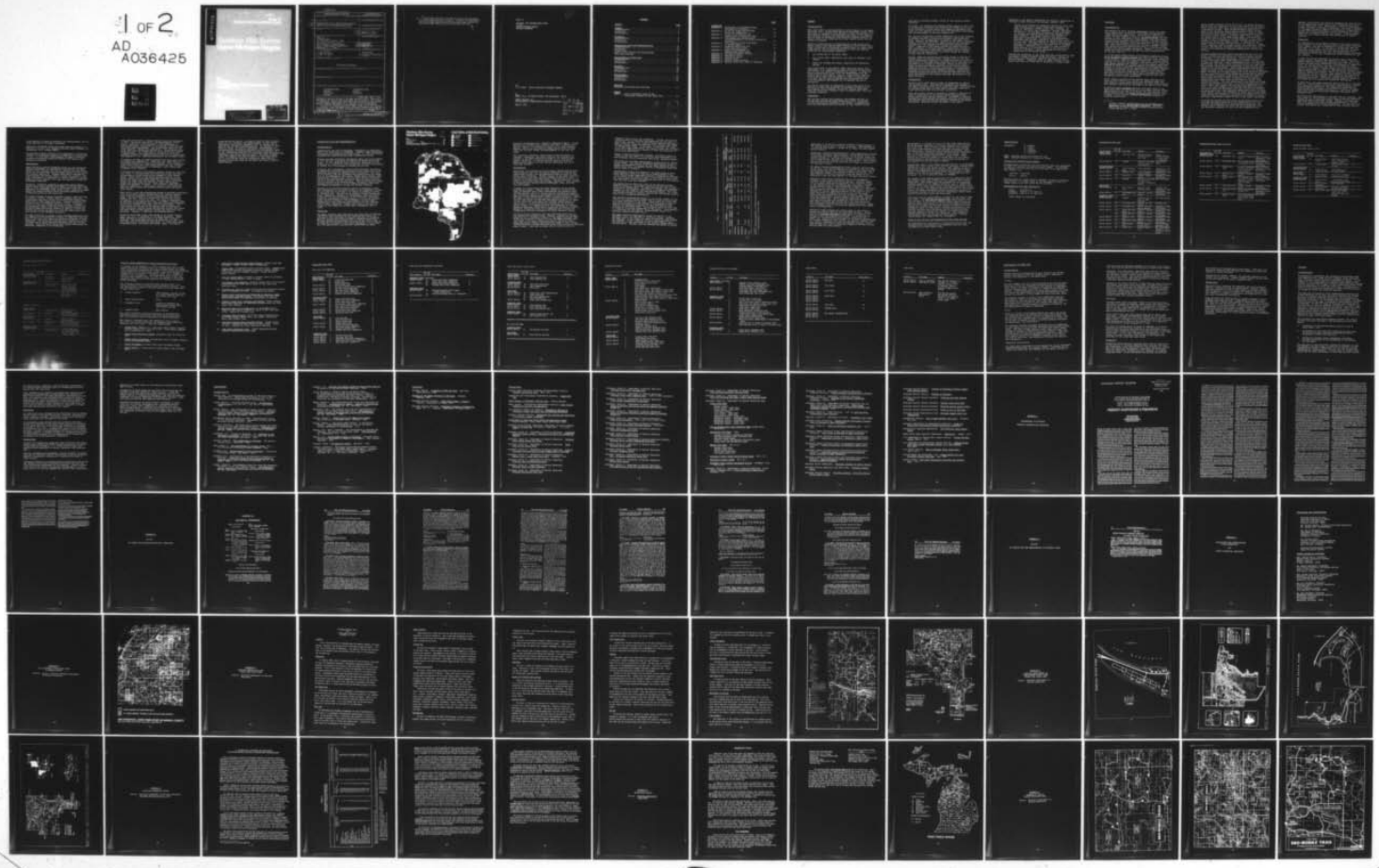
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REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER / 2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle): Seafarer Site Survey, Upper Michigan Region ▸ Book 17, Cultural and Recreational Data ▸	5. TYPE OF REPORT & PERIOD COVERED
	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s)	8. CONTRACT OR GRANT NUMBER(s): N00039-75-C-0309
9. PERFORMING ORGANIZATION NAME AND ADDRESS: EDAW, Inc. 50 Green Street San Francisco, California 94111	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS: Naval Electronic Systems Command Special Communications Project Office Washington, D. C. 20360	12. REPORT DATE: April 1976
	13. NUMBER OF PAGES: 111
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office): 117p.	15. SECURITY CLASS. (of this report): Unclassified
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Distribution Unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

ELF Communications
Seafarer
Site Survey
Michigan
Environmental Data
Culture
Recreation

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Many gaps remain in the knowledge of the early history of the Upper Peninsula region. Many areas in the western part have not been investigated and the chance for the discovery of archeological remains which would shed light on the early history exists. However, manpower requirements for an adequate survey are unmanageable.

Initially, fur trapping and trading played a major role in the discovery of the region. Later nineteenth century mining and lumbering operations provided the impetus for the influx of European immigrants and the development of thriving communities.

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20. Tourism and recreation in the area rely heavily upon the appeal of available woods and aquatic resources. Increases in regional metropolitan area populations coupled with more buying power and mobility have placed higher demands on existing recreation facilities

BOOK 17

CULTURAL AND RECREATIONAL DATA of the UPPER MICHIGAN REGION PROJECT SEAFARER

for
U. S. Navy. Naval Electronic Systems Command

by
EDAW, Inc., 50 Green Street, San Francisco 94111

Under Contract to
GTE Sylvania, Communication Systems Division

April, 1976

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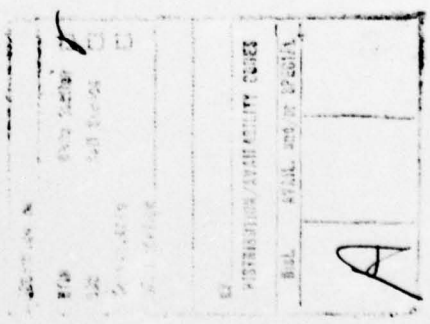
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SUMMARY

Archaeological

Many gaps remain in the knowledge of early history in the Upper Peninsula area. Paleo-Indian and Early and Middle Archaic sites may exist in unexpected areas because of their relationship to environmental factors very different from those of the present. What is known of Middle and Late Woodland seasonal patterns indicates that winter camps may have been located within the interior for hunting.

Based on investigations of archaeological sites and environmental zones in the western Upper Peninsula, and existing knowledge of prehistoric settlement patterns within the Upper Great Lakes region, the following areas seem to have the greatest potential for archaeologic discovery:

1. All shorelines of the Great Lakes.

2. All inland lakes, especially lake areas in southern Iron County.

3. Along all streams and rivers, especially the Menominee system.

Since many areas in the western Upper Peninsula remain uninvestigated, it is impossible to state with accuracy that they will or will not contain archaeological remains. A number of known archaeological sites of as yet undetermined size are pointed out in this report. Only on a small scale, where an area is being physically disturbed in terms of construction or access, can the area be specifically delineated and the time and manpower requirements for an adequate survey be manageable.

New survey technology is developing to the point where it is possible to make cost estimates for transect surveys utilizing chemical soils analysis, and shovel testing techniques that can record site location, even in wooded areas, with considerable accuracy.

Historical

The cultural outlook and industrial development pattern of the men who settled the Upper Peninsula is well illustrated in the artifacts and structures left behind. A perspective into the settlements and life styles as they changed through

time may be achieved through a study of the region's natural resources.

Initially, fur trapping and trading efforts played a major role in discovering the region and learning the Indian way of life. Later nineteenth century mining and lumbering operations provided the real impetus for the influx of immigrants from Europe and the development of thriving communities.

The cultural background of these immigrants led to the founding of communities where religion and education flourished and where there was an opportunity to promote individual enterprise, industry and business. However, by the 1900's, European customs and traditions of the Upper Peninsula were becoming absorbed into the expanding and industrious American life style. Competition from areas outside the Upper Peninsula more accessible to regional markets, coupled with overuse of the Upper Peninsula's resources, eventually led to economic decline and the depression of the 1930's forced the closure of many business enterprises.

Earlier lumbering and mining activities tended to disturb or destroy sites of historic value. However, due to its relatively undeveloped character, the Study Area may be one of the few regions in the state where historical sites have been unaffected by the inroads of twentieth century civilization. Today the Michigan History Division is the official public agency charged with collecting, cataloging, and classifying materials relating to early Michigan history. Additionally, numerous private historical societies maintain museums and libraries possessing written or pictorial materials and artifacts pertaining to the cultural heritage and history of the Upper Peninsula.

Recreational

Historic sites offer much in terms of recreation to visitor and resident alike. Although most landmarks and museums in the Upper Peninsula occur within urbanized areas, historic sites of varying kinds exist in more remote locations, especially those associated with early mineral extraction.

Past and current trends in recreation indicate a mounting impact on those areas in the western Upper Peninsula with scenic and aquatic natural resources. Increases in regional metropolitan area populations coupled with more buying power and greater mobility have placed higher demands on recreation facilities, lands and rivers available to the public.

According to the report "Guidelines for Tourism & Recreation in Michigan's Upper Peninsula" by Johnson, Johnson & Roy:

> "Ninety to 95 percent of recreation facilities users come from a market area of seven states and provinces. In order of importance, these origins are: Michigan (60 percent); Illinois, Ohio, Wisconsin, Indiana, Minnesota, and Ontario. As the Upper Peninsula is 300 miles wide, its eastern and western areas draw from somewhat different markets. The western part of the region is more heavily patronized by visitors from Minneapolis, Milwaukee, and Chicago. Minnesota and Wisconsin citizens are particularly prominent as users of ski facilities in this area. Visitors from Ohio, Indiana and southern Michigan are more numerous in the east end of the Upper Peninsula. Proximity to the region is just one day's drive from 40 to 50 million people in the nation's industrial heartland -- about one-fourth of the total population of the United States."

Tourism and recreation in the Study Area has relied heavily upon the appeal of Upper Peninsula woods and waters. Nearly all State Parks and many county, township and municipal parks provide camping. Campsites range in number from 227 in Van Riper State Park to a very few in primitive or remote areas.

EVOLUTION

Archaeological

The sequence of man's cultural development within the Upper Great Lakes Region is generally known where archaeological investigation has taken place. The first well defined regional cultural complex is that of the Paleo-Indians, who are thought to have subsisted on large mammals which they hunted with projectiles tipped with fluted points. Although earlier nomadic groups appear to have been restricted to the southern Lower Peninsula between 11,000 and 9,000 BC, research suggests that later groups characterized by the use of stemmed lanceolate projectile points dating from 9,000 to 7,000 BC may have occupied the western Upper Peninsula. However, little evidence exists for their extending through the Paleo-Indian period to the year 3000 BC.

As in the Paleo-Indian period, environmental conditions during Early and Middle Archaic Periods were very different from those of the present, suggesting that archaeological sites predating 3,500 BC may be found in unexpected locations. Recent studies indicate it was some time between 3,500 and 2,000 BC during the Late Archaic Period that seasonal and environmental conditions similar to those of the present enabled the establishment of a pattern of winter population concentration and summer dispersal. A seasonal occupation of the Upper Peninsula would have been possible and has been shown by the number of Late Archaic artifacts recovered by collectors along the Menominee River. The milder climatic area in Menominee County may have had a substantial Late Archaic population.

Native copper resources of the western Upper Peninsula were first utilized during this period, and artifacts made from Lake Superior copper spread throughout the Great Lakes region.[1] This valuable raw material continued to be used in later times.

No definite Early Woodland materials have been found in the Upper Peninsula, and following the Late Archaic period, dating approximately from 3,000 to 1,000 BC, the next distinct occupation occurred when the Middle Woodland Period brought about a change in both material culture and seasonal patterns of resource exploitation.

---

1 Franzen & Weston, An Evaluation of the Archaeological Resources of the Western Upper Peninsula. Michigan Department of State, History Division, Archaeological Survey Reports No. 2, 1973.

Dating roughly between 300 BC and AD 400, the Middle Woodland period marks the appearance of the first pottery in the western Upper Peninsula region that can definitely be associated with a recognized culture. While Middle Woodland groups to the south in the deciduous forest region lived in large villages along major rivers and relied heavily on the intensive collection of wild plant foods, a different adaptation is found in the mixed forests of the Upper Great Lakes. Characterized by certain pottery styles, the Middle Woodland in the north is thought to have concentrated in large fishing villages along lake shores during the summer months. In addition to the summer fishing villages of these people, the remains of their winter camps may also be present within the Study Area, smaller in size, and possibly scattered throughout the interior as a result of the population dispersal necessary for survival by hunting.

The Late Woodland Period lasted from around AD 400 until the Indian cultures were drastically altered by European contact during the 17th and 18th centuries. Certain traits related to cultures in the Upper Mississippi River Basin are also found in the Upper Great Lakes beginning around 1,000 AD, and a mixed Late Woodland - Upper Mississippian site, the Backlund Mound Group, has recently been excavated within the Study Area. New artifact styles and the introduction of agriculture characterize the Late Woodland - Upper Mississippian periods and a number of these types of sites have been found in the western Upper Peninsula on the Lake Superior shore and along the Menominee River. The pattern of summer population concentration and winter dispersal continued in the north during the Late Woodland period, and lake shores remain prime locations for sites. A large number of sites of both the Middle and Late Woodland periods have been found along inland lakes in extreme north-central Wisconsin. The lake areas where these sites were found extend into southern Iron County and their archaeological potential is great even though they have not been adequately surveyed. The large number of Late Woodland and Upper Mississippian sites along the Menominee River may indicate the presence of fairly dense and semi-sedentary populations similar to those found farther south. The abundance of Middle and Late Woodland sites within and adjacent to the Study Area suggests that during these periods the prehistoric population was relatively large, and that a substantial number of their sites remain unrecorded.

It should be pointed out that while the Michigan History Division has long been charged with the responsibility for the recovery and preservation of archaeological materials, the Division until recently has never had the professional staff and equipment necessary to carry out this responsibility.

However, the Division has recently reordered and adjusted some of its operational priorities so that archaeology will play a more significant role. Additionally, there is substantial private interest in Michigan archaeology. As shown in Appendix D, the Upper Peninsula Chapter of the Michigan Archaeological Society contributed knowledge to those conducting the field operations to acquire data for this report. Society members carry out site finding surveys and excavations as chapter projects.

Historical

An understanding of the Upper Peninsula's more recent historical character is gained through study of its natural resources. Furs, copper, iron and an abundance of timber have made the area what it is today. In the early 17th century, the Upper Peninsula region became the first area of Michigan to be visited by Europeans and for over one hundred years its shores and interior trails were traversed by French missionaires and fur traders.

In 1976 the British succeeded the French, their Hudson Bay Company greatly expanding the regional fur trade. Later 18th century American frontiersmen continued the trade and in the process of exploration discovered large deposits of copper and iron. By the mid-1800's, the lure of this material wealth brought to the Upper Peninsula region the first great mineral rush in North America. Waves of immigrants from northern to eastern Europe came initially to work the mines, and soon thereafter to harvest the forests. Their diverse national heritage enriched the region's cultural base adding to the substantial contributions of the Indians, fur traders and explorers of a hundred years before. Michigan's economy began to prosper as the timber and ore reached the industrial marketplace.

By World War I the Upper Peninsula region had lost its economic vitality. Exploitation of the natural resource base, coupled with industrial competition from areas more accessible to regional population center, had reduced the mines, and pulpwood cutting had replaced the logging of virgin pine forests. Lake ports formerly filled with schooners now hosted frail pleasure craft.

The historical implications of the past have not vanished. They still exist in the buildings, structures, sites and industrial remains of past significant events. However, few sites have been sufficiently protected through governmental or private action to assure their future preservation. To this end, historical development and interpretation have recently taken on

a new meaning in terms of retaining and understanding the cultural heritage of the Upper Peninsula.

Historical artifacts within the Study Area are primarily industrial in origin (e.g. Champion Charcoal Blast Furnace), or residential (e.g. Curwood Cabin).

The Michigan History Division of the Department of State was created as the Michigan Historical Commission by legislation in 1913. It received a broad mandate of power to collect, arrange and preserve historical material and assist local historical societies.

Recreational

Upper Peninsula planning documents point out that projected further development of recreational lands within the Upper Peninsula will increase the flow of tourists into the region while, at the same time, provide added leisure activities for the resident population. Highway improvement programs will allow persons from distant areas to reach the region in less time, thus making it accessible to greater numbers of people. Remote location, however, will help the region to retain its wilderness character.

Currently, recreation planning is scattered and piecemeal, taking place either through development of private land holdings or local government units in diversified locations. The abundance of undeveloped land, forest cover, lakes and streams within the Upper Peninsula offers unlimited potential for recreational pursuits and activities.

The large holdings of state and federal public lands are open to hunting, fishing, hiking, camping, canoeing and other recreational uses with little or no restriction except where posted and at some campground areas. Similar recreation activities exist on privately owned rural land. Organized county and city park recreation areas increase in number as one progresses toward urban areas from outlying regions and privately owned facilities relating to boating, picnicking, fishing and hiking available on a user-fee basis serve tourists as well as the resident population.

The Upper Peninsula is unique in that resident populations are not expected to significantly increase in comparison with the rest of the state, but there are projected increases in campground use. The projected increases will primarily be due to increased use by Lower Peninsula residents and out-of-state visitors. Both the public and private sectors have plans for additional campsites in the Study Area.

Craig Lake State Park in eastern Baraga County was dedicated in 1966. The state owns half of the approximately 11,000 acres. According to John Roethele of the Department of Natural Resources, the concept is to provide a primitive park with some timber management. The recreational uses will include canoeing, camping and backpacking. The existing north-south road north of Crooked Lake is to be closed and allowed to deteriorate. Until more land is obtained to allow the necessary access, no campground facilities will be constructed. (See Appendix F for a detailed description of the Master Plan.)

At present, the DNR is studying possible new state parks within the Study Area (Appendix E). There are four areas that are considered suitable for state park purposes. They include the Slate River Falls Area, land around Roland Lake, Mt. Curwood (which is the highest point in Michigan), and a fourth area northeast of Mt. Curwood.

A distinctive feature of Michigan's Natural Rivers Act (Act 231, P.A. 1970), is the provision for protecting rivers and their tributaries by zoning restrictions imposed by local governments. Three rivers in the Lower Peninsula and one in the eastern section of the Upper Peninsula have been designated. Within the Study Area the Sturgeon (Baraga County) and Fence Rivers are under study and the Paint, Huron and Escanaba Rivers are proposed for sutdy. This program is described in detail in Appendix L. There are no rivers in the Study Area that are being studied for possible National Wild and Scenic River status.

While still in the very preliminary stages of planning, Michigan's link of the North Country Hiking Trail will involve federal, state and local agencies, private organizations and individuals. The trail link will be based on the National Trails Systems Act (P.L. 90-543) of 1968. The trail is envisioned as starting at the Appalachian Trail in Vermont, crossing parts of New York, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota and joining the Lewis and Clark trail in North Dakota. The trail would wind its way up the western side of Michigan's Lower Peninsula, proceed across the Mackinac Straits and follow the south shore of Lake Superior through the Study Area into Wisconsin. Appendix I describes the proposed system.

Extensive wild lands, some large enough to be termed "wilderness", are still in existence in the Upper Peninsula. These areas represent a valuable and at the same time a fragile heritage. The Wilderness and Natural Areas Act (Act 241, P.A. 1972) was enacted to protect such areas. It lists three types: wilderness areas, wild areas and natural areas. An area by

broad definition may be: an area of land or water or both, which (1) has retained, has reestablished, or can readily reestablish its natural character, and (2) possess one or more of the following characteristics: (a) unusual or rare flora or fauna, (b) biotic, geological, physiographic or paleontological features of scientific or educational value, or (c) outstanding opportunities for scenic pleasures, enjoyable contact with nature, or wilderness types of experiences (solitude, exploration and challenge). The term "natural areas" is commonly utilized to cover all such areas which are or could be set aside for protection under the Act. Appendix K describes the Act and shows the state's Natural Areas System.

DISTINCTIVE UNITS AND CHARACTERISTICS

Archaeological

Compared with the rest of Michigan, information on prehistoric man in the Study Area is incomplete. However, some professional archaeological excavation has taken place. In 1967 David Brose excavated the Backlund Mound Group in Menominee County.

Western Michigan University (Kalamazoo) spent two field seasons in 1970 and 1971 excavating the Sand Point mound and village areas. In 1975, Michigan State University conducted test excavations in a portion of the village site and they are planning to return for a full season of excavation in 1976.

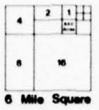
Professor Marla Buckmaster, from Northern Michigan University, is preparing a doctoral dissertation on the archaeology of the Menominee watershed for Michigan State University. As a part of this effort, she has conducted excavations within the Study Area at the Pemebonwon, Penn Brook, Pemene Falls, Pemene Creek and Backlund Village sites. She has also carried out excavations at the Saari-Miller and Paul's sites although these will not be included in her dissertation. She has an ongoing survey program being carried out with funding assistance from state and federal governmental sources and private industry.

Because of the shifting seasonal nature of prehistoric land use, information on the total culture of any prehistoric group in the Study Area is likely to be found in a number of sites of variable size. Any one set of natural factors whether geologic, vegetative, climatic or hydrographic, does not affect a culture with uniform potency, as all factors at different times are influential to varying degree. Of all the environmental factors reviewed in the preparation of this report, archaeologic sites correlate most closely with the distribution of water resources: almost every site in the list included in this report is located near a permanent lake or river.

Historical

The Upper Peninsula was essentially the first part of Michigan visited by early settlers as they explored the region and utilized it for the wealth of natural resources it contained. Mineral findings were reported back to western Europe over 50 years before the white man laid eyes on the site of what is now the City of Detroit in the Lower Peninsula. In the space of a few generations, the settlers transformed the Upper

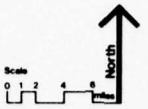
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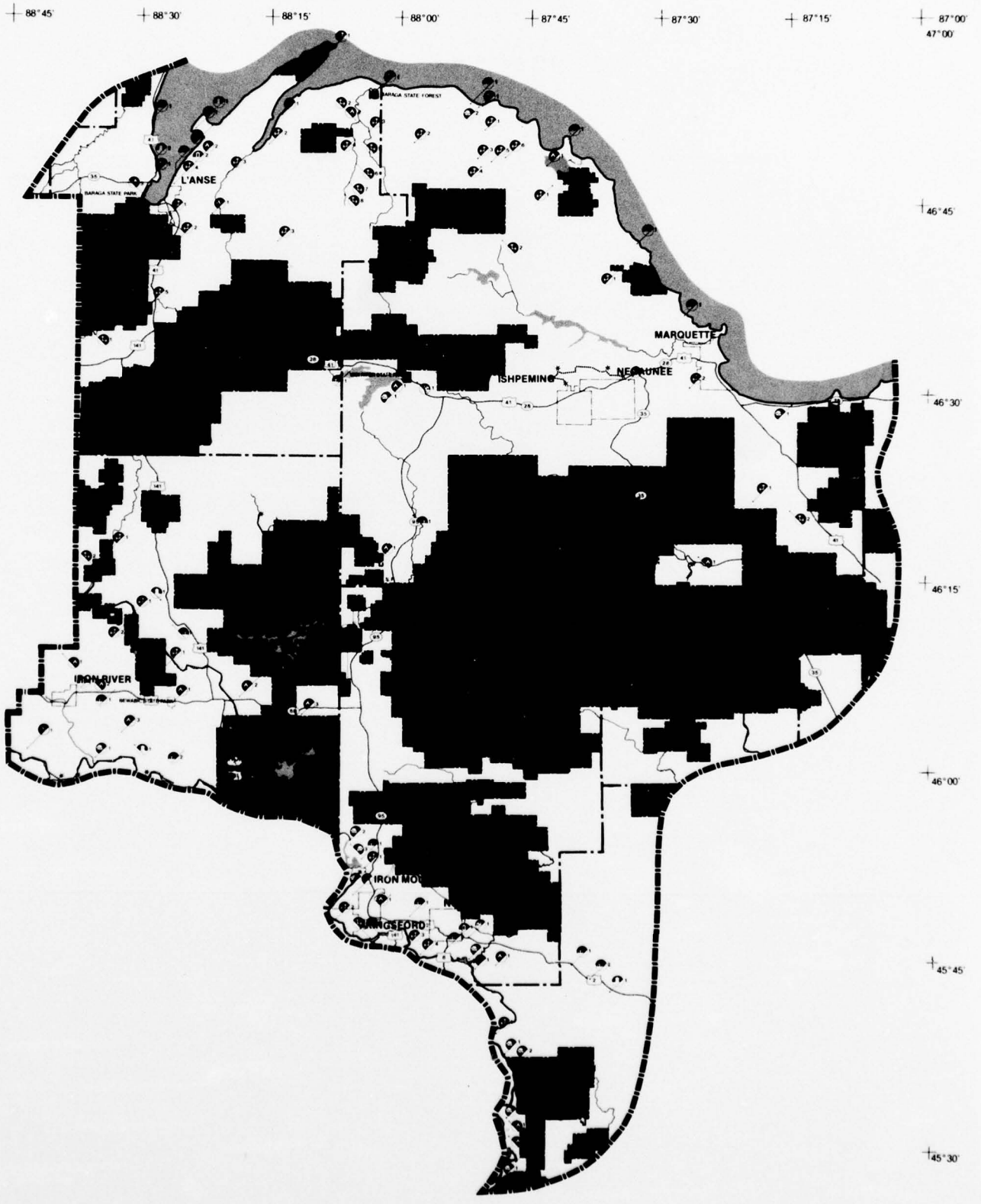
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CULTURAL & RECREATIONAL

- Federal Forest Lands
- State Forest Lands
- State Park Lands
- Canoe Routes
- Access Points
- House and Small Historic Sites
- Industrial Historic Sites
- Historic Settlements
- Archeological Sites
- Park Sites with Campgrounds
- Small Park Sites and Picnic Areas
- Ski Areas
- Recorded View Points



Peninsula wilderness into a powerful industrial empire. In the process they inadvertently erased a good deal of past history and as a result, the historical record is far from complete. However, historical artifacts do remain which serve to highlight the cultural trends and developments of the last 250 years.

The historical resources, particularly those pertaining to economic, industrial, and ethnic history, are extremely important to the Upper Peninsula because of its relative geographic isolation. It may be the only part of the state where certain aspects of 19th century technology can be effectively studied.

Recreational

Nationally, the pressure of living within crowded metropolitan areas coupled with a new ecological awareness is causing many individuals to seek out less populated areas in which to live and/or find recreation. Locally, people in the Upper Peninsula are realizing that there may be economic potential in this pursuit of recreational fulfillment. They are cognizant of the region's unpolluted lakes and streams, waterfalls, vast acreages of forested land, gently rolling topography, fish, wildlife and mild summers.

A number of rivers within the Upper Peninsula can be canoed with minimum danger. Based to some degree on a working knowledge of seasonal water level fluctuations and periodic physical obstruction, the U. S. Forest Service and Michigan Department of Natural Resources have mapped and designated accessible portions of non-"white water" rivers as easily canoeable. While log jams and debris are periodically removed from many of the rivers, none appear to have been developed expressly for canoeing and little is known about the original establishment of canoe routes. Guide publications produced by the Michigan Tourist Council in cooperation with the Department of Natural Resources designate canoe routes largely on the basis of public demand in conjunction with the recommendations of parks and conservation officers throughout the Upper Peninsula Region.

Privately-owned recreation land and facilities offer much to the tourist and resident alike. However, perhaps the greatest potential for recreational pursuit in the Upper Peninsula lies within the millions of acres of state and federal forest land (see Table 1 for public recreation land in the Study Area). State and federal forest land boundaries shown on the Cultural and Recreational Data Map designate areas within which are dedicated public lands. This does not mean that all land is state or

federally owned within the boundaries. Private land parcels falling within the boundary configurations are not open to public use, and the U. S. Forest Service and Michigan Department of Natural Resources exercise little control over these privately-owned lands. In the past, it has been the intent to include these lands within the overall forest area configuration as an administrative measure to plan the direction of future land acquisition.

Within a publicly-owned park, however, the public agency involved is the sole owner of the entire area enclosed by the park boundary and the recreation facilities contained therein.

The Study Area includes approximately 28,000 acres of federal forest lands. The Cyrus H. McCormick Experimental Forest in Baraga and Marquette Counties and the Upper Peninsula Experimental Forest near the eastern border of Marquette County are unique areas of interest.

The McCormick Forest was donated to the USDA Forest Service by the McCormick family in 1968 and is administered by the North Central Forest Experiment Station in Marquette, Michigan. It is a solid block tract of land, 17,000 acres in size, with one good gravel access road extending one-third of the distance into the area from the southwest.

The Forest Service feels the value of the McCormick Forest depends largely on its present isolation and its lack of use since early logging days. In terms of drainage, the geographic location of the forest is ideal since it straddles the divide between the Lake Superior and Lake Michigan Basins. All river and stream drainage is outward, leaving the area almost totally free of any streamborne pollutants.

The McCormick Experimental Forest is one of the largest of its kind in the eastern United States and is unique in having been so lightly disturbed in the past. Areas with such a past are very rare and most of those already in the system are much smaller and consequently subject to more disturbance from activity on adjoining lands. The potential value of this area to research on natural ecosystems is very great. (See Appendix C in the Land Use Data Report, "Establishment Report for McCormick Research Natural Area.")

The Upper Peninsula Experimental Forest is similar to the McCormick tract, but has been in existence longer. Research has been done at the forest for about 50 years and many studies are underway. Forest research involves measurements over a long period of time, with some of the current studies begun in the mid-1920's. Results from the research are partly or wholly

Table 1. PUBLIC RECREATION LAND OF THE FIVE MAJOR COUNTIES IN THE STUDY AREA (Acres)[1]

	FEDERAL			STATE				LOCAL		TOTAL PUBLIC RECREATION LAND		ALL LAND
County	National Forests	Wildlife Refuges	% of All Land	State Forests	State Parks	Water Access Sites	% of All Land	County & Twp.	Muni-cipal	Total Public	% of All Land	
Dickinson				218,178		1,356	45.30	91	258	219,883	45.37	484,608
Marquette	18,081	147	0.16	259,132	1,044	4,171	22.59	93	610	283,278	24.20	1,170,368
Menominee				90,070	974	681	13.81	540	139	92,404	13.91	664,256
Baraga	44,352		7.69	67,711	5,732	1,217	12.94	0	9	119,021	20.65	576,512
Iron	171,509		22.90	78,396	200	2,845	10.87	355	147	253,452	33.82	749,440

Source: Michigan Department of Natural Resources, Michigan Recreation Plan 1974, March 1975

1 Statistics apply to entire county.

applicable to 30 million acres of northern hardwood forest in the eastern states and 70 million in Canada. (See Appendix D in Land Use Data Report -- Guide to the Upper Peninsula Experimental Forest.)

According to Forest Service personnel, both experimental forests offer some recreation opportunities. The McCormick forest is allowed day use only, and no vehicles can be driven within the forest boundaries. No fires are allowed. Fishing and hunting are allowed and are subject to state regulations. Cross country skiing, hiking and bird watching are the common activities in the McCormick Forest.

The Upper Peninsula Experimental Forest also has restrictions on day use. Cars and snowmobiles are allowed to use the roads going through the forest. Fishing access is much less than in the McCormick Forest, and hunting is mostly for grouse. The same passive recreation activities that are common in the McCormick Forest are also popular in the Upper Peninsula Forest.

Michigan's state parks constitute one of the fundamental elements in the state's recreation system. Presently there are four state parks within the Study Area, including Baraga in the northern section on Keweenaw Bay; Van Riper, located on the eastern shore of Lake Michigamme in Marquette; and Bewabic in Iron County. The fourth, Craig Lake, is a primitive area located on the eastern border of Baraga County. The Department of Natural Resources controls 5,700 acres of park land, and plans to expand the park to over 10,700 acres. These parks are significant for the recreation they offer and for their preservation of open space, scenic beauty, natural areas and wilderness. While providing important daytime activities within their own boundaries, they also serve as a base where travelers may provide their own room and board while enjoying recreation activities outside the park. Appendix G includes plans of the existing administered state parks within the Study Area.

Michigan's state forests are a major asset in the state's present and future resource and recreation picture. According to the Michigan Recreation Plan, 1974, the forests are multiple use areas with management for: (1) beneficial influence on the environment with special concern for soil, water, air, aesthetics and solitude; (2) providing opportunities for outdoor recreation with concern for hunting, fishing, camping, hiking, sightseeing, berry and mushroom picking, forest road driving, etc; and (3) providing timber to satisfy the commercial need for wood products.

Approximately 17 percent of the 4,275,722 acres administered by the Michigan Department of Natural Resources occurs within the Study Area. Most of this is state forest land, slightly more than three-quarters of which has been acquired through tax delinquency; the balance was acquired by purchase, gifts and a very small remaining acreage through federal land grants. Most of the purchased land was bought in the 1930s, 1940s and early 1950s through deer hunter license funds. These forests are gradually assuming a larger share of the state's wood production, accounting for a significant percentage of the pulpwood harvest and lumber products.

Recreational uses of the forests are provided for in established campgrounds, water access sites and boat landings, marked riding and hiking trails, and forest drives. Most camping is done at designated campgrounds and is generally provided for without charge. The camping facilities range from very small, remote sites with as few as six campsites, to campgrounds with over 50 units. All are located on lakes or streams.

The nature of the camping experience and the campground itself has changed along with changing social, economic and cultural conditions. Many campers are now interested in the socially-oriented aspects of the camping experience and in campgrounds providing more than a primitive or rustic type of contact with nature. In the state park system the modern campground arrived with electricity, hot showers and flush toilets. In the private sector, the modern campground became economically feasible as a business enterprise, with on-site recreational vehicle hook-ups for electricity, water and often sewer.

The Study Area has approximately 5 percent of the state's campsite count. The Michigan Recreation Plan indicates that well over one-half of the weekend campers using state parks in the central Upper Peninsula are from the central Upper Peninsula. The 1972 State Park Survey by the Office of Planning Services showed that swimming was the most popular activity for local noncamping users of state parks, followed by picnicking, sunbathing, relaxing and sightseeing drives through the parks. The most popular activity for campers, not considering the camping experience itself, was "relaxing", with sunbathing and swimming being the second and third choices. Fishing ranked higher for campers than for noncampers.

Guide to the Cultural and Recreational Data Index and Map

Any archaeological, historical or recreational sites that are located within incorporated town boundaries have not been included on the data index or map.

Abbreviations

Ownership:
- F = Federal
- S = State
- C = County
- T = Township
- P = Private

MRHS: Michigan Registered Historical Site
NRHP: National Register of Historical Places

Location and Identification Number

Archaeological, historical and recreational sites are referenced by their 15' quadrant and identification number. The quadrant is identified by the latitude and longitude of its upper left hand corner, i.e.,

latitude - longitude
$46^{o}/30'$ - $89^{o}/45'$

Identification of a site within a quadrant is made by referencing the site I.D. number shown on the map symbol to the I.D. number shown in the data index for the quadrant.

Archaeological Site Age Descriptors

Paleo: to 5000 B.C.
Archaic: 5000 B.C. to 1000 B.C.
Woodland: 1000 B.C. to 1800 A.D.

(other dates as indicated)

Archaeological Data Index

Site Location	Data Map I.D. No.	Site Name	Remarks	Reference
BARAGA COUNTY				
47°/00'-88°/30'	#1	Sand Point Site	Extensive Mound & Village site of A.D. 1400	Bigony, n.c., Western Michigan U. field notes & collections
47°/00'-88°/15'	#1	Unnamed	Small site at mouth of Huron River on Lake Superior	1973 Survey Notes
DICKINSON COUNTY				
46°/00'-88°/15'	#2	Swartz Workshop Site	Lithic Workshop	Buckmaster & Galm 1974 Survey
46°/00'-88°/15'	#3	Badwater Site	c.1870 Menominee Indian Village	Buckmaster & Galm 1974 Survey
46°/00'-88°/15'	#4	Cook Site	Campsite unknown period	Buckmaster & Galm 1974 Survey
46°/00'-88°/00'	#1	Unnamed	Located on west bank at junction of Sturgeon & Menominee Rivers	NMU Field notes
IRON COUNTY				
46°/15'-88°/45'	#1	Brule Trestle Site	Campsite, late Woodland Period	Hinsdale 1931 Buckmaster & Galm 1974 Survey
46°/00'-88°/15'	#1	Michigamme Falls Site	Campsite, unknown period	Buckmaster & Galm 1974 Survey
MARQUETTE COUNTY				
47°/00'-88°/00'	#1	Unnamed	Woodland site on shore of Lake Superior	1973 Survey Notes
47°/00'-88°/00'	#2	Pine River Site	Location not confirmed	Hinsdale 1931
46°/45'-88°/00'	#1	Van Riper Site	Type of site and period unknown	Buckmaster & Galm 1974 Survey
46°/30'-88°.00'	#1	Casey Lake Site North	Campsite, unknown period	Buckmaster & Galm 1974 Survey
	#2	Casey Lake Site South	Campsite, unknown period	Buckmaster & Galm 1974 Survey
46°/30'-88°/00'	#3	Martell's Lake Site	Campsite, unknown period	Buckmaster & Galm 1974 Survey
46°/30'-88°/00'	#4	Porterfield Lake Site	Campsite, unknown period	Buckmaster & Galm 1974 Survey
46°/30'-87°/30'	#1	Saari-Miller Site	Middle Woodland Village Site	NMU Field Notes Buckmaster notes
46°/30'-87°/15'	#1	Larson Site	Possible Archaic Site	NMU Field Notes & Marquette County Historical Society Museum

Archaeological Data Index (continued)

Site Location	Data I.D. Map No.	Site Name	Remarks	Reference
MENOMINEE COUNTY				
45°/45'-88°/00'	#1	Pemebonwon Site	On bank of Menominee River	NMU Field Notes; Buckmaster & Galm 1974 Survey
45°/45'-88°/00'	#2	Penn Brook Site	Site located on bank of Menominee River	NMU Field Notes; Buckmaster & Galm 1974 Survey
45°/45'-88°/00'	#3	Pemene Falls Site	On bank of Menominee River at the Falls. A late Woodland Village site	NMU Field Notes; Buckmaster & Galm 1974 Survey
45°/45'-88°/00'	#4	Abolins Farm Site	Campsite, unknown period	Buckmaster & Galm 1974 Survey
45°/45'-88°/00'	#5	Pemene Creek Site	Late Woodland Village site on bank of Menominee River at mouth of Pemene Creek	NMU Field Notes; Buckmaster & Galm 1974 Survey
45°/45'-88°/00'	#6	Chalk Hill Site	Village, unknown period	Buckmaster & Galm 1974 Survey
45°/30'-88°/00'	#1	Backlund Village Site	Upper Mississippian Village Site	NMU Field Notes Buckmaster & Glam 1974 Survey
45°/30'-88°/00'	#2	Backlund Mound Group	Upper Mississippian-Late Woodland Mound Group of A.D. 1000-1300.	Brose 1967

Historical Data Index

Houses and Small Historic Sites

Site Location	Data Map I.D. No.	Site Name	Remarks	Ownership
BARAGA COUNTY				
47°/00'-88°/30'	#1	Zeba Methodist Church	1880 Indian Mission Church. Congregation formed in 1852	P
47°/00'-88°/30'	#2	Curwood Cabin	1920 author's cabin retreat	T
DICKINSON COUNTY				
46°/00'-88°/00'	#1	Norway Spring (roadside park)	1878 sawmill site and spring MRHS	S
IRON COUNTY				
46°/15'-88°/45'	#1	Bates Township Roadside Park	1926, first travelers' roadside picnic park	T
MARQUETTE COUNTY				
47°/00'-88°-00'	#1	Huron Mountain Club	c.1900 summer colony at mouth of Pine River	P
47°/00'-87°/45'	#1	Big Bay Point Lighthouse	1896 lighthouse	
46°/45'-88°/15'	#1	Cyrus McCormick Buildings	Pre W.W. I McCormick Estate Resort Bldgs.	F
46°/45'-87°/45'	#1	Granot Loma Lodge	40 room log summer home, built 1920 for prominent banker L.G. Kaufman	P

Historical Data Index (continued)

Historic Industrial Sites

Site Location	Data Map I.D. No.	Site Name	Remarks	Ownership
DICKINSON COUNTY				
46°/00'-88°/00'	#1	Iron Mountain Iron Mine	1870's iron mine open to public inspection	P
MARQUETTE COUNTY				
46°/45'-88°/15'	#1	Champion Charcoal Blast Furnace	1867 furnace stack remains. Original complex totalled 40 bldgs.MRHS,NRHP	P
46°/45'-87°45'	#1	Carp River Forge	1847, first Bloom iron forge in Lake Superior region. MRHS, NRHP	P

Historic Settlements

BARAGA COUNTY				
47°/00'-88°/30'	#1	Perquaming Town	1888 port hamlet, 50 buildings	P
47°/00'-88°/30'	#2	Assinins	1860 Indian mission & orphanage,MRHS,NRHP	P
IRON COUNTY				
46°/15'-88°/45'	#1	Unnamed	Indian settlement & burial ground	C
46°/15'-88°/30'	#1	Amasa Historic District	Late 19th Century company town associated with mining activities	P
MENOMINEE COUNTY				
45°/45'-87°/45'	#1	Hermansville Historic District	c.1880 company town for lumber manufacturing by Wisconsin Land & Lumber Company	P

Historic Sites Suggested by County Historical Societies

On October 29 and December 15, 1975, letters were sent to the county historical societies which are located within the Study Area, requesting information on historic sites which the societies considered to be of significant value. This was followed in January 1976 by a series of telephone calls, in an attempt to expedite this information. The sites below were listed, but have not been professionally verified or located at this time. Therefore they have not been shown on the Cultural and Recreational Data Map.

The following historic sites have been listed by Mrs. Irja Harju, Secretary of the Baraga County Historical Society. They are additional to others in Baraga County which have been previously identified.

1.	Indian Cemetery	1854 cemetery located at end of Indian Cemetery Road one mile north of L'Anse.
2.	Arvon State Quarry	Arvon
3.	Pequaming Point	Located on Keweenaw Bay - Viking stone cairns and c. 1850 Indian village.
4.	Graphite Mine	Near Alberta

Mrs. Esther Brystrom, Executive Secretary of the Marquette Historical Society, has written that her organization feels that the McCormick Tract buildings are of great importance.

Mrs. Debra E. Bernhardt has also submitted a list of sites which the Iron County Historical and Museum Society feels are important for Iron County. They are listed below.

1. Larson Park, Highway U.S. 2 and Iron County Forest Preserve between Crystal Falls and Iron River. First known roadside park, established c. 1920.

2. Indian Camp and Burial Ground, southeast shore of Chicaugon Lake.

3. Ojibwa Indian Encampment and possible burial grounds, between Ottawa and Hagerman Lakes.

4. Indian Encampment on Paint River near Chicaugon Slough.

5. Indian Trails to L'Anse and Lac Vieux Desert from Chicaugon Lake.

6. Prehistoric Copper Mining Indian Relics, eastern side Lake Mitigwaki. Scene of pack trail to Ontonagon.

7. Treaty Tree, southwestern corner of Brule Lake. Commemorates 1840 treaty between government surveyor, Captain Thomas Jefferson Cram and Chippewa Indians. Ottawa National Forest marker.

8. Site of carved stone traceable to French Jesuit missionary, c. 1660, Father Menard, north of Amasa.

9. Precambrian coal deposits, possibly oldest coal in the world, discovered in the late 1950's north of Iron Lake near Morrison Creek.

10. Discovery of iron ore, 1851 by William Burt and Harvey Mellen, west of Stambaugh on bluff. Outcropping and marker.

11. Twenty-eight white pine era dam sites on the Iron, Paint, Fence, Brule, and Net Rivers, used during 1881 and 1916. Historical survey for possible restoration in process.

12. Elmwood, Gibbs City, Atkinson and Pentoga, former logging boom towns important in rebuilding Chicago after the fire. Ghost town remnants.

13. Mansfield Mine and Village site, on Michigamme River. Scene of 1893 mining disaster in which 26 men lost their lives. Marked by a wooden sign.

14. Chicaugon Mine Location, 1912-1918, Bates Township near Chicaugon Slough, Warner Mine, near Amasa, and Porter Mine, near Gilbert Lake.

15. Beechwood General Store and Post Office. Oldest extant and yet in operation post office in Iron County. Built in 1910. Nominee for State Historical Registry.

16. Camp Gibbs Recreation Area. Former depression period Civilian Conservation Corps camp.

Recreational Data Index

Park Sites with Campground

Site Location	Data Map I.D. No.	Site Name	Ownership
BARAGA COUNTY			
47°/00'-88°/30'	#1	Second Sand Beach Park	T
" "	#2	Curwood Park	T
" "	#3	Baraga State Park	S
47°/00'-88°/15'	#1	Avon Township Park	T
" "	#2	Big Eric's Bridge Forest Campground	S
46°/45'-88°/45'	#1	Big Lake Forest Campground	S
46°/45'-88°/30'	#1	Laws Lake Forest Campground	S
" "	#2	King Lake Forest Campground	S
46°/45'-88°/15'	#1	Beaufort Lake Forest Campground	S
DICKINSON COUNTY			
46°/15'-88°/15'	#1	Sawyer Lake County Park	C
46°/15'-88°/00'	#1	O'Neil Lake Forect Campground	S
" "	#2	Norway Lake County Park	C
46°/15'-87°/45'	#1	Little Kate's Lake Forest Campground	S
" "	#2	West Branch Forest Campground	S
" "	#3	Lower Dam Forest Campground	S
46°/00'-88°/15'	#1	Lake Antoine County Park	C
46°/00'-88°/00'	#1	Carney Lake Forest Campground	S
45°/45'-88°/00'	#1	Lake Mary County Park	C
IRON COUNTY			
46°/15'-88°/45'	#1	Iron Lake Park	T
" "	#2	Bates Township Park	T
" "	#3	Pentoga County Park	C
46°/15'-88°/30'	#1	Bewabic State Park	S
" "	#2	Runkle Lake Municipal Park	T
46°/15'-88°/15'	#2	Lake Ellen Forest Campground	S
" "	#3	Mansfield Township Park	T
" "	#4	Glidden Lake Forest Campground	S
MARQUETTE COUNTY			
47°/00'-87°/45'	1	Perkins County Park	C
46°/45'-88°/15'	1	Van Riper State Park	S
46°/30'-88°/15'	1	Horseshow Lake Forest Campground	S
46°/30'-88°/00'	1	Black River Falls Forest Campground	S
46°/30'-87°/45'	1	Bass Lake Park & Campground	S

Park Sites with Campground (continued)

Site Location	Data Map I.D. No.	Site Name	Ownership
MARQUETTE COUNTY (continued)			
46°/30'-87°/30'	#1	Gwinn County Park & Campground	S
" "	#2	Little Lake Forest Campground	S
46°/15'-87°/30'	#1	Andrews Lake Forest Campground	S
" "	#2	Escanaba River Forest Campground	S
MENONINEE COUNTY			
45°/45'-88°/00'	#1	Wisconsin-Michigan Power Company Company Campgrounds	-
" "	#2	Wisconsin-Michigan Power Co. Campgrounds	-
45°/30'-88°/00'	#1	" " " " "	-

Small Park Sites & Picnic Areas

Site Location	Data Map I.D. No.	Site Name	Ownership
BARAGA COUNTY			
47°/00'-88°/30'	#1	State Roadside Park	S
46°/45'-88°/30'	#1	State Roadside Park	S
DICKINSON COUNTY			
46°/00'-88°/15'	#1	Twin Falls County Park	C
46°/00'-88°/00'	#1	State Roadside Park	S
46°/00'-88°/00'	#2	Marion Park	T
IRON COUNTY			
46°/15'-88°/45'	#1	Larson Park, State Roadside Park	S
46°/15'-88°/30'	#1	Gibson Lake Park	C
" "	#2	Buck Lake Township Park	S
" "	#3	State Roadside Park	S
46°/00'-88°/30'	#1	Stager Lake Township Park	T
MARQUETTE COUNTY			
46°/45o-88°/15'	#1	State Roadside Park	S
46°/30'-88°/00'	#1	State Roadside Park	S
46°/45'-87°/30'	#1	Sugar Loaf Mountain Park	T
MENOMINEE COUNTY			
45°/45'-87°/45'	#1	Veteran's Park Post No. 340	T
" "	#2	State Roadside Park	S

Ski Areas and Jumps

DICKINSON COUNTY			
46°/00'-88°/15'	#1	Pine Mountain Ski Area	P
IRON COUNTY			
46°/15'-88°/45'	#1	Brule Mountain Ski Area	P

Recorded View Points

Location	I.D. No.	Site Name
BARAGA COUNTY		
47°/00'-88°/30'	1	Pequaming Point
	2	Slate River Falls, Slate River
	3	Silver Falls, Silver River
	4	Curwood Park
47°/00'-88°/15'	1	Point Abbaye
	2	Lower Huron Falls, Huron River
	3	East Branch Falls, East Branch of Huron River
	4	West Branch Falls, West Branch of Huron Riber
	5	Big Falls, East Branch of Huron River
	6	Lower Leatherby Falls, West Branch of Huron River
	7	Leatherby Falls, West Branch of Huron River
	8	Upper Leatherby Falls, West Branch of Huron River
46°/45'-88°/45'	1	Tibbetts Falls
	2	Dault's Falls, Dault's Creek
	3	Mount Curwood Lookout
	4	Upper Falls, Sturgeon River
	5	Canyon Falls, Sturgeon River
	6	No Name Falls, Sturgeon River
	7	Upper Sturgeon Falls, Sturgeon River
	8	Tioga Falls, Tioga River
DICKINSON COUNTY		
46°/00'-88°/15'	1	Twin Falls Dam, Menominee River
	2	Ford Falls Dam, Menominee River
	3	Horserace Rapids, Menominee River
	4.	Hydraulic Falls Dam, Menominee River
46°/00'-88°/00'	1	Bloomgreen Marsh
	2	Power Dam, Sturgeon River
	3	Kimberly Clark Dam, Menominee River
	4	Sand Portage Falls, Menominee River
45°/45'-88°/00'	1	Sturgeon Falls Dam, Menominee River
IRON COUNTY		
46°/30'-88°/45'	1	Chipmunk Falls, Net River
	2	Snake Rapids, Net River
46°/15'-88°/45'	1	Hemlock Rapids, Paint River
	2	Lower Hemlock Rapids, Paint River
46°/15'-88°/30'	1	Chicaugon Falls, Chicaugon Creek
	2	Runkle Lake Municipal Park
	3	Little Bull Dam, Paint River

Recorded View Points (continued)

Location	I.D. No.	Site Name
IRON COUNTY (continued)		
46°/15'-88°/15'	1	Margeson Falls, Margeson Creek
	2	Hemlock Falls Dam, Michigamme River
	3	Gliddens Rapids, Michigamme River
46°/00'-88°/30'	1	Horse Race Rapids, Paint River
46°/00'-88°/15'	1	Peavy Falls Dam, Michigamme River
	2	Michigamme Falls Dam, Michigamme River
	3	Brule Island Dam, Brule River
MARQUETTE COUNTY		
47°/00'-88°/00'	1	80 Foot Falls, River Styz
	2	40 Foot Falls, Cliff River
	3	Upper Falls, West Branch, Salmon Trout River
	4	Twin Falls, East Branch, Salmon Trout River
	5	Middle Falls, Salmon Trout River
	6	Lower Falls, Snake Creek
47°/00'-87°/45'	1	Adler Falls, Adler Creek
46°/45'-88°/00'	1	Wylie Dam Falls, Yellow Dog River
	2	Pinnacle Falls Dam, Yellow Dog River
46°/45'-87°/45'	1	Little Garlic Falls, Little Garlic River
	2	Morgan Falls, Morgan River
46°/30'-88°/00'	1	Black River Falls, Black River
	2	White City Falls, Middle Branch of The Escanaba River
46°/30'-87°/30'	1	Frohling Falls, W. Branch of Chocolay River
	2	Upper Chocolay Falls, E. Branch of Chocolay River
MENOMINEE COUNTY		
45°/45'-88°/00'	1	Quiver Falls, Menominee River
	2	Pemene Falls, Menominee River

Canoe Routes

Location	Site Name	Route Miles
46°/30'-88°/45 46°/15'-88°/45'	Net River	15
46°/30'-88°/15' 46°/15'-88°/15'	Fence River	16
46°/15'-88°/45' 46°/00'-88°/30'	Paint River	40
46°/15'-88°/45' 46°/00'-88°/45' 46°/00'-88°/30' 46°/00'-88°/15'	Burle River	47
46°/45'-87°/45	Carp River	10
46°/30'-87°/30' 46°/15'-87°/30'	Escanaba River	22
46°/15'-88°/00' 46°/15'-87°/45' 46°/15'-87°/30'	West Branch, Escanaba River	

Other Sites

Location	Site Name	Remarks	Ownership
46°/45'-88°/15' 46°/45'-88°/00'	Cyrus H. McCormick Experimental Forest	Only day use recreation is allowed (i.e., hunting, fishing, hiking, etc.). No vehicles, fires or overnight camps are permitted.	F
46°/30'-87°/15'	Upper Peninsula Experimental Forest	Only day use activity. Recreational vehicles allowed on the roads and trails in the federal forest lands.	F/P

RELATIONSHIP TO OTHER DATA

Archaeological

Optimal areas for archaeological site location are derived partly from research into the climate, soils, vegetation, wildlife and hydrology of the Study Area.

Climate

The warm summers and cool winters characteristic of the Upper Peninsula region are regionally modified by the surrounding Great Lakes. Climatic differences attributable to geographic location produce large variations in length of the growing season. In Menominee County, the only region within the Study Area where the requirements for successful prehistoric agriculture are present, a large number of sites have been found.

The harshest climate in terms of both temperature and precipitation is found in the interior areas where traveling and obtaining food and shelter would have been most difficult. Most known sites are found in the interior and along the northern shore, probably related to seasonal occupations for the exploitation of specific resources.

Soils

There is a direct relationship between soil type, the kinds of vegetation which the various soil types will support and the distribution of animals within the vegetative cover. The man-to-land ratio depends upon the productivity or fertility of the soil in regard to plant and animal products available and convertible into human food.

The variable character of Upper Peninsula soils is expressed to some extent by the extensive deciduous and coniferous forest lands. The pine forests, scant in nutritional plant growth because of shallow, nonproductive soils, were not often frequented by prehistoric man in appreciable numbers. More than two-thirds of all known archaeological sites are located in soil regions derived from lakebed or glacial tills, which are high in fertility, and considered favorable for agricultural purposes.

Vegetation and Wildlife

The vegetation and wildlife of the Study Area can be considered together because they are closely related. The Study Area is within the transition zone between the coniferous forests to

the north and the deciduous forests to the south, with vegetation and wildlife species characteristic of both being present.

Generally, the exploitable vegetation and wildlife resources available in the region are not as abundant as those found in the deciduous forests farther south where the climate is milder and the soils richer. But certain concentrations of specific resources would have supported substantial prehistoric populations here during various periods.

Because of the great variation in plant species among and within the forest zones where sites are found, it seems likely that specific forest types are not absolute determinants of prehistoric site location within the Study Area. Most exploitable terrestrial vegetation and wildlife resources native to the Study Area during prehistoric times seem to have been locally available throughout the area, rather than being limited to certain broad, well-defined geographic zones.

Hydrology

Although known sites are always found on well-drained ground and never in swamps or marshes, almost every site shown on the Historical and Cultural Data Map is located near a permanent lake or river. This association is believed to be largely due to the importance of fish in Middle and Late Woodland and Upper Mississippian Periods.

Other factors may also have caused early man to favor areas near water. Chippewa and Menominee Indians in the western Upper Peninsula utilized wild rice, which grows in shallow, slow moving water. Although no wild rice remains have been recovered from archaeological sites in the region yet, it is possible that prehistoric groups depended on it also.

The ease of transportation by water as compared to traveling overland and the resulting increase in the efficiency with which widely separated resources could be exploited is probably another major reason why sites are so often located on the lakes and rivers. It is in the watershed of the Menominee, the largest and most navigable river system in the Study Area, that most of the sites have been found.

Historical

Historical sites and their location show a direct correlation to the pattern of land use exhibited over the past 250 years. Most historical sites record areas of early habitation, settlement and industrial development. Habitation and settlement sites are most often located within or adjacent to currently populated areas. Sites associated with mineral discoveries

and industry are geographically more remote. They were left behind as resources were depleted and industrial activities shifted to other locations.

Transportation routes, however, are strongly related to historical site locations. Present roadway systems follow older trails and roads of the early industrial era.

Recreational

Recreation site locations are dependent upon many causative factors. Characteristics of surface water, geology, vegetation and proximity to major urban areas are primary determinants on whether a site is suitable for camping, hiking, boating, fishing, or capable of providing the opportunity to pursue other recreational activities.

Sites provided with good access or located adjacent to major roadways have more visitors. Campgrounds or fishing areas geographically removed from centers of population and accessible only on foot are generally used by the few willing to make the effort to find such areas. Privately-owned picnic areas, campgrounds and hiking trails are more likely to be used by those seeking the convenience of modern facilities, while the large federal and state-owned lands appeal to the hunter, fisherman, photographer or hiker desiring a rural or wilderness experience.

VALIDITY

Archaeological

Archaeological information and evaluation was provided under the guidance of Dr. James Fitting, formerly State Archaeologist, Michigan History Division, Department of State. In the summer of 1973, eight weeks of field work and research were devoted to the investigation of western Upper Peninsula archaeological resources and a number of new or previously known sites were located within or near the Study Area. Included was a review of the periods of prehistoric occupation and the types of occupation sites that might be expected.

Site data was collected by first investigating existing published materials on the area and then reviewing site records on file at Northern Michigan University, the University of Michigan, Michigan State University and the Michigan History Division in Lansing. All recorded sites were mapped, including those located on the maps in Hinsdale's Archaeological Atlas of Michigan. As many of these as possible were relocated in the field but it was not possible to confirm, or correct, the location of all of the sites from the Atlas. Most site information was contained in Northern Michigan University site records, particularly for the Menominee watershed. The major portion of the sites in the preceding list were recorded by researchers John Franzen and Don Weston and the reference for them is to their 1973 field notes.

The following are other major research efforts, the results of which have been utilized in the production of this Data Report:

1. Excavation of the Backlund Mound group of sites by David Brose, 1967.

2. Excavations of the Sand Point mound and village areas by Western Michigan University and Michigan State University in 1970, 1971 and 1975.

3. Studies by Professor Marla Buckmaster of Northern Michigan University of the archaeology of the Menominee watershed.

The vast size of the area being studied and shortage of time and manpower available made it difficult to conduct a survey comprehensive enough to compensate for the lack of previous archaeological investigation. A thick layer of natural vegetation and the small percentage of land that has been altered

for agricultural, industrial, and residential development in the western Upper Peninsula result in archaeological sites having very low visibility.

After assembling all presently available data through correspondence with professional archaeologists and researching what little material has been published on archaeology in the area, the research team conducted field surveys of certain selected areas. Based on tentative correlations between the distribution of known archaeological sites and the various natural environmental zones occurring in the Study Area, certain types of areas as being optimal for prehistoric occupation were defined and outlined in this report.

Historical

All historical site information was researched from the comprehensive files of the Michigan History Division, Department of State, Lansing, Michigan. Historical sites within populated urban areas were not included in this study.

All historical sites secured from the Division files were listed and forwarded to the seven county historical societies in the Study Area for verification and additions; no changes were made to the lists. In this study, a site was considered an historical site if it conformed to either of the following criteria: Listed - Michigan Registered Historic Site; Listed - National Register of Historic Places; or considered historically significant on behalf of the community where located and verified by the State Historical Commission.

Recreational

Location of recreational sites was taken from State and county highway maps, WUPPDR and CUPPAD recreation planning documents, county planning documents, U. S. Forest Service maps, and detailed State Department of Natural Resources land ownership maps.

Facility information was generally lacking in detail on source maps and was therefore derived from written planning documents. Specific recreational information is omitted from areas in urban centers.

Information relating to privately-owned recreational facilities was obtained from travel association brochures and maps and from the Michigan Department of the Treasury. Survey information relating to private recreational developments is incomplete and it can only be assumed that private rural facilities

additional to those shown on the Historical and Cultural Data Map do exist.

Information on State parks was obtained from the Michigan Department of Natural Resources, Parks Division. State and Federal Forest land data was secured directly from the U.S. Forest Service in Ironwood and Marquette, and from the Michigan Department of Natural Resources, Environmental Division. Publications produced by both agencies were utilized.

Recorded view points are areas locally considered of scenic value and are usually associated with a watershed project, waterfall, picnic area, campground or roadside rest area. Where archaeological, historical and recreational sites were not accurately shown on source material maps, their placement was referenced to section lines at the mapping scale of 1 to 125,000.

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Baraga County
Delta County - East Part
Delta County - West Part
Dickinson County
Iron County - East Part
Iron County - West Part
Marquette County - North Part
Marquette County - Southeast Part
Marquette County - Southwest Part
Menominee County - North Part
Menominee County - South Part

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Percent of Land in Forest or Woodland
Northern Michigan Road Influence Map
Boating Access Sites
Federal, State and Regional Recreation Lands
State Parks and Recreation Areas

Master Plan Maps. 8½" x 11".

Baraga State Park
Bewabic State Park
Craig Lake State Park
Van Riper State Park

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APPENDIX A

ARCHAEOLOGY IN MICHIGAN

PRESENT KNOWLEDGE AND PROSPECTS

MICHIGAN HISTORY DIVISION

MICHIGAN
DEPARTMENT OF STATE
RICHARD H. AUSTIN
Secretary of State

Series One, Number One
1973

ARCHAEOLOGY IN MICHIGAN:

PRESENT KNOWLEDGE & PROSPECTS

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Department of State

Beneath the sparse spruce cover, a silent man watched the clearing on either side of the small cold stream that flowed into the shallow lake to his east. The time was fall and the first snow flakes were in the air. Suddenly he saw them: a herd of thousands of deer, the great barren ground caribou. Quickly he ran back to camp and gathered his fellow hunters, a small group of six men all related by blood or marriage. He had hunted with them before, sometimes with luck and sometimes without, and he knew that he could trust them to do their share.

The men returned to the bank and slew the caribou with spears as they came out of the water. The air was now full of the sounds of animals and men as stone tipped lances pierced the hides of the fat fall animals returning from the summer meadows of the north to the winter forest cover of the south.

The men were a hard lot, descendants of the big game hunters that had crossed to this new land out of Asia only a few generations before. They had chosen to live in the new lands recently opened by the retreating glacial ice. They followed the animals and learned their ways. Their reward was survival; failure meant death. This kill was good and the meat of the caribou was roasted and eaten in camp that night.

This story may be the oldest known item of Michigan history for it took place around 11,000 years ago in an area just to the north of Detroit. Here archaeologists sifting the sands of an old beach ridge, found the broken tools, the caribou bone and the fire hearths of these ancient men. This site is the best known habitation area for these Paleo-Indian hunters, the makers of fluted and unfluted lanceolate projectile points, that colonized the state as the great Wisconsin ice sheet retreated to the north.

It is the first tale but not the only one that archaeologists in our area are able to tell from their detailed labors over long forgotten cultural remains. These tales of the past, like great old world epics, are interrelated with each other, with the spread of new ideas and new people and with the changes in the land in which the prehistoric peoples of Michigan lived.

The Paleo-Indian hunters came into the lands along with the plants and animals that followed the ice. The lakes were higher then and both men and animals followed the shore line. Between 8,000 B.C. and 7,000 B.C. the ice retreated far enough that the lakes were able to drain eastward rather than to the south down the Mississippi as they had in Paleo-Indian times. By 7,000 B.C. the lakes were nearly 400 feet lower than they are today. The shoreline sites of the men who lived here then are now under hundreds of feet of water except in the northern part of the state, where the land has been rising at an even faster rate, and even there these sites are scattered and hard to find.

Between 7,000 B.C. and 2,500 B.C., the level of the lakes again rose, drowning shoreline forest, creating shoreside swamps which were unfavorable to the very animals on which hunters depended for their survival. To the archaeologist, this looks like a period when the state was nearly empty of human population. Those traces of prehistoric man which do occur are few and the story becomes very faint.

By 2,000 B.C. the lakes were again high, the rivers filled with fish, and the forests, which were becoming more like they are today, again contained the game sought by the hunters. Men moved back into the state from the south, bringing with them a rich ceremonial life centered around a burial cult. Between 2,000 B.C. and 500 B.C. we know that these Archaic peoples, so called because they had not yet learned the art of pottery making, hunted deer in the fall and winter and hunted small animals and fished in the summer. While we have excavated village sites of this period, their burial grounds are better known.

The professional archaeologists who are most interested in the lives of these people, their economy and social organization, would probably prefer to excavate village sites. Very often, they must salvage what information they can from burial areas before these burial areas are excavated by individuals digging only for artifacts with little interest in what these artifacts meant to the people who used them.

Some of the burials of this period contain striking artifacts: copper tools from the Lake Superior region, fine gray flint "turkey-tail" projectile points from Indiana, carved stone objects, carved shell gorgets from the Gulf Coast of Florida and sometimes hundreds of small triangular stone projectile points which were never used and seem to have been manufactured strictly for inclusion in these burials.

The Archaic period in Michigan ends around 500 B.C., and the time between 500 B.C. and European contact is called the Woodland period. It is probable that the same people are living in the area and, at first at least, their life-way is only slightly changed. They do, however, start making pottery at that time and the task of the archaeologist changes in scope. Styles of pottery manufacture are distinctive and pottery is easily broken and rapidly discarded. For studying the broken shreds of prehistoric vessels, it is possible to see changes over time and differences between groups living at the same time. On the basis of major style changes, archaeologists have divided the Woodland period into Early, Middle and Late Woodland. With close control of time we are able to correlate other changes in economic, social and ceremonial organization.

The Early Woodland life-way is very similar to that of the late Archaic. Men hunted and fished and women made a thick pottery with cord impressions on both the exterior and interior surfaces. The first cultivated plants, found so far only in small amounts, date to this time period.

The old burial cults seem to continue, but we see a decline in the quantity and quality of grave goods along with some elaboration in burial form. The earliest known burial mound in Michigan, along the Muskegon River, was built at this time.

By 100 B.C. a new influence was shaping the cultural patterns of people in the southern half of the Lower Peninsula. This was the time of the great Hopewell expansion. In the broad river valleys of Illinois and Ohio, hundreds of burial mounds were being constructed containing artistic products of perhaps the highest level ever achieved in eastern North America. The decorated pottery, carved stone pipes and worked copper and mica ornaments led people a century ago to consider these "Mound Builders" as a race apart from the North American Indians. From excavations of their village sites, we now know that they were Indians, but we are still impressed with the Hopewell material and culture. The time span of Hopewell is synonymous with the Middle Woodland period.

The Hopewell expression in Michigan is known from mounds along the St. Joseph, Grand and Muskegon Rivers in Western Michigan, and from the Saginaw Valley in eastern Michigan. The greatest of these Michigan sites is the Norton Mound group located near Grand Rapids, excavated by the Grand Rapids Public Museum and the University of Michigan in 1963 and 1964.

While Hopewell materials are paramount in the southern part of the Lower Peninsula, different groups, all part of the Lake Forest Middle Woodland, are found in the north. Their village sites are large, as large or larger than anything in the south, but they do not seem to have participated in the elaborate ceremonial complex of the Hopewell peoples.

The prehistoric peoples of Michigan had practiced limited agriculture as early as 500 B.C. but they cannot be said to have been agriculturists at that time nor during the Middle Woodland period. Their village debris indicates that they were still primarily hunters and gatherers of wild food plants. Agricultural plants were simply an extension of their collecting activities for they seem to have lacked the type of social organization and seasonal round that would allow the development of agricultural villages. They were not alone, for this was the situation in most of eastern North America.

Around A.D. 700 things began to happen outside of the state which were to have far-reaching consequences within it. The seasonal economic pattern was altered so agriculture could be effectively practiced. The following centuries saw the development of the big centers of the Mississippian groups to the south, Cahokia in Illinois, the Angle Site in Indiana and the Fort Ancient Culture in Ohio. Many of these sites are marked by temple mounds and plazas that remind one of the Great Centers of Mesoamerica.

The agricultural revolution and Mississippian influence reached Michigan between about A.D. 700 and A.D. 1100, but the area never participated as fully in the Mississippian interaction sphere as it had in the Hopewellian. Still, the earliest corn in the state, found in Monroe County, dates to this time, and by A.D. 1000 the effect of this agricultural adaptation

was reflected in the increased density and number of village and burial sites of the Late Woodland period.

While Michigan lacks the architectural elaboration of the more southern Mississippian sites, Mississippian influence is found in trade pottery for the south and in the influence of southern styles on northern ceramics. It is possible the Late Woodland peoples of Michigan fulfilled a role similar to their role in the early historic period when they were specialized fur trappers. Instead of sending furs to the markets of London and Paris, they would have sent them to such places as Cahokia in Illinois.

By A.D. 1000, economic patterns similar to those of the early historic period had already been established. While the Indians of Michigan knew about agriculture, it could not be practiced in all areas of the state. In the north, a pattern developed similar to that of many of the early historic Chippewa. It involved the gathering of family units into large groups in the summer months around rich fishing locations. During the winter months, when the resources were too scattered to support large numbers of people, smaller family groups went out on their own.

In the south, agricultural groups like the Miami and Potawatomi built large stockaded villages near their farms. The women worked the land and men hunted near the villages during the summer. In the winter, all but the very old people would go off on hunting trips as a group.

Between these two economic patterns was a third but different pattern similar to that of the Ottawa in the early historic period. The Ottawa lived in an area where farming could be done but was possibly secondary to their role as traders in the exchange of furs for agricultural products. The Ottawa had large village sites, but these were rarely fortified and were moved at frequent intervals. During the summer months, the men left the villages to fish and to engage in trade. During the winter, small groups of men left the villages to hunt in the interior part of the state.

These patterns were maintained well into the historic period. It is only in the nineteenth century, with population decimation and competition with the encroaching Anglo-American economy, that they disappeared, but some, particularly the northern pattern, exist in an attenuated form even today.

This furnishes a brief outline of the prehistory of Michigan as we know it today. Actually, all we have is an outline and there are many gaps in our understanding of the past. Some of these gaps may never be closed, for the tempo of today's culture, with its freeways, water control projects and subdivisions, is destroying archaeological information at an accelerating pace.

Archaeology in Michigan has always been carried out by a number of different groups. Much of what has been done has been carried out by members of the Michigan Archaeological Society which sponsors publication of *The Michigan Archaeologist*, the major medium for communication of archaeological information in the state. There are chapters of the society located in most areas of the state and members carry out site finding surveys and excavations as chapter projects.

While the Kent Scientific Institute (now the Grand Rapids Public Museum), Harvard University and the Bureau of American Ethnology had sponsored archaeological field work in Michigan in the nineteenth century, it was not until the third decade of this century that a Michigan university became involved in this study. At that time the Great Lakes Division of the University of Michigan, Museum of Anthropology was formed. This unit has carried out more excavation and reporting than any other, and today many of the source materials on Michigan archaeology are to be found in the several publication series of that institution. It also serves as the central repository for information on site location.

Starting about fifteen years ago, a number of other colleges and universities started archaeological field programs, including Michigan State, Wayne State, Western Michigan, Central Michigan, Oakland University, Northern Michigan University and Grand Valley State College.

The Cranbrook Institute of Science has also had an interest in archaeology and has often supported programs. The Chippewa Nature Center in Midland includes archaeology as one of its basic programs and many other institutes concerned with Michigan archaeology exist throughout the State.

In 1966, the professional archaeologists throughout the State gathered together and formed the Conference on Michigan Archaeology, a privately incorporated group that has done much to facilitate communication and the development of archaeological programs in the area.

The first state administrated program in archaeology developed through the Mackinac Island Park Commission in connection with their work at Fort Michilimackinac. This was initially carried out in conjunction with Michigan State University and the ties between these institutes continue.

With the passage of Federal Historic Preservation legislation, and the designation of the State Department of Natural Resources as the liaison agent with the Natural Park Service, this department became interested in archaeology as it applies to historic preservation. They have sponsored several archaeological projects over the past few years.

The Michigan History Division of the Department of State has always had a statutory responsibility for the recovery and preservation of archaeological materials but has never had the staff trained and equipped to carry out this responsibility. It has recently reordered some of its priorities so that archaeology will

play a larger role. They now employ one full-time and one part-time archaeologist, who are charged with the development of a more extensive program in the area of preserving Michigan's archaeological past.

There is no lack of interest in Michigan archaeology, and if all of the interested groups are able to work out a single concerted program and the program is funded, we should look for a positive burgeoning of our knowledge of the past. There is nothing that any of us would like to see more than the outline of Michigan's past as presented earlier, replaced with a story that is far more accurate than the one we can tell now. Hopefully, we will be able to write this story before the evidence on the ground is all destroyed.

SUGGESTED READING

The Archaeology of Michigan. By James E. Fitting. Garden City, New York: 1970.

Indian Life in the Upper Great Lakes. By George I. Quimby. Chicago: The University of Chicago Press, 1960.

Monographs: The largest number of monographs on Michigan Archaeology are to be found among the Occasional Contributions, Anthropological Papers and Memoirs of the Museum of Anthropology of the University of Michigan.

The Museum at Michigan State University and Cranbook Institute of Science also have monographs on Michigan archaeology.

Journals: The Michigan Archaeologist is the quarterly journal of the Michigan Archaeological Society and is obtained through membership in the Society. This costs $4 per year and may be sent to the Treasurer at 2415 Hartsuff Street, Saginaw, Michigan.

APPENDIX B

AN ACT

TO CREATE THE MICHIGAN HISTORICAL COMMISSION

CHAPTER 145

HISTORICAL COMMISSION

CREATION AND ORGANIZATION

Act 271 of 1913

SEC.
15.1801 Historical commission; members, appointment, expenses.
15.1802 Same; terms of office.
15.1803 Same; meetings; organization; acceptance of property.
15.1804 Same; duties.
15.1805 Historical records and papers; collection, preservation; local public institutions as depository; certified copies as evidence; disposal of valueless records.
15.1806 Publication of material; payment of expenses.
15.1807 Custodian of publications of historical commission, museum; distribution, exchange and/or sale of publications.
15.1808 Historical commission; secretary, delegation of authority to; employees; salaries and expenses.
15.1808(1) Same; rules and regulations.
15.1809 Annual report; contents.
15.1810 (Repealed).

REGISTRATION OF HISTORIC SITES

Act 10 of 1955

15.1815(1) Site of historic interest; application to historical commission for listing.
15.1815(2) Same; listing in register, display of marker.

RECORDS OF UNITED STATES LAND OFFICE

Act 54 of 1927

15.1821 Records of U. S. land offices; keeping by historical commission, access of authorities.

UNITED STATES FIELD NOTES, MAPS, PLATS AND RECORDS

Act 55 of 1927

15.1831 Records pertaining to land titles in U. S. survey office; keeping by historical commission, access of authorities.

CREATION AND ORGANIZATION

Act 271, 1913, p. 525; imd. eff. May 8.

(Title as amended by Pub. Acts 1943, No. 172; eff. July 30.)

AN ACT to create the Michigan historical commission; to provide for the appointment of members of such commission; to fix their terms of office, prescribe their powers and duties, make an appropriation to carry out the provisions of this act[; to provide for the listing and destruction of useless documents, books and

papers;] and [to] repeal all acts and parts of acts inconsistent herewith.

The People of the State of Michigan enact:

§ 15.1801] Historical commission; members, appointment, expenses. SECTION 1. There is hereby created a commission to be known as the Michigan historical commission. Said commission shall consist of 6 members, with the addition of the governor, ex-officio; said 6 members shall be appointed by the governor [by and with the advice and consent of the senate]. No member of said commission shall receive any compensation for his services, except actual and necessary expenses while attending the meetings or carrying out the purposes of said commission. (C. L. '48, § 399.1; C. L. '29, § 8114; C. L. '15, § 10727.)

History.
As amended by Pub. Acts 1917, No. 192, imd. eff. May 8; 1951, No. 250, imd. eff. June 15.

§ 15.1802] Same; terms of office. SEC. 2. The governor shall appoint the members of said commission for the following terms: One [1] for one [1] year, one [1] for two [2] years, one [1] for three [3] years, one [1] for four [4] years, one [1] for five [5] years, and one [1] for six [6] years, and thereafter one [1] member annually for a term of six [6] years until their successors shall have been appointed and qualified. (C. L. '48, § 399.2; C. L. '29, § 8115; C. L. '15, § 10728.)

§ 15.1803] Same; meetings; organization; acceptance of property. SEC. 3. As soon as practicable after this act shall take effect, the said commission shall meet in the state capitol in Lansing, and shall organize by electing one of its members as president, and one as vice president, and shall appoint a secretary, and shall arrange a time and place of holding regular meetings of the commission, and for such special meetings as may be necessary. It shall take, as soon as practicable, necessary steps to receive and accept in the name of the state of Michigan, such of the property of the Michigan pioneer and historical society as the latter may convey to the state of Michigan, and shall take possession of the rooms in the capitol building now occupied by the said society, and may accept all gifts and bequests for the furtherance of its authorized purposes. (C. L. '48, § 399.3; C. L. '29, § 8116; C. L. '15, § 10729.)

§ 15.1804] Same; duties. SEC. 4. It shall be the duty of said commission to collect, arrange and preserve historical material, including books, pamphlets, maps, charts, manuscripts, papers, copies of domestic and foreign records and archives, paintings, statuary, and other objects and material illustrative of and relating to the history of Michigan and the old northwest territory; to procure and preserve narratives of the early pioneers, their exploits, perils, privations and achievement; to collect material of every description

relative to the history, language, literature, progress or decay of our Indian tribes; to collect, prepare and display in the museum of said commission objects indicative of the life, customs, dress and resources of the early residents of Michigan, and to publish source materials, and historical studies relative to and illustrative of the history of the state, including such historical materials and studies as may be furnished for that purpose by educational institutions and by the Michigan pioneer and historical society. The commission shall cooperate with and assist the Michigan pioneer and historical society and local historical societies in the state, and help to organize new local historical societies of similar nature and purpose. (C. L. '48, § 399.4; C. L. '29, § 8117; C. L. '15, § 10730.)

History.
As amended by Pub. Acts 1917, No. 192, imd. eff. May 8.

Comparable provision.
Wis. Stats. § 44.02.

Cross-references.
Military museum and old battle flags, see §§ 4.1391–4.1393, supra; aboriginal records and antiquities, § 13.21 et seq., supra.

1-10 [Reserved for future use.]

11. Permit for exploration.
The Michigan historical commission, prior to doing any surveying, excavating or exploring of any aboriginal antiquities on state land, must obtain a permit from director of department of conservation. Op. Atty. Gen., Aug. 22, 1957, No. 2932.

§ 15.1805 Historical records and papers; collection, preservation; local public institutions as depository; certified copies as evidence; disposal of valueless records.] SEC. 5. The said commission shall have power, and it is hereby made the duty of all public officials to assist in the performance of this power, to collect from the public offices in the state, including state, county, city, village, school and township offices, such records, files, documents, books and papers as are not in current use, and are of value, in the opinion of the commission; and it is hereby made the legal custodian of such records, files, documents, books and papers when collected and transferred to its possession. The commission shall provide for their preservation, classification, arranging and indexing, so that they may be made available for the use of the public: Provided, That in counties where there is a public institution having a fireproof building and suitable arrangements for carefully keeping such publications, records, files, documents, etc., so that in the opinion of said commission they can be safely stored, the same or any part thereof may be left in the possession of such institution. A list thereof, however, shall be furnished the commission and shall be kept of record in its office. A copy of the finding of the commission that such depository is a safe and a proper one in its opinion shall be made a part of the official records of said commission. Copies of all such papers, documents, files and records, when made and certified to by the secretary or archivist of said commission, shall be admitted in evidence in all courts, with the same effect as if certified to by the original custodian thereof.

Any record that is required to be kept by a public officer in the discharge of the duties imposed on him by law, or that is a writing required to be filed in a public office, or is a written memorial of a transaction of a public officer made in the discharge of his duty, shall be the property of the people of the state of Michigan, and may not be

disposed of, mutilated or destroyed except as provided by law. The directing authority of each state and/or county, multi-county, school and/or municipal agency, department, board, commission and institution of government shall present to the Michigan historical commission ♦ [a schedule governing disposal of, or] a list or description of the papers, documents and other records which [he shall certify] are useless and which have ceased to be of value to said governmental [agency and to its duties to the public,] whereupon the said historical commission shall inspect the said papers, documents and other records and shall requisition for transfer from said directing authority to said Michigan historical commission, such papers, documents and other records as said commission shall deem to be of value.

♦ [As soon as possible after the inspection by the historical commission and the transfer of records deemed to have value has been completed,] the said directing authority of said agency, department, board, commission and institution shall [submit the schedule governing the disposal of, or] the remainder of [the list of] such papers, documents and other records to the state administrative board, who shall ♦ [approve or disapprove the disposal schedule or list and order the destruction of the valueless records accordingly].

(C. L. '48, § 399.5; C. L. '29, § 8118; C. L. '15, § 10731.)

History.

As amended by Pub. Acts 1923, No. 144, eff. Aug. 30; 1943, No. 172, eff. July 30, which contained a section 2 repealing all acts and parts of acts inconsistent therewith; 1952, No. 154, eff. Sept. 18; 1955, No. 59, eff. Oct. 14.

Cross-references.

Historical commission proper state agency to receive and keep records and papers of United States land office, see §§ 15.1821, 15.1831, infra; destruction of records after filming, § 3.991, supra.

1-10. [Reserved for future use.]

11. Construction, operation and effect.

City charters and amendments thereto are subject to the Constitution and general laws of the state, and since this section is a general law, city charter containing provisions which are contrary to this section, this section shall be paramount notwithstanding such charter provisions. Op. Atty. Gen., June 10, 1952, No. 1553.

12. Disposition of papers and documents.

Papers, documents and other records which have ceased to be of value should be referred to Michigan historical commission for disposition pursuant to this act, as amended. Op. Atty. Gen., April 13, 1948, No. 733.

Copies of parole records need not be preserved after parole case is closed. Op. Atty. Gen., Feb. 21, 1949, No. 899.

Records, papers and documents on file not less than ten years, which are incident to the issuance of teachers' certificates, are to be reviewed by the historical commission, and any of the materials not wanted by the commission should then be disposed of under the direction of the state administrative board. Op. Atty. Gen., Aug. 24, 1950, No. 1187.

Papers, books of accounts, etc., filed with county clerk in receivership matters could be destroyed by order of the circuit court in compliance with this act. Op. Atty. Gen., April 15, 1952, No. 1536.

Descriptive lists of records accumulated under blue sky law and more than 15 years old are to be submitted to historical commission; such records may be destroyed by the corporation and securities commission only after retention of records having historical value. Op. Atty. Gen., March 17, 1955, No. 1955.

Duplicate copies of public records which are filed in more than one office not under the control of the same directing authority must be included in the list submitted by each office to the Michigan historical commission for disposition in accordance with the provisions of this act. Op. Atty. Gen., June 25, 1956, No. 2653.

Specific provisions of § 17.506(1) establish procedures to be followed relative to destruction of records of

employment commission, said section being deemed an exception to general provisions concerning destruction of records set forth in this section and in § 3.516(13c). Op. Atty. Gen., May 1, 1957, No. 2944.

§ 15.1806] Publication of material; payment of expenses. SEC. 6. It shall be the duty of said commission to prepare for publication the material referred to in section four [4] of this act. The volumes of said publication shall be issued in editions of not more than two thousand five hundred [2,500] copies, and contain not exceeding seven hundred fifty [750] pages each. They shall be printed and bound in substantial uniformity with the volumes issued by other historical societies and the several state departments. Said printing, together with such bulletins, including a historical quarterly journal such as is issued by other historical societies, and such reprints of books, maps, and articles as may be determined upon by the commission, shall be paid out of the appropriation hereby made. (C. L. '48, § 399.6; C. L. '29, § 8119; C. L. '15, § 10732.)

History.
As amended by Pub. Acts 1917, No. 192, imd. eff. May 8.

Cross-reference.
Style and size of state publications, see § 4.341, supra.

§ 15.1807] Custodian [of publications of historical commission, museum]; distribution, exchange and[/or] sale of publications. SEC. 7. The secretary of the commission shall be the custodian of the publications of the commission, and of the museum, and shall distribute and[/or] exchange such publications with domestic and foreign states, governments and institutions under such rules and regulations as shall be established by the commission. [He shall furnish] one [1] copy of each volume published ♦ to each school library and educational institution, public library and grange library in the state of Michigan when authoritatively and officially requested so to do by the officers thereof. ♦ He shall ♦ furnish to each member of the legislature during his term of office one [1] copy of each volume, bulletin and journal published during such term. [He may furnish to each member of the state historical society one [1] copy of each volume, bulletin and journal published during the term of his membership in the society, in recognition of aid received from the society in behalf of the historical work of the commission.] The remainder of the said copies of said volumes and publications shall be sold by said secretary at a price of not less than one [1] dollar for each volume, and at such price for each bulletin and journal as may be fixed by the commission. The money arising from such sales and from certified copies of documents shall be placed in the state treasury to the credit of the general fund. (C. L. '48, § 399.7; C. L. '29, § 8120; C. L. '15, § 10733.)

History.
As amended by Pub. Acts 1917, No. 192, imd. eff. May 8; 1931, No. 245, eff. Sept. 18.

§ 15.1808 Historical commission; secretary, delegation of authority to; employees; salaries and expenses.] SEC. 8. The secretary of said commission shall act under the direction of the commission. The commission shall have power to appoint such other employees as shall be deemed necessary. [The commission may delegate

to the secretary such authority as is necessary to carry out the provisions of this act.] The secretary and other employees shall receive such salaries as shall be appropriated by the legislature and also such traveling expenses as shall be necessary. (C. L. '48, § 399.8; C. L. '29, § 8121; C. L. '15, § 10734.)

History.
As amended by Pub. Acts 1915, No. 222, imd. eff. May 13; 1917, No. 192, imd. eff. May 8; 1933, No. 14, imd. eff. Feb. 17; 1951, No. 250, imd. eff. June 15.

§ 15.1808(1) Same; rules and regulations.] SEC. 8a. The commission shall make rules and regulations necessary to carry out the provisions of this act pursuant to Act No. 88 of the Public Acts of 1943, as amended, being sections 24.71 to 24.82, inclusive, of the Compiled Laws of 1948. (C. L. '48, § 399.8a.)

History.
Added by Pub. Acts 1951, No. 250, imd. eff. June 15.

Statutory reference.
Act 88, 1943, above referred to, is §§ 3.560(7)–3.560(18), supra.

§ 15.1809] Annual report; contents. SEC. 9. The said commission shall make annual reports on the first [1st] day of January of each year to the governor of the state, setting forth the character and extent of the work done under its supervision during the preceding year, and the amounts of money expended by it for the various purposes authorized by this act. (C. L. '48, § 399.9; C. L. '29, § 8122; C. L. '15, § 10735.)

SEC. 10. (Repealed.)

This section which was C. L. '29, § 8123, made an annual appropriation of $15,000. It was repealed by Pub. Acts 1933, No. 14, imd. eff. Feb. 17.

§ 15.1810] (Repealed by Pub. Acts 1945, No. 267, imd. eff. May 25.)

REGISTRATION OF HISTORIC SITES

Act 10, 1955, p. 10; eff. Oct. 14.

AN ACT to provide for the registration of historic sites.

The People of the State of Michigan enact:

§ 15.1815(1) Site of historic interest; application to historical commission for listing.] SECTION 1. Any agency of the state of Michigan, or of any political subdivision thereof owning or in possession of any site of historic interest, or any person owning or in possession of such site, and any person having the consent of such owner or person in possession, may apply to the Michigan historical commission to have such site listed as a state historic site. (C. L. '48, § 399.151.)

§ 15.1815(2) Same; listing in register, display of marker.] SEC. 2. If, in the judgment of the Michigan historical commission, such site is of sufficient general historical interest, they shall list such site in a register kept for that purpose and shall authorize to be

displayed at such site a suitable numbered marker, approved by the commission as to text and construction, indicating that such site is a registered state historic site. Such marker shall not bear the name of any commissioner or state official. (C. L. '48, § 399.152.)

Records of United States Land Office

Act 54, 1927, p. 65; imd. eff. April 18.

AN ACT to designate the Michigan historical commission as the proper state agency to receive and safely keep the records of the United States land office, formerly kept in the state of Michigan, and to allow the authorities of the United States free access to the same.

The People of the State of Michigan enact:

§ 15.1821] Records of U. S. land offices; keeping by historical commission, access of authorities. Section 1. The Michigan historical commission be and it is hereby designated as the agency of the state of Michigan to receive and safely keep the transcripts, documents and records of the land office or land offices formerly maintained by the United States in the state of Michigan; and that any and all authorities of the United States be and they are hereby allowed to have free access to the same at any time without cost or expense to them, as provided by the act of congress, approved May twenty-eight [28], nineteen hundred twenty-six [1926], entitled "An act to provide for the transfer of certain records of the general land office to states and for other purposes." (C. L. '48, § 399.51; C. L. '29, § 8125.)

Statutory reference.
The act, above referred to, is 43 USC 25 and 25a.

United States Field Notes, Maps, Plats and Records

Act 55, 1927, p. 66; imd. eff. April 18.

AN ACT to designate the Michigan historical commission as the proper state agency to receive and safely keep the field notes, maps, plats, records, and all other papers appertaining to land titles in the public survey office of the United States in said state.

The People of the State of Michigan enact:

§ 15.1831] Records pertaining to land titles in U. S. survey office; keeping by historical commission, access of authorities. Section 1. The Michigan historical commission be and it is hereby designated as the agency of the state of Michigan to receive and safely keep the field notes, maps, plats, records, and all other papers appertaining to land titles in the public survey office of the United States, relating to the state of Michigan, that may not

be needed by the United States; and that any and all authorities of the United States be and they are hereby allowed to have free access to the same at any time, as provided by the act of congress, approved May twenty-eight [28], nineteen hundred twenty-six [1926], entitled "An Act to provide for the transfer of certain records of the general land office to states and for other purposes." (C. L. '48, § 399.61; C. L. '29, § 8126.)

Statutory reference.

The act, above referred to, is 43 USC 25 and 25a.

APPENDIX C

AN ACT

TO PROVIDE FOR THE REGISTRATION OF HISTORIC SITES

[No. 10.]

AN ACT to provide for the registration of historic sites.

The People of the State of Michigan enact:

399.151 Historical sites; listing. [M.S.A. 15.1815(1)]

Sec. 1. Any agency of the state of Michigan, or of any political subdivision thereof owning or in possession of any site of historic interest, or any person owning or in possession of such site, and any person having the consent of such owner or person in possession, may apply to the Michigan historical commission to have such site listed as a state historic site.

399.152 Same; register, marker. [M.S.A. 15.1815(2)]

Sec. 2. If, in the judgment of the Michigan historical commission, such site is of sufficient general historical interest, they shall list such site in a register kept for that purpose and shall authorize to be displayed at such site a suitable numbered marker, approved by the commission as to text and construction, indicating that such site is a registered state historic site. Such marker shall not bear the name of any commissioner or state official

Approved March 17, 1955.

APPENDIX D

INDIVIDUALS AND ORGANIZATIONS
(Acknowledgments)

and

COUNTY HISTORICAL SOCIETIES

INDIVIDUALS AND ORGANIZATIONS

Michigan History Division
Michigan Department of State
Baker-Olin Building West
Lansing, Michigan 48918

Ms. Kathryn Eckert, Historic Site Staff Supervisor
Mr. George Sabo, Archaeologist

Ms. Marla Buckmaster
Department of Sociology
Northern Michigan University
Marquette, Michigan

Dr. William Lovis
Curator of Great Lakes Archaeology
Michigan State University Museum
East Lansing, Michigan

Michigan Archaeological Society
Upper Peninsula Chapter

COUNTY HISTORICAL SOCIETIES

Mrs. Leonard Harju, Secretary
Baraga County Historical Society
Route 1, Box 48
L'Anse, Michigan 49946

Mr. Harold Bernhardt, President
Iron County Historical and Museum Society
Route 3, Box 334A
Iron River, Michigan 49935

Mrs. Esther Brystrom, Executive Secretary
Marquette County Historical Society
J.M. Longyear Research Library
Marquette, Michigan 49855

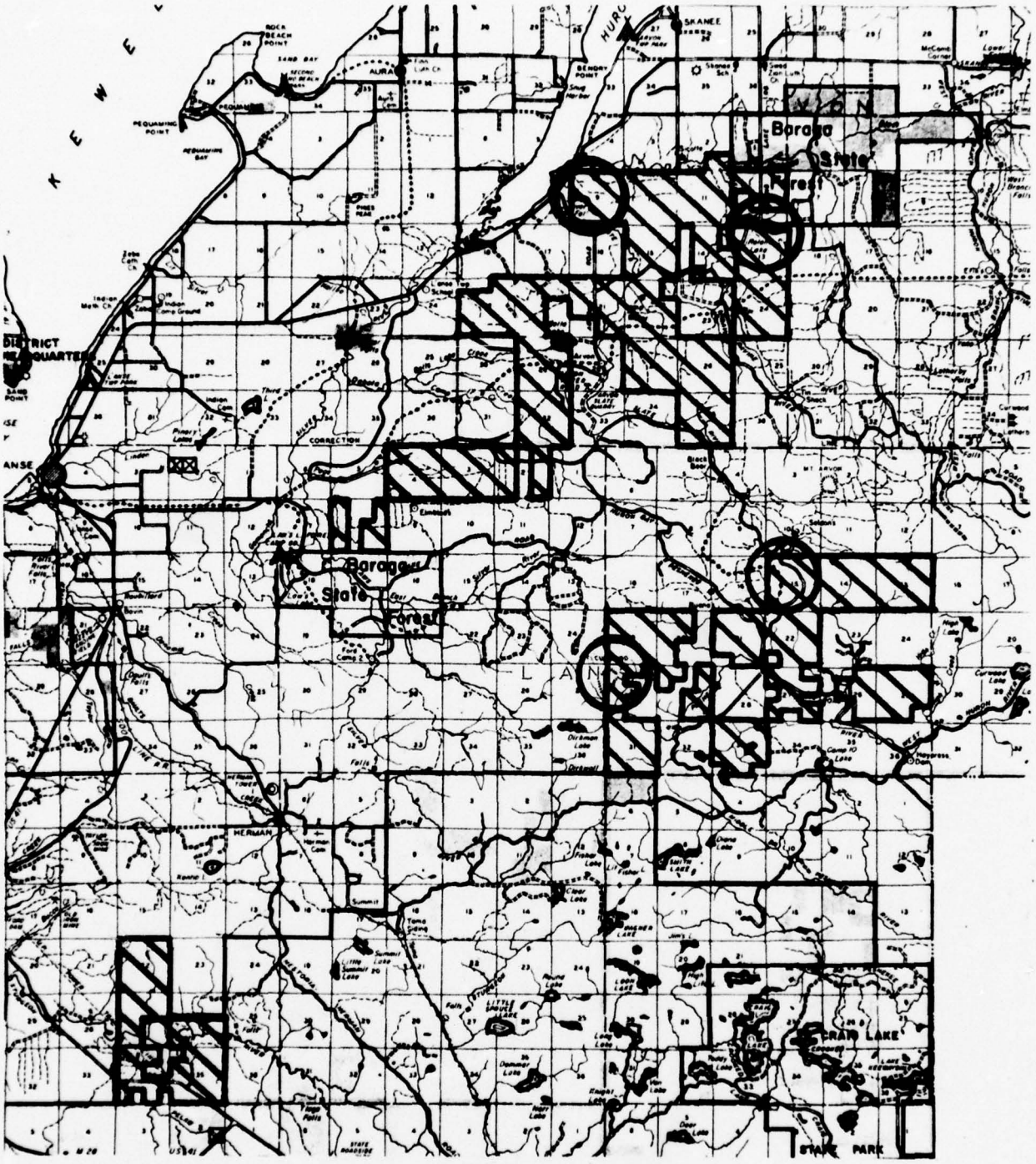
Mr. D.R. Mitchell, Director
Menominee Range Historical Foundation
P.O. Box 669
300 E. Ludington Street
Iron Mountain, Michigan 49801

Mr. Ray Pawlowski, Director
Menominee County Historical Society
Historical Building
301 Second Street
Menominee, Michigan 49858

APPENDIX E

1973 POTENTIAL STATE PARK STUDY IN BARAGA COUNTY

Source: Larry C. Miller, Michigan Department of Natural Resources



AREAS SUITABLE FOR STATE PARK STUDY

ALL WOOD PROPERTY STUDIED IN 1973 FOR STATE PARK POTENTIAL

1973 POTENTIAL STATE PARK STUDY IN BARAGA COUNTY

Source: Larry C. Miller, Advance Planning Michigan Dept. of Natural Resources

APPENDIX F

PROPOSED MASTER PLAN FOR
CRAIG LAKE STATE PARK

Source: Michigan Department of Natural Resources

A Proposed Master Plan
for
Craig Lake State Park
November 12, 1975

Location

Craig Lake State Park is located along the eastern boundary of Baraga County, situated in the western half of Michigan's Upper Peninsula. The park lies 35 miles west of Marquette. Its specific location and relationship to the adjacent state and national forest lands is illustrated on the attached map.

Background

In January 1966, after a lengthy period of field review by interested citizens and Department personnel, the Natural Resources Commission approved the purchase of 673 acres of land on Crooked Lake for state park purposes. Prior to this period of time, the Department's Forestry Division administered 2,120 acres in the area as a part of the state forest system. Subsequently these lands were administratively transferred to the Parks Division and incorporated into the dedicated boundary of this new Michigan state park. Present management plans parallel the "multiple use concept" which is basically the same type of management philosophy followed by the U. S. Forest Service and the Michigan Forestry Division.

Park Objectives

Philosophy relative to future management, development and consequent use of the park will stress the site's "primitive" qualities; its numerous lakes, free-flowing rivers and streams, marshes and woods. Special care will be taken to continue a high quality fisheries program within the park's seven major lakes. It is anticipated that the maximum design capacity at any one time for the park will be 500 people.

Park Size

The dedicated park boundary encompasses an area of approximately 10,720 acres in a rectangular configuration approximately 4 miles by 6 miles. At the present time, a little more than one-half or 5,709 acres are in public ownership. Past acquisition priorities have stressed purchase of available lands on Craig and Crooked Lakes. Locations of state owned lands are illustrated on the attached map.

Administration

Administered as a state park unit by the Parks Division of the Department of Natural Resources. Day to day park management and operational responsibilities are assigned to the staff at Van Riper State Park, located 8 miles east.

Present Use

As might be expected, a wide range of recreational uses are made of the park lands. These include fishing, hiking, snowmobiling, hunting, boating and canoeing. Development at the present is confined to several trail roads and the formerly privately owned lodge and support buildings on the west shore of Craig Lake. The lodge is being used as a temporary outdoor center, available for overnight organizational use on a reservation basis.

Fisheries and Wildlife

The park's seven major water bodies and eight miles of rivers and streams support numerous fisheries. Craig Lake contains the most diversified game-fish population of the seven lakes; namely, muskallonge, walleye, small mouth bass, yellow perch, and black crappie. Small and largemouth bass dominate Crooked Lake. Surveys of Clair Lake reveal predominately green sunfish and yellow perch. Teddy, Nelligan and Thomas Lakes are known also to contain northern pike and white sucker.

Populations of birds and animals likely to be found in the park are: loons, herons, mallards and black ducks, gulls, owls, night hawks, swifts, eagles, kingfishers, fleckers, sapsuckers, woodpeckers, kingbirds, hawks, grouse, woodcocks, sandpipers, flycatchers, swallows, jays, ravens, chickadees, nuthatches, wrens, robins, thrush, kinglets, waxwings, vireos, warblers, blackbirds, grackels, grosbeaks, juncos, shrews, mice, bats, black bear, raccoons, weasels, mink, otter, red fox, coyote, wolf, bobcat, woodchuck, chipmunk, squirrels, beaver, muskrat, porcupine, hare, and white tail deer.

Physiography

The park is marked by low finger like drainage corridors interspersed between high rugged terrain, giving the impression of hills and valleys

throughout the area. Also associated with the upland areas are numerous exhibits of rock outcrop.

Forest Cover

The park has witnessed a dramatic change in plant associations since the logging days when white pine dominated the region. Today, occupying the upland areas are white pine, northern hardwoods and some spruce and fir.

Other species such as swamp conifers, black spruce, lowland hardwoods, cedar, aspen and white birch occupy the lowlands. Low swampy areas of bog and muskeg occur along a good portion of the lake edges. Lowland brush, alder, dogwood and willow are found along many streams.

Hydrology

The park's lakes and streams are attributed with many natural features. Waterfalls, large rock outcroppings overlooking the lakes, and islands are common. These natural features provide an important basis for recreational opportunities.

Access and Proposed Park Entrance

There are presently two vehicular access routes to the park. One is a 2½ mile long service road beginning at U. S. 41 near Nestoria and extending to the northwest portion of the park. A second access point is one maintained by the DNR and the county road commission. It begins on U. S. 41 and extends along Nelligan Creek and on to Keewaydin Lake. This latter route has been selected to be the park's single long-range access point.

Interior Access

The forms of interior circulation will consist of limited vehicular, hiking trails, canoe or boat and snowmobiles. Vehicular access will penetrate as far as Keewaydin Lake. One access road will take off from the Keewaydin Lake Road to provide penetration into the south limits of Crooked Lake with a parking area some 500' back of the shoreline. Another road will progress a short distance west of the Keewaydin access route in the southern area of the park to an outpost camping area. Access to the park's more remote northern portions will be by foot or canoe.

Fishermen and others not wishing to carry in watercraft will find state owned crafts placed at strategic lake access sites.

Park Headquarters

Located near the park entrance will be the park headquarters. To be located in this area are such facilities as an office, shop and garage building, and perhaps a residence for a permanent full-time park manager. Visitor orientation facilities will also be provided.

Camping

Overnight camping with towed vehicles or tentage will be accommodated in the park's outpost camping area near the park entrance. Facilities here will be rustic or primitive in nature. No more than 20 individual camps will be accommodated during any one time. Sites will be widely dispersed to provide buffer between individual camping parties. Vault toilets and hand pump water sources will be provided.

Camping in the park interior will be similar to that offered in the Sylvania Recreation Area. Campers will be required to register at the park headquarters and will be assigned a campsite or several different campsites, depending upon their length of stay, to reduce congestion. The sites will be widely dispersed throughout the northern two-thirds of the park.

Shoreline camps will be accessible from watercraft with a maintenance access off the trail system. Each camp area will be small, capable of accommodating from one to five parties of two people per party. Such camps will be located a minimum of 150 feet from the water's edge.

Hiking trail camps will be similar in character. Potable water will be available at strategic locations throughout the park but not necessarily at each campsite location. Vault toilet locations will be similarly provided.

Day Use

Provisions for hunting, subject to normal season and bag limits, are planned to continue. It is also recommended that special fishing regulations continue to apply since the fisheries resources of the lakes are the primary reason many people visit the area. Motorized

watercraft will continue to be prohibited on the park's lakes. Allowance for snowmobiling and cross country skiing in appropriate zones is also planned.

Forest Management

Inasmuch as Craig Lake State Park will be managed as a "primitive" area as opposed to a "wilderness" area, management of timber resources will be programmed in certain portions of the park. Sites selected will be in consultation with the Forestry Division and limited to zones well back from the park's shorelands and travel influence zones.

The McCormack Tract

Located just east of the park is the Cyrus H. McCormack Experimental Forest, a large research area under the management of the United States Forest Service. The Parks Division will attempt to dovetail management and recreational programs of the two units. One possibility is a pedestrian trail corridor linking the two areas.

Land Acquisition

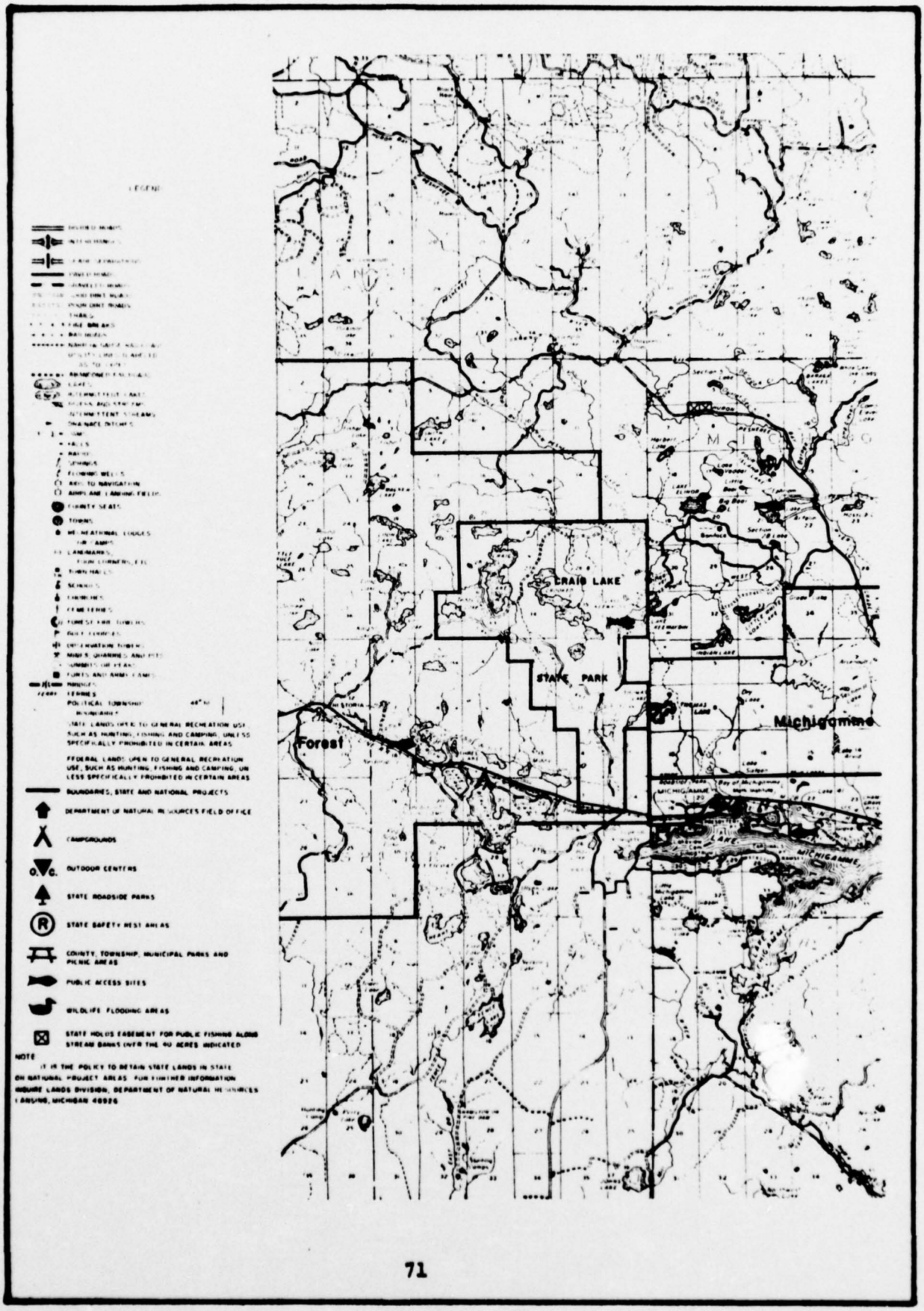
A sizable portion of the park remains in private ownership. Additional properties will be acquired as funds become available and willing sellers appear. Since most of the lake frontage is already acquired, second priority lands will be those that provide for interior park roads and trails as indicated on the plan.

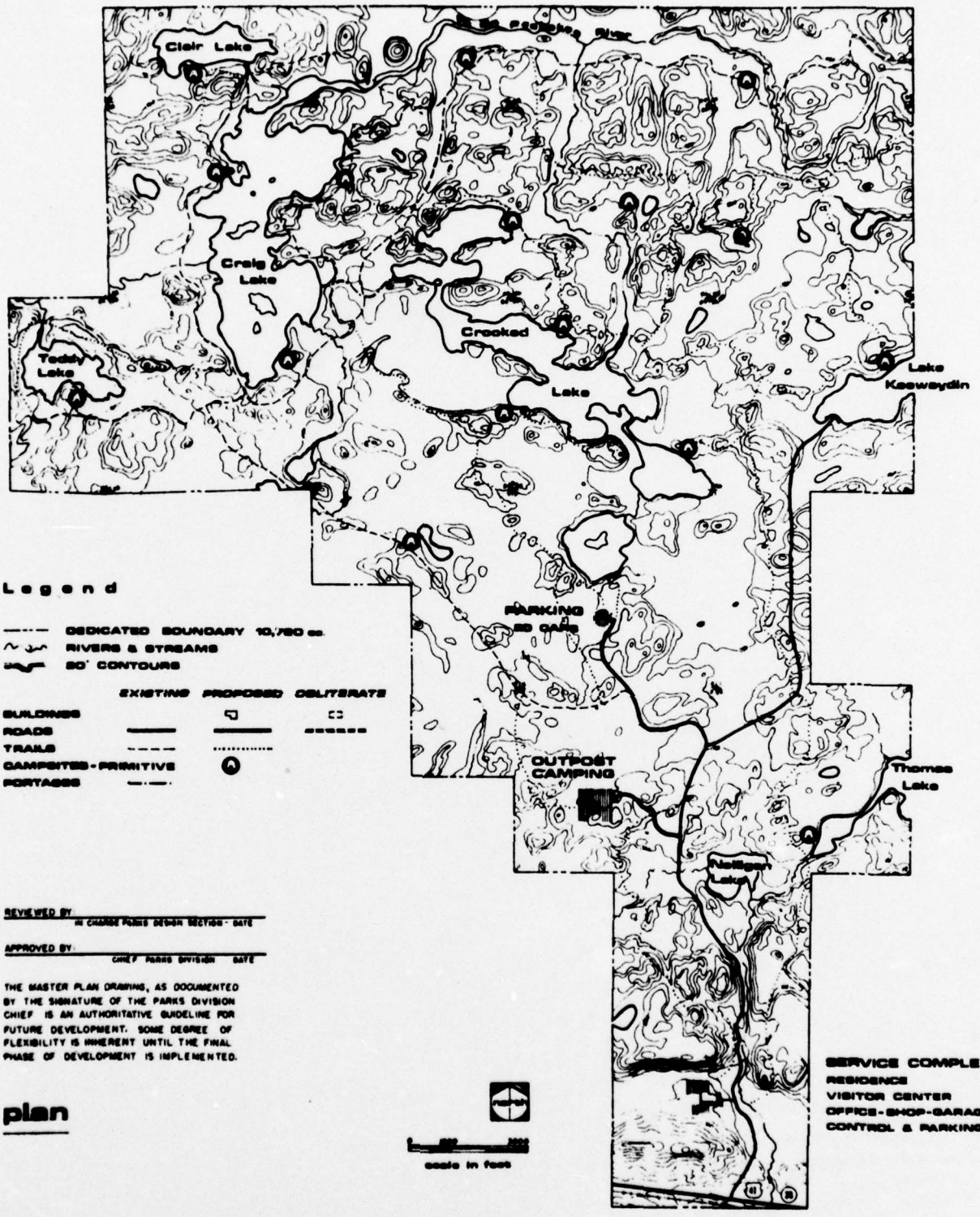
Development Priorities

High priority shall be given to establishing the trail road and parking to Crooked Lake and its small trail head parking. This along with additional land acquisition in the area north of the departure point will enable the park to provide single entrance control. Medium priority shall be the continued establishment of additional trails and the overnight camping sites in the park's northern portion. Lower priority will be given to the outpost camping area and headquarters area near U.S. 41.

Time Schedule

The completion of this project as outlined here will depend largely on the success of the land acquisition program. It is expected that this could take up to 10 years.


LEGEND
COUNTY SEATS
TOWNS
SCHOOLS
CHURCHES
CEMETERIES
STATE FOREST CAMPGROUNDS
PUBLIC CAMPGROUNDS
INFORMATION BOOTH
MINES, QUARRIES AND PITS
FORTS AND ARMY CAMPS
RANGES
FERRIES
STATE LANDS OPEN TO GENERAL RECREATION USE SUCH AS HUNTING, FISHING AND CAMPING UNLESS SPECIFICALLY PROHIBITED IN CERTAIN AREAS
FEDERAL LANDS OPEN TO GENERAL RECREATION USE, SUCH AS HUNTING, FISHING AND CAMPING, UN LESS SPECIFICALLY PROHIBITED IN CERTAIN AREAS
BOUNDARIES, STATE AND NATIONAL PROJECTS
DEPARTMENT OF NATURAL RESOURCES FIELD OFFICE
CAMPGROUNDS
O.V.C. OUTDOOR CENTERS
STATE ROADSIDE PARKS
STATE SAFETY REST AREAS
COUNTY, TOWNSHIP, MUNICIPAL PARKS AND PICNIC AREAS
PUBLIC ACCESS SITES
WILDLIFE FLOODING AREAS
STATE HOLDS EASEMENT FOR PUBLIC FISHING ALONG STREAM BANKS (WITH THE 40 ACRES INDICATED
NOTE
IT IS THE POLICY TO RETAIN STATE LANDS IN STATE
ON NATURAL PROJECT AREAS. FOR FURTHER INFORMATION
REQUIRE LANDS DIVISION, DEPARTMENT OF NATURAL RESOURCES
LANSING, MICHIGAN 48926
CRAIG LAKE
STATE PARK
Michigamme
Forest
LAKE
MICHIGAMME



REVIEWED BY _____
IN CHARGE PARKS DESIGN SECTION - DATE

APPROVED BY: _____
CHIEF PARKS DIVISION DATE

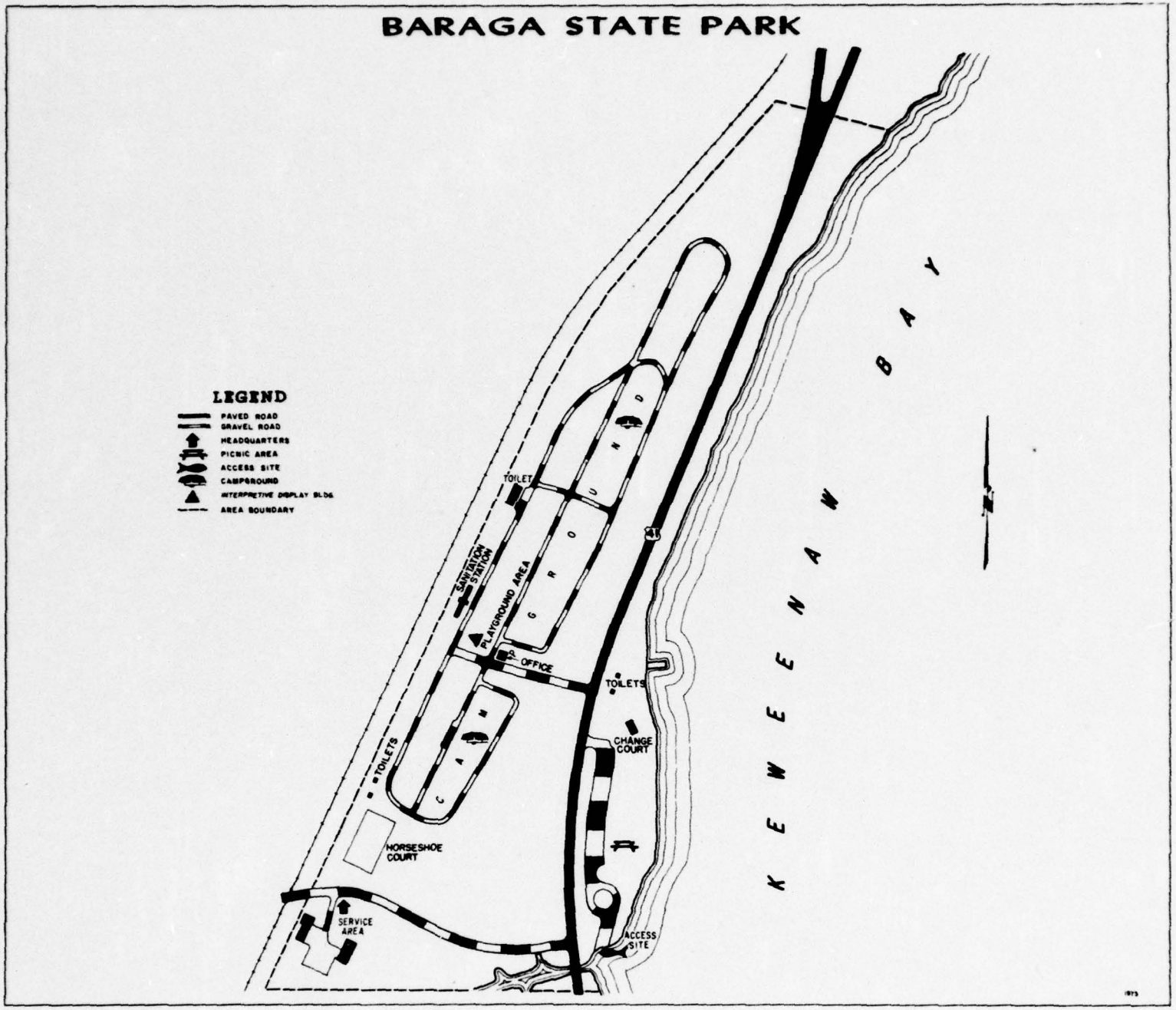
THE MASTER PLAN DRAWING, AS DOCUMENTED BY THE SIGNATURE OF THE PARKS DIVISION CHIEF IS AN AUTHORITATIVE GUIDELINE FOR FUTURE DEVELOPMENT. SOME DEGREE OF FLEXIBILITY IS INHERENT UNTIL THE FINAL PHASE OF DEVELOPMENT IS IMPLEMENTED.

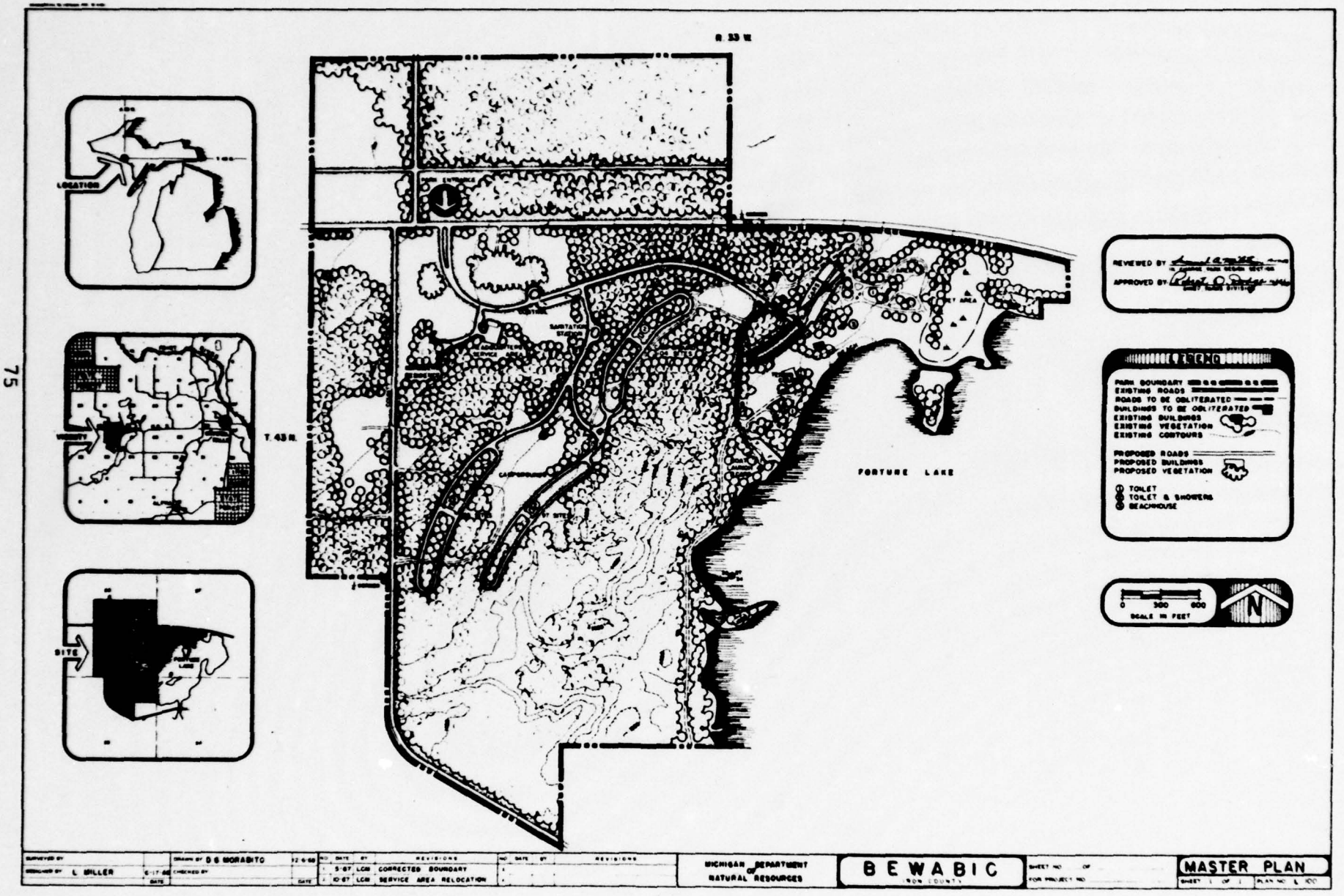
plan

APPENDIX G

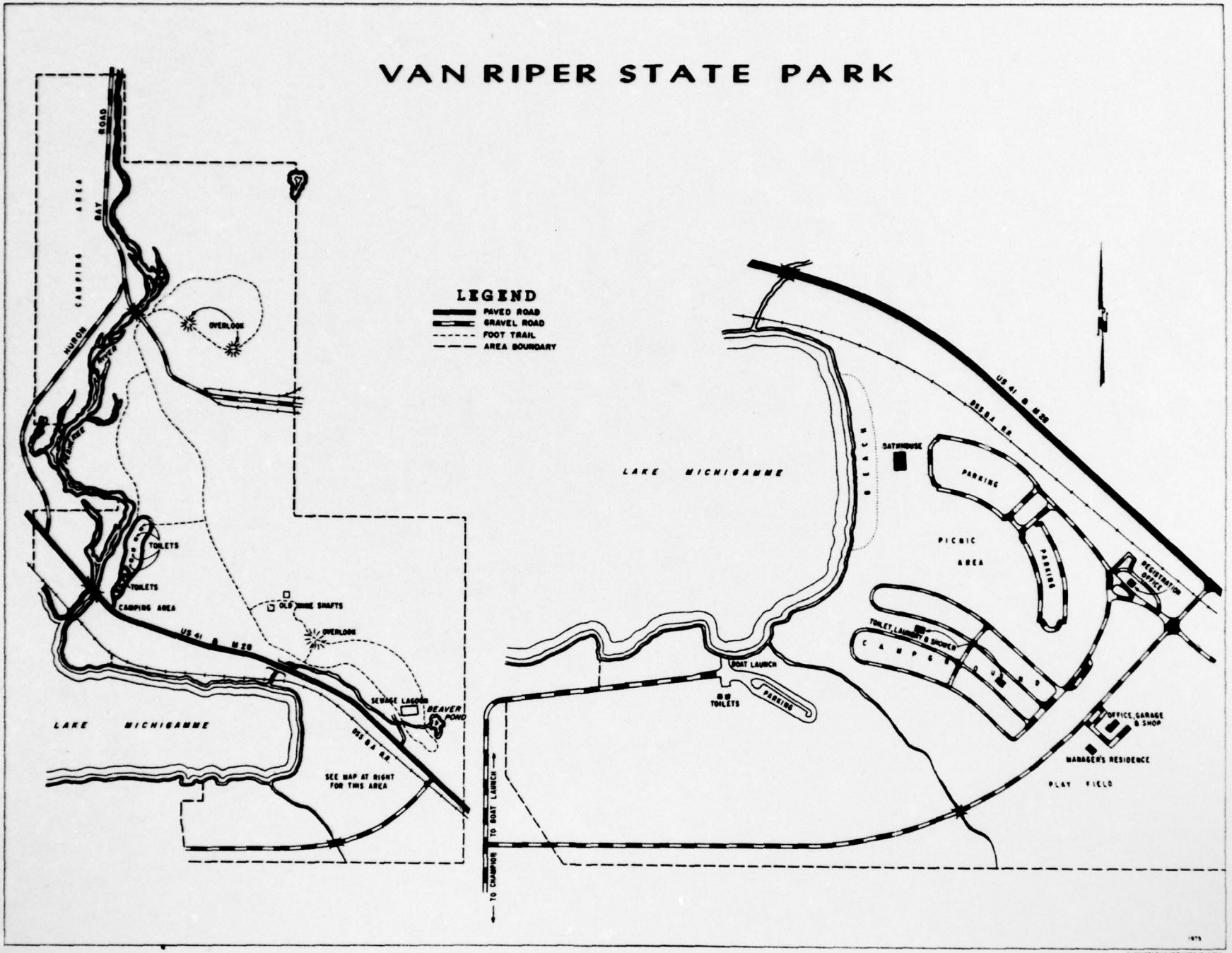
EXISTING DEVELOPMENT OF
ADMINISTERED STATE PARKS
WITHIN THE STUDY AREA

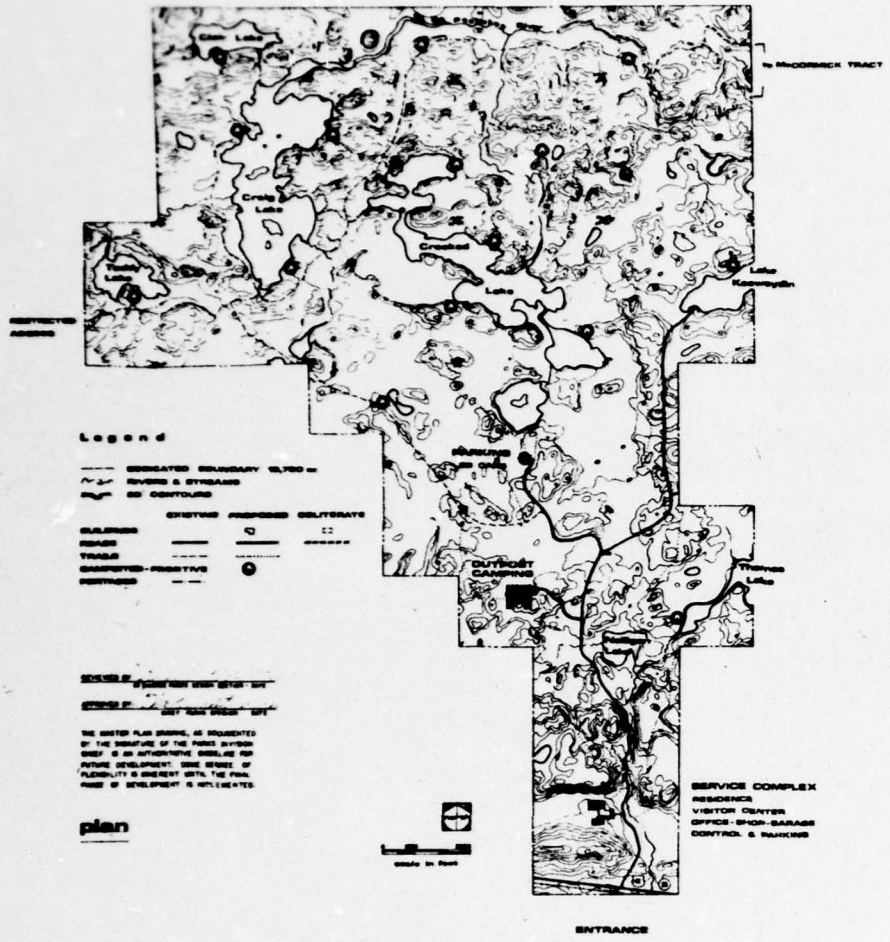
Source: Michigan Department of
Natural Resources

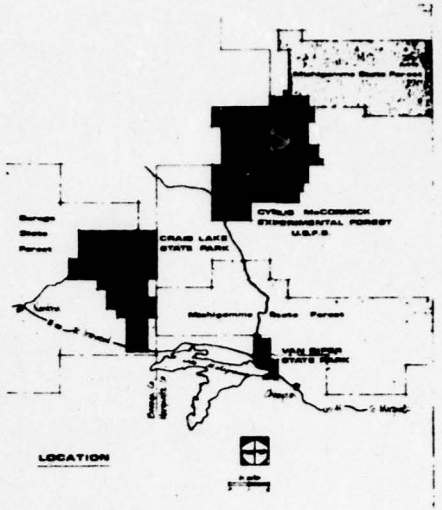

BARAGA STATE PARK
LEGEND
PAVED ROAD
GRAVEL ROAD
HEADQUARTERS
PICNIC AREA
ACCESS SITE
CAMPGROUND
INTERPRETIVE DISPLAY BLDG.
AREA BOUNDARY
TOILET
SANITATION STATION
PLAYGROUND AREA
GROUND
OFFICE
TOILETS
CHANGE COURT
CAMP
TOILETS
HORSESHOE COURT
SERVICE AREA
ACCESS SITE
KEWEENAW BAY

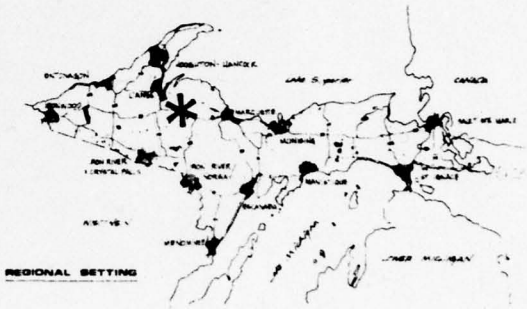

R. 33 W.
T. 43 N.
LOCATION
SITE
FORTUNE LAKE
REVIEWED BY
APPROVED BY
LEGEND
PARK BOUNDARY
EXISTING ROADS
ROADS TO BE OBLITERATED
BUILDINGS TO BE OBLITERATED
EXISTING BUILDINGS
EXISTING VEGETATION
EXISTING CONTOURS
PROPOSED ROADS
PROPOSED BUILDINGS
PROPOSED VEGETATION
TOILET
TOILET & SHOWERS
BEACHHOUSE
0 300 600
SCALE IN FEET
N
SURVEYED BY
DESIGNED BY L. MILLER
DRAWN BY D.S. MORABITO
CHECKED BY
5-67 LGR CORRECTED BOUNDARY
10-67 LGR SERVICE AREA RELOCATION
REVISIONS
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
BEWABIC
IRON COUNTY
SHEET NO. OF
FOR PROJECT NO.
MASTER PLAN
SHEET 1 OF 1
PLAN NO. L-100

VAN RIPER STATE PARK









SURVEYED BY U.S.F.S.	DRAWN BY	NO DATE BY REVISIONS	NO DATE BY REVISIONS	MICHIGAN DEPARTMENT OF CONSERVATION	CRAIG LAKE STATE PARK	Master Plan
DESIGNED BY	CHECKED BY				SHEET NO OF FOR PROJECT NO	SHEET OF

APPENDIX H

MICHIGAN RECREATION SURVEY

Source: Michigan Department of Natural Resources, Michigan Recreation Plan, 1974

4. RECREATION ACTIVITIES AND INFLUENCE OF SOCIO-ECONOMIC FACTORS ON RECREATION PARTICIPATION

Prior to presenting an overview of the relative importance of recreation activities as determined from surveys and how this participation varies by age and income, some general implications of factors affecting recreation opportunity are appropriate. Future recreation opportunity will be affected by a number of factors. Even if individual recreation activity preferences were to remain unchanged, absolute levels of participation would increase simply because of the growth in population. Areas growing most rapidly will obviously experience the largest growth in aggregate demand. Preference patterns should also change as a result of technological developments, better access to recreation resources, as well as from socio-economic changes. Of the socio-economic factors influencing participation patterns, income will exhibit the greatest influence in most activities for the state as a whole. Participation rates, as a result of rising income, will increase for the more expensive sports such as skiing, power boating and golf. Access advantages due to higher levels of automobile ownership will contribute to this higher rate despite a high probability of an overall increase in travel costs. Changes in the age structure will also have significant effects. Other factors such as discretionary time, population density, family size and home ownership will also affect recreation participation.

Table 11 identifies the relative ranking of selected recreation activities in terms of percent of population participating. The data was obtained through the Office of Planning Services statewide Michigan recreation survey. This survey resulted in 10,241 interviews selected randomly throughout the state during the summer of 1972. (See description of surveys in Chapter III)

The table also ranks the activities by total number of days for each during the year 1971-1972. The survey obtained data on annual activities, summer weekday activities and summer weekend activities. Procedural details for this survey are presented in Chapter III, preceding the supply and demand analysis. Some caution must be exercised in interpreting the data in Table 11. It is necessary to carefully consider the nature of the recreation category when interpreting the relative ranking. Particular attention must also be given to the percent of annual activity taking place during the summer months. Some under- or over-reporting of activities not occurring within the survey period of July and August may have occurred due to possible recall difficulties of respondents. For the most part, however, the annual data and summer data is a representative picture of the relative dimensions of these activities.

The five most popular activities in terms of numbers of participants were: picnicking, swimming in lakes, fishing, swimming in pools, power boating (including water skiing)*. Camping, nature study and bicycling were also among the more popular. Indoor and outdoor competitive sports ranked higher, but this may be due to the nature of the category in that it is less specific and could include more possibilities. It is also surprising that snowmobiling ranked higher than other boating, and canoeing ranked the same as hunting. This is difficult to reconcile. Perhaps it is due to better recall of snowmobiling trips. The fact that a high proportion of respondents were female may have biased the reporting to some extent. The other activities surveyed rank comparatively low. However, the per capita participation rates indicate they are very important in terms of the level of participation.

The percent of annual activity days occurring during July and August represents an interesting distribution which is difficult to interpret with confidence due to changes in recreation patterns. On the whole, the data appears representative considering some of the factors bringing about change in activity patterns. Some activities are, however, lower than might be expected for this period. Camping and canoeing, for example, are not as high as would normally be expected.

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*Re boating data, see footnote, page 63.

TABLE 11

SOME DIMENSIONS OF RECREATION IN MICHIGAN - SELECTED ACTIVITIES

ACTIVITES	ESTIMATED ANNUAL PARTICIPATION: Percent of Respondents participating	No. of Persons 1000's	Rank	No. of Activity Days 1000's	Rank	PERCENT OF ANNUAL ACTIVITY TAKING PLACE DURING: During July and August	Saturdays and Sundays of July and August
Picnicking	54	4,820	1	44,014	5	36.15	1.02
Swimming in Lakes	48	4,228	2	89,438	1	43.66	.82
Fishing	31	2,755	3	47,241	4	32.29	.82
Swimming in Pools	24	2,163	4	21,968	12	42.83	.69
Power Boating (1)	24	2,105	5	34,577	8	39.07	1.00
Outdoor Sports (2)	22	1,971	6	56,504	2	29.58	.54
Camping	22	1,937	7	25,545	11	47.43	.77
Indoor Competion	19	1,674	8	43,953	6	8.77	.27
Nature Observation (3)	16	1,438	9	26,722	10	25.43	.54
Bicycle Touring (4)	16	1,410	10	55,874	3	35.10	.44
Snowmobiling	15	1,330	11	29,899	9	0.0	0.00
Other Boating (5)	12	1,144	12	15,369	14	40.39	.78
Canoeing	12	1,037	13	5,891	18	37.14	.93
Motorcycling, etc.(6)	10	875	14	34,831	7	30.56	.45
Hunting	10	872	15	10,913	16	0.0	0.00
Hiking 2 or more hrs.	10	852	16	10,342	17	31.95	.84
Horseback Riding	9	777	17	12,150	15	25.58	.58
Indoor Community Center (7)	8	679	18	17,942	13	19.08	.28
Organized Playground (8) *	3	224	19	5,192	19	50.23	1.04
Youth Camp (9)*	2	160	20	1,745	21	57.08	1.20
Senior Citizen Center **	2	151	21	1,979	20	14.76	1.97
Children's Day Camp (10) *	1	93	22	1,182	22	63.28	2.37

Data is from the Michigan Recreation Survey, 1972.
Respondents were asked about activities for the year, for the July and August period, and for Saturdays and Sundays during July and August.
Activities were stated as above, except that where abbreviated above they were stated as follows:

(1) Power Boating, including water skiing. See footnote page 63
(2) Outdoor competitive sports, like golf, baseball and tennis
(3) Looking at or photographing plants, animals or birds
(4) Bicycle touring one or more hours
(5) See footnote, page 63
(6) Motorcycling or riding trail vehicles
(7) Indoor community recreation centers
(8) Organized playground programs for children*
(9) Youth camp (including nights) *
(10) Attend children's day camp *
* Asked only when household had children under 18
** Asked only when household had adults over 65

Fishing is also lower than would be expected, but this is most likely caused by increased spring and winter fishing, and fall salmon fishing. Although the percent of activity occurring in July and August for the seasonally sensitive activities provides some surprises, the data serves to highlight the need for monitoring activity frequency and preference patterns.

Figure 4 presents statewide comparisons between participating families and 1970 census families of selected income groups; and participating population and census population of selected age categories for sixteen recreation activities. These charts and related interpretation involve recreation participation as it varies according to the socio-economic indices of age and income. The data is directly related to the recreation activities presented above and is a product of the statewide survey. In obtaining an overall perspective of recreation, it is important to examine the influence of these two variables and obtain some understanding of how age and income are key factors in both choice and the level of recreation participation.

Attempting to devise norms for recreation opportunity relative to these two factors is an extremely complex subject. For example, to conclude that an income group at one level should have the same participation as an income group of another level would be highly questionable. Without question, however, these two factors are important in the process of attempting to resolve inequities in the recreation system.

Generally, it is evident that there is considerably less participation by the lower income groups (income not exceeding $10,000) in relation to their proportion of the census families and slightly more participation by the middle and upper income groups ($10-$15,000 through $25,000 and over). The greatest difference between the participating families and the census families occurs, however, in the less-than-$3,000 group. For most activities, families in this group participate at slightly less than half of their proportion of the census families. The lower income families are probably restrained because of income limitations from participating at levels commensurate with their proportion of the census families, or they may have low interest in recreation springing from the same factors causing their low income, such as old age. The middle income families appear to have the best combination of time, money, and interest, as they participate in most of the activities at levels slightly higher than their proportion of the census families. It is of some interest to note that the highest income group shows a decline in participation compared to the middle income groups. This may arise from their having recreation interests in other areas than the sixteen activities covered.

The age group comparisons, for the most part, show that the younger age groups participate at higher levels than their proportion to census population; and the older age groups participate at lower levels than their proportions of the census population. The greatest difference between the participating population and census population generally occurs in the over 45 age groups.

A closer examination of the various levels that occur among the activities shows that picnicking is the activity that most closely fits the census distribution in all increments. Organized playgrounds shows the greatest variation with a significant over-representation by the $10,000-$15,000 income group and under-representation by the lower income groups in relation to their respective proportions of the census families.

The distribution of participating families in relationship to census families is typified in the activity of canoeing. The distribution for this activity is similar to that for all other activities. The greatest difference from the census families distribution occurs among the lower income groups where only from 3 to 5 percent of the participating families occurs compared to a seven to eight percent representation in the census.

There is greater variability in the age group distribution, attributable mainly to the wide variety of activities and their varying attraction to the different age groups. The distribution of the participating population for the activities of picnicking and hiking most closely fit the distribution of the census population, with a slight over-representation by the younger age groups. This is to be expected due to the attraction of these activities throughout most all age groups. If there is some surprise in this, it probably is in the distribution for hiking, which may give evidence that hiking is gaining in popularity among the older age groups.

The greatest variation from the census population distribution occurs in the activities of motorcycling and horseback riding. There is a significant over-representation in the younger age groups, while the older groups are considerably under-represented. This comes as no surprise considering the nature of these two activities. Organized playgrounds activity was not intended to be reported for those over 18.

In examining the participation distribution across activities, several things can be noted. There is very little variation from activity to activity in the distribution of participating families by household income groups. Participation in canoeing and all boating is somewhat lopsided in relation to the distribution of census families, with more participation occurring by the higher income groups. This might be anticipated for these activities. Picnicking, swimming and hiking are quite balanced across the range of income groups. It appears reasonable to suggest that the activities requiring relatively large investments in travel and time and/or equipment are over-represented by the middle and upper income groups, while activities that can be participated in close to home and/or have little or no special equipment requirements more closely approximate the census distribution of income groups. A good example of the former is the distribution of participation in horseback riding. Levels of participation do not exceed the census distribution except in the upper income levels. It is most interesting that for no activity, except picnicking, does the proportion of participation in the lower two income groups exceed the census distribution.

The most variation across activities occurs in the age group distribution. Motorcycling and horseback riding are clearly youth oriented activities with the level of participation by the 14-24 age group being about twice what this age group represents in the census distribution. Indoor sports, other indoor recreation and of course playgrounds are other activities with high proportions of young age groups participating at or above the census population. However, for the activities of picnicking, boating, swimming and especially hiking there is a close fit between the participating population and the census population for all age groups.

The activity of hunting shows that the age group of 25-44 makes up close to 40 percent of the participating population as compared to about 23 percent of the census population. Participation rate drops off somewhat after age 45, and sharply after age 64. Even so, hunting generally holds up for the older age groups better than for any other activity, indicating it has almost life-long appeal.

APPENDIX I

RECREATION TRAILS

Source: Michigan Recreation Plan, 1974

RECREATION TRAILS

Trails were a way of life when people were dependent on their own power and horses for travel. With the advent of motor transportation, trails become recreation-ways, i.e., a path or way on which a leisure-time outdoor activity can be pursued. Such activity serves as a diversion from work or regular activities, provides some measure of physical fitness, appreciation of nature, a sense of adventure, and refreshment of the spirit and mind. Socializing may also be part of this recreational enjoyment.

The state may be returning to transportational uses of trails. In the face of the "energy crunch", we may be forced to return to a simpler, harder life through necessity. Motor Vehicle Funds are now available at state and local levels for the building of "facilities for non-motorized transportation" (Sec. 10k, Act 327, P.A. 1972) under the administration of the Department of Highways and Transportation). Such "transportation trails" certainly warrant a high priority because of the energy situation and because they serve to reduce air pollution and traffic congestion. However, to what extent transportation trails or bikeways will ever serve to provide significant "home-to-work" use, as in parts of Europe, is an open question at the present time.

In addition to trails with the primary function of transportation, there are trails that serve recreational purposes. Most of the present trails fall in this category. There are numerous needs and forces at work that portend a great national and state recreation trail-building effort--both motor and non-motor trails.

Trails as covered in this Plan are primarily recreation trails, although trails that significantly serve both recreation and transportation purposes are considered a part of the overall recreation system and hence are also covered. A detailed trail study and plan for Michigan will appear as a supplement to the Recreation Plan.

The growth of trails has been slow over the years. Only in very recent years has trail use caught the public interest in Michigan. The priority for this type of recreational activity has not only been low with respect to other societal needs, but also with respect to other outdoor recreational activities. The recent vastly increased interest and demand for trails may stem from interest in physical fitness, the new movements toward environmental awareness and desire to experience the natural environment. The advent and promotion of such new trail sports as snowmobiling, cross-country skiing and trailbiking are highly significant. A trails spokesman at the 1973 National Trails Symposium in Colorado Springs estimated that 25 percent of the people in this nation need trails "to do their recreation thing".

Trails provide recreation at relatively low cost to the user. Present trails most often utilize existing public lands and roads. Extension of the system will entail purchase of land or rights-of-way across private land. Often agreements can be negotiated with private landowners for a trails easement or lease, resulting in no or minimal acquisition costs. Abandoned railroad rights-of-way offer special opportunities.

Trail Classification

Various kinds of trails satisfy various needs or purposes. Trails can be classified on the basis of the sport they serve, (hiking, skiing, snowmobiling), their geographic location (metropolitan, local, interstate), their history (Indian, historical routes). Classification by type of sport or activity is the basic approach. Recreation trails have been broken into two major categories: (1) pathways (non-motorized trails) and (2) ORV (off-road vehicles) or motor trails. This breakdown is based on marked differences in the trail activities themselves and on the common, but not all-prevailing incompatibility between these two major use types. The trail sport classification follows:

Pathways (non-motorized trails)

-Bicycle Path, Lane or Route
-Equestrian or Horseback Riding Trails
-Hiking Path
-Backpacking Trails
-Cross-Country Skiing Trail or Area
-Canoeing Trail

ORV (Off-road Recreational Vehicle) Trails

-Trailbike Trail or Area
-Snowmobile Trail or Area
-All-terrain Vehicle (ATV) Trail or Area
-4-Wheel Drive Trail or Area
-Dune Buggy Trail or Area

The proposed federal North Country Trail should also be mentioned here. This is one of 14 trails designated by Congress in the National Trails System Act (P.L. 90-543) for study to determine feasibility and desirability for inclusion in the National Trails system as a National Scenic Trail. The proposed trail extends from the Appalachian Trail in Vermont through the states of New York, Pennsylvania, Ohio, Michigan, Wisconsin and Minnesota to the Lewis and Clark Trail in North Dakota for a total distance of more than 3,000 miles. It traverses the length of both peninsulas in Michigan for a total of 788 miles. Planning, to date has primarily been a responsibility of the U.S. Bureau of Outdoor Recreation. Because of its length and expected huge cost, this trail may be a long time in coming. However, popular segments of it may well be built at an earlier date, particularly those traversing federal and state lands.



LEGEND

TYPES OF TRAILS

H	Hiking
Hp	Backpacking
B	Bicycle
E	Equestrian
K	Cross Country Skiing
S	Snowmobile
M	Motorcycle
ATV	All-Terrain Vehicle
SV	Special Vehicle

STATE OF DEVELOPMENT

——— Existing

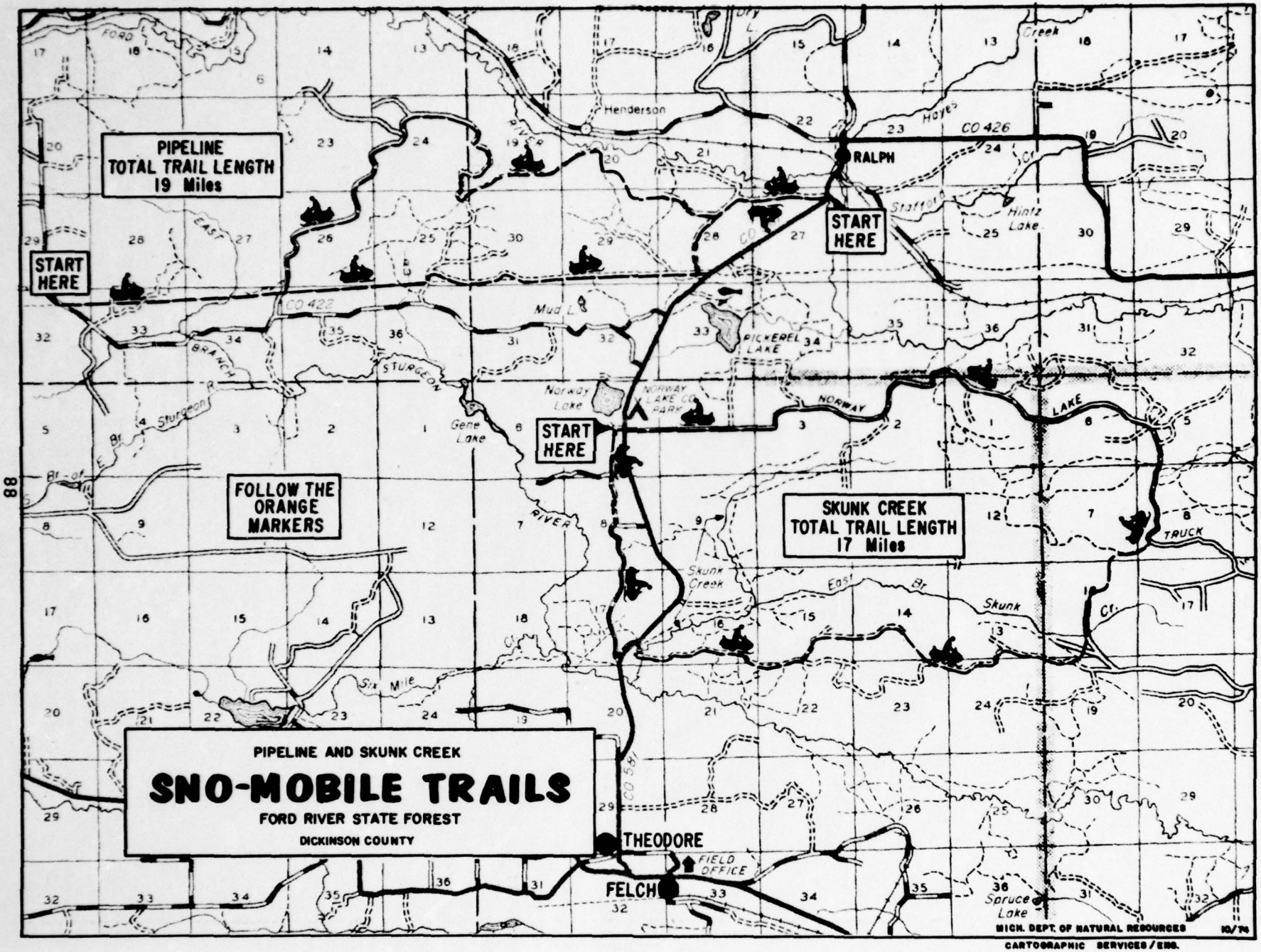
• • • • Planned

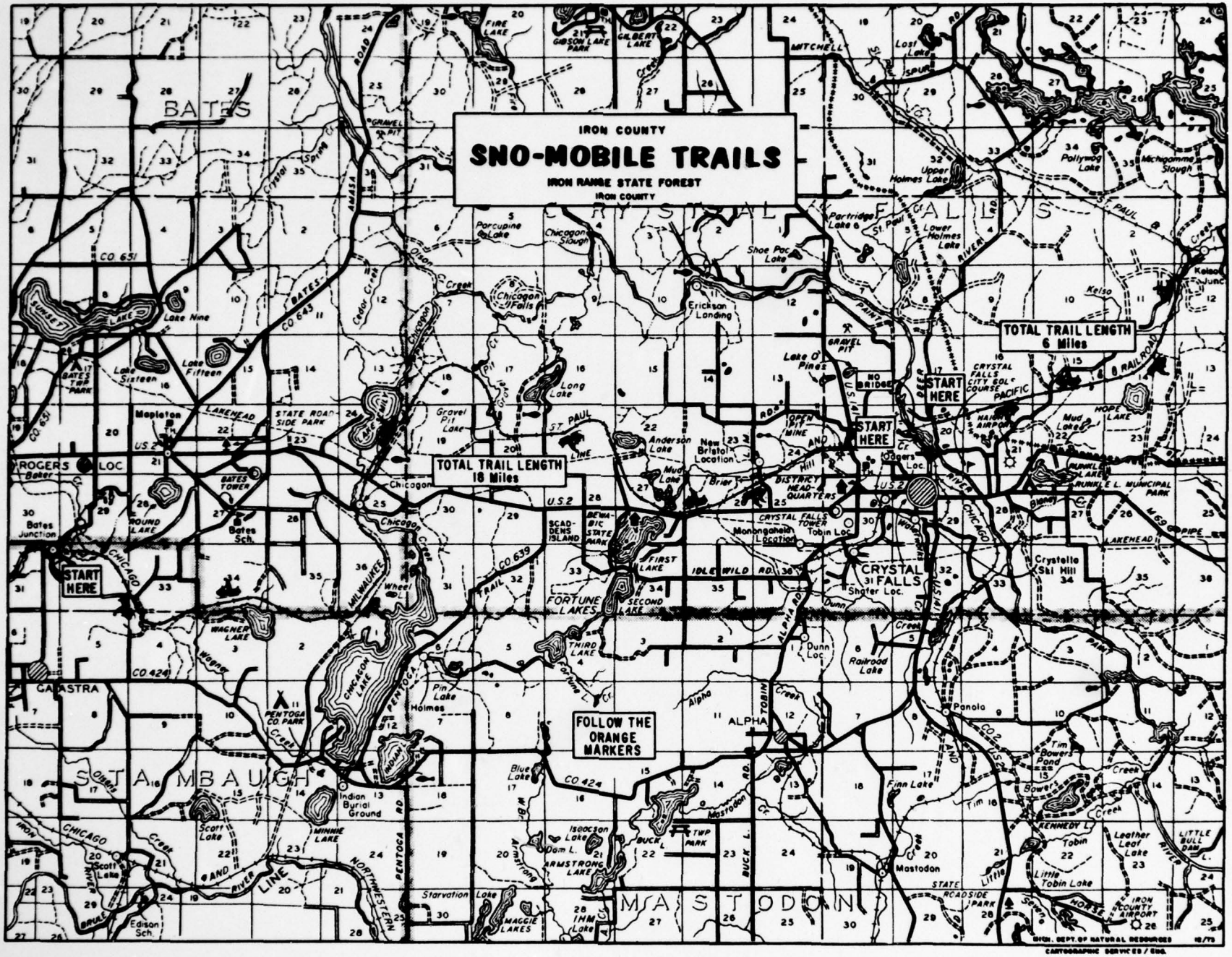
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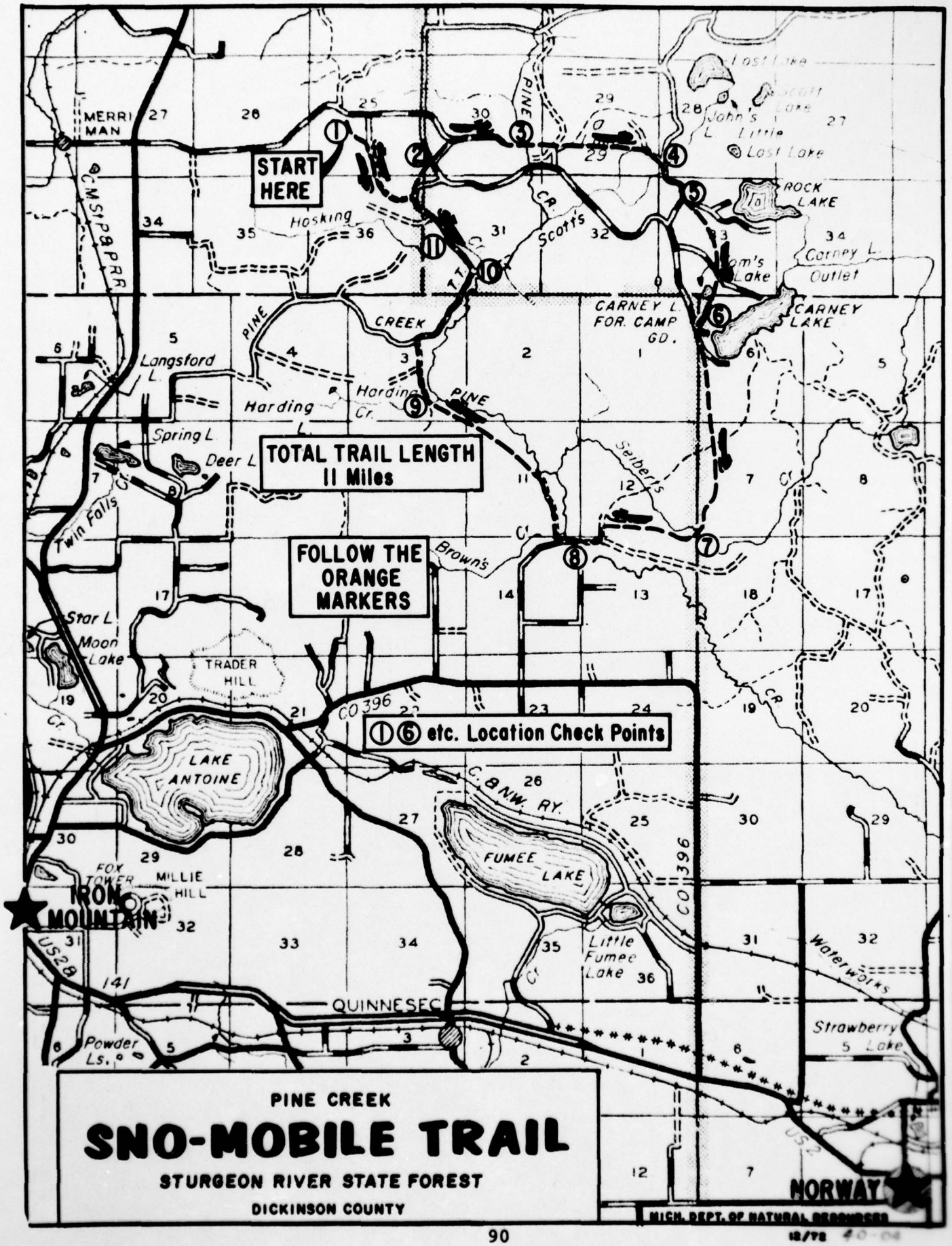
APPENDIX J

SNOWMOBILE TRAILS
WITHIN THE STUDY AREA

Source: Michigan Department of
Natural Resources


PIPELINE
TOTAL TRAIL LENGTH
19 Miles
START HERE
START HERE
START HERE
FOLLOW THE ORANGE MARKERS
SKUNK CREEK
TOTAL TRAIL LENGTH
17 Miles
PIPELINE AND SKUNK CREEK
SNO-MOBILE TRAILS
FORD RIVER STATE FOREST
DICKINSON COUNTY
RALPH
THEODORE
FIELD OFFICE
FELCH
Henderson
CO 426
CO 422
CO 581
Mud L.
Norway Lake
Gene Lake
PICKEREL LAKE
Hintz Lake
Spruce Lake
Skunk Creek
East Br. Skunk
Six Mile
Sturgeon R.
Br. of Sturgeon R.
NORWAY
LAKE
TRUCK
Ct.
MICH. DEPT. OF NATURAL RESOURCES
CARTOGRAPHIC SERVICES / ERD.
10/74


IRON COUNTY
SNO-MOBILE TRAILS
IRON RANGE STATE FOREST
IRON COUNTY
TOTAL TRAIL LENGTH
18 Miles
TOTAL TRAIL LENGTH
6 Miles
START HERE
START HERE
START HERE
FOLLOW THE ORANGE MARKERS
BATES
CRYSTAL FALLS
STAMBAUGH
MASTODON
ROGERS
LOC
GALESTRA
ALPHA
CRYSTAL FALLS
Mapleton
Bates Junction
Bates Sch.
Edison Sch.
Indian Burial Ground
Erickson Landing
Lake O' Pines
Shafer Loc.
Dunn Loc
Tobin Loc
Monongahela Location
New Bristol Location
Brier
Rogers Loc.
Mastodon
Crystelle Ski Hill
Tobin
Little Tobin Lake
Bates Tower
Bates Trip Park
Lake Nine
Lake Sixteen
Lake Fifteen
Sunset Lake
Round Lake
Wagner Lake
Chicagon Lake
Pentoga Co. Park
Scott Lake
Minnie Lake
Maggie Lakes
Starvation Lake
Armstrong Lake
Isaacson Lake
Blue Lake
Pin Lake
Holmes
Fortune Lakes
First Lake
Second Lake
Third Lake
Anderson Lake
Mud Lake
Long Lake
Gravel Pit Lake
Lake Antoine
Railroad Lake
Finn Lake
Tim Bowers Pond
Kennedy L.
Leather Leaf Lake
Mud Lake
Runkle L.
Hope Lake
Upper Holmes Lake
Lower Holmes Lake
Shoe Pac Lake
Partridge Lake
Lost Lake
Pollywog Lake
Michigamme Slough
Porcupine Lake
Gibson Lake
Gilbert Lake
Fire Lake
Chicagon Falls
Chicagon Slough
Cedar Creek
Spring Creek
Alpha Creek
Fortune L. Ck.
Buck L. Ck.
Mastodon Ck.
Wagner Creek
Wheel Creek
Tobin Creek
Paint River
Little Bull Dam L.
Scadden Island
Idle Wild Rd
Alpha Rd
Buck L. Rd
Pentoga Rd
Armstrong Rd
Mitchell Rd
Deer Park Rd
Gravel Pit
No Bridge
Open Pit Mine and Dist. Hdqtrs.
Crystal Falls Tower
Crystal Falls City Golf Course
Crystal Falls Municipal Park
Iron County Airport
Bates Tower
State Road Side Park
State Roadside Park
Pentoga Co. Park
Twp Park
Chicago Line Trail
Milwaukee Road
Northwestern
Soo Line
Chicago, Milwaukee, St. Paul & Pacific R.R.
Chicago, Milwaukee, St. Paul & Pacific
Lakehead
Chicago Line
Iron River
Paint River
Little Bull Dam River
Mich. Dept. of Natural Resources
Cartographic Services / Eng.


START HERE
TOTAL TRAIL LENGTH
11 Miles
FOLLOW THE ORANGE MARKERS
① ⑥ etc. Location Check Points
PINE CREEK
SNO-MOBILE TRAIL
STURGEON RIVER STATE FOREST
DICKINSON COUNTY
IRON MOUNTAIN
QUINNESEC
MERRIMAN
Hosking Cr.
Harding Cr.
Langsford L.
Spring L.
Deer L.
Twin Falls Cr.
Star L.
Moon Lake
TRADER HILL
LAKE ANTOINE
FUMEE LAKE
Little Fumee Lake
MILLIE HILL
FOX TOWER
Powder Ls.
Scott's Cr.
Brown's Cr.
Selbert's Cr.
Lost Lake
John's Little L.
ROCK LAKE
Carney L. Outlet
CARNEY L. FOR. CAMP GD.
CARNEY LAKE
Strawberry Lake
Water Works
C.&N.W. RY.
CMSt.P&PRR
PINE CREEK
CO 396
US 2
US 2 8
141
MORWAY
MICH. DEPT. OF NATURAL RESOURCES
12/78 40-04

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SEAFARER SITE SURVEY, UPPER MICHIGAN REGION. BOOK 17. CULTURAL --ETC(U)
APR 76 N00039-75-C-0300

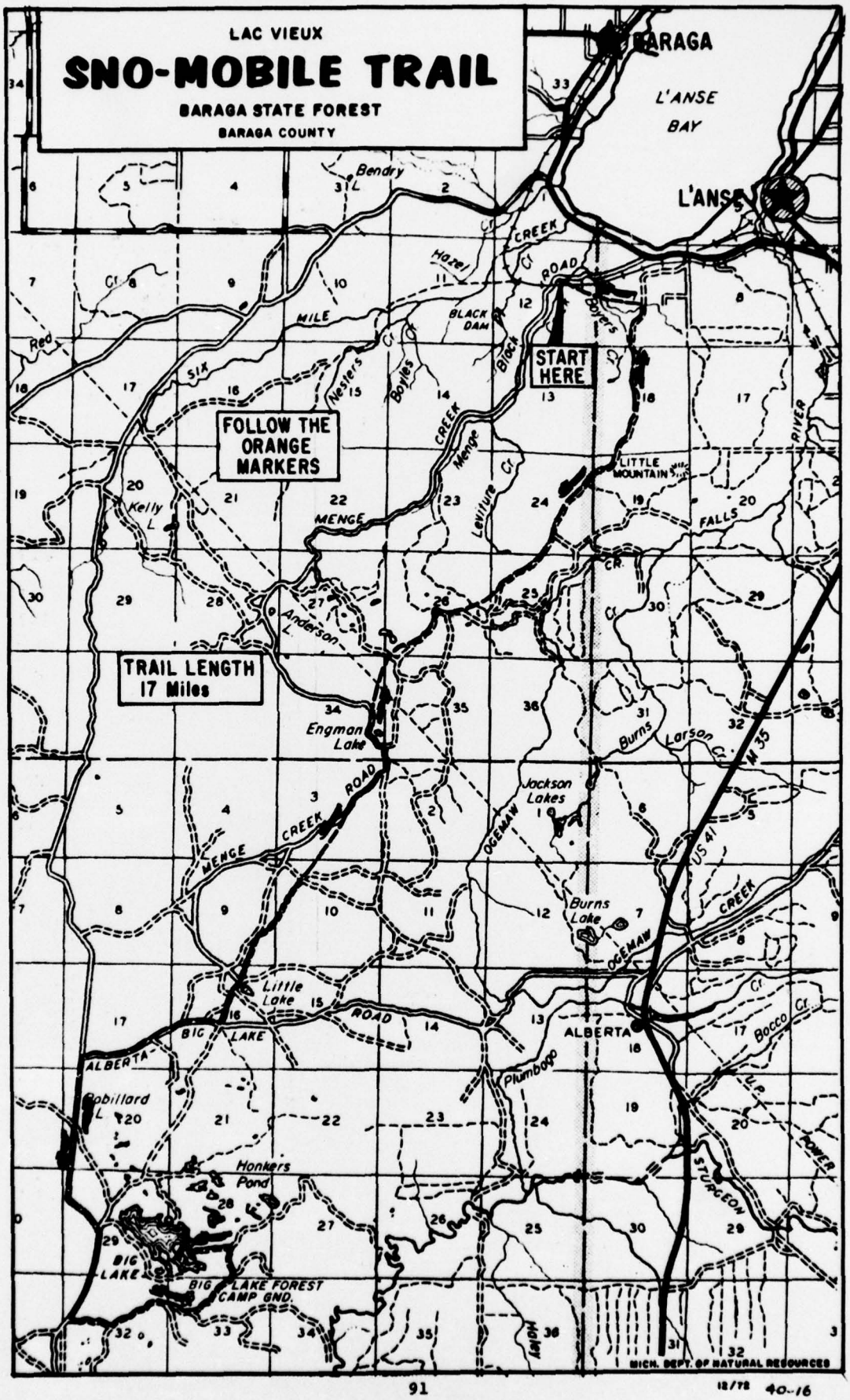
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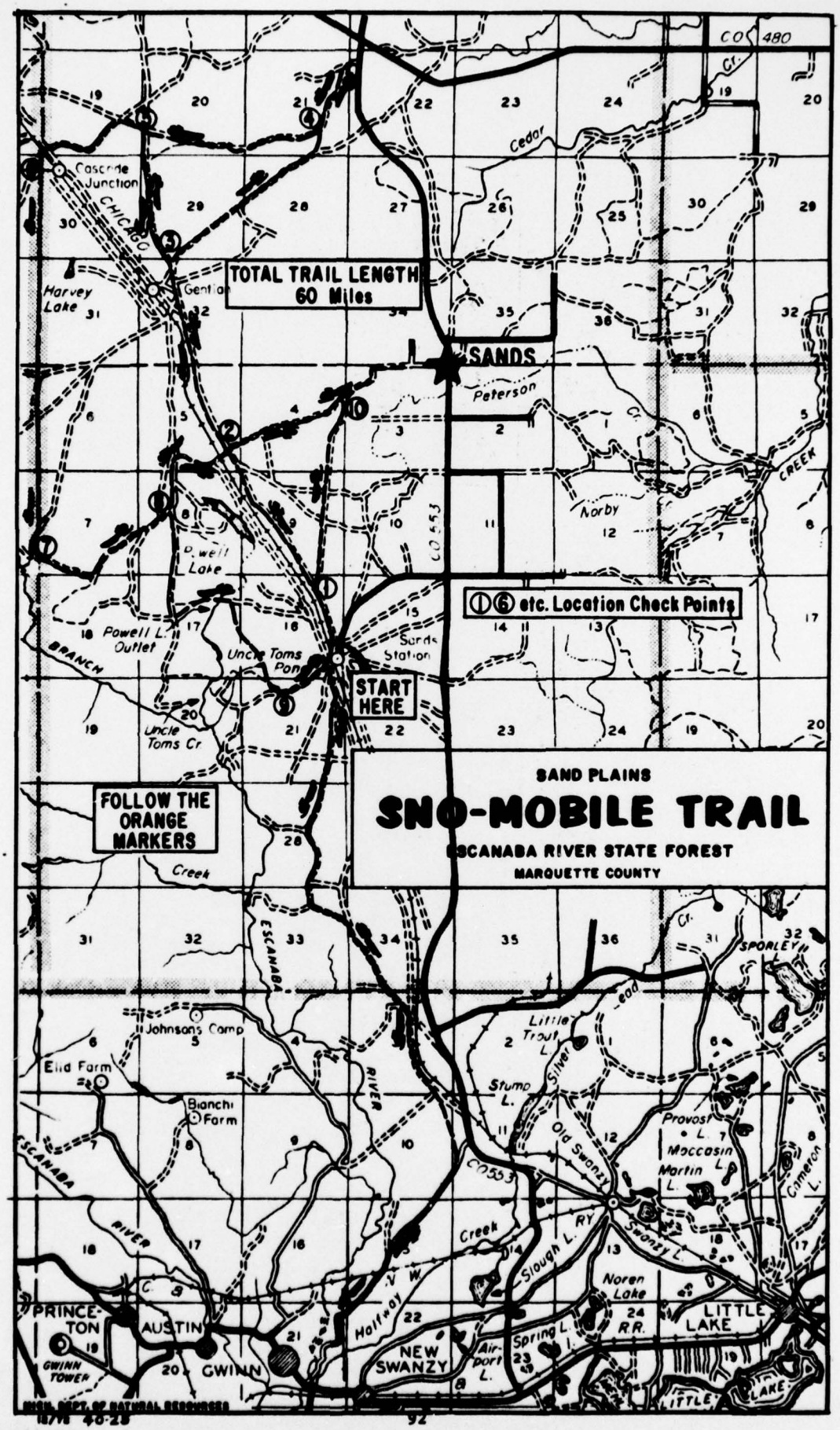


END

DATE
FILMED
3-77


LAC VIEUX
SNO-MOBILE TRAIL
BARAGA STATE FOREST
BARAGA COUNTY
BARAGA
L'ANSE BAY
L'ANSE
START HERE
FOLLOW THE ORANGE MARKERS
TRAIL LENGTH 17 Miles
Bendry L.
Hazel Cr.
CREEK ROAD
BLACK DAM
Boyers
Black
MILE
SIX
Red
Nesters Cr.
Boyles Cr.
CREEK
Menge
Levitture Cr.
LITTLE MOUNTAIN
FALLS
RIVER
Kelly L.
MENGE
Anderson L.
Engman Lake
Burns
Larson Cr.
M 35
Jackson Lakes
Ogemaw
US 41
CREEK
Burns Lake
Little Lake
ROAD
BIG LAKE
ALBERTA
Bocco Cr.
Plumbago
Gobillard L.
Honkers Pond
STURGEON
BIG LAKE FOREST CAMP GND.
MICH. DEPT. OF NATURAL RESOURCES

12/78 40-16


TOTAL TRAIL LENGTH
60 Miles
SANDS
① ⑥ etc. Location Check Points
START HERE
FOLLOW THE ORANGE MARKERS
SAND PLAINS
SNO-MOBILE TRAIL
ESCANABA RIVER STATE FOREST
MARQUETTE COUNTY
CO 480
Cascade Junction
CHICAGO
Harvey Lake
Gentian
Cedar
Peterson
Creek
Norby
Powell Lake
Powell L. Outlet
BRANCH
Uncle Toms Pond
Sands Station
Uncle Toms Cr
CO 553
Johnsons Camp
Ella Farm
Bianchi Farm
ESCANABA RIVER
Creek
Little Trout L.
Silver
Stump L.
Old Swanzy
Provost L.
Moccasin L.
Martin L.
Cameron L.
Sporley L.
Swanzy L.
Slough L.
RY
Noren Lake
Spring L.
Air-port L.
NEW SWANZY
PRINCE-TON
AUSTIN
GWINN
GWINN TOWER
Halfway
LITTLE LAKE
RR.

APPENDIX K

NATURAL AREAS

Source: Michigan Recreation Plan, 1974

NATURAL AREAS

The natural areas and features of the State of Michigan are pleasing and diverse. Ecological and landform diversity is a result of climatic contrasts, diversity in the age and character of the geological bedrock, and complex glacial topography. Despite the high concentrations of population, industry and agriculture in the southern Lower Peninsula, small natural enclaves and some more or less wild areas persist there; more extensive wild lands, some large enough to be termed "wilderness", are still in existence in the northern two-thirds of the state. These areas represent a valuable and at the same time a fragile heritage.

The Wilderness and Natural Areas Act (Act 241, P.A. 1972) was enacted to protect such areas. It lists three types: wilderness, wild and natural areas, which by broad definition may be: an area of land or water or both, which (1) has retained, has reestablished, or can readily reestablish its natural character, and (2) possesses one or more of the following characteristics: (a) unusual or rare flora or fauna, (b) biotic, geological, physiographic or paleontological features of scientific or educational value, or (c) outstanding opportunities for scenic pleasures, enjoyable contact with nature, or wilderness types of experiences (solitude, exploration and challenge). For convenience sake, the term "natural areas" is commonly utilized to cover all such areas which are or could be set aside for protection under the Act.

Wilderness and Natural Areas Act--Major Provisions

The Wilderness and Natural Areas Program was initiated with appointment by the Governor of the Wilderness and Natural Areas Advisory Board of seven citizens in February 1973. The Wilderness and Natural Areas Act (Act No. 241, P.A. 1972) provides for (1) the selection and dedication of wilderness, wild and natural areas on lands under the control of the Department of Natural Resources and (2) the selection and designation of such areas on other public lands and on private lands by voluntary agreement between the landowner and the Natural Resources Commission. No more than ten percent of the land under the control of the Department of Natural Resources may be dedicated under the Act. It is, of course, too early to obtain any indication of how much state land will be dedicated. Ten percent is not necessarily the goal of the program. It is simply a ceiling written into the statute by the legislature.

The Act also requires the Natural Resources Commission (the dedicating agency under the Act) to attempt to provide wild and natural areas insofar as possible "in relative proximity to urban centers of more than 100,000 population". These urban centers have been identified as Detroit, Grand Rapids, Flint, Lansing, Ann Arbor, Kalamazoo, Saginaw-Bay City-Midland, and the Toledo and South Bend interstate areas.

Private land or land under the control of other governmental units may be designated in the same way as a state-owned area under the Act. This approach entails a cooperative agreement between the landowner and the Natural Resources Commission, setting forth the designation and providing for the administration of the area.

A tax provision in the Act has special pertinence with regard to state tax-reverted lands. On these lands, the Department of Natural Resources is presently paying a payment-in-lieu of taxes of 50¢ an acre. Under the Act, the local taxing authority is entitled to collect from the state a tax on dedicated areas at the ad valorem rate or $2 per acre, whichever is less. Thus, the dedication of areas under the Act may help to enlarge the tax revenues of local jurisdictions.

Natural Areas Program

General

An overall system of wilderness and other natural areas is contemplated, reflecting (1) geographical considerations; (2) representation of major biological communities, ecosystems and unique areas; and (3) special considerations pertinent to each type of area (e.g., wild areas near major cities). In particular, the plan is to divide Michigan into natural regions based on physiography, forest and vegetative cover, wildlife habitats and other natural factors. Ultimately there would be at least one example of a natural area in each of these regions.

The system will incorporate the provision of such areas by other organizations (such as the Michigan Nature Association and the Federal Government) as well as encourage setting aside of areas that for most intents and purposes are natural areas but do not qualify as such under the Act (such as the "quiet areas" being set aside by the Forestry Division, nature centers, etc.).

Criteria for Various Areas

The criteria for the various types of areas as established by the Act and Board follow.

Wilderness Area (Statutory Requirements)

1) Large Size: Has 3,000 or more acres of state land or is an island of any size.
2) Primitive: Generally appears to have been affected primarily by forces of nature with the imprint of man's work substantially unnoticeable.
3) Wilderness Recreation: Has outstanding opportunities for solitude or a primitive and unconfined type of recreation.
4) Notable Natural Features: Contains ecological, geological or other features of scientific, scenic or historical value.

Wild Area (Statutory Requirements)

1) Lesser Size: Is less than 3,000 acres of state land.
2) Wilderness to Nature Observation Type of Recreation: Has outstanding opportunities for (a) personal exploration, (b) challenge, or (c) contact with natural features of the landscape and its biological community.
3) Wilderness-like: Possess one or more of the characteristics of a wilderness area.

Natural Areas. The "natural areas" category encompasses several distinct types of areas. To facilitate identification, discussion, analysis and management, this broad category has been broken down into the four following subcategories: (1) research natural areas, (2) nature study areas, (3) scenic sites, and (4) managed natural areas.

Research Natural Areas

1) Educational or Scientific Natural Area: Has retained or reestablished its natural character, or has unusal flora and fauna or biotic, geologic, or similar features of educational or scientific value, but it need not be undisturbed.
2) Verified by Scientists: Has been identified and verified through research and study by qualified observers.
3) May be Sub-Unit: May be coextensive with or part of a wilderness area or wild area.

Nature Study Area. A nature study area has the same characteristics as a research natural area, except that its "research character" or natural quality would not be so high; and it will usually need to be located close to schools and population centers. However, it is in usage that research natural areas and nature study areas most differ. Nature study areas contemplate the development and use of facilities for conservation education and nature study or much more intensive use than research natural areas.

Scenic Site

1) Unusual Scenery: Has unusual scenic features, but it need not be undisturbed.
2) May be Sub-Unit: May be coextensive with or part of a wilderness area or wild area.

Managed Natural Area: A managed biological community or ecosystem is one that is maintained at a chosen state of development, or is brought to a desired stage of development, by the use of cultural techniques or controls which are known to favor the maintenance or development of the kind of biological community desired.

Potential Areas

The first steps taken by the Board have been to review all state lands which have previously been dedicated as "natural areas" under Act 17 (the basic enabling legislation for the Department) and other acts, while at the same time keeping abreast of important new areas that are proposed or known. The previously-dedicated areas include 17 different areas totalling 72,733 acres, 11 of which are in state parks, five in state forests and one in a state wildlife area. Those areas which qualify under the new Wilderness and Natural Areas Act will be the basis for the first recommendations to the Commission for rededication under the new Act. This process is now underway. New areas which have been proposed for consideration currently number around 40.

Map 4 on page 184 shows existing natural areas in various categories and ownerships.

Relationship to Other Programs

The Wilderness and Natural Areas Program is interrelated with numerous other programs, both programs of a similar programmatic nature and programs that go in the opposite direction, i.e., resource development. In state parks, natural areas fit into the wild land preservation, recreation and interpretive programs of the parks. In state forests, they become a part of the broad multiple-use management programs of these areas. The expected or hoped-for interrelationship between these programs is outlined in the following paragraphs.

Interrelationships with Resource Management Programs

(1) Maintaining integrity of various resource areas: While timber harvests are, of course, essential and desirable for economic and wildlife production reasons, maximum attempts are to be made to avoid harvests on lands considered prime potential natural areas land, whether or not the land is prime because of its singular natural qualities or strategic location. At the same time, essential timber areas, wildlife range, recreational lands and mining areas will continue to be managed for these resource values, as appropriate.

(2) Special habitats: Attention is to be given to the preservation of wilderness and other natural areas in order to protect endangered wildlife and plants. The Act allows the management of natural areas for such purposes and the category, managed natural areas, reflects this authorization.



STATE NATURAL AREAS SYSTEM

(3) Wilderness fishery: Natural areas, which would have minimal road development, may be considered as means of providing fishing in wilderness or wilderness-like lakes.

Interrelationships with Other Related Programs and Involved Governments

(1) Relationship to related and similar programs: The Wilderness and Natural Areas Program has strong interrelationships with several other programs, including Land Use Planning, Natural Rivers, the Great Lakes Shorelands Management, Recreational Trails, the Conservation Education Reserve, and the programs of such quasi-public organizations as the Wilderness and Natural Areas Council, Michigan Nature Association and Sierra Club.

Land use planning and zoning are particularly promising as tools for identifying and protecting natural areas in public ownership by controlling development of adjacent private lands, or by giving private lands interim protection prior to designation.

(2) Relationships to other governmental or private agencies: The Board and concerned Department of Natural Resources staff will review federal, organizational, university and private lands for "candidate areas" and work out memos of agreement for designation and management of these lands.

It is anticipated that there will be "natural areas" programs by local governments, school districts and perhaps other organizations. Department of Natural Resources field personnel can assist these agencies in the preservation and management of local natural areas.

Surveillance is maintained on various federal acts including (a) the National Wilderness Act proposals affecting the state and (b) the various proposed Wild Areas and Eastern Wilderness Acts. Coordination between the National Forest and Park Service programs and the state program is to be sought. The state system of natural areas is compatible in its objectives and complementary to the natural areas program and National Registry of Natural Landmarks administered by the National Park Service. Natural areas in the state system which are considered to have national significance will be proposed for inclusion in the National Registry.

APPENDIX L

NATURAL RIVERS PROGRAM

Source: Michigan Recreation Plan, 1974

NATURAL RIVERS PROGRAM

Michigan's 36,000 miles of rivers and streams form an intricate network across our state. Each is unique, having certain qualities attracting different uses--and abuses. Our rivers vary from the cold, clear trout streams of northern Michigan to the more sedate warmwater streams common to the agricultural areas of southern Michigan. Our rivers are used by industries and municipalities for both water supply and waste discharge; by trout, bass and pike fishermen, and archers stalking carp with bow and arrow; by swimmers, canoeists and "tubers". In addition, they provide attractive settings for homes and seasonal cottages.

Michigan's Natural Rivers Program was initiated in 1971 by passage of the Natural Rivers Act (Act 231, P.A. 1970). It had become increasingly clear to recreation resource management people and observant citizens in Michigan that strong action was necessary to preserve in reasonably natural conditions those rivers and streams having scenic and recreational values attractive to both riparian owners and public users. The Natural Rivers Act provides a system for preserving and enhancing the broad range of values of Michigan's streams. Included are water conservation and floodplain preservation; ecologic, historic and scenic values; and those pertaining to fisheries and general recreation.

Natural Rivers Act--Major Provisions

The distinctive feature of Michigan's Natural Rivers Act is the provision for protecting rivers and their tributaries through zoning by local government, or by the state, of the use of land adjacent to the streams. After developing long-range comprehensive plans, with inputs from local units, organizations and citizens, and after holding public hearings, the Natural Resources Commission may designate the river as a Natural River. It may also declare that zoning shall be adopted to provide protection for the river. The counties and townships through which the river flows then have one year in which to enact zoning ordinances that conform to the plan developed for the river.

If a county or township elects not to enact a suitable ordinance within the one year period following designation, Act 231 provides that the Natural Resources Commission can adopt a zoning "rule" under the provisions of the State Administrative Code. The rule would be of the same nature and serve the same function as a local zoning ordinance, but would be administered by the state. This "state zoning" provision makes the Michigan Act unique among the natural river acts recently enacted by several states.

Apart from zoning controls, the statute provides that state action may include other management practices. Land may be purchased by the state, but only with the owner's consent. If land is to be used for public access or recreation purposes, it must be purchased since zoning can in no way provide public access to private land. The statute also provides the Commission with the authority to review plans for such projects as highway construction, utility transmission lines, access sites and publicly developed water management projects.

The statute suggested three classes of river designation--wild, scenic and recreation, and permitted other classes. Three were adopted, based on general river setting and characteristics. These are:

Wilderness River. A river and its tributaries in an extensive wilderness or primitive setting. It is essentially free of impoundments or modifications, inaccessible except by trails, with shorelands of wild character, generally undeveloped and with waters of high quality and unaffected by activities of man.

Wild-Scenic River. A river and its tributaries with wild or forested borders, but often in close proximity to man-made developments. It is a river with high aesthetic values that is essentially free-flowing, having shorelands lightly developed, with limited access by trail or road and with waters of high quality and meeting established water quality standards.

Country-Scenic River. A river and its tributaries generally in an agricultural setting with narrow bands of woods or pastoral borders, often with farms and other developments viewable from the river. It is a river that may be readily accessible by road, may be moderately developed along its shorelands, may be impounded, and with waters of high quality meeting established water quality standards.

River Management Plan

Management objectives for rivers in the Natural Rivers Program are dependent on the river classification and on individual river characteristics. The objectives vary for each classification and often between rivers within each classification. Factors to be considered when developing management objectives for individual rivers include: (1) present development characteristics and extent; (2) potential for development based on terrain, accessibility or ownership patterns; (3) amount of publicly owned frontage; (4) present and potential uses; and (5) attitudes of local planners, administrators and citizens who will be affected by natural river zoning.

Generally, administration of a wilderness river will emphasize protecting its wilderness characteristics while providing limited development and recreational use. Public facilities such as campgrounds will be primitive and located outside the immediate river area. Private developments should be kept to a low density and placement and design should not intrude on the immediate river area. Motorized access will be limited and usually only non-motorized watercraft will be permitted. Additionally, extensive greenbelts of natural vegetation will be maintained along the river to help preserve the natural setting. Wilderness rivers will generally be located where there is heavy public or corporate ownership. Additional river frontage may have to be purchased by the state to insure the river remains primitive and relatively undeveloped.

A wild scenic river should be managed to provide development and recreational opportunities in a "near natural setting". The basic differences between wilderness and wild scenic rivers are amount of development, road accessibility and land in public ownership. Developed campgrounds may be appropriate in the river use areas. New private developments should be permitted if they are harmonious with the river environment and greenbelt regulations will not be as strict as on wilderness rivers.

Management of a country scenic river is designed to protect and enhance existing river values while providing development and recreational opportunities closer to urban centers. These rivers may be impounded and fairly extensively developed or in close proximity to agriculture. The river banks are to be protected with natural vegetation and new private development should be permitted as long as it does not threaten the river resources. Campgrounds, picnic areas or other recreational facilities may be established in close proximity to the river. In some cases, water quality may have to be upgraded.

Existing and Proposed Natural Rivers

Thirty rivers, consisting of ten from each Department of Natural Resources regions, have been placed in a first priority group recommended by staff, field personnel and groups or organizations interested in river preservation. These thirty rivers have a combined length of approximately 6,000 miles, which would be eligible for designation. Presently, four rivers have been designated as natural rivers by the Natural Resources Commission and work is in various stages on 13 others. As a river is designated or as local interest develops, additional rivers are added to the study group. Table 93 lists the designated rivers and gives their classification and date of designation.

Map 3 shows the initial rivers recommended for inclusion in the Natural Rivers Program and identified those currently being studied.

TABLE 93

DESIGNATED NATURAL RIVERS
AS OF APRIL, 1974

River	County Location	Class	Date
Jordan	Antrim Charlevoix	Wild Scenic	October 13, 1972
Rogue	Kent	Country Scenic	August 10, 1973
Betsie	Benzie Grand Traverse Manistee	Wild Scenic	August 10, 1973
Two Hearted	Luce	Wilderness	December 7, 1973

Natural River Administration

It is essential for the Department of Natural Resources to work closely with local governmental officials and local citizens to jointly develop sound and acceptable long-range plans for proposed natural rivers. The Department favors zoning by the counties and townships in accordance with state guidelines, rather than zoning by the Department of Natural Resources. The concept of local control of local land use problems is firmly ingrained in Michigan government. Those officials and citizens who are most familiar with local land use problems are best qualified to administer land use regulations. The Commission feels that good planning and administration of local zoning ordinances will protect the significant river resources while insuring that administration is kept at the level of government closest to the people.



DESIGNATED NATURAL RIVERS

1. Two Hearted
2. Jordan
3. Betsie
4. Rogue

RIVERS UNDER STUDY

5. Sturgeon
6. Fence
7. Whitefish
8. Fox
9. Black
10. Boardman
11. Little Manistee
12. White
13. Muskegon
14. Thornapple
15. Kalamazoo
16. Shiawassee
17. Huron

RIVERS PROPOSED FOR STUDY

18. Presque Isle
19. Ontonagon
20. Paint
21. Huron
22. Escanaba
23. Indian
24. Tahquamenon
25. Thunderbay
26. AuSable
27. Manistee
28. Pine
29. Flat
30. Fish Creek
31. Cass
32. Grand
33. Paw Paw
34. Dowagiac
35. St. Joseph

RIVERS UNDER STUDY: National Wild-Scenic River Program

STATE NATURAL RIVER SYSTEM

Interrelationships with Other Programs and Involved Governments

Although the expressed purpose of the Natural Rivers Program is to preserve and enhance river values, the program is actually having other far-ranging effects. Perhaps one of the most important effects is the groundwork that is being laid for implementation of an overall state land use plan. The Natural Rivers Program is a unique example of state-local government interaction in attempting to solve land use problems that have been traditionally handled at the local level. It should be pointed out that at this time many northern Michigan counties and townships are unzoned and have not developed comprehensive plans for guiding the use of their local resources. The reasons for this vary, but most common are lack of funding, lack of adequate personnel or lack of interest by citizens in areas which are not yet ready to turn to problems of land use. Yet, when natural river planning is initiated, local governmental officials and concerned citizens are often given the incentive to develop plans and zoning ordinances which will retain land use controls in the local jurisdiction. When this planning is initiated, state personnel work closely with local planners and zoners in developing their plans and zoning ordinances.

The program also involves local citizens in developing land use policies for publicly (state) owned land in the natural river district. Section 3 of the Natural Rivers Act states in part "State land within the designated area shall be administered and managed in accordance with the plan.....".

Initiation of natural river planning by involving many diverse organizations and groups of individuals may be instrumental in developing community awareness of environmental problems. Many citizens who were previously not involved in community affairs begin to realize that through organization they can play an active role in formulating governmental policy. Local interest groups can focus interest on local land use problems that have been previously ignored. It is true that much of this interest develops because of the realization that without local action the state has the authority to administer land use regulations. Nevertheless, this type of incentive is often the catalyst which instigates local action.

APPENDIX M

NATURAL RIVER ACT

STATE OF MICHIGAN

MICHIGAN
COMPILED LAWS
1970

COMPILED AND ARRANGED UNDER AUTHORITY OF PUBLIC ACT 193 OF 1970

STATE OF MICHIGAN

VOLUME II

COMPILED AND PUBLISHED BY THE
MICHIGAN LEGISLATIVE COUNCIL

PRINTED BY
LITHOCRAFTERS, INC.
ANN ARBOR, MICHIGAN

106

Act 231, 1970, p. 622; Eff. Apr. 1, 1971.

AN ACT to authorize the establishment of a system of designated wild, scenic and recreational rivers; to prescribe the powers and duties of the natural resources commission with respect thereto; to fund necessary study and comprehensive planning for the establishment of the system; to provide for planning, zoning and cooperation with local units of government; to authorize the protection of designated river frontage by acquisition, lease, easement or other means; to authorize local units of government and the commission to establish zoning districts in which certain uses of rivers and related lands may be encouraged, regulated or prohibited; to provide for limitations on uses of land and their natural resources, and on the platting of land; and to provide that assessing officers shall take cognizance of the effect of zoning on true cash value.

The People of the State of Michigan enact:

281.761 Natural river act; short title.

Sec. 1. This act shall be known and may be cited as the "natural river act of 1970".

HISTORY: New 1970, p. 622, Act 231, Eff. Apr. 1, 1971.

281.762 Natural river act; definitions.

Sec. 2. As used in this act:

(a) "Commission" means the natural resources commission.

(b) "River" means a flowing body of water or a portion or tributary thereof, including streams, creeks or impoundments and small lakes thereon.

(c) "Free flowing" means existing or flowing in natural condition without impoundment, diversion, straightening, riprapping or other modification.

(d) "Person" means an individual, partnership, firm, corporation, association or other entity.

(e) "System" means all of those rivers or portions thereof designated under this act.

(f) "Natural river" means a river which has been designated by the commission for inclusion in the wild, scenic and recreational rivers system.

HISTORY: New 1970, p. 622, Act 231, Eff. Apr. 1, 1971.

281.763 Natural river; designation, purpose; long range plans; publicity; cooperation.

Sec. 3. The commission, in the interest of the people of the state and future generations, may designate a river or portion thereof, as a natural river area for the purpose of preserving and enhancing its values for water conservation, its free flowing condition and its fish, wildlife, boating, scenic, aesthetic, flood plain, ecologic, historic and recreational values and uses. The area shall include adjoining or related lands as appropriate to the purposes of the designation. The commission shall prepare and adopt a long range comprehensive plan for a designated natural river area which shall set forth the purposes of the designation, proposed uses of lands and waters, and management measures designed to accomplish the purposes. State land within the designated area shall be administered and managed in accordance with the plan, and state management of fisheries, streams, waters, wildlife and boating shall take cognizance of the plan. The commission shall publicize and inform private and public landowners or agencies as to the plan and its purposes, so as to encourage their cooperation in the management and use of their land in a manner consistent with the plan, and the purposes of the designation. The commission shall cooperate with federal agencies administering any federal program concerning natural river areas, and with any watershed council established under Act No. 253 of the Public Acts of 1964, being sections 323.301 to 323.320 of the Compiled Laws of 1948, when such cooperation will further the interest of the state.

HISTORY: New 1970, p. 622, Act 231, Eff. Apr. 1, 1971.

281.764 Qualifications for designation; catagories of rivers.

Sec. 4. A river qualifying for designation as a natural river area shall possess 1 or more of the natural or outstanding existing values cited in section 3 and shall be permanently managed for the preservation or enhancement of such values. Categories of natural rivers shall be defined and established by the commission, based on the characteristics of the waters and the adjoining lands and their uses, both as existing and as proposed, including such categories as wild, scenic and recreational. The categories shall be specified in the designation and the long range comprehensive plan.

HISTORY: New 1970, p. 623, Act 231, Eff. Apr. 1, 1971.

281.765 Land acquisition; purpose; interest acquired; consent.

Sec. 5. The commission may acquire lands or interests in lands adjacent to a designated natural river for the purpose of maintaining or improving the river and its environment in conformance with the purposes of the designation and the plan. Interests which may be acquired include, but are not limited to, easements designed to provide for preservation and to limit development, without providing public access and use. Lands or interests in lands shall be acquired under this act only with consent of the owner.

HISTORY: New 1970, p. 623, Act 231, Eff. Apr. 1, 1971.

281.766 Federal financial assistance programs; leases; expenditures, purposes.

Sec. 6. (1) The commission may administer federal financial assistance programs for natural river areas.

(2) The commission may enter into a lease or agreement with any person or political subdivision to administer all or part of their lands in a natural river area.

(3) The commission may expend funds for works designed to preserve and enhance the values and uses of a natural river area and for construction, management, maintenance and administration of facilities in a natural river area conforming to the purposes of the designation, when the funds are so appropriated by the legislature.

HISTORY: New 1970, p. 625, Act 231, Eff. Apr. 1, 1971.

281.767 Public hearings; notice.

Sec. 7. Before designating a river as a natural river area, the commission shall conduct public hearings in the county seat of any county in which a portion of the designated natural river area is located. Notices of the hearings shall be advertised at least twice, not less than 30 days before the hearing, in a newspaper having general circulation in each such county and in at least 1 newspaper having general circulation in the state and 1 newspaper published in the Upper Peninsula.

HISTORY: New 1970, p. 624, Act 231, Eff. Apr. 1, 1971.

281.768 Land uses; zoning; local ordinances; state rule.

Sec. 8. After designation of a river or portion of a river as a natural river area and following the preparation of the long range comprehensive plan, the commission may determine that the uses of land along the river, except within the limits of an incorporated municipality, shall be controlled by zoning contributing to accomplishment of the purposes of this act and the natural river plan. County and township governments are encouraged to establish these zoning controls and such additional controls as may be appropriate, including but not limited to building and subdivision controls. The commission may provide advisory, planning and cooperative assistance in the drafting of ordinances to establish such controls. If the local unit does not, within 1 year after notice from the commission, have in full force and effect a zoning ordinance or interim zoning ordinance established under authority of the acts cited in section 11, the commission, on its own motion, may promulgate a zoning rule in accordance with section 13. A zoning rule may also be promulgated if the commission finds that an adopted or existing zoning ordinance fails to meet adequately guidelines consistent with this act as provided by the commission and transmitted to the local units concerned, does not take full cognizance of the purposes and objectives of this act or is not in accord with the purposes of designation of the river as established by the commission.

HISTORY: New 1970, p. 623, Act 231, Eff. Apr. 1, 1971.

281.769 Zoning ordinance or rule; purpose.

Sec. 9. A zoning ordinance adopted by a local unit of government or a zoning rule promulgated by the commission shall provide for the protection of the river and its related land resources consistent with the preservation and enhancement of their values and the objectives set forth in section 3. The ordinance or rule shall protect the interest of the people of the state as a whole. It shall take cognizance of the characteristics of the land and water concerned, surrounding development and existing uses and provide for conservation of soil, water, stream bed and banks, flood plains and adjoining uplands.

HISTORY: New 1970, p. 624, Act 231, Eff. Apr. 1, 1971.

281.770 Zoning ordinance or rule; districts establishment; powers, distance.

Sec. 10. The ordinance or rule shall establish zoning districts within which such uses of land as for agriculture, forestry, recreation, residence, industry, commerce and additional uses may be encouraged, regulated or prohibited. It may limit or prohibit the placement of structures of any class or designate their location with relation to the water's edge, to property or subdivision lines and to flood flows and may limit the subdivision of lands for platting purposes. It may control the location and design of highways and roads and of public utility transmission and distribution lines except on lands

or other interests in real property owned by the utility on January 1, 1971. It may prohibit or limit the cutting of trees or other vegetation but such limits shall not apply for a distance of more than 100 feet from the river's edge. It may specifically prohibit or limit mining and drilling for oil and gas but such limits shall not apply for a distance of more than 300 feet from the river's edge. It may contain other provisions necessary to accomplish the objectives of this act. A zoning rule promulgated by the commission shall not control lands more than 400 feet from the river's edge.

HISTORY: New 1970, p. 684, Act 231, Eff. Apr. 1, 1971.

281.771 Local ordinance; applicable law; construction.

Sec. 11. A local unit of government in establishing a zoning ordinance, in addition to the authority and requirements of this act, shall conform to Act No. 184 of the Public Acts of 1943, as amended, being sections 125.271 to 125.301 of the Compiled Laws of 1948, or Act No. 183 of the Public Acts of 1943, as amended, being sections 125.201 to 125.232 of the Compiled Laws of 1948. Any conflict shall be resolved in favor of the provisions of this act. The powers herein granted shall be liberally construed in favor of the local unit or the commission exercising them, in such manner as to promote the orderly preservation or enhancement of the values of the rivers and related land resources and their use in accordance with a long range comprehensive general plan to insure the greatest benefit to the state as a whole.

HISTORY: New 1970, p. 684, Act 231, Eff. Apr. 1, 1971.

281.772 Districts; valuation for tax purposes.

Sec. 12. Upon adoption of a zoning ordinance or rule, certified copies of the maps showing districts shall be filed with the local tax assessing officer and the state tax commission. In establishing true cash value of property within the districts zoned, the assessing officer shall take cognizance of the effect of limits on use established by the ordinance or rule.

HISTORY: New 1970, p. 684, Act 231, Eff. Apr. 1, 1971.

281.773 Rules; enforcement; promulgation, existing use.

Sec. 13. (1) The commission shall prescribe such administrative procedures and rules and provide such personnel as it may deem necessary for the enforcement of a zoning ordinance or rule enacted in accordance herewith. A circuit court, upon petition and a showing by the commission that there exists a violation of a rule properly promulgated under this act, shall issue any necessary order to the defendant to correct the violation or to restrain the defendant from further violation of the rule.

(2) A zoning rule of the commission shall be promulgated in accordance with and subject to the provisions of Act No. 306 of the Public Acts of 1969, as amended, being sections 24.201 to 24.315 of the Compiled Laws of 1948. The rule shall include procedures for receiving and acting upon applications from local units of government or landowners for change of boundaries or change in permitted uses in accordance with sections 71 to 87 of Act No. 306 of the Public Acts of 1969. An aggrieved party may seek judicial review in accordance with and subject to the provisions of sections 101 to 106 of Act No. 306 of the Public Acts of 1969.

(3) The lawful use of any building or structure and of any land or premise as existing and lawful at the time of enactment of a zoning ordinance or rule or of an amendment thereof may be continued although such use does not conform with the provisions of the ordinance, rule or amendment. The ordinance or rule shall provide for the completion, restoration, reconstruction, extension or substitution of nonconforming uses upon such reasonable terms as may be set forth in the zoning ordinance or rule.

HISTORY: New 1970, p. 684, Act 231, Eff. Apr. 1, 1971.

281.774 National wild and scenic river system; administration.

Sec. 14. Nothing in this act shall preclude a component of the system from becoming a part of the national wild and scenic river system under the federal wild and scenic rivers act, Public Law 90-542, approved October 2, 1968. The commission may enter into written cooperative agreements for joint federal-state administration of rivers which may be designated under Public Law 90-542.

HISTORY: New 1970, p. 625, Act 231, Eff. Apr. 1, 1971.

281.775 Area plans; approval; rules.

Sec. 15. The commission shall approve preliminary and final plans for site or route location, construction or enlargement of utility transmission lines, publicly provided recreation facilities, access sites, highways, roads, bridges or other structures and for publicly developed water management projects, within a designated natural river area, except within the limits of a city or incorporated village. It may require any measure necessary to control damaging erosion or flow alteration during or in consequence of construction. Rules concerning such approvals and requirements shall be promulgated under the provisions of Act No. 306 of the Public Acts of 1969, as amended.

HISTORY: New 1970, p. 625, Act 231, Eff. Apr. 1, 1971.

281.776 Construction of act.

Sec. 16. This act may not be construed to prohibit a reasonable and lawful use of any other natural resource which will benefit the general welfare of the people of this state and which is not inconsistent with the purpose of this act.

HISTORY: New 1970, p. 625, Act 231, Eff. Apr. 1, 1971.