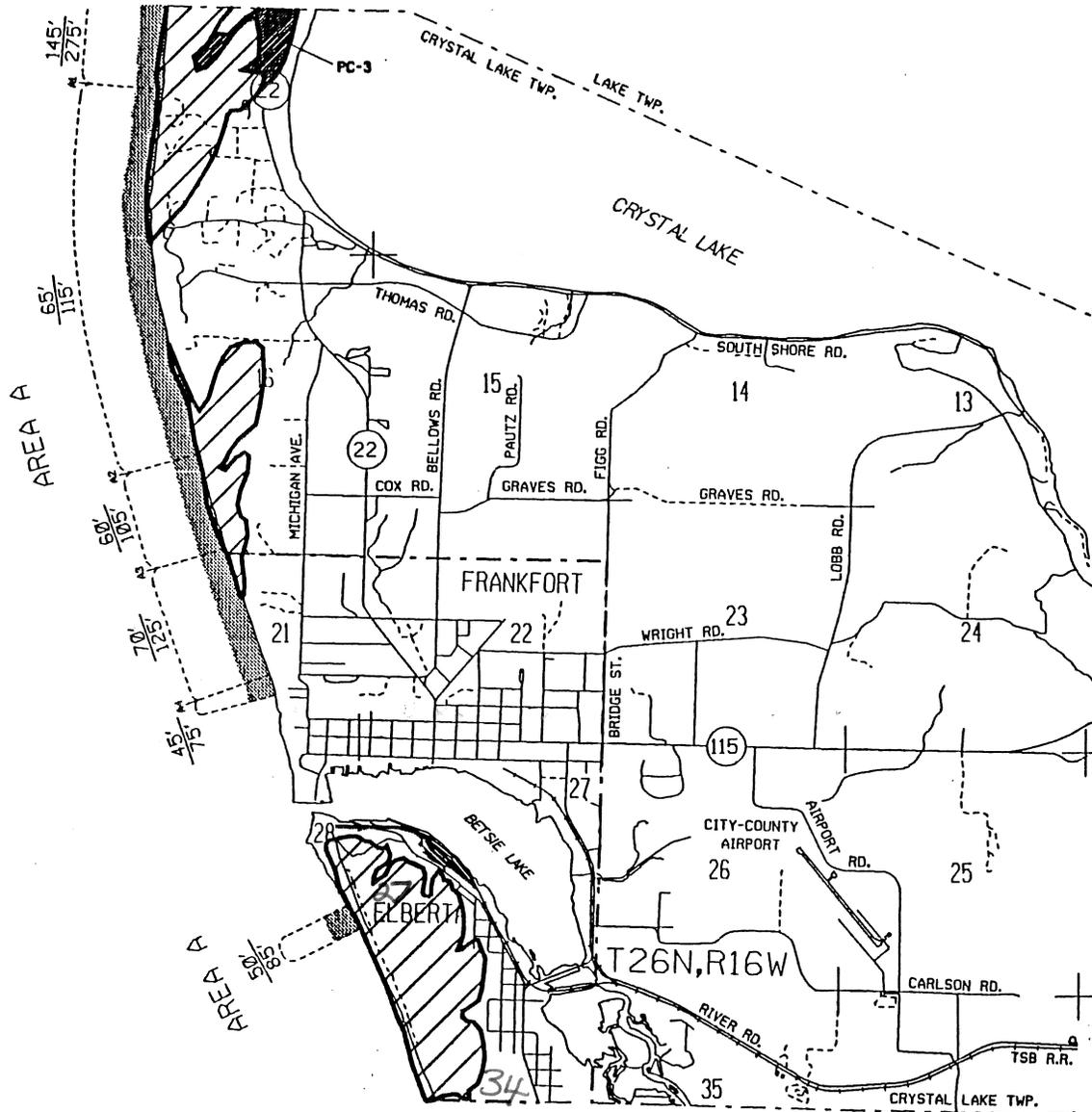
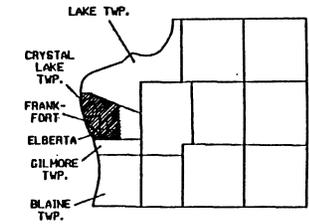


# CRYSTAL LAKE TOWNSHIP

## HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

BENZIE COUNTY

T26N,R16W



### HIGH RISK EROSION AREAS

THE NUMBER REPRESENTS, IN FEET, THE 30 YEAR PROJECTED RECESSION DISTANCE.  
 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, 1970 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

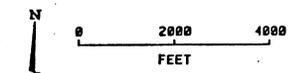
### INFORMATION

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
 LAND AND WATER MANAGEMENT DIVISION  
 P.O. BOX 30828  
 LANSING, MI 48909  
 (517) 373-1958

**Gis**

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

02-00-93  
 amended 12-06-93  
 amended 12-28-93



# Parcels in High Risk Erosion Areas of Crystal Lake Township, Benzie County

HREAs identified North to South      Date of Designation: December 20, 1993

HREA*	Sequence No.	Parcel Identification Number	Rate (feet/year)	30 yr PRD*	60 yr PRD*
A1	1	10-05-001-119-00	4.3	145	275
A1	2	10-05-090-002-00	4.3	145	275
A2	3	10-05-090-004-00	1.7	65	115
A2	4	10-05-090-005-00	1.7	65	115
A2	5	10-05-090-003-00	1.7	65	115
A2	6	10-05-090-007-00	1.7	65	115
A2	7	10-05-090-008-20	1.7	65	115
A2	8	10-05-090-010-10	1.7	65	115
A2	9	10-05-090-010-00	1.7	65	115
A2	10	10-05-090-011-00	1.7	65	115
A2	11	10-05-105-001-00	1.7	65	115
A2	12	10-05-001-123-00	1.7	65	115
A2	13	10-05-001-120-02	1.7	65	115
A2	13.1	10-05-001-120-01	1.7	65	115
A2	13.2	10-05-001-120-00	1.7	65	115
A2	14	10-05-001-121-00	1.7	65	115
A2	14.1	10-05-001-121-01	1.7	65	115
A2	14.2	10-05-001-121-10	1.7	65	115
A2	15	10-05-040-002-00	1.7	65	115

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 Crystal Lake Township, Benzie County

HREAs identified North to South      Date of Designation: December 20, 1993

HREA*	Sequence No.	Parcel Identification Number	Rate (feet/year)	30 yr PRD*	60 yr PRD*
A2	16	10-05-001-124-00	1.7	65	115
A2	17	10-05-040-003-00	1.7	65	115
A2	18	10-05-040-001-10	1.7	65	115
A2	19	10-05-040-001-20	1.7	65	115
A2	20	10-05-001-122-00	1.7	65	115
A2	20.1	10-05-001-122-01	1.7	65	115
A2	21	10-05-100-128-00	1.7	65	115
A2	22	10-05-100-127-00	1.7	65	115
A2	23	10-05-100-126-00	1.7	65	115
A2	24	10-05-100-125-00	1.7	65	115
A2	25	10-05-100-124-00	1.7	65	115
A2	26	10-05-100-122-00	1.7	65	115
A2	27	10-05-100-121-00	1.7	65	115
A2	28	10-05-100-120-00	1.7	65	115
A2	29	10-05-100-119-00	1.7	65	115
A2	30	10-05-100-203-00	1.7	65	115
A2	31	10-05-155-001-00	1.7	65	115
A2	32	10-05-155-002-00	1.7	65	115
A2	33	10-05-155-003-00	1.7	65	115
A2	34	10-05-155-004-00	1.7	65	115

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# Parcels in High Risk Erosion Areas of Crystal Lake Township, Benzie County

HREAs identified North to South      Date of Designation: December 20, 1993

HREA*	Sequence No.	Parcel Identification Number	Rate (feet/year)	30 yr PRD*	60 yr PRD*
A2	35	10-05-155-005-00	1.7	65	115
A2	36	10-05-155-006-00	1.7	65	115
A2	37	10-05-155-007-00	1.7	65	115
A2	38	10-05-155-008-00	1.7	65	115
A2	39	10-05-155-009-00	1.7	65	115
A2	40	10-05-155-010-00	1.7	65	115
A2	41	10-05-155-011-00	1.7	65	115
A2	42	10-05-001-273-00	1.7	65	115
A2	43	10-05-001-275-00	1.7	65	115
A2	44	10-05-001-274-00	1.7	65	115
A2	45	10-05-001-276-00	1.7	65	115
A2	46	10-05-001-277-00	1.7	65	115
A2	47	10-05-001-278-00	1.7	65	115
A2	48	10-05-001-279-00	1.7	65	115
A2	49	10-05-001-280-00	1.7	65	115
A2	50	10-05-001-281-00	1.7	65	115
A2	51	10-05-001-282-00	1.7	65	115
A2	52	10-05-001-283-00	1.7	65	115
A2	53	10-05-001-258-30	1.7	65	115
A2	54	10-05-001-262-00	1.7	65	115

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# Parcels in High Risk Erosion Areas of Crystal Lake Township, Benzie County

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A2	55	10-05-001-265-00	1.7	65	115
A2	56	10-05-001-264-00	1.7	65	115
A2	57	10-05-001-267-00	1.7	65	115
A2	57.1	10-05-001-267-10	1.7	65	115
A2	57.2	10-05-001-267-11	1.7	65	115
A2	57.3	10-05-001-267-12	1.7	65	115
A2	57.4	10-05-001-267-13	1.7	65	115
A2	58	10-05-001-263-00	1.7	65	115
A2	59	10-05-001-286-00	1.7	65	115
A2	60	10-05-001-287-00	1.7	65	115
A2	61	10-05-001-287-01	1.7	65	115
A2	62	10-05-001-291-00	1.7	65	115
A2	62.11	10-05-001-291-41	1.7	65	115
A2	62.12	10-05-001-291-42	1.7	65	115
A2	62.13	10-05-001-291-51	1.7	65	115
A2	62.14	10-05-001-291-50	1.7	65	115
A2	62.2	10-05-001-291-10	1.7	65	115
A2	62.21	10-05-001-291-20	1.7	65	115
A2	62.22	10-05-001-291-40	1.7	65	115
A2	62.3	10-05-001-291-30	1.7	65	115

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HREA*	Sequence No.	Parcel Identification Number	Rate (feet/year)	30 yr PRD*	60 yr PRD*
A3	62.1	10-05-001-291-00 southern 400 feet	1.5	60	105
A3	63	10-05-001-292-00	1.5	60	105
A3	64	10-05-001-311-10	1.5	60	105
A3	64.1	10-05-001-311-00	1.5	60	105
A3	65	10-05-001-312-00	1.5	60	105

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