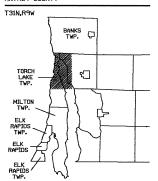


### TORCH LAKE TOWNSHIP NORTH

### HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS

ANTRIM COUNTY



#### HIGH RISK EROSION AREAS

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



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 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

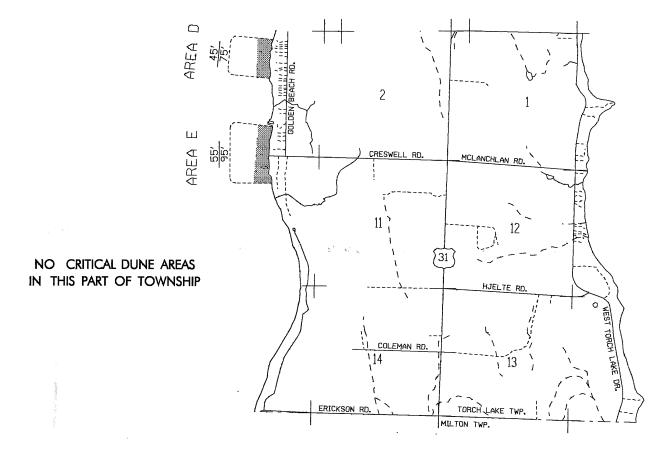
MICHIGAN DEPARTMENT OF NATURAL RESOURCES LAND AND WATER MANAGEMENT DIVISION P.O. BOX 3002B LANSING, MI 48909 (517) 373-1950



DREAT LAKES INFORMATION SYSTEM HICHIGAN DEPARTMENT OF NATURAL RESOURCES LAND AND WATER MANAGEMENT DIVISION

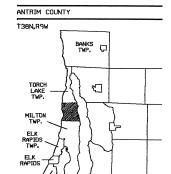
02-09-93





### TORCH LAKE TOWNSHIP SOUTH

#### HIGH RISK EROSION AREAS & CRITICAL DUNE AREAS



#### 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.



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. BDX 30028 LANSING, MI 48909



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

#### 02-09-93



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	05-14-515-008-00	1.0	45	75
A1	2	05-14-515-006-00	1.0	45	75
A1	3	05-14-515-005-00	1.0	45	75
A1	4	05-14-515-004-00	1.0	45	75
A1	5	05-14-515-002-00	1.0	45	75
A1	6	05-14-515-001-00	1.0	45	75
A1	7	05-14-515-077-00	1.0	45	75
A1	8	05-14-515-060-00	1.0	45	75
A1	9	05-14-515-061-00	1.0	45	75
A1	10	05-14-515-059-00	1.0	45	75
A1	11	05-14-515-062-00	1.0	45	75
A1	12	05-14-515-063-00	1.0	45	75
A1	13	05-14-515-064-00	1.0	45	75
A1	14	05-14-515-065-00	1.0	45	75
A1	15	05-14-515-066-00	1.0	45	75
A1	16	05-14-535-001-00	1.0	45	75
A1	17	05-14-535-002-00	1.0	45	75
A1	18	05-14-535-003-00	1.0	45	75
A1	19	05-14-535-004-00	1.0	45	75

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.

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*
B1	21	05-14-313-054-00	2.5	90	165
B1	22	05-14-313-054-10	2.5	90	165
B1	23	05-14-313-054-20	2.5	90	165
B1	24	05-14-313-054-30	2.5	90	165
B1	25	05-14-313-054-40	2.5	90	165
B1	26	05-14-313-054-50	2.5	90	165
B1	27	05-14-313-054-60	2.5	90	165
B1	28	05-14-313-054-70	2.5	90	165
B1	29	05-14-313-054-80	2.5	90	165
B2	30	05-14-313-054-90	5.2	170	325
В3	31	05-14-324-051-00	2.5	90	165
В3	31.1	05-14-324-051-10	2.5	90	165
В3	32.1	05-14-412-007-00 Bay Harbor Club II Condominiums	2.5	90	165
В3	32.2	05-14-412-006-00	2.5	90	165
В3	32.3	05-14-412-005-00	2.5	90	165
В3	32.4	05-14-412-004-00	2.5	90	165
В3	32.5	05-14-412-003-00	2.5	90	165
В3	32.6	05-14-412-002-00	2.5	90	165

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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*
В3	32.7	05-14-412-001-00	2.5	90	165
C1	33	05-14-415-001-00	1.2	50	85
C1	34	05-14-415-002-00	1.2	50	85
C1	35	05-14-326-018-00	1.2	50	85
C1	36	05-14-326-020-00	1.2	50	85
C1	37	05-14-415-003-00	1.2	50	85
C1	38	05-14-326-022-00	1.2	50	85
C1	39	05-14-326-002-01	1.2	50	85
C1	39.1	05-14-326-002-10	1.2	50	85
C1	40	05-14-326-004-00	1.2	50	85
C1	41	05-14-326-005-00	1.2	50	85
C1	42	05-14-326-006-00	1.2	50	85
C1	43	05-14-326-007-00	1.2	50	85
C1	44	05-14-326-008-05	1.2	50	85
C1	45	05-14-326-008-10	1.2	50	85
C1	46	05-14-326-008-20	1.2	50	85
C1	47	05-14-326-010-00	1.2	50	85
C1	48	05-14-326-011-00	1.2	50	85
C1	50	05-14-326-009-10	1.2	50	85

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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*
C1	51	05-14-326-009-15	1.2	50	85
C1	52	05-14-326-009-30	1.2	50	85
C1	53	05-14-326-009-40	1.2	50	85
C1	54	05-14-335-011-25	1.2	50	85
C1	55	05-14-335-011-40	1.2	50	85
C1	56	05-14-335-011-00	1.2	50	85
C1	56.1	05-14-335-011-15	1.2	50	85
C1	57	05-14-335-011-10	1.2	50	85
C1	58	05-14-335-011-60	1.2	50	85
C1	59	05-14-335-011-80	1.2	50	85
C1	60	05-14-335-011-70	1.2	50	85
C1	60.1	05-14-335-011-75	1.2	50	85
C1	61	05-14-335-011-20	1.2	50	85
C1	62	05-14-335-011-30	1.2	50	85
C1	63	05-14-335-011-35	1.2	50	85
C1	64	05-14-335-011-45	1.2	50	85
C1	65	05-14-335-018-10	1.2	50	85
C1	66	05-14-335-013-10	1.2	50	85
C1	67	05-14-335-012-45	1.2	50	85

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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*
C1	68	05-14-335-012-11	1.2	50	85
C1	69	05-14-335-012-40	1.2	50	85
C1	69.1	05-14-335-012-30	1.2	50	85
C1	69.11	05-14-335-012-35	1.2	50	85
C1	70	05-14-335-015-01	1.2	50	85
C1	71	05-14-335-014-20	1.2	50	85
C1	72	05-14-697-014-00	1.2	50	85
C1	73	05-14-697-013-00	1.2	50	85
C1	74	05-14-697-012-00	1.2	50	85
C1	75	05-14-697-011-00	1.2	50	85
C1	75.1	05-14-697-015-00	1.2	50	85
C1	76	05-14-697-010-00	1.2	50	85
C1	77	05-14-697-009-00	1.2	50	85
C1	78	05-14-697-008-00	1.2	50	85
C1	79	05-14-697-007-00	1.2	50	85
C1	80	05-14-697-006-00	1.2	50	85
C1	81	05-14-697-005-00	1.2	50	85
C1	82	05-14-697-004-00	1.2	50	85
C1	83	05-14-697-003-00	1.2	50	85

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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*
C1	84	05-14-697-002-00	1.2	50	85
C1	84.1	05-14-697-016-00	1.2	50	85
C1	85	05-14-697-001-00	1.2	50	85
C1	86	05-14-335-022-40	1.2	50	85
C1	87	05-14-335-022-20	1.2	50	85
C1	88	05-14-335-022-25	1.2	50	85
C1	89	05-14-335-023-10	1.2	50	85
C1	90	05-14-335-024-10	1.2	50	85
C1	91	05-14-335-025-10	1.2	50	85
C1	92	05-14-335-026-10	1.2	50	85
D1	93	05-14-675-009-00	1.0	45	75
D1	94	05-14-675-008-00	1.0	45	75
D1	95	05-14-675-007-00	1.0	45	75
D1	96	05-14-675-006-00	1.0	45	75
D1	97	05-14-675-005-00	1.0	45	75
D1	98	05-14-675-004-00	1.0	45	75
D1	99	05-14-675-003-00	1.0	45	75
D1	100	05-14-675-002-00	1.0	45	75
D1	101	05-14-675-001-00	1.0	45	75

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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*
D1	102	05-14-595-033-01	1.0	45	75
D1	102.1	05-14-595-033-10	1.0	45	75
D1	103	05-14-595-032-00	1.0	45	75
D1	104	05-14-595-031-00	1.0	45	75
D1	105	05-14-595-030-00	1.0	45	75
D1	106	05-14-595-029-00	1.0	45	75
D1	107	05-14-595-028-00	1.0	45	75
E1	108	05-14-595-012-00	1.3	55	95
E1	109	05-14-595-011-00	1.3	55	95
E1	110	05-14-595-010-00	1.3	55	95
E1	111	05-14-595-009-00	1.3	55	95
E1	112	05-14-595-007-10	1.3	55	95
E1	113	05-14-595-007-00	1.3	55	95
E1	114	05-14-595-006-00	1.3	55	95
E1	115	05-14-595-005-00	1.3	55	95
E1	116	05-14-595-004-00	1.3	55	95
E1	117	05-14-595-003-00	1.3	55	95
E1	118	05-14-595-002-00	1.3	55	95
E1	119	05-14-595-001-00	1.3	55	95

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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*
E1	120	05-14-210-002-00	1.3	55	95
E1	121	05-14-210-003-00	1.3	55	95
E1	122	05-14-210-004-00	1.3	55	95
E1	123	05-14-210-005-00	1.3	55	95
E1	124	05-14-210-006-00	1.3	55	95
E1	125	05-14-210-007-00	1.3	55	95
E1	126	05-14-210-008-00	1.3	55	95
E1	127	05-14-210-009-00	1.3	55	95
E1	128	05-14-210-010-10	1.3	55	95
E1	129	05-14-210-010-00	1.3	55	95
E1	130	05-14-210-011-00	1.3	55	95
E1	131	05-14-210-012-00	1.3	55	95
E1	132	05-14-210-013-00	1.3	55	95

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