# COASTAL ZONE MANAGEMENT PROGRAM

# MICHIGAN RESOURCE INVENTORY SYSTEM UPDATE

# MODEL LAND USE PLAN


**Produced by the:**

**West Michigan Shoreline Regional Development Commission**
**137 Muskegon Mall**
**Box 387**
**Muskegon, Michigan 49443**

**(616) 722-7878**



**July, 1993**


WMSRDC

***West Michigan Shoreline Regional Development Commission***


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The West Michigan Shoreline Regional Development Commission, created in 1970 by local governments, pursuant to Act 281, P.A. 1945 and Act 46, P.A. 1966, is one of Michigan's fourteen State Planning and Development Regions. The Commisssion is involved in a wide range of planning and development activities including:

- Economic Development
- Housing
- Transportation Planning
- Environmental Management
- West Michigan Information Center
- Community Planning and Development
- Groundwater Education in Michigan


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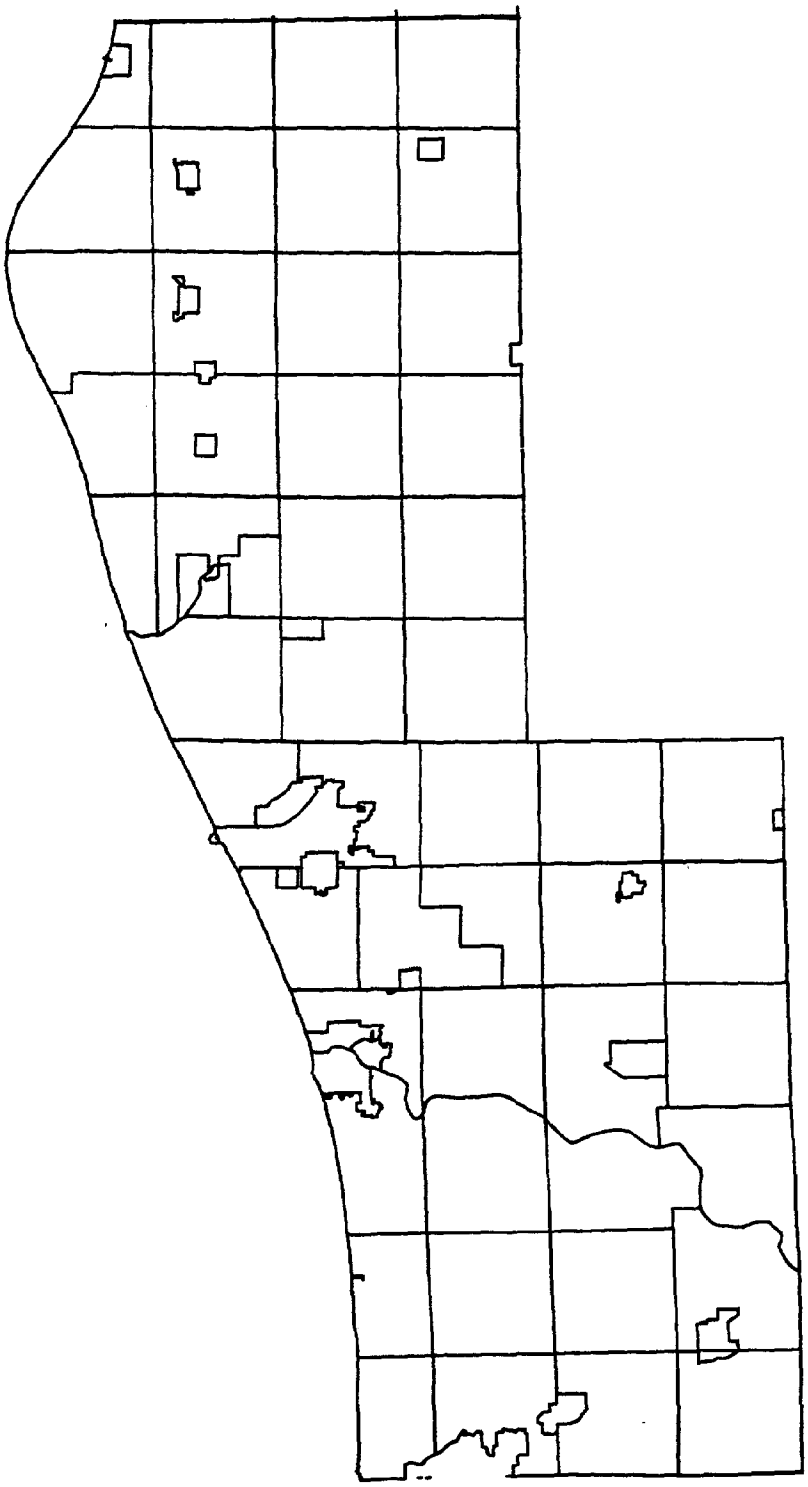
Map 1 - Oceana, Muskegon, and Ottawa Counties



## I. Introduction

This project was initiated in 1992 by the West Michigan Shoreline Regional Development Commission, utilizing a grant from the Michigan Department of Natural Resources, Coastal Management Program. The two significant elements of the project were the development of a regional-level land use plan in the coastal zone for Planning and Development Region 14 (which at the time of grant award covered the counties of Muskegon, Oceana, and Ottawa), and expansion of the Michigan Resource Inventory System (MIRIS) data for the purpose of protecting coastal lands through better land use management.

These three counties are, have been, and will for the near term, experience relatively higher rates of development growth in their coastal areas. Thus, these sensitive places are increasingly threatened with degradation due to cumulative and secondary impacts of development. However, these impacts might be attenuated through the use of up to date land use information, and the most recent techniques to integrate the diverse needs of development and environmental protection.

It is envisioned that the model land use plan section of this document will be utilized as a framework and guide to implementation strategies by those local units of government wishing to update their land use plans or establish special plan documents which apply to the Coastal Zone. It is not intended that this document be a "regional" plan, but rather, a model "local" plan, exercised on an "ala carte" basis.

## A. Document Development Process

The process utilized to develop this Land Use update and Model Plan began with the assembly of all previous work done by relevant agencies that related to this particular region. Thereafter, work began on both elements of the project.

Early in the project, Regional Commission staff assembled a list of Local Units of Government which would be affected by CZM project (those Local Units either wholly or partially within the coastal zone), including appropriate the contact persons.

Staff then developed a letter to be sent to these LUG's, in which we would be requesting most the recent current land use inventory and/or map, zoning map, future land use plan, and aerial photos.

Thereafter, staff began creation of new, more detailed map of Coastal Zone with CMAP, the computer mapping software from Michigan State University. In addition, staff developed a contact list of persons at local and state wildlife agencies for the purpose of assembling physical attribute information, such as floodplains, critical dunes, highly erodible lands, special habitats, and natural vista's.

As information regarding both current land uses and special habitats in the coastal zone was being updated, research began into elements of the model plan, which may utilize tools applicable to environmentally related needs such as sand dunes protection, wetland protection, river and riverine feature protection, and overall natural resource protection plans.

This process was followed by sample ground-truthing of available land use information, and digitization of this and other elements of the data gathered.

## B. West Michigan Demographic Profile

A critical element in the development of any land use plan, model or otherwise, is the demographic and economic makeup of an area. Information regarding population growth, distribution, age, as well as information about the economic forces at work in an area can be of great benefit when attempting to plan for and protect vital natural resources. Accordingly, the following demographic profile and comparison of the area under study is presented, and will be utilized in the development of the model land use plan.

As can be seen from the profiles, Ottawa County has the largest population of the three counties at 187,768 persons in 1990. In addition, it has the highest number of housing units, at 66,624. From these figures, we can calculate that the population density 332 persons per square mile, and an average housing density of 118 units per square mile. This figure is only slightly lower than that for Muskegon County, at 122 units per square mile, while both figures are much higher that for Oceana County.

These, as well as other figures, tend to indicate that the level of development pressure might be relatively higher in these two counties than in Oceana County, all other things being equal. However, this may be partially offset by the greater attractiveness of some parts of Oceana County to those wishing to built retirement homes, for instance.

(Census Profiles to follow)

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

| | |
|---|---|
| Total population | 158,983 |
| SEX | |
| Male | 77,648 |
| Female | 81,335 |
| AGE | |
| Under 5 years | 12,854 |
| 5 to 17 years | 31,810 |
| 18 to 20 years | 6,648 |
| 21 to 24 years | 8,243 |
| 25 to 44 years | 49,501 |
| 45 to 54 years | 15,373 |
| 55 to 59 years | 6,730 |
| 60 to 64 years | 7,026 |
| 65 to 74 years | 12,299 |
| 75 to 84 years | 6,529 |
| 85 years and over | 1,970 |
| Median age | 32.7 |
| Under 18 years | 44,664 |
| Percent of total population | 28.1 |
| 65 years and over | 20,798 |
| Percent of total population | 13.1 |
| HOUSEHOLDS BY TYPE | |
| Total households | 57,798 |
| Family households (families) | 42,199 |
| Married-couple families | 32,443 |
| Percent of total households | 56.1 |
| Other family, male householder | 1,700 |
| Other family, female householder | 8,056 |
| Nonfamily households | 15,599 |
| Percent of total households | 27.0 |
| Householder living alone | 13,335 |
| Householder 65 years and over | 6,079 |
| Persons living in households | 154,012 |
| Persons per household | 2.66 |
| GROUP QUARTERS | |
| Persons living in group quarters | 4,971 |
| Institutionalized persons | 4,315 |
| Other persons in group quarters | 656 |
| RACE AND HISPANIC ORIGIN | |
| White | 133,931 |
| Black | 21,617 |
| Percent of total population | 13.6 |
| American Indian, Eskimo, or Aleut | 1,338 |
| Percent of total population | 0.8 |
| Asian or Pacific Islander | 555 |
| Percent of total population | 0.3 |
| Other race | 1,542 |
| Hispanic origin (of any race) | 3,623 |
| Percent of total population | 2.3 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

| | |
|---|---|
| Total housing units | 61,962 |
| OCCUPANCY AND TENURE | |
| Occupied housing units | 57,798 |
| Owner occupied | 43,011 |
| Percent owner occupied | 74.4 |
| Renter occupied | 14,787 |
| Vacant housing units | 4,164 |
| For seasonal, recreational, or occasional use | 1,170 |
| Homeowner vacancy rate (percent) | 1.3 |
| Rental vacancy rate (percent) | 7.3 |
| Persons per owner-occupied unit | 2.75 |
| Persons per renter-occupied unit | 2.43 |
| Units with over 1 person per room | 1,707 |
| UNITS IN STRUCTURE | |
| 1-unit, detached | 46,858 |
| 1-unit, attached | 728 |
| 2 to 4 units | 4,433 |
| 5 to 9 units | 1,412 |
| 10 or more units | 3,740 |
| Mobile home, trailer, other | 4,791 |
| VALUE | |
| Specified owner-occupied units | 33,940 |
| Less than $50,000 | 18,837 |
| $50,000 to $99,000 | 12,849 |
| $100,000 to $149,000 | 1,424 |
| $150,000 to $199,999 | 467 |
| $200,000 to $299,999 | 272 |
| $300,000 or more | 91 |
| Median (dollars) | 46,300 |
| CONTRACT RENT | |
| Specified renter-occupied units paying cash rent | 13,802 |
| Less than $250 | 4,389 |
| $250 to $499 | 8,760 |
| $500 to $749 | 583 |
| $750 to $999 | 39 |
| $1,000 or more | 31 |
| Median (dollars) | 294 |
| RACE AND HISPANIC ORIGIN OF HOUSEHOLDER | |
| Occupied housing units | 57,798 |
| White | 50,214 |
| Black | 6,678 |
| Percent of occupied units | 11.6 |
| American Indian, Eskimo, or Aleut | 391 |
| Percent of occupied units | 0.7 |
| Asian or Pacific Islander | 102 |
| Percent of occupied units | 0.2 |
| Other race | 413 |
| Hispanic origin (of any race) | 902 |
| Percent of occupied units | 1.6 |

1990 Census Of Population And Housing Summary Tape File 1A

040 Michigan
050 Muskegon County

MEDIAN VALUE
Universe: Specified owner-occupied housing units

| | |
|---|---|
| Median value..... | 46,300 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

LABOR FORCE STATUS

| | |
|---|---|
| Persons 16 years and over | 118,864 |
| In labor force | 71,689 |
| Percent in labor force | 60.3 |
| Civilian labor force | 71,551 |
| Employed | 65,424 |
| Unemployed | 6,127 |
| Percent unemployed | 8.6 |
| Armed Forces | 138 |
| Not in labor force | 47,175 |
| | |
| Males 16 years and over | 57,158 |
| In labor force | 38,929 |
| Percent in labor force | 68.1 |
| Civilian labor force | 38,801 |
| Employed | 35,528 |
| Unemployed | 3,273 |
| Percent unemployed | 8.4 |
| Armed Forces | 128 |
| Not in labor force | 18,229 |
| | |
| Females 16 years and over | 61,706 |
| In labor force | 32,760 |
| Percent in labor force | 53.1 |
| Civilian labor force | 32,750 |
| Employed | 29,896 |
| Unemployed | 2,854 |
| Percent unemployed | 8.7 |
| Armed Forces | 10 |
| Not in labor force | 28,946 |
| | |
| Females 16 years and over | 61,706 |
| With own children under 6 years | 10,731 |
| Percent in labor force | 59.4 |
| With own children 6 to 17 years only | 11,031 |
| Percent in labor force | 72.6 |
| | |
| Own children under 6 years in families and subfamilies | 15,247 |
| All parents present in household in labor force | 8,510 |
| | |
| Own children 6 to 17 years in families and subfamilies | 27,960 |
| All parents present in household in labor force | 18,767 |
| | |
| Persons 16 to 19 years | 9,097 |
| Not enrolled in school and not high school graduate | 913 |
| Employed or in Armed Forces | 300 |
| Unemployed | 185 |
| Not in labor force | 428 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

| COMMUTING TO WORK | |
|---|---|
| Workers 16 years and over | 63,855 |
| Percent drove alone | 82.3 |
| Percent in carpools | 11.3 |
| Percent using public transportation | 0.7 |
| Percent using other means | 0.9 |
| Percent walked or worked at home | 4.7 |
| Mean travel time to work (minutes) | 18.3 |

| OCCUPATION | |
|---|---|
| Employed persons 16 years and over | 65,424 |
| Executive, administrative, and managerial occupations | 6,127 |
| Professional specialty occupations | 7,044 |
| Technicians and related support occupations | 2,251 |
| Sales occupations | 6,695 |
| Administrative support occupations, including clerical | 9,154 |
| Private household occupations | 214 |
| Protective service occupations | 991 |
| Service occupations, except protective and household | 8,849 |
| Farming, forestry, and fishing occupations | 730 |
| Precision production, craft, and repair occupations | 8,930 |
| Machine operators, assemblers, and inspectors | 9,040 |
| Transportation and material moving occupations | 2,385 |
| Handlers, equipment cleaners, helpers, and laborers | 3,014 |

| INDUSTRY | |
|---|---|
| Employed person 16 years and over | 65,424 |
| Agriculture, forestry, and fisheries | 698 |
| Mining | 38 |
| Construction | 3,215 |
| Manufacturing, nondurable goods | 4,969 |
| Manufacturing, durable goods | 15,903 |
| Transportation | 1,498 |
| Communications and other public utilities | 1,731 |
| Wholesale trade | 2,255 |
| Retail trade | 12,372 |
| Finance, insurance, and real estate | 2,190 |
| Business and repair services | 2,042 |
| Personal services | 1,731 |
| Entertainment, and recreation services | 924 |
| Health services | 5,622 |
| Educational services | 4,783 |
| Other professional and related services | 3,293 |
| Public administration | 2,160 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

| CLASS OF WORKER | |
|---|---|
| Employed persons 16 years and over | 65,424 |
| Private wage and salary workers | 54,852 |
| Government workers | 7,055 |
| Local government workers | 4,450 |
| State government workers | 2,080 |
| Federal government workers | 525 |
| Self-employed workers | 3,331 |
| Unpaid family workers | 186 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

INCOME IN 1989

| | |
|---|---|
| Households | 57,827 |
| Less than $5,000 | 3,404 |
| $5,000 to $9,999 | 7,398 |
| $10,000 to $14,999 | 5,858 |
| $15,000 to $24,999 | 11,537 |
| $25,000 to $34,999 | 10,116 |
| $35,000 to $49,999 | 10,505 |
| $50,000 to $74,999 | 6,638 |
| $75,000 to $99,999 | 1,437 |
| $100,000 to $149,999 | 636 |
| $150,000 or more | 298 |
| Median household income (dollars) | 25,617 |
| | |
| Families | 42,602 |
| Less than $5,000 | 1,762 |
| $5,000 to $9,999 | 3,334 |
| $10,000 to $14,999 | 3,523 |
| $15,000 to $24,999 | 8,289 |
| $25,000 to $34,999 | 8,253 |
| $35,000 to $49,999 | 9,179 |
| $50,000 to $74,999 | 6,080 |
| $75,000 to $99,999 | 1,320 |
| $100,000 to $149,999 | 584 |
| $150,000 or more | 278 |
| Median family income (dollars) | 30,152 |
| | |
| Nonfamily households | 15,225 |
| Less than $5,000 | 1,882 |
| $5,000 to $9,999 | 4,258 |
| $10,000 to $14,999 | 2,392 |
| $15,000 to $24,999 | 3,193 |
| $25,000 to $34,999 | 1,791 |
| $35,000 to $49,999 | 1,129 |
| $50,000 to $74,999 | 422 |
| $75,000 to $99,999 | 94 |
| $100,000 to $149,999 | 46 |
| $150,000 or more | 18 |
| Median nonfamily household income (dollars) | 12,788 |
| | |
| Per capita income (dollars) | 11,345 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

| | |
|---|---|
| INCOME TYPE IN 1989 | |
| Households | 57,827 |
| With wage and salary income | 42,249 |
| Mean wage and salary income (dollars) | 31,583 |
| With nonfarm self-employment income | 5,133 |
| Mean nonfarm self-employment income (dollars) | 13,585 |
| With farm self-employment income | 409 |
| Mean farm self-employment income (dollars) | 5,606 |
| With Social Security income | 17,801 |
| Mean Social Security income (dollars) | 8,213 |
| With public assistance income | 6,800 |
| Mean public assistance income (dollars) | 4,396 |
| With retirement income | 11,294 |
| Mean retirement income (dollars) | 5,984 |
| POVERTY STATUS IN 1989 | |
| All persons for whom poverty status is determined | 154,086 |
| Below poverty level | 23,506 |
| Persons 18 years and over | 109,860 |
| Below poverty level | 13,333 |
| Persons 65 years and over | 19,719 |
| Below poverty level | 2,072 |
| Related children under 18 years | 44,016 |
| Below poverty level | 9,979 |
| Related children under 5 years | 12,672 |
| Below poverty level | 3,469 |
| Related children 5 to 17 years | 31,344 |
| Below poverty level | 6,510 |
| Unrelated individuals | 20,048 |
| Below poverty level | 5,523 |
| All families | 42,602 |
| Below poverty level | 5,293 |
| With related children under 18 years | 22,655 |
| Below poverty level | 4,571 |
| With related children under 5 years | 9,950 |
| Below poverty level | 2,527 |
| Female householder families | 7,865 |
| Below poverty level | 3,524 |
| With related children under 18 years | 5,779 |
| Below poverty level | 3,308 |
| With related children under 5 years | 2,645 |
| Below poverty level | 1,863 |

1990 Census of Population and Housing
040 Michigan
050 Muskegon County

Percent below poverty level:

| | |
|---|---|
| All persons | 15.3 |
| Persons 18 years and over | 12.1 |
| Persons 65 years and over | 10.5 |
| Related children under 18 years | 22.7 |
| Related children under 5 years | 27.4 |
| Related children 5 to 17 years | 20.8 |
| Unrelated individuals | 27.5 |
| All families | 12.4 |
| With related children under 18 years | 20.2 |
| With related children under 5 years | 25.4 |
| Female householder families | 44.8 |
| With related children under 18 years | 57.2 |
| With related children under 5 years | 70.4 |

1990 Census of Population and Housing
040 Michigan
050 Ottawa County

| | |
|---|---|
| Total population | 187,768 |
| SEX | |
| Male | 92,572 |
| Female | 95,196 |
| AGE | |
| Under 5 years | 16,013 |
| 5 to 17 years | 39,065 |
| 18 to 20 years | 10,692 |
| 21 to 24 years | 11,451 |
| 25 to 44 years | 60,456 |
| 45 to 54 years | 18,308 |
| 55 to 59 years | 6,764 |
| 60 to 64 years | 6,545 |
| 65 to 74 years | 10,517 |
| 75 to 84 years | 5,982 |
| 85 years and over | 1,975 |
| Median age | 30.3 |
| Under 18 years | 55,078 |
| Percent of total population | 29.3 |
| 65 years and over | 18,474 |
| Percent of total population | 9.8 |
| HOUSEHOLDS BY TYPE | |
| Total households | 62,664 |
| Family households (families) | 49,476 |
| Married-couple families | 43,785 |
| Percent of total households | 69.9 |
| Other family, male householder | 1,379 |
| Other family, female householder | 4,312 |
| Nonfamily households | 13,188 |
| Percent of total households | 21.0 |
| Householder living alone | 10,485 |
| Householder 65 years and over | 4,432 |
| Persons living in households | 181,843 |
| Persons per household | 2.90 |
| GROUP QUARTERS | |
| Persons living in group quarters | 5,925 |
| Institutionalized persons | 1,939 |
| Other persons in group quarters | 3,986 |
| RACE AND HISPANIC ORIGIN | |
| White | 179,675 |
| Black | 997 |
| Percent of total population | 0.5 |
| American Indian, Eskimo, or Aleut | 638 |
| Percent of total population | 0.3 |
| Asian or Pacific Islander | 2,451 |
| Percent of total population | 1.3 |
| Other race | 4,007 |
| Hispanic origin (of any race) | 7,947 |
| Percent of total population | 4.2 |

1990 Census of Population and Housing
040 Michigan
050 Ottawa County

| | |
|---|---|
| Total housing units | 66,624 |
| OCCUPANCY AND TENURE | |
| Occupied housing units | 62,664 |
| Owner occupied | 50,576 |
| Percent owner occupied | 80.7 |
| Renter occupied | 12,088 |
| Vacant housing units | 3,960 |
| For seasonal, recreational, or occasional use | 1,728 |
| Homeowner vacancy rate (percent) | 0.9 |
| Rental vacancy rate (percent) | 6.5 |
| Persons per owner-occupied unit | 3.00 |
| Persons per renter-occupied unit | 2.50 |
| Units with over 1 person per room | 1,430 |
| UNITS IN STRUCTURE | |
| 1-unit, detached | 48,855 |
| 1-unit, attached | 2,495 |
| 2 to 4 units | 5,510 |
| 5 to 9 units | 2,068 |
| 10 or more units | 2,636 |
| Mobile home, trailer, other | 5,060 |
| VALUE | |
| Specified owner-occupied units | 38,852 |
| Less than $50,000 | 5,354 |
| $50,000 to $99,000 | 25,881 |
| $100,000 to $149,000 | 5,314 |
| $150,000 to $199,999 | 1,271 |
| $200,000 to $299,999 | 752 |
| $300,000 or more | 280 |
| Median (dollars) | 74,600 |
| CONTRACT RENT | |
| Specified renter-occupied units paying cash rent | 11,099 |
| Less than $250 | 1,214 |
| $250 to $499 | 8,263 |
| $500 to $749 | 1,435 |
| $750 to $999 | 134 |
| $1,000 or more | 53 |
| Median (dollars) | 402 |
| RACE AND HISPANIC ORIGIN OF HOUSEHOLDER | |
| Occupied housing units | 62,664 |
| White | 60,809 |
| Black | 257 |
| Percent of occupied units | 0.4 |
| American Indian, Eskimo, or Aleut | 195 |
| Percent of occupied units | 0.3 |
| Asian or Pacific Islander | 448 |
| Percent of occupied units | 0.7 |
| Other race | 955 |
| Hispanic origin (of any race) | 1,834 |
| Percent of occupied units | 2.9 |

1990 Census Of Population And Housing Summary Tape File 1A

040 Michigan
050 Ottawa County

MEDIAN VALUE
Universe: Specified owner-occupied housing units

| | |
|---|---|
| Median value..... | 74,600 |

1990 Census of Population and Housing
040 Michigan
050 Ottawa County

*LABOR FORCE STATUS*

| | |
|---|---|
| Persons 16 years and over | 138,064 |
| In labor force | 100,486 |
| Percent in labor force | 72.8 |
| Civilian labor force | 100,316 |
| Employed | 96,179 |
| Unemployed | 4,137 |
| Percent unemployed | 4.1 |
| Armed Forces | 170 |
| Not in labor force | 37,578 |
| | |
| Males 16 years and over | 67,172 |
| In labor force | 55,422 |
| Percent in labor force | 82.5 |
| Civilian labor force | 55,259 |
| Employed | 53,018 |
| Unemployed | 2,241 |
| Percent unemployed | 4.1 |
| Armed Forces | 163 |
| Not in labor force | 11,750 |
| | |
| Females 16 years and over | 70,892 |
| In labor force | 45,064 |
| Percent in labor force | 63.6 |
| Civilian labor force | 45,057 |
| Employed | 43,161 |
| Unemployed | 1,896 |
| Percent unemployed | 4.2 |
| Armed Forces | 7 |
| Not in labor force | 25,828 |
| | |
| Females 16 years and over | 70,892 |
| With own children under 6 years | 13,152 |
| Percent in labor force | 67.6 |
| With own children 6 to 17 years only | 13,053 |
| Percent in labor force | 80.0 |
| | |
| Own children under 6 years in families and subfamilies | 19,151 |
| All parents present in household in labor force | 12,205 |
| | |
| Own children 6 to 17 years in families and subfamilies | 34,687 |
| All parents present in household in labor force | 25,780 |
| | |
| Persons 16 to 19 years | 12,334 |
| Not enrolled in school and not high school graduate | 824 |
| Employed or in Armed Forces | 452 |
| Unemployed | 105 |
| Not in labor force | 267 |

1990 Census of Population and Housing
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050 Ottawa County

| | |
|---|---|
| *COMMUTING TO WORK* | |
| Workers 16 years and over | 94,436 |
| Percent drove alone | 83.6 |
| Percent in carpools | 8.9 |
| Percent using public transportation | 0.5 |
| Percent using other means | 0.5 |
| Percent walked or worked at home | 6.3 |
| Mean travel time to work (minutes) | 17.5 |
| OCCUPATION | |
| Employed persons 16 years and over | 96,179 |
| Executive, administrative, and managerial occupations | 11,012 |
| Professional specialty occupations | 11,562 |
| Technicians and related support occupations | 3,073 |
| Sales occupations | 10,497 |
| Administrative support occupations, including clerical | 13,824 |
| Private household occupations | 264 |
| Protective service occupations | 915 |
| Service occupations, except protective and household | 10,716 |
| Farming, forestry, and fishing occupations | 2,631 |
| Precision production, craft, and repair occupations | 12,101 |
| Machine operators, assemblers, and inspectors | 11,128 |
| Transportation and material moving occupations | 4,051 |
| Handlers, equipment cleaners, helpers, and laborers | 4,405 |
| INDUSTRY | |
| Employed person 16 years and over | 96,179 |
| Agriculture, forestry, and fisheries | 3,024 |
| Mining | 62 |
| Construction | 5,706 |
| Manufacturing, nondurable goods | 7,957 |
| Manufacturing, durable goods | 21,075 |
| Transportation | 2,632 |
| Communications and other public utilities | 1,622 |
| Wholesale trade | 5,471 |
| Retail trade | 16,741 |
| Finance, insurance, and real estate | 3,989 |
| Business and repair services | 3,278 |
| Personal services | 1,982 |
| Entertainment, and recreation services | 897 |
| Health services | 6,591 |
| Educational services | 8,134 |
| Other professional and related services | 5,236 |
| Public administration | 1,782 |

1990 Census of Population and Housing
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| CLASS OF WORKER | |
|---|---|
| Employed persons 16 years and over | 96,179 |
| Private wage and salary workers | 82,023 |
| Government workers | 7,970 |
| Local government workers | 5,454 |
| State government workers | 1,832 |
| Federal government workers | 684 |
| Self-employed workers | 5,808 |
| Unpaid family workers | 378 |

1990 Census of Population and Housing
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INCOME IN 1989

| | |
|---|---|
| Households | 62,912 |
| Less than $5,000 | 1,509 |
| $5,000 to $9,999 | 3,610 |
| $10,000 to $14,999 | 4,046 |
| $15,000 to $24,999 | 9,257 |
| $25,000 to $34,999 | 11,147 |
| $35,000 to $49,999 | 15,860 |
| $50,000 to $74,999 | 12,128 |
| $75,000 to $99,999 | 2,996 |
| $100,000 to $149,999 | 1,518 |
| $150,000 or more | 841 |
| Median household income (dollars) | 36,507 |
| | |
| Families | 49,998 |
| Less than $5,000 | 667 |
| $5,000 to $9,999 | 1,237 |
| $10,000 to $14,999 | 2,221 |
| $15,000 to $24,999 | 6,106 |
| $25,000 to $34,999 | 9,104 |
| $35,000 to $49,999 | 14,313 |
| $50,000 to $74,999 | 11,254 |
| $75,000 to $99,999 | 2,862 |
| $100,000 to $149,999 | 1,439 |
| $150,000 or more | 795 |
| Median family income (dollars) | 40,377 |
| | |
| Nonfamily households | 12,914 |
| Less than $5,000 | 945 |
| $5,000 to $9,999 | 2,484 |
| $10,000 to $14,999 | 1,947 |
| $15,000 to $24,999 | 3,163 |
| $25,000 to $34,999 | 1,977 |
| $35,000 to $49,999 | 1,449 |
| $50,000 to $74,999 | 752 |
| $75,000 to $99,999 | 101 |
| $100,000 to $149,999 | 61 |
| $150,000 or more | 35 |
| Median nonfamily household income (dollars) | 17,994 |
| | |
| Per capita income (dollars) | 14,347 |

1990 Census of Population and Housing
040 Michigan
050 Ottawa County

| | |
|---|---|
| INCOME TYPE IN 1989 | |
| Households | 62,912 |
| With wage and salary income | 52,806 |
| Mean wage and salary income (dollars) | 39,864 |
| With nonfarm self-employment income | 8,390 |
| Mean nonfarm self-employment income (dollars) | 16,811 |
| With farm self-employment income | 1,375 |
| Mean farm self-employment income (dollars) | 12,014 |
| With Social Security income | 13,454 |
| Mean Social Security income (dollars) | 8,658 |
| With public assistance income | 2,464 |
| Mean public assistance income (dollars) | 4,252 |
| With retirement income | 7,912 |
| Mean retirement income (dollars) | 6,863 |
| POVERTY STATUS IN 1989 | |
| All persons for whom poverty status is determined | 181,937 |
| Below poverty level | 10,892 |
| Persons 18 years and over | 127,506 |
| Below poverty level | 7,464 |
| Persons 65 years and over | 16,637 |
| Below poverty level | 1,077 |
| Related children under 18 years | 54,199 |
| Below poverty level | 3,262 |
| Related children under 5 years | 15,714 |
| Below poverty level | 1,183 |
| Related children 5 to 17 years | 38,485 |
| Below poverty level | 2,079 |
| Unrelated individuals | 18,947 |
| Below poverty level | 4,589 |
| All families | 49,998 |
| Below poverty level | 1,893 |
| With related children under 18 years | 27,406 |
| Below poverty level | 1,530 |
| With related children under 5 years | 12,206 |
| Below poverty level | 889 |
| Female householder families | 4,180 |
| Below poverty level | 843 |
| With related children under 18 years | 2,669 |
| Below poverty level | 802 |
| With related children under 5 years | 909 |
| Below poverty level | 412 |

1990 Census of Population and Housing
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Percent below poverty level:

| | |
|---|---|
| All persons | 6.0 |
| Persons 18 years and over | 5.9 |
| Persons 65 years and over | 6.5 |
| Related children under 18 years | 6.0 |
| Related children under 5 years | 7.5 |
| Related children 5 to 17 years | 5.4 |
| Unrelated individuals | 24.2 |
| All families | 3.8 |
| With related children under 18 years | 5.6 |
| With related children under 5 years | 7.3 |
| Female householder families | 20.2 |
| With related children under 18 years | 30.0 |
| With related children under 5 years | 45.3 |

1990 Census of Population and Housing
040 Michigan
050 Oceana County

| | |
|---|---|
| Total population | 22,454 |
| SEX | |
| Male | 11,027 |
| Female | 11,427 |
| AGE | |
| Under 5 years | 1,769 |
| 5 to 17 years | 4,873 |
| 18 to 20 years | 830 |
| 21 to 24 years | 908 |
| 25 to 44 years | 6,457 |
| 45 to 54 years | 2,409 |
| 55 to 59 years | 1,043 |
| 60 to 64 years | 1,090 |
| 65 to 74 years | 1,839 |
| 75 to 84 years | 955 |
| 85 years and over | 281 |
| Median age | 33.5 |
| Under 18 years | 6,642 |
| Percent of total population | 29.6 |
| 65 years and over | 3,075 |
| Percent of total population | 13.7 |
| HOUSEHOLDS BY TYPE | |
| Total households | 8,071 |
| Family households (families) | 6,223 |
| Married-couple families | 5,243 |
| Percent of total households | 65.0 |
| Other family, male householder | 279 |
| Other family, female householder | 701 |
| Nonfamily households | 1,848 |
| Percent of total households | 22.9 |
| Householder living alone | 1,598 |
| Householder 65 years and over | 836 |
| Persons living in households | 22,170 |
| Persons per household | 2.75 |
| GROUP QUARTERS | |
| Persons living in group quarters | 284 |
| Institutionalized persons | 220 |
| Other persons in group quarters | 64 |
| RACE AND HISPANIC ORIGIN | |
| White | 21,211 |
| Black | 58 |
| Percent of total population | 0.3 |
| American Indian, Eskimo, or Aleut | 242 |
| Percent of total population | 1.1 |
| Asian or Pacific Islander | 50 |
| Percent of total population | 0.2 |
| Other race | 893 |
| Hispanic origin (of any race) | 1,390 |
| Percent of total population | 6.2 |

1990 Census of Population and Housing
040 Michigan
050 Oceana County

| | |
|---|---|
| Total housing units | 12,857 |
| OCCUPANCY AND TENURE | |
| Occupied housing units | 8,071 |
| Owner occupied | 6,480 |
| Percent owner occupied | 80.3 |
| Renter occupied | 1,591 |
| Vacant housing units | 4,786 |
| For seasonal, recreational, or occasional use | 3,504 |
| Homeowner vacancy rate (percent) | 1.6 |
| Rental vacancy rate (percent) | 6.8 |
| Persons per owner-occupied unit | 2.75 |
| Persons per renter-occupied unit | 2.74 |
| Units with over 1 person per room | 282 |
| UNITS IN STRUCTURE | |
| 1-unit, detached | 9,291 |
| 1-unit, attached | 100 |
| 2 to 4 units | 447 |
| 5 to 9 units | 160 |
| 10 or more units | 56 |
| Mobile home, trailer, other | 2,803 |
| VALUE | |
| Specified owner-occupied units | 3,550 |
| Less than $50,000 | 2,168 |
| $50,000 to $99,000 | 1,171 |
| $100,000 to $149,000 | 145 |
| $150,000 to $199,999 | 48 |
| $200,000 to $299,999 | 15 |
| $300,000 or more | 3 |
| Median (dollars) | 43,300 |
| CONTRACT RENT | |
| Specified renter-occupied units paying cash rent | 1,191 |
| Less than $250 | 662 |
| $250 to $499 | 525 |
| $500 to $749 | 3 |
| $750 to $999 | 1 |
| $1,000 or more | 0 |
| Median (dollars) | 240 |
| RACE AND HISPANIC ORIGIN OF HOUSEHOLDER | |
| Occupied housing units | 8,071 |
| White | 7,775 |
| Black | 10 |
| Percent of occupied units | 0.1 |
| American Indian, Eskimo, or Aleut | 68 |
| Percent of occupied units | 0.8 |
| Asian or Pacific Islander | 7 |
| Percent of occupied units | 0.1 |
| Other race | 211 |
| Hispanic origin (of any race) | 307 |
| Percent of occupied units | 3.8 |

1990 Census Of Population And Housing Summary Tape File 1A

040 Michigan
050 Oceana County

MEDIAN VALUE
Universe: Specified owner-occupied housing units

| | |
|---|---|
| Median value..... | 43,300 |

1990 Census of Population and Housing
040 Michigan
050 Oceana County

LABOR FORCE STATUS

| | |
|---|---|
| Persons 16 years and over | 16,545 |
| In labor force | 9,904 |
| Percent in labor force | 59.9 |
| Civilian labor force | 9,902 |
| Employed | 8,889 |
| Unemployed | 1,013 |
| Percent unemployed | 10.2 |
| Armed Forces | 2 |
| Not in labor force | 6,641 |
| | |
| Males 16 years and over | 8,065 |
| In labor force | 5,643 |
| Percent in labor force | 70.0 |
| Civilian labor force | 5,641 |
| Employed | 5,095 |
| Unemployed | 546 |
| Percent unemployed | 9.7 |
| Armed Forces | 2 |
| Not in labor force | 2,422 |
| | |
| Females 16 years and over | 8,480 |
| In labor force | 4,261 |
| Percent in labor force | 50.2 |
| Civilian labor force | 4,261 |
| Employed | 3,794 |
| Unemployed | 467 |
| Percent unemployed | 11.0 |
| Armed Forces | 0 |
| Not in labor force | 4,219 |
| | |
| Females 16 years and over | 8,480 |
| With own children under 6 years | 1,396 |
| Percent in labor force | 55.6 |
| With own children 6 to 17 years only | 1,637 |
| Percent in labor force | 76.0 |
| | |
| Own children under 6 years in families and subfamilies | 2,166 |
| All parents present in household in labor force | 1,149 |
| | |
| Own children 6 to 17 years in families and subfamilies | 4,273 |
| All parents present in household in labor force | 2,873 |
| | |
| Persons 16 to 19 years | 1,310 |
| Not enrolled in school and not high school graduate | 127 |
| Employed or in Armed Forces | 54 |
| Unemployed | 26 |
| Not in labor force | 47 |

1990 Census of Population and Housing
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050 Oceana County

| COMMUTING TO WORK | |
|---|---|
| Workers 16 years and over | 8,617 |
| Percent drove alone | 75.1 |
| Percent in carpools | 13.4 |
| Percent using public transportation | 0.3 |
| Percent using other means | 1.1 |
| Percent walked or worked at home | 9.9 |
| Mean travel time to work (minutes) | 20.6 |

| OCCUPATION | |
|---|---|
| Employed persons 16 years and over | 8,889 |
| Executive, administrative, and managerial occupations | 623 |
| Professional specialty occupations | 777 |
| Technicians and related support occupations | 222 |
| Sales occupations | 803 |
| Administrative support occupations, including clerical | 1,074 |
| Private household occupations | 40 |
| Protective service occupations | 91 |
| Service occupations, except protective and household | 1,109 |
| Farming, forestry, and fishing occupations | 733 |
| Precision production, craft, and repair occupations | 1,379 |
| Machine operators, assemblers, and inspectors | 976 |
| Transportation and material moving occupations | 458 |
| Handlers, equipment cleaners, helpers, and laborers | 604 |

| INDUSTRY | |
|---|---|
| Employed person 16 years and over | 8,889 |
| Agriculture, forestry, and fisheries | 839 |
| Mining | 41 |
| Construction | 677 |
| Manufacturing, nondurable goods | 692 |
| Manufacturing, durable goods | 1,689 |
| Transportation | 226 |
| Communications and other public utilities | 165 |
| Wholesale trade | 207 |
| Retail trade | 1,466 |
| Finance, insurance, and real estate | 243 |
| Business and repair services | 279 |
| Personal services | 275 |
| Entertainment, and recreation services | 74 |
| Health services | 604 |
| Educational services | 656 |
| Other professional and related services | 368 |
| Public administration | 388 |

1990 Census of Population and Housing
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| CLASS OF WORKER | |
|---|---|
| Employed persons 16 years and over | 8,889 |
| Private wage and salary workers | 6,716 |
| Government workers | 1,247 |
| Local government workers | 777 |
| State government workers | 330 |
| Federal government workers | 140 |
| Self-employed workers | 850 |
| Unpaid family workers | 76 |

1990 Census of Population and Housing
040 Michigan
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INCOME IN 1989

| | |
|---|---|
| Households | 8,097 |
| Less than $5,000 | 582 |
| $5,000 to $9,999 | 1,130 |
| $10,000 to $14,999 | 1,032 |
| $15,000 to $24,999 | 1,723 |
| $25,000 to $34,999 | 1,481 |
| $35,000 to $49,999 | 1,248 |
| $50,000 to $74,999 | 687 |
| $75,000 to $99,999 | 129 |
| $100,000 to $149,999 | 65 |
| $150,000 or more | 20 |
| Median household income (dollars) | 22,383 |
| | |
| Families | 6,279 |
| Less than $5,000 | 269 |
| $5,000 to $9,999 | 549 |
| $10,000 to $14,999 | 810 |
| $15,000 to $24,999 | 1,409 |
| $25,000 to $34,999 | 1,244 |
| $35,000 to $49,999 | 1,148 |
| $50,000 to $74,999 | 649 |
| $75,000 to $99,999 | 123 |
| $100,000 to $149,999 | 58 |
| $150,000 or more | 20 |
| Median family income (dollars) | 25,786 |
| | |
| Nonfamily households | 1,818 |
| Less than $5,000 | 358 |
| $5,000 to $9,999 | 595 |
| $10,000 to $14,999 | 228 |
| $15,000 to $24,999 | 312 |
| $25,000 to $34,999 | 195 |
| $35,000 to $49,999 | 86 |
| $50,000 to $74,999 | 35 |
| $75,000 to $99,999 | 2 |
| $100,000 to $149,999 | 7 |
| $150,000 or more | 0 |
| Median nonfamily household income (dollars) | 9,364 |
| | |
| Per capita income (dollars) | 9,582 |

1990 Census of Population and Housing
040 Michigan
050 Oceana County

| | |
|---|---|
| *INCOME TYPE IN 1989* | |
| Households | 8,097 |
| With wage and salary income | 5,842 |
| Mean wage and salary income (dollars) | 25,670 |
| With nonfarm self-employment income | 907 |
| Mean nonfarm self-employment income (dollars) | 11,394 |
| With farm self-employment income | 435 |
| Mean farm self-employment income (dollars) | 8,347 |
| With Social Security income | 2,633 |
| Mean Social Security income (dollars) | 7,635 |
| With public assistance income | 878 |
| Mean public assistance income (dollars) | 3,864 |
| With retirement income | 1,589 |
| Mean retirement income (dollars) | 7,012 |
| POVERTY STATUS IN 1989 | |
| All persons for whom poverty status is determined | 22,156 |
| Below poverty level | 3,963 |
| Persons 18 years and over | 15,597 |
| Below poverty level | 2,348 |
| Persons 65 years and over | 2,932 |
| Below poverty level | 460 |
| Related children under 18 years | 6,522 |
| Below poverty level | 1,578 |
| Related children under 5 years | 1,735 |
| Below poverty level | 519 |
| Related children 5 to 17 years | 4,787 |
| Below poverty level | 1,059 |
| Unrelated individuals | 2,403 |
| Below poverty level | 863 |
| All families | 6,279 |
| Below poverty level | 856 |
| With related children under 18 years | 3,261 |
| Below poverty level | 659 |
| With related children under 5 years | 1,232 |
| Below poverty level | 346 |
| Female householder families | 629 |
| Below poverty level | 291 |
| With related children under 18 years | 464 |
| Below poverty level | 268 |
| With related children under 5 years | 181 |
| Below poverty level | 137 |

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040 Michigan
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Percent below poverty level:

| | |
|---|---|
| All persons | 17.9 |
| Persons 18 years and over | 15.1 |
| Persons 65 years and over | 15.7 |
| Related children under 18 years | 24.2 |
| Related children under 5 years | 29.9 |
| Related children 5 to 17 years | 22.1 |
| Unrelated individuals | 35.9 |
| All families | 13.6 |
| With related children under 18 years | 20.2 |
| With related children under 5 years | 28.1 |
| Female householder families | 46.3 |
| With related children under 18 years | 57.8 |
| With related children under 5 years | 75.7 |

## II. Coastal Zone Description

### A. Definition of Coastal Zone

There is no precise definition of those areas which are in the "coastal zone" that can be delineated according to a particular factor. However, according to the federal Coastal Zone Management Act of 1972, the act covers "public beaches and other public coastal areas of environmental, recreational, historical, aesthetic, ecological or cultural value". The only addition we make for the purposes of this document is the inclusion of all lands, public and private, which may also have an effect on the development of the actual Lake Michigan shoreland. Therefore, we are also including a substantial amount of inland lake shore, riverine lands, and certain complete watersheds. For a more accurate depiction of all lands included in this text, see Map 2, Coastal Zone Boundaries. This map outlines the general geographic area used for administering the DNR Coastal Management Program, as it pertains to Muskegon, Oceana, and Ottawa Counties, however cultural features such as section lines and roadways are still used for simplification purposes.

### B. Location of Project Area

For the purposes of this project, the area included in the coastal zone includes all or part of the following local units of government:

Oceana County
Benona Township
Claybanks Township
Golden Township
Pentwater Township
Village of Pentwater

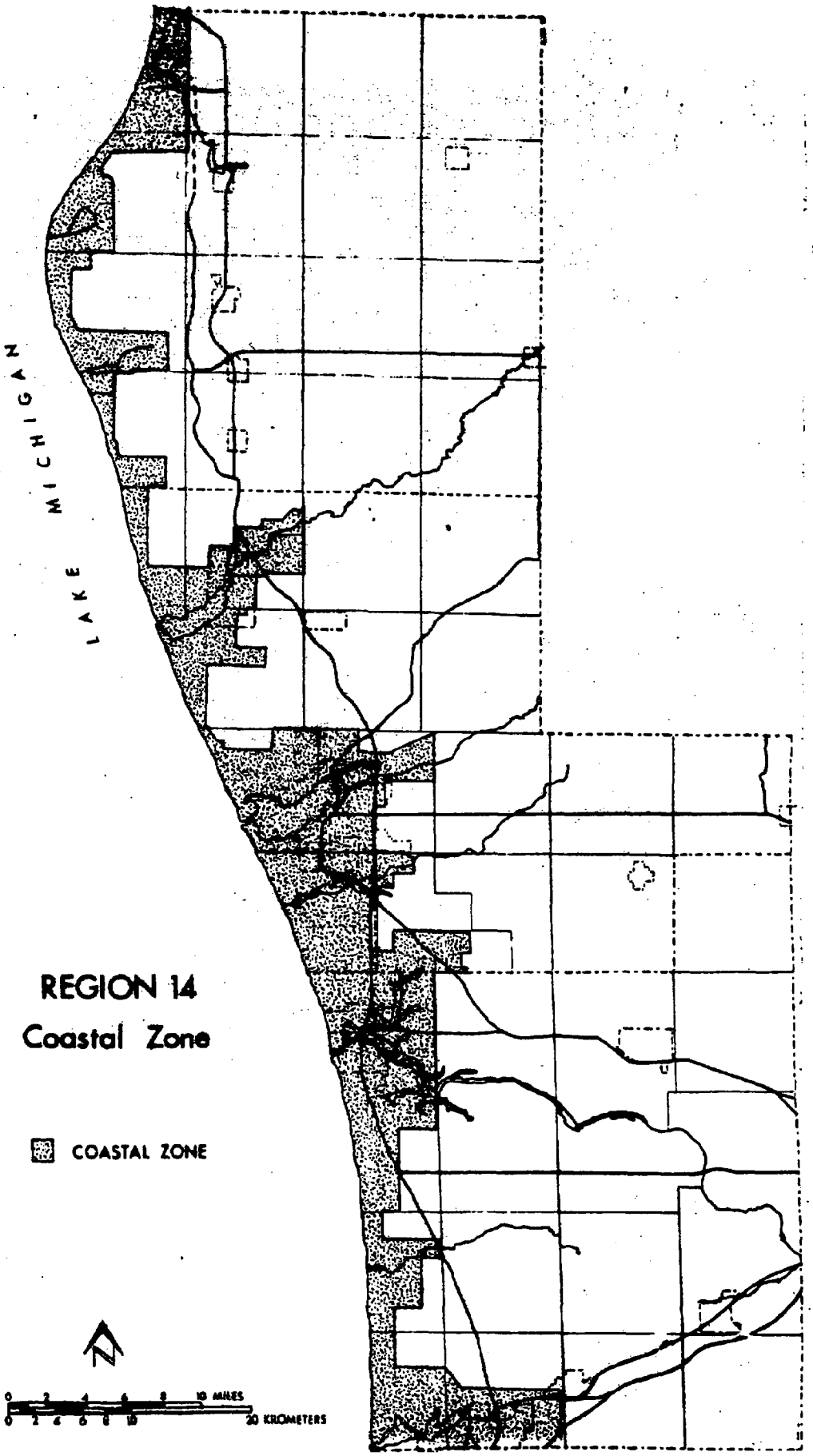
Muskegon County
Fruitland Township
Village of Fruitport
Fruitport Township
Laketon Township
Montague Township
City of Montague
Muskegon Township
City of Muskegon
City of Muskegon Heights
City of North Muskegon
City of Norton Shores
City of Roosevelt Park
White River Township
Whitehall Township
City of Whitehall

Ottawa County
City of Ferrysburg
Village of Spring Lake
City of Grand Haven
City of Holland
Park Township
Port Sheldon Township
Spring Lake Township
Grand Haven Township
City of Zeeland
Zeeland Township
Holland Township

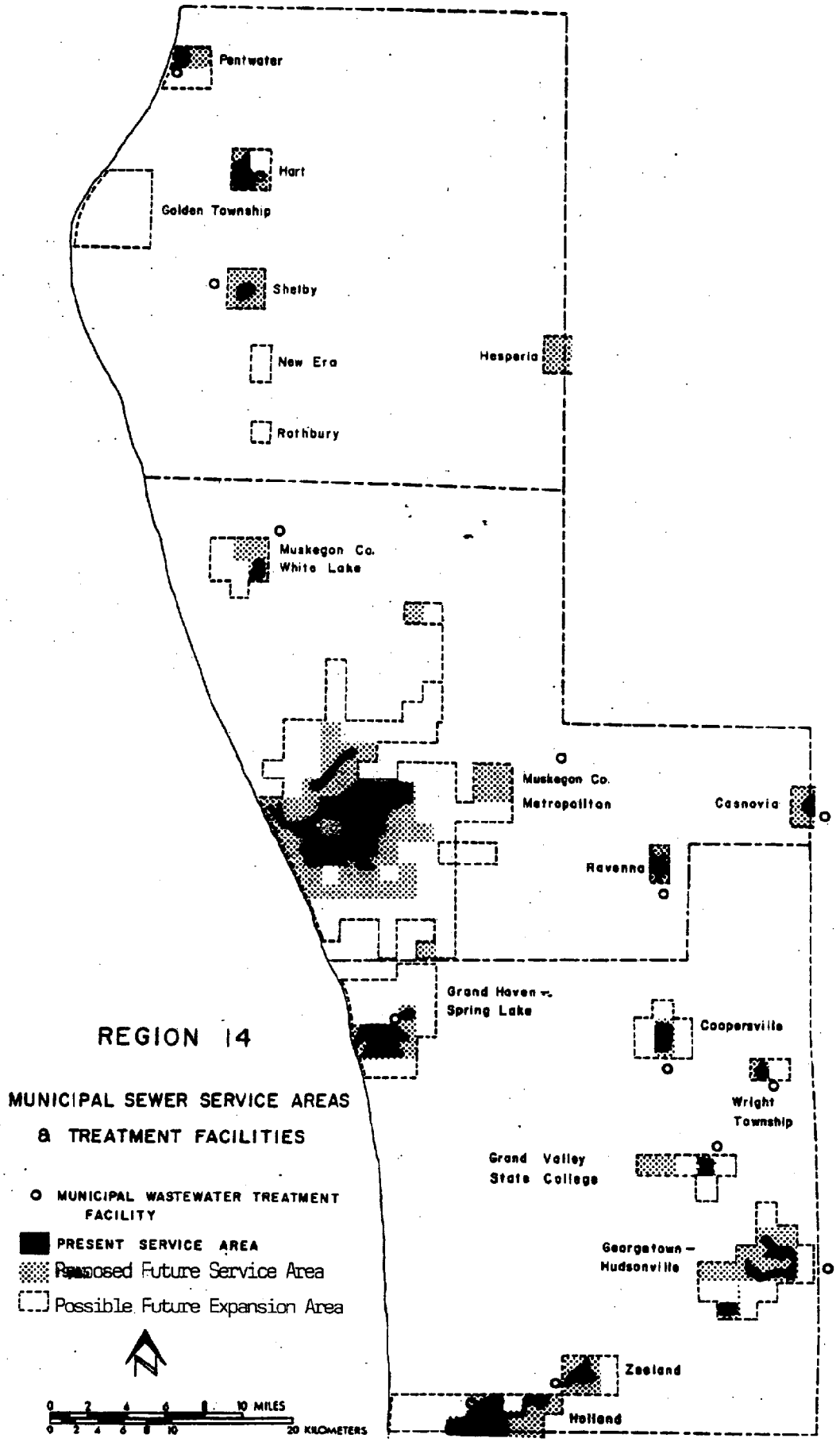
## C. Infrastructure

For the purposes of this project, and of development plans in general, "infrastructure" can be construed to include; roads, from residential to Federal Interstate Highways, scenic tourism routes, rail lines and commercial ports, and water and\or sanitary sewer lines. All these elements are in some way essential to modern life. The distribution of many of these infrastructure elements can be seen in the series of Maps 3a through 3c, which depicts the major roadways in the three counties, those roads which have a significant impact on the coastal zone, and the areas which are most likely to have development pressures based on infrastructure availability.

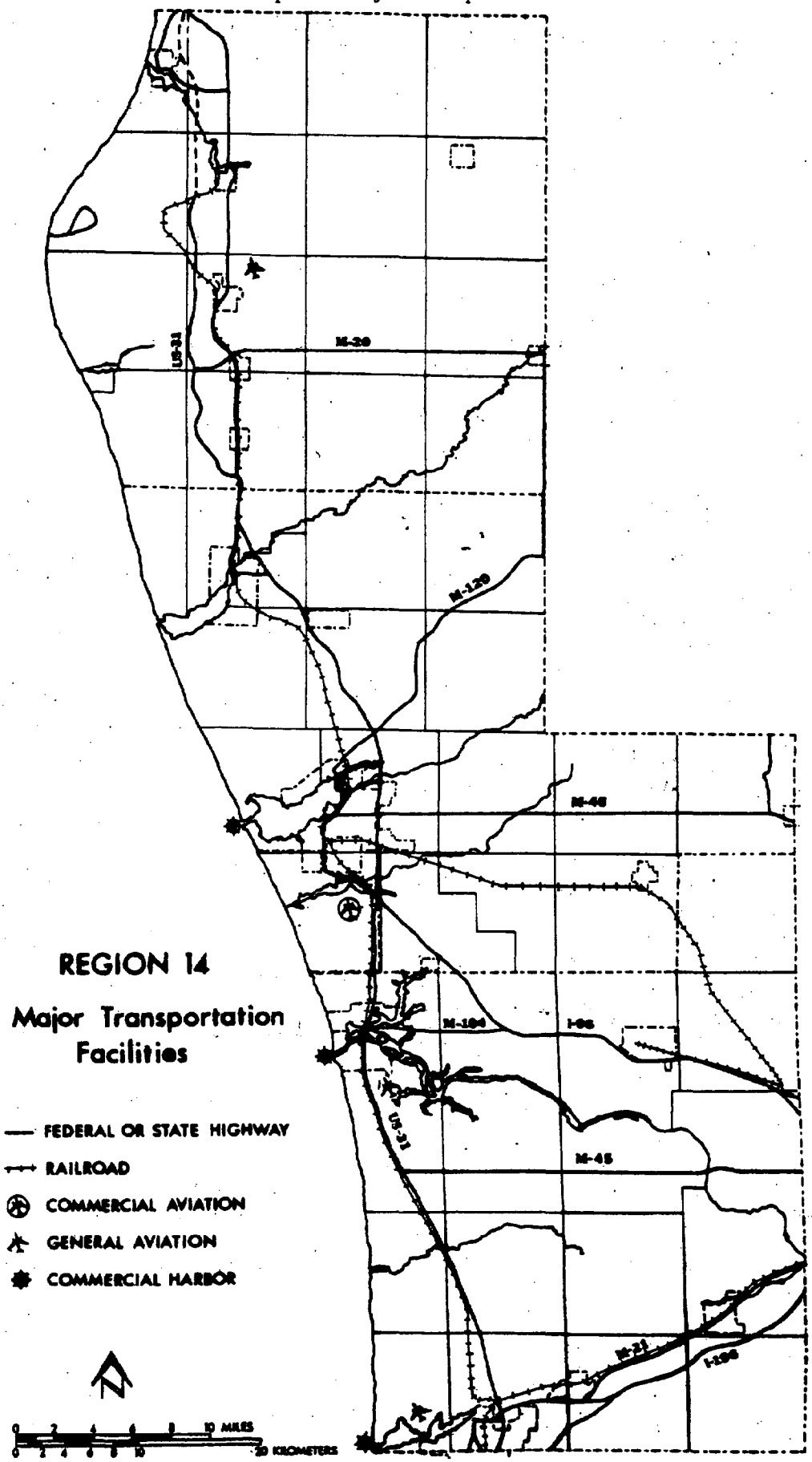
Map 2 - Coastal Zone Boundaries



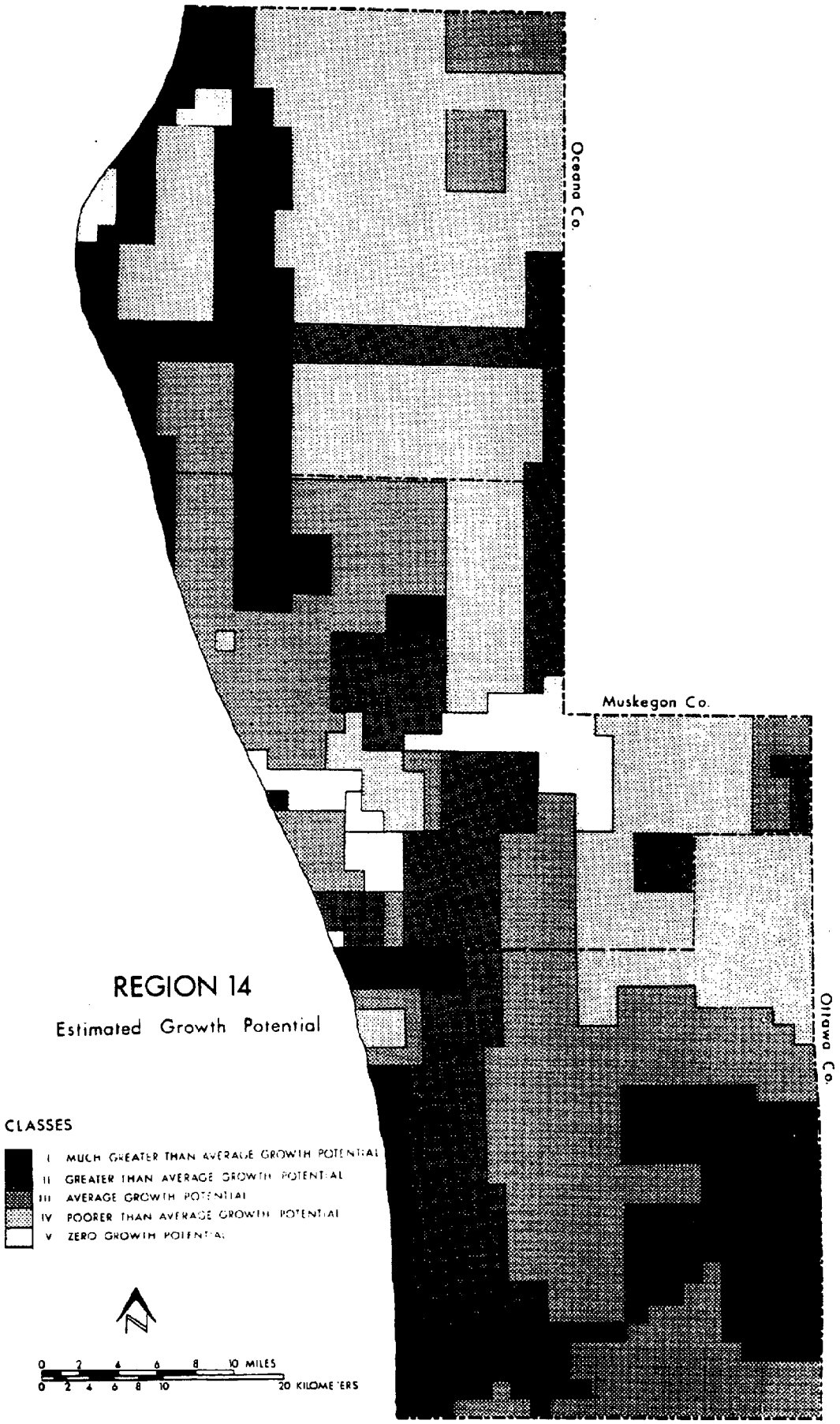
Map 3a - Water and Sewer



Map 3b - Major Transportation Routes



Map 3c - Estimated Growth Potential



D. Topographic Features and Soils

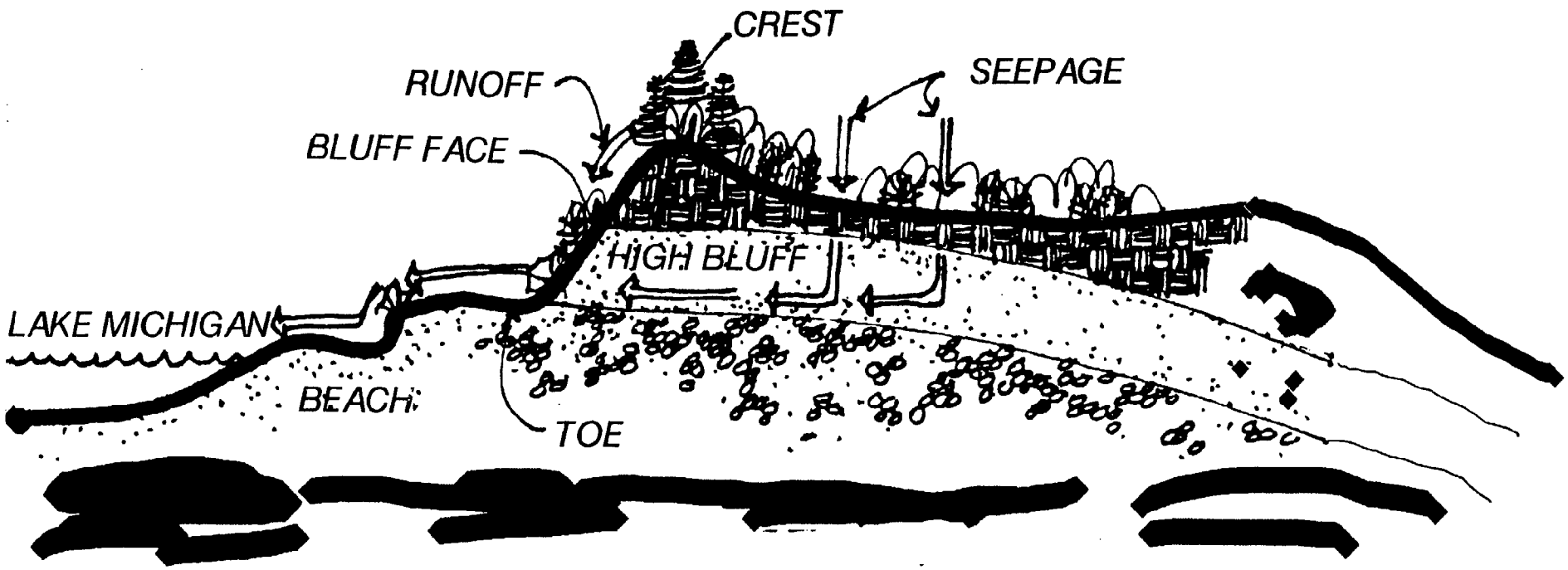
Obviously, the topographic feature of greatest prominence in the coastal zone is the dune formations along much of the Lake Michigan shore. The major elements of these dune formations are the **beach**, the **bluffs**, and the **glacial plain**, as shown in Figure 1, Coastal Profile. It is these dune formations, and the desirability of the views they afford the land owner and user, which are of significant concern.

Further, these dune formations, and their three major elements, form an interconnected ecosystem with the soil associations and vegetative types found in the coastal zone. Therefore, any disruption of this system, if not managed and mitigated, will hasten the tendency of the dune formation to collapse and erode away.

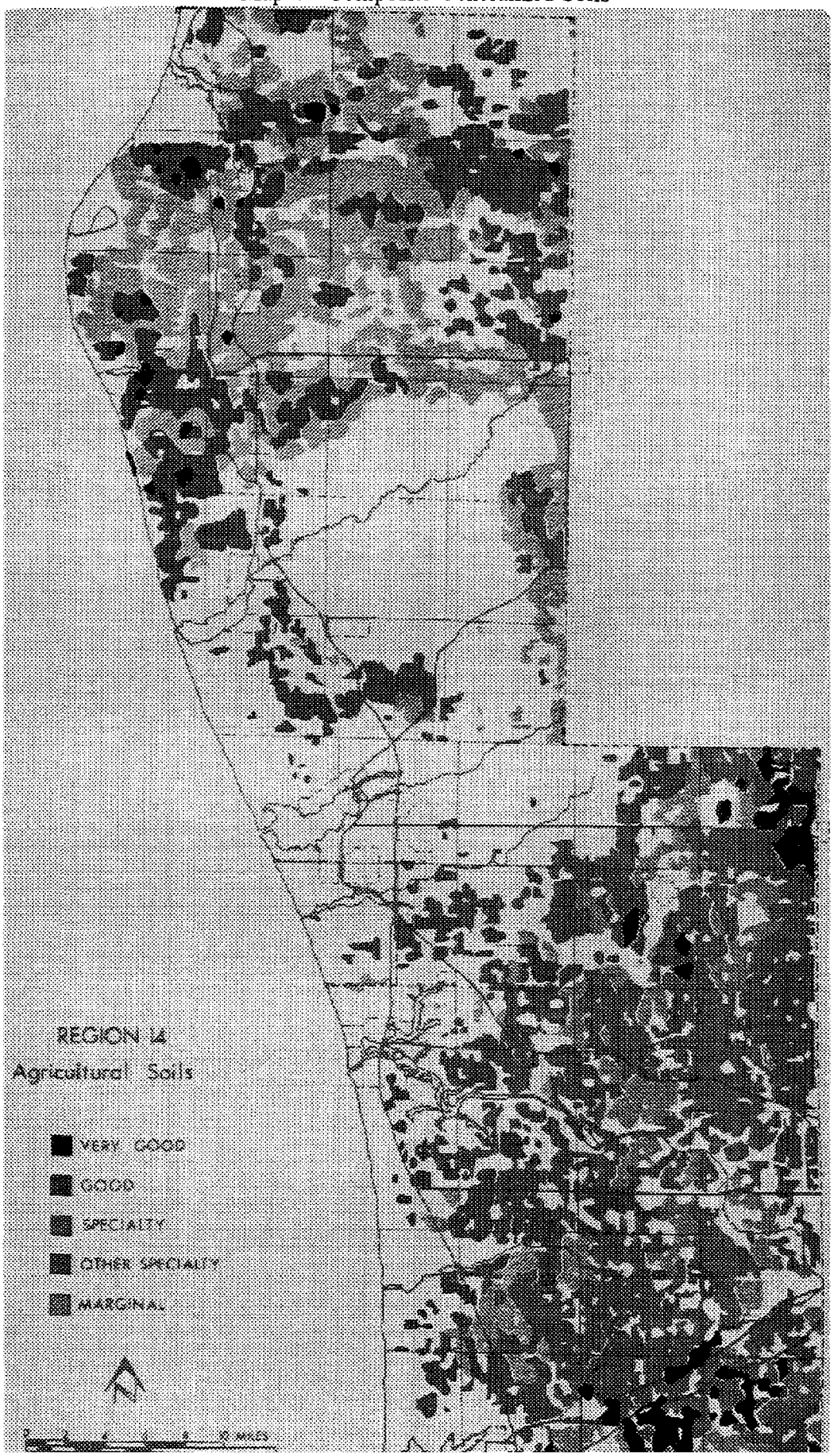
The soils in the project area are most often those of the Rubicon-Croswell-Dear Park Association, being nearly level to steep, well drained and moderately well drained sandy soils on outwash plains, beach ridges, and dune formations. It encompasses all of the steep sand dunes at the lake, the rolling hills which extend inward from the dune formation itself, and the nearly level plains which extend inland from there.

A composite soils map can be found in Map 4.

Figure 1
Coastal Profile



Map 4 - Composite Generalized Soils



E. Land Use/Cover Summary

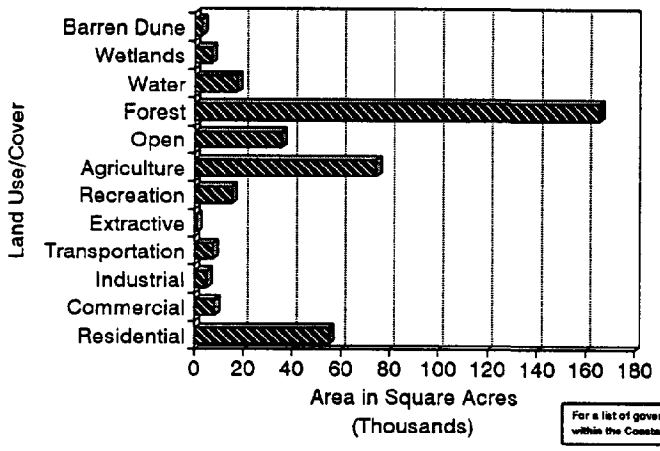
The chart and graph below illustrate the distribution of land use and land cover types in those local units of government which have land located in the Coastal Zone. Note that the illustrations relate the distribution of types for the entire municipality, not just that area contained within the coastal zone. Therefore, the representation is to be considered approximate, not exact.

The data used to produce this illustration was obtained from the MIRIS data set, after modification from Regional Commission field surveys. The square area of individual land use polygons was then combined into totals for each land use type for the entire region. These totals were then assimilated into the 12 overall land cover types seen below.

| Land Cover | Area in Sq. Acres |
|---|---|
| Residential | 55,171 |
| Commercial | 8,254 |
| Industrial | 5,431 |
| Transportation | 7,794 |
| Extractive | 1,144 |
| Recreation | 15,422 |
| Agriculture | 74,567 |
| Open | 35,416 |
| Forest | 165,532 |
| Water | 17,412 |
| Wetlands | 7,437 |
| Barren Dune | 3,147 |

## Land Use/Cover Summary

Coastal Zone Governmental Units



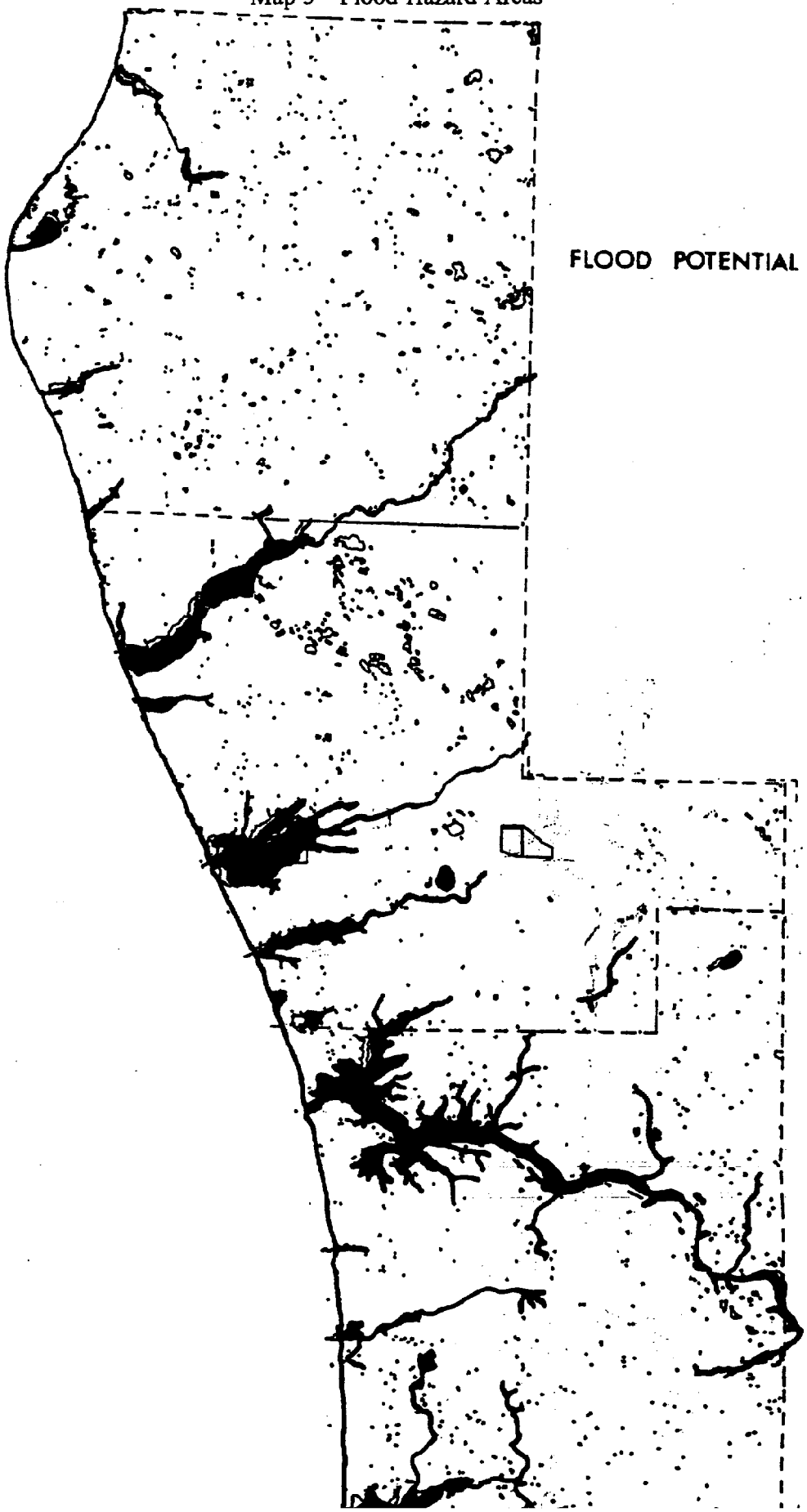

For a list of governmental units within the Coastal Zone, see page 31.

## F. Significant Natural Features

### 1. Flood Hazard Areas

Map 5, Composite Flood Hazard Areas, was developed through digitization of the Flood Insurance Rate Maps and Flood Hazard Base Maps for those communities participating in the National Flood Insurance Program, which is administered by the Federal Emergency Management Agency or FEMA. According to FEMA, flood hazard areas are determined using statistical analyses of records of river flow, storm tides and rainfall, information obtained in consultation with the community, floodplain topographical surveys, and hydrologic studies. This information is then presented on a published map, which covers all or part of a community. This Flood Insurance Rate Map shows areas within the 100 year flood boundary. As stated by FEMA, a "100 year flood" is not a flood level obtained once every 100 years, but rather a water level which has a greater then 1 percent chance of being equaled in any given year.

Map 5 - Flood Hazard Areas



## 2. Special Habitats

Data on special habitats were provided by the Michigan Resource Information System (MIRIS), interviews with MDNR staff at state parks and other areas, and in some cases, supplemented by site visits and other ground reference procedures. The main purpose of assembling such data for this model plan was to take into account the approximate locations of significant natural features or habitats when projecting future growth, or designating future land use zones. For example, even if an area seems right for significant housing development when judged by all traditional criterion, the presence of meaningful natural features data can provide a contradictory benchmark by which to direct such development to other areas.

The greatest concentration of these features seems to be in areas which are already limited in their development potential, i.e. state parks and game areas. However, this could also be a reflection of both the data gathering methodology, and the data sources themselves. Additionally, some potential for conflict was noted in the areas near Port Sheldon in central Ottawa County (an area of burgeoning residential development), and the environs of the Grand River as it passes through the City of Grand Haven and enters Lake Michigan via Spring Lake.

These data and the generalized locations of the habitats and environments listed in the Natural Features Inventory are included in the analysis done to project future land use areas and types. Where possible, the land use or uses in the area have been designated so as to be compatible with the special habitat (as in the case of open space preservation, or certain recreational areas), or limited so as to negate most impacts.

### 3. Wetlands/Dunes of Concern

This section of the data update concerns itself primarily with the mapping of current locations of wetland areas, critical dunes, and Areas of Particular Concern (APC's), both as identified in earlier publications, and as verified by more recent surveys.

Of the original 54 "Areas of Particular Concern" cited in the Regional Commission's 1978 document "Coastal Areas of Particular Concern", many were cited at the time for reasons which are beyond the scope of this document. For the purposes of this data update, only those areas which are focused on critical dune areas, and are still in existence, were added to the database.

In gathering data regarding wetlands, sources included recent field surveys, USGS quad sheets, information provided by local communities, and recent community development plans.

Map 6 - Wetlands and Dunes

## III. Model Land Use Plan for Coastal Zone Areas

### A. Composite Issues, Goals, and Objectives

### INTRODUCTION

The identification of key issues in the community is a critical part of any planning process. It is through the identification of the needs and problem areas in a community that goals and objectives are developed, thereby clarifying and organizing the tasks to be accomplished.

Goals are broad, long-range statements reflecting a general attitude or policy intent of the area officials. Objectives are specific courses of action that should be taken to accomplish the goals. Objectives are short-term, implementable, and measurable.

Key issues, goals, objectives, and implementation strategies were formulated in coastal zone through the use of analysis of current and proposed land use and master plans for the study area. These, taken together with the policies proposed below, provide local leaders with a sound foundation for future decision making.

Therefore, based on the resources and character of coastal zone discussed in the previous chapters, the following goals and objectives have been developed as a policy framework for the issues identified. These goals will serve as a guide for the day-to-day decision making for both the local units of government involved, and the Regional Commission.

### COMMERCIAL DEVELOPMENT

The majority of the needs of coastal zone residents will be met by establishments outside the immediate area. Much of the coastal zone proper, however, constitutes a "rural" service area that could be expanded upon to draw upon those living in the area, even though they may be commuting daily to Muskegon, Holland or Fremont to work.

Issues
Limitation of commercial development on sensitive lands, while promoting commercial development appropriate to the area on those lands not directly affected by the coastal zone.

Goal #1 To encourage development of a comprehensive local services economy such as a restaurant, barber, full-service gasoline station, etc., near the zone, but not in it.

Objectives:

1. Establish a citizen's task force to explore alternatives for commercial development.
2. Create a 10-15 year marketing and implementation plan for commercial development.
3. Secure financing programs for new businesses.
4. Devise a tax abatement policy.
5. Establish funding mechanisms such as Tax Increment Financing Authorities were needed.
6. Identify properties available.
7. Determine suitability of lands.
8. Provide commercial zoning in the zoning ordinance.

Policies:

1. Secondary processing of natural resource products harvested from the area should, where feasible, be undertaken nearby.

2. Economic Development involving non-renewable resources should be carefully planned and staged in order to prevent premature depletion of those resources.

3. The tourist and recreational industry should be promoted on a year-round basis.

## COMMUNITY IMAGE

Several events in recent years in the coastal zone community have illustrated a growing concern by the citizens, planning commissioners, and elected officials about the lakeshore's image, both in terms of physical appearance and cooperative spirit.

While there are few opportunities for civic involvement in coastal zone, there are a number of positive actions that can be implemented fairly easily in working to these long-range goals. These goals and strategies reflect the tremendous changes in operating a modern environmental policy due to an increasingly mobile, sophisticated, and demanding public.

Issues

*1. There are too many opportunities in the coastal zone for properties to become repositories for inoperable cars, discarded appliances, and other non-degradable refuse. This not only causes health and environmental problems, but projects an uncaring image to passersby, potential residents, and fellow citizens.

*2. Often citizens do not know the appropriate procedure to either complain, instigate development, or protect their rights. An attitude has developed that all areas near Lake Michigan are being "taken over" by the State, and are sacrosanct.

Goal #1 To improve the visual impact of the community.

Objectives:

1. Strengthen zoning code and building code enforcement.
2. Encourage quality residential development.
3. Encourage flexible housing developments for rental units and commercial establishments that incorporate clustering features, minimal impacts to the natural environment, and high-density developments with appropriate usage of open space.
4. Institute programs for housing rehabilitation and neighborhood maintenance.
5. Support actions that will facilitate property cleanups and individual citizen initiatives.
6. Investigate and institute programs and projects for community beautification.
7. Require adherence to policy of issuing certificates of occupancy for all dwelling units and commercial structures upon successful completion of all code requirements.
8. Expand the number of hours in which inspection officers and corresponding documents are available to both the public and area officials.
9. Require plot plans for new single-family dwellings. Plans should be approved by both the building inspector and zoning administrator prior to issuance of building and zoning permits. Plans should include, at a minimum, a drawing showing the dimensions of the property, the structure setbacks, locations of utilities, general drainage of the lot, and any surficial alterations intended.
10. Utilize the Michigan Youth Conservation Corps and other similar programs to perform cleanup activities.
11. Organize a tree-planting program with students to beautify the community, instill pride among youth in their area, and to enhance community awareness.

Goal #2 To improve the communication and information flow among the citizenry and between citizens and elected officials.

Objectives:

1. Devise a mechanism by which new residents or potential residents may be informed of environmental regulations, services, and permitting processes.

Policies:

1. Local units of government should adopt uniform and minimum standards for such factors as access, spacing, visual clearance intersections and development set-backs along roadways.

## HOUSING

It is the belief of both coastal zone officials and residents that the community possesses the characteristics of a highly desirable living environment. All communities can reasonably expect residential, non-farm growth from natural population expansion internally and also from the nearby urban areas of Muskegon, Holland, Grand Rapids and Fremont.

Issues:

*1. Very few rental units exist, which is a deterrent to younger people desiring to remain in the area near family and to professionals employed in the area, for example, in the school system.

*2. There is very little designated, subsidized, and operated senior citizen housing in the area.

*5. Stronger controls are needed on growth patterns and land use suitability. Growth should be dictated by a long-range development plan.

Goal #1 To provide a variety of residential life styles that meet the needs and desires of existing and future residents.

Objectives:

1. Provide a supply of quality rental units.
2. Provide a supply of multi-family housing.
3. Create opportunities for mobile home parks on the edges of the zone.
4. Create opportunities for senior citizen housing.
5. Institute better zoning and building code enforcement to protect surrounding properties' values.
6. Institute stringent standards for construction of mobile home parks and multi-family units, again, on the edges of the zone.
7. Foster a sense of responsibility in area landlords.
8. Initiate a rental inspection program.
10. Require open space areas in multi-family housing developments.
11. Encourage variety and innovation in housing design.

Goal #3 To create an organized plan of residential growth.

Objectives:

1. Devise growth control strategies.
2. Encourage quality control of housing.
3. Create housing opportunities on lands most suited for development.
4. Reduce costs to taxpayers by encouraging development in areas most able to be serviced by municipal utilities.
5. Develop separate land use categories to minimize land use conflicts and to provide a balanced and diversified community.
6. Enforce strict zoning.
7. Encourage residential tree planting and landscaping.

Goal #4 To provide residential development opportunities that do not negatively impact the environment and to protect the public health, safety, and welfare.

Objectives:

1. Encourage residential development that conforms to the existing topography, thereby minimizing grading, limiting erosion, and minimizing tree removal.
2. Prohibit residential development in areas of excessive slopes and in floodplains.
3. Encourage an orderly development pattern, avoiding "leap frog" or "strip" development.
4. As land is divided, encourage the dedication of lands for public use by residents or require the developer to provide funds in lieu of dedication for the area to acquire such lands.

Policies:

1. Priority should be given to development of those housing projects which address the most urgent unmet needs of specific target population groups requiring public assistance, including elderly, low and moderate income families, handicapped and developmentally disabled persons.
2. All new housing development should be consistsnt with local and County-wide plans, provide adequate public services and amenities, and compatible with the neighboring land use.
3. New residential development should occur only in areas where soils are suitabls for on-site sewage disposal systems or where public utilities are available and economically feasible.
4. All Townships and Cities should be encouraged to adopt or revise and update building codes, which will permit utilization of new housing construction technology and new concepts of housing site and subdivision development.

## PHYSICAL ENVIRONMENT AND LAND USE

Preventing environmental pollution and degradation is of prime importance to the health, safety, and well-being of our families and to the future of our communities. Environmental protection is accomplished through a three-step process: remediating existing problems, planning and enacting regulations to prevent instances of degradation, and raising citizens' awareness of potential sources and actions causing pollution.

Issues

*1. Abandoned vehicles, farm machinery, household appliances, and trash on properties not only detract from our community's appearance, but threaten groundwater resources.

*2. Many local streams and drains experience degradation from excessive sedimentation, and agricultural runoff.

*3. Development is often permitted on lands not able to sustain septic systems.

*4. Continued allowance of gravel/sand mining is seen by residents as a violation of their standards of living, and an intrusion into the pristine nature of the community.

Goal #1 To improve the cleanliness of the area by eliminating debris and abandoned vehicles/machinery.

Objectives:

1. Enforce the zoning ordinance fairly on an on-going basis.
2. Increase community awareness of ordinances.
3. Appoint an ordinance enforcement officer and give him/her the necessary authority.
4. Encourage area governments to support enforcing officer, to allocate the necessary resources, and to supply proper legal remedies.
5. Inform citizens of proper disposal methods.
6. Educate people about existing rules.
7. Initiate education program in schools about ordinances and local legislation.
8. Encourage Area authorities to work with state/federal authorities on problems.

Goal #2 To develop lands according to their ability to sustain development.

Objectives:

1. Implement appropriate districting in zoning ordinance within one year.
2. Implement strict, evenly enforced septic system standards.
3. Identify problem soils and erosion problem areas.
4. Identify allowable densities for each soil type.
5. Follow ordinance and comprehensive plan.
6. Apply enforcement remedies to correct problem.
7. Communicate desires to County Public Health department.
8. Become involved in septic permitting process.
9. Institute erosion control mechanisms.
10. Work with agencies to correct land use practices and install cover where needed.

Goal #3 To protect soil, surface water, and ground water resources for present and future generations.

Objectives:

1. Enact ordinances and/or regulations in existing ordinances to prevent activities that have polluting potential.
2. Provide citizens with information on preventive actions that may be taken by homeowners and businesses to assure environmental protection.
3. Investigate local government options available for groundwater protection legislation.
4. Work with regional Groundwater Education in Michigan staff to incorporate environmental education in local school curriculums and to develop tools for local officials.
5. Minimize impacts of intensive development on ground and surface waters.
6. Implement stormwater management policies for all developments.
7. Implement lot size requirements suitable for septic field development.
8. Investigate the feasibility of municipal water/sewer, where none currently exists.

Policies:

1. Areas where critical natural processes would be endangered by development should be conserved. The areas most directly impacted include the following: drainage ways, floodplains, marshes, bogs, steep slopes and key habitat areas.
2. An adequate minimum flow and water quality should be maintained in all rivers, streams and inland lakes to insure a productive fish habitat and protection of aquatic life and scenic quality.
3. Development should not grossly impair the functioning of vital natural systems. Land uses should be primarily determined by natural characteristics, suitability of the land, and the availability of urban services.
4. New development should be located in vacant and redevelopable areas that are already serviced by utilities.
5. Local implementation devices should allow cluster subdivisions for residential, commercial, industrial and public activities.
6. Lands shall be deemed unsuitable for any proposed development by the local units of government because of:

    a. flooding
    b. inadequate drainage
    c. adverse soil formation
    d. sewer erosion potential
    e. unfavorable topography
    f. inadequate water supply and sewage disposal capabilities,

    or any other feature likely to be harmful to the health, safety or welfare of the community or the future residents of the proposed subdivision.

7. Significant natural and wildemess areas be identified, protected, and preserved.

8. Areas containing unique and/or endangered species should be identified, inventoried and managed as special protection units.Poliq 1.3 Service area boundaries for water and sewer should be determined primarily on the basis of watersheds.

9. On-site sewage disposal absorption systems should only be allowed on sites on which hydrologic and soil porosity tests substantiate the reliability of septic

tank systems for the density and cumulative effects of development that will occur.

10. Land management practices that minimize pollution should be utilized, such as:

use of biodegradable, non-polluting chemical fertilizers, pesticides, detergents, etc.
management of liquid and solid waste disposal systems so as to preclude contamination of nearby surface water resources and underlying ground water supplies.

11. Any alteration to the shoreline, channel, or bottom profile of water bodies and water courses by filling or dredging must be demonstrated by the proponent to the unit of government having jurisdiction to be non-detrimental to the resource and public health.

## RECREATION

The high degree of availability of recreation lands in the coastal zone is a valuable asset that must be maintained and enhanced. The area possesses a large amount of State and National Forest lands that provide recreational opportunities for hiking, hunting, fishing, motorized biking, and other recreational opportunities linked to limited vehicular access.

Issues

*1. The area has a large amount of state and federal lands to provide recreational opportunities.

*2. Some communities lack a playground with a good variety of equipment.

*3. There are few established trails for riding and hiking, on private land.

*4. There is a need for campgrounds for recreational vehicles.

Goal #1 To establish a hierarchy of parks and recreation facilities from regional to neighborhood to enrich the recreational opportunities of area residents of all age groups.

Objectives:

1. Plan for park development in population centers through land acquisition and dedication.
2. Develop a range of facilities from passive to intensive uses.
3. Utilize a range of sites, from natural areas to highly developed facilities.
4. Coordinate recreation program with area adult education programs.
5. Encourage the development of national/state facilities by their respective and appropriate agencies.
6. Encourage County involvement in parks siting for both county and area residents' use.
7. Establish regular communication with County parks officials.
8. Establish contact with national/state officials to investigate possibilities of facility development.

Goal #2 To develop a long-range plan for recreation development in the coastal zone.

Objectives:

1. Establish a parks and recreation commission.
2. Survey residents to ascertain citizens' desires.
3. Create a long-range, written plan to guide park and recreational development.
4. Investigate and secure funding sources for improvements and developments.
5. Institute capital improvements programming to accomplish goals.
6. Identify land and other resource needs.
7. Support and recognize the parks and recreation commission as a viable body of the area government.
8. Appropriate financial and staff resources as needed to accomplish those goals established by the commission, as reflected by the citizens' desires.
9. Research joint ventures with the school district.
10. Solicit volunteers and donations of time, money, equipment, and lands for park development and plan creation.
11. Encourage development and reservation of lands in densely developing neighborhoods into recreation areas.

Goal #3 To implement a quality park system at the least cost to residents.

Objectives:

1. Recognize and acquire lands available for purchase and in accordance with the long-range recreation plan.
2. Work with adjacent municipalities on joint projects.
3. Develop intensive recreational facilities in conjunction with schools.
4. Work with the County Parks and Recreation Commission to develop a sound county-wide system of facilities for use by all county residents.

## B. Land Use Plan Element

### INTRODUCTION

The purpose of this chapter is to synthesize the demographic data, the physical inventory, and the wants and needs of the community into a plan for land use in the future. The product of this synthesis is a map depicting, in a generalized way, the various types of land use needed and their locations throughout the community. The map is accompanied by text that describes the character of these land use "districts" and the rationalization and processes followed in arriving at their designations.

### PROJECTED COMMUNITY CHARACTERISTICS

Although population projections have been discussed elsewhere in this plan, this element of the planning process focuses heavily on this and a forecast of the economic, cultural, and environmental conditions that will be evident over the next 10-20 years. While no plan can accurately envision the future for a community, it is important to set goals to be accomplished, using the best information available, and revise plans for the community as conditions change.

At the projected rate of growth, there will be a need to accommodate additional housing units for these new persons. The purpose of a plan for coastal zone protection is to properly place these additional units in an area where they can be supported and minimize the impact to the natural environment.

The final land use plan, then, must include provisions for accommodating some numbers of additional dwelling units, plus the attendant infrastructure and services to meet the needs of the total population. Questions to be addressed include: will there be adequate amounts of land zoned for residential development? What kind of development will that be? Are additional roads needed, or do existing ones need to be improved? Is municipal water and sewer needed? Should dwelling units be concentrated, and if so, where? Will the population increase require additional commercial establishments? Will the natural landscape be stressed? Will additional open space, vistas, and park lands need to be created?

The coastal zone area is likely to become a major growth center in the next twenty years due to its relative lack of geographic isolation. It will, additionally, continue to experience residential growth resulting from migration from the Muskegon metropolitan area, Grand Rapids, and Holland. Additional residential migration will also occur from the Fremont area as that city continues to expand outward. Both of these residential migration patterns mirror the national trend towards suburbanization.

The types of housing required would most likely be that for low-density, single-family, middle-income families, although the recent trend in rural parts of the area has been toward low-density, low-income dwellings, primarily consisting of mobile homes. The zoning ordinances that may ultimately be produced from this plan will have a large impact on the type of dwelling units that will dominate in Coastal zone Area.

Michigan's overall economic climate may play an important role in Coastal zone Area's future. If employment throughout the state does not appreciably improve in the next year or two, Michigan is likely to see an out-migration of both blue- and white-collar workers. This statewide trend will impact Coastal zone's future by slowing its projected growth.

National farm trends and prices may also affect the physical development of the area. If farm

prices fall to enough of a degree so as to make farming unprofitable, there will be added incentive for large landowners to sell farm lands that will be converted to non-farm uses such as residential development.

Tourism has been, and will likely continue to be, a factor in the development of Coastal zone Area. Although there is a tremendous amount of state and federal forest land in the area, the types of recreational activities are likely to support a large-scale tourism-based industry, and hence must be planned for.

## PROPOSED LAND USE DISTRICTS

Medium-Density Clustered Residential.
This district represents a new concept in Coastal zone Area residential land use. This medium-density district is intended to provide land for residential growth close to a "village center" without overtaxing current services while still providing a density of population close to highways, and current commercial businesses. In addition, it is projected that, by providing this balance of density and open space, the prospects for growth of new businesses which would serve these population centers will be enhanced. Last but not least, this type of district is designed to preserve open space, which is the leading characteristic of a rural, scenic area such as Coastal zone Area.

As summarized by Melissa Armstrong in the May 1992 issue of "Planning and Zoning News", the "acceptance of ...clustered residential development in rural areas, depends in part on its ability to offer the proper incentives to developers and their customers." In addition, Ms. Armstrong also stated that "It also results in meeting the community's open space protection goals." This type of district can be implemented using a variety of key incentives for the developer:

* Allowing greater density than the traditional non-subdivision lot split, but still less than that for a standard subdivision.

* Lot size still large enough for a proper septic system.

* More lenient roadway construction standards.

* Flexibility in the design of the development, while still preserving open space.

Municipal investment and expenditure will be required, however, to use this district to its fullest advantage. In order to access the land designated for this district in the most efficient and economical manner for example, extensions of paved roads may be required, or certain other services may need to be developed.

This land use is intended to provide a lesser-intensity of development that will assist the community goals of preserving the natural beauty of vegetation and terrain and enhancing the rural setting now experienced by the residents. Other uses to be promoted in this district include open space, playgrounds, and other recreational facilities, especially those utilizing and protecting riverine features in the area.

While preserving the community's natural and cultural heritage, this land use category also strives to make efficient use of land resources and public services. Clusters of population enhance the business community, which helps ensure its survival and growth. Some degree of population density also promotes public safety in reduced travel distances and better access for children and senior citizens.

Rural Living/Agricultural.

A consideration that was important in the formulation of this district was a recognition of the need for a buffer district between agricultural and residential, and forest-recreational and residential. Providing such a buffer would protect agricultural lands from neighboring incompatible land uses, and enhance residential districts by preserving the natural beauty and physical attributes of the area.

This land use district provides a rural setting for single-family dwellings that will preserve the natural land, water, and vegetative attributes of the area. Permitted uses should accommodate natural forest production, and small-scale truck-crop and specialty farming. Other land uses could be accommodated through the use of special use permits that would ensure development in accordance with these goals, including parks and recreational facilities, quasi-public buildings, and quarrying/mining operations. Single-family dwellings should be developed at an overall density of one unit per 7.5 acres.

Agricultural
In Coastal zone Area, as in many areas of Michigan, general farming and agricultural-related activities replaced lumbering as the prime economic venture. These products include dairy products, grains, fruits, and vegetable row crops. It is very much desired that this aspect of the community be retained.

For most farm families in Coastal zone Area, the farm operation is a secondary or supporting income for the primary wage-earner. This circumstance promotes the stability of the farming population as a sector of the community, which is a very desirable feature in terms of providing a constant tax base and population. Some farms in the area are enrolled in Michigan's Farmland and Open Space Preservation Act (Act 116 of 1974), which provides financial incentives to designate lands for long-term farming use. This also promotes land use stability.

Forest-Recreational.
The large quantity of federal and state land primarily in the western half of the area provides a unique opportunity for woodland preservation and recreational development. This land comprises a portion of several National Forests, and encompasses a number of privately-owned parcels within its boundaries.

These private parcels are either undeveloped or have minimal development consisting of an unimproved sand roadway or no formal road access at all. Most parcels are the property of absentee owners, and have no dwellings on them, being held for investment purposes. Other parcels are used seasonally for camping, hunting, or fishing.

On the other hand, there is a definite need for additional recreational facilities to be developed. A Forest-Recreation District provides a good use of these undeveloped lands in the outlying areas. Preservation of the natural and rural attributes in the area for future citizens is an important goal. This district will maintain these existing large tracts of forest land as a renewable resource for the future.

Critical Dune Overlay District
This type of district, which several local units of government in the Coastal Zone already possess some form of, has as its main impetus the protection of these significant natural features. This district might envision several methods to do this, among them the allowance of varying design considerations to cope with sandy conditions found in the dune areas. This would be to target future development in those areas which already possess sufficient the infrastructure capacity to handle the development, and away from those areas which have other, additional limiting factors. Other features of this proposed zone include elements such as:

Enticements to limit the creation of long, narrow lots

Enticements for the utilization of native vegitation and the conservation of the original site topography.

Water Body/Greenbelt Overlay District

In general, it can be said that many of the local land use and/or zoning district designations currently present in the Coastal Zone to not accurately reflect the varied forms and character of land uses in the area. One such area is that of land uses near inland water bodies.

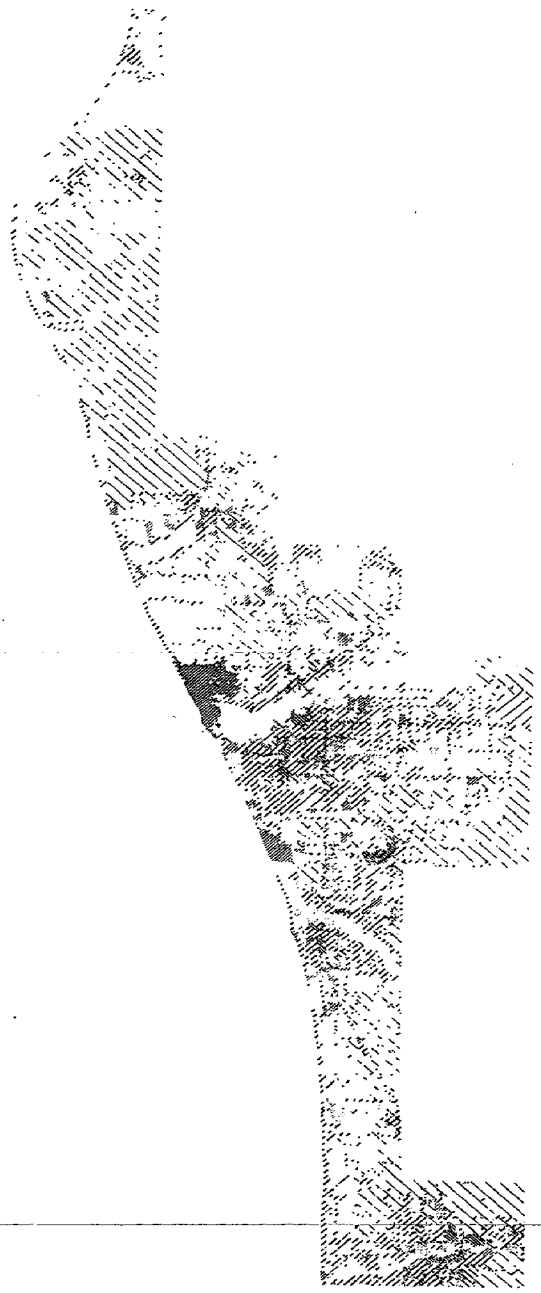
This particular district might represent the relatively large and mostly contiguous environmentally sensitive areas within the Zone. The intention of this district is to preserve these areas and assist in preserving the function of the natural ecological systems related to riverine and riparian areas.

This would be done through the encouragement of setbacks, site design, and vegatation use/protection in a way consistent with these riverine and riparian resources.

Local Service Commercial

It must be recognized that significant commercial developments currently exist within the Coastal Zone area. Some of these developments are located in areas far from sensitive lands, and are thus not of particular concern. Others, however, have focused development pressures in such a way as to be a distinct threat to the ecological system and natural features in the immediate area. Therefore, it is proposed that in those areas, commercial developments be limited to those which are necessary to service the local needs of the existing residential land uses. Through the creation of this type of commercial land use district, it is envisioned that it will therefore be easier to create adjacent and related land uses, such as clustered residential, in the most appropriate location.

Map 7 - Generalized Future Land Use Pattern



Coastal Zone

General Future Use

Legend

- SINGLE FAMILY
- MULTI-FAMILY
- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL
- RECREATION
- TRANSP./UTILITIES
- AGRICULTURAL
- VACANT/OPEN
- WATER

MSU C-MAP DISPLAY

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***West Michigan Shoreline***
***Regional Development Commission***

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