

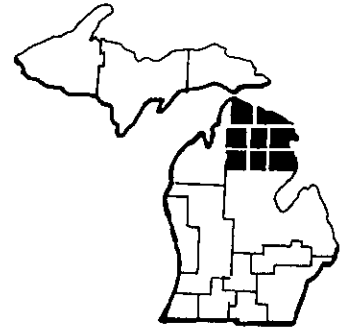
ALCONA TOWNSHIP
LAND USE PLAN

November 1979

Prepared by:

Northeast Michigan Council of Governments
P.O. Box 457
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NEMCOG



Alcona Township Planning Commission
Alcona Township, Michigan

Northeast Michigan Council
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Members:

We are pleased to submit the Alcona Township Land Use Plan.

Intended as a guide for future development of the Township, this plan is based on an inventory of the social, economic, institutional and physical characteristics of Alcona Township.

The result of this undertaking is a description of the most desirable pattern of development for the Township during the next twenty years and a written set of goals and implementation measures designed to achieve an optimum, yet realistic, future for the Township.

The Land Use Plan is by no means an end product. The success of the plan and the realization of its goals can be assured only if the Township and its citizens actively make a total commitment to its implementation.

We wish you success in this endeavor.

Sincerely,

John Evers
Physical Development Programs
Manager, NEMCOG

JE/sq
enclosure

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I. INTRODUCTION

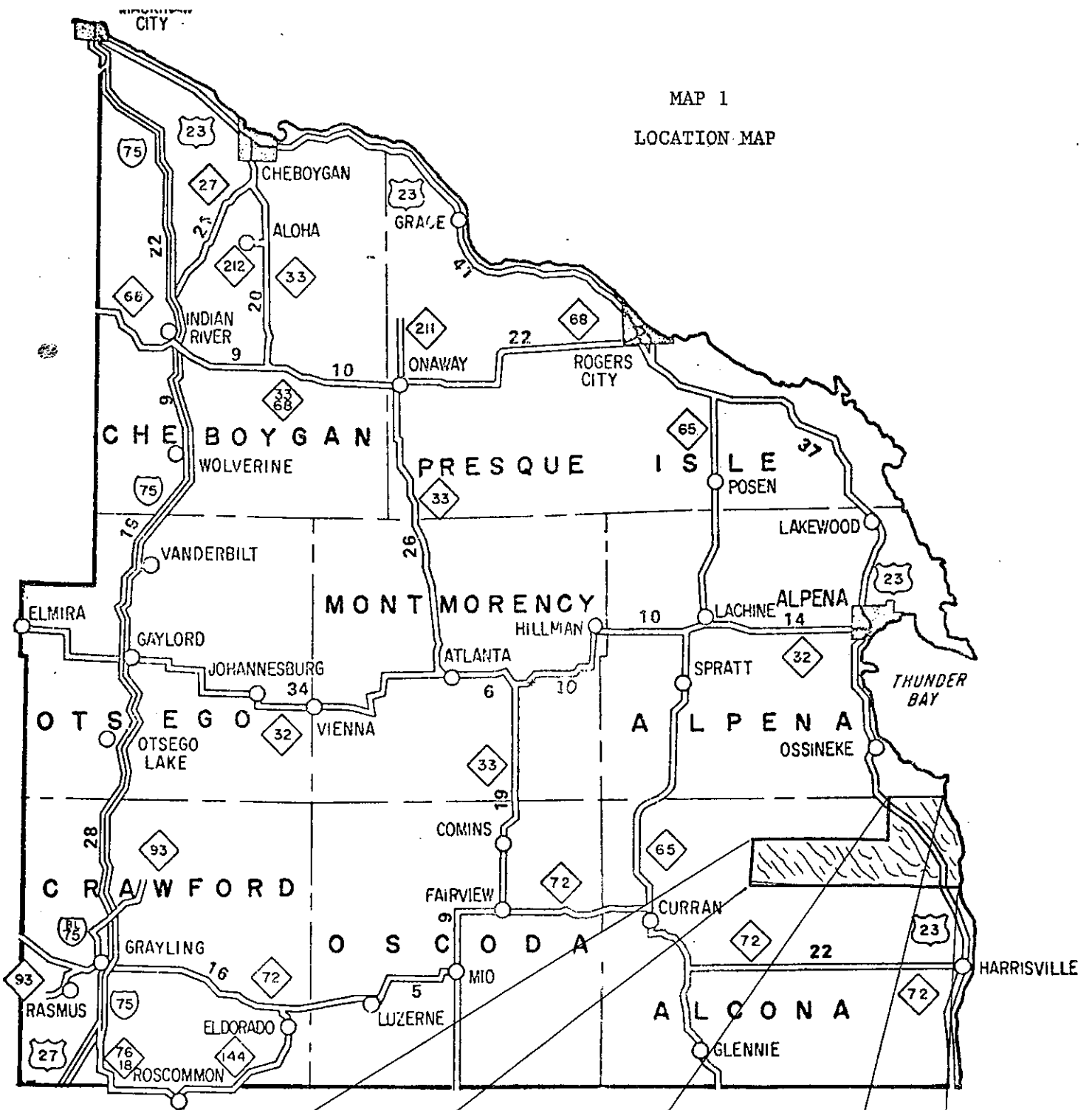
This document is intended to be a guide for decision-makers and residents of Alcona Township. It is designed as a scenario for the best possible use of land in the township. If used properly and adhered to conscientiously this plan should enhance the total "quality-of-life" for Alcona Township residents.

Why develop a land use plan? Primarily because all local units of government have to acknowledge the fact that land is a scarce or limited resource and that change is inevitable. Northern Michigan has always been, and will continue to be, a rural, sparsely populated portion of the state. At the same time, this area is experiencing a relatively stable growth in population, particularly semi-retired and retired persons.

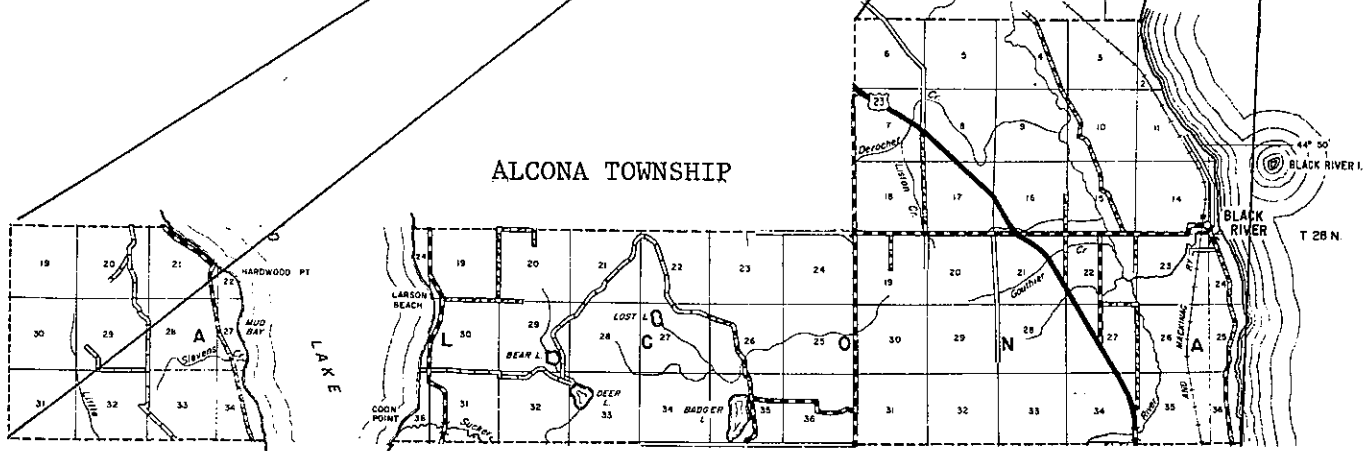
This population is also becoming more permanent with second (vacation) homes being transformed into year-round residences. These changes have an impact upon the township's physical and economic resources. Unless provisions are made to address these impacts, the situation may "get-out-of-hand", with the township and its residents paying for ad hoc decisions. That is, it is more costly to rectify insufficient or needless public facilities based upon day-to-day unplanned decision-making than to construct these facilities based upon identified long-range future needs.

This plan will analyze the conditions and characteristics of the township as they relate to the physical structure of the community. Goals, objectives and policies will be formulated to address important issues related to the area's use of land. A future land use distribution pattern will be designed in accordance with adopted goals and policies. Finally, implementation measures will be suggested to assist in making the plan a reality.

MAP 1
LOCATION MAP



ALCONA TOWNSHIP



II. REVIEW OF EXISTING LOCAL PLANS

REVIEW OF THE ALCONA COUNTY COMPREHENSIVE PLAN,
HAYNES TOWNSHIP COMPREHENSIVE PLAN AND THE SAN-
BORN TOWNSHIP COMPREHENSIVE PLAN

In the interest of consistency and to promote coordination between local units of government, this section of the plan is a brief review and summary of the Alcona County and Haynes and Sanborn Township Comprehensive Plans. Alcona Township must rely upon the county for the provision of a variety of services and consequently, these two jurisdictions must be compatible in their attitudes and ideas about the future. Haynes and Sanborn Townships are directly adjacent to Alcona Township, and hence, these political units must coordinate their uses of land to insure compatibility and minimize conflicts.

ALCONA COUNTY

The following are those important goals and objectives contained in the Alcona County Plan, adopted in 1976, which are related to the county's overall land use.

<u>CATEGORY</u>	<u>GOAL</u>	<u>OBJECTIVE</u>
Residential	Insure adequate and quality housing for all residents	<ul style="list-style-type: none">- Promote and build medium and low income housing- Coordinate with local planning and zoning bodies to incorporate soils information when making planning and zoning decisions- Seek additional funding for low income and senior citizen housing improvements- Work with local planning and zoning bodies to better define and handle mobile home development- Support the building and plumbing codes and work with those handling the inspections

<u>CATEGORY</u>	<u>GOAL</u>	<u>OBJECTIVE</u>
Agricultural	Preserve and maintain the most productive soils in Alcona County	<ul style="list-style-type: none"> - Work for a remodeling of our property tax laws to protect farming interests - Promote awareness of P.A. 116 (Farm Land and Open Space Act) - Work with local planning and zoning bodies to retain suitable soils for agricultural purposes
Commercial and Industrial	Encourage the growth of commercial and industrial activities	<ul style="list-style-type: none"> - Effectively support industrial development corporations and chambers of commerce - Expand, upgrade and beautify our present commercial establishments - Promote industrial parks - Publicize qualities in our community that are desirable to industry
Recreational	Provide variety of year'round recreational opportunities	<ul style="list-style-type: none"> - Make a comprehensive study of the recreational needs of all age groups - Support development of the Alcona Recreation Area - Encourage and support local groups promoting recreational activities - Consider development of the Lincoln Memorial Hall into a County Civic Center - Update and revise the County Recreation Plan - Coordinate with local units on recreational needs in their jurisdiction
Governmental	Develop public facilities and services to adequately accommodate the anticipated growth	<ul style="list-style-type: none"> - Get the most for our money through wise use of revenues - Expand efforts to develop good public relations

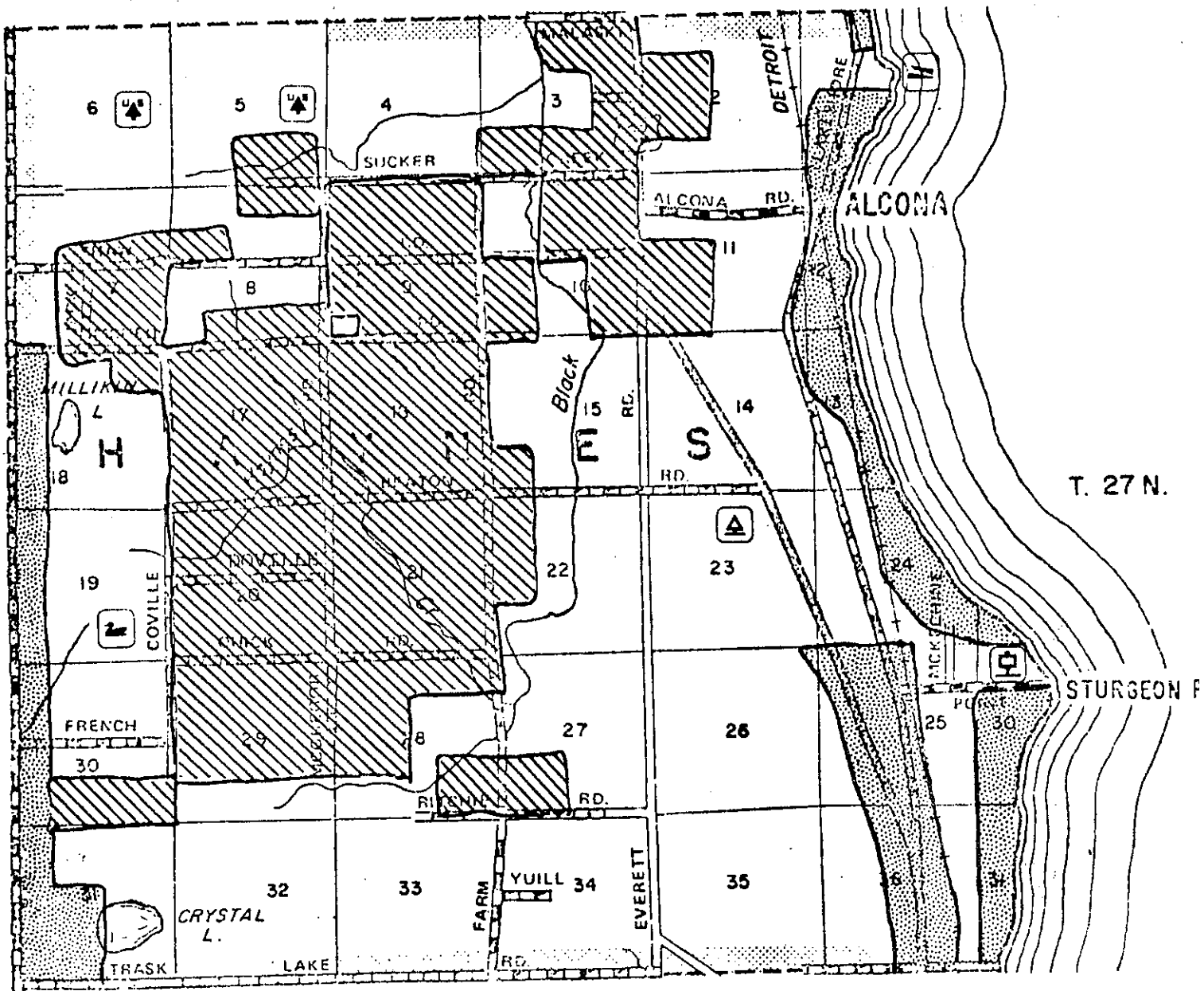
<u>CATEGORY</u>	<u>GOAL</u>	<u>OBJECTIVE</u>
Land Use	Promote a well-balanced land use pattern by adopting ordinances and policies consistent with the objectives	<ul style="list-style-type: none"> - Assist township, city and village planning and zoning bodies in developing comprehensive plans - Involve local units in county planning - Set up specific joint education and informational meetings - Develop an awareness of federal and state land use developments and controls
Transportation	Maintain and further develop county highway, rail, air and waterway facilities	<ul style="list-style-type: none"> - Conduct a survey on the question of "How accessible does Alcona County want to be?" - Obtain an update from the Michigan State Highway Department on the current status of the US-23 Corridor
Energy Supply	Promote availability of public utility systems in all portions of the county	<ul style="list-style-type: none"> - Establish communications with utility companies to keep abreast of their proposed plans for development

The following pages are excerpts from the Haynes Township Comprehensive Plan, adopted in 1979.

As depicted on the Haynes Township Future Land Use Map, residential land uses are proposed along the Lake Huron shoreline, along US-23 in the southern portion of the township, and along the western border of the community. There is no designated commercial area except for the village of Lincoln. Agriculture is projected to occupy the central core of the township, and forest/open space/recreational land uses comprise the remainder of the area. The largest proportion of land adjacent to Alcona Township is proposed to be devoted to forest/open space and recreation.








MAP 2

FUTURE LAND USE MAP
HAYNES TOWNSHIP



T. 27 N.

LEGEND

- | | | | |
|--------------------------------|---|---------------------------------|---|
| RESIDENTIAL |  | FEDERAL FOREST/RECREATION |  |
| AGRICULTURE |  | WILDLIFE FLOODING |  |
| FOREST/OPEN SPACE/RECREATION . |  | HISTORIC SITE |  |
| PUBLIC ACCESS |  | | |

HAYNES TOWNSHIP

The physical distribution of activities and accompanying economic and social consequences are based upon a designated future land use plan. Proper consideration of all elements of land use will enable the township to evolve a physical plan to accommodate existing and future social and economic interaction.

This section will delineate the general placement of various land uses within the township during the period for which this plan is intended. Within this fairly broad framework of different land use distributions, more specific plans can be drafted for each locality as individual projects are presented.

Residential

In general, Haynes Township has evolved from a lumbering area into a summer residential/recreational community. As northern Michigan is becoming a more popular locality for retirement, it is conceivable that the year-round residential population in the township will increase. This will be especially true should Haynes Township orient its future development toward retired citizens.

It is apparent that existing subdivisions will not accommodate this growth. Map 2 illustrates those areas of Haynes Township where future residential development would be most desirable and practical. However, it is likely that scattered residential development will occur in the interior portions along existing roads.

Commercial

Existing commercial activity within the township is almost non-existent as most items are purchased in Harrisville, Lincoln and Alpena.

As addressed in the objectives segment of this plan, there is no desire to attract commercial establishments into the township itself because of the closeness of Harrisville and Lincoln.

Industrial

Presently, there is no industrial activity within Haynes Township. However, the township does desire the location of environmentally clean, non-polluting, light industrial plants in or near the township to keep the younger people employed and living in the community.

Although sites along US-23 or County Road F-41 are most desirable, the township would encourage the establishment of an "industrial park" in the village of Lincoln where public water and wastewater facilities could be provided.

Recreation

Utilizing the environment of Haynes Township as a residential/recreation area demands careful planning and implementation measures. Designation of recreational areas require analysis of accessibility, optimum use of natural resources and potential conflicts of land uses.

The most attractive natural amenity of Haynes Township, its Lake Huron shoreline, should have better access facilities to enhance recreational opportunities and better control to reduce people-caused problems such as littering, trespassing, etc. Additionally, there is a need to encourage public agencies which already own undeveloped tracts on Lake Huron to improve and maintain these sites. Of particular interest is the Sturgeon Point Lighthouse property where better control by the DNR Parks Division is a must.

Recreational trails should also be established on Huron National Forest lands to accommodate hikers, bikers and cross-country skiers. New subdivision plats should require areas for playgrounds or open spaces to provide recreation to their residents.

Agriculture

Agricultural activities are an important factor in Haynes Township's Overall Land Use Plan. The preservation of productive farmland is recognized as a major goal to the future of the township's character. To protect these agricultural lands, the township encourages enrollment of private property under Michigan's Farmland and Open Space Preservation Act (Act 116, P.A. of 1974.)

SANBORN TOWNSHIP

The following Sanborn Township Goals, Objectives, Policies and Future Land Use Map were adopted in 1976 by the township planning commission. As the map depicts, future residential growth is proposed to be clustered around Ossineke. Commercial activities will be centered in Ossineke, and an industrial district is proposed for an area north of Ossineke, preferably in the form of an industrial park.

Goals

- * To preserve the existing character of Sanborn Township.
- * To strive for orderly growth and development in accordance with human, natural and financial resources in the township.
- * To preserve the existing housing quality of Sanborn Township.
- * To provide an open and responsive township government, capable of meeting the needs and desires of its constituents.
- * To promote a commercial identity in line with the needs of the township residents.

- * To preserve and protect productive farmland.
- * To provide the necessary services in the most efficient manner.
- * To strive for a complete range of transportation facilities.
- * To utilize and protect the natural environment according to its capabilities and limitations.

Again, the policy directives included in this plan will reflect those already established in the Alcona County, Haynes Township and Sanborn Township Comprehensive Plans.

Agricultural land use is designated to be distributed throughout the western portion of the area, while private and state forests embody the eastern sections of the township. As with Haynes Township, Sanborn Township offers minimal constraint to conflict with future development of Alcona Township.

Objectives and Policies

People

The people of Sanborn Township are its most unique resource and will prove its most solid basis. The continued well-being of the township will depend upon the preservation of its unusually healthy demographic and economic situation.

The township should therefore strive to expand the cultural, educational and economic backgrounds of the people who live and work in Sanborn Township.

To recognize the limitations and potentials that stem from Sanborn's ties to the city of Alpena.

To manage the influx of people and their homes in the most equitable and efficient manner.

1. Concentrate future development in the Ossineke area of Sanborn.
2. Encourage complete development of all subdivisions.
3. Explore the reasons for a relative lack of seasonal homes, then further those factors that have created the present situation.
4. Regulate mobile home placement to specially planned and developed mobile home parks.

Activities

To promote a favorable community image through a variety of quality business establishments.

1. Attract needed commercial enterprises to the Ossineke Village area.
2. Upgrade the aesthetic character of the existing and future commercial activity.
3. Explore the effectiveness of building codes and sign ordinances that could upgrade the visual quality of the township.

To maximize industrial economic benefits while minimizing their negative social and environmental effects.

1. Strictly regulate any industry's impacts on the environment in regards to air quality, water quality, noise level or traffic generation.
2. Institute an industrial development committee that will promote a small legal industrial park.

To discourage conversion of productive agricultural land to dispersed, low density residential development.

1. Explore the legal means of regulating subdivisions in terms of their size and physical relationship to the remaining township.

To provide full-range recreation facilities for all age groups.

1. Continue to support the many and varied recreation programs in the township and county.
2. Explore the possibilities inherent in most township owned property.
3. Continue to coordinate recreation programs between the county, township and intermediate school district.

Services

To utilize the existing utilities to their best advantage and insure the economy, efficiency and safety of all future utility systems.










1. Encourage the development of improved communication systems.
2. Construct and maintain a public water system to insure safe sources of potable water.
3. Support and encourage the county-wide solid waste plan implementation.
4. Induce the cooperation of utility companies to designate service areas to control development patterns.
5. Explore the means available for wastewater and flood control.
6. Provide for a full-range of alternative transportation modes.

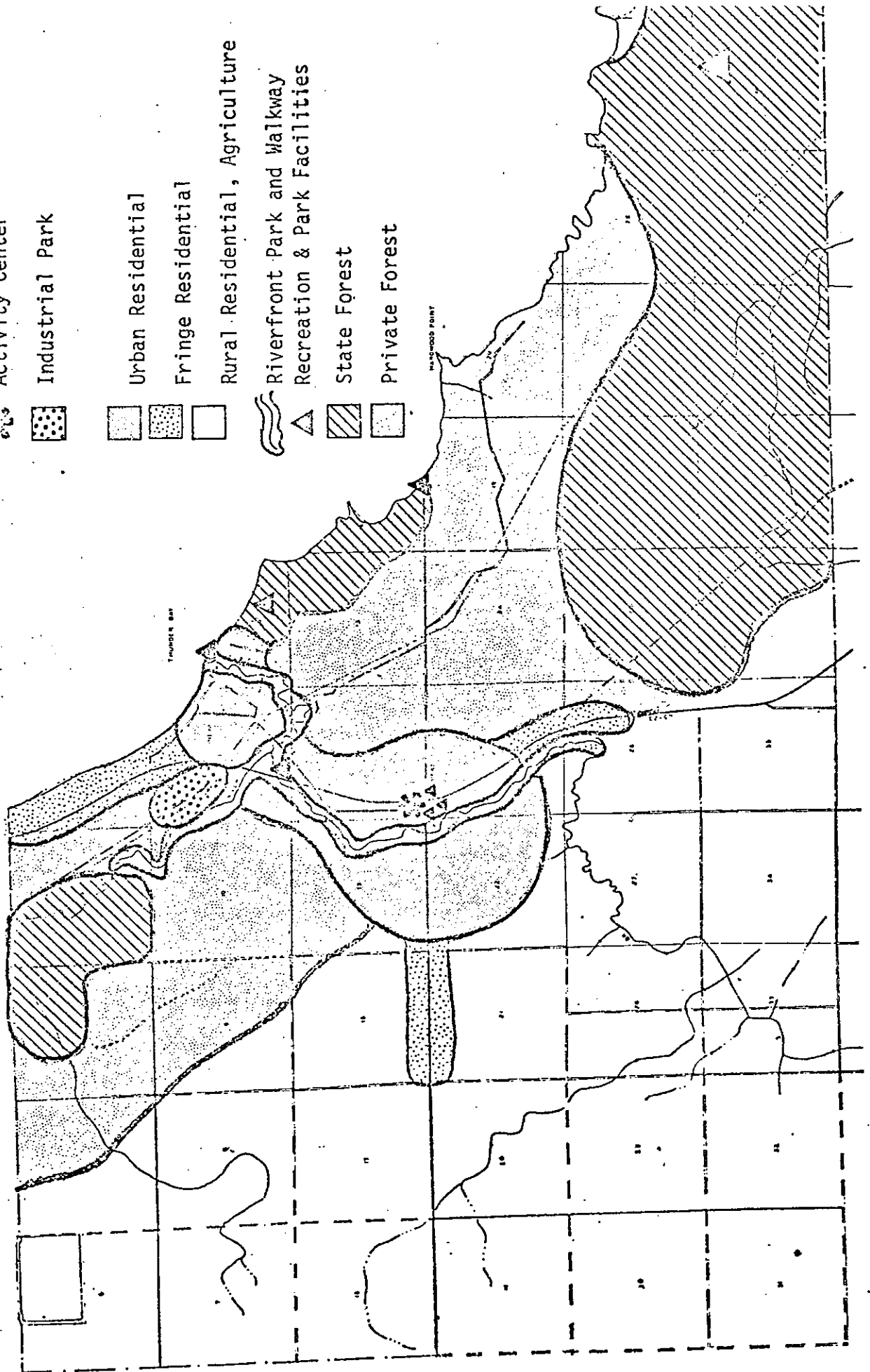
Environment

To recognize the importance of environmental development limitations and explore various methods of avoiding overuse and misuse of the environment.

1. Avoid development of marginal soil types, through stringent health and sanitation codes on either the county or local level.
2. Identify and protect the wetlands flood plains, and high risk erosion areas.

MAP 3
 FUTURE LAND USE
 SANBORN TOWNSHIP

-  Activity Center
-  Industrial Park
-  Urban Residential
-  Fringe Residential
-  Rural Residential, Agriculture
-  Riverfront Park and Walkway
-  Recreation & Park Facilities
-  State Forest
-  Private Forest



III. ANALYSIS

POPULATION

Planning is for people. This statement, although brief, summarizes the intent and purpose of drafting a document to guide the future development of an area. People need shelter, require community services, need adequate transportation, have the right to be employed, and should have easy access to retail services. In addition, people must concern themselves with a limited resource - the natural environment. Without an awareness of the characteristics of the environment, the residents of the community may change the natural systems of the area, promoting long-term, unalterable harm. In essence, the purpose of planning is to assure high "quality-of-life" standards for residents and visitors of the community.

Various characteristics of the population of Alcona Township must be analyzed to determine the constraints and opportunities available to the township's residents. The following analyses set the stage for the future land use needs of Alcona Township. A questionnaire was distributed to all property owners within the township asking for information on demographic characteristics and issues of concern relative to land use. (See Appendix A.) Comparisons were made between 1970 Census data and the results of this 1979 survey.

Migration

Two factors contribute to the growth of a community - the number of births over deaths, and the number of individuals migrating into or out of the area. Birth rates for a township are difficult to obtain, as hospital records do not reflect township residency, and not all women in the township giving birth utilize the same hospital. Migration is also difficult to determine, as records are not kept on the moving patterns of families and individuals. The 1970 5th Count Census does, however, tabulate the 1965 place of residence of those living in the township in 1969.

TABLE 1
POPULATION 5 YEARS OLD AND OVER BY RESIDENCE IN 1965
 ALCONA TOWNSHIP

Same House	220	45.0%
Different House, Same County	73	15.0%
Different County, Same State	171	35.0%
Different State	<u>124</u>	<u>5.0%</u>
TOTAL	488	100.0%

TABLE 2
POPULATION 5 YEARS OLD AND OVER BY RESIDENCE IN 1965
 ALCONA COUNTY

Same House	3504	53.0%
Different House, Same County	988	15.0%
Different County, Same State	1618	24.0%
Different State	210	3.0%
Abroad	4	0.6%
Moved, 1965 address not given	<u>286</u>	<u>4.0%</u>
TOTAL	6610	99.6%

Comparison between Table 1 and Table 2 indicates that, in general, the township adheres to the same migration characteristics as the county. Alcona Township does, however, tend to be less "stable" residentially than the county in that a smaller proportion of the population (45 percent compared to 53 percent in the county) resided in the same home for at least five years. Tables 1 and 2 also reflect a proportionally greater tendency for Alcona Township residents to migrate from a different county. In both the township and the county, there seems to be a greater propensity to either remain in the same home or migrate into Alcona County from another county, than to move within the county.

Age/Sex Distribution

A critical indicator of the types of services and land use distribution needed within the township is the age and sex characteristics of the community's residents.

Figure 1-A is a population pyramid for Alcona Township for the year 1970. This age/sex graph is tabulated from 1970 Census data based upon sample surveys. The numbers on the horizontal line represent numbers of individuals. Those number groupings on the vertical line represent age brackets, with the left side portraying the number of females in each age group. Figures 1-B thru 1-D are also age/sex pyramids for the township. These, however, are projections for the years 1980, 1990 and 2000. These projections are calculated by determining the 1970 proportion of township residents to county residents by age and sex, using published county age/sex projections, and utilizing these same 1970 township percentages for the years 1980, 1990 and 2000.

Figures 2-A and 2-B are the population pyramids resulting from a 1979 questionnaire. This survey was sent to all property owners in the township with an approximate 20 percent return. The results of this survey can be seen in Appendix A-1 and A-2. There is a general correlation between the pyramids resulting from Census data and those resulting from the questionnaire survey. Essentially, there is a large proportion of residents in the retired and semi-retired categories relative to total population. Figure 2-A, as a matter-of-fact, is the reverse of a "classic" age/sex distribution. An optimum pyramid would have the greatest proportion of the township's population at the base, and the smallest proportion of the township's population at the top. In the case of Alcona Township, however, the largest proportion of residents are semi-retired or retired,

FIGURE 1-A

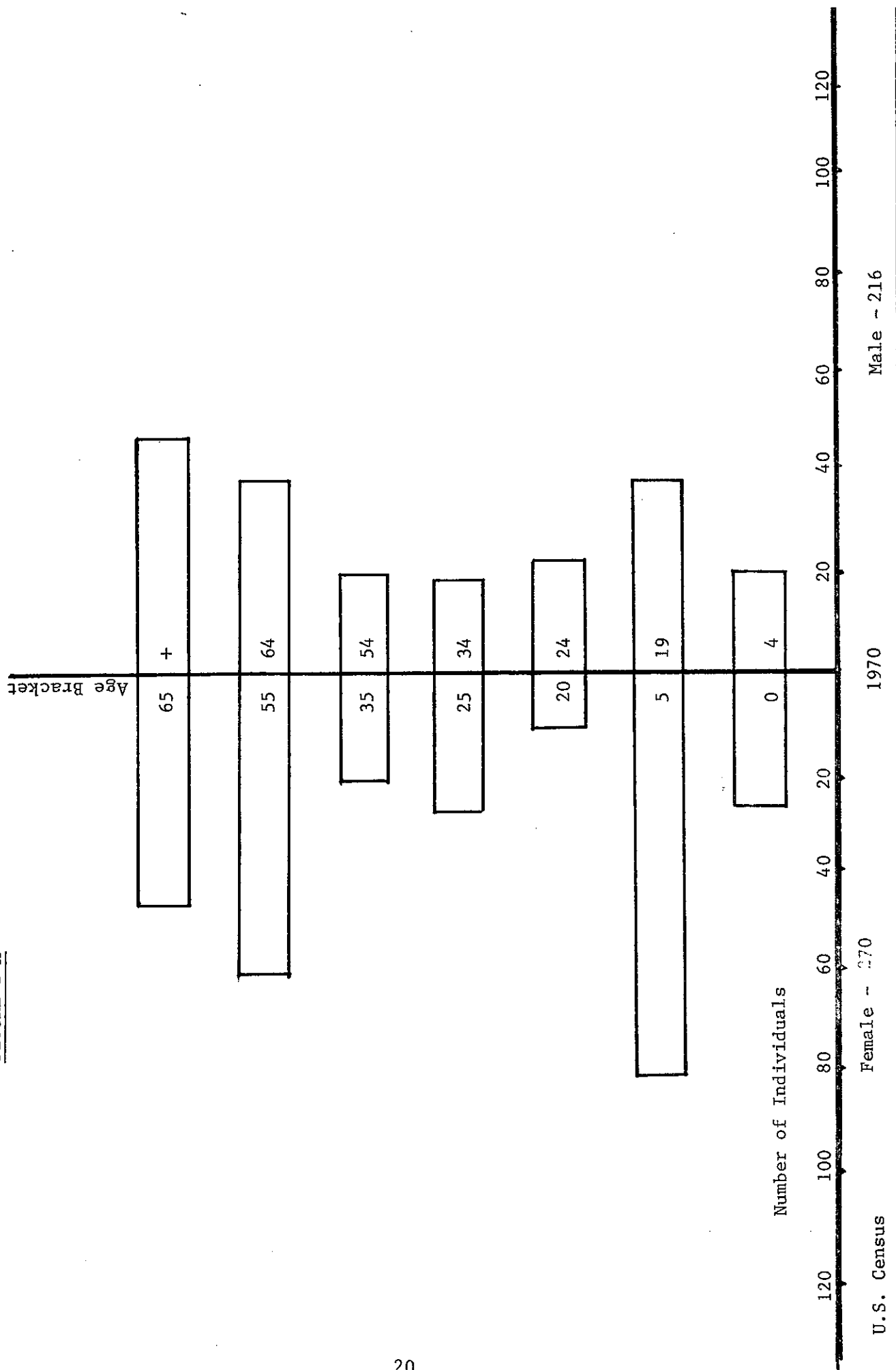
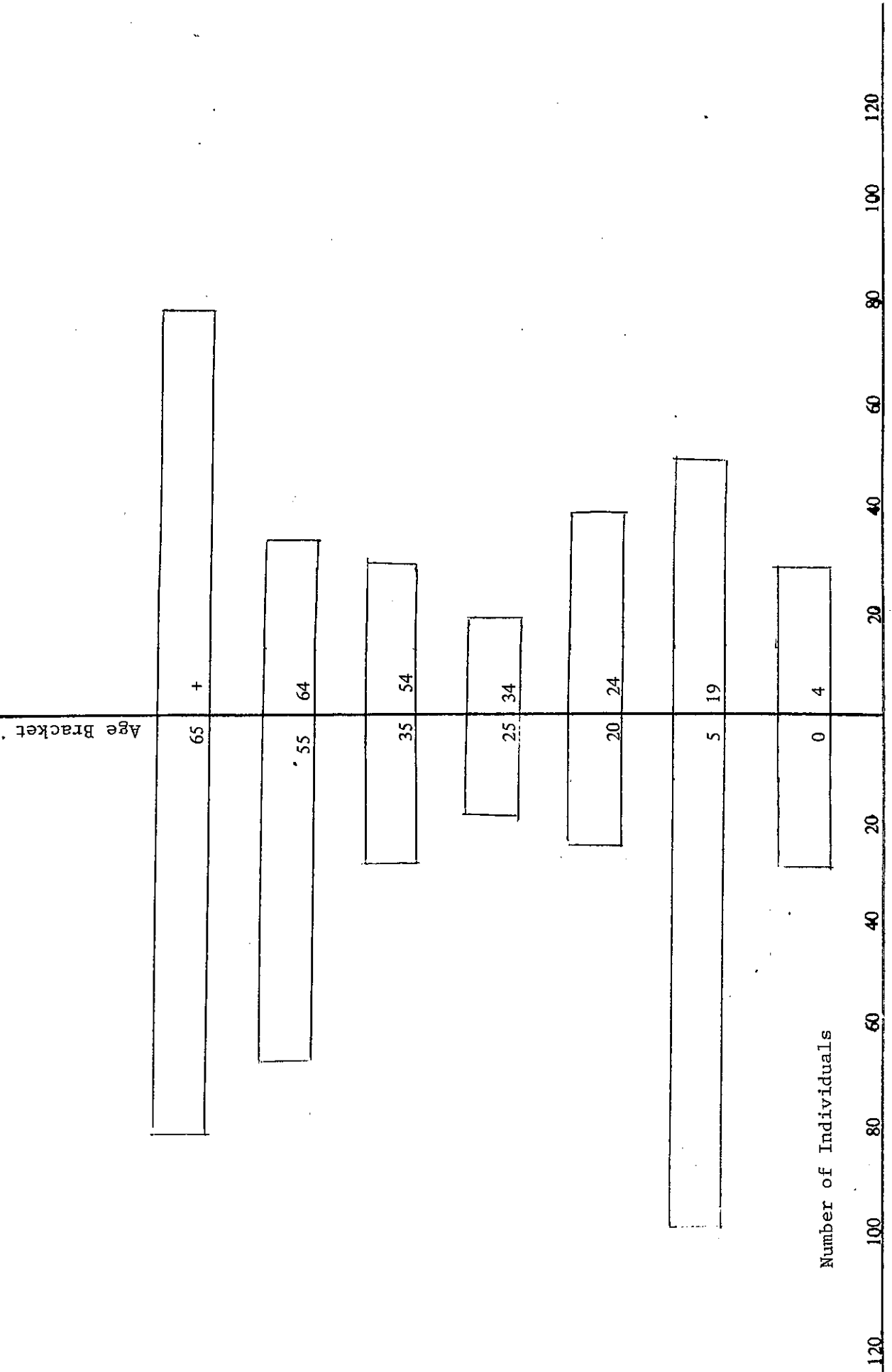


FIGURE 1-B



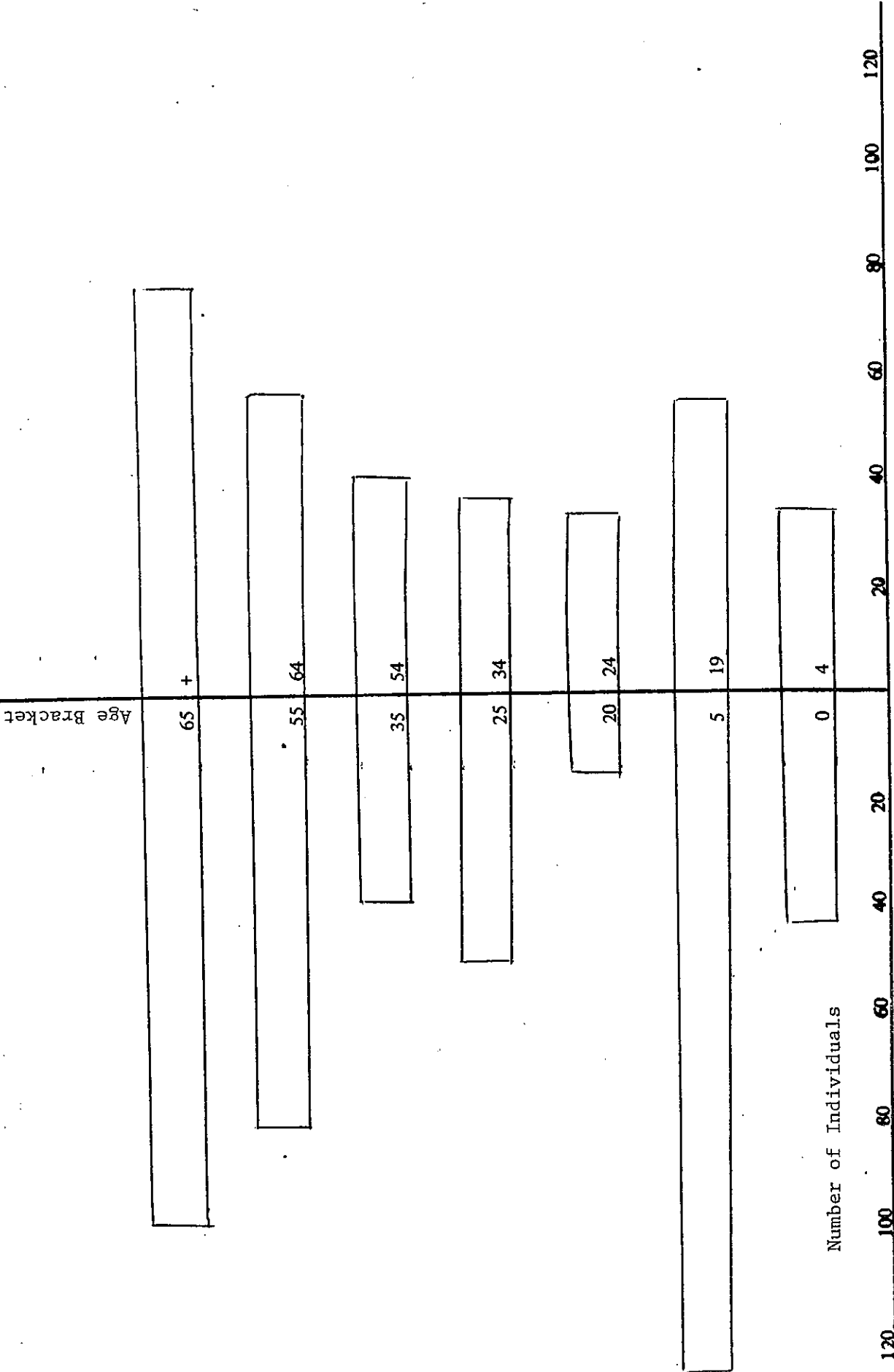
Male - 346

1980

Female - 432

Projected

FIGURE 1-C



Male - 460

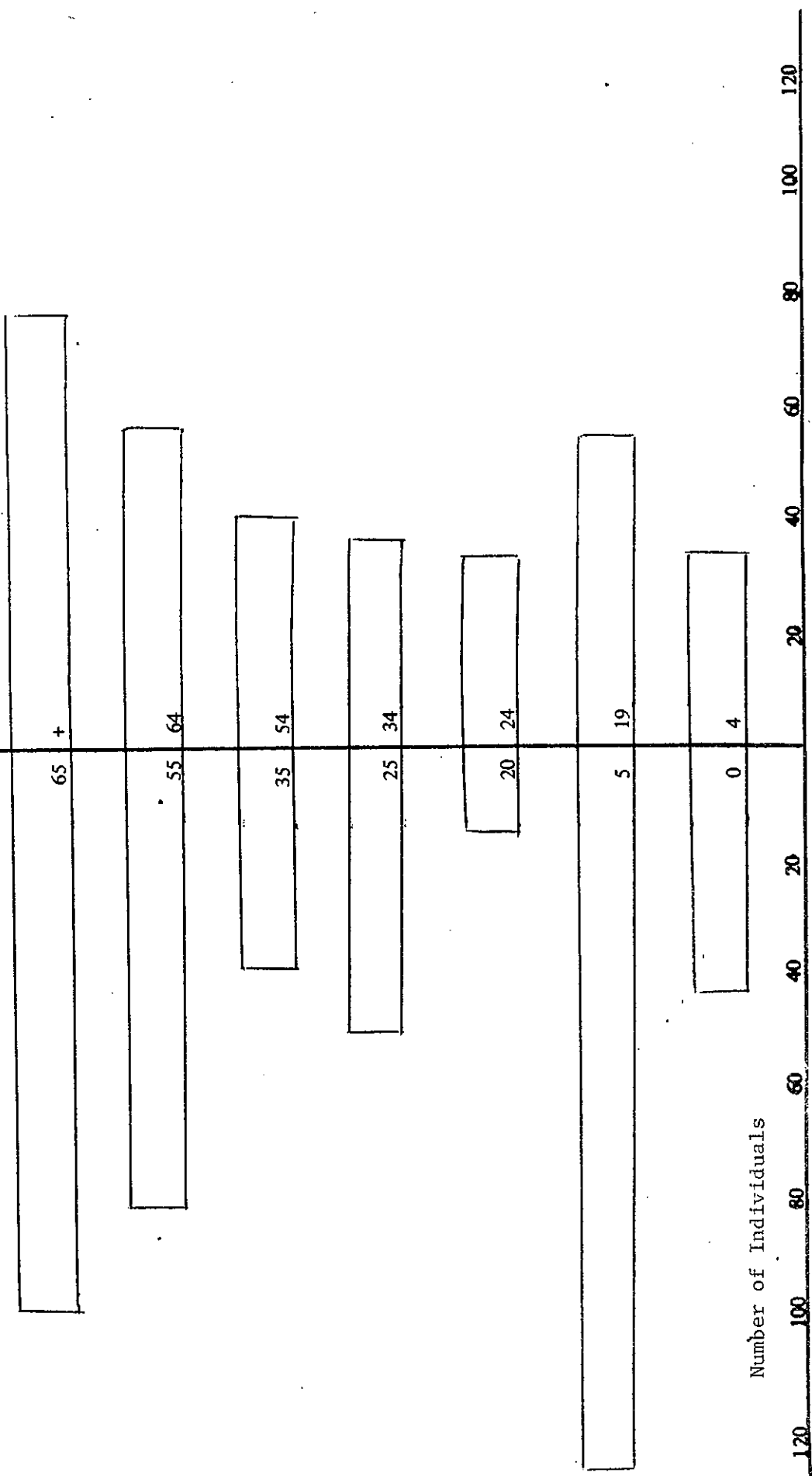
1990

Female - 574

Projected

FIGURE 1-D

Age Bracket



Number of Individuals

Female 648

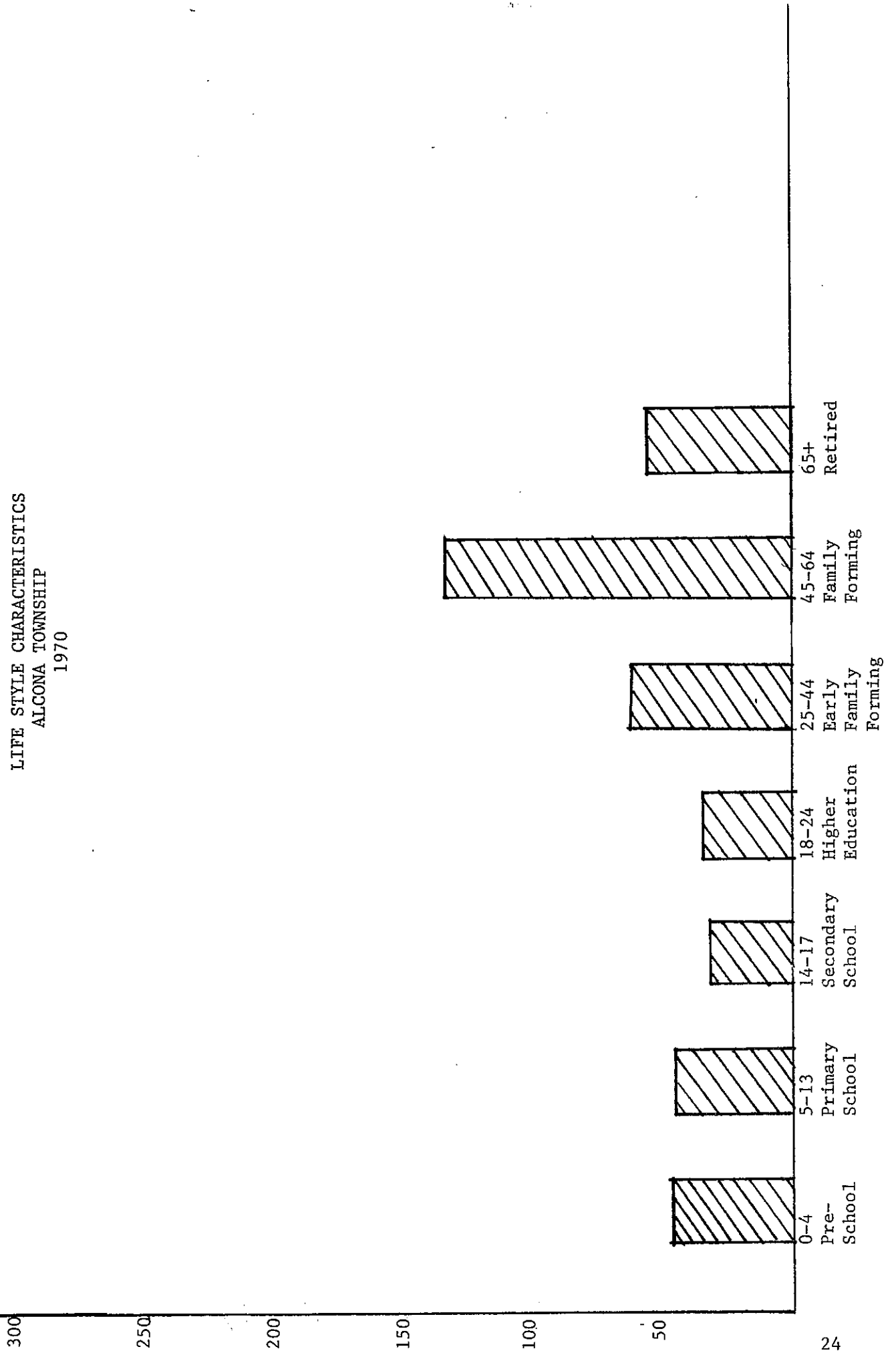
2000

Male 520

Projected

FIGURE 1-E

LIFE STYLE CHARACTERISTICS
ALCONA TOWNSHIP
1970



PERCENT OF TOTAL POPULATION

40%

30%

20%

10%

FIGURE 1-F
ALCONA TOWNSHIP
LIFE STATUS CHARACTERISTICS

ALCONA TOWNSHIP
ALCONA COUNTY

1960
1970
1960
1970
1960
1970
1960
1970
1960
1970
1960
1970
1960
1970
1960
1970
1960
1970

PRE-SCHOOL (0-4)
SCHOOL (5-24)
FAMILY FORMING (25-44)
MATURE FAMILY (45-64)
RETIRED (65+)

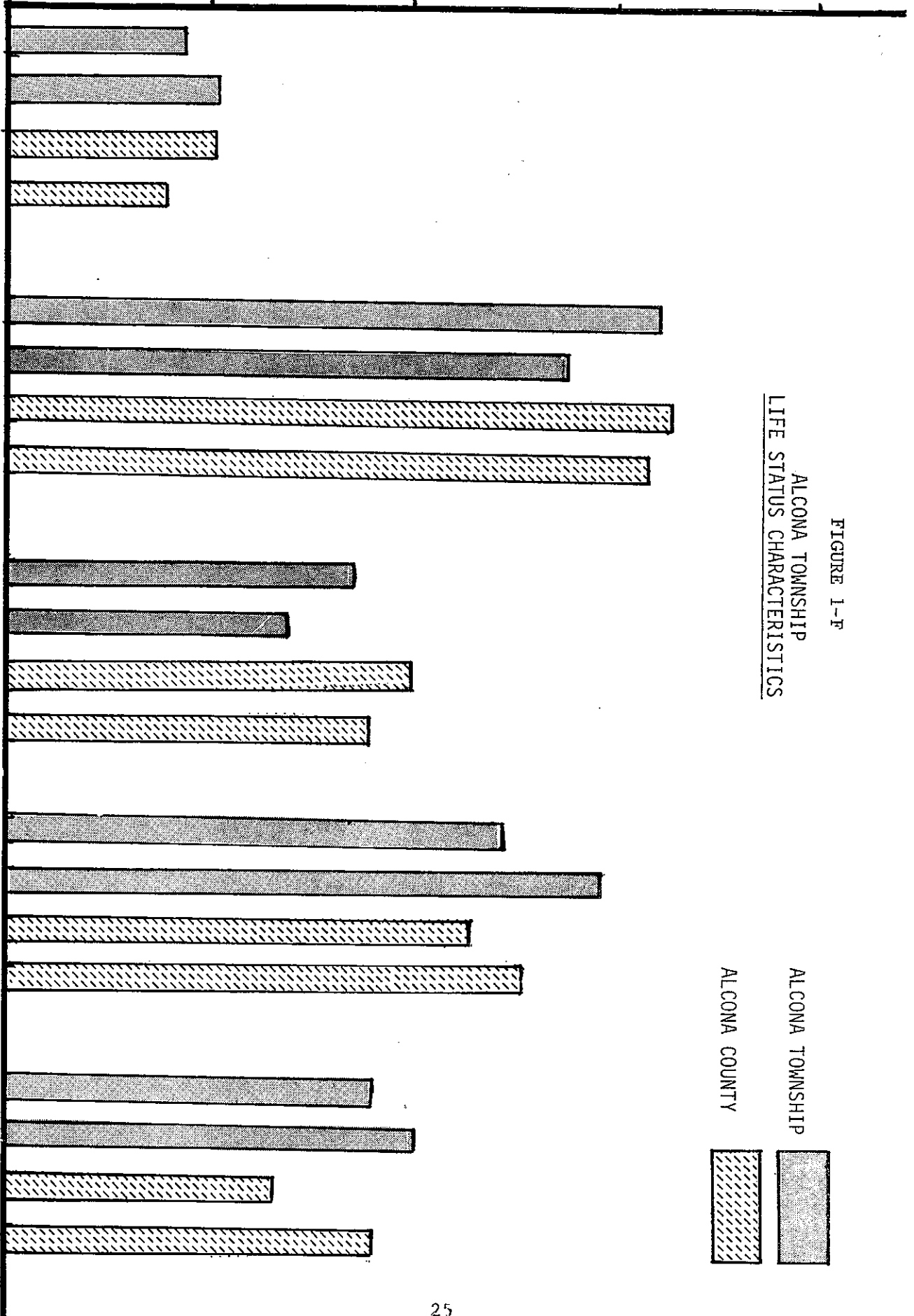
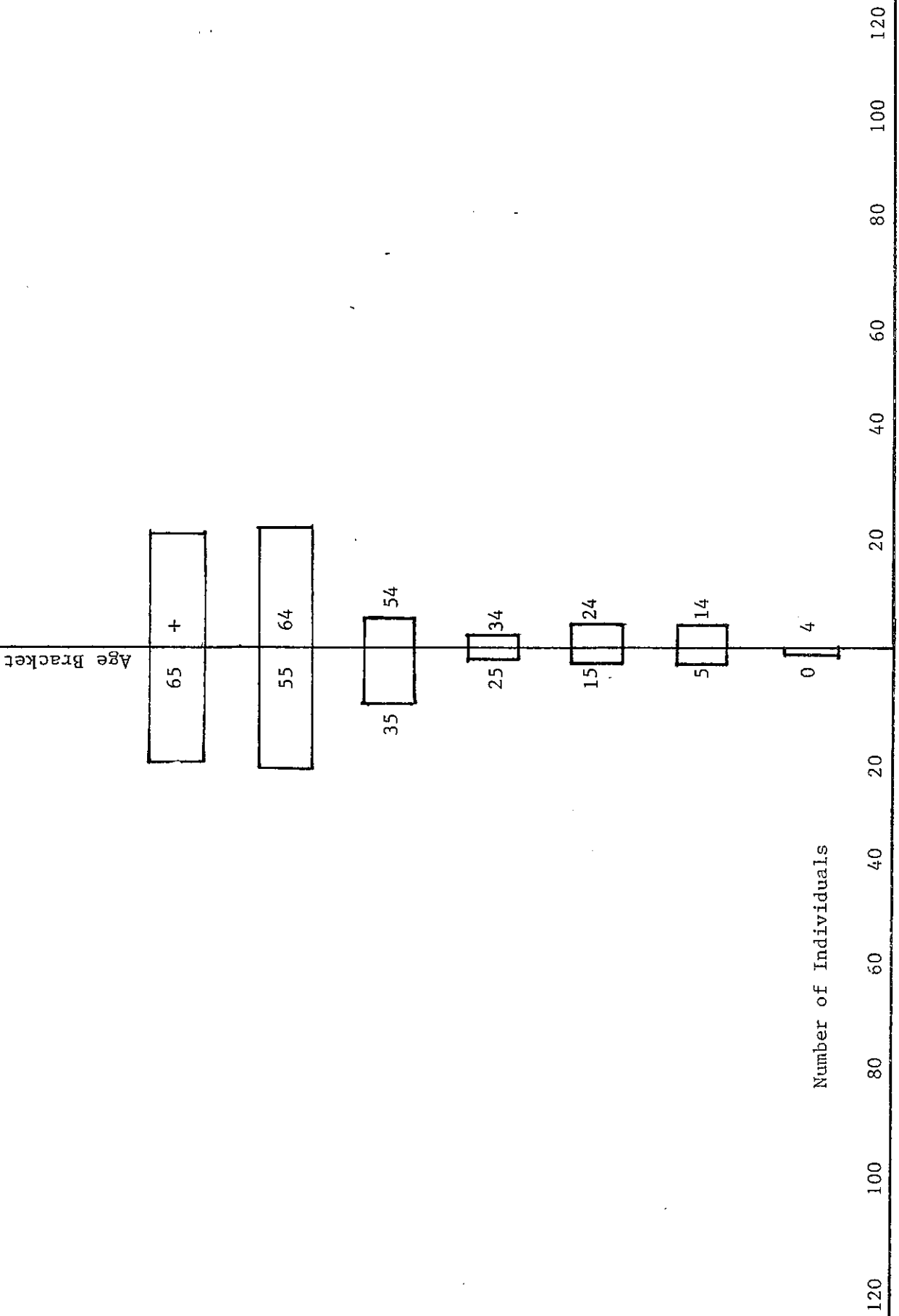


FIGURE 2-A



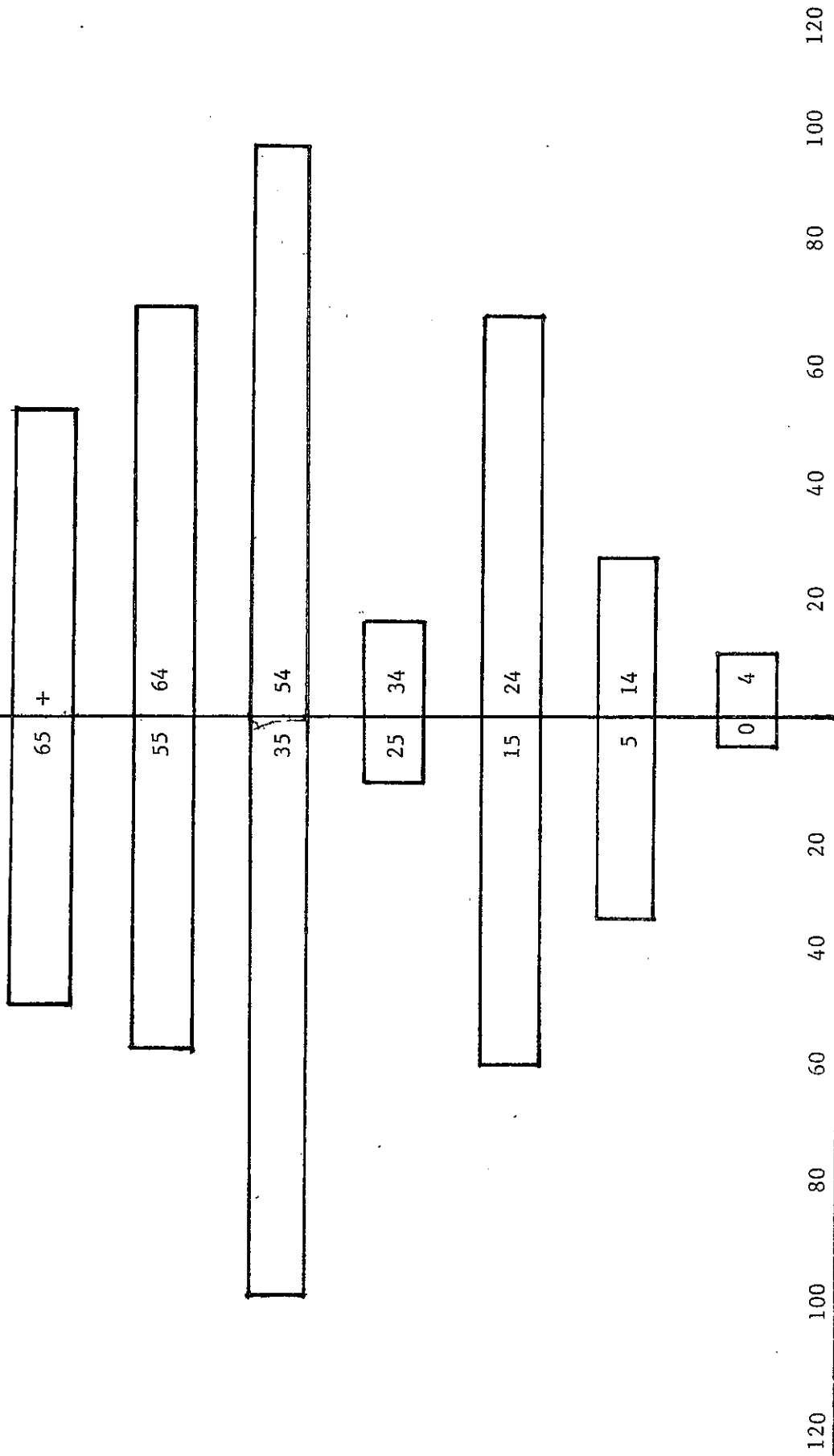
1979 YEAR'ROUND RESIDENTS

Female -- 395

Male - 311

Projected

FIGURE 2-B



Projected Female - 918

1979 SEASONAL RESIDENTS

Male - 734

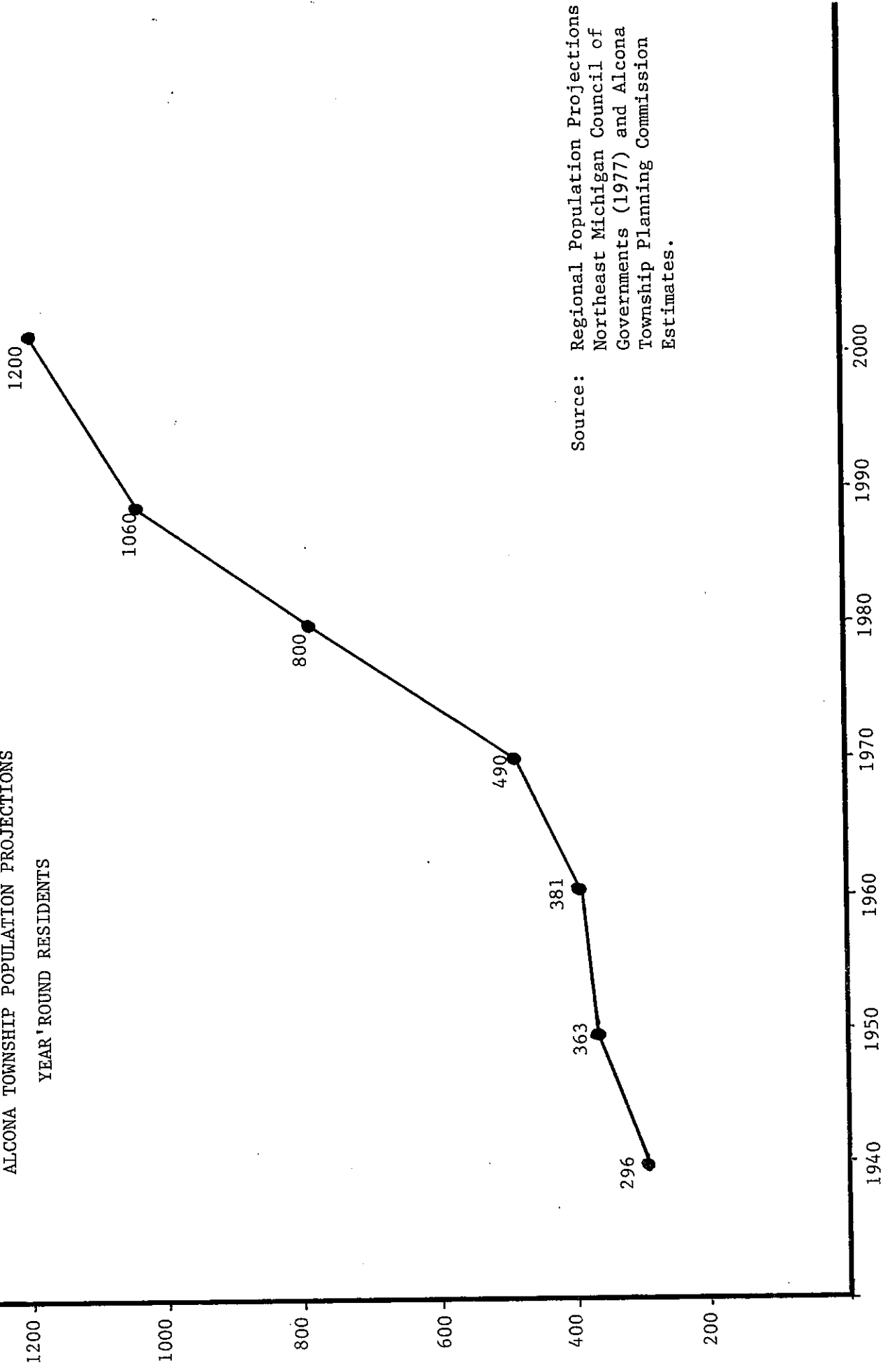
while the smallest proportion of the total township population is in the school-age and pre-school age bracket. The implication is that a disproportionate number of township residents are not part of the area's labor force and, most importantly, require more public services than those who are in the labor force and in the 25-64 age groups. It is also interesting to note, according to Figure 2-B, a reverse population pyramid also exists for seasonal residents, although this pyramid is not as well defined as the pyramid for year-round residents. There is a greater percentage of the total population in the 35-54 category among seasonal residents than there is among year-round residents. It is expected that a number of these seasonal residents will retire in the township in the future, contributing to a need for expanded health care and related services.

Population Projections

In order to properly prepare for future development and define future needs, projections or estimates must be made of the area's future population.

Figure 3 graphically portrays the projected Alcona Township population. If these projections are accurate, there will be a 60 percent increase in the year-round population of the township between 1970 and 1980. While this increase may seem proportionally large, it represents approximately only 300 additional year-round residents, and the overall effect on the township's future land use should be minimal. Based upon the number of seasonal and year-round residents who responded to the questionnaire, there are approximately 3.4 times as many seasonal residents as there are year-round residents. Multiplying the 1970 year-round population by 3.4 yields 1652 seasonal residents for that year. Based upon the same calculations, the projected 2000 seasonal population should be approximately 2800 people.

FIGURE 3
ALCONA TOWNSHIP POPULATION PROJECTIONS
YEAR 'ROUND RESIDENTS



Source: Regional Population Projections
Northeast Michigan Council of
Governments (1977) and Alcona
Township Planning Commission
Estimates.

ECONOMY

Township Budget/Cost Impact

If local government is to function effectively it must strive to maintain a fiscal balance between the cost of municipal services and the revenues generated to pay for those services. In the case of Alcona Township, responsibility for municipal services are spread among several units of government including Alcona Township, Alcona County and the Alcona County School District. However, the primary responsibility for managing the township growth lies with Alcona Township.

It must be recognized in evaluating fiscal costs and benefits that there may be certain types of development which do not "pay their own way", but provide certain social benefits which cannot always be expressed in economic terms. These types of development such as parks, recreational areas, subsidized housing, and environmental benefits must be viewed in terms broader than economics.

In general, any new development can be evaluated as to its impact on the fiscal balance of the township. However, other services which may be provided by the township can not be expressed in terms of dollars.

It is not possible within the limited scope of this study to provide as thorough an analysis as might be desired, but an elementary method for evaluating any development is presented here. In order to determine precise costs it is necessary to monitor new and existing development costs. It is felt that certain basic costs of municipal services can be determined which will as least provide a general indication of the relative economic cost or benefit of development to Alcona Township.

TABLE 3
EXPENDITURES PER CAPITA BY
ALCONA TOWNSHIP GOVERNMENT
1979 BUDGET

	<u>TOTAL EXPENDITURES</u>	<u>PER CAPITA EXPENDITURES</u>
General Township Administration Fund	\$ 39,903	\$ 49.88
Fire Department	12,637	\$ 15.79
Road Fund	12,601	15.75
Total Township Cost	\$ 65,141	Total Per Capita \$ 81.42

An easily understood formula will demonstrate the use of the economic impact model. The concept is simple. The costs generated should not exceed the revenue generated by that project unless some social benefit exists.

COSTS = REVENUES AND SOCIAL BENEFITS

Costs =	Costs for township government
	Costs for township services
	Costs for fire protection
	Costs for road construction and maintenance
	Costs for library
	Costs for township hall
Revenues =	Fund balance
	Property tax
	State and Federal revenues
	Liquor license
	Hall rent
	Interest

Social
Benefits = Good clean rural living
Progressive township government
Recreation areas
Security, peace and quiet
Scenic beauty

Analysis = The "quality-of-life" for Alcona Township is stable

Major Employees

In this sparsely populated area of Michigan, job opportunities and wage levels have not kept pace with the balance of the state. Employment potential for many township residents is dependent upon the city of Alpena, Harrisville and the village of Lincoln. Many residents commute to these areas outside the township to work.

Total earnings for all sources in Alcona Township during the year of 1970 amounted to \$1,123,000. This represents an average income of \$6889 per family. In 1977 the average family income was \$9024 or a 24 percent increase. (see Table 4.)

TABLE 4
1970 ALCONA TOWNSHIP TOTAL FAMILY INCOME

14 - + Unrelated individuals	\$ 49,000
2 - Persons per family	531,000
3 - Persons per family	212,000
4 - Persons per family	158,000
5 - Persons per family	44,000
6 - Persons per family	129,000
TOTAL	<u>\$1,123,000</u>

Tourism, forest products and consumer related services constitute the bulk of the business enterprises. According to the 1970 Census, manufacturing is the major source of employment among township residents in the labor market.

TABLE 5
1970 EMPLOYMENT BY INDUSTRY

Government	7
Manufacturing	
Durable goods	24
Construction	6
Wholesale trade	18
Finance, insurance business, real estate and repair	15
Other professional services	4
Other industries	32

Looking at those employed in terms of occupations, a majority of the labor force are employed as service workers, other laborers and clerical. (see Table 6.)

TABLE 6
1970 EMPLOYMENT BY OCCUPATION

Professional and technical	4
Farmers	6
Management	7
Clerical	16
Sales	11
Craftsman	12
Operatives	12
Service workers	17
Farm laborers	4
Other laborers	17

Studying the income levels of the township's 163 families (1970 Census), it was noted that 79 percent (132 families), earned less than the state's median family income of \$11,032. (see Table 7.)

TABLE 7
FAMILY INCOME LEVEL

	<u>NO. OF FAMILIES</u>	<u>% OF TOTAL</u>
Under \$ 2999	41	25%
\$ 3000 4999	12	07%
5000 7999	37	22%
8000 11,999	42	25%
12,000 14,999	16	09%
15,000 24,999 - up	20	12%
TOTAL	<u>168</u>	<u>100%</u>

The per capita income of \$2425 in Alcona Township in 1970 was about the same as the region with \$2428 and considerably less than the state with \$3373.

Employment

The term labor force includes all those persons 16 years of age and older who are classified as employed, unemployed or members of the armed forces. Those not in the labor force are civilians 16 years of age and older who are keeping house, unable to work, inmates of institutions, students, retired, voluntarily idle, etc. The labor force participation rate is define as the percentage of the people of the township who are engaged in full or part-time employment as well as those actively looking for work. In 1970 the participation rate for Alcona Township was 41 percent compared to 57 percent for the state.

Alcona and Iosco Counties are considered the "East Tawas Labor Market Area" by the Michigan Employment Security Commission, and subsequently, all of the statistics reflect the combined figures for both counties beginning with the issuance of the March 1975 statistics. The MESOC has determined unemployment estimates for all of the labor market areas. The revised estimates will reflect the average civilian labor force "by place or residence", rather than "by place of work", as has been the case in the past. This new method will more realistically reflect the employment and unemployment climate in Alcona Township, since a number of the residents work in outlying areas.

(see Table 8.)

TABLE 8
1970 EMPLOYMENT STATUS - TOTAL LABOR FORCE

		<u>Total Labor Force</u>
Employed	106	134
Unemployed	<u>28</u>	
Other under 65	137	
Over 65	81	

TABLE 9
1979 CURRENT EMPLOYMENT SURVEY SERVICE

		<u>Total Labor Force</u>
Employed	148	182
Unemployed	34	

The labor force of Alcona Township is greatly affected by seasonal variations in employment due to its dependency upon tourist/resort and natural resource oriented enterprises. The highest period of unemployment is during the winter months. The unemployment rate begins to decline in the spring and reaches its lowest rate in the late summer at the peak of the tourist season. Greater emphasis must be directed toward reducing the wide fluctuations in employment within the township. Efforts must be exerted to expand year'round facilities and activities if the township is to continue to rely upon tourism as a significant portion of its economic base.

PUBLIC FACILITIES

Public service facilities including health, fire and police protection are available to all residents within Alcona Township. (see Map 4.)

Law Enforcement

Because of lower population levels, the magnitude of the law enforcement problems in Alcona Township is considerably less than that which prevails in southern Michigan. However, two factors make the proper level of police protection difficult:

1. The area is patrolled with only a few officers - Alcona County Sheriff's Department and the Michigan State Police, Alpena Post.
2. Seasonal population, sometimes triple the year'round number, necessitates additional patrols without proportionately increasing personnel. The Alcona County Sheriff's Department has a modern facility in Harrisville from which the eastern part of the county is served.

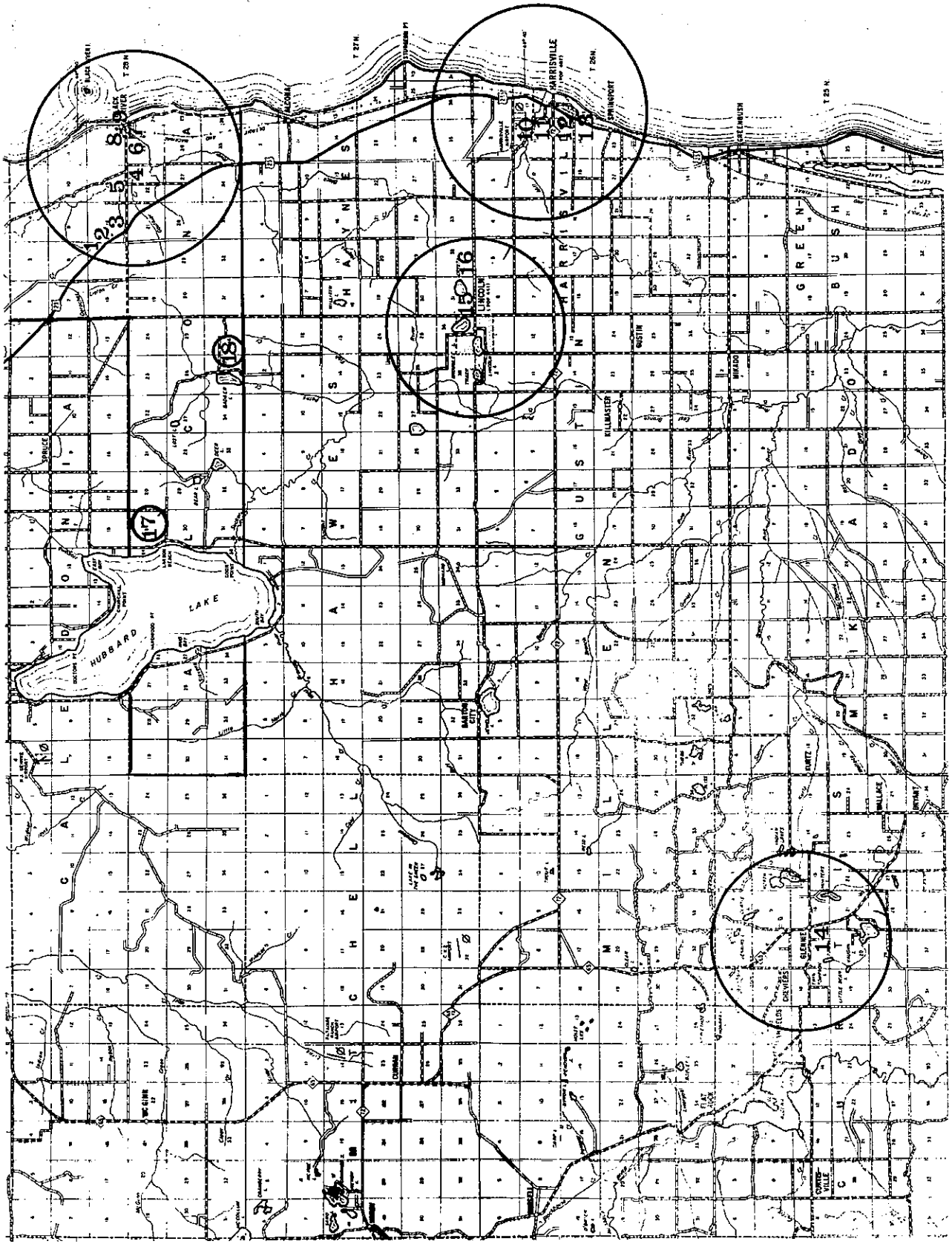
Court System

Alcona Township is in the 23rd Circuit Court. The courthouse is located in Harrisville. This court has jurisdiction over all felony cases and civil claims that are not given by state statute to some other court such as district or probate court.

Alcona Township is also served by the one judge of the 82nd District Court. Sessions of district court are held every Wednesday at the Harrisville Courthouse.

Probate and juvenile matters are handled by the Alcona County Probate Court located in Harrisville.

ALCONA COUNTY AND TOWNSHIP



PUBLIC FACILITIES
ALCONA COUNTY AND TOWNSHIP

BLACK RIVER

1. Senior Citizen Center
2. Township Hall
3. Fire Station
4. School - (closed)
5. Cemetery
6. Post Office
7. Library
8. Recreation Center
9. Church

HARRISVILLE

10. Police Station
11. Ambulance Service
12. Courthouse
13. Long Term Care Facility

GLENNIE

14. Ambulance Service

LINCOLN

15. Long Term Care Facility
16. Medical Clinic

HUBBARD LAKE

17. Fire Station

LOST LAKE WOODS

18. Fire Station

Fire Protection

Fire protection is one of the most important functions provided by Alcona Township. Map 5 depicts the location of the three fire stations serving the township. The fire departments have four pumpers, two tankers, air packs and resuscitator. They are manned by thirty-five regular and auxiliary personnel.

Medical

There are no doctors or dentists located in Alcona Township. Medical care facilities are located in Alpena (Alpena General Hospital), Tawas City (St. Joseph Hospital and Iosco Medical Care Facility), and the medical facility located at Lincoln. A military hospital is also located at Wurtsmith Air Force Base, but available to military personnel only. However, they will treat emergencies and retired persons. Harrisville and Lincoln have long-term care facilities and nursing homes for the elderly.

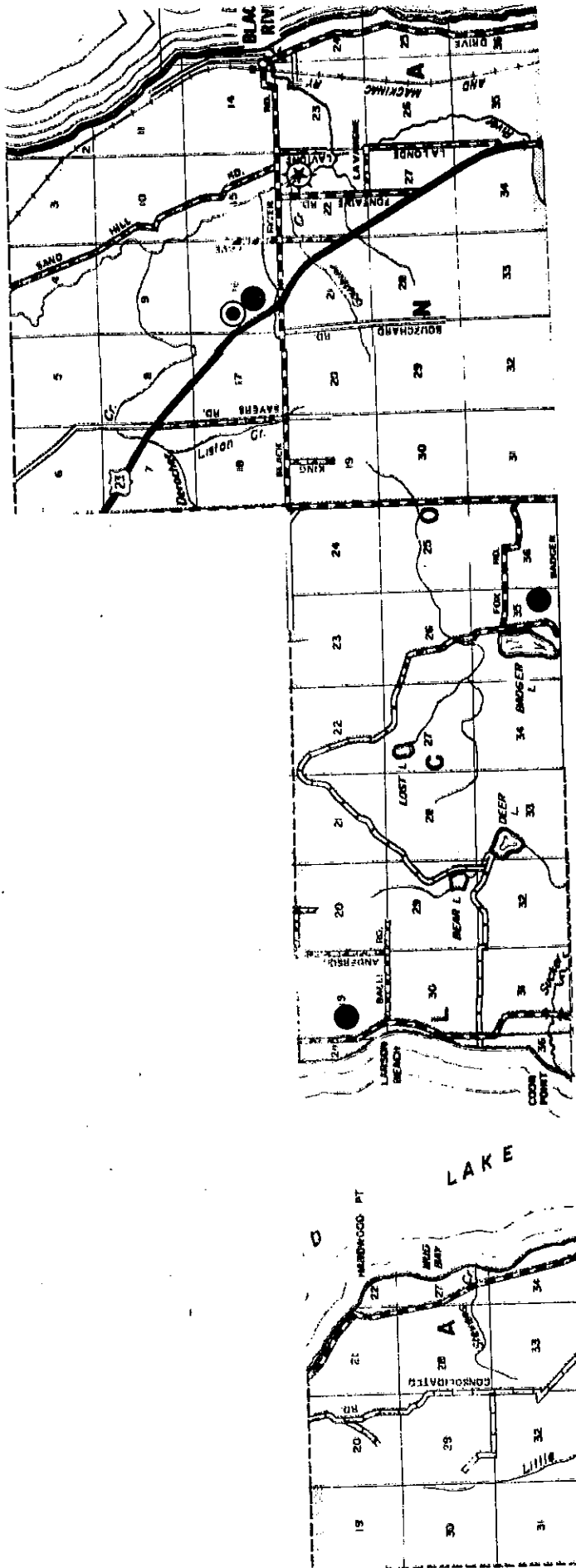
Ambulance Service




Alcona County Sheriff's Department houses two ambulances for emergency use within the county. A third ambulance is stationed at Glennie for use in the western sections of the county. The sheriff departments receive the emergency calls and dispatches the ambulance to the area of need.

Senior Citizens

Alcona County Commission On Aging provides a variety of services to the senior citizens of Alcona Township. These services consist of nutrition, transportation, recreation, blood pressure clinics, health screening, shopping assistance, etc. The Alcona Township Hall is used for meals and nutritional services two days per week. All other services including nutritional meals, are provided on a daily basis from the center located at Lincoln.

PUBLIC FACILITIES
ALCONA TOWNSHIP



-  Fire Stations
-  Township Hall
-  School - (closed)

COMMERCIAL

Proximity to residential areas is of prime importance in the selection of commercial locations. As relatively short travel time from such residential areas is crucial to a commercial enterprise.

An overall view of our land use map clearly depicts the relationship between higher density residential sites and closely allied commercial land uses. By far, the largest areas of commercial land users are located along the highway routes and in the unincorporated settlement of Black River.

Alcona Township lacks well designed shopping centers. For this reason, many of the residents drive outside the township to larger urban areas to fulfill particular shopping needs. Many residents like this condition because it preserves the area's rural character. Others feel the need for more commercial activities to be located within the township. Many questionnaires stated the need for grocery or general stores, drug and department stores.

Alcona Township's commercial activity is geared toward seasonal use by summer residents and tourists. Most businesses are located in the Black River settlement, along Mt. Maria and Hubbard Lake Roads, and along Highway US-23.

The present commercial activities include:

Restaurant/Bars	Rental Cabins
Gas Station/Party Store	Builder
Real Estate Agency	Resort

The results of the questionnaire survey clearly indicate that the township residents would like to see more commercial and recreational businesses locate in the area. More businesses mean more tax dollars. The township

residents indicated that they felt there was a need for the following additional commercial activities.

Grocery or general stores
Sporting goods
Drug store
Hardware
Auto mechanic and garage
Department store

Gas stations
Entertainment theatre
Marina
Restaurant/Bar
Motel

HOUSING

Housing affects people's lives - their individual and community pride, health, income (budget), taxes, ect. In fact, housing is so important to people that it is usually one of life's ambitions to own one's own home.

However, soaring home mortgage interest rates of 12-15 percent, hefty down payments and low income levels, make it almost impossible to finance a home today, especially for young singles or couples, handicapped, or elderly people. Alcona Township residents are caught in this housing squeeze, too. In 1970 only 36 percent of families earned between \$12,000-\$25,000 each year, and the 1977 average family income was \$9074. Thus, some families will be able to purchase homes, but most will have a hard time financing a home unless they enroll in subsidized loan assistance programs offered by such agencies as Farmers Home Administration (FmHA), Housing and Urban Development (HUD), Michigan State Housing Development Authority (MSHDA), or through a progressive bank or credit union.

Additionally, even if a person manages to finance a home or is retired and owns his or her own home, the high maintenance cost and the township's very high property taxes make home ownership extremely costly. A significant portion of the township's population is affected because 45 percent are elderly single men and women in poor health, living on fixed incomes who eventually must sell their homes and move into apartments or mobile homes.

In 1970 about 45 percent of homes in Alcona Township were worth from \$25,000-\$49,000. However, this is primarily due to the many seasonal homes owned by prosperous homeowners from downstate who vacation in Alcona Township. This includes higher wage earning residents who work at Harrisville, Tawas City, Alpena, etc. The remaining lower value homes are generally owned by

retirees on fixed incomes and lower income people who cannot afford better housing. In 1977 there were 634 year-round houses with a substantial number of them lacking plumbing, kitchen or direct access facilities. This classifies them as "physically inadequate" according to the U.S. Bureau of the Census. With 567 households in 1977, there are still adequate houses available for residents. As of 1977, Alcona Township has enough decent homes to house its current population and should continue this trend into the future, as building codes are now administered by the county.

One of the current and future housing issues that Alcona Township and all the municipalities throughout the region face is public concern over subsidized housing. Many of the region's residents have lower incomes and generally cannot finance their homes without a loan assistance program.

However, other people:

"...fear that subsidized housing create overcrowded schools, property devaluation, unsightly development, disruption of law and order, and an increase in taxes due to the need for additional services. This arises from the apparent negative results of huge public housing projects built in the thirties and forties, and it overlooks the real need for subsidized housing. The housing industry presently cannot build a good quality house at a cost within range of moderate and low income households. Consequently, the needs of these income groups are not met by the conventional market. Some form of housing subsidy to the industry or household is necessary... A new planning method gets away from huge projects and their negative results by scattering small developments throughout a region. Called 'dispersed housing', 'housing allocation', or 'fair-share', it works to dispel fears of inundation by providing that one community in a region will acquire low income units to the extent of changing its unique and inherent character. Locating subsidized housing through use of a housing dispersal plan allows a community to balance both the regional necessity for diversity and its unique local circumstance, such as school capacity or land cost, without placing a substantial burden on any one jurisdiction."*

*National Association of Regional Councils, Straight Talk About Housing Your Region, NARC: Washington D.C., 1973, pg. 7.

According to the regional housing plan prepared by the Northeast Michigan Council of Governments, the "fair-share" allocation of subsidized low income houses or rental units for elderly, handicapped, and families would be an additional 151. This "share" is based on the subsidized housing needs of Alcona Township itself, and the proportion of the county's subsidized housing the township should contain as a proportion of the county's future population. These units would best be placed in areas where soils, topography, existing services, and population will be conducive for housing.

INDUSTRIAL

Of the many types of industrial endeavors, only one type is found in Alcona Township. This type is related to the production of machinery and machine goods. There are two plants, both located on F-41 north of Lost Lake Woods, that produce these goods. They are Collins Precision and L&R Centerless Grinding. Collins Precision employs thirteen workers and L&R Centerless Grinding employs five workers. Further development of industrial activity should be promoted in Alcona Township.

AGRICULTURE/FORESTRY/OPEN SPACE

Because of heavy glaciation and severe climatic conditions, much of Alcona Township's land is semi-marginal for agricultural purposes when compared to prime farmland of the midwest. The marginal character of a large portion of the township's farmland, along with the high cost of machinery and the inflationary spiral, have combined to cause the decline of agricultural pursuits in the area over the past years.

Between 1964 and 1969, the total amount of agricultural acreage in Alcona County dropped from 74,434 acres to 55,941 acres - a 24 percent decrease. Although no figures exist on the township level, it is probable that Alcona Township experienced the same pattern of land withdrawn from agriculture. Most of the land which has left agriculture is now classified as open space.

There are 38,464 acres in Alcona Township. Of this, 5226 acres are U.S. Forest Service land, 2125 acres are state owned, and 8834 acres are owned by the Lost Lake Woods Club. As seen, a substantial portion of the township (42%) is owned by only three entities. The remaining acreage is divided up between smaller public and private holdings. Also, the 1975 Statistical Abstract report showed that 7522 acres were in forestry, 1541 in agricultural use, and 14,406 residential.

ENVIRONMENT

People, with their activities and service systems, affect the natural environment of Alcona Township. The township residents are blessed with pleasant scenery, abundant timber and wildlife resources, a large inland lake, many clear streams and wetlands, approximately six miles of beautiful sandy Lake Huron shoreline, and easy accessibility via US-23. Many downstate and out-of-state visitors come to Alcona Township for summer/vacation activities, and seasonal cottages dot the shores of Hubbard Lake and Lake Huron.

The natural environment strongly influences the township's economic and social framework. The major issue facing residents and the local government is how to best fit future people, activities and services into their physical environment so that both man-made and natural environment complement and coexist with each other instead of man's activities overwhelming, and eventually conquering and destroying the very physical environment that is the township's major attraction.

A balance can be found if residents and local officials realistically assess current and potential problems, and commit themselves to carefully plan for the future.

Climate

Alcona Township lies about ten miles south of the 45th Parallel which is halfway between the Equator and North Pole. It is approximately 47 miles north of Saginaw Bay and two hours driving time from Bay City. The surrounding terrain is level to hilly and mostly forest covered. The soils are mostly sand with low fertility.

Residents experience the beauty and variety of four distinct seasons - spring, summer, fall and winter. However, Lake Huron strongly influences the climate and seasonal changes are milder than further inland. Since the township is shaped like an "L" on its back, residents that live further inland from the Lake Huron shoreline have slightly more severe weather.

The first frost averages from September 20-30 on the township's western half to September 30 - October 10 on the eastern shoreline. Even so, this frost is almost a month later than interior communities experience. The township is a gardener's delight because the growing season averages 110-140 days as compared to 60 days or less for areas in the north central portion of the state.

In the summer, the lake sends cooling breezes inland, providing relief to township residents on hot days. In the winter, the westerly prevailing winds are warmed and dried by the time they reach Alcona Township from Lake Michigan. The average snowfall is therefore light - 60-70 inches in an average year compared to over 130 inches in parts of Otsego and Crawford Counties. Ice usually forms on the lakes and ponds by the end of December, and leaves by the middle of April. The normal average precipitation in Alcona Township between 1940 and 1969 was 28 inches per year. The winds are part of the Westerly Wind Belt System and not often of high velocity. However, tornados have occurred in Alcona County, especially during the spring and fall seasons of the year. (see Map 6.)

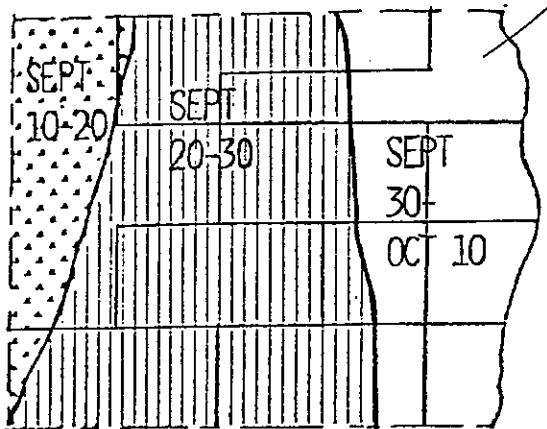
Air Pollution

Pollution of the air in Alcona Township is generally not regarded as a threat to the well being of the area's residents. However, the potential for damaging effects resulting from air pollutants does exist from exhaust

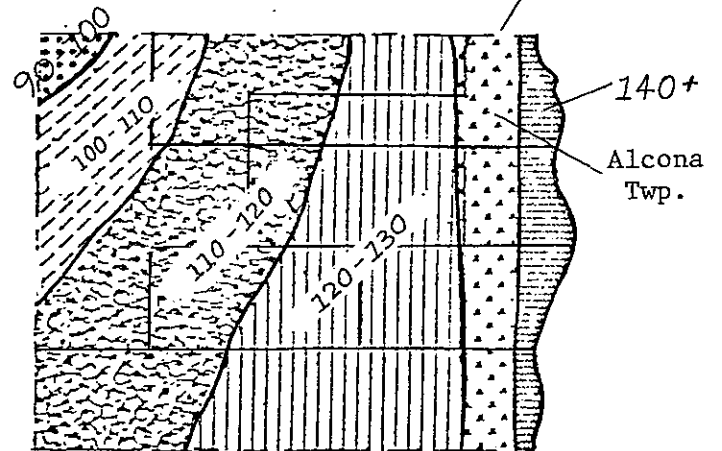
MAP 6

ALCONA COUNTY CLIMATE INFORMATION

AVERAGE
DATE FOR FIRST FROST Alcona Twp.



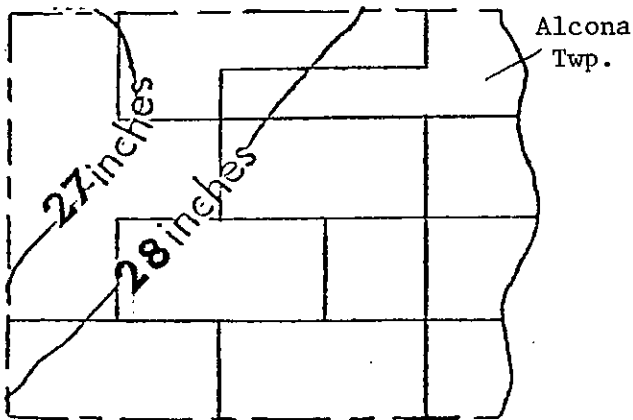
AVERAGE
LENGTH OF GROWING SEASON



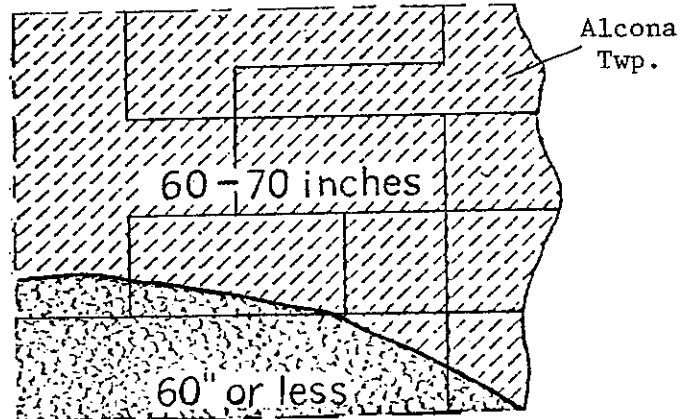
Number of Days

90-100	120-130
100-110	130-140
110-120	140+

NORMAL ANNUAL PRECIPITATION
(1940-1969)



AVERAGE ANNUAL SNOWFALL
(1940-1969)



Source: Huron Pines Resource Conservation and Development Area.

emissions, fuel dumping, forest fires and individuals who still resort to backyard burning barrels. (see Map 7.)

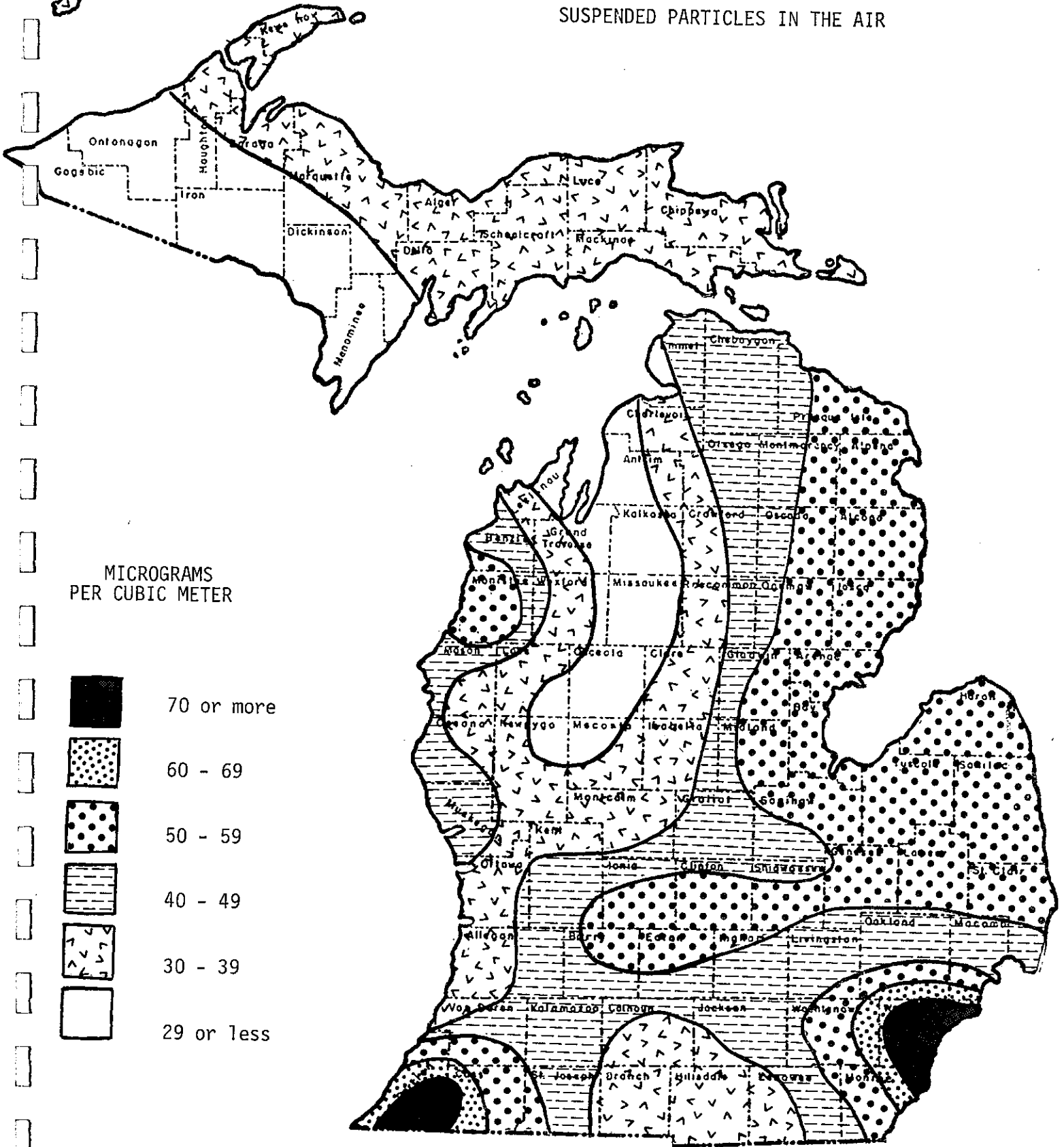
Geology/Surface Geology

In Michigan, primarily the Lower Peninsula, the bedrock formations are a result of the Paleozoic and Mesozoic Eras. During those two time periods, this area had a climate quite different from that we know today. For some time the area was covered by a warm tropical sea, then a dense tropical swamp, and finally it was covered by great glaciers. Sediments from the warm seas settled to the bottom and formed layers of strata of sedimentary rock. As the seas began to dry up and decrease in size, many strata were deposited in a layered pattern, somewhat resembling a stack of saucers. The upper most bedrocks in Alcona Township and the rest of the county consists of both the upper and lower Mississippian series of the Paleozoic Era. In Alcona Township, Antrim Shale covers about three-fourths of the area and the remaining bedrock is composed of 23 types of shales and limestone formations (see Map 8.) The sandstone yields brine, salt, gas and oil. The three shales are used to produce cement, brick, tile and sometimes "shale gas".







During the latter stages of the Paleozoic Era, the northern hemisphere was invaded by four tremendous glaciers that altered the landscape and terrain. As the last glacier melted and gradually receded, it left behind:

- * Huge heaps of rock debris as deep as 1000 feet.
- * A great variety of soils that were scraped from many regions far to the north.
- * The Great Lakes, world's largest bodies of fresh water.

SUSPENDED PARTICLES IN THE AIR







MICROGRAMS
PER CUBIC METER

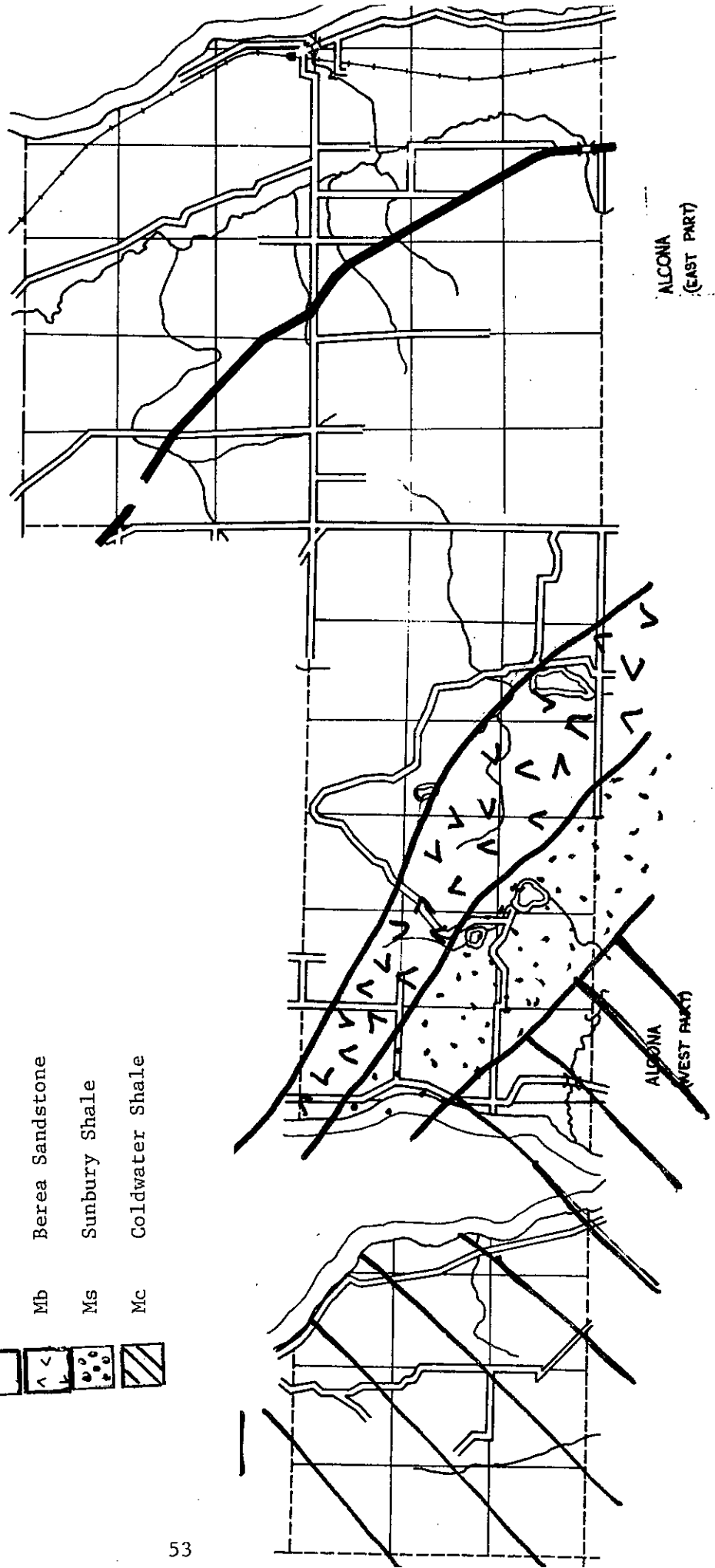
-  70 or more
-  60 - 69
-  50 - 59
-  40 - 49
-  30 - 39
-  29 or less

MAP 8

GEOLOGY

Legend

- | | |
|----|-----------------|
| Ma | Antrim Shale |
| Mb | Berea Sandstone |
| Ms | Sunbury Shale |
| Mc | Coldwater Shale |
-
- | | |
|---|--|
|  | |
|  | |
|  | |
|  | |



* Thousands of beautiful inland lakes.

* A flow pattern whereby the rivers and streams flowed into Lakes Michigan and Huron.

Plants, fish and animals, now extinct, gradually moved in behind the withdrawing ice and can be found occasionally as fossilized skeletons.

The debris dumped by glaciers and the streams flowing from them is called "glacial drift or till." This drift has characteristic and easily recognized surface forms:

Moraines -- The ridges or heaps of earth, stones, etc., carried by a glacier and deposited on adjacent ground, either along the course or at the edge of the glacier.

Ground Moraines -- Irregularly scattered tills, or concentrated into definite ridges.

Outwash and Glacial Channels -- The finer glacial debris that is deposited in rudely stratified layers by the melt-water streams emerging from the ice.

The surface geology of Alcona Township consists of moraines and sand lake beds. The inner reaches of Alcona County have features such as till plains and outwash glacial channels. Extending inland from the present day Lake Huron are well-defined, nearly flat plains and benches representing the early stages of the lake at the end of the glacial period. (see Map 9.)

The gently rolling terrain of the township slopes from the west towards Lake Huron to the east. Steep hills are found in the eastern portion of the township between Highway US-23 and Lake Huron, running in a north-south direction and also on the west side of Hubbard Lake.

MAP 9

SURFACE GEOLOGY

Legend



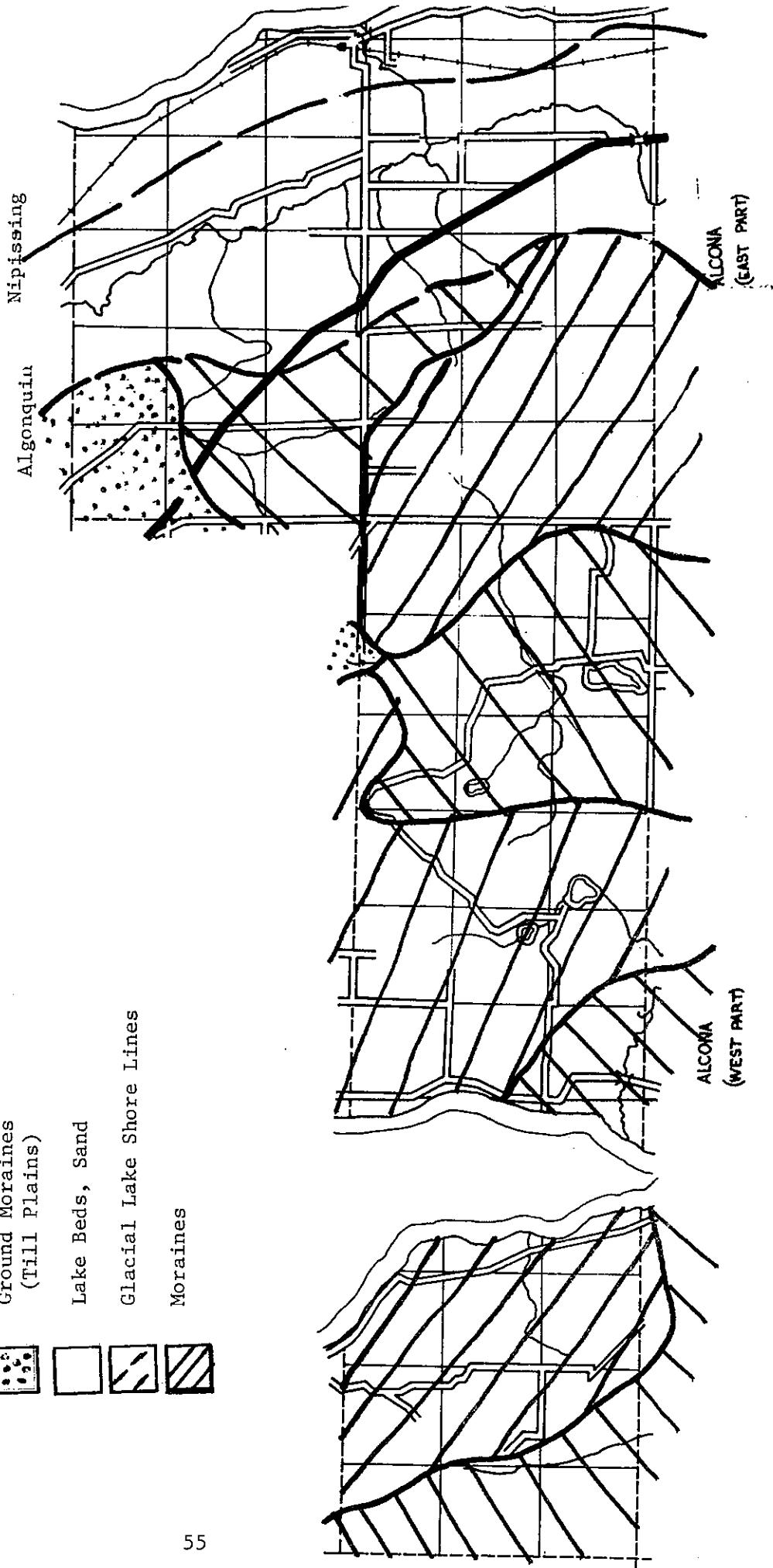
Outwash & Glacial Channels

Ground Moraines
(Till Plains)

Lake Beds, Sand

Glacial Lake Shore Lines

Moraines



Soils

Surface soils will affect future development capabilities. It is important to note which soils cannot be developed at all, which soils can be developed, and what type of developments can best be attempted. The accompanying soils maps are very general and will not eliminate the need for onsite testing. However, they do illustrate general soil groups and their potential capabilities for farming, recreation, forest and residential development.

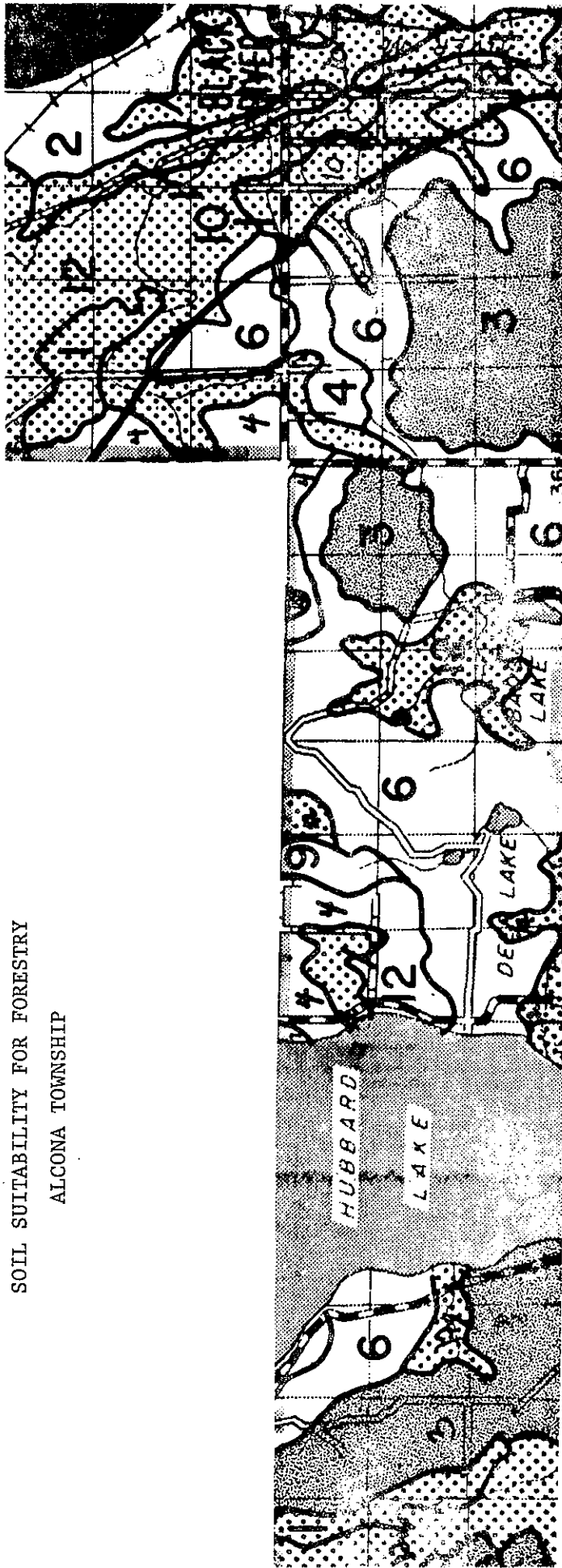
Four degrees of limitations were used as follows:

1. *Slight* - relatively free of limitations, or the limitations are overcome easily.
2. *Moderate* - limitations need to be recognized, but can be overcome with good management and careful design.
3. *Severe* - limitations are severe enough to make use questionable.
4. *Very Severe* - extreme measures are needed to overcome the limitations and use is generally unsound or impractical.

The numbers on the soils maps (10-14) correspond to the soil management groups that are described in the pages that follow the capabilities maps.

MAP 10

SOIL SUITABILITY FOR FORESTRY
ALCONA TOWNSHIP



2-4-6-9



-3



1-10-12



Good Soils For Forestry

These soils consist of the sandy, loamy to clayey soils on the undulating to rolling uplands.

Fair Soils For Forestry

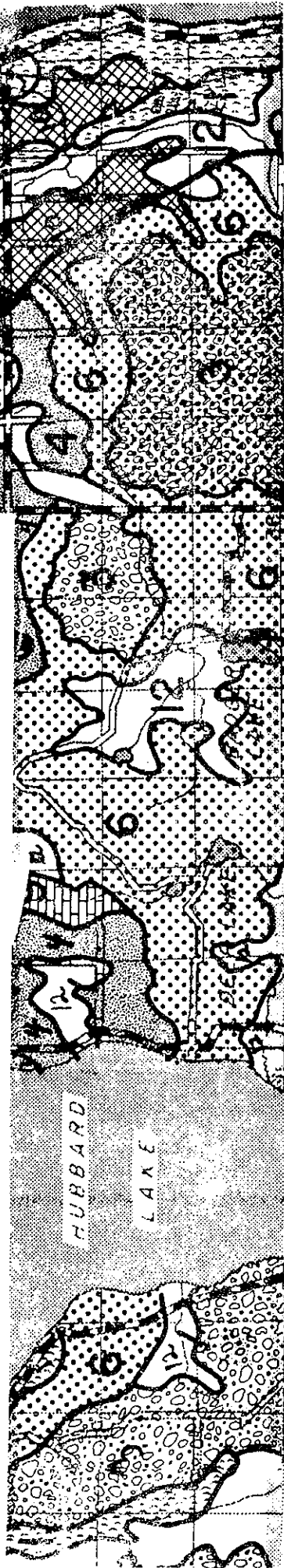
These are mainly undulating to hilly, well-drained sandy soils on uplands. Enclosed valleys, benches and plateau-like areas are included.








Poor Soils For Forestry

1-10 - these soils are nearly level to somewhat undulating, well-drained sandy soils in some areas and poorly drained soils in others.
12 - these soils are dominantly organic in nature. Organic deposits range from 1 to 25 feet or more in depth. These soils occur in marshes and swamps.

DEGREE OF SOIL LIMITATIONS FOR RECREATION AREAS

ALCONA TOWNSHIP



- 4  *Slight* - relatively free of limitations or limitations are easily overcome. These are undulating to rolling sandy and loamy soils on uplands.
- 9  *Slight-Moderate* - some areas are relatively free of limitations. Other areas limitations can be overcome with good management. These soils consist of the loamy to clayey soils on the undulating to rolling uplands.
- 6  *Slight-Severe* - some areas are relatively free of limitations, while other areas are severe enough to make use questionable. These soils comprise the undulating to steep sandy, loamy soils on complex rolling areas and hills.
- 1-2  *Moderate* - limitations need to be recognized and can be overcome with good management. 1) these are primarily nearly level to undulating, well-drained sandy soils and 2) this soil association is comprised of the network of narrow ridges and swales that border Lake Huron shoreline.
- 3  *Moderate-Severe* - limitations need to be recognized. Some area's use is questionable. These are mainly undulating to hilly, well-drained sandy soils on uplands.
- 10  *Severe* - limitations are severe enough to make use questionable. These are nearly level to gently undulating, somewhat poorly drained and poorly drained sandy soils.
- 12  *Very Severe* - extreme measures are needed to overcome limitations. Usage is unsound or not practical. These soils are dominantly organic in nature. Organic deposits range from 1 to 25 feet or more in depth. These soils occur in marshes and swamps.

MAP 12.

DEGREE OF SOIL LIMITATIONS FOR RESIDENTIAL DEVELOPMENT

ALCONA TOWNSHIP



1-4

Slight - relatively free of limitations or limitations are easily overcome. 1-4 - these soils consist of nearly level to undulating, rolling well-drained sandy soils.

3-6

Slight-Severe - some areas are relatively free of limitations, while other areas are severe enough to make use questionable. 2) this soil association is comprised of the network of narrow ridges and swales that border Lake Huron shoreline. 3-6) these soils comprise the undulating to steep, hilly, sandy, loamy soils on complex rolling areas and hills.

9-10

Severe - limitations are severe enough to make use questionable. 9-10) these soils are nearly level to gently undulating, sandy, loamy to clayey soils, somewhat poorly drained.

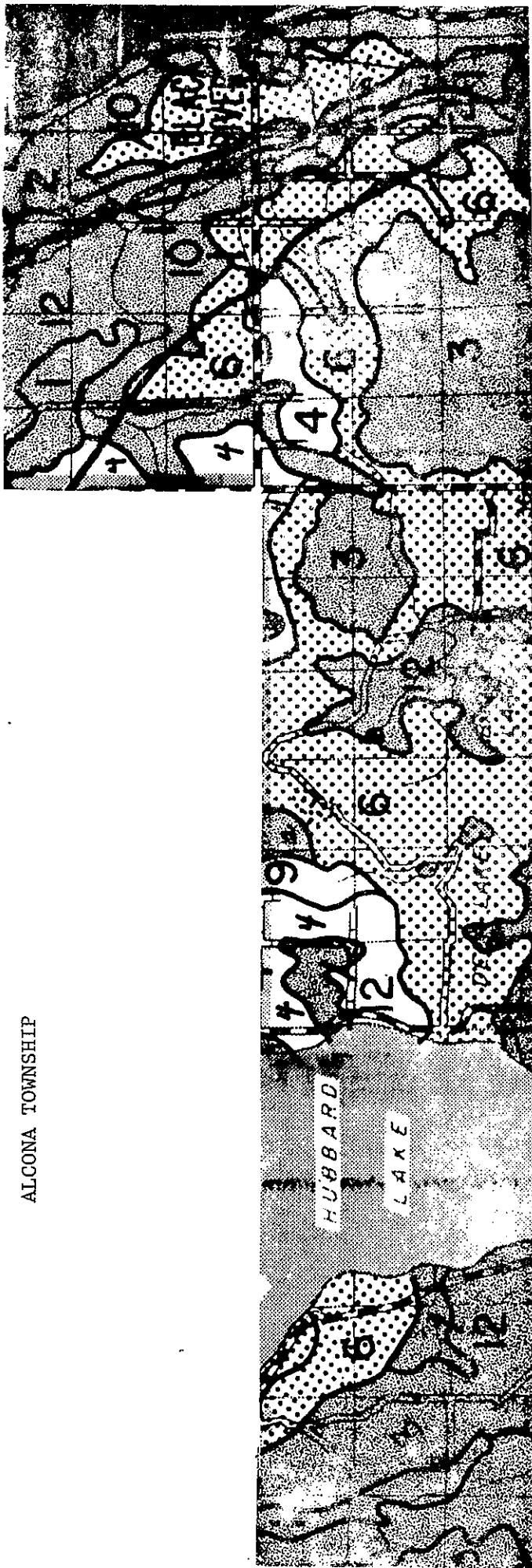
12

Very Severe - extreme measures are needed to overcome the limitations and usage generally is unsound or not practical. These soils are dominantly organic in nature. Organic deposits range from 1 to 25 feet or more in depth. These soils occur in marshes and swamps.



MAP 13

SOIL SUITABILITY FOR GENERAL FARMING
ALCONA TOWNSHIP



4-09



6-10



1-2-3-12



Good Soils For General Farming:

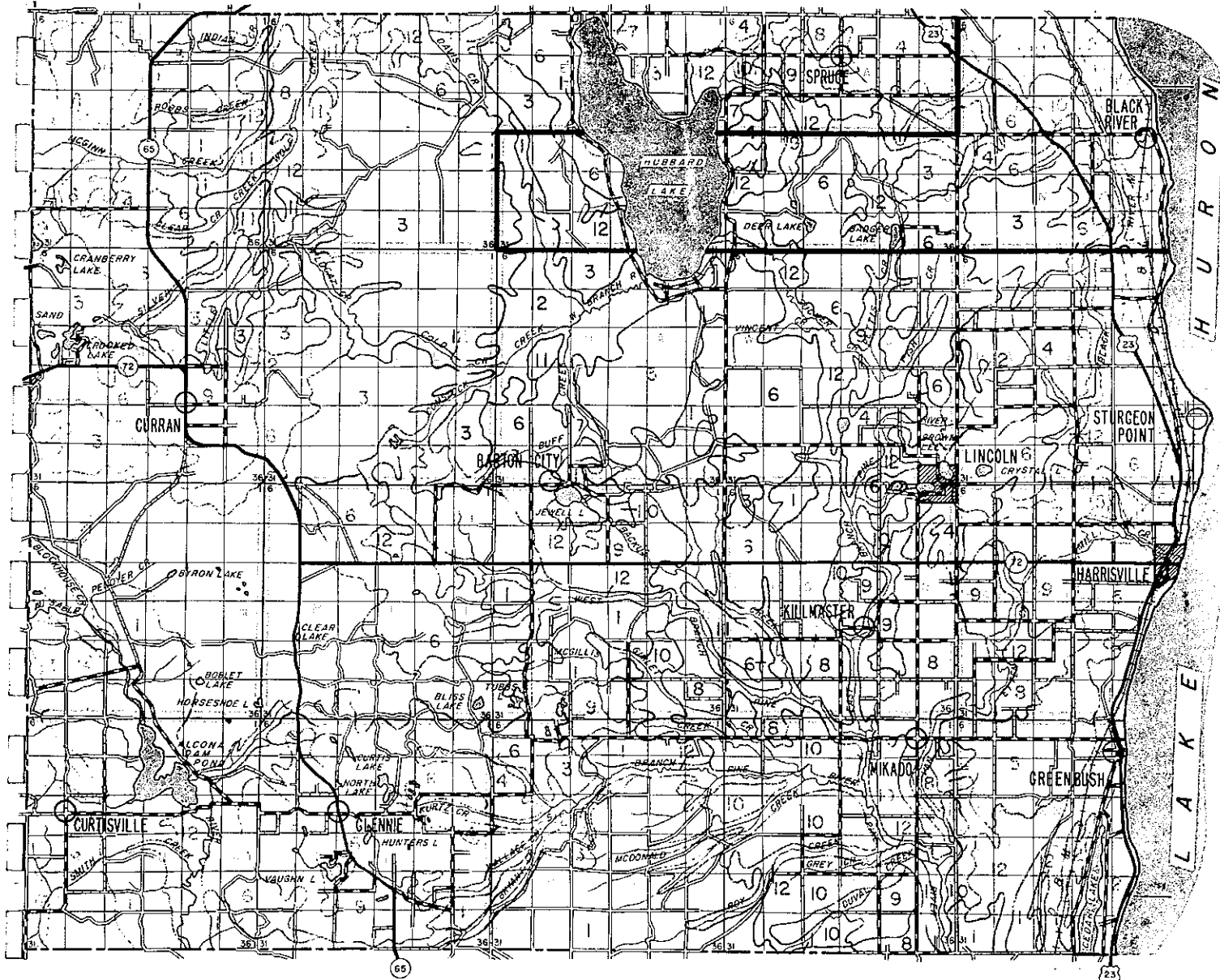
These soils consist of sandy, loamy to clayey soils on the undulating to rolling uplands.

Fair Soils For General Farming:

These soils consist of sandy and loamy soils on rolling areas and hills, and are somewhat poorly drained.

Poor Soils For General Farming

1-2-3 are primarily well-drained sandy soils.
12 - these soils are dominantly organic in nature. Organic deposits range from 1 to 25 feet or more in depth. These soils occur in marshes and swamps.



MAP 14

SOIL ASSOCIATIONS

- 1,2,3 - AREAS DOMINATED BY NEARLY LEVEL TO HILLY, WELL-DRAINED TO POORLY DRAINED SANDY SOILS.
- 4,6 - AREAS DOMINATED BY UNDULATING TO HILLY, WELL-DRAINED & MODERATELY WELL-DRAINED SANDY & LOAMY SOILS.
- 7,8 - AREAS DOMINATED BY NEARLY LEVEL TO HILLY, WELL-DRAINED TO POORLY DRAINED LOAMY & CLAYEY SOILS.
- 10,12 - AREAS DOMINATED BY NEARLY LEVEL TO GENTLY UNDULATING, SOMEWHAT POORLY DRAINED & POORLY DRAINED SANDY SOILS & VERY POORLY DRAINED ORGANIC SOILS.

INTERPRETATIONS OF GENERAL SOIL MAP
ALCONA COUNTY, MICHIGAN 1/

MAP SYMBOL	BRIEF DESCRIPTION OF SOIL ASSOCIATION	MAJOR SERIES & APPROXIMATE PERCENT EACH 2/	DOMINANT SLOPE	SUITABILITY FOR			DEGREE OF LIMITATIONS FOR		MAJOR MANAGEMENT PROBLEMS IN THE SOIL ASSOCIATION	
				GENERAL FARMING 3/	FORESTRY 4/	RECREATION 5/	RESIDENTIAL DEVELOPMENT 6/	FIELD CROPPING	RESIDENTIAL DEVELOPMENT	
1.	These are primarily nearly level to undulating, well drained sandy soils. Areas of these soils are popularly designated as Jack pine plains. Broad areas are relatively level, broken only by drainage channels, random small pit depressions and pothole bogs. Swamp borders occupied by moderately well drained and somewhat poorly drained soils are also included in this association. Local areas are gravelly. Major soils in this association have low natural fertility, low available water capacity, and rapid permeability. This soil association comprises about 17 percent of the county or 70,500 acres.	Grayling - 50% Rubicon - 30% Croswell - 10% AuGres - 5% (Rating for Soil Association)	0 - 6% 0 - 6% 0 - 4% 0 - 2%	Poor Poor Fair Fair Poor	Poor Good Good Fair Good-Poor	Moderate Moderate Moderate Moderate Moderate	Slight Slight Severe Severe Slight	1. Droughtiness. 2. Low natural fertility. 3. Soil blowing.	1. Possible pollution of ground water supplies by effluent. 2. Difficult to maintain sod without irrigation.	
2.	This soil association is comprised of the network of narrow ridges and swales that border the Lake Huron shoreline. Principal soils on the ridges consist of well drained sands. Poorly drained sandy soils and very poorly drained organic soils occupy the intervening swales. Nearby sandy, gravelly and cobbly beaches are also included in this association. Soils in this association have low natural fertility, low available water capacity, and rapid permeability. This soil association accounts for about 1 percent of the county or 5,000 acres.	Rubicon - 30% Eastport - 25% Roscommon - 25% Tawas - 15% (Organic) (Rating for Soil Association)	0 - 18% 0 - 6% 0 - 2% 0 - 2%	Poor Poor Poor Poor Poor	Good Good Poor Poor Good-Poor	Moderate-Severe Moderate Severe Severe-Very Severe Moderate-Severe	Slight-Severe Slight Severe Very Severe Slight-Severe	1. Droughtiness. 2. Low natural fertility. 3. Soil blowing.	1. Sloping areas. 2. Erosion and sediment damage. 3. Possible pollution of ground water supplies by effluent. 4. Seasonal high water table. (Roscommon, Tawas)	

INTERPRETATIONS OF GENERAL SOIL MAP
ALCONA COUNTY, MICHIGAN 1/

MAP SYMBOL	BRIEF DESCRIPTION OF SOIL ASSOCIATION	MAJOR SERIES & APPROXIMATE PERCENT EACH 2/	DOMINANT SLOPE	SUITABILITY FOR			DEGREE OF LIMITATIONS FOR		MAJOR MANAGEMENT PROBLEMS IN THE SOIL ASSOCIATION	
				GENERAL FARMING 3/	FORESTRY 4/	RECREATION 5/	RESIDENTIAL DEVELOPMENT 6/	FIELD CROPPING	RESIDENTIAL DEVELOPMENT	
3.	These are mainly undulating to hilly, well drained sandy soils on uplands. Enclosed valleys, benches, and plateau-like areas are included. Small lakes and muck-filled depressions also occur at random throughout the areas. Major soils in this association formed in deep sand, in places containing small amounts of loamy material or gravel. These soils have moderately low to low natural fertility and low available water capacity. Permeability is rapid. This soil association accounts for about 16 percent of the county or 67,000 acres.	Grayling - 30% Graycalm - 30% Montcalm - 25% Associated poorly drained and very poorly drained soils - 10% Rescommon Tawas Greenwood (Rating for Soil Association)	2 - 18% 6 - 25% 2 - 12%	Poor Fair-Poor Fair Poor	Poor Good Good Poor	Moderate-Severe Moderate-Severe Slight-Moderate Severe-Very Severe	Slight-Severe Moderate-Severe Slight-Moderate Severe-Very Severe	1. Droughtiness. 2. Low natural fertility. 3. Water erosion.	1. Sloping areas. 2. Erosion and sediment damage. 3. Sidehill seepage from onsite sewage facilities.	
4.	These are undulating to rolling sandy and loamy soils on uplands. Typical areas have broad smooth slopes with locally steeper areas bordering drainage channels. Major soils are well drained or moderately well drained. Small depressions and swales, occupied by darker colored more poorly drained soils are also included. Soils in this association have medium to moderately high natural fertility, and available water capacity. Permeability ranges from moderately rapid to moderately slow. This soil association occupies about 7 percent of the county or 29,000 acres.	Emmet - 45% Onaway - 30% Associated somewhat poorly to very poorly drained soils - 20% Mackinac Angelica Carbondale (Organic) (Rating for Soil Association)	2 - 12% 2 - 12%	Good-Fair Good-Fair Good-Poor	Good Good Good-Poor	Slight Slight-Moderate Severe-Very Severe	Slight Moderate Severe-Very Severe	1. Soil blowing. 2. Water erosion.	1. Erosion and sediment damage. 2. Restricted permeability. 3. Sidehill seepage from onsite sewage facilities.	

INTERPRETATIONS OF GENERAL SOIL MAP
ALCONA COUNTY, MICHIGAN 1/

MAP SYMBOL	BRIEF DESCRIPTION OF SOIL ASSOCIATION	MAJOR SERIES & APPROXIMATE PER-CENT EACH 2/	DOMINANT SLOPE	SUITABILITY FOR			DEGREE OF LIMITATIONS FOR		MAJOR MANAGEMENT PROBLEMS IN THE SOIL ASSOCIATION	
				GENERAL FARMING 3/	FORESTRY 4/	RECREATION 5/	RESIDENTIAL DEVELOPMENT 6/	FIELD CROPPING	RESIDENTIAL DEVELOPMENT	
5.	These are dominantly undulating to rolling, well drained sandy and loamy soils on the uplands that roughly parallel the Lake Huron shoreline. Typical areas have a billowy or hummocky surface relief. Locally, steeper areas border drainageways and include the escarpment-like features facing the lakeshore. Soils in this association have medium to moderate low natural fertility and available water capacity. Permeability is moderate to moderately rapid. This soil association accounts for slightly less than 2 percent of the county or about 7,000 acres.	Rousseau - 30% Alcona - 30% Montcalm - 25% Emmet - 10% (Rating for Soil Association)	2 - 12% 2 - 12% 2 - 12% 2 - 12%	Fair Good-Fair Fair Good-Fair Good-Fair	Good Good Good Good Good	Moderate Slight-Moderate Moderate Slight-Moderate Slight-Moderate	Slight-Moderate Slight-Moderate Slight-Moderate Slight-Moderate Slight-Moderate	1. Droughtiness. 2. Soil blowing. 3. Water erosion.	1. Erosion and sediment damage. 2. Sidehill seepage from onsite sewage facilities.	
6.	This soil association comprises the undulating to steep sandy and loamy soils on complex rolling areas and hills. Enclosed valleys, bench-like features, and upland plateaus occur in places. Local areas are stony or gravelly. Major soils in this association are well drained. They range from medium to moderately low or low in natural fertility and available water capacity. Permeability ranges from moderate to rapid. This soil association occupies about 25 percent of the county or 105,000 acres.	Montcalm - 40% Emmet - 25% Kalkaska - 20% Associated somewhat poorly to very poorly drained soils - 10% Iosco Brevort Carbondale (Rating for Soil Association)	2 - 25% 2 - 18% 2 - 18%	Fair-Poor Good-Fair Fair Fair-Poor Fair-Poor	Good Good Fair Fair-Poor Fair-Poor	Slight-Severe Slight-Severe Slight-Severe Moderate-Severe Moderate-Severe	Slight-Severe Slight-Severe Slight-Severe Severe-Very Severe Slight-Severe	1. Droughtiness. 2. Soil blowing. 3. Water erosion.	1. Erosion and sediment damage. 2. Sidehill seepage from onsite sewage facilities. 3. Sloping areas.	

INTERPRETATIONS OF GENERAL SOIL MAP
ALCONA COUNTY, MICHIGAN 1/

MAP SYMBOL	BRIEF DESCRIPTION OF SOIL ASSOCIATION	MAJOR SERIES & APPROXIMATE PER-CENT EACH 2/	DOMINANT SLOPE	SUITABILITY FOR			DEGREE OF LIMITATIONS FOR		MAJOR MANAGEMENT PROBLEMS IN THE SOIL ASSOCIATION		
				GENERAL FARMING 3/	FORESTRY 4/	RECREATION 5/	RESIDENTIAL DEVELOPMENT 6/	FIELD CROPPING	RESIDENTIAL DEVELOPMENT		
7.	These are nearly level to undulating soils that formed in silty and loamy deposits. These soils occupy broad relatively smooth positions in the landscape. They are generally free of stones and gravel. Small areas consist of 20 to 40 inches of sandy deposits overlying loamy material. Principal soils are well drained to somewhat poorly drained. Included are some slight depressions and drainageways occupied by darker colored, poorly drained soils. Major soils are medium to moderately high in natural fertility and available water capacity. Permeability is moderate to moderately slow. This soil association accounts for slightly less than 1 percent of the county or 3,500 acres.	Bohemian - 30% Brimley - 25% Bowers - 20% Bruce - 10% Menominee - 10% (Rating for Soil Association)	2 - 6% 2 - 6% 2 - 6% 0 - 2% 2 - 12%	Good Good Good Good Fair Good	4/ 4/ 4/ 4/ 4/ 4/	Slight Moderate-Severe Moderate-Severe Severe Slight Slight-Severe	5/ 5/ 5/ 5/ 5/ 5/	Slight Severe Severe Severe Moderate Severe	6/ 6/ 6/ 6/ 6/ 6/	1. Wetness. 2. Till maintenance. 3. Water erosion.	1. Seasonal high water table. 2. Restricted percolation. 3. Erosion and sediment damage. 4. Unstable material.
8.	These are nearly level to undulating loamy and clayey soils. The gently sloping higher-lying soils in the landscape are well drained or moderately well drained. Intervening flats, swales, and drainageways are occupied by darker colored, somewhat poorly or poorly drained soils. Included in places are sandy deposits overlying loamy material. Major soils in this association have moderately high natural fertility and available water capacity. Permeability is moderately slow to slow. This soil association comprises about 3 percent of the county or 11,000 acres.	Nester - 30% Kawkawlin - 30% Sims - 15% Iosco - 5% Brevort - 5% (Rating for Soil Association)	2 - 6% 0 - 6% 0 - 2% 0 - 3% 0 - 2%	Good Good Good Fair Fair Good	4/ 4/ 4/ 4/ 4/ 4/	Slight-Moderate Moderate-Severe Severe Moderate Severe Slight-Severe	5/ 5/ 5/ 5/ 5/ 5/	Severe Severe Severe Severe Severe Severe	6/ 6/ 6/ 6/ 6/ 6/	1. Till maintenance. 2. Wetness. 3. Water erosion.	1. Erosion and sediment damage. 2. Restricted percolation. 3. Seasonal high water table.

INTERPRETATIONS OF GENERAL SOIL MAP
ALCONA COUNTY, MICHIGAN 1/

MAP SYMBOL	BRIEF DESCRIPTION OF SOIL ASSOCIATION	MAJOR SERIES & APPROXIMATE PER-CENT EACH 2/	DOMINANT SLOPE	SUITABILITY FOR			DEGREE OF LIMITATIONS FOR		MAJOR MANAGEMENT PROBLEMS IN THE SOIL ASSOCIATION	
				GENERAL FARMING 3/	FORESTRY 4/	RECREATION 5/	RESIDENTIAL DEVELOPMENT 6/	FIELD CROPPING	RESIDENTIAL DEVELOPMENT	
9.	These soils consist of the loamy to clayey soils on the undulating to rolling uplands. Typical areas have relatively broad smooth ridges lying between entrenched drainage channels. The side slopes of these drainage channels are shorter and somewhat steeper. Local areas have 20 to 40 inches of sandy deposits overlying the loamy material. Major soils in this association have moderately high natural fertility. In cultivated areas, increased runoff has resulted in soil erosion and lower fertility. Soil available water capacity. Permeability is moderately slow. This soil association comprises about 7 percent of the county or 12,500 acres.	Kester - 45% Kester - 15% Urbly - 14% Linwood - 5%	2 - 12% 12 - 25% 2 - 12% 2 - 12%	Good-Fair Fair-Poor Good-Fair Fair	Good Good Good Good	Slight-Moderate Severe Slight-Moderate Slight-Moderate	Severe Severe Severe Moderate	1. Water erosion 2. Till maintenance. 3. Wetness. (Kawkawlin) (Sims) (Brevort) (Linwood)	1. Sloping areas. 2. Erosion and sediment damage. 3. Restricted percolation. 4. Sidehill seepage from onsite sewage facilities.	
10.	These are nearly level to gently undulating, somewhat poorly drained, poorly drained sandy surface layer that is high in organic matter. Most areas are underlain by loamy or clayey material at 20 to 40 inches in depth. These soils occupy the low-lying swampy areas bordering the more loamy soils of the till plains. They have moderately low natural fertility and available water capacity. Permeability is rapid in the upper sandy layers and moderately slow in the finer textured underlying material. This soil association accounts for about 5 percent of the county or 21,200 acres.	Brevort - 50% Iosco - 25% Associated poorly drained soils - 20% Sims Linwood (Organic) (Rating for Soil Association)	0 - 2% 0 - 4%	Fair Fair Fair Fair	Poor Fair Fair-Poor Fair	Severe Moderate Severe-Very Severe Severe	Severe Severe Severe-Very Severe Severe	1. Wetness. 2. Wetness. (When water table is lowered) 3. Soil blowing.	1. Seasonal high water table. 2. Possible pollution of ground water supplies by effluent. 3. Restricted percolation in underlying material.	

See Footnotes on last page of this table

INTERPRETATIONS OF GENERAL SOIL MAP
ALCONA COUNTY, MICHIGAN 1/

MAP SYMBOL	BRIEF DESCRIPTION OF SOIL ASSOCIATION	MAJOR SERIES & APPROXIMATE PERCENT EACH	DOMINANT SLOPE	SUITABILITY FOR			DEGREE OF LIMITATIONS FOR		MAJOR MANAGEMENT PROBLEMS IN THE SOIL ASSOCIATION	
				GENERAL FARMING	FORESTRY	RECREATION	RESIDENTIAL DEVELOPMENT	FIELD CROPPING	RESIDENTIAL DEVELOPMENT	
11.	This soil association consists primarily of nearly level, somewhat poorly and poorly drained deep sandy soils. These soils commonly occupy the borders of lakes and swamps. Typical areas have little surface relief except for random low discontinuous ridges and knolls occupied by somewhat better drained sandy soils. Soils in this association have low natural fertility and available water capacity. Permeability is rapid. These soils comprise about 2 percent of the county or 9,800 acres.	Au Gres - 35% Roscommon - 35% Croswell - 10% Rubicon - 5% Associated very poorly drained soils - 10% Carbondale Tawas (Rating for Soil Association)	0 - 2% 0 - 2% 0 - 1% 0 - 2%	Fair Poor Fair Poor Poor Fair-Poor	Fair Poor Good Good Poor Fair-Poor	Moderate Severe Moderate Moderate Very Severe Moderate-Severe	Severe Severe Severe Slight Very Severe Severe	1. Wetness. 2. Droughtiness. (When water table is lowered) 3. Low natural fertility. 4. Soil blowing.	1. Seasonal high water table. 2. Possible pollution of ground water supplies by effluent. 3. More suitable soils (Rubicon) are limited by size and shape of individual areas.	
12.	Soils in this association are predominantly organic in nature, composed of plant remains from trees, grasses, sedges, and other wetland vegetation. Organic deposits range from 1 to 25 feet or more in depth. These soils occur in drainage channels, marshes, and swamps. They are wet most of the year. A minor acreage of poorly drained sandy soils, bordering these marshes and swamps, are included in this association. These soils are low in natural fertility and presently produce little useable vegetation. Permeability is moderately rapid to rapid. This soil association comprises about 14 percent of the county or 59,000 acres.	Carbondale - 44% Lupton - 30% Linwood - 15% Tawas - 10% (Rating for Soil Association)	0 - 2% 0 - 2% 0 - 2% 0 - 2%	Poor Poor Fair Poor Poor	Poor Poor Poor Poor Poor	Very Severe Very Severe Very Severe Very Severe Very Severe	Very Severe Very Severe Very Severe Very Severe Very Severe Very Severe	1. Wetness. 2. Soil blowing. 3. Frost hazard. 4. Low natural fertility.	1. High water table. 2. Flood hazard. 3. Unstable material. 4. Uneven settling.	

FOOTNOTES TO TABLE

1. This map, developed by the Soil Conservation Service, shows generalized soil information and is not suitable for detailed planning. It provides useful information for general planning only.
2. Soil names are subject to change upon correlation and publication of detailed soil surveys. This column may not total 100 percent, as only major soils in each association are rated.
3. Refers to farming operations that may vary in land use, degree of mechanization or intensity of production.
4. Refers to sustained production of marketable timber.
5. Emphasis on intensive recreation activity. Example: Playgrounds, picnic areas, and golf courses.
6. Refers to intensive development common to subdivisions. Onsite sewage facilities are assumed.

Surface Water

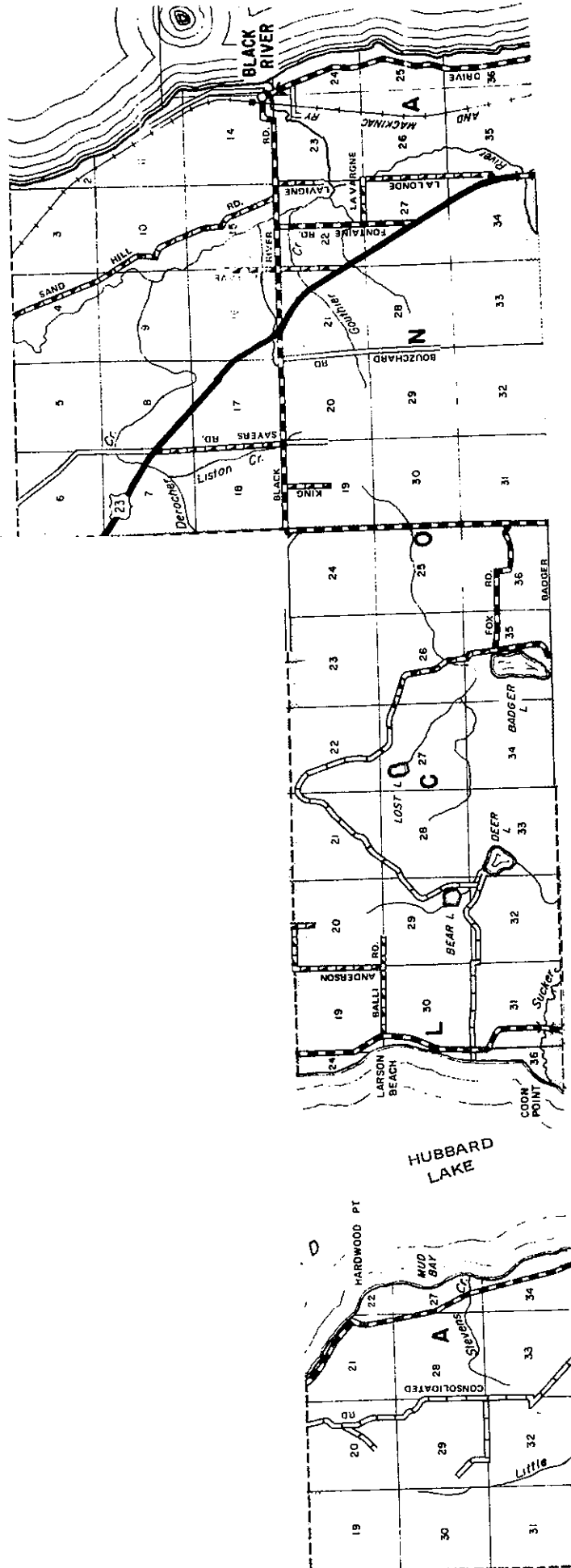
The abundance of water in Alcona Township is both a blessing and burden to the township residents. These watercourses (see Map 15), and wetlands (see Map 16) not only affect the people themselves, but also where they can build their homes, businesses, and industry; how they spend their leisure time; and influence the number and type of wildlife that live in the area.

The township boasts of about seven miles of Lake Huron shoreline which is sandy and covered with typical dune vegetation such as grasses, sedges, creeping juniper, etc. Further inland "perched dunes" or low, sandy ridges gradually merge into extensive cedar swamps and other wetlands. Three areas of the Lake Huron shoreline are pinpointed on Map 18 as highly erodible. These high risk erosion areas were designated by the Michigan Department of Natural Resources under the provisions of the Shorelands Protection and Management Act, P.A. 245, 1970 as amended.

The north and south branches of the Black River and its many tributaries flow through the eastern part of Alcona Township, and empty into Lake Huron at the community of Black River. The water has a cold, stable spawning stream. However, the water quality may now or in the future become polluted from the agricultural runoff from the surrounding farmland, especially east of US-23 where the land abruptly changes from hills to flat land. The water table is very high as seen from the many spurting artesian wells and black organic soils. Care needs to be taken to insure that fertilizer and manure runoff and siltation of the township's creeks and rivers does not happen. The township should educate farmers and landowners to this pollution hazard, and encourage them to seek help from their local Soil Conservation Service at Harrisville. Pollution of waterways,

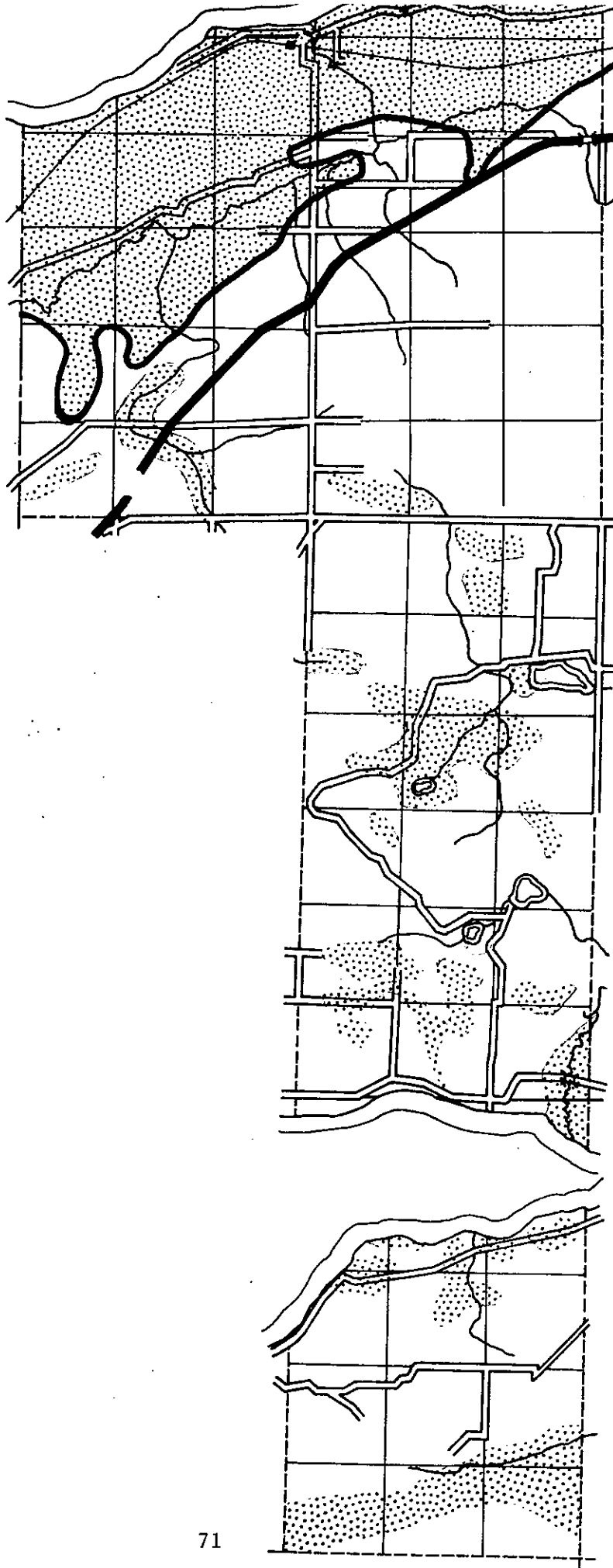
MAP 15

ALCONA TOWNSHIP SURFACE WATERS



MAP 16

ALCONA TOWNSHIP WETLANDS
(GENERALIZED)



ALCONA
(EAST PART)

ALCONA
(WEST PART)

Legend

Wetlands

especially the township's prime trout habitat, can also occur from construction of highways, oil and gas pipelines, and dams. These structures cause increased water temperature, siltation and enrichment of the water. Township officials and residents should be aware of future construction of these facilities, and help assess the environmental impacts involved.

Alcona Township is divided by almost all of Hubbard Lake, which is the eleventh largest inland Michigan lake, with a surface area of 8850 acres. Of the twenty largest lakes in Michigan, Hubbard Lake ranks number ten in water quality and is generally classified as a young, hardwater, high-quality mesotrophic or middle-aged lake. Sampling by NEMCOG in the summer of 1979 indicated that bottom waters in the deepest part of the lake become anaerobic during summer stratification. This is characteristic of a eutrophic (old age) lake, and indicates that large amounts of organic matter is being broken down in the bottom waters. Increased nutrient concentrations may result from this condition.

Fishing is good with naturally and artificially planted species including northern pike, tiger muskellunge, bass, whitefish, bullheads, and pan fish.

A dam constructed at the outlet of the lake at the turn of the century provides reservoir capacity for hydroelectric power generation, and is owned by Alpena Power Company. Seasonal high water levels from wind and manipulation of the dam outlet by Alpena Power Company, especially during May and June, cause extensive shoreline erosion and winter ice damage. Low water levels also are a nuisance for lake front property owners. Many times owners find their boats or docks stranded on dry land as the water level is lowered by the power company. This

lake level fluctuation also wrecks havoc with the lake's animal population. It can be a health hazard as septic tank effluent is drawn down into the lake during low water levels or ponds on the dry land during rising water levels.*

The lake level fluctuation so incensed some property owners that they formed the Hubbard Lake Property Owner's Association and are currently considering a court action to take the flooding rights away from Alpena Power Company and letting the Association control the water level.

* For a detailed discussion of Hubbard Lake water levels, read the Hubbard Lake Water Quality Study available at the NEMCOG offices in Gaylord, Michigan.

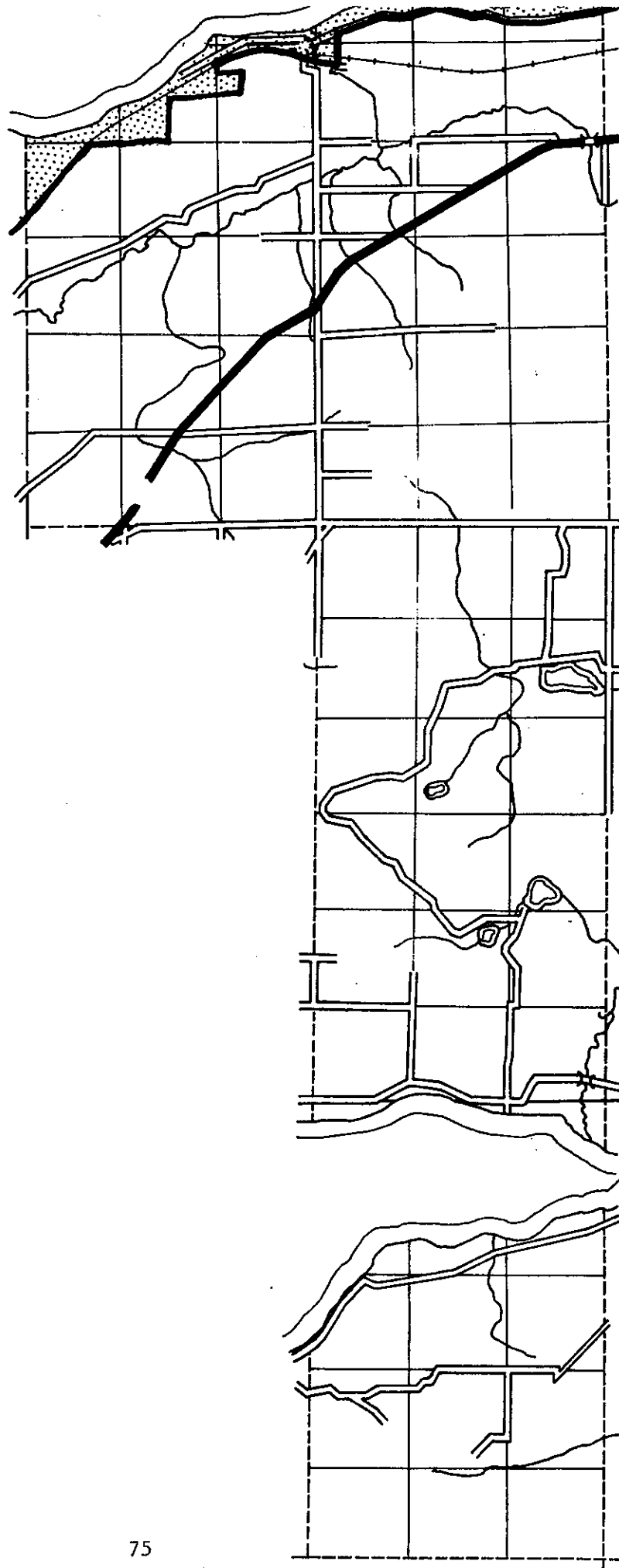
Coastal Management

Few land forms possess the unique strength and quality where water and land meet. The shore is an amalgam of both, yet has a distinct character of its own. The coast is also dynamic, always changing and this activity sometimes causes problems for the people who live there. High water levels on the Great Lakes and man's continued encroachment along the coast have resulted in damages to property and life.

But, the coast also offers many benefits. It provides us with recreational as well as economic opportunities, with a history and resources which make living near a Great Lake more enjoyable. Some of the Great Lakes features which attract recreational use include:

- * The Great Lakes represent the largest body of fresh water in the world, and the climate of the land adjacent to the Great Lakes is modified by the water.
- * The Great Lakes serve as a marine highway with worldwide connections.
- * The water is clear and virtually unpolluted.
- * No dangerous fish or plants exist, and the water is almost entirely free from infectious organisms.
- * The summer climate is cool, and the water temperature is ideal for bathing.
- * Natural geologic processes have provided excellent beaches and other formations of high recreational value.
- * The tempered lake climate and the clear, stimulating air along the shoreline present a refreshing change from the commonplace.

MAP 17
COASTAL BOUNDARY
ALCONA TOWNSHIP



ALCONA
(EAST PART)

ALCONA
(WEST PART)

- * Scenic and aesthetic values are numerous, driftwood, soaring seagulls, uninterrupted horizon freighters and other ships, blazing sunsets, the romance of a history of commerce and shipwrecks and others.

Special Coastal Areas of Concern

One of the most important aspects of Michigan's Coastal Management Program is the identification of specific coastal lands and waters which experience problems or which offer opportunities. These areas - called Areas of Particular Concern (APC's) - merit special consideration in the aspirations of private citizens and in the actions of state, federal and local governments. As such areas and their management concerns are identified, the Coastal Program will bring APC's to the attention of people or agencies which have the ability and authority to take helpful action.

An Area of Particular Concern is a formal statement of interest in a specific coastal site which recommends a course of action to protect or develop the site's special value. Each APC nomination consists of a specific description of an important coastal land and/or water area, plus a statement of how that area could best be used. Ownership and other information may also be added in the nomination form. Additionally, each APC is categorized according to its character into one of the following:

- Areas of Natural Hazard to Development -- includes the various types of erosion or flood prone areas.
- Areas Sensitive to Alteration or Disturbances -- includes ecologically sensitive areas, natural areas, sand dunes and islands.

- Areas Fulfilling Recreational or Cultural Needs -- includes areas which are or should be managed to recognize recreation, historic, educational, archaeologic or other cultural values.
- Areas of Intensive or Conflicting Use -- includes coastal lakes, river mouths, bays and urban uses.
- Areas of Natural Economic Potential -- includes water transportation facilities, mineral and energy resource areas, prime industrial sites and prime agricultural areas.
- Areas of Preservation or Restoration -- a special category made up of the highest priority areas of all kinds, especially those needing immediate management attention for acquisition, preservation or restoration.

Any citizen, public official, interest group or agency can nominate a coastal site as an APC and any given site can be nominated more than once. In 1977 the Alcona Coastal Management Advisory Committee was organized and reviewed all APC nominations within the county, and provided input into Michigan's Coastal Management Program, County residents, local officials, interest groups and resource people from the Harrisville and Black River areas composed the membership of this committee. As a result of this committee's efforts, several Areas of Particular Concern were identified and nominated. Additional information such as location, classification and management recommendation was generated for each APC. In Haynes Township, the following list identifies each of the APC's nominated along its coast.

TABLE 10
ALCONA TOWNSHIP APC'S

- I. Black River Island
Primary Classification -- Island

Management Recommendation -- designation as an "Environmental Area" under Michigan's Shoreland Protection and Management Act and public acquisition via the Michigan Land Trust Fund with jurisdiction to the DNR Parks Division.

2. Alger/Smith House

Primary Classification -- Historic and Archaeologic

Management Recommendation -- seek placement of structure on state and federal registers of historic sites and pursue public financing for acquisition.

3. Blue Joe Rock

Primary Classification -- Navigational Hazard

Management Recommendation -- encourage efforts by National Ocean Survey to locate and map rock and illustrate on nautical charts as warning to boaters.

4. Alcona County High Risk Erosion Areas

Primary Classification -- High Risk Erosion

Management Recommendation -- provide adequate setback requirements in hazard areas to protect new construction along shore, by amending township zoning ordinances.

5. Huron National Forest -- Alcona Township

Primary Classification -- Natural

Management Recommendation -- maintain and protect the area by encouraging improved management practices by the U.S. Forest Service.

6. Negwegon State Park

Primary Classification -- Natural

Management Recommendation -- encourage DNR Parks Division to seek local input into any development plans for site and maintain the park's primitive character.

7. Black River Harbor

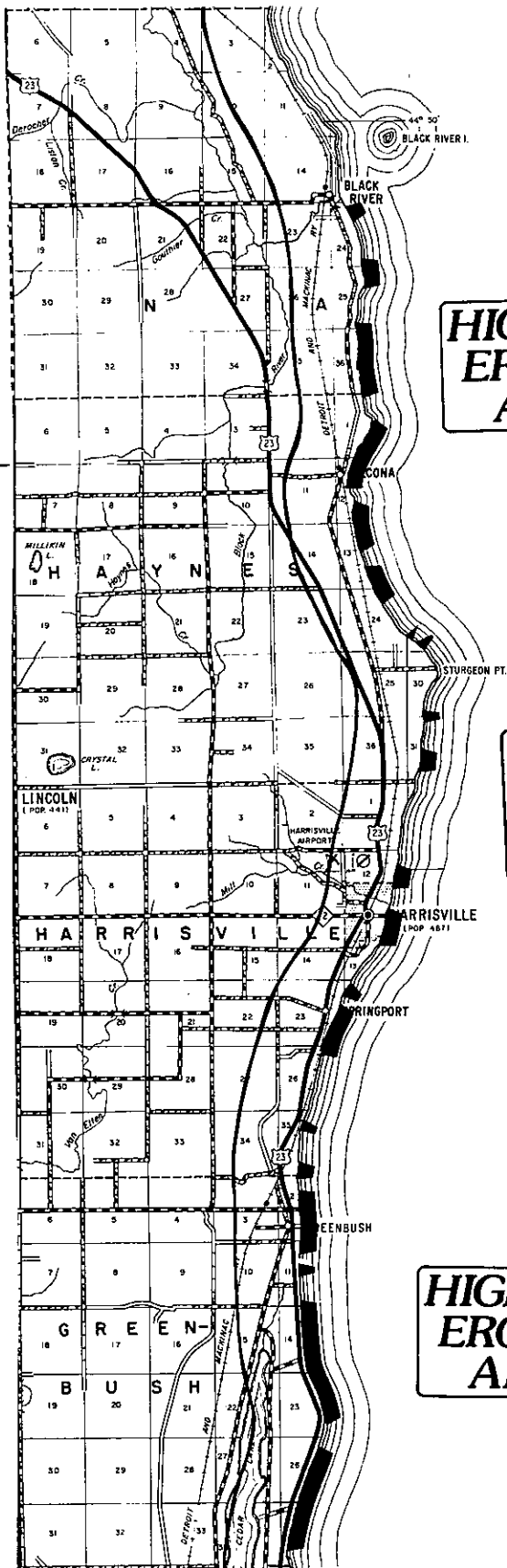
Primary Classification -- River Mouth

Management Recommendation -- encourage development of small boat harbor or refuge at mouth of river and maintain navigable channel to open water of Lake Huron.

MAP 18

HIGH RISK

EROSION AREAS



**HIGH RISK
EROSION
AREA**

**HIGH RISK
EROSION
AREA**

**HIGH RISK
EROSION
AREA**

SCALE 0 1 2 3 MILES

GENERAL HIGHWAY MAP
ALCONA COUNTY
MICHIGAN

Vegetation/Wildlife

Most of Alcona Township is heavily forested with about 18 percent of the land in state or federal forest. Since the climate is milder near Lake Huron, there is more variety and lush vegetation growth. Tree varieties are:

White, Red, and Scotch pine
Red, and Swamp White Oak
Beech, Maple, and Hemlock
Aspen and Birch

The township also has all four types of wetlands - marshes, swamps, bogs, and fens (fresh-water meadows.)* Wetlands are important to the township residents because they:

1. Protect lake and stream water quality
2. Recharge groundwater
3. Provide plant, habitat and breeding grounds for fish and wildlife

Since Alcona Township has much wetland acreage, its officials and residents need to understand the value of wetlands, and also the building and health constraints associated with these areas.

The amount of wetlands and forested areas in the township provides excellent wildlife habitat and wildlife abounds. The Black River offers excellent trout fishing, canoeing, and trapping. Lake Huron provides perch, lake trout, salmon, and splake. Hubbard Lake has pike, tiger muskie, bass, whitefish, bullheads, and pan fish. The lakes and streams provide varied habitat. Inland, the land is a hunter's or nature enthusiast's paradise.

*For a detailed description of wetlands, contact NEMCOG and ask for Lakeland Reports, No. 10 and 11.

Below are some of the species found in the township:

Whitetail Deer	Badger
Black Bear	Porcupine
Bobcat	Woodchuck
Beaver	Otter
Muskrat	Cottontail Rabbit
Mink	Snowshoe Hare
Squirrel (fox & grey)	Turkey
Fox (black & grey)	Ruffed Grouse
Raccoon	Woodcock

Many people visit the township because of the wildlife (hunting, fishing, etc.) However, increasing future development and lack of proper land use planning and zoning will impinge upon wildlife habitat. Township officials should possibly study alternative methods of encouraging property owners to not develop their land. Land owners should be encouraged to consult with a habitat biologist (DNR, MUCC, Audubon Society, National Wildlife Federation, etc.) to inventory their lands, set up appropriate habitat management practices, and secure needed funds.

TRANSPORTATION

Transportation systems play an extremely important role in the economy and livelihood of a community. In Alcona Township the transference of goods and persons is dependent, for the most part, upon a system of roads and highways. The automobile and truck are practically the sole means of transportation for township residents.

The highway system of Alcona Township consists of one federal highway (US-23) and the county system of primary and secondary roads. From its junction with the I-75 freeway south of Standish, US-23 connects the northeastern shoreline recreation areas with the metropolitan areas to the south. The county system of primary roads consist of a network connecting the rural areas into the state and federal systems. F-41 parallels the shoreline and connects with both the Black River Road and US-23. F-41 provides an inland north/south route serving Mikado, the village of Lincoln, Spruce and Hubbard Lake. Other primary roads of significance include Hubbard Lake Road, Mt. Maria Road and the Lake Shore Drive.

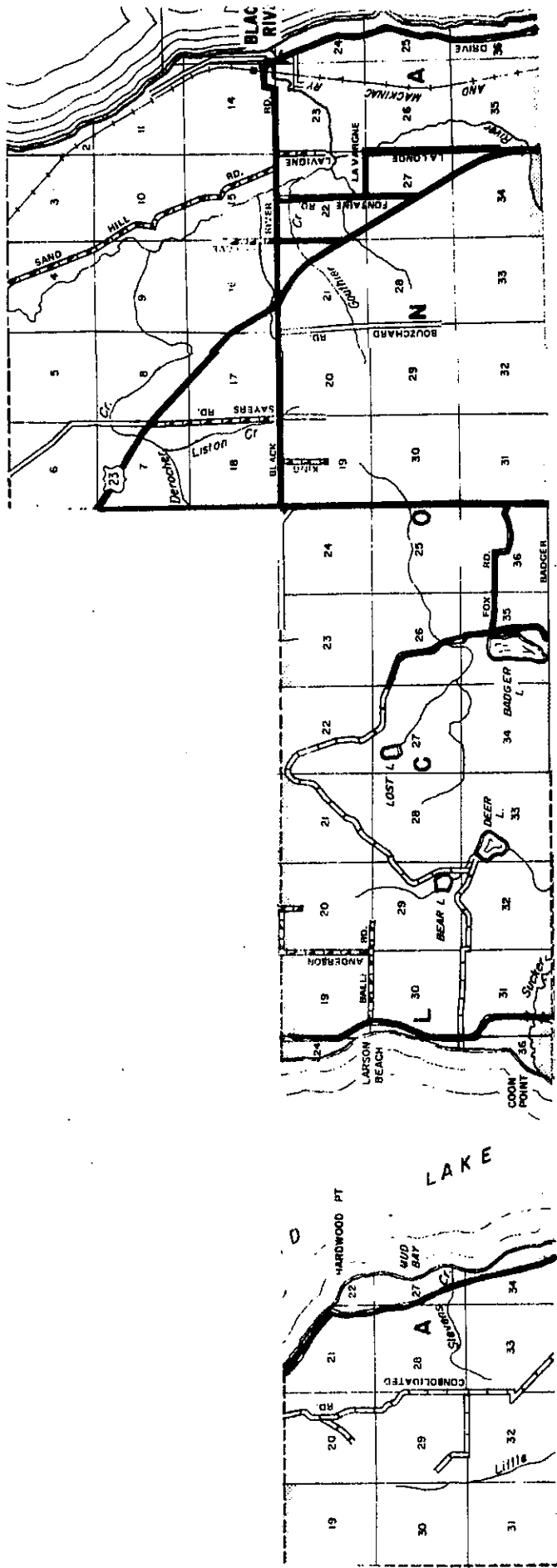
The highway and road systems are maintained by two transportation agencies - the Michigan Department of State Transportation (MDOT), which owns the right-of-way to US-23, but contracts with the Alcona County Road Commission for maintenance of that highway, and the Alcona County Road Commission which maintains and administers all remaining public, primary and secondary county roads. (see Map 19.)

Railway System

Alcona Township is included in the northern system of the Detroit and Mackinac Railway Company (D&M). The D&M runs between Bay City and Cheboygan, and has about six miles of track running north/south through

MAP 19

EXISTING CIRCULATION SYSTEM



Legend

Surfaced ———

Gravel ·····

Alcona Township. The D&M offers regular freight service on a carload basis, but at this time has no passenger service. (see Map 20.)

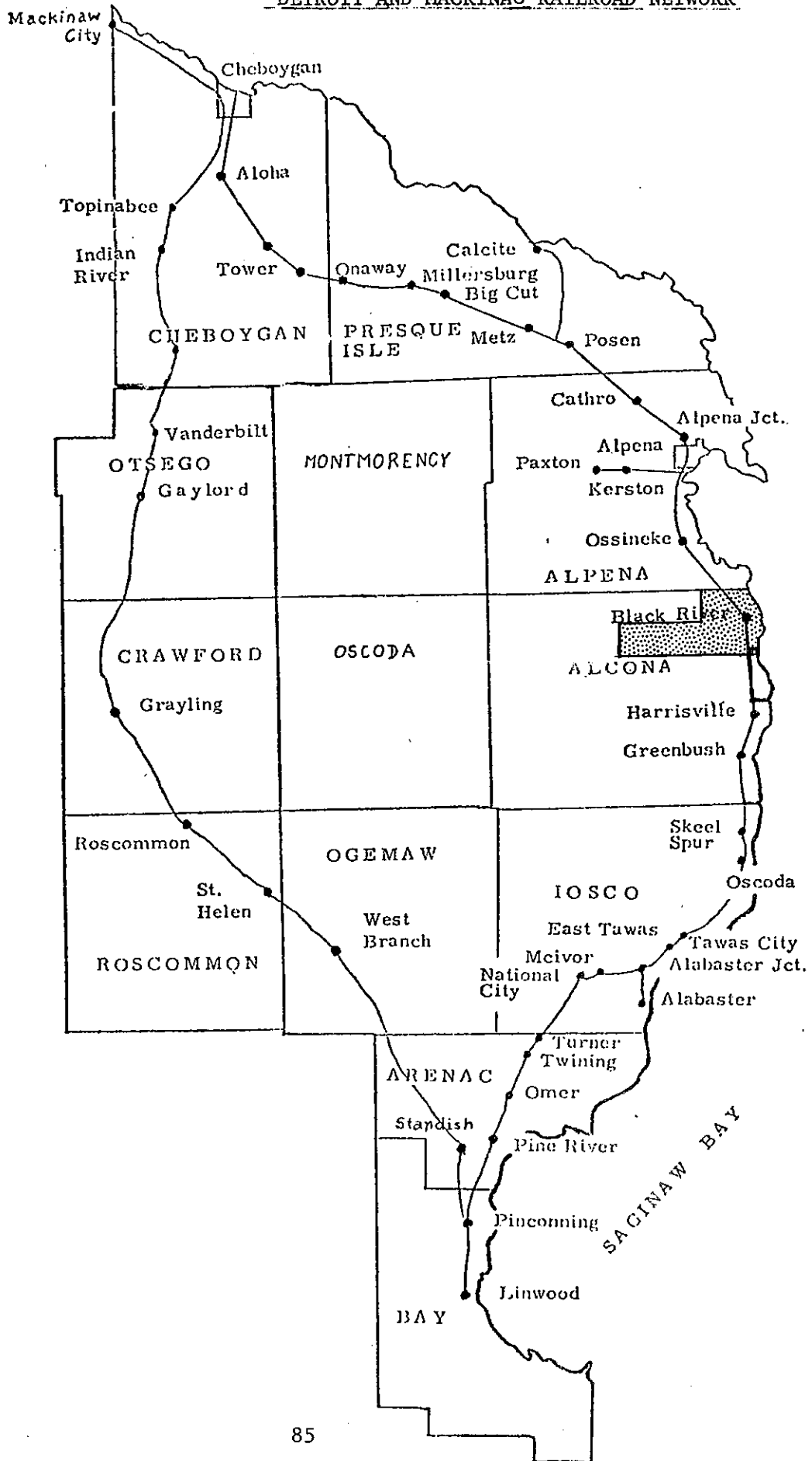
Airways

Through the use of regional airlines, Republic and Seaco, Alcona Township residents have access to state, national and international air-line facilities. Both Republic and Seaco Airlines have regularly scheduled flights to Alpena's Phelps Collins Airport.

The Phelps Collins Airport is located six miles west of Alpena on Highway M-32. It is the largest airport in northern Michigan. The airport has three paved runways, one of which extends 10,000 feet and handles jet service.

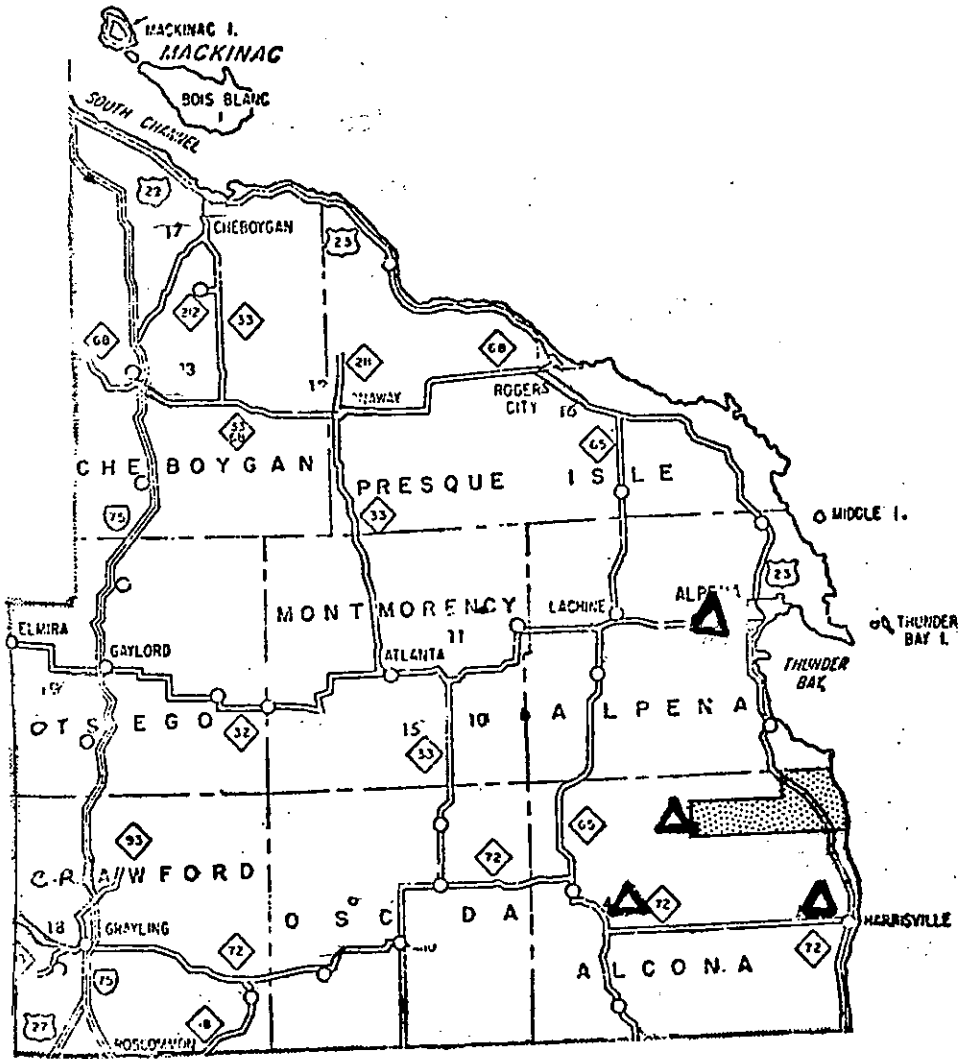
There are three private airports and one municipal airport in Alcona County. All four airports (see Map 21) have grass strip runways suitable for single engine aircraft. The municipal airport located at Harrisville can also handle some light twin engine aircraft and has refueling facilities available.

DETROIT AND MACKINAC RAILROAD NETWORK



MAP 21

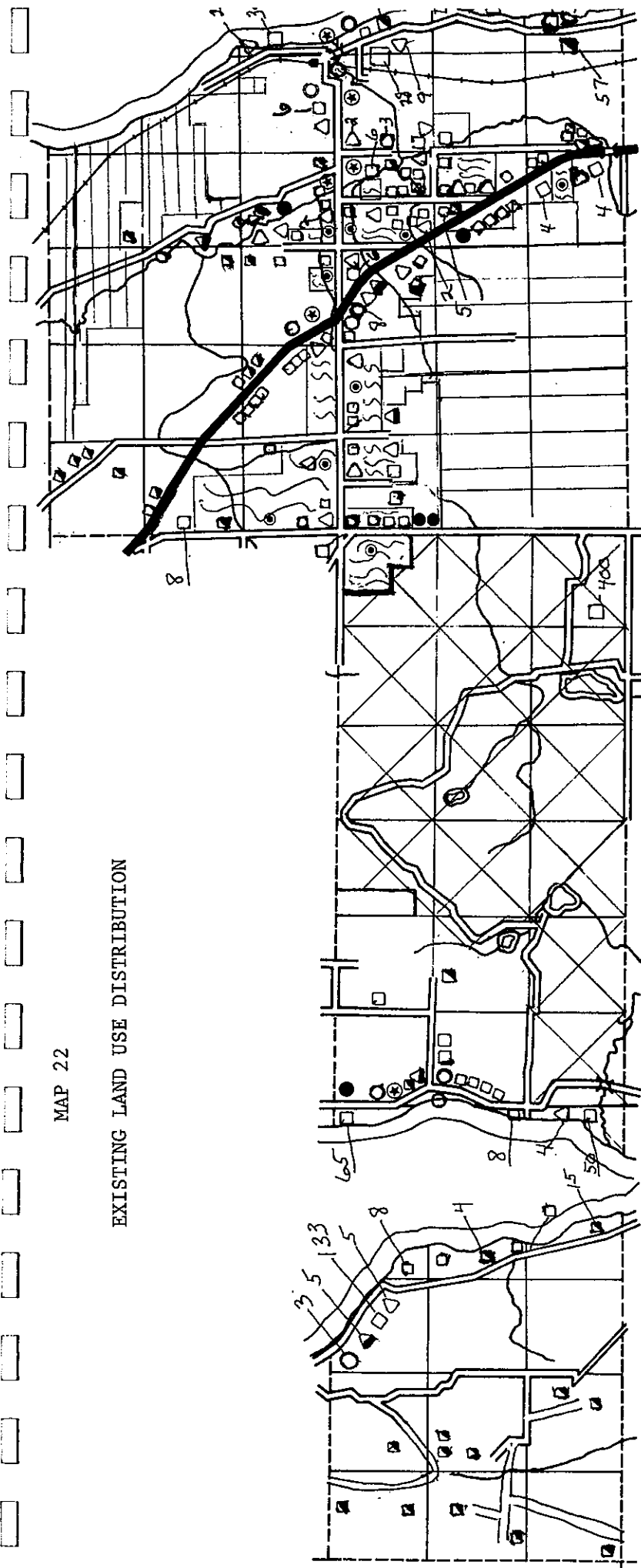
NORTHEAST MICHIGAN AIRPORTS

















IV. EXISTING LAND USE DISTRIBUTION
(MAP)

MAP 22

EXISTING LAND USE DISTRIBUTION



Legend

- | | | | |
|---|-----------------------------|---|------------------|
|  | Public |  | Commercial |
|  | Forest/Open Space - Private |  | Industrial |
|  | State |  | Permanent House |
|  | Federal |  | Seasonal House |
|  | Lost Lake Woods |  | Permanent Mobile |
|  | Agriculture |  | Seasonal Mobile |
|  | Recreation |  | Farm House |

V. DEVELOPMENT CONSTRAINTS

DEVELOPMENT CONSTRAINTS

There exists within any locality, area or community certain constraints which can or will deter maximum development. It may be difficult to separate some constraining elements from others because of their interaction with each other, so the following will address the development constraints under three distinct headings - economic, social and environmental.

Economic

The general welfare and standard of living conditions in a community are often measured by economic independence. Employment opportunities for many township residents is dependent upon the city of Alpena, Harrisville, and the village of Lincoln. Because of this condition, Alcona Township is highly dependent upon its neighbors for its overall economic stability.

A large percentage of the residents of Alcona Township are semi-retired or retired. The total percentage of our national population over the age of 65 years is 8.8 percent, while in Alcona Township 20.2 percent of the total population is over the age of 65. The implication is that because of this disproportionate number more public services will be required.

The labor force participation rate for Alcona Township is 41 percent compared to 57 percent for the state. This low rate is a deterrent for industrial development.

Social

Those elements of a community which constrain social development are difficult to identify. The social climate of any community is as much a result of individual personalities as it is the physical, economic and political characteristics of the community.

However, there are certain characteristics which can be identified and do contribute to the "quality-of-life" within that community. These include the low density of population of Alcona Township as well as the high percentage of semi-retired and retired residents who contribute to the overall limited tax fund. For this reason, the township is restricted as to what facilities and programs it can support on a seasonal or year' round basis. The lack of public transportation is another deterrent to the development of social opportunities within the township.

Environmental

Perhaps the most critical impact upon the future development of Alcona Township is reflected in the predominant soils of the township. A large proportion of the total area has severe to very severe limitations for standard subdivisions or residential development. A large proportion of the township, perhaps 75 percent, is steep terrain, wetlands and unstable soil which would necessitate large expenditures to overcome the limitations.

VI. DEVELOPMENT GOALS AND OBJECTIVES

ALCONA TOWNSHIP DEVELOPMENT CONCEPT

As with much of northern Michigan in general, Alcona Township's greatest asset is its natural environment. It is the rural character of the township with its forested areas, Lake Huron shoreline, Hubbard Lake, and outdoor recreation potential that attracts seasonal and retirement age residents to the community.

It is therefore critical, in the future development of the township, to realize the importance of the natural environment and to center new development around the concept of protecting and enhancing this environment.

At the same time, there is a need to improve the economic capacity of the township so that jobs, quality housing, good roads, and easy access to shopping are available to all residents. If a sense of "community" is to prevail, these amenities are necessary.

The task which lies ahead, therefore, is to provide facilities and services designed to accommodate the immediate and future needs of the area's residents while protecting (and renewing) the environment which attracts people to this locality.

Goals

- * Maintain the rural character of the township.
- * Achieve a desirable distribution of age groups and orderly growth in population.
- * Achieve a viable local economy including a solid and diversified employment base.
- * Retain and enhance the natural environment of the township.
- * Institute a sense of "community" with the township.

Objectives

1. a) Promote the retention and expansion of agricultural land.
- b) Encourage the practice of forest conservation by local residents.
- c) Allocate land uses to insure an abundance of open space.
2. a) Encourage the migration of younger employment-oriented age groups into the township.
- b) Maintain those qualities of the township which attract retired and semi-retired persons.
- c) Enhance the opportunity for employment and recreation within the township for those residents now living in the area.
3. a) Develop a coordinated organized effort to attract diversified employment.
- b) Provide necessary support services to existing and potential employers.
- c) Insure that existing and future land uses are distributed in a manner which will optimize the potentials of commercial and industrial activities.
4. a) Coordinate development within the township to preserve as much of the existing natural environment as possible.
- b) Develop an "awareness" among residents of the attributes of the township's natural environment and promote programs to encourage environmental conservation and enhancement.
5. a) Insure a balanced standard of living for local residents through the provision of adequate living, working, shopping and leisure activities.

- b) Devise local programs to promote a sense of unity among local residents.
- c) Distribute land uses, particularly commercial and public, in a manner which will lend a sense of "identity" to residents and visitors to the township.

VII. FUTURE LAND USE DISTRIBUTION

FUTURE LAND USE DISTRIBUTION

The physical aspects of Alcona Township's future is in the grasp of present and future residents as well as property owners in the township. Through proper understanding of the township's assets and liabilities, plus proper consideration of all elements of land use, the future of the township can be bright for all concerned.

This section will portray the general placement of various land uses within the township in conformance with the physical capabilities of the land itself. Within this broad framework of different land use distributions, more specific plans can be drafted for each locality as individual projects are planned.

Residential

Much like other northern areas, Alcona Township has evolved from a lumbering community into a summer residential/recreational community. Also, like much of northern Michigan, Alcona Township has become a popular area for retirement. Statistics show that this influx is a major factor in the township's year-round population growth. Therefore, Alcona Township should consider the residential needs of retired citizens in its planning and development.

It is apparent that the soil limitations in various areas of the township will not accommodate this growth. Map 23 illustrates those areas of Alcona Township where future residential development would be practical and desirable. It is likely that scattered residential development will occur in the interior portions of the township. However, taking into consideration the soil conditions, any new residential development should be encouraged to locate along Anderson Road, the Black River Settlement, and near the intersection of F-41 and US-23.

Also, the Township wishes to encourage mobile home placement along Sand Hill Rd. in Section 15. However, careful consideration should be given because of soil limitation in this area. Furthermore, before any zoning changes for this area be made, the County Health Department should conduct percolation tests to determine sites suitable for development.

Commercial

Existing commercial activity within the township is limited as most items were purchased in Harrisville, Lincoln and Alpena. However, with the rapid growth of year-round residents and the increase in tourism, future commercial activities would be encouraged to locate where existing activities have already established trends. Small retail outlets should be considered in the Black River Settlement. (see Map 23.)

Industrial

There are two light industries located in Alcona Township. The results of the questionnaire (see Appendix A-1 and A-2) show that most people favor several additional environmentally clean, non-polluting light industries to be located within the township.

Possible future industrial development sites can be located on suitable parcels of land on F-41, Section 19, north to the Black River Road. Caution should be used when selecting a site due to soil limitations in the area. (see Map 23.)

Agricultural Activities

The future land use plan encourages those township residents involved in agricultural pursuits to continue in their endeavors. The agricultural production in Alcona Township is limited, but none-the-less

important. The soil characteristics adjacent to F-41, the Black River Road, and US-23 are such that they have the capacity for crop production and livestock grazing. These areas should be promoted as agricultural lands. (see Map 23.)

Recreation

The largest proportion of land use within Alcona Township is devoted to forest/open space, and recreation. The majority of people living in Alcona Township relate to the rural atmosphere, hunting, fishing, boating and its potential as a retirement area. Special consideration should be given to a new marina to be constructed at the mouth of the Black River.

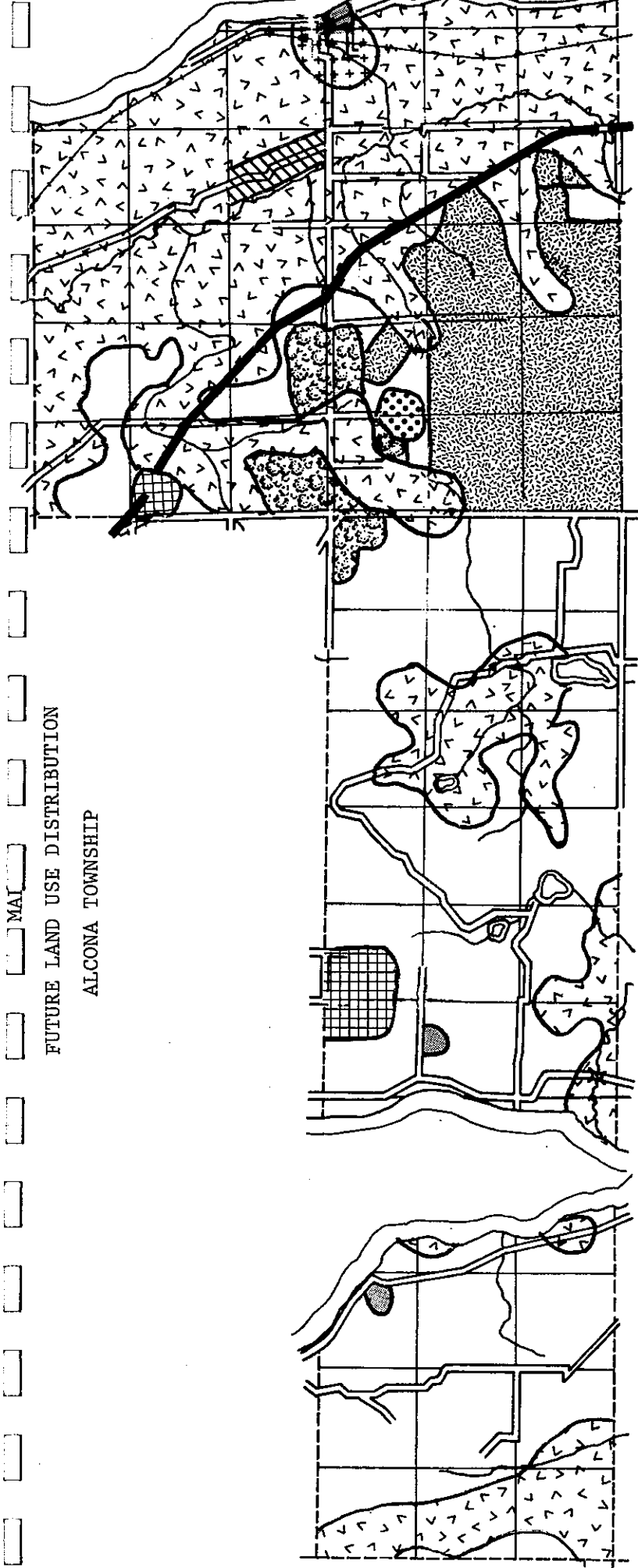
Other sites, of a more localized scale, are also identified in the land use plan. One site is located in Section 21 on Mt. Maria Road. The other site is located in Section 30 on Balli Road. These sites would serve to meet the recreational needs of the northwest portions of the township.

In order to provide a desirable quality of life for the residents of Alcona Township, adequate recreational facilities should be available throughout the township.

Planned area development and higher population density areas should be required to provide for the recreational needs of the residents. A community park with ball diamonds, and other similar recreational facilities including picnic areas, should be situated in these areas.

According to the questionnaire returns, residents of the township would like to see more recreational activities to include:

Public Campgrounds	Snowmobile Trails
Better Access Sites	Off-Road Recreational Vehicle
Private Campgrounds	Trails
Marinas	Dune Buggy Trails



ALCONA TOWNSHIP
 FUTURE LAND USE DISTRIBUTION
 MICHIGAN

ALCONA
 (EAST PART)

ALCONA
 (WEST PART)

Legend



- Residential - High Density
- Recreation
- National Forest
- Farm
- Industrial
- Environmentally Sensitive
- High Density Residential/Commercial
- Low Density Residential/Private Forest
- Mobile Home Development

VIII. IMPLEMENTATION PROCESS

IMPLEMENTATION

The planning process does not end with the completion of a land use plan. Rather, it just begins in that plan. All a plan can do is serve as a rational basis for the ongoing decision-making process.

Before the plan can begin to work as it is intended, it should first be adopted by the Alcona Township Planning Commission and approved by the Alcona Township Board of Trustees as the official development policy statement. It then becomes a document to guide the township's future activities. Any legal actions based on the plan will, therefore, also gain a rational and coherent basis. While this action cannot guarantee total acceptance of every action taken by the township, it can help settle legal questions before they get to court.

Then, to insure a continuously valid planning basis, the plan itself must be reviewed and updated periodically to reflect changing conditions and attitudes in Alcona Township. At each review, the goals and objectives should be reviewed to make sure they continue to be the overriding decision-making standards.

The plan suggests future land uses, but it is not a legally binding document that can regulate and enforce those future activity patterns. For this reason, ordinances and regulations are necessary. They alone have the legal basis to mold the future land uses, as this plan describes them, and as the township wants them.

A zoning ordinance is one method to insure that an orderly and compatible land use pattern is established and maintained. A good zoning ordinance is specifically designed and tailored to meet the needs of a specific area at a specific time in accordance with specific community development goals. It should be preceded by a good development plan and

reflect the intent of that plan. For this reason, Alcona Township, should undertake a comprehensive review of the existing zoning ordinance to insure its compliance with the land use plan. The desires of Alcona Township residents, as expressed in the planning questionnaires, can, therefore, be supported by the zoning ordinance. In this effort, the township should continue to seek legal and professional assistance to insure the validity of the ordinance.

Subdivision regulations are another method of controlling and coordinating the physical development in any specific area. They insure the safe and rational subdivision of land more specifically than can the general laws of the state or county. Subdivision regulations address the division of land for building purposes. They may provide for the proper arrangement of streets in relation to other existing or planned streets, for adequate and convenient open spaces, for traffic, utilities, access of fire fighting apparatus, recreation, and for the avoidance of congestion of population including minimum width and area of lots.

The regulations can also require paved streets, utility installation, or other improvements as conditions for approval of any plat. These regulations are legal, binding documents and their preparation should be legally and professionally supervised.

Several other methods are evolving as a means to implementing a plan. Timing and sequential controls, performance zoning and transfer of development rights are proving valuable in specific instances. Timing and sequential controls allow a government to permit or deny a development according to the distance between the proposed development and the existing urban center. A point system is used to prioritize development approval. The closer a development is to existing proposed facilities, the more

points it receives. With enough points and approval for other regulatory considerations, the development can proceed. This allows the township to phase development.

Performance zoning is used in addition to regular zoning. Standards for air quality, water quality, noise, traffic generation, and utility needs can be used to screen negative impacts from future development. Performance zoning is particularly useful in industrial and commercial areas.

Transfer of development rights is based on the concept that property ownership rights and property development rights can be separated. If a township desires to encourage growth in urbanized sections, and limits growth in the outlying sections, it can exchange township owned development rights in the urban area for private development rights in the more remote sections. Thus, the township can encourage development where it can be more efficiently served.

These provisions are new. Their applicability in rural areas such as Alcona Township may be limited. However, these concepts are important and should be examined as possible future courses of action.

Alcona Township residents are concerned about several programs and projects. Among them are more public/private campgrounds, more and better access sites, marinas, attracting light industry, more public transportation, and protecting the forest and agricultural lands. These projects are important. The chief concern with the implementation of these projects is the funds required.

There are numerous federal and state programs available to local governments. The township should become aware of the grant programs that could apply to its particular needs. However, the requirements and application

procedures for many of these programs have proven to be complex. Alcona Township can request technical grant preparation from Northeast Michigan Council of Governments and Northeast Michigan Community Services Agency.

One of the most important results of this planning process was the interest shown by the Alcona Township residents. The questionnaire they filled out and returned is a valuable guide for the township's goals and objectives. The large number of persons who responded to the questionnaire suggests a very strong community spirit.

The residents of Alcona Township must continue their awareness of the plan, and work to implement it. It is the board's responsibility to see that the people are continuously involved in the process, and aware of the implications and benefits inherent in the plan.

The Alcona Township Land Use Plan was prepared to be a means for protecting the environment and the quality-of-life within the township. It was written for the residents of the township. Therefore, each resident plays an integral part in the successful utilization of this plan.

APPENDIX A, A-1, A-2

APPENDIX A

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS

SEASONAL RESIDENTS -- 269 RETURNS

HOW MANY MEMBERS IN YOUR HOUSEHOLD?

<u>MALE</u>	<u>Ages</u>	<u>Number</u>	<u>FEMALE</u>	<u>Ages</u>	<u>Number</u>
	0 - 4	17		0 - 4	5
	5 - 14	27		5 - 14	36
	15 - 24	69		15 - 24	66
	25 - 34	26		25 - 34	17
	35 - 44	35		35 - 44	42
	45 - 54	73		45 - 54	61
	55 - 64	82		55 - 64	69
	65+	61		65+	59

NUMBER EMPLOYED?

<u>Full-Time</u>		<u>Part-Time</u>	
Male	192	Female	71
Male	17	Female	41

WHAT IS YOUR OCCUPATION?

6 Bookkeeper	1 Tool Maker
13 Construction	1 U.S. Navy
4 Secretary	1 U.S. Reserve Officer
37 Executive	1 Electrician
58 Retired	1 Business Man
16 Supervisor	1 Fire Fighter
5 Truck Driver	1 Lawyer
12 Manager	1 Prosecutors Office
15 Factory Worker	1 Insurance
20 Engineer	1 Farmer
22 Teacher	1 Optician
21 Sales	
14 Doctor, Therapist & Nurse	
65 Other	

WHAT TOWN OR TOWNSHIP DO YOU WORK IN?

15 Alpena	1 Ferndale
1 Harrisville	6 Wayne
3 Lincoln	1 Pontiac
1 Alcona Township	1 Lansing
130 Other	1 Jackson
1 Birmingham	1 U.S. Navy
1 Hubbard Lake	1 Dearborn
7 Detroit	1 Ingham
5 Oakland	1 Sterling Heights

WHERE DO YOU GO FOR MEDICAL ATTENTION?

59 Alpena	1 Petoskey	1 Warren	1 Wayne
11 Harrisville	1 Dearborn	1 Flint	
8 Lincoln	1 Pontiac	1 Mt. Clemens	
1 Alcona Township	4 Detroit	1 Grosse Pointe	
120 Other	1 Jackson	1 Macomb County	
	1 Ingham	1 U.S. Navy	

HOW LONG HAVE YOU LIVED IN ALCONA TOWNSHIP?

3 mos.	6 mos.	6-12 mos.	1-5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs.	20+ yrs.
64		2	20	21	16	5	5

HOW MANY MONTHS OF THE YEAR DO YOU LIVE IN THE TOWNSHIP?

<u>0 Months</u>	<u>1-3 Months</u>	<u>4-6 Months</u>	<u>7-9 Months</u>
13	148	39	13

SHOULD WE TRY TO GET MANUFACTURING PLANTS TO LOCATE IN ALCONA TOWNSHIP?

YES NO

DO YOU FAVOR THESE INDUSTRIES LOCATING IN THE TOWNSHIP?

SAWMILL YES NO OIL PUMPING & STORAGE YES NO HEAVY INDUSTRY YES NO LIGHT INDUSTRY YES NO

SHOULD INDUSTRIES BE LOCATED IN AN "INDUSTRIAL PARK"?

YES NO

SHOULD WE ENCOURAGE RECREATIONAL AREAS IN ALCONA TOWNSHIP TO SERVE:

LOCAL RESIDENTS? YES NO TOURISTS? YES NO BOTH? YES NO

DO YOU FAVOR THESE RECREATIONAL FACILITIES IN ALCONA TOWNSHIP?

Public Campgrounds? Private Campgrounds? Marinas? Seasonal Cottages? More Access Sites?
 Better Access Sites? Other?

SHOULD SNOWMOBILES, OFF-ROAD RECREATIONAL VEHICLES, MOTORCYCLES, AND DUNE BUGGIES BE RESTRICTED TO:

Secondary County Roads? Private Property? Marked Trails on State Forest Lands? No Restriction?

DO YOU FAVOR PLANNING AND ZONING ON?

Township Level? County Level? State Level? Federal Level? No Zoning?

FOLD HERE FIRST

TO:

BULK RATE
U.S. POSTAGE PAID
Permit No. 133
Gaylord, Michigan

STAPLE or TAPE

SECOND FOLD HERE



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
First Class Permit No. 73 Gaylord, U.S.A.

Postage will be paid by addressee
NORTHEAST MICHIGAN COUNCIL OF GOVERNMENTS
P.O. BOX 457
GAYLORD, MICHIGAN 49735



APPENDIX A-1

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS

YEAR ROUND RESIDENTS -- 64 RETURNS

HOW MANY MEMBERS IN YOUR HOUSEHOLD?

MALE	Ages	Number	FEMALE	Ages	Number
	0 - 4	0		0 - 4	1
	5 - 14	6		5 - 14	5
	15 - 24	6		15 - 24	6
	25 - 34	2		25 - 34	3
	35 - 44	3		35 - 44	3
	45 - 54	5		45 - 54	9
	55 - 64	24		55 - 64	26
	65+	22		65+	24

NUMBER EMPLOYED?

Full-Time			Part-Time		
Male	16	Female 8	Male	3	Female 1

WHAT IS YOUR OCCUPATION?

1	Bookkeeper
2	Construction
3	Secretary
1	Executive
37	Retired
3	Manager
2	Teacher
4	Sales
5	Doctor, Therapist & Nurse
3	Other
1	Tool Maker
1	Real Estate
1	Factory Worker

WHAT TOWNSHIP DO YOU WORK IN?

5	Alpena
4	Harrisville
5	Lincoln
12	Alcona Township
4	Other

WHERE DO YOU GO FOR MEDICAL ATTENTION?

44	Alpena
4	Harrisville
14	Lincoln
3	Alcona Township
2	Other
1	Petoskey
3	Air Force Base

HOW LONG HAVE YOU LIVED IN ALCONA TOWNSHIP?

3 mos.	6 mos.	6-12 mos.	1-5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs.	20+ yrs.
1		1	19	15	7	4	10

WHY DO YOU LIVE IN ALCONA TOWNSHIP?

9	Native	OTHER: 29	Own land	5	Cottage
18	Prefer rural living	16	Quiet	7	Lake Frontage
7	Employed here	15	Recreation	9	Friends
42	Retirement	1	Investment		

WHAT KIND OF STORES, IF ANY, DO YOU THINK ARE NEEDED IN ALCONA TOWNSHIP?

21	Grocery or General	8	Hardware	11	Food Store
11	Clothing	6	Auto Mechanic & Garage	4	Lumber
4	Recreational	8	Marina	5	Church
5	Sporting Goods	3	Party Store	6	Laundro-Mat
7	Entertainment Theatre	13	Department Store	9	Car wash
18	Drug Store	12	Gas Station	6	Motel-Hotel
1	Liquor	7	Restaurant-Bar	1	Bowling Alley

SHOULD WE HAVE ZONING TO CONCENTRATE COMMERCIAL ESTABLISHMENTS IN THE TOWNSHIP?

51	Yes	No	11
----	-----	----	----

SHOULD ALCONA TOWNSHIP ENCOURAGE NEW RESIDENTIAL DEVELOPMENT?

45	Yes	36	Single-Family Homes	2	Mobile Homes	6	Multiple Housing
14	No	6	Subdivisions	8	Condominiums		

SHOULD FUTURE MOBILE HOMES BE:

Restricted to Mobile Home Parks?	44	Restricted to Private Land not less than
No Restriction?	4	_____ Ft. from Property Line
		2 - 10 ft.
		2 - 20 ft.
		3 - 25 ft.
		2 - 30 ft.
		3 - 50 ft.
		3 - 100 ft.

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS (YEAR-ROUND RESIDENTS continued)

SHOULD NEW RESIDENTIAL CONSTRUCTION ALONG STREAMS AND LAKES BE RESTRICTED TO:

Leave a "Greenbelt"* to prevent erosion and stream pollution? (*Greenbelt is a continuous "Ribbon" of open space or vegetation). 48

Require Wide Lots for Building Purposes along streams or lakes? 29

Prohibit Construction in Flood Plain (Floodable Areas)? 33

No Restriction? 1

What Minimum width of a "Greenbelt" should be required between house and water edge?

1	5-09 ft.	4	60 ft.
1	10 ft.	1	75 ft.
2	20 ft.	10	100 ft.
5	30 ft.	4	200 ft.
3	35 ft.	1	300 ft.
14	50 ft.	2	500 ft.

OTHER RESTRICTIONS?

Keep land along streams public domain 22

No construction 11

Minimum ___ ft. Lot Depth

2	- 150 ft.
5	- 200 ft.
1	- 300 ft.
1	- 400 ft.

Minimum ___ ft. Lot Width

1	- 75 ft.
8	- 100 ft.
1	- 125 ft.
1	- 300 ft.

ONE CONSIDERATION IN TOWNSHIP PLANNING IS THAT THE BEST LAND SHOULD BE KEPT IN FARMING, SHOULD HIGHWAYS, RESIDENCES, INDUSTRIES, ETC., BE BUILT ON LESS PRODUCTIVE LAND?

52 Yes 7 No

DO YOU FEEL THAT AGRICULTURAL LANDS IN ALCONA TOWNSHIP SHOULD BE PRESERVED BY LAND USE CONTROLS?

44 Yes 14 No

DO YOU FEEL THAT PRIVATE FOREST LAND IN ALCONA TOWNSHIP SHOULD BE PRESERVED BY SOME TYPE OF LAND USE CONTROLS?

47 Yes 16 No

SHOULD ALCONA TOWNSHIP EXPAND ECONOMICALLY OR REMAIN AS IT?

4 Expand a lot
46 Expand moderately
13 As is

SHOULD WE TRY TO GET MANUFACTURING PLANTS TO LOCATE IN ALCONA TOWNSHIP?

42 Yes 22 No

DO YOU FAVOR THESE INDUSTRIES LOCATING IN THE TOWNSHIP?

Sawmill	Oil pumping & storage	Heavy Industry	Light Industry
35 yes 7 no	8 yes 23 no	4 yes 21 no	46 yes 13 no

SHOULD INDUSTRIES BE LOCATED IN AN "INDUSTRIAL PARK"?

44 Yes 10 No

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS (YEAR-ROUND RESIDENTS concluded)

SHOULD WE ENCOURAGE RECREATIONAL AREAS IN ALCONA TOWNSHIP TO SERVE:

Local Residents?

14 Yes 2 No

Tourists?

11 Yes 4 No

Both?

55 Yes 2 No

DO YOU FAVOR THESE RECREATIONAL FACILITIES IN ALCONA TOWNSHIP?

24 Public Campgrounds

24 Marinas

28 Better Access Sites

19 Seasonal Cottages

20 Private Campgrounds

15 More Access Sites

SHOULD SNOWMOBILES, OFF-ROAD RECREATIONAL VEHICLES, MOTORCYCLES, AND DUNE BUGGIES BE RESTRICTED TO:

24 Secondary County Roads

38 Marked Trails on State Forest Lands

22 Private Property

5 No Restriction

DO YOU FAVOR PLANNING AND ZONING ON:

43 Township Level

3 State Level

15 County Level

2 No Zoning

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS
SEASONAL RESIDENTS -- 269 RETURNS

HOW MANY MEMBERS IN YOUR HOUSEHOLD?

<u>MALE</u>	<u>Ages</u>	<u>Number</u>	<u>FEMALE</u>	<u>Ages</u>	<u>Number</u>
	0 - 4	17		0 - 4	5
	5 - 14	27		5 - 14	36
	15 - 24	69		15 - 24	66
	25 - 34	26		25 - 34	17
	35 - 44	35		35 - 44	42
	45 - 54	73		45 - 54	61
	55 - 64	82		55 - 64	69
	65+	61		65+	59

NUMBER EMPLOYED?

<u>Full-Time</u>		<u>Part-Time</u>	
Male	192	Female	71
		Male	17
		Female	41

WHAT IS YOUR OCCUPATION?

6 Bookkeeper	1 Tool Maker
13 Construction	1 U.S. Navy
4 Secretary	1 U.S. Reserve Officer
37 Executive	1 Electrician
58 Retired	1 Business Man
16 Supervisor	1 Fire Fighter
5 Truck Driver	1 Lawyer
12 Manager	1 Prosecutors Office
15 Factory Worker	1 Insurance
20 Engineer	1 Farmer
22 Teacher	1 Optician
21 Sales	
14 Doctor, Therapist & Nurse	
65 Other	

WHAT TOWN OR TOWNSHIP DO YOU WORK IN?

15 Alpena	1 Ferndale
1 Harrisville	6 Wayne
3 Lincoln	1 Pontiac
1 Alcona Township	1 Lansing
130 Other	1 Jackson
1 Birmingham	1 U.S. Navy
1 Hubbard Lake	1 Dearborn
7 Detroit	1 Ingham
5 Oakland	1 Sterling Heights

WHERE DO YOU GO FOR MEDICAL ATTENTION?

59 Alpena	1 Petoskey	1 Warren	1 Wayne
11 Harrisville	1 Dearborn	1 Flint	
8 Lincoln	1 Pontiac	1 Mt. Clemens	
1 Alcona Township	4 Detroit	1 Grosse Pointe	
120 Other	1 Jackson	1 Macomb County	
	1 Ingham	1 U.S. Navy	

HOW LONG HAVE YOU LIVED IN ALCONA TOWNSHIP?

3 mos.	6 mos.	6-12 mos.	1-5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs.	20+ yrs.
64		2	20	21	16	5	5

HOW MANY MONTHS OF THE YEAR DO YOU LIVE IN THE TOWNSHIP?

<u>0 Months</u>	<u>1-3 Months</u>	<u>4-6 Months</u>	<u>7-9 Months</u>
13	148	39	13

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS (SEASONAL RESIDENTS concluded)

SHOULD NEW RESIDENTIAL CONSTRUCTION ALONG STREAMS AND LAKES BE RESTRICTED TO:

Leave a "Greenbelt"* to prevent erosion and stream pollution? (* Greenbelt is a continuous "Ribbon" of open space or vegetation).

Require Wide Lots for Building Purposes along streams or lakes? 176

Prohibit Construction in Flood Plain (Floodable Areas)? 115

No Restriction? 1 107

What minimum width of a "Greenbelt" should be required between house and water edge?

0	5- 9 ft.	18	75 ft.
5	10 ft.	2	80 ft.
1	15 ft.	52	100 ft.
16	20 ft.	5	150 ft.
20	30 ft.	0	200 ft.
8	35 ft.	4	300 ft.
49	50 ft.	5	500 ft.
16	60 ft.		

OTHER RESTRICTIONS?

Keep land along streams public domain 62 No construction 48

No construction 46

Minimum _____ Feet Lot Depth

- 1 - 30 ft.
- 1 - 60 ft.
- 3 - 50 ft.
- 8 - 100 ft.
- 1 - 120 ft.
- 12 - 150 ft.
- 1 - 175 ft.
- 17 - 200 ft.
- 6 - 300 ft.
- 3 - 400 ft.
- 1 - 700 ft.

Minimum _____ Feet Lot Width

- 1 - 50 ft.
- 3 - 60 ft.
- 1 - 70 ft.
- 4 - 75 ft.
- 5 - 80 ft.
- 1 - 85 ft.
- 28 - 100 ft.
- 2 - 125 ft.
- 5 - 150 ft.
- 7 - 200 ft.
- 1 - 300 ft.
- 1 - 400 ft.
- 1 - 1000 ft.

ONE CONSIDERATION IN TOWNSHIP PLANNING IS THAT THE BEST LAND SHOULD BE KEPT IN FARMING. SHOULD HIGHWAYS, RESIDENCES, INDUSTRIES, ETC., BE BUILT ON LESS PRODUCTIVE LAND?

Yes 204 No 27

DO YOU FEEL THAT AGRICULTURAL LANDS IN ALCONA TOWNSHIP SHOULD BE PRESERVED BY LAND USE CONTROLS?

Yes 186 No 50

DO YOU FEEL THAT PRIVATE FOREST LAND IN ALCONA TOWNSHIP SHOULD BE PRESERVED BY SOME TYPE OF LAND USE CONTROLS?

Yes 175 No 61

SHOULD ALCONA TOWNSHIP EXPAND ECONOMICALLY OR REMAIN AS IS?

Expand a Lot 15 Expand Moderately 166 As Is 74

ALCONA TOWNSHIP QUESTIONNAIRE RETURNS (SEASONAL RESIDENTS concluded)

SHOULD WE TRY TO GET MANUFACTURING PLANTS TO LOCATE IN ALCONA TOWNSHIP?

Yes 112

No 107

DO YOU FAVOR THESE INDUSTRIES LOCATING IN THE TOWNSHIP?

<u>Sawmill</u>		<u>Oil Pumping & Storage</u>		<u>Heavy Industry</u>		<u>Light Industry</u>	
Yes <u>134</u>	No <u>39</u>	Yes <u>54</u>	No <u>88</u>	Yes <u>30</u>	No <u>116</u>	Yes <u>150</u>	No <u>46</u>

SHOULD INDUSTRIES BE LOCATED IN AN "INDUSTRIAL PARK"?

Yes 144

No 28

SHOULD WE ENCOURAGE RECREATIONAL AREAS IN ALCONA TOWNSHIP TO SERVE:

<u>Local Residents</u>		<u>Tourists</u>		<u>Both</u>	
Yes <u>79</u>	No <u>5</u>	Yes <u>37</u>	No <u>19</u>	Yes <u>176</u>	No <u>11</u>

DO YOU FAVOR THESE RECREATIONAL FACILITIES IN ALCONA TOWNSHIP:

<u>65</u> Public Campgrounds?	<u>76</u> Marinas?
<u>81</u> Better Access Sites?	<u>97</u> Seasonal Cottages?
<u>81</u> Private Campgrounds?	<u>51</u> More Access Sites
<u>2</u> Parks	<u>2</u> Tennis Courts

SHOULD SNOWMOBILES, OFF-ROADS RECREATIONAL VEHICLES, MOTORCYCLES, AND DUNE BUGGIES BE RESTRICTED TO:

Secondary County Roads 75 Private Property 108 Marked Trails on State Forest Lands 136
More Access Sites 58

DO YOU FAVOR PLANNING AND ZONING ON?

Township Level 139 County Level 111 State Level 23 Federal Level 5 No Zoning 5

APPENDIX B

APPENDIX B
ALCONA TOWNSHIP BUDGET

GENERAL FUND ANTICIPATED INCOME

Fund Balance	\$ 8,076.18
.5 Mill	11,151.16
Fees	5,213.34
Liquor License	962.50
Hall Rent	2,300.00
State Shared Revenue	10,000.00
Interest	1,000.00
Interest Tax Money	1,200.00
	<u>\$39,903.18</u>

ASSETS

Certificate of Deposit	\$47,500.00
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EXPENDITURES

	<u>BUDGETED</u> <u>78-79</u>	<u>ACTUAL</u> <u>78-79</u>	<u>PROPOSED</u> <u>78-79</u>
Supervisor Salary	\$1,750.00	\$1,750.00	\$ 1,750.00
Assessor	2,250.00	2,250.00	2,250.00
Clerk	2,100.00	2,100.00	2,100.00
Treasurer	2,100.00	2,100.00	2,100.00
Trustees	1,250.00	1,350.00	1,600.00
Janitor	800.00	800.00	1,800.00
Library	300.00	300.00	300.00
Travel Expense	500.00	160.45	500.00
Office Supplies & Postage	600.00	769.72	1,400.00
Education Expense	300.00	287.50	1,500.00
Auditing	850.00	---	500.00
Elections	600.00	569.48	200.00
Legal Fees	400.00	250.00	400.00
Bonds & Dues	500.00	754.50	500.00
Board of Review	600.00	353.75	600.00
Miscellaneous	1,440.32	238.58	1,790.00
Publishing	500.00	708.81	1,000.00
Decks, Beaches & Boat Landing	300.00	200.00	300.00
Recreation	2,000.00	1,000.00	3,000.00
Building Fund	3,500.00	3,500.00	---
Street Lights	900.00	625.95	900.00
Zoning & Planning	600.00	495.00	800.00
Liquor Inspection	962.50	500.88	962.50
Township Hall - Miscellaneous	500.00	831.00	900.00
Electricity	700.00	659.13	750.00
Telephone	300.00	275.40	300.00
Repairs & Maintenance	1,500.00	282.81	1,000.00
Operating Supplies	300.00	1,611.63	2,000.00
Insurance	600.00	1,700.00	2,500.00
Building Expense - Fire Station #2	1,000.00	285.13	1,000.00
Data Processing	1,500.00	932.45	1,500.00
Harbor Committee	200.00	---	200.00
Building Plans - Township Hall	1,000.00	3,140.60	200.00
Workman's Compensation	1,000.00	1,467.60	1,600.00
Certificate of Deposit			<u>2,500.00</u>
			\$39,903.18

ALCONA TOWNSHIP BUDGET concluded

FIRE DEPARTMENT INCOME

Fund Balance	\$ 546.75
Caledonia Township	940.00
.5 Mill	11,151.16
	<u>\$12,637.91</u>

ASSETS

Certificates of Deposit	\$2,000.00
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EXPENDITURES

	<u>BUDGETED</u> <u>78-79</u>	<u>ACTUAL</u> <u>78-79</u>	<u>PROPOSED</u> <u>78-79</u>
Hubbard Lake Citizens	\$1,410.00	\$1,410.00	\$ 1,410.00
Fire Chief Salary	1,700.00	1,700.00	1,700.00
Janitor	600.00	600.00	800.00
Fire Phones	1,650.00	1,707.21	1,800.00
Insurance - Vehicles	1,000.00	880.00	1,000.00
Operating Supplies	300.00	---	300.00
Electricity - Fire Station #2	250.00	219.65	250.00
Fuel Oil - Fire Station #2	450.00	591.55	650.00
Miscellaneous	396.98	149.64	1,027.91
Certificate of Deposit	1,000.00	1,000.00	1,500.00
Workman's Compensation	1,000.00	1,452.18	1,700.00
Repairs & Maintenance	500.00	---	500.00
			<u>\$12,637.91</u>

SCOTT PARK

Fund Balance	\$2,371.13
Assessment	1,339.18
	<u>\$3,710.31</u>

FEDERAL REVENUE SHARING

Fund Balance	\$ 9,532.00
New	6,000.00
	<u>\$15,532.00</u>

Committed	\$ 2,000.00	Ditches
	13,532.00	New Building Project
	<u>\$15,532.00</u>	

ROAD FUND

Fund Balance	\$ 1,450.35
	11,151.16
	<u>\$12,601.51</u>

Committed	\$ 600.00	Cherylyn Drive
	1,000.00	Raymond Street
	1,020.00	Railroad Street
	7,200.00	LaVergne Road
	<u>\$9,820.00</u>	

Uncommitted \$2,781.51