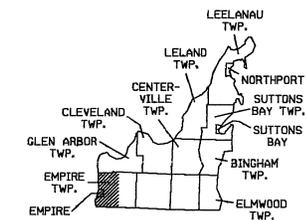


# EMPIRE TOWNSHIP

## HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

LEELANAU COUNTY

T28N,R14W



### HIGH RISK EROSION AREAS

THE NUMBER REPRESENTS, IN FEET, THE  
<sup>60'</sup> 30 YEAR PROJECTED RECESSION DISTANCE.  
<sup>105'</sup> 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 AMENDED, 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 1976 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

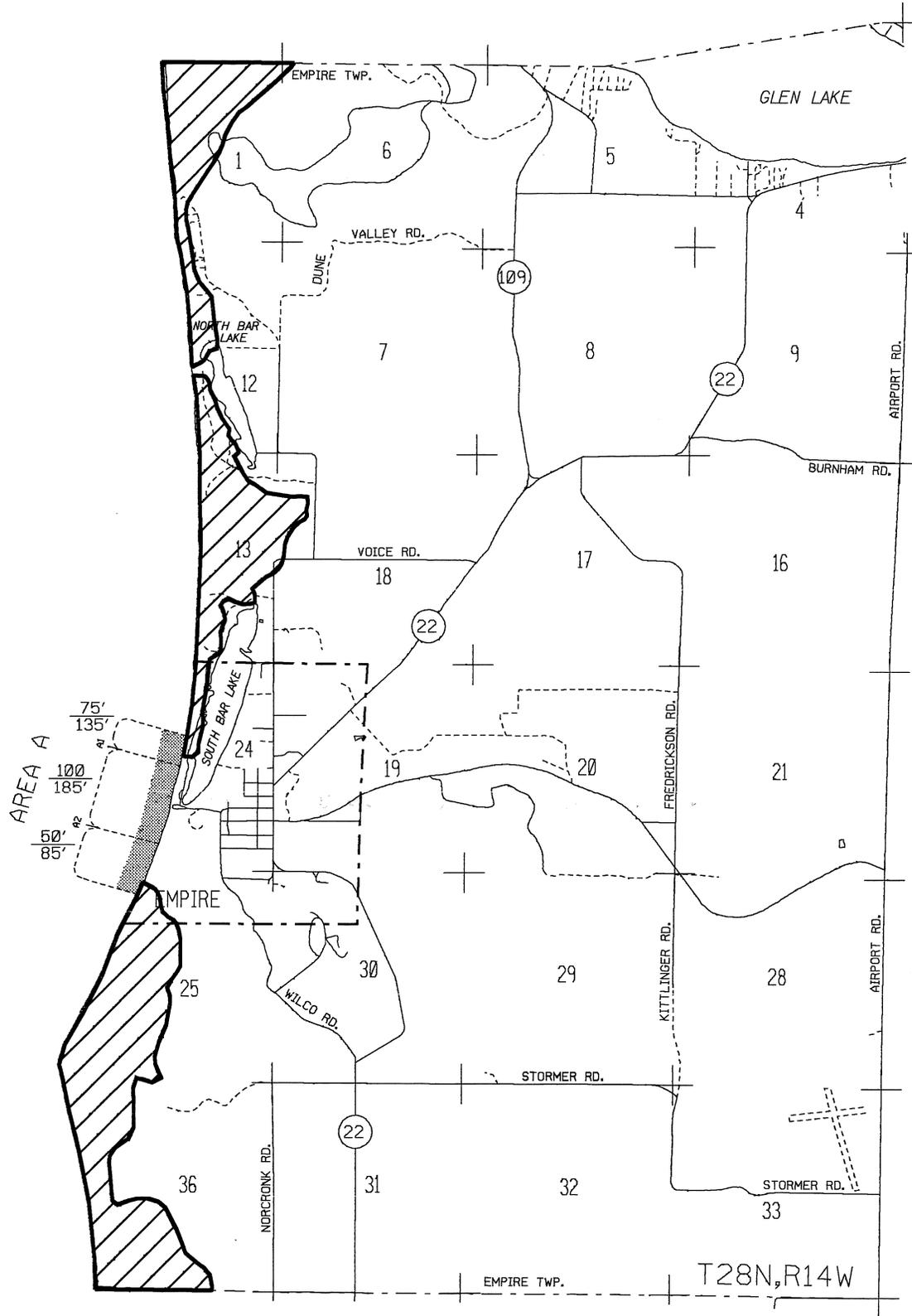
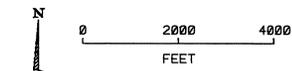
### INFORMATION

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
 LAND AND WATER MANAGEMENT DIVISION  
 P.O. BOX 30828  
 LANSING, MI 48909  
 (517) 373-1950

**Gis**

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

02-10-93



# Parcels in High Risk Erosion Areas of Empire 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	45-041-824-082-10	2.0	75	135
A1	2	45-041-824-082-00	2.0	75	135
A1	3	45-041-824-080-00	2.0	75	135
A1	4	45-041-824-081-00	2.0	75	135
A1	5	45-041-824-079-00	2.0	75	135
A1	6	45-041-824-023-00	2.0	75	135
A1	7	45-041-824-022-00	2.0	75	135
A1	8	45-041-824-078-00	2.0	75	135
A2	9	45-041-824-021-00	2.8	100	185
A2	10	45-041-824-020-00	2.8	100	185
A2	11	45-041-824-059-00	2.8	100	185
A2	11.1	45-041-450-900-00	2.8	100	185
A2	12	45-041-450-001-00	2.8	100	185
A2	12.2	45-041-450-002-00	2.8	100	185
A2	12.3	45-041-450-003-00	2.8	100	185
A2	12.4	45-041-450-004-00	2.8	100	185
A2	12.5	45-041-450-005-00	2.8	100	185
A3	12.6	45-041-450-006-00	1.2	50	85
A3	12.7	45-041-450-007-00	1.2	50	85

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 Empire 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*
A3	12.8	45-041-450-008-00	1.2	50	85
A3	14	45-041-451-900-01	1.2	50	85
A3	15	45-041-451-900-00	1.2	50	85

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