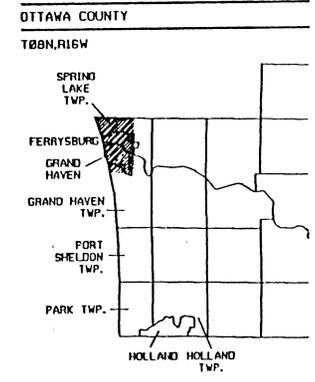
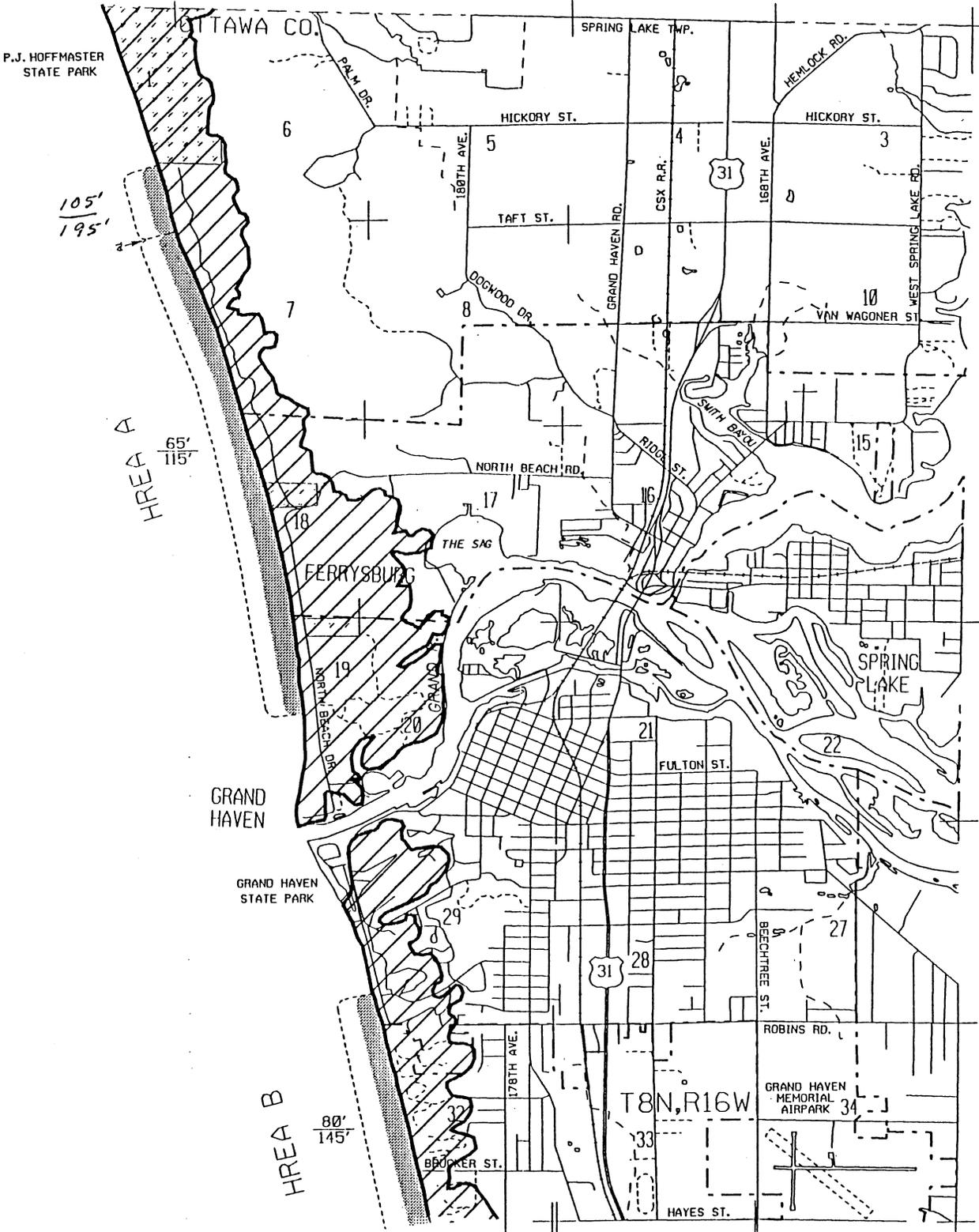


**CITIES OF
FERRYSBURG AND
GRAND HAVEN
SPRING LAKE TWP.**

**HIGH RISK EROSION AREAS &
CRITICAL DUNE AREAS**



HIGH RISK EROSION AREAS

THE NUMBER REPRESENTS, IN FEET, THE
60 YEAR PROJECTED RECESSION DISTANCE.
105' 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

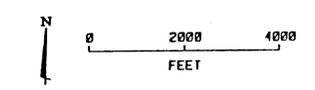
STATE OF MICHIGAN ACT 245 RECESSION
RATE MAPS & ATLAS OF CRITICAL DUNE AREAS

INFORMATION

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
LAND AND WATER MANAGEMENT DIVISION
P.O. BOX 30028
LANSING, MI 48989
15171 373-1958



11-18-94
Amended 11-94, 4-97



P.J. HOFFMASTER
STATE PARK

105'
195'

65'
115'

GRAND
HAVEN

GRAND HAVEN
STATE PARK

80'
145'

SPRING LAKE TWP.

OTTAWA CO.

T8N,R16W

GRAND HAVEN
MEMORIAL
AIRPARK

ROBINS RD.

BEECHTREE ST.

HAYES ST.

31

178TH AVE.

BOOKER ST.

FULTON ST.

SPRING
LAKE

THE SAG

NORTH BEACH RD.

TAFT ST.

HICKORY ST.

HICKORY ST.

168TH AVE.

31

CSX R.R.

GRAND HAVEN RD.

DOGWOOD DR.

8

RIDGE ST.

16

SMITH BAYOU

15

10

VAN WAGONER ST.

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Parcels in High Risk Erosion Areas of City of Ferrysburg, Ottawa County

HREAs identified North to South Date of Designation: November 23, 1994

| HREA* | Sequence No. | Parcel Identification Number | Rate (feet/year) | 30 yr PRD* | 60 yr PRD* |
|-------|--------------|------------------------------|------------------|------------|------------|
| A2 | 1 | 70-03-18-201-001 | 1.7 | 65 | 115 |
| A2 | 3 | 70-03-18-202-001 | 1.7 | 65 | 115 |
| A2 | 4 | 70-03-18-202-002 | 1.7 | 65 | 115 |
| A2 | 5 | 70-03-18-202-003 | 1.7 | 65 | 115 |
| A2 | 6 | 70-03-18-202-004 | 1.7 | 65 | 115 |
| A2 | 7 | 70-03-18-202-005 | 1.7 | 65 | 115 |
| A2 | 9 | 70-03-18-203-001 | 1.7 | 65 | 115 |
| A2 | 10 | 70-03-18-203-002 | 1.7 | 65 | 115 |
| A2 | 11 | 70-03-18-203-003 | 1.7 | 65 | 115 |
| A2 | 12 | 70-03-18-203-004 | 1.7 | 65 | 115 |
| A2 | 13 | 70-03-18-203-005 | 1.7 | 65 | 115 |
| A2 | 14 | 70-03-18-203-006 | 1.7 | 65 | 115 |
| A2 | 15 | 70-03-18-203-007 | 1.7 | 65 | 115 |
| A2 | 16 | 70-03-18-203-012 | 1.7 | 65 | 115 |
| A2 | 17 | 70-03-18-203-011 | 1.7 | 65 | 115 |
| A2 | 19 | 70-03-18-260-001 | 1.7 | 65 | 115 |
| A2 | 20 | 70-03-18-260-002 | 1.7 | 65 | 115 |
| A2 | 21 | 70-03-18-260-003 | 1.7 | 65 | 115 |
| A2 | 22 | 70-03-18-260-004 | 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 City of Ferrysburg, Ottawa County

HREAs identified North to South Date of Designation: November 23, 1994

| HREA* | Sequence No. | Parcel Identification Number | Rate (feet/year) | 30 yr PRD* | 60 yr PRD* |
|-------|--------------|-----------------------------------|------------------|------------|------------|
| A2 | 23 | 70-03-18-260-007 North Beach Park | 1.7 | 65 | 115 |
| A2 | 24 | 70-03-18-420-030 | 1.7 | 65 | 115 |
| A2 | 25 | 70-03-18-420-002 | 1.7 | 65 | 115 |
| A2 | 26 | 70-03-18-420-003 | 1.7 | 65 | 115 |
| A2 | 27 | 70-03-18-420-028 | 1.7 | 65 | 115 |
| A2 | 28 | 70-03-18-420-031 | 1.7 | 65 | 115 |
| A2 | 29 | 70-03-18-420-010 | 1.7 | 65 | 115 |
| A2 | 30 | 70-03-18-420-011 | 1.7 | 65 | 115 |
| A2 | 31 | 70-03-18-420-012 | 1.7 | 65 | 115 |
| A2 | 32 | 70-03-18-420-013 | 1.7 | 65 | 115 |
| A2 | 33 | 70-03-18-420-014 | 1.7 | 65 | 115 |
| A2 | 34 | 70-03-18-420-015 | 1.7 | 65 | 115 |
| A2 | 35 | 70-03-18-420-016 | 1.7 | 65 | 115 |
| A2 | 36 | 70-03-18-420-017 | 1.7 | 65 | 115 |
| A2 | 37 | 70-03-18-420-018 | 1.7 | 65 | 115 |
| A2 | 38 | 70-03-18-420-019 | 1.7 | 65 | 115 |
| A2 | 39 | 70-03-18-420-033 | 1.7 | 65 | 115 |
| A2 | 40 | 70-03-18-420-034 | 1.7 | 65 | 115 |
| A2 | 41 | 70-03-18-420-022 | 1.7 | 65 | 115 |

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Parcels in High Risk Erosion Areas of City of Ferrysburg, Ottawa County

HREAs identified North to South Date of Designation: November 23, 1994

| HREA* | Sequence No. | Parcel Identification Number | Rate (feet/year) | 30 yr PRD* | 60 yr PRD* |
|-------|--------------|------------------------------|------------------|------------|------------|
| A2 | 42 | 70-03-18-420-023 | 1.7 | 65 | 115 |
| A2 | 43 | 70-03-18-420-024 | 1.7 | 65 | 115 |
| A2 | 44 | 70-03-18-420-025 | 1.7 | 65 | 115 |
| A2 | 45 | 70-03-18-420-026 | 1.7 | 65 | 115 |
| A2 | 46 | 70-03-18-420-027 | 1.7 | 65 | 115 |
| A2 | 47 | 70-03-18-474-001 | 1.7 | 65 | 115 |
| A2 | 48 | 70-03-18-474-002 | 1.7 | 65 | 115 |
| A2 | 49 | 70-03-18-474-003 | 1.7 | 65 | 115 |
| A2 | 50 | 70-03-18-474-004 | 1.7 | 65 | 115 |
| A2 | 51 | 70-03-18-474-005 | 1.7 | 65 | 115 |
| A2 | 52 | 70-03-18-474-006 | 1.7 | 65 | 115 |
| A2 | 53 | 70-03-18-474-007 | 1.7 | 65 | 115 |
| A2 | 54 | 70-03-18-474-008 | 1.7 | 65 | 115 |
| A2 | 55 | 70-03-18-474-009 | 1.7 | 65 | 115 |
| A2 | 56 | 70-03-18-474-010 | 1.7 | 65 | 115 |
| A2 | 57 | 70-03-18-474-011 | 1.7 | 65 | 115 |
| A2 | 58 | 70-03-18-474-012 | 1.7 | 65 | 115 |
| A2 | 59 | 70-03-18-474-013 | 1.7 | 65 | 115 |
| A2 | 60 | 70-03-18-474-014 | 1.7 | 65 | 115 |
| A2 | 61 | 70-03-18-474-015 | 1.7 | 65 | 115 |

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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.

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Parcels in High Risk Erosion Areas of City of Ferrysburg, Ottawa County

HREAs identified North to South Date of Designation: November 23, 1994

| HREA* | Sequence No. | Parcel Identification Number | Rate (feet/year) | 30 yr PRD* | 60 yr PRD* |
|-------|--------------|--|------------------|------------|------------|
| A2 | 62 | 70-03-18-474-018 | 1.7 | 65 | 115 |
| A2 | 63 | 70-03-18-475-001 across from Maryland Ct. | 1.7 | 65 | 115 |
| A2 | 64 | 70-03-18-475-002 | 1.7 | 65 | 115 |
| A2 | 65 | 70-03-18-475-003 | 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.

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