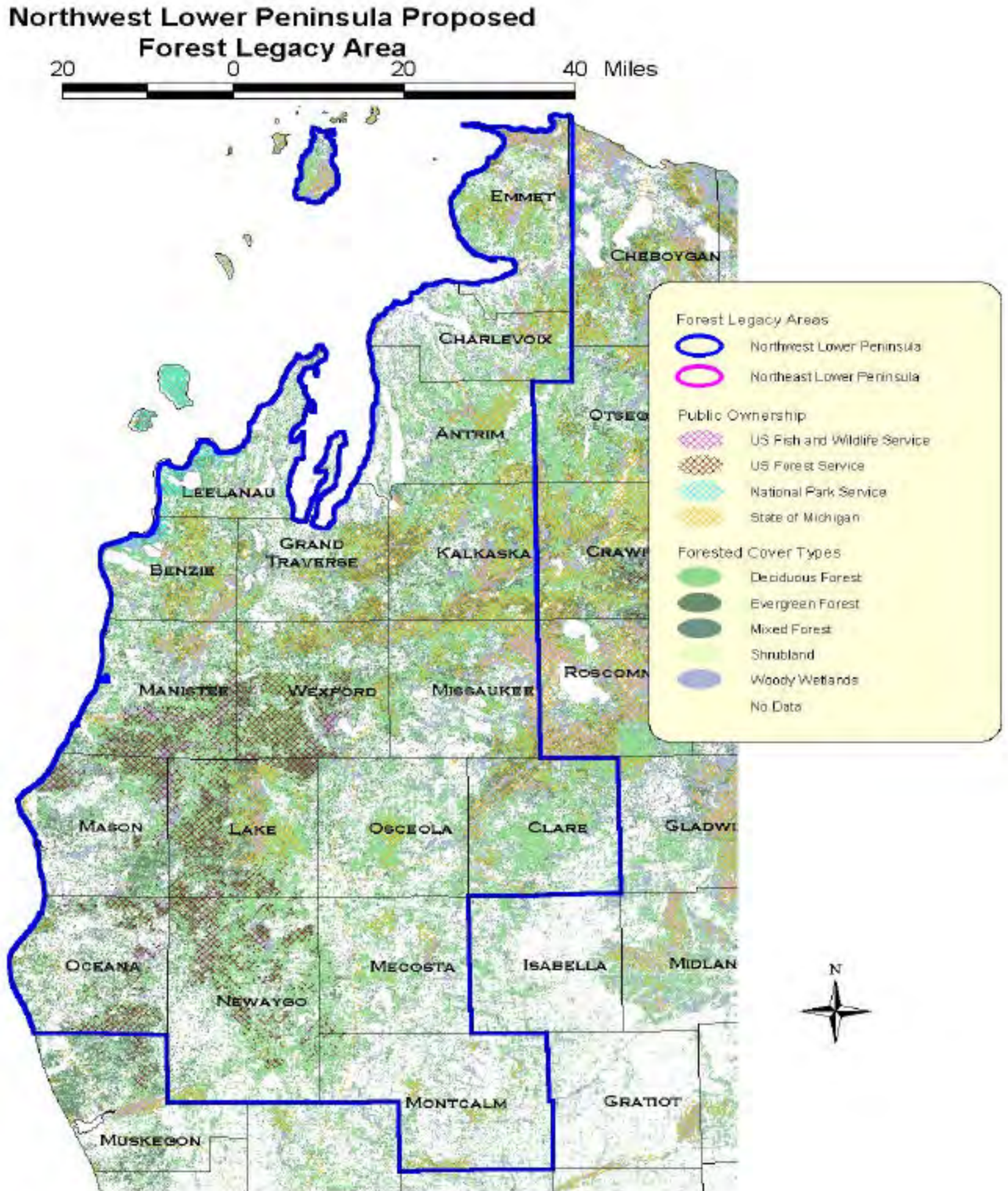
The public will benefit from the FLP through buffering of public lands from incompatible land uses. Areas around Grand Traverse and Little Traverse Bay are among the fastest-growing in the State, and property that borders public land is sought after for development. In addition, the hills and ground-water fed lakes that are among the most attractive features of this FLA will benefit from protection of forests in groundwater recharge areas.

The features of Northwest Lower Peninsula forests that could benefit from the Forest Legacy Program include:

- Rare natural communities and rare and declining species
- Forest and wildland-dependent economies
- Significantly productive forests
- Groundwater recharge areas
- Scenic forests
- Outstanding geologic features

### **Analysis: Meeting Eligibility Criteria**

In order to qualify for inclusion in the Forest Legacy Program, an identified Forest Legacy Area must meet the Eligibility Criteria as established by the State in its Assessment of Need. In Michigan, the Eligibility Criteria are listed on pages 35 and 36 of this document.



Map 16. Public ownership and forest cover in the Northwest Lower Peninsula proposed Forest Legacy Area.

The Northwest Lower Peninsula Forest Legacy Areas meets the Eligibility Criteria in the following ways:

1. Demand for forested areas near or on shorelines is rapidly increasing. This accrues a corresponding increase in property value thereby making the sell-off of said lands more attractive to those private individuals now owning these lands.
2. The Northwest Lower Peninsula FLA is considered by many of Michigan's residents to be the most desirable area of the State, given its hilly topography, its many scenic vistas along its coastline, quaint villages, access to cultural and urban amenities and the relative ease of access via the county and state highway system.
3. Given Michigan's current tax laws to tax lands for their highest potential use, tax assessments per acre for forestlands adjacent to developed areas will increase, increasing the tax burden for forest landowners, making sale of said lands more likely due to inability to pay future taxes.
4. The above will result in increased fragmentation of forestlands and a decrease in the amount of land available for traditional forest uses as well as negatively impacting habitat for threatened and endangered species.
5. Important public values provided by the Northwest Lower Peninsula Legacy Area include:
  - a) **Scenic resources and public recreation opportunities** – The Lake Michigan shoreline in this FLA attracts millions of visitors each year. In addition to the beautiful sunsets, tourists are drawn to the over two hundred of miles of sand dunes lining the coast. The Sleeping Bear National Lakeshore, located on the shores of Benzie and Leelanau County draws thousands of visitors per year as it has some of the highest quality freshwater dune systems in the world.
  - b) **Habitat for known rare, threatened and endangered species** - The piping plover is federally listed as endangered that uses this FLA as nesting habitat. The Hungerford's water beetle, federally listed as endangered requires undisturbed forested stream habitat to survive. Threatened and endangered plants that are found in the forests in this FLA include Houghton's goldenrod and Michigan monkey flower
  - c) **Fish and wildlife habitat** - This FLA contains over 300 miles of Blue Ribbon Trout Streams as designated the Michigan Department of Natural Resources. Its forests provide habitat for a wide variety of mammals including white-tailed deer, bear, coyote and bobcat.
  - d) **Traditional forest uses** – The role of the forests industry is not as significant to this FLA as it is to the NELP and UP FLAs. Forest based tourism is perhaps a larger contributor to the local economies of this FLA. Residents of the Chicago and Detroit metropolitan areas, representing over 13 million people, are frequent visitors to this area. Its mixture of northern hardwoods and northern pine forests located on its steep morainal topography attract numerous tourists seeking to hike and camp throughout this FLA. Portions of privately held forested area within this FLA are under strong development



pressures and loss of these forests would hurt the tourist based economy. This area is also popular with Michigan's residents for its cold water stream and lakes which provide for a wide variety of fishing and boating experiences.

### **Public Involvement and Concerns**

With respect to this FLA, one meeting was held in Gaylord, Michigan. Gaylord is centrally located between the Northeast and Northwest Lower Peninsula FLA's. Only one person attended this meeting, and expressed no specific concerns regarding the Northwest LP FLA. Local governments within this FLA were contacted. However, no local units of government provided any comments regarding Michigan's AON.

**The Southwest Lower Peninsula Forest Legacy Area**

The Southwest Lower Peninsula FLA includes all the lands in the municipalities listed below.

**Table 5.** Local units of government included in the Southwest Lower Peninsula FLA.

**MUSKEGON COUNTY**

BLUE LAKE TOWNSHIP  
 CEDAR CREEK TOWNSHIP  
 DALTON TOWNSHIP  
 EGELSTON TOWNSHIP  
 FRUITLAND TOWNSHIP  
 FRUITPORT TOWNSHIP  
 HOLTON TOWNSHIP  
 LAKETON TOWNSHIP  
 MONTAGUE CITY  
 MONTAGUE TOWNSHIP  
 MUSKEGON CITY  
 MUSKEGON HEIGHTS CITY  
 MUSKEGON TOWNSHIP  
 NORTH MUSKEGON CITY  
 NORTON SHORES CITY  
 ROOSEVELT PARK CITY  
 SULLIVAN TOWNSHIP  
 WHITEHALL CITY  
 WHITEHALL TOWNSHIP  
 WHITE RIVER TOWNSHIP

**OTTAWA COUNTY**

CROCKERY TOWNSHIP  
 FERRYSBURG CITY  
 GRAND HAVEN TOWNSHIP  
 GRAND HAVEN CITY  
 HOLLAND CITY  
 HOLLAND TOWNSHIP  
 OLIVE TOWNSHIP  
 PARK TOWNSHIP  
 PORT SHELDON TOWNSHIP  
 ROBINSON TOWNSHIP  
 SPRING LAKE TOWNSHIP

**ALLEGAN COUNTY**

ALLEGAN CITY  
 ALLEGAN TOWNSHIP  
 CASCO TOWNSHIP  
 CHESHIRE TOWNSHIP  
 CLYDE TOWNSHIP  
 FENNVILLE CITY  
 FILLMORE TOWNSHIP  
 GANGES TOWNSHIP  
 GUNPLAIN TOWNSHIP

HEATH TOWNSHIP  
 HOLLAND CITY  
 LAKETOWN TOWNSHIP  
 LEE TOWNSHIP  
 LEIGHTON TOWNSHIP  
 MANLIUS TOWNSHIP  
 MARTIN TOWNSHIP  
 MONTEREY TOWNSHIP  
 OTSEGO CITY  
 OTSEGO TOWNSHIP  
 OVERISEL TOWNSHIP  
 PLAINWELL CITY  
 SAUGATUCK TOWNSHIP  
 SAUGATUCK CITY  
 TROWBRIDGE TOWNSHIP  
 VALLEY TOWNSHIP  
 WAYLAND TOWNSHIP

**BARRY COUNTY**

ASSYRIA TOWNSHIP  
 BALTIMORE TOWNSHIP  
 BARRY TOWNSHIP  
 HASTINGS CITY  
 HASTINGS TOWNSHIP  
 HOPE TOWNSHIP  
 IRVING TOWNSHIP  
 JOHNSTOWN TOWNSHIP  
 ORANGEVILLE TOWNSHIP  
 PRAIREVILLE TOWNSHIP  
 RUTLAND TOWNSHIP  
 THORNAPPLE TOWNSHIP  
 YANKEE SPRINGS TOWNSHIP

**EATON COUNTY**

BELLEVUE TOWNSHIP

**CALHOUN COUNTY**

CONVIS TOWNSHIP  
 PENNFIELD TOWNSHIP

**KALAMAZOO COUNTY**

ALAMO TOWNSHIP  
 COMSTOCK TOWNSHIP  
 COOPER TOWNSHIP  
 KALAMAZOO CITY

KALAMAZOO TOWNSHIP  
 OSHTEMO TOWNSHIP  
 PARCHMENT CITY  
 PORTAGE CITY  
 PRAIRIE RONDE TOWNSHIP  
 RICHLAND TOWNSHIP  
 SCHOOLCRAFT TOWNSHIP  
 TEXAS TOWNSHIP

**VAN BUREN COUNTY**

ALMENA TOWNSHIP  
 ANTWERP TOWNSHIP  
 ARLINGTON TOWNSHIP  
 BANGOR CITY  
 BANGOR TOWNSHIP  
 BLOOMINGDALE TOWNSHIP  
 COLUMBIA TOWNSHIP  
 COVERT TOWNSHIP  
 GENEVA TOWNSHIP  
 GOBLES CITY  
 HARTFORD CITY  
 HARTFORD TOWNSHIP  
 LAWRENCE TOWNSHIP  
 PAW PAW TOWNSHIP  
 PINE GROVE TOWNSHIP  
 PORTER TOWNSHIP  
 SOUTH HAVEN TOWNSHIP  
 WAVERLY TOWNSHIP

**BERRIEN COUNTY**

BENTON HARBOR CITY  
 BENTON TOWNSHIP  
 BRIDGMAN CITY  
 CHIKAMING TOWNSHIP  
 COLOMA CITY  
 COLOMA TOWNSHIP  
 HAGAR TOWNSHIP  
 LAKE TOWNSHIP  
 LINCOLN TOWNSHIP  
 NEW BUFFALO TOWNSHIP  
 ST. JOSEPH TOWNSHIP  
 THREE OAKS TOWNSHIP  
 WATERVLIT TOWNSHIP  
 WATERVLIT CITY

**CASS COUNTY**

DOWAGIAC CITY  
LA GRANGE TOWNSHIP  
MARCELLUS TOWNSHIP  
NEWBERG TOWNSHIP  
PENN TOWNSHIP  
POKAGON TOWNSHIP  
PORTER TOWNSHIP  
SILVER CREEK TOWNSHIP  
VOLINIA TOWNSHIP  
WAYNE TOWNSHIP

**ST. JOSEPH COUNTY**

FABIUS TOWNSHIP  
FLOWERFIELD TOWNSHIP  
MOTTVILLE TOWNSHIP  
PARK TOWNSHIP  
WHITE PIGEON TOWNSHIP

This FLA is nearly two million acres and is roughly 38% forested (**Map17**). Much of the forested area is in the two largest public areas, Allegan State Game Area and Barry State Game Area. There are private forests around both of these State-owned areas, as well as forests clustered along the shore. Many of the near-shore forests are on old dunes and are not only visually pleasing, but are important natural communities as well. Allegan and Barry Counties produce large volumes of sawlogs, though none of the counties are economically dependent on forests and wildlands. Portions of the FLA are important for rare communities and species, and some is within a groundwater recharge zone. Development pressure is relatively high.

### **Public Benefits**

Public lands could benefit from additional buffering through the FLP in this Forest Legacy Area. In addition, scenic forests along the coast of Lake Michigan could be protected from development pressure and migratory stopover sites along the corridors of the Galien and Paw Paw Rivers could be shielded from fragmentation. The few large (over 1,000 acres) private forests that remain could be protected from fragmentation and remain accessible for traditional forest uses.

The features of the Southwest Lower Peninsula forests that could benefit from the Forest Legacy Program include:

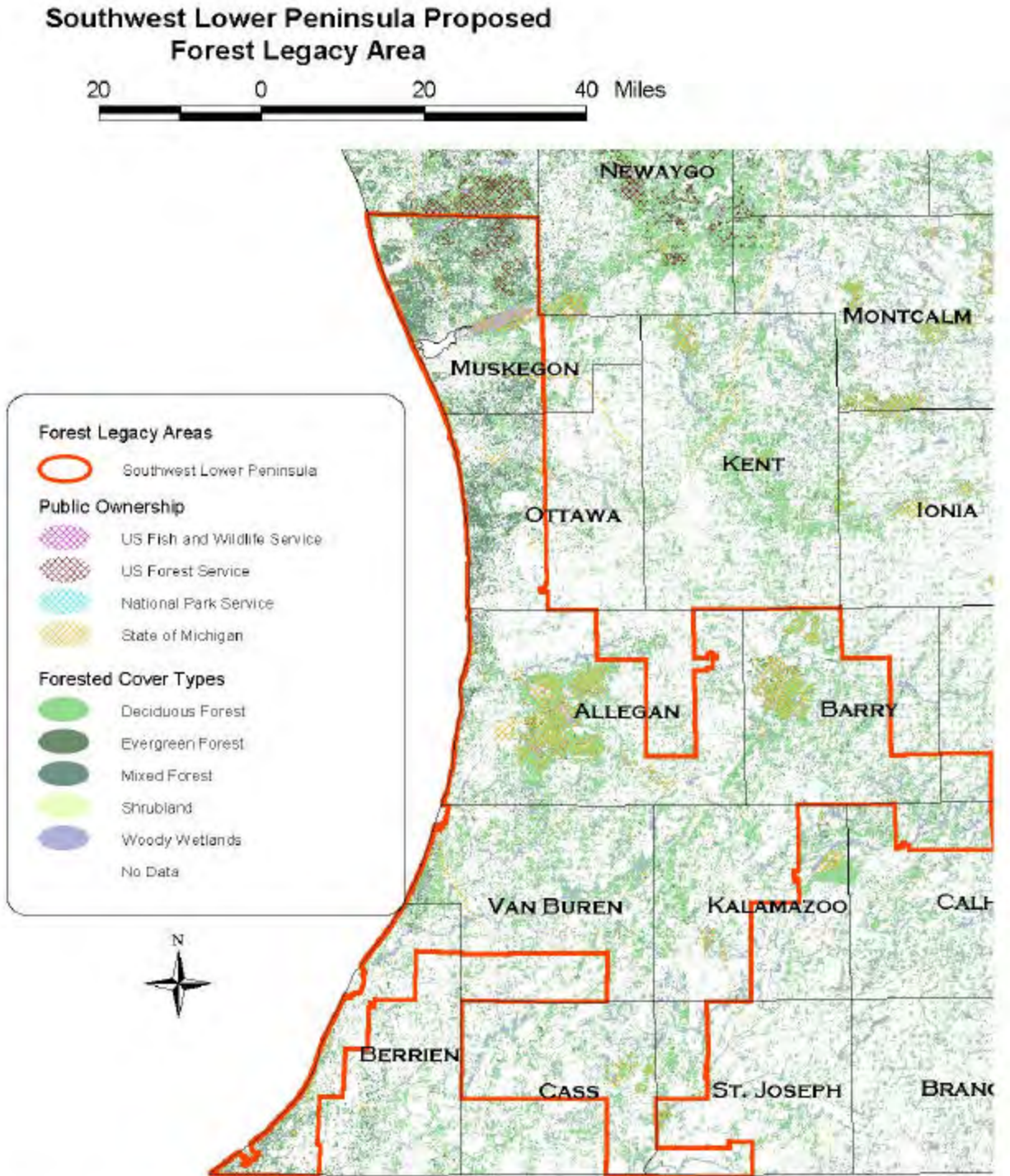
- Rare natural communities and rare and declining species
- Significantly productive forests
- Groundwater recharge areas
- Scenic forests

### **Analysis: Meeting Eligibility Criteria**

In order to qualify for inclusion in the Forest Legacy Program, an identified Forest Legacy Area must meet the Eligibility Criteria as established by the State in its Assessment of Need. In Michigan, the Eligibility Criteria are listed on pages 35 and 36 of this document.

The Southwest Lower Peninsula Forest Legacy Areas meets the Eligibility Criteria in the following ways:

1. Demand for forested areas near or on shorelines is rapidly increasing. This accrues a corresponding increase in property value thereby making the sell-off of said lands more attractive to those private individuals now owning these lands.
2. The Southwest Lower Peninsula FLA is relatively close to the metropolitan Chicago area. Like the Northwest Lower Peninsula FLA, it too has an abundance of hill, morainal topography, many scenic vistas along its coastline, quaint villages, its residents have relative ease of access to cultural and urban amenities and ease of access via the county and state highway system.



Map 17. Public ownership and forest cover in the Southwest Lower Peninsula proposed Forest Legacy Area.

3. Given Michigan's current tax laws to tax lands for their highest potential use, tax assessments per acre for forestlands adjacent to developed areas will increase, increasing the tax burden for forest landowners, making sale of said lands more likely due to inability to pay future taxes. .
4. The above will result in increased fragmentation of forestlands and a decrease in the amount of land available for traditional forest uses, public access as well as negatively impacting habitat for threatened and endangered species.
5. Important public values provided by the Southwest Peninsula Legacy Area include:
  - a) **Scenic resources and public recreation opportunities** – Like the Northwest Lower Peninsula Legacy Area, the shoreline of Lake Michigan attracts hundreds of thousands of visitors each year and has over 100 hundred miles of sand dunes lining its coast. The majority of this FLA and its dunes are within 2-3 hours drive from the 8 million residents of the Chicago metropolitan area.
  - b) **Habitat for known rare, threatened and endangered species** - Within this FLA is the primary habitat for two species of butterfly federally listed as endangered. These species are the Karner Blue and the Mitchell's satyr butterfly. Key to maintenance Karner Blue habitat are conservation of areas typically referred to as oak savannas and oak barrens within this FLA.
  - c) **Traditional Forest Uses** – The combination of good soils and relatively mild climate provide for an optimal environmental for the growth of veneer quality hardwood from prized hardwood species such as black walnut, black cherry, red oak and tulip poplar. Much of the area within or adjacent to this FLA is considered to have the highest amount board feet of veneer quality hardwoods (with the exception of sugar maple) in Michigan. Like the previous FLAs, conservation and protection of private forest lands will help ensure forest-based recreation including hunting, fishing, hiking and power watercraft based recreation. Portions of privately held forested area within this FLA are under strong development pressures and loss of these forests and public access would diminish tourism, various recreational activities and the production of high quality forest products.
  - d) **Other ecological values** – This FLA has over 25,000 acres of high quality coastal dune area as well as having portions designated as having a ecologically significant density of globally imperiled plants and animals

## **Public Involvement and Concerns**

One meeting was held Kalamazoo, Michigan. Only one person attended this meeting. This person expressed two concerns: 1) this program should strive to have language permitting public access in the majority of conservation easements given that local businesses rely on direct and indirect revenue accrued from persons hunting on privately owned forestlands with the Southwest Lower Peninsula FLA, and 2) escalating property taxes on forestland are a particular threat to conserving environmentally sensitive forests in the Southern Lower Peninsula. Local governments within this FLA were contacted. However, no local units of government provided any comments regarding Michigan's AON.

**The Southern Michigan Water Recharge Forest Legacy Area**

The Southern Michigan Recharge Area includes all the land in the municipalities listed in the table below.

**Table 6.** Local units of government included in the Southern Michigan Recharge Area.

**Oakland County**

ADDISON TWP  
BRANDON TWP  
COMMERCE TWP  
GROVELAND TWP  
HIGHLAND TWP  
HOLLY TWP  
INDEPENDENCE TWP  
LYON TWP  
MILFORD TWP  
OAKLAND TWP  
ORION TWP  
OXFORD TWP  
ROSE TWP  
SOUTH LYON CITY  
SPRINGFIELD TWP  
WATERFORD TWP  
WHITE LAKE TWP

**Livingston County**

BRIGHTON CITY  
BRIGHTON TWP  
GENOA TWP  
GREEN OAK TWP  
HAMBURG TWP  
HARTLAND TWP  
MARION TWP  
PUTNAM TWP  
UNADILLA TWP

**Washtenaw County**

DEXTER TWP  
FREEDOM TWP  
LIMA TWP  
LYNDON TWP  
NORTHFIELD TWP  
SCIO TWP  
SHARON TWP  
BLACKMAN TWP  
SYLVAN TWP  
WEBSTER TWP

**Lenawee County**

CAMBRIDGE TWP  
WOODSTOCK TWP

**Jackson County**

BLACKMAN TOWNSHIP  
COLUMBIA TWP  
CONCORD TWP  
GRASS LAKE TWP  
HANOVER TWP  
HENRIETTA TWP  
JACKSON CITY  
LEONI TWP  
LIBERTY TWP  
NAPOLEON TWP  
NORVELL TWP  
PARMA TWP  
PULASKI TWP  
RIVES TWP  
SANDSTONE TWP  
SPRING ARBOR TWP  
SPRINGPORT TWP  
SUMMIT TWP  
TOMPKINS TWP  
WATERLOO TWP



This area is the smallest and least forested of the FLA's (**Map 18**). In addition to the ecologically important forests on public lands, there are many aesthetically important forests on private lands.

Almost the entire FLA is in an important recharge area, and many of Michigan's major rivers arise here, including the Grand, St. Joseph (Lake Michigan Drainage), Kalamazoo, Raisin, Huron, Shiawassee, Clinton, and Flint. The forests in this FLA are under the greatest pressure from development of any being proposed. The economy of Jackson County is dependent on forests and wildlands.

### **Public Benefits**

Forests on public lands are among the most critical for maintaining the biodiversity of this FLA, and the forests that remain in private ownership serve as important buffers to these public lands. Groundwater recharge areas are also among the forested areas that are being pressured for development, which is occurring faster here than anywhere in the State. Lands that are open to public access are less abundant here than elsewhere, and keeping or adding to the areas that are open for recreation or other traditional uses could be highly valuable. Some local and county governments are establishing their own land protection measures, but the cost of land and development rights is prohibitively high and the Forest Legacy Program would be of significant help as an additional way for private land owners to protect their forested lands.

The features of Southern Michigan Recharge Area forests that could benefit from the Forest Legacy Program include:

- Rare natural communities and rare and declining species
- Forest and wildland-dependent economies
- Groundwater recharge areas
- Scenic forests

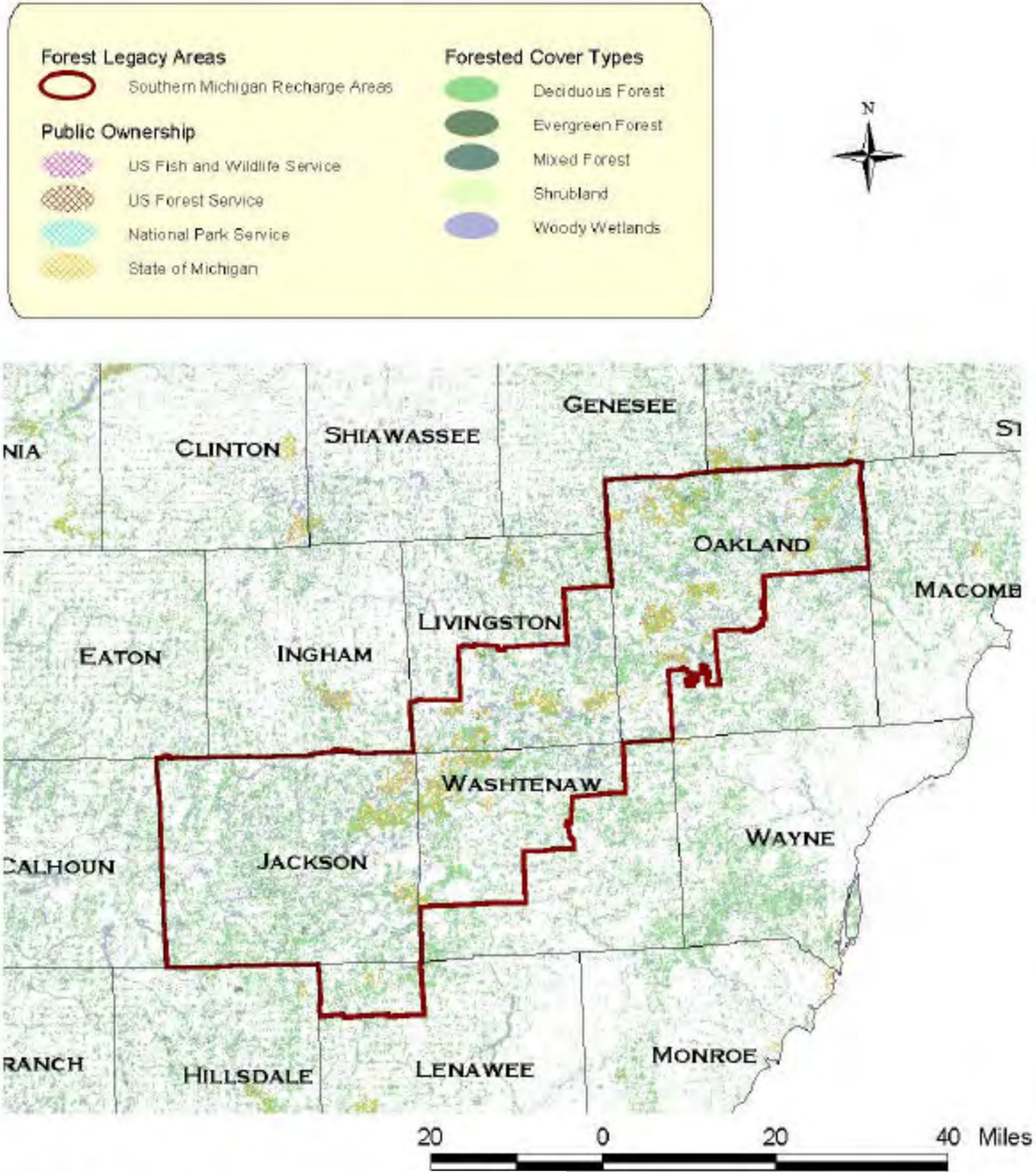
### **Analysis: Meeting Eligibility Criteria**

In order to qualify for inclusion in the Forest Legacy Program, an identified Forest Legacy Area must meet the Eligibility Criteria as established by the State in its Assessment of Need. In Michigan, the Eligibility Criteria are listed on pages 23 and 24 of this document.

The Southern Michigan Water Recharge Forest Legacy Area meets the Eligibility Criteria in the following ways:

1. The Southern Michigan Water Recharge Forest Legacy Area lies in the heart of the Detroit Metropolitan Area that contains over one-half of Michigan's ten million residents. Commercial and residential development is occurring at the most rapid rate than any other area of the State.

### Southern Michigan Recharge Area Proposed Forest Legacy Area



2. The above will result in increased fragmentation of forestlands and a decrease in the amount of land available for traditional forest uses, public access, and protection of riparian corridors, as well as negatively impacting habitat for threatened and endangered species.
3. The Southern Michigan Water Recharge Forest Legacy Area contains a variety of publicly owned state and county park lands. The ability of these lands to maintain their quality of recreational and wildlife values becomes increasingly diminished with increasing conversion of adjacent private forestlands to commercial and residential development. Important public values provided by the Southwest Peninsula Legacy Area include:
  - a) **Wetlands, riparian areas, floodplains and/or areas of predominantly high groundwater recharge potential** - This FLA contains over 700 lakes and over 2000 miles of rivers and streams. Most of this water is adjacent to privately owned woodlands. Development pressure is highest on lands adjacent to water. Also, due to its surficial geologic characteristics, this FLA is important to the social and natural communities within and adjacent to this FLA as a source of recharge for groundwater aquifers. The Forest Legacy program can help aid in the protection of these surface and groundwater resources.
  - b) **Habitat for known rare, threatened and endangered species** - This FLA contains habitat for the state endangered bird known as the king rail. Other rare species include the cerulean warbler, Blanding's turtle and the eastern massasaugga rattlesnake. All of these species require forested landscape to survive and their habitat is threatened by the rate at which forested land is being converted to non-forest uses.
  - c) **Other ecological values** – This FLA contains an area defined as having a relatively high density of globally imperiled plants, animals and natural communities, such as the prairie fen.

### **Public Involvement and Concerns**

One meeting was held in this FLA in Dearborn, Michigan. No one attended this meeting and no concerns from the public were expressed regarding this FLA. Local governments within this FLA were contacted. However, no local units of government provided any comments regarding Michigan's AON.

## **XI. CRITERIA AND PROCESS FOR DETERMINING PRIORITY OF ACQUISITIONS**

### **A. Forest Legacy Project Selection Criteria**

Each project proposal will receive a qualitative ranking based on the extent to which it addresses the criteria. These guidelines will be further revised as experience dictates.

1. **FLA Area Inclusion:** The proposed property boundary must lie, at least in part, within a defined Forest Legacy Area.
2. **\*Willing Landowner:** Written expression of interest must be received from the landowner.
3. **\*Easement Condition:** Conservation easement terms must be clearly consistent with FLP guidelines.
4. **\*Plan Quality:** The land management plan must encourage active forest stewardship through compliance with Forest Stewardship Program plan guidelines.
5. **\*Money Leverage:** At least 25% of the project costs must be secured from non-federal cash or in-kind sources.
6. **\*Threat of Conversion to Non-Forest Use:** The proposal must demonstrate that the traditional uses of the forest are likely to become diminished or impossible to continue in the foreseeable future.
7. **\*Readiness:** Proposal must clearly describe the current status of project development and the timeline for transaction completion.
8. **\*Value of Project:** Proposal must clearly describe the cost-benefit relationships of the project.
9. **\*Size:** Size of the parcel will be given a value in ranking of the proposals submitted. Larger parcels will be given a higher value than smaller parcels. Smaller parcels may be given a high value during ranking based upon the other criteria.
10. **Forest Type:** Forest types will be ranked using a numbered grading system based upon forest types in Michigan and their economic and ecological values.
11. **Forest Condition:** Current condition of the forested area and its use will be graded on a numbering system.
12. **Continuity with Other Protected Lands:** Proposed lands which are contiguous or adjacent to other public and protected lands will be given a higher point value than those that do not border public or protected lands.
13. **Wildlife Habitat:** Proposed lands, which demonstrate important habitat to wildlife, or demonstrate a high diversity of wildlife species on the land will be given a higher ranking than those lands which do not contain significant wildlife habitat.
14. **Urgency:** Submitted projects will be given consideration dependent on the urgency of the project need, i.e. projects with an immediate danger of development or other conversion to non-forest uses will be given a higher ranking than projects with a lesser threat of conversion.

15. **Partnership:** Partnerships with other management agencies, either local or state/federal, or partnerships with other conservation organizations, will be given a higher ranking than those that are relying solely on the FLP.
16. **Community Support:** Projects that demonstrate support and/or acceptance from surrounding landowners or communities will be given a higher ranking than projects that have little or no acceptance from local community groups.
17. **Scenic Resources:** Proposed properties which have a positive aesthetic appearance or those properties which would preserve an overall positive aesthetic appearance to the surrounding areas will be given higher ranking than areas that do not, or would not promote a positive aesthetic appearance.
18. **Ecological/Environmental Significance and Resources:** Projects that demonstrate the occurrence of significant ecologic or environmental resources will be given a higher ranking than projects that do not have significant quantities or qualities of ecologic or environmental resources.
19. **Economic Significance:** Project areas which can demonstrate a significant economic impact through traditional forest use will be given a higher consideration than projects which will not provide economic returns from forest products or traditional forest uses.
20. **Aquatic Resources:** Submitted project plans which show a demonstrated effort to protect or enhance aquatic resources such as lakes, rivers, wetland areas and streams, will be given a higher ranking and consideration than projects which do not.
21. **Historic Land Use:** Lands which have demonstrated a historic and ongoing traditional forestry land use, and which ensure that such uses will continue, will be given a higher consideration in the ranking procedure than lands which have not historically demonstrated traditional forest uses.
22. **Public Access:** Project areas that allow public access for recreational, educational, or other use of the subject property, or use of adjacent public lands will be ranked higher than plans that do not allow for access.
23. **Water Quality Protection:** Submitted project plans which show a demonstrated effort to protect or enhance water quality resources in lakes, rivers, and streams, will be given a higher ranking and consideration than projects which do not.
24. **Cultural Resources:** Project areas which contain significant cultural resources, such as historic sites or archeological resources, will be given a higher consideration than project areas which do not contain these resources.
25. **Other Public Values:** Other resources or assets contained within a proposed project area, or proposed project plan, will give additional ranking points to the project at the discretion of the SFSAC members.

## **B. Forest Legacy Project Selection - Project Application and Review Process**

The Michigan Forest Stewardship Advisory Committee (SAC) will submit a prioritized list of potential Forest Legacy projects to the United States Forest Service-Cooperative Forestry. To ensure that Michigan considers a broad range of potential Forest Legacy projects, the Forest Stewardship Advisory Committee will use two methods to identify and consider potential Forest Legacy projects:

1. Each year, the Michigan Department of Natural Resources (MDNR) will submit potential projects to the SAC that the MDNR and its land protection partners have identified through negotiations with private landowners owning forested areas.
2. Once each year, the SAC will issue a Request for Proposals (RFP)

Using either of the two processes described above, new projects must develop a proposal in the format described below and submit said proposal to the MDNR by June 1 of each calendar year. Proposals submitted after that date will be put into the list of potential projects for the following calendar year. **However, an exception will be made for projects proposed for funding during the federal fiscal year of 2004. For FY 2004, the MDNR and the SAC will work with its land conservation partners and landowners to receive proposed projects by no later than September 15, 2003.**

However, all interested parties should review the minimum eligibility requirements for participation in Michigan's Forest Legacy Program (see **Appendix D**) prior to initiating any expense in submitting a proposal for consideration. As part of the application process and format, all applicants must submit 4 copies of the following information for each parcel (see **Appendix C** as reference) :

- A. Summary of the Project
- B. Description of how the proposed project meets Minimum Eligibility Criteria Standards
- C. Description of how the proposed project addresses each of Michigan's scoring criteria
- D. Completion of Landowner Rights Retention Form
- E. Summary of a state-approved Forest Stewardship or Multi-Resource Management Plan
- F. Map of the proposed project area
- G. Copy of a county road map (s) indicating the location of the property
- H. Copy of plat or survey map of the parcel
- I. Copy of the "last deed of record" for the parcel
- J. An aerial photo of the proposed project area

Proposals will be evaluated and scored by a subcommittee of the SAC (see **Appendix E**). Numeric scores and assessment of each project (including a section regarding the project's readiness for easement/fee acquisition) will be forwarded to the SAC for a final decision on the selection and prioritization of that year's potential projects. Applicants

will be notified of the Committee's project decisions by September 1 of that application year. Furthermore, the SAC will submit a prioritized list, including funding levels, of potential projects to the United States Forest Service for funding in the following fiscal year.

## XII. PUBLIC INVOLVEMENT

As part of the Forest Legacy Program (FLP), and as listed in Forest Legacy Guidelines, the public has a role in determining how the Forest Legacy Program will be developed and what criteria will be used to prioritize those tracts that receive consideration.

To this end, a wide array of potential stakeholders was invited to a series of four meetings at different locations around the State: Lansing, South Haven, Grayling and Marquette.

Included in the invitation mailing were representatives from state and federal agencies, conservation groups and the timber industry, as well as all conservation districts, local land trusts and local and regional government associations, among others. (A copy of the notice is included as **Appendix A**).

General information (**Appendix B**) about the Forest Legacy Program Assessment of Need, prepared by the Michigan Forest Stewardship coordinator, a list of meeting dates, and a public input survey (**Appendix G, results included**) were also distributed. These items were also posted on the website of the Michigan Department of Natural Resources and the Michigan Chapter of The Nature Conservancy. E-mail solicitations were also made on a continuous basis, as each stakeholder meeting identified further perspectives that should be sought or included.

After a draft AON was prepared, it was posted on The Nature Conservancy and MDNR websites, and a series of five meetings were announced via Statewide press release. The five public meetings were to explain the AON to interested individuals and solicit additional information, reactions, or comments from the general public. These meetings, which were promoted in industry trade magazines, local press coverage and media (e.g., Michigan Public Radio's Great Lakes Radio Consortium) occurred as follows:

Date	Time	Location	
September 9, 2002	7:00-9:00 pm	Peter White Library	Marquette, MI
September 10, 2002	7:00-9:00 pm	Hartwick Pines	Grayling, MI
September 11, 2002	7:00-9:00 pm	Chamber of Commerce	Lansing, MI
September 18, 2002	7:00-9:00 pm	Environmental Int. Center	U of M, Dearborn
September 19, 2002	7:00-9:00 pm	Kalamazoo Nature Center	Kalamazoo, MI

The goals for the Michigan public involvement process were threefold:

1. To provide information to stakeholders and the general public about the Forest Legacy Program;
2. To elicit any concerns, suggestions, and general comments about Forest Legacy;
3. To promote forest stewardship.

Minutes for all meetings are available from the Michigan Chapter of The Nature Conservancy or the Michigan Department of Natural Resources upon request.

### Analysis of Public Input

Overall, the intensity of Michigan's public's interest in the Forest Legacy Program was relatively light. No strong opinions regarding any aspect of this program were expressed during the public comment



period, which ended September 30, 2002. What opinions were expressed were all positive with respect to establishing the Forest Legacy Program.

A private forest land stakeholder assessment survey was sent out and twenty-eight responses were received (see Appendix C). Five inquiries were made in the survey regarding: 1) setting in which the respondent lived, 2) the length of time the respondent has been living in Michigan, 3) Did the respondent own 10 or more acres of Michigan forestland, 4) what was the respondent's primary interest in private forestland conservation and 5) a request for the respondent to list the five (out of a possible twenty-three choices) most important State-wide criteria for protection of environmental sensitive private forestlands.

The following is a general summary of the responses to this survey:

- 90% lived in rural areas.
- Over 90% lived in Michigan for greater than 11 years.
- Over 70% own ten or more acres of Michigan forestland.
- Over 70% stated their primary interest in forestland conservation was due to the fact that they worked for either a public land management agency or land trust that was involved in some way with the conservation of private forestland.
- The five most important State-wide criteria to use in protecting environmentally sensitive forestland were as follows:
  1. Control and minimize impacts of urban sprawl
  2. Wetland/riparian issues
  3. Wildlife habitat
  - 4&5. A four-way tie between: unique ecological areas, forest timber products, large contiguous forest, flora/fauna species diversity

Public response regarding this program has been entirely positive with respect to establishing a Forest Legacy Program in Michigan. Key questions raised during the public comment period were:

1. Who would be the agency responsible for holding the easements and general program management?
2. How well would Michigan compete with other states regarding the receipt of FLP funds?
3. How would Michigan/DNR decide which landowners and/or parcels would receive FLP funding?

With respect to the public/stakeholder forestland assessment survey, the Assessment of Need does contain all those selection criteria ranked in the top five by respondents to the survey (Section XI.A.).

With respect to the three overarching questions of concern: 1) The AON states on page 30 that the State of Michigan will hold the easements with the DNR being the State agency responsible for program management, 2) The AON is a planning document and basis for implementation for a state becoming eligible for funding; how funds are allocated amongst states is due in large part to the quality of projects eligible for funding and the amount appropriated by Congress for any given fiscal year, 3) the Forest Legacy Project Selection Criteria will be used as a foundation for the developing ranking criteria.

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## XIV. APPENDICES

### Appendix A. Stakeholder Participation - Invitation

#### Forest Legacy Assessment - Your Ideas Needed

Your input is being requested as part of the Michigan Forest Legacy Needs Assessment. To keep private forestland intact, the Michigan Department of Natural Resources is working with other government agencies, nonprofit organizations and the public to begin Michigan's participation in the Forest Legacy Program. Funded by the U. S. Forest Service Cooperative Forestry Program, Forest Legacy provides federal grants to states to protect private forestland from being converted to non-forest uses (urban residential).

Forest Legacy programs are guided by an individual state plan describing the need for the Forest Legacy Program, identifying where forests are being converted and explaining how the State proposes to manage the Forest Legacy Program. These state plans are called an Assessment of Need and are shaped by public involvement. The Michigan Department of Natural Resources has contracted with The Nature Conservancy to complete the Forest Legacy Needs Assessment. The Nature Conservancy is working with The Conservation Fund to facilitate public involvement. The Forest Legacy Assessment process will gather and evaluate a variety of geographic and environmental information. In addition, a critical component is to measure the interest and concerns of stakeholders who may be involved in the future of private forestland

The Forest Legacy Program is a voluntary program that resulted from the Federal Cooperative Forestry Act, amended in the 1990 Farm Bill. Funds are available to acquire either an interest in land (easements) or the land itself from landowners wanting to participate. In most cases, title to these lands or interests in the lands will be vested in state or local governments.

You have a couple ways to give your input on the Forest Legacy Needs Assessment that include attending public meetings, reviewing the draft Assessment of Need or filling out the attached survey. You are also welcome to send comments to me at anytime during the process. To get your name on a mailing list to receive a draft Assessment of Need please contact me at 616-426-8825 or at [pkohring@conservationfund.org](mailto:pkohring@conservationfund.org). More information on the Forest Legacy Program can be found on the U.S. Forest Service website at <http://www.fs.fed.us/spf/coop/flp.htm>

Attached are a general description of the Michigan Forest Legacy Program and a copy of the survey.

**For further information about meetings, please call 616-426-8825.**

Public Meeting Schedule		
City	Date & Time	Address
South Haven	August 16 3:00 pm-5:00 pm	Old Harbor Inn 515 Williams St
Grayling	August 20 7:00 pm- 9:00 pm	Hartwick Pines M-93
Marquette	August 21 7:00 pm-9:00 pm	Peter White Library 217 N. Front Street

## Appendix B. Forest Legacy Program Information

### Forest Legacy Program In Michigan

#### Background

The Forest Legacy Program (FLP) is a program that resulted from the Federal Cooperative Forestry Assistance Act, amended in the 1990 Farm Bill. FLP was established to protect environmentally important forest areas that are threatened by conversion to non-forest uses.

The development of Michigan's forest areas poses an ever-increasing threat to maintaining the State's valuable forestlands. Forestlands not only supply timber products, but also provide wildlife habitat, watershed protection, and recreation and aesthetic values. Fragmentation and parcelization across our State is resulting in the loss of these valuable ecosystems and the biological, economic and social values they provide.

The FLP is a voluntary program that protects sensitive areas that are identified by the State. The program encourages and supports the acquisition of conservation easements on privately owned forestlands. These easements are legally binding agreements that transfer a negotiated set of property rights from one party to another. The property remains in private ownership. There is also the option of acquiring the property through a full fee purchase.

To participate in FLP, the proposed property must meet the following National criterion:

- Be an environmentally important forest area that is threatened by conversion to non-forest uses
- Provide opportunities for the continuation of traditional forest uses (i.e. forest management, timber harvesting, recreation)
- The landowner must have a multi-resource management plan prepared and approved.

In addition to the gains associated with the sale or donation of property rights, landowners may also benefit from reduced taxes associated with limits placed on land use.

#### Forest Legacy Program

In order to become a participant in FLP, Michigan must have the Governor designate a State Lead Agency and conduct an Assessment of Need (AON). The AON provides information on specific sensitive and critical forested areas in Michigan, as well as identifies programs that already exist in Michigan that addresses these areas. Once this is completed and approved by the USDA Forest Service, Michigan can access FLP funds. In other states, the State Lead Agency has been the equivalent of Michigan's DNR Forest, Mineral and Fire Management Division. Administration of the Forest Legacy Program would lie within the state lead agency. The FLP requires the state to have an advisory committee. This advisory group would advise the State Lead Agency on setting program criteria, developing an application process and reviewing applications. Currently, there are several advisory committees who may be interested in becoming involved with the FLP, or a new advisory committee specific to FLP could be formed.

USDA Forest Service funds are available to help prepare the AON. Attached is criterion that is required in the AON. Using USDA Forest Service funds, and possible support from other organizations, the State Lead Agency could either prepare the AON internally or contract the work to an outside organization.

#### Proposed Steps:

1. The MDNR commits to support the Forest Legacy Program and preparing the AON.
2. The MDNR requests the Governor designate a State Lead Agency.
3. The MDNR requests a USDA Forest Service grant to assist in the preparation of the AON.
4. The State Lead Agency develops the Assessment of Need.

5. The Assessment of Need is submitted to the USDA Forest Service for review and approval.

### Forest Legacy Program – National Funding History

The Cooperative Forestry Assistance Act directs that the maximum Federal contribution for total FLP costs may not exceed 75%. The USDA Forest Service position is that at least 25% of these costs may be matching funds or in-kind contributions from non-Federal sources, including States and non-profit organizations. Non-federal contributions may include direct costs and indirect costs associated with any of the planning, acquisition, capital improvement, management, or administrative activities.

National Forest Legacy Program - Budget History

FY1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
(Thousands of dollars)									
4,938	9,915	6,948	6,688	3,000	2,000	4,000	7,012	29,933	59,768

### Conclusion

The FLP is a voluntary conservation easement program to protect critical forest ecosystems that are in danger of becoming fragmented, and eventually disappearing. The FLP is currently being well supported by the Federal Government, and USDA Forest Service expects this support to continue. Currently, 22 states and territories are active in FLP. Twelve states are developing AON plans or are considering beginning the planning process. With Michigan's Great Lakes and unique systems, we need to also consider becoming a part of the Forest Legacy Program.

**Appendix C. Michigan Forest Legacy Proposed Project Information Form**

Date: \_\_\_\_\_

Project Title:

\_\_\_\_\_  
\_\_\_\_\_

Name, Mailing and E-mail Address, Telephone Number, & Contact Person of Landowner:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name, Mailing and E-mail Address, Telephone Number, & Contact Person of Partner Organization:

\_\_\_\_\_  
\_\_\_\_\_

Land Protection Method (easement or fee) and Proposed Management & Monitoring Entity:

\_\_\_\_\_  
\_\_\_\_\_

Project Abstract:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Project Cost (provide detail of acquisition, management and other costs including legal, survey and appraisal costs):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dollars Requested:

\_\_\_\_\_

Matching Funds to be provided, including funds for stewardship (state dollar amount and source of funds):

\_\_\_\_\_  
\_\_\_\_\_

**Landowner signature**

**Date**

\_\_\_\_\_

\_\_\_\_\_

**Appendix D. Michigan Forest Legacy Program - *Minimum Eligibility Requirements***

1. A minimum of 75% of the parcel acreage meets the definition of “forestland” as defined by the United States Forest Service.
2. More than 50% of the land meets Michigan’s commercial forest land standards as defined in Part 511 of the PA 451 of 1994 and capable of providing a sustainable flow of forest products. Exceptions to this requirement may be made only on a case by case basis as deemed appropriate by the MDNR and the Forest Stewardship Advisory Committee.
3. Parcel threatened by immediate, present or future conversion to non-forest uses.
4. Parcel provides for a minimum of two public values as stated in Michigan’s Assessment of Need.
5. Parcel has a MDNR/SAC approved Forest Stewardship Plan or other multi-resource management plan written by a professional forester or other MDNR/SAC approved professional. Summary of management plan must accompany application.
6. Proposal provides for a minimum of twenty-five percent cost share of project costs and provides explicit accounting of how the cost share will be met.

## Appendix E. Michigan Forest Legacy Prioritization Check List for Parcel Evaluation

Proposal/Tract Name \_\_\_\_\_

Criteria (max = 20 pts)	Weighted Point System			Total Points	Comments
	Low	Med	Hi		
Abuts Public Or Other Protected Land	5	10	20		
Parcel Size	5	10	20		
Traditional Forest Uses Maintained W/ Approved Mgt. Plan	5	10	20		
Scenic Resources	5	10	20		
Public Access Allowed	5	10	20		
Known Historic/ Cultural Resources	5	10	20		
Fish & Wildlife Habitat	5	10	20		
Riparian & Water Resources	5	10	20		
T&E Sp. Or Special Communities	5	10	20		
Other Ecological Values/Coastal Zone/Natural Rivers	5	10	20		
Level Of Conversion Threat	5	10	20		
Identification Of Completed Acquisition Activities	5	10	20		
Commitment & Ability To Monitor, Manage, Administer And Enforce	5	10	20		
Identification of All Parties Supporting this Project					
Money Leverage/25% Match Established	5	10	20		
Identification Of National Benefits	5	10	20		
Complements Prior Federal Investment Or Federal Lands					
Partnerships Involved & And Identified	5	10	20		
TOTALS					



## Appendix F. List of Rights Wishing to be Retained by Landowner

It is important that the following section be carefully and fully completed. This information will directly affect the desirability of the parcel as well as its appraised value and prioritized ranking. Note that checking "yes" does not limit your ability to negotiate price and options in the future, it merely assists the Forest Stewardship Advisory Committee when evaluating your parcel.

Indicate which of the following interest you desire to retain: (Those marked "yes" should be the rights you want to retain. All other rights may become the property of the State of Michigan upon successful completion of negotiations between the State of Michigan and yourself.)

Yes	No	
___	___	Timber and wood product rights
___	___	Mushroom/herb and root/craft material collection
___	___	Mineral rights (unrestricted access to minerals)*
___	___	Mineral rights (restricted with limited surface occupancy)**
___	___	Oil and gas rights (unrestricted access to oil and gas)*
___	___	Oil and gas rights (restricted with limited surface occupancy)**
___	___	Right to limit or control public access
		Retain control of the following recreational activities:
___	___	Hunting
___	___	Fishing
___	___	Camping
___	___	Hiking or other passive recreation
___	___	Bicycling/Mountain Bike Riding
___	___	Horseback Riding
___	___	Motorized Vehicle Access
		Non-Forest Uses within easement area.***
___	___	Grazing (amount of area ___ acres)
___	___	Farming (amount of area ___ acres)
___	___	Road Construction (other than for forest management/protection)
___	___	Buildings and other improvements (amount of area ___ acres)
___	___	Other: _____

\*Retention of unrestricted mineral or oil/gas rights will exclude that portion of the tract from consideration in the Forest Legacy Program.

\*\*Retention of restricted mineral or oil/gas rights which allow less than 10% surface occupancy may be consistent with the Forest Legacy Program.

\*\*\*Total area of all non-forest uses cannot exceed 10% of the total tract area.

## Appendix G Stakeholder Assessment Survey & Results

### MICHIGAN PRIVATE FOREST LAND ASSESSMENT SURVEY

The Michigan Department of Natural Resources is assessing the status of Michigan's private forestlands to determine the risks of conversion to non-forest uses. This survey is part of the Forest Legacy Needs Assessment process.

The Forest Legacy Needs Assessment will gather and evaluate a variety of geographic and environmental information. In addition, a critical component is to measure the interest and concerns of stakeholders who may be involved in the future of private forestland. Your answers to this questionnaire will provide valuable information. Please take a few moments to complete the survey and return it to the mailing address or fax number by August 16, 2002.

Please tell us about yourself:

*Note: All information will be used strictly for the purpose of the Forest Legacy Needs Assessment. None of the information will be used for any other purpose.*

Residence Zip Code: \_\_\_\_\_ County of Residence: \_\_\_\_\_

>TOTAL: 28

(Note: totals for each question may not match total number of surveys)

What setting do you live in? (Please circle one) Urban/suburban/rural

>Urban: 1

>Suburban: 2

>Rural: 24

Do you live in Michigan? Y/N If so for how many years?

>Less than one year: 0

>1-5 years: 3

>6-10 years: 0

>greater than 11 years: 23

Do you or someone in your household own 10 or more acres of Michigan forestland?

>Yes: 17

>No: 8

What best describes your primary interest in private forestland conservation? I am a (please choose all that apply):

>Federal/State government natural resources-related agency employee	8
>County/Local government/tribal natural resources-related agency employee	6
>Private land owner	17
>Land-use planner	2
>Forest/Timber industry employee	1
>Conservation/land trust member or staff	6

>Elected federal/state/county/local (please circle one) public official	4
>Private natural resource professional	2
>Other: non-profit resource; water resource protection; planning commission	3

Please choose your five (5) most important state-wide criteria for protection of critical private forest:

Wetland/riparian issues	17	Threatened/Endangered Species	8
Water quality/quantity	9	Unique Ecological Areas	10
Hunting	5	Mineral/Gas/Oil Resources	1
Fishing	2	Forest Timber Products	10
Lakes, Rivers, Streams	8	Non-Timber Forest Products	1
Motorized Recreation	1	Large Contiguous Forest	10
Non-motorized Recreation	2	Flora/Fauna Species Diversity	10
Wildlife Viewing	0	Wildfire Control Issues	0
Scenic Landscape Viewing	1	Lifestyle Protection for Landowner	2
Historical/Archaeological Sites	0	Private Property Rights	6
Wildlife Habitat	12	Other (2): access; economic return	
Growth/Sprawl Control	19		

Please provide any other comments that you believe would be helpful to the Michigan Department of Natural Resources as it conducts this assessment.

[text comments reviewed and included as appropriate]

Thank you very much for taking time to provide your valuable input.

## Appendix H. News Release for AON Public Hearings



### NEWS RELEASE

**Michigan Chapter: 101 East Grand River · Lansing, MI 48906-4348**  
**Website: [nature.org/michigan](http://nature.org/michigan) · Email: [michigan@tnc.org](mailto:michigan@tnc.org)**

**FOR IMMEDIATE RELEASE**  
September 5, 2002

**Contact:** Peg Kohring, The Conservation Fund  
(616) 426-8825 or [pkohring@conservationfund.org](mailto:pkohring@conservationfund.org)  
Garret Johnson, Director of Gov. Relations  
(517) 316-2260 or [gjohnson@tnc.org](mailto:gjohnson@tnc.org)

#### Public Input Needed on Draft Forest Legacy Proposal

**LANSING, Mich.** — A series of public hearings will begin next week on Michigan's draft assessment of need for the federal Forest Legacy Program. Persons interested in the long-term conservation of privately owned Michigan forestland should consider attending a session in their area.

To keep private forestland intact, the Michigan Department of Natural Resources (MDNR) is working with concerned citizens, other government agencies, and nonprofit organizations like The Nature Conservancy and the Conservation Fund to evaluate Michigan's potential participation in the federal Forest Legacy Program.

Public hearings across the State at the locations and times given below will provide an opportunity for public comment on Michigan's draft Forest Legacy Assessment of Need (AON). The Draft AON, prepared by The Nature Conservancy under contract with the MDNR, is currently undergoing departmental review. A copy of the Draft AON is now available on the Internet at The Nature Conservancy's website, [www.nature.org/michigan](http://www.nature.org/michigan). Comments may also be provided by letter or e-mail.

#### **The public comment period ends September 20, 2002.**

Funded by the U. S. Forest Service Cooperative Forestry Program, Forest Legacy provides federal grants to states to protect private forestland from being converted to non-forest uses (urban residential).

Forest Legacy programs are guided by an individual state plan describing the need for the program, identifying where forests are being converted and explaining how the state proposes to manage the program. These state plans are called an "Assessment of Need" (AON) and are shaped by public involvement. MDNR has contracted with The Nature Conservancy to complete the Assessment of Need, and The Nature Conservancy is working with The Conservation Fund to facilitate public involvement.

The Forest Legacy Assessment process has gathered preliminary input on a variety of geographic and environmental information, and a series of meetings have been held to gauge the interest and concerns of stakeholders who may be involved in the future of private forestland.

The Forest Legacy Program is a voluntary program that resulted from the Federal Cooperative Forestry Act, amended in the 1990 Farm Bill. Funds are available to acquire either an interest in land (easements) or the land itself from landowners wanting to participate. In most cases, title to these lands or interests in the lands will be vested in state or local governments.

*Public meetings will be held at the following scheduled times:*

**Marquette:** 7-9 p.m., Sept. 9, Peter White Library, 217 N. Front St.

**Grayling:** 7-9 p.m., Sept. 10, Hartwick Pines State Park

**Lansing:** 7-9 p.m., Sept. 11, Michigan Chamber of Commerce, 600 S. Walnut St.

**Dearborn:** 7-9 p.m., Sept. 18, U. of M. Dearborn, Environmental Interpretive Center, Fairlane Ave.

**Kalamazoo:** 7-9 p.m., Sept. 19, Kalamazoo Nature Center, 7000 Westnedge Ave.

To send comments or to get your name on a mailing list to receive a draft AON, please contact Peg Kohring at The Conservation Fund at (616) 426-8825 or at [pkohring@conservationfund.org](mailto:pkohring@conservationfund.org). More information on the Forest Legacy Program can be found on the U.S. Forest Service website at <http://www.fs.fed.us/spf/coop/flp.htm>.

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Nature Conservancy counts 1 million members nationwide, including more than 32,000 in Michigan. To date, the Conservancy and its members have been responsible for the protection of more than 80 million acres worldwide, including 12 million acres in the United States, and more than 73,000 acres in Michigan.

## APPENDIX I. Meeting Minutes Approving First Draft of AON

### **FOREST STEWARDSHIP PROGRAM** **State Advisory Committee Meeting** **Minutes**

*Michigan Department of Environmental Quality Office, Gaylord, MI*

*October 10, 2002*

**Attendees:** Warren Suchovsky, FSP Committee Chair  
Kathie Arney, FSP Coordinator  
Kimberly Balke, Conservation Resource Alliance  
Cara Boucher, DNR Forest, Mineral and Fire Management Division  
Steve Chadwick, DNR Wildlife Division  
Bob DeViliez, DNR Service Forester  
Jim Fish, Landowner  
Gerald Grossman, Association of Consulting Foresters  
Sarah Hazzard, Conservation Resource Alliance  
Matt Heiman, Leelanau Land Conservancy  
Ernie Houghton, DNR Service Forester  
Garret Johnson, The Nature Conservancy  
Steve Kalisz, DNR Service Forester  
Peg Kohring, The Conservation Fund  
Rory Mattson, UP Sportsmen Association  
Rick Moore, Michigan Association of Conservation Districts  
Dave Neumann, DNR Service Forester  
Georgia Peterson, MSU Extension  
Byron Sailor, DNR Service Forester  
Marilyn Shy, Michigan Association of Conservation Districts  
Tom Stone, DNR Service Forester  
Pat Turkington, Farm Service Agency  
Lela Vandenburg, MSU Extension  
Todd Vigland, Grand Traverse Regional Land Conservancy  
Shannon Zezula, USDA Natural Resource Conservation Service

The meeting was called to order at 10:05

Warren led introductions.

Marilyn Shy motioned to approve the meeting minutes of July 24, 2002. Pat Turkington supported the motion. Motion passed. Minutes approved.

Warren asked if there were any additions or changes to today's agenda. There were none. Marilyn Shy motioned to adopt the agenda as written. Supported by Pat Turkington. Motion passed.

Warren asked if there was any public participation. There was none.

#### **GENERAL BUSINESS**

Cara Boucher provided information regarding a new insect, the Emerald Ash Borer that was discovered in southeast Michigan in July, 2002. This insect is extremely destructive to ash trees. Currently, it is mostly an urban/suburban concern; however, the insect has the capability to spread into rural forests. The southeast counties are quarantined. This insect could have a large impact in southeast Michigan. FLA data shows 34 million ash trees present in the area. We can probably expect a Federal quarantine within the next year.

State retirements end October 31, 2002. The Cooperative Programs Section will be losing service forester, Bob DeVillez. Kathie Arney is also resigning at the end of the year to pursue a career in education. With the election year, we expect a lot of energy being devoted to transition. Bob DeVillez and Kathie Arney's positions will be filled. The FSP coordinator's position will be integrated with other cooperative forestry responsibilities within the Division.

Bernie Hubbard is our Acting State Forester, and is also Acting Assistant Chief to Mindy Koch.

Kathie updated the committee on the FSP budget. For fiscal year 2002, we ended up turning about \$30,000 back to the USDA Forest Service. Questions arose as to why we had to turn back money. Plan writing barriers came up as a reason. There is the perception of competition between agency and private professionals. Also, better training and marketing of FSP is needed to promote management plan preparation.

We do not have information regarding funding for fiscal year 2003. Cara reported that we have \$400,000 allocated from the Forest Development Fund for the old CRMI program. Bradstreet's office has said they would match it with another \$400,000. We expect perhaps \$400,000 available by the time budgets are allocated. The Wildlife Division has taken their "CRMI" allocation, and has put it into a new private lands program that is partially funded by the US Fish & Wildlife Service.

To date, we have prepared 126 FSP plans. For fiscal year 2003, it is hoped that the new cost-share incentive program, Forest Land Enhancement Program, will encourage FSP management plan preparation.

Jerry Grossman reminded the committee that at the July meeting, we discussed the need for a workshop for certified plan writers on marketing forest stewardship and management planning. Jerry and Rory Mattson agreed to take the lead on the coordinating of the workshop. They will formulate a committee, and put together an agenda and proposal. FSP can dedicate up to \$3000 for the workshop.

Warren commented that from the sample of plan writers he has talked with, the explanations for low plan preparation is they don't make money from preparing plans. They make money from timber sales.

#### **FOREST LEGACY PROGRAM**

Cara led a discussion on the draft Assessment of Need (AON). On September 18, 2002, a conference call was held for the FLP subcommittee and the FSP State Advisory Committee so the DNR and The Nature Conservancy could receive comments about the draft AON. Five public meetings have been held throughout the state to also receive comments about the draft. Comments have been submitted to TNC, who are incorporating them into the next draft.

A question was raised as to the timeline for getting the draft updated and completed. TNC replied they would like to get the draft done ASAP. Grossman asked if the committee could obtain hard copies of the AON when the next draft is completed. TNC will do this.

Comments were received about the content of the AON. Criteria were discussed. Peg Kohring commented that Michigan's most significant feature is its water, and how Michigan contributes to 20% of the fresh water in the world. Dave Neumann remarked that high quality hardwoods were excluded in southern lower peninsula. Although it is currently excluded, it can be added in the future.

The general feeling from the committee about the draft AON. There were some concerns about the project selection process and the lack of clear selection criteria. Comments from the public have been positive. Jerry Grossman moved that the committee accept the draft with appropriate revisions and the final draft AON be distributed to the committee for comments. Marilyn Shy supported the motion. Motion carried.

Discussion moved to a possible FLP project for FY2004. The Federal Government is in the process of identifying projects for line items in their budget...to act as a placeholder. The Kamaheha Schools Trust is selling 389,000 acres this year. Much of the land is currently open to public use, and federal and state owned land is integrated within the property. The property is a working forest, which is important in FLP. Cara explained it is good to have

a placeholder, even if this property falls through. The placeholder can be moved to other possible projects, until the funding is actually allocated to a specific project.

Warren Suchovsky commented that this is a globally significant piece of property, and would be an ideal candidate for FLP. Currently, the State is not purchasing property, and this would be a way to keep this property forested.

Tom Stone moved that the Committee identify the Kamahehela Schools Trust property be identified as a placeholder and top priority project for FLP in Michigan. Pat Turkington supported the motion. Motion carried.

#### **FOREST LAND ENHANCEMENT PROGRAM (FLEP)**

Georgia Peterson and Lela Vandenburg from MSU Extension presented Option Finder to the committee, a computerized method of surveying groups about specific topics. We went through an exercise that helped the committee prioritize forest management issues in the state. Top on the list were Education and Outreach and Regeneration/Reforestation/Retention.

The committee proceeded to discuss the draft state plan for FLEP. Comments included:

- Contracts for cost-share practices should be for 18 months, without extensions
- FSP plans are required for FLEP, and should also qualify for EQIP and WHIP
- What is the role for MDA and the Conservation Districts? There is an opportunity for their assistance through technical assistance and training.

A discussion on NRCS partnership with FLEP and FSP. NRCS is going to be contracting with outside professionals to provide management plan preparation for private landowners interested in EQIP and WHIP. NRCS agreed that FSP plan writers could provide this assistance, after they receive some training from NRCS that would qualify them for preparing plans for NRCS programs. This could be done at our next workshop, and can be included as we certify new FSP plan writers.

Cara told the committee that the DNR will be delaying the cost-share part of FLEP for one year, and concentrate the funding received on technical assistance, education, outreach and workshops. Warren expressed concern that many people are ready to implement practices. Without a system of delivery yet, however, it would not be a smart move to implement cost-share. We are still waiting word from Washington DC offices (USDA Forest Service and Farm Service Agency) as to how FSA will be able to assist with FLEP.

#### **FSP PLAN WRITING WORKSHOP**

Jerry Grossman announced that over lunch, a committee for coordinating a workshop this year has been put together. Jerry, Rory Mattson, Marilyn Shy, Tom Stone and MSU Extension volunteered to be on the committee. Workshops will take place in January or February in two locations. The purpose of the workshop is to show how management planning can be integrated into consultant's daily work, and to re-invigorate plan writers. A motion was made to spend up to \$2000 for the training sessions, supported by Marilyn Shy. 1 Nay. Motion carried.

A budget and agenda needs to be submitted to the DNR.

Meeting adjourned at 3:30.

#### **NEXT MEETING:**

December 10, 2002  
Sault Ste. Marie, Michigan



**Appendix J. Forest Stewardship Advisory Committee Approval of Final Draft of AON**

June 20, 2003

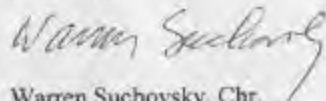
Mr. Bernard Hubbard  
Acting State Forester  
Forest, Mineral and Fire Management  
Michigan Department of Natural Resources  
P.O. Box 30452  
Lansing, MI 48909

SUBJECT: Forest Stewardship Committee Approval of AON

Dear Mr. Hubbard:

I am writing this letter to inform you that the Forest Stewardship Advisory Committee, acting on recommendation from a subcommittee formed to review the final draft of Michigan's Forest Legacy Assessment of Need (AON), has approved this document. The Committee understands the Michigan (AON) is a "living document" and is subject to modification to ensure that it reflects updates to the Forest Legacy Program made through program advancements, new information, and the preferences of Michigan citizens as well as those of the Forest Stewardship Committee provided these modifications are within the federal statutory guidelines that apply to the Forest Legacy Program.

Sincerely,



Warren Suchofsky, Chr.  
Michigan Forest Stewardship Advisory Committee

Cc: Cara Boucher, MDNR  
Rich Hausler, MDNR

## APPENDIX K. Forest Legacy Draft AON Mailing List

---

Draft Needs Assessment Requests  
8-19-02

Donald Bryson  
609 Johnson St.  
Box 378  
Pulaski, WI 54162

Rory Mattson  
2003 Mnpls. Ave.  
Gladstone, MI 49837

Lauri LaBumbard  
227 Valli Rd.  
Skandia, MI 49885

Bonnie Hay  
Gratiot Lake Conservancy  
P.O. Box 310  
Mohawk, MI 49950

Janet Person  
Antrim Conservation District  
4820 Stover Rd  
Bellaire, MI 49615  
231-533-8363

Sherry Blaszak  
Missaukee Conservation District  
6180 W. Sanborn Rd., Suite 3  
Lake City, MI 49651  
231-839-5411  
231-839-5411(fax)  
e-mail: [sherry-blaszak@mi.nacdnet.org](mailto:sherry-blaszak@mi.nacdnet.org)

## APPENDIX L. Michigan Forest Legacy Information List

AON general information, including meeting dates, was sent to the following individuals and organization membership lists.

Dennis Wes, Northern Initiative, [dennis\\_west@northerrunits.com](mailto:dennis_west@northerrunits.com).

Kathleen Ryan, [Kathleen.ryan@mi.usda.gov](mailto:Kathleen.ryan@mi.usda.gov)

Jill Scarzo, [info@huronpines.org](mailto:info@huronpines.org)

Dennis Fox, MUCC, [dfox@mucc.org](mailto:dfox@mucc.org); also included announcement in newsletter.

[MACDall@mi.nacdnet.org](mailto:MACDall@mi.nacdnet.org);

Lauri LaBumbard, Forester, Marquette Co Conservation District, 227 Valli Rd, Skandia, MI 49885, [lauri-labumbard@mi.nacdnet.org](mailto:lauri-labumbard@mi.nacdnet.org)

Inter-Tribal Council - to all tribes in Michigan

Janet Persons, [jpersion192@aol.com](mailto:jpersion192@aol.com), Antrim Conservation District & Huron Pines Conservation District (special mailing)

All Local Land Trusts in Michigan - several mailings, see separate list

All Michigan Conservation Districts - Marilyn Shy, Exec Dir., [MDISTRICTS@aol.com](mailto:MDISTRICTS@aol.com)

Jim Hudgins, Fish and Wildlife Service, (special distribution to USFWS in Michigan)

Mac Smith, Michigan Forestry Association, [mfa@1-star.com](mailto:mfa@1-star.com)

Warren Suchovsky, Suchovsky Logging LLC, [swarrensuchovsky@fastmail.fm](mailto:swarrensuchovsky@fastmail.fm)

Anne Wiowode, [anne.wiowode@sierrachub.org](mailto:anne.wiowode@sierrachub.org) (asked to review and pass on to chapters)

Michigan Townships Association, Evelyn David, [evelyn@michigantownships.org](mailto:evelyn@michigantownships.org)

Michigan Association of Counties, J. Douglas Warren, [warren@micounties.org](mailto:warren@micounties.org)

Timber Producers Association of Michigan & Wisconsin, [timberpa@newnorth.net](mailto:timberpa@newnorth.net)

Trout Unlimited, [trout@tu.org](mailto:trout@tu.org), Michael Slater, Michigan Council Chairman, TU

Society of American Foresters, Michigan Chapter, John Kotar

Bonnie Hay, Gratiot Lake Conservancy, PO Box 310, Mohawk, MI 49950

Will Winger, [vinekeeper@forestfarm.org](mailto:vinekeeper@forestfarm.org)

Matthew D. Sands, [mids@netonecom.net](mailto:mids@netonecom.net), 320 S. St., Apt. B-2, Cadillac, MI 49601-2458,

Manistee National Forest Zone Silviculturist, Baldwin, MI (forest owner and registered forester)

Jim Fuerstenau, Exec Dir, Mich Farmland & Community Alliance, 7373 W. Saginaw Hwy, Lansing, MI 48917

Doug Lee, Timbermen, [douglee@timbermen.org](mailto:douglee@timbermen.org), distributed to membership

Rory Mattson, [rory-mattson@mi.nacdnet.org](mailto:rory-mattson@mi.nacdnet.org), 2003 Mnpls, Ave, Gladstone, MI49837

Michigan Audubon Society, [MAS@MichiganAudubon.org](mailto:MAS@MichiganAudubon.org)

Dean Solomon, Michigan State University, [solomon@msue.msu.edu](mailto:solomon@msue.msu.edu) (meeting facilitator)

John Amrhein, MSU Extension, [amrhein@msue.msu.edu](mailto:amrhein@msue.msu.edu), (meeting facilitator)

Christine Hall, The Nature Conservancy, Michigan, [Chall@tnc.org](mailto:Chall@tnc.org) (meeting facilitator)

Rita Hodgins, [Hodgins@msue.msu.edu](mailto:Hodgins@msue.msu.edu) MSU Extension, (meeting facilitator)

[Cathy.s.johnson@worldnet.att.net](mailto:Cathy.s.johnson@worldnet.att.net) MSU Extension (meeting facilitator)

Great Lakes Fisheries Trust, [glft@pscinc.com](mailto:glft@pscinc.com); posted on website & Peg Kohring made presentation

Jason Dinsmore, MUCC, 2101 Wood St, Lansing, MI 48909, [jdinsmore@mucc.org](mailto:jdinsmore@mucc.org) (returned survey)

Donald Bryson, 609 Johnson St. Box 378, Pulaski, WI 54162

Scott McEwen, Michigan River Serve, [scott@watershedcouncil.org](mailto:scott@watershedcouncil.org) (returned survey)

Paul Call, [paul.call@weverhauser.com](mailto:paul.call@weverhauser.com)

John Griffith, [griffith@pasty.com](mailto:griffith@pasty.com)

Marshall Gilbert, [mfg@mcadwestvaco](mailto:mfg@mcadwestvaco)

Pat Toczydlowski, [t-11@pasty.com](mailto:t-11@pasty.com)

Mike Ehinger, 5670 Stillwagon Rd., Gladwin, MI 48624, [vmehinger@hotmail.com](mailto:vmehinger@hotmail.com), NWTF

Jim Fish, 8123 Bendere Rd, Hickory Corners, MI 49060

Jim Schuler, Huron Manistee National Forest 1755 Mitchell St. Cadillac, MI 49601

Jan Schultz, Hiawatha National Forest, 1030 Wright St., Marquette, MI 49855

Gerald Grossman, Grossman Forestry Co, 1013 S Newberry Ave, Box 426, Newberry MI 49868

Rex Ennis, Huron Manistee N.F., 1755 Mitchell St., Cadillac, MI 49601

Bill Rockwell, Plumline Statistical Resource Systems, 700 S. Oakland, St Johns, MI 48879

[Rockwell@mich.com](mailto:Rockwell@mich.com)

Brad Homeier, MeadWestvaco, Box 1008, Escanaba, MI 49829

John Johnson, MeadWestvaco, same

Cheryl Kemmer, Mead, same

Sherry Martine MacKinnon, MDNR-Newberry Forest Management, Newberry, MI 49868

Jim Ekdahl, MDNR-UP Field Headquarters, 1990 US Hwy 41 S, Marquette, MI 49855

Stephen J. Hicks, J M Longyear, LLC, 210 N. Front St. 1<sup>st</sup> Fl, Marquette, MI 49855

Jacob E. Hayrynen, J M LONGYEAR, LLC, same

Don Howlett, Hiawatha N F. 2727 N. Lincoln Rd, Escanaba, MI 49829

Walter T. Arnold, International Paper, 25947 Red Jacket Rd, Calumet, MI 49913, Dave

Kluesner, Int'l Paper, 16 N. Carroll St., Suite 800, Madison, WI 53703-2716

Bill Steigerwaldt, Keweenaw Land Assoc Limited, 1801 E. Cloverland Dr. E. US Hwy 2, Box 188, Ironwood, MI 49937

Gerald Grossman, Grossman Forestry Co, 1013 S. Newberry Ave., Box 426, Newberry, MI 49868

Christopher D. Burnett, Big Creek Forestry, 550 Karen Rd, Marquette, MI 49855.

Richard W. Bolen, Gogebic County Forestry Commission, Courthouse, 200 N. Moore St. Bessemer, MI 49911-1099

Philip B. Musser, Keweenaw Industrial Council, 306 Mason Ave, Hancock, MI 49930

Carl Lindquist, Chocolay River Watershed Project, 1030 Wright St. Marquette, MI 49855

## APPENDIX M. Public Comments



**GROSSMAN FORESTRY COMPANY** Consulting Foresters  
1013 S. Newberry Ave. \* P.O. Box 426 \* Newberry, Michigan 49868

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Gerald H. Grossman  
Phone: (906) 293-8707  
Fax: (906) 293-8198  
E-mail: [gfc@up.net](mailto:gfc@up.net)

September 30, 2002

Garrett M. Johnson  
Michigan Chapter The Nature Conservancy  
101 East Grand River  
Lansing, MI 48906-4348

VIA E-MAIL & US MAIL

Dear Mr. Johnson:

Thank you for the opportunity to comment on the Michigan Forest Legacy Program Assessment of Need – Draft dated September, 2002.

The document does a good job of laying out the need for a Michigan program. The following comments are fairly minor and may be cleared up in other documents to follow.

There are several statements that appear to be unsubstantiated and add little, if any to the assessment of need:

- III.A. 2<sup>nd</sup> paragraph – “Continued demand for aspen pulp and for management of wildlife species that prefer aspen should slow this decline.” I am not aware of any data to support this statement.
- IX.A. 2<sup>nd</sup> paragraph – “In addition, there is a recognition that some management practices are diminishing the ability of some forests to function as they normally would.” I not sure where this is coming from or going?? It is a potentially inflammatory statement that should be substantiated or eliminated.

There are several administrative questions that come up in reading this document and may be answered in the future. How will limited federal funds be allocated to the States? How will limited funds available to Michigan be allocated to competing sites?

Overall this is a good start if Michigan is going to participate in this Federal program.

Please call or write if you have any questions.

Sincerely,

Gerald Grossman, ACF, CF  
MI. Registered Forester #567

Cc: Cara Boucher – via E-Mail  
Kathy Arney – via E-Mail

## SUMMARY OF FOREST LEGACY PUBLIC MEETINGS

There were 5 public meetings held to review the draft Forest Legacy Assessment of Need. The following is a summary of the comments and perspectives.

### FOREST LEGACY PUBLIC MEETING SEPTEMBER 9, 2002 MARQUETTE, MI

The Forest Legacy public meeting to review the draft Assessment of Need was attended by 7 people in addition to Tina Hall and Peg Koiring. The participants were Marshall and Margaret Gilbert, Warren Suchovsky, Mr. and Mrs. David Allen and a couple who did not sign-in. No one had read the draft Assessment of Need. Tina Hall and I used the session as an opportunity to provide information about Forest Legacy. The following questions and comments were asked:

1. Which agency will hold the easement? How will the easement be monitored?
2. How will the Forest Stewardship Plan be developed and monitored?
3. Can industrial owners sell easements?
4. The group thought that there should be a priority given to lands next to state and federal ownership.
5. There was a concern expressed about whether a successful Forest Legacy Program in Michigan would have major property tax consequences.
6. There was a question about how priorities would be determined based on the eligibility criteria in the document. The Forest Stewardship Committee is advisory to the DNR, does this mean that DNR makes the final decisions?
7. A couple individuals asked if the Bishop Trust lands were being considered by the program.
8. How does the Forest Stewardship Committee recruit members?
9. Are we going to put the draft Forest Legacy document in libraries?
10. Where is the state going to find the 25% match for Forest Legacy easements?
11. We revisited the property tax issue again and the suggestion was made to have the landowner make the 25% match to offset the property tax loss.
12. There was concern that the hunting community would require that the properties be open to public access for hunting and that this would discourage landowners from the program. There is a large group of landowners who are not in the Commercial Forest Act because they do not want public access. If public access was not a requirement the program may attract many of these landowners, which would be a good thing.
13. How often will the Forest Stewardship Plans be updated? There was a general discussion and a 10 year update was recommended.
14. Does the Department of Natural Resources support the program? There was no one from the DNR at the meeting.
15. There was a question about public input from each person attending the meeting or each couple. The participants said that they thought that this was an important

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- program and they had not seen publicity about the meeting. There was not publicity that they had seen in the paper and many people did not have access to the web.
16. The minimum for a Forest Stewardship Plan is 1000 acres, will this be true of Forest Legacy as well?
  17. There were positive comments about how this program can insure that the family dream of putting together and managing land can continue beyond the current family members.
  18. When will the final plan be ready?

**FOREST LEGACY PUBLIC MEETING  
SEPTEMBER 10, 2002  
GAYLORD, MI**

Will Winingier attended the public meeting in Gaylord, Michigan and had general questions about Forest Legacy. Garret Johnson and Peg Kohring answered his questions. Mr. Winingier then submitted comments in writing on the draft Forest Legacy Assessment of Need, which are attached.

**FOREST LEGACY PUBLIC MEETING  
SEPTEMBER 11, 2002  
Lansing, MI**

No one attended the Forest Legacy public meeting in Lansing at the Chamber of Commerce.

**FOREST LEGACY PUBLIC MEETING  
SEPTEMBER 18, 2002  
Dearborn, MI**

No one attended the Forest Legacy public meeting in Dearborn at the University of Michigan.

**FOREST LEGACY PUBLIC MEETING  
SEPTEMBER 19, 2002  
Kalamazoo, MI**

Jim Fish attended the Forest Legacy public meeting and had the following comments on the Assessment of Need:

Please put page numbers on all pages of the report.

p. 5 – in the paragraph beginning “In addition.”, it should say, “sale or donation of development rights” not property rights.

2

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p. 4

p.7 – under IB-it should say, "Michigan forests and timberlands" – in the southern part of Michigan the forests are important culturally for tourism and recreation.

p.9 – Aspen are a rare community type in Michigan

VI – One of the threats to environmentally sensitive forests in Michigan is property taxes in the southern portion of Michigan.

VII-B – In the last sentence – FLEP will not replace the Forest Stewardship Program.

VII-K – In the first paragraph, Hiawatha is mentioned twice-should be the Ottawa National Forest

Under the Michigan local land trust's – Yellow Dog should be capitalized

On the criteria for the Southwest Lower Peninsula – we are dependent upon wild land – dependent economies particularly in Barry County where there is much local revenue from hunting.



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*Lynn - Page 1 of 3  
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Fred  
Fred land*

Subj: Fwd: MI Forest Legacy Assessment of Need (Forwarded TCF Email)  
Date: Thu, 12 Sep 2002 12:55:45 PM Eastern Standard Time  
From: "Peg Kohring" <pkohring@conservationfund.org>  
To: <PKohring@aol.com>  
Reply-To: pkohring@conservationfund.org  
Sent from the Internet (Details)

Subj: MI Forest Legacy Assessment of Need  
Date: Thu, 12 Sep 2002 10:53:34 -0700 (PDT)  
From: will wininger <vinekeeper@forestfarm.org>  
To: Peg Kohring <pkohring@conservationfund.org>  
Cc: Headwaters Land-Conservancy <headwaters@gtlakes.com>, Karen Serfass <rkwinserf@yahoo.com>, Peter Vellenga <pvell@freeway.net>, Kathy Arney <arney@state.mi.us>, Ruraldevelopment Council <rpm@ruralmichigan.org>, Russ Kidd <kidd@msue.msu.edu>, Keith Martell <keith.martell@mi.usda.gov>

12 Sept. 2002

To: Pat Kohring, Conservation Fund  
From: William Winger, Resource Research and Development  
RE: Michigan Forest Legacy Program  Assessment of Need Draft  Public Participation  
Dear Pat:

*Lynn -  
Please send Lynn  
minutes from Stakeholder  
meeting  
Thanks!  
CC: Conat + Cathy  
Kathie*

Following is an outline of questions and comments related to our discussion at Hartwick Pines State Park on 10 September 2002 regarding the Michigan Forest Legacy Program.

I thank you again for your leadership of this effort and the resource issues at hand. There is much to be appreciated and respected in your Assessment of Need draft document. It already has proven to be an invaluable reference work to me.

As your document is a "draft", so are these comments. I regret that I could not have participated in the stakeholders survey.

**COMMENTS & QUESTIONS**

**SHAREHOLDER SURVEY:** Twenty-eight responses is a stunning small sample. It appears that at least half of the respondents were government employees.

Appendix D states "In addition, a critical component is to measure the interest and concerns of stakeholders who may be involved in the future of private forestland."

I could not agree more. Given the critical importance of this measure of interest, I am deeply concerned that the responses of 28 folks could not possibly accomplish this component.

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Q? Who are the 28 respondents? Can I look at the raw survey data?

*I would also request the opportunity to read the minutes from each of the regional public comment meetings scheduled between September 9<sup>th</sup> in Marquette through the last meeting on the 17<sup>th</sup>*

**FLP BACKGROUND by Kathie Arney:** The last sentence in the 2<sup>nd</sup> paragraph reads: *"Fragmentation and the parcelization across our state is resulting in the loss of these valuable ecosystems and the biological, economic and social values they provide."*

This statement needs some clarification and backup.

Q? By "fragmentation" is it meant fragmentation by ownership, actual physical fragmentation of biological functions, or both?

This fragmentation question is obviously critical. But what is the actual extent of title and biological fragmentation? Mike Meriwether, the conservation district forester for Antrim and Kalkaska Counties recently reported (much to general surprise) that the trend of fragmentation by ownership as measured by the 1980 and 1992 forest surveys which saw average parcel size fall by about a third has been REVERSED by recent data. That is, average parcel size actually increased between 1993 and 2002.

On the question of biological fragmentation, which is really the more important focus of the question, the 1992 forest survey again surprised many of us by indicating that the acreage classified as forest actually INCREASED between 1980 and 1993!

I think this whole question of fragmentation  what is meant and what is the significance of documented changes needs to be thoroughly fleshed out and clarified. A clear definition and clear data would be enormously valuable here. Perhaps you have this data and could point me toward it?

**SENSITIVE AREAS IDENTIFICATION:** Still in Ms. Arney's background of the FLP. The first sentence of the third paragraph reads: *"The FLP is a voluntary program that protects sensitive areas that are identified by the state."*

Q? Who will be these identifiers within the state structure? How will it be decided whom the identifiers should be?

Further down, it states that *"The landowner must have a multi-resource management plan prepared and approved."*

Q? Prepared and approved by whom?

Q? Who IS, or is likely to be the "lead agency"?

**ADVISORY GROUP:** The last paragraph of Kathie Arney's page one states: *"The FLP requires the state to have an advisory committee. This advisory group would advise the State Lead Agency on setting program criteria."*

Q? How will this advisory committee be selected, and by whom?

**SELECTION CRITERIA:** In the draft assessment of need section XI, it states that *"Criteria marked*

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with a "\*" are required and must be clearly addressed in the project proposal application to establish eligibility."

Q? Who is doing the requiring? Is this in response to federal guidelines? Are the federal guidelines publicly available?

Criteria #9: "Size:" How will these criteria (presently numbering 25) be weighted?

At the September 10<sup>th</sup> meeting at Hartwick Pines I heard the following statements:

*"The FLP program will be EXTREMELY competitive."*

*"The FLP will provide multiple benefits to all the stakeholders." One of the benefits stated was "the FLP might help the forest industry stay in business in Michigan." Also, The Michigan Natural Resources Trust Fund could be used in conjunction with the FLP to leverage financial resources and perhaps serve the cost share requirement."*

It was also clear that selected projects under the FLP program would be decided at the federal level. The necessity to involve our U.S. Representatives and Senators indicates that these decisions will be political.

It seems possible that, under these conditions, the question of the "SIZE" weighting is crucial. Since this criteria is a "required" one, it would seem we would have to live with it, but that the relative weighting is within state hands. "SIZE" is, in effect, double weighted in the list of criteria. Given the declared intensity of competition within the program, and the political component, landowners with the greatest size (private industrial forests owned by large corporate bodies) will have an inherent competitive advantage in every criteria listed.

If "SIZE" is to remain a criteria, its relative weighting MUST be held in check  that is to say minimized and held in balance, or the FLP program could easily come to be dominated by corporate interests. Corporate type interests may not be the kind most needed for Legacy Stewardship. Perhaps there should be a "reserve" component  say no more than 50% of FLP projects and funding can be allotted to private industrial (corporate) landowners.

There MUST be a balance provided in the competitive process. The largest and by far the most ecologically and economically valuable component of Michigan's total forest resource is held in private *nonindustrial* hands. These should be subject to at least 50% of the of the weighting and consideration.

If a conscious and well-defined balance is not found here, the FLP program runs the risk of a public perception, real or not, that the program is a corporate subsidy. Both the perception and the reality must be avoided at all costs.

I recognize that ultimate decisions will be made in an environment of intense competition and political influence, and that the concerns listed above may really need to be addressed at a federal level. But that does not relieve us at the state and regional level from recognizing and acknowledging potential imbalances as we see and understand them. The Michigan FLP Proposal should reflect this level of equity and awareness.

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**A MOST IMPORTANT ADDITIONAL CRITERIA:**

A thorough and documented argument could be put forth which would postulate that the greatest threat to the economic viability and sustainability of a resource system is an uneducated and indifferent populace.

One of the threats articulated in this draft assessment is that of fragmentation of ownership. We have implied that fragmentation of ownership will directly effect the sustainability of economic and biological futures. We also imply that the acquisition of the commodity forest raw materials of this state resource will be complicated to the degree that important economic and industrial sectors could be adversely and seriously effected.

A professional government forester in the Gaylord area was recently quoted publicly as saying that the present forest industry in Michigan "profits from the ignorance of private landowners, and is designed to keep them that way."

A thorough, honest, and candid look at the history of resource stewardship in Michigan, and in particular the history of forest utilization is not a very pretty one. Ethics of corporations can no longer be presumed to be in the best interests of the cultures in which they exist. If conditions are to improve, and if these critical resource systems are to be sustained, then cultural awareness and especially the awareness and mature involvement of private nonindustrial forest landowners must be transformed.

**A NEW SELECTION CRITERIA:**

*Projects which demonstrate, teach, involve and inform the society in general and private forest stewards in particular, should be THE most heavily weighted selection criteria.*

This criteria is not even currently represented in the proposed list. If it is presumed that an enlightened and informed culture is implicit in or the result of the listed selection criteria, that presumption is wrong. Make societal awareness explicit, and make it a priority. The best path to a long future of sustainable use of natural resources is through the continuous and general education and awareness of all citizens.

**SUGGESTION □ CONCLUSION:**

Given the acknowledged critical importance of public involvement in this resource stewardship program, I would strongly urge that Michigan's FLP proposal NOT proceed to the Secretary of Agriculture with the unfortunate dearth of public input and involvement at the level of the stakeholders assessment survey and now, the level of public input on the draft assessment. To take this proposal to the federal level without a much broader and more genuine component of public participation would be an unnecessary and unfortunate mistake.

Michigan has unfortunately delayed participation in the Forest Legacy Program for far too long. To rush this proposal and fail at the public information and involvement component is not justified. If we have failed to participate for over ten years, we can at least take a few months more to do the right thing.

I know this will not be a popular input, but take the time to make public involvement truly meaningful. Take a few months if necessary and do a real survey of stakeholders. I believe there are thousands of them who can and would give meaningful input to this process, and I believe they can be accessed and involved without undue cost or time.

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The real success and the real sustainability of such truly unique and tragically undervalued natural resources in the state of Michigan deserve no less.

If I can assist in any way in the advancement and success of the Michigan FLP, I would consider it my duty to volunteer as needed. I look forward to all the positive possibilities sensed within a Michigan FLP, and to working to support your work. Please keep me involved and informed.

All best wishes for your great success !

Respectfully Submitted,

William Winger

512 Eddy School Road

Mancelona, MI 49659

[vinekeeper@forestfarm.org](mailto:vinekeeper@forestfarm.org)

<http://webmail.aol.com/fmsgview.adp?folder=SU5CT1g=&cuid=4215862>

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## Appendix N. News Articles

Forest Legacy Program

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# MICHIGAN SOCIETY OF AMERICAN FORESTERS

Upper Peninsula & Lower Peninsula Chapters

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### **FOREST LEGACY PROGRAM**

*Article #64, October, 2002*

*By Bill Cook*

One of the greatest threats to our Michigan forests is development and parcelization, although these things might be a little harder to see in the Upper Peninsula. Development might be changes such as houses, golf courses, and commercial enterprises. Parcelization is the break-up of larger forest ownerships into increasingly smaller ownerships.

A forest converted to something other than a forest, or divided into pieces too small to manage, results in the reduction of the many values forests generate. This is a nation-wide concern.

An important recent study was made in the forests of the southeastern states. The single largest threat to those forests was identified as development. Michigan forests have remarkably similar pressures.

Development is something necessary as our population grows, yet particularly sensitive or valuable forests need to be protected. One of the ways to accomplish this is through the use of conservation easements.

A conservation easement is an agreement attached to the land, for a specific period of time or forever, which specifies how the land can and cannot be used. Most easements prohibit residential and commercial development and may specifically allow forest uses such as timber harvest and forest management. Landowners are then eligible for any tax reductions due to restrictions placed upon the property.

Conservation easements are entered into voluntarily by the landowner and the forest remains in private ownership. Property rights and restrictions are passed with the land from owner to owner, similar to Michigan's Commercial Forest Program.

The federal government has recognized the need to keep important forests as forests. The "Forest Legacy Program" provides money to purchase conservation easements, and in some cases, full fee purchase. Specifically, this program purchases development rights, in perpetuity, in order to keep working forests working. If a landowner has forest that meets program criteria, and is willing to sell their development rights, the federal government stands ready to purchase them. Each forest owner enters into an agreement specific to their property. This does not give the federal government any claim to rights not specifically agreed

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upon by the landowner.

Before these federal dollars are released, a lead state agency must be named and an assessment of need must be done. That means specific forests must be identified that will become eligible for the program. In Michigan's case, the DNR has contracted with The Nature Conservancy to provide this assessment.

Already, about 35 states have signed-on or are in the process of participating in the Forest Legacy Program. Wisconsin has proposed over 35,000 acres. For more information about Michigan's program, visit the DNR website at: [www.michigan.gov/dnr](http://www.michigan.gov/dnr) and click on the "Forests, Land, and Water" button, or try the national site at: [www.fs.fed.us/spl/coop/flp.htm](http://www.fs.fed.us/spl/coop/flp.htm).

The Forest Legacy Program is one example of a "conservation easement". The concept is not new. Various land trusts and organizations offer similar programs to forest owners wishing to permanently protect their forests.

The long-standing Michigan Commercial Forest Program has been successful among corporate landowners. However, among private, non-industrial forest owners, the big catch is allowing foot access for hunting and fishing. Wisconsin has a two-tiered program where landowners can opt to open or close public access to hunting and fishing. Owners who wish to keep their property closed still receive tax reductions, but not quite as much as if they opened their property.

It is sometimes a sad thing to see forest land subdivided and sold off to numerous people. Perhaps like having a good will, forest owners should consider long-term protection of the values they hold for their land. There is more than one way to skin that cat.

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*Prepared by Bill Cook, UP Extension Forester, 6005 J Road, Escanaba, MI 49829  
906-786-1575 (voice), 906-786-9370 (fax), e-mail: [cookwi@msu.edu](mailto:cookwi@msu.edu)  
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