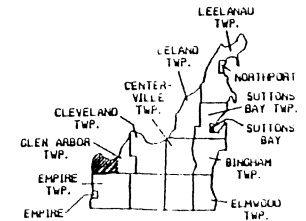


# GLEN ARBOR TOWNSHIP WEST

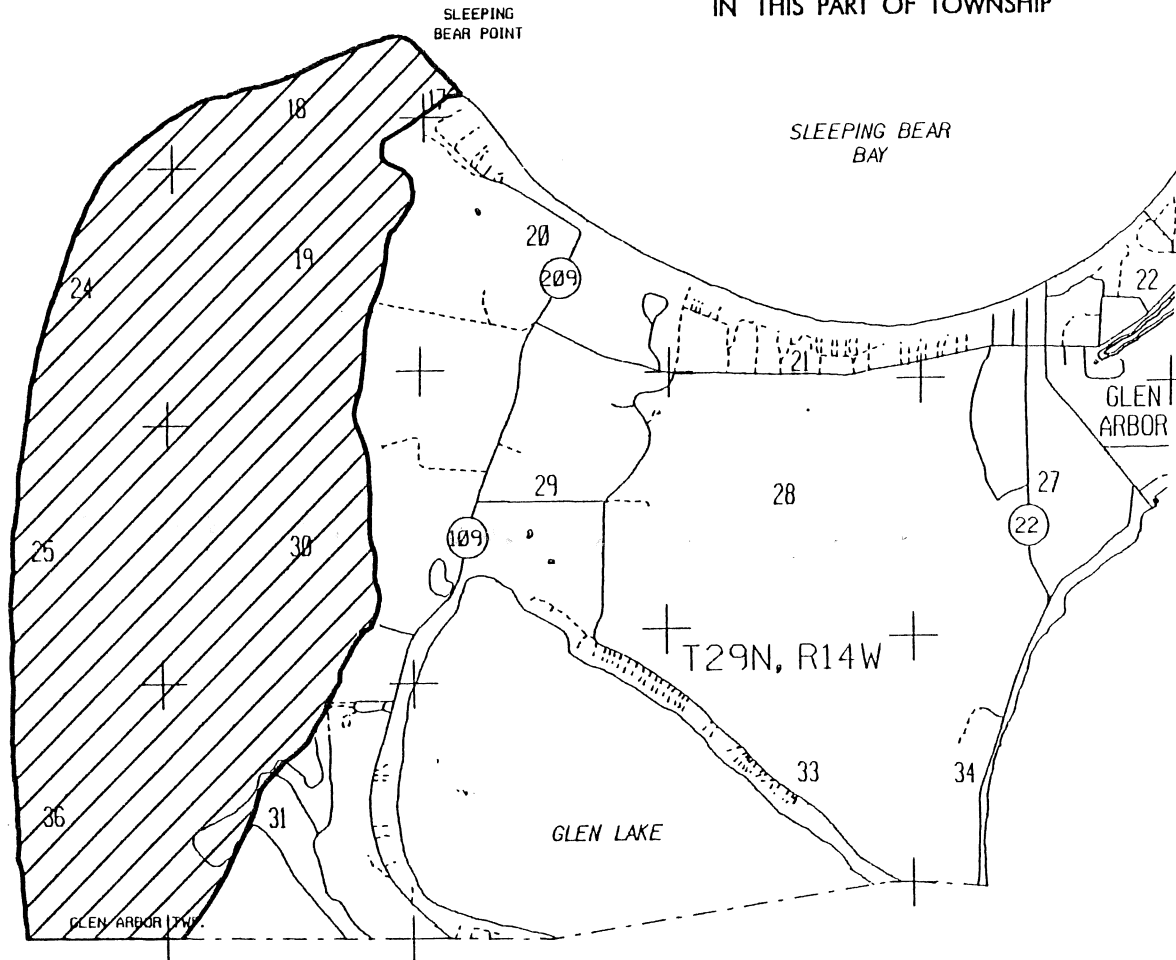
## HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

LEELANAU COUNTY

T29N, R14W



NO HIGH RISK EROSION AREAS  
IN THIS PART OF TOWNSHIP



### HIGH RISK EROSION AREAS

THE NUMBER REPRESENTS, IN FEET, THE 30 YEAR PROJECTED RECESSION DISTANCE.  
60' THE NUMBER REPRESENTS, IN FEET, THE 60 YEAR PROJECTED RECESSION DISTANCE.

HIGH RISK EROSION AREA  
(shading alongshore)

THESE AREAS ARE LEGALLY DEFINED BY THE SHORELANDS PROTECTION AND MANAGEMENT ACT, 1978 P.A. 245, AS AREAS, AS BEING GREAT LAKES SHORELAND AREAS, DOCUMENTED TO REcede AN AVERAGE OF ONE FOOT OR MORE PER YEAR.

### CRITICAL DUNE AREAS

BARRIER DUNES  
BARRIER DUNE FORMATIONS DESIGNATED PURSUANT TO 1978 P.A. 222

AREAS NOT INCLUDED IN DESIGNATED BARRIER DUNE FORMATIONS THAT ARE COMPOSED PRIMARILY OF DUNE SAND AND EXHIBIT SEVERAL DUNE-LIKE CHARACTERISTICS.

EXEMPLARY DUNE ASSOCIATED PLANT COMMUNITIES OUTSIDE DESIGNATED DUNE FORMATIONS, MICHIGAN NATURAL FEATURES INVENTORY REFERENCE CODE INDICATED.

### SOURCE

STATE OF MICHIGAN ACT 245 RECESSION RATE MAPS & ATLAS OF CRITICAL DUNE AREAS

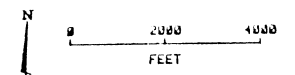
### INFORMATION

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
LAND AND WATER MANAGEMENT DIVISION  
P.O. BOX 30020  
LANSING, MI 48909  
(517) 373-1958

Glis

GREAT LAKES INFORMATION SYSTEM  
MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
LAND AND WATER MANAGEMENT DIVISION

02-10-93

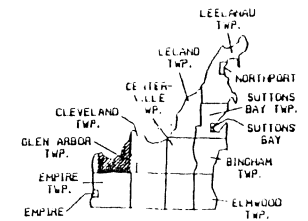


# GLEN ARBOR TOWNSHIP EAST

## HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

LEELANAU COUNTY

T29N,R14W



### HIGH RISK EROSION AREAS

THE NUMBER PRESENTS, IN FEET, THE 30 YEAR PROJECTED RECESSION DISTANCE.  
 55' 105'

THE NUMBER PRESENTS, IN FEET, THE 60 YEAR PROJECTED RECESSION DISTANCE.

HIGH RISK EROSION AREA (shading along shore)

THESE AREAS ARE LEGALLY DEFINED BY THE SHORELANDS PROTECTION AND MANAGEMENT ACT, 1978 P.A. 245, AS AREAS DOCUMENTED TO RECEIVE AN AVERAGE OF ONE FOOT OR MORE PER YEAR.

### CRITICAL DUNE AREAS

BARRIER DUNES  
 BARRIER DUNE FORMATIONS DESIGNATED PURSUANT TO 1978 P.A. 222

AREAS NOT INCLUDED IN DESIGNATED BARRIER DUNE FORMATIONS THAT ARE COMPOSED PRIMARILY OF DUNE SAND AND EXHIBIT SEVERAL DUNE-LIKE CHARACTERISTICS.

EXEMPLARY DUNE ASSOCIATED PLANT COMMUNITIES OUTSIDE DESIGNATED DUNE FORMATIONS. MICHIGAN NATURAL FEATURES INVENTORY REFERENCE CODE INDICATED.

### SOURCE

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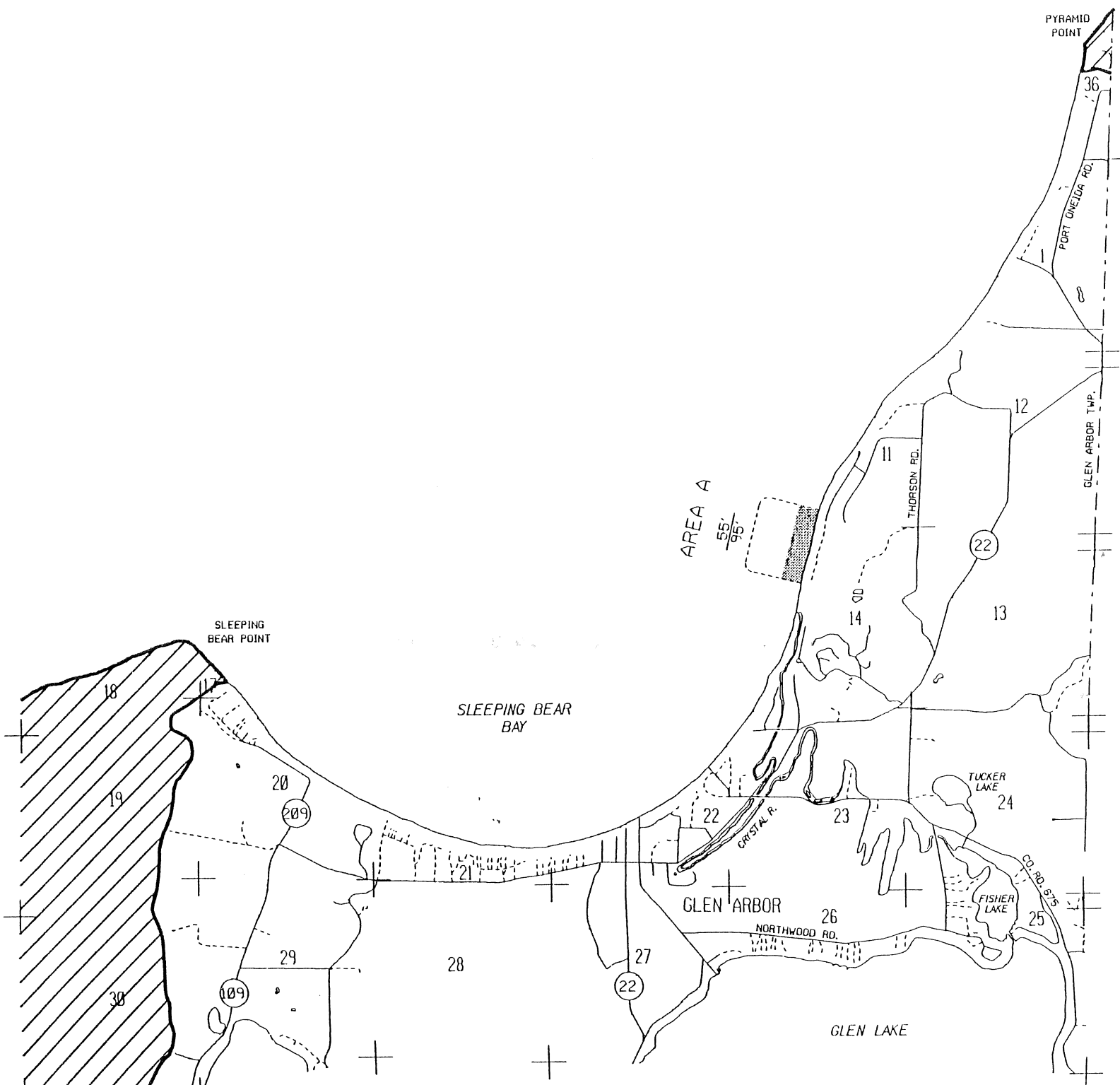
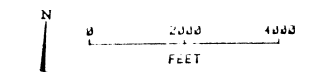
### INFORMATION

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
 LAND AND WATER MANAGEMENT DIVISION  
 P.O. BOX 30089  
 LANSING, MI 48209  
 (517) 373-1504

**GIS**

CRITICAL DUNE INFORMATION SYSTEM  
 MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
 LAND AND WATER MANAGEMENT DIVISION

02-10-93



# Parcels in High Risk Erosion Areas of Glen Arbor Township, Leelanau County

HREAs identified North to South      Date of Designation: March 11, 1993

HREA*	Sequence No.	Parcel Identification Number	Rate (feet/year)	30 yr PRD*	60 yr PRD*
A1	1	45-006-114-016-60	1.3	55	95
A1	2	45-006-114-016-30	1.3	55	95
A1	3	45-006-114-003-10	1.3	55	95
A1	4	45-006-114-003-30	1.3	55	95
A1	5	45-006-114-003-00	1.3	55	95
A1	6	45-006-114-003-50	1.3	55	95
A1	7	45-006-114-006-00	1.3	55	95
A1	8	45-006-114-004-10	1.3	55	95
A1	9	45-006-114-004-00	1.3	55	95
A1	10	45-006-114-005-00	1.3	55	95
A1	11	45-006-114-002-00	1.3	55	95
A1	12	45-006-114-011-00	1.3	55	95
A1	13	45-006-114-007-10	1.3	55	95
A1	13.1	45-006-114-007-20	1.3	55	95
A1	14	45-006-114-009-00	1.3	55	95
A1	15	45-006-114-008-00	1.3	55	95
A1	16	45-006-837-008-00	1.3	55	95
A1	17	45-006-837-007-00	1.3	55	95
A1	18	45-006-837-006-00	1.3	55	95

HREA\* - Some parcels may be in multiple HREAs due to their large size.

30 yr PRD\* is the Projected Recession Distance (feet) landward from the Erosion Hazard Line for readily moveable structures including those structures 3,500 square feet or less and built on a basement, crawlspace or pilings. Additional restrictions may apply per Administrative Rules 281.21-22.

60 yr PRD\* is the Projected Recession Distance (feet) landward from the Erosion Hazard Line for non-readily moveable structures such as large structures and septic systems.

**Designation runs with the land including subsequent splits. Absence of a property number does not guarantee the property is located outside of an HREA. Contact the Great Lakes Shorelands Unit, Water Resources Division, DEQ in Lansing or the local DEQ field office for assistance.**

# Parcels in High Risk Erosion Areas of Glen Arbor Township, Leelanau County

HREAs identified North to South      Date of Designation: March 11, 1993

HREA*	Sequence No.	Parcel Identification Number	Rate (feet/year)	30 yr PRD*	60 yr PRD*
A1	19	45-006-837-005-00	1.3	55	95
A1	20	45-006-837-004-00	1.3	55	95

HREA\* - Some parcels may be in multiple HREAs due to their large size.

30 yr PRD\* is the Projected Recession Distance (feet) landward from the Erosion Hazard Line for readily moveable structures including those structures 3,500 square feet or less and built on a basement, crawlspace or pilings. Additional restrictions may apply per Administrative Rules 281.21-22.

60 yr PRD\* is the Projected Recession Distance (feet) landward from the Erosion Hazard Line for non-readily moveable structures such as large structures and septic systems.

**Designation runs with the land including subsequent splits. Absence of a property number does not guarantee the property is located outside of an HREA. Contact the Great Lakes Shorelands Unit, Water Resources Division, DEQ in Lansing or the local DEQ field office for assistance.**