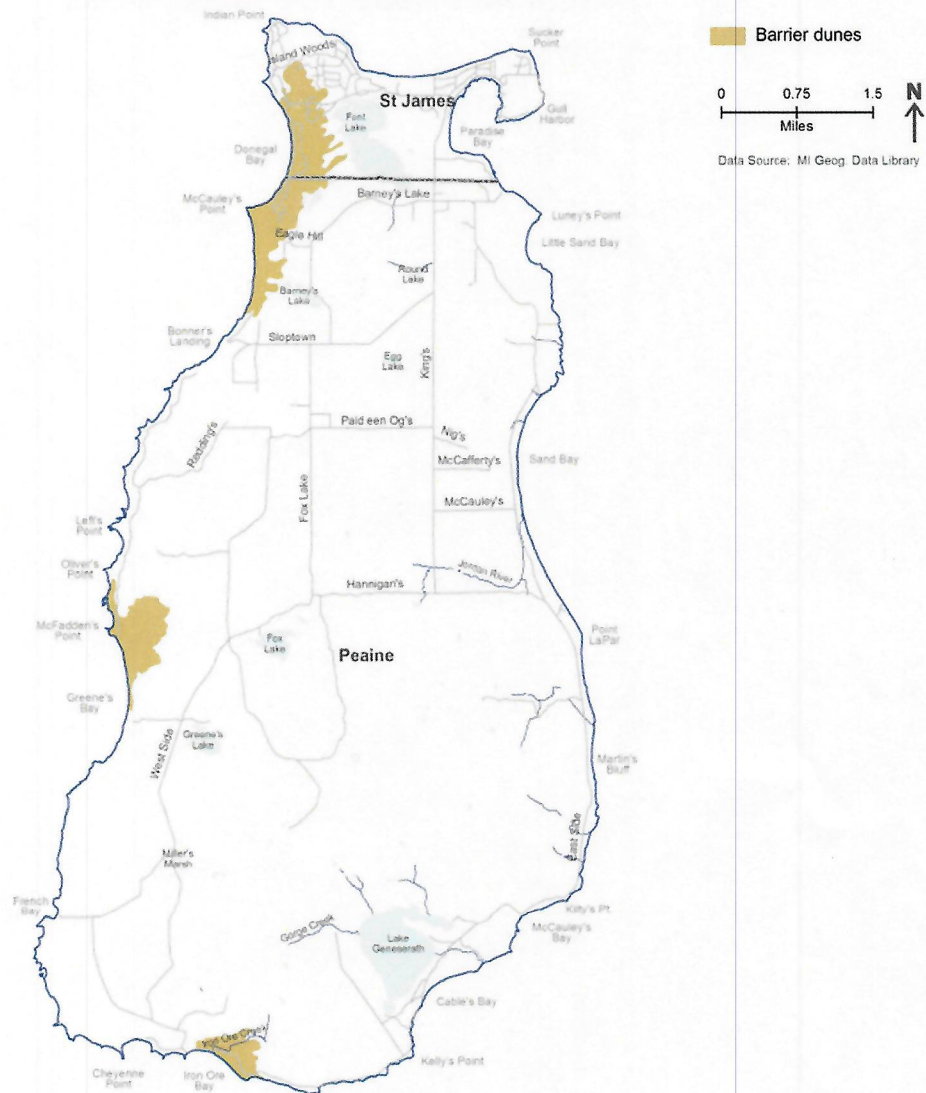


CRITICAL SAND DUNE AREA PERMIT MANUAL

PEAINE AND ST JAMES TOWNSHIPS

CHARLEVOIX COUNTY



This CSDA Permit Manual Contains: 1) Zoning Maps; 2) CSDA Permit Application; 3) 8/30/23 Training Deck; 4) Real Estate Inquiry Statement; 5) Driveway information; 6) Sample Drawing-Top of Bluff; 7) Sample Drawing-Steep Slope; 8) Vegetation Assurance Information; 9) Path Maintenance Near the Water's Edge Information; 10) Dune Restoration Information; 11) Removing Sand from Property in Coastal Dunes Information; 12) CSDA Native Plants Resource Information; 13) St James Twp CSDA Zoning Ordinance; and 14) Peaine Twp CSDA Zoning Ordinance. Refer to Peaine or St James Township and EGLE Websites for current information.

ST JAMES TOWNSHIP ZONING MAP

ZONING EFFECTIVE 6/27/2017 - 5/21/2018



Charlevoix County, Michigan
 301 State Street, Charlevoix, MI 49720
 231-547-7320



The official zoning map is on display at the Township Hall. Zoning should be confirmed with the Township Planning Commission. The Township Planning Commission and Board are subject to change without notice.

INDIAN POINT

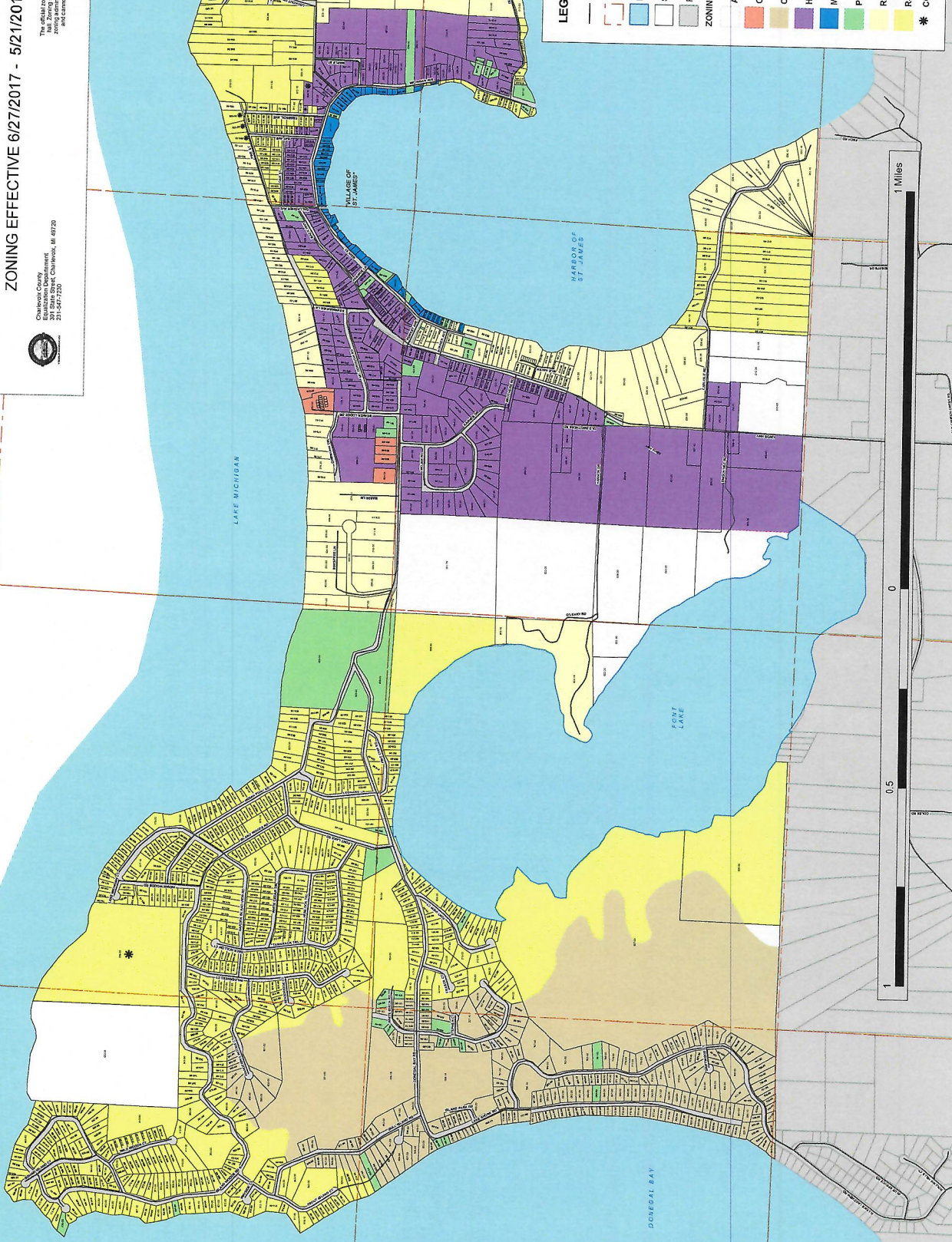
LAKE MICHIGAN

STICKER POINT

VILLAGES OF ST. JAMES

LEGEND

- STREETS
- ST. JAMES SECTION LINES
- LAKES
- ST. JAMES PARCELS 2017
- PEANIE PARCELS/ROAD ROW
- ZONING DISTRICTS
 - A: AGRICULTURAL
 - C1: RESORT COMMERCIAL
 - CD: CRITICAL DUINE
 - H: HARBOR
 - MR: MARINE RELATED
 - PLFD: PUBLIC LAND AND FACILITIES
 - R-1: SINGLE-FAMILY RESIDENTIAL
 - R-2: SINGLE-FAMILY RESIDENTIAL
 - * CONDITIONAL REZONE



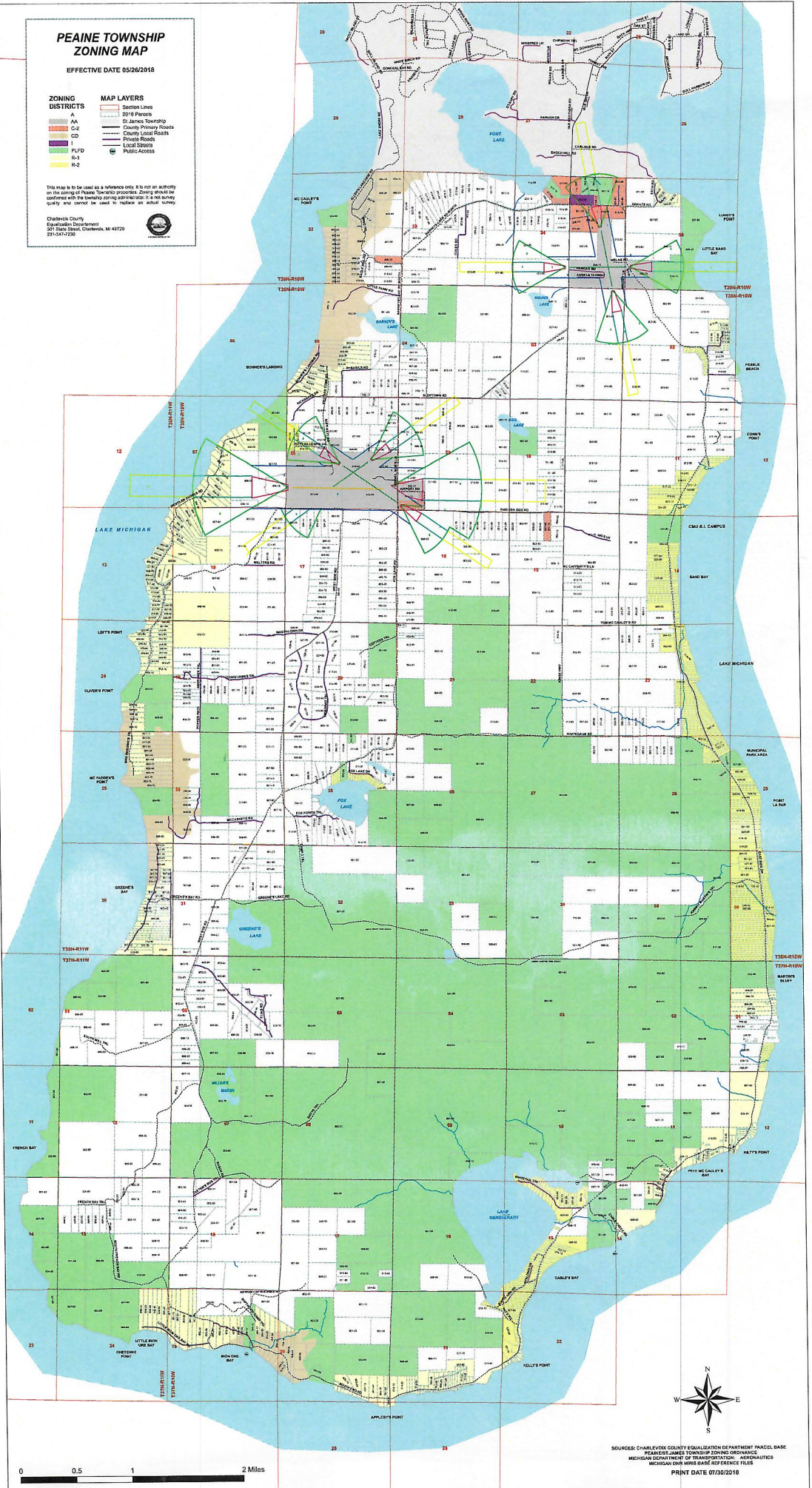
PEAINE TOWNSHIP ZONING MAP

EFFECTIVE DATE 05/26/2018

ZONING DISTRICTS	MAP LAYERS
A	Section Lines
AA	2018 Parcels
CO	St. James Township
I	County Primary Roads
PL/D	County Local Roads
R-1	Township Roads
R-2	Local Streets
	Public Access

This map is to be used as a reference only. It is not an authority on the zoning of Peaine Township parcels. Zoning should be confirmed with the zoning administrator. It is not a warranty and cannot be used to make an actual survey.

Charlevoix County
Equalization Department
201 State Street, Charlevoix, MI 49720
231-547-2230



SOURCES: CHARLEVOIX COUNTY EQUALIZATION DEPARTMENT PARCEL BASE
PEAINE TOWNSHIP ZONING ORDINANCE
MICHIGAN DEPARTMENT OF TRANSPORTATION - AERONAUTICS
MICHIGAN DNR WMS BASE MAP 6/15/15 FILE
PRINT DATE 07/30/2018

**PEAINE TOWNSHIP AND ST JAMES TOWNSHIP
CHARLEVOIX COUNTY, MICHIGAN
CRITICAL SAND DUNE AREA ZONING PERMIT APPLICATION**

To construct a project within the designated Critical Sand Dune Area (CSDA) of Beaver Island Archipelago's within Charlevoix County, this CSDA zoning permit application must be completed and approved prior to starting any construction, including clearing and excavation. This Critical Sand Dune (CSD) Area permit application is to be completed in accordance with the applicable Township's CSDA Ordinance(s) and State of Michigan CSD Area legislation.

The CSDA on Beaver Island were identified on July 5, 1989, and includes 880 acres in Peaine Township and over 5.11 miles of shoreline and 766 acres in St James Township and over 2.9 miles of shoreline. The regulated area is a barrier dune defined as "the first landward sand dune formation along a shoreline of a Great Lake or a sand dune formation designated by the Department of Natural Resources." These critical dune areas are unique, irreplaceable, and a fragile resource that provide significant recreational, economic, scientific, geological, scenic, botanical, educational, agricultural, and ecological benefit of the townships and to people from the State of Michigan and from other states and countries who visit this resource.

THIS CSDA PERMIT APPLICATION MUST BE ACCOMPANIED BY ALL REQUIRED DOCUMENTATION AND SUBMITTED TO THE ZONING ADMINISTRATOR. The required documentation is noted below. This CSD Area Zoning Permit is required in lieu of the Township's Zoning Permit.

The property owner or their agent agrees that by initiating the preparation of this CSDA permit application that they are giving approval for township, state, and federal employees and their agents to enter onto their property for purposes of investigating and reporting on the elements related to this CSDA permit application approval.

This CSDA Permit will be issued by the Township Zoning Administrator once the CSDA Permit Application is determined to be following the below applicable ordinance(s) as reviewed/approved by the Township's Planning Commission, and in some cases, by the Zoning Board of Appeals:

- **For Peaine Township property: Ordinance 02 of 2017 and Ordinance 03 of 2017 which cover CSDA Ordinances 6.15 and 11.9** These ordinances may be found at <https://www.peainetwp.org/Codified%20Ordinance%20Amendments.pdf>.
- **For St James Township property: Ordinance 1 of 2023 which covers CSDA Ordinances 6.14, 11.08, and 12.10.** This ordinance may be found at https://webgen1files1.revize.com/stjamestwpmi/Ordinance_1_of_2023.CSDA.Effective080323.pdf

These ordinances were developed in accordance with the State of Michigan's legislation Part 353, Sand Dunes Protection and Management of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). NREPA's Part 365, Section 36505 prohibits "taking" a Threatened and Endangered Species is also covered by the ordinances and is discussed herein.

In addition, the zoning permitting requirements (e.g., dimensions) of each township are listed within this application. For Peaine Township, this information is found in Ordinance No. 18, which was adopted on November 8, 2017, and any successor or amendments. For St James Township, this

information is found in Ordinance No. 24, which was adopted on April 7, 2004, and any successor or amendments.

Contact information for the sources for the required information described herein are listed in the Application for CSDA Permit which begins on page 5.

CSDA Permit Applications - All CSDA permit applications must be accompanied by the following issued permits and plans:

1. Part 91, Soil Erosion and Sedimentation Control permit, or waiver, of the Natural Resources and Environmental Protection Act 451 of 1994. This permit is issued by the Charlevoix County Department of Building Safety (CCDBS), Soil Erosion and Sedimentation Control Officer.

This permit or waiver is required if the project is within 500' of a lake or stream or you are disturbing more than one acre of land. The waiver acknowledges the project is beyond the 500' limit or any disturbance is less than one acre of land. This permit is obtained at the time any building plans are submitted and approved by the CCDBS.

2. Septic System Permit approval, if applicable. This permit is issued through the Health Department of Northwest Michigan.

3. A Vegetation Assurance Plan (VAP) is required to be prepared by the owner/agent or others who are engaged by the owner/agent to prepare this plan. The plan is to cover tree and vegetation assurance as described below. The VAP is to include this statement, "The property owner will be responsible for monitoring the growth of new vegetation for a two-year period. Any plants that fail to become established within the two-year growing seasons will be replaced." Refer to a sample Vegetation Assurance Plan included within the CSDA Permit Application package.

- a. Assurances that the cutting and removal of trees and other vegetation will be performed in accordance with the "Forest Management Guidelines for Michigan", prepared by the Society of American Foresters in 1987, as revised in 2010. These assurances may include a program to provide mitigation for the removal of trees or vegetation by approving assurances that the applicant will plant on the site more trees and other vegetation than were removed by the proposed use.

- b. Threatened and Endangered Species Permits covering federal and state species as issued by the Michigan Department of Natural Resources and the U.S. Fish and Wildlife Services, respectively. Contact the Beaver Island Terrestrial Invasive Species (TIS) Administrator who will perform a preliminary review and assist the applicant with their engagement with the MDNR and USFWS. Letters would be required from both agencies if such permits are not needed.

- c. A description on how the owner/agent plans to prevent the establishment of invasive species plants. A TIS Treatment Plan will be created by the Beaver Island Terrestrial Invasive Species (TIS) Administrator. The administrator may issue a letter stating a TIS Treatment Plan is not needed. This plan or letter is to be included within the permit application.

4. A driveway/roadway permit as issued by the Charlevoix County Road Commission (CCRC) is required for this work if located on a county road. A new driveway/roadway in a critical sand dune area, regardless of being connected to a county road, needs the following:

- a. The proposed driveway/roadway needs to be shown on the site plan with a scaled drawing as well as a cross-section(s). Only a 16-ft wide or narrower driveway is allowed in a critical sand dune area. Any existing driveway also needs to be shown.

- b. If the driveway/roadway is to be constructed within areas of slopes with a 1-foot vertical rise and 4-foot horizontal plane, or greater, a licensed professional engineer must prepare this site plan. A registered architect may prepare the site plan if the slopes are between 1-foot vertical rise and 4-foot horizontal plane and a 1-foot vertical rise and 3-foot horizontal plane. Only one driveway is allowed per these special criteria. An additional driveway may be allowed but only through a variance due to unique situations as issued by the zoning board of appeal.
 - c. If the driveway/roadway is to be constructed within an area of slopes at 1-foot vertical rise in a 3-foot horizontal plane or greater, the engineer is to certify under their seal that the accessibility measures are not likely to increase erosion or decrease stability.
 - d. All of the architect or engineer developed site plans must include:
 - i. Provisions for storm water drainage that provides for disposal of storm water without serious erosion.
 - ii. Methods for controlling erosion from wind and water.
 - iii. Restabilization, by design elements including vegetation, cut-and-fill, bridges, traverse, and such other elements as are required in the judgement of the architect or engineer to meet these requirements.
5. Project site plans must include a cross-section showing the depth of the greatest impact between the existing grade and proposed grade. Plans must note existing and proposed grades. The site plans must also include a plot plan, giving accurate dimensions on a scaled drawing for all structures and a north arrow. A rough sketch is acceptable for projects not involving a structure. Scaled drawings shall contain the following information:
- a. Existing or intended use of the structure.
 - b. Lines and dimensions of the lots to be used.
 - c. Location on the lot of all existing and proposed structures and streets.
 - d. Location and type of trees and note major areas with the type of vegetation.

Site plans must be sealed by a licensed professional engineer or registered architect and provide for the disposal of storm waters without serious soil erosion and without sedimentation of any stream or other body of water (MCL 324.25316(1)) if:

- a. The project is within 100' of the sand dunes crest on the landward side.
- b. The project impacts slopes that exceed a 1-foot vertical rise in a 4-foot horizontal plane.

Approval of a project that would impact slopes that exceed a 1-foot vertical rise in a 3-foot horizontal plane is prohibited unless a variance is approved by the Zoning Board of Appeals. For these projects, the site plans must be sealed by licensed professional engineer and provide for the disposal of storm waters without serious soil erosion and without sedimentation of any stream or other body of water (MCL 324.25316(1)). The Planning Commission must first review and sign off on the permit application relative to the completeness of the documentation, dimension issues, and all other issues other than the variance issue. Note that there are other activities which would require a variance, for example, placing a structure on the lakeward side of the crest due to site constraints. Work with the zoning administrator to determine if a variance is necessary.

6. CSDA permit applications must be accompanied by:
- a. Proof of ownership of the property.
 - b. The property address. If the address is needed, contact the Charlevoix County Equalization Department (CCED) to obtain a street number.
 - c. Other permits issued by other local jurisdictions, if this work is part of the project, need to be applied for, but not necessarily be accompanied with this application.

7. Other requirements:

- a. The property corners need to be identified for the zoning administrator to evaluate the lot lines and determine available set-back allowances. A survey may be required by the zoning administrator.
- b. Other information with respect to the proposed structure, use, lot, and/or adjoining property may need to be provided as required by the zoning administrator.

CSDA Permit Application Submittal Timeline - Each CSDA permit application must be submitted to the zoning administrator as follows:

CSDA Permit Applications must be submitted to the zoning administrator at least **two weeks*** prior to a regular meeting of the Planning Commission (PC). Prior to the meeting of the PC, the chair of the Township PC along with the zoning administrator and TIS official will perform a site visit to consider the application and confirm there appears to be no significant issues.

CSDA Permit Applications that are subject to the Zoning Board of Appeals (ZBA) review/approval, regardless if the applicant is appealing a Planning Commission (PC) rejected permit or a variance is required from the ZBA, shall be sent to the ZBA by the zoning administrator within eight days after the review of the PC. A special ZBA meeting will be set within 30 days of the PC meeting which shall include a site visit prior to any decision on the part of the ZBA. The ZBA will base their approval decision by considering if a practical difficulty would occur to the owner of the property if the variance was to be denied. Primary consideration given to assuring that human health and safety are protected.

Fee Schedule - The fees associated with the issuance of this permit are as follows:

1. A \$500 permit fee is required, payable to the applicable township. This fee amount is subject to change as determined by the Townships' Boards.
2. A \$250 permit fee is required, payable to the applicable township, for the township to develop the Vegetation Assessment Plan (VAP), including processing the T&E and TIS review.
 - a. A \$150 permit fee is required, payable to the applicable township, if the property owner/agent uses another party to develop the VAP. This fee is for the T&E and TIS work.
 - b. If permits are needed from the USFWS and/or MDNR, the property owner or agent will be responsible for these permit fees.

Application for CSDA Permit

The following pages need to be complete along with preparing/receiving the related information for submittal to the Zoning Administrator, either at the office at 37830 King's Highway during office hours or via e-mail at zoningadmin.bi@gmail.com. If you have questions regarding this permit, contact the Zoning Administrator at 231-448-2000 or 231-448-2830 (an alternative office) or via office hours.

***Special Note: Peaine and St James Township are undergoing an audit mitigation action with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) such that all CSDA permits which are to be issued by either township between August/September 2023 and August/September 2024 require the review by officials from EGLE prior to the approval of the township. Please be aware that additional time will be required to review all CSDA permits during this time period.**

Official Use Only

Permit No: _____ ZA Review Date: _____ PC Appr/Deny Date: _____

Date Recvd: _____ ZA Aprv/Deny Date: _____ ZBA Aprv/Deny Date: _____

Denial Reason: _____ Issued Date: _____

APPLICATION FOR CSDA PERMIT

Application Notes:

- 1) To construct a project within the designated Critical Sand Dune Area (CSDA) located on the Beaver Island Archipelago of Charlevoix County, this CSDA permit must be completed and approved prior to starting any construction.
- 2) This permit is good for one year from the approval date; a second year may be approved if reasonable progress is made on the project.

1. Project Location Information

Project Address:		
County:	Zip Code:	Township:
Property Tax Identification Number:		
Name of Nearest Intersection and Direction from Project:		
Subdivision Plat and Lot Number:		
Date Lot was Recorded:		

Street addresses (not a requirement for this permit application) and date lot was recorded are obtained from the Charlevoix County Equalization Department at:
www.equalization@charlevoixcounty.org

2. Applicant and Agent Information

If an agent completes this application, it is understood that the Owner has given this permission to do so.

Owner/Applicant:		
Mailing Address:		
City:	State:	Zip Code:
Contact Phone Number:		
E-Mail Address:		
Agent/Contractor:		
Mailing Address:		

City:	State:	Zip Code:
Contact Phone Number:		
E-Mail Address:		
Check if Yes:	Check if No:	Is the applicant (incl spouse) the sole owner of all project property? If no, attach letter(s) of authorization from all property owners.
Check if Yes:	Check if No:	Is property part of an Association? If yes, name of Association:
Check if Yes:	Check if No:	Have you obtained all permits required from this Association?

The Port of St James Association is a residential subdivision. It is NOT the same entity as St James Township.

3. Project Description

If the proposed project property is within 500' of a Lake or Stream, report:

Inland Lake/Stream Name:	Lake Michigan (yes/no):
--------------------------	-------------------------

Check applicable proposed use:	Residential	Multi-Family	Commercial:
Public/Govt:	If other, what type?		

Date Property Corners and Project Corners are staked:
Estimated month/year of project start:
Estimated month/year of project completion:

Summary of all proposed activities (Attach a separate statement if more room is needed):
--

4. Property Information

Size of Parcel (Acres):	Size of area being impacted (Sq ft):
Height of proposed structures (List separate heights for each structure):	
Does any portion of the construction area have slopes that are greater than 25% (or 1-foot vertical rise over 4-foot horizontal plane) – yes or no:	

Does any portion of the construction area have slopes that are greater than 33% (or 1-foot vertical rise over 3-foot horizontal plane) – yes or no:

Provide Proof of Ownership:
 Attach a copy of a Notice of Assessment or the Charlevoix County Parcel Information which is found at: https://www.charlevoixcounty.org/online_services/

5. Site Plan

The project Site Plan is to be developed as indicated within the directions. The Site Plan is to be attached to this application.

6. Permits that are required to be included with this Application

Type of Permit (If Applicable)	Source of Information	Approved (Y/N)	ID Number	Letter, if deemed not applicable
Part 91 Soil Erosion and Sedimentation Control	Charlevoix County Dept of Building Safety, Soil Erosion Officer. https://www.charlevoixcounty.org			Yes/No:
Threatened & Endangered Species	Terrestrial Invasive Species Administrator at: invasivespadm.bi@gmail.com or 231-330-0422			Yes/No:
Septic System	https://www.nwhealth.org			NA
Driveway/Road Permit	https://www.charlevoixroads.org			NA
Well Permit	https://www.nwhealth.org			NA

The below permits are NOT required to be included with this Application but are required by other entities. These contacts are provided for information only. The building permit needs to be posted at the site.

Building Permit	Charlevoix County Dept of Building Safety https://www.charlevoixcounty.org	NA	NA	NA
Association	https://theportofstjamesassociation.org or another association as needed	NA	NA	NA

7. Vegetative Assurance Plan

A Vegetative Assurance Plan must be attached and is required to address:

- Cutting and removal of trees and other vegetation – in accordance with the current version of the Forest Management Guidelines for Michigan.
- A review of Threatened and Endangered Species and attached applicable state and/or federal permits or letters stating permits are not required. The owner/agent is responsible to pay for these permit fees directly to the issuing agency.
- A review of Terrestrial Invasive Species (TIS) and attached report describing the findings and treatment plan.

Note: The Beaver Island TIS Administrator is available, for a fee payable to the applicable township, to assist the property owner/agent in creating this plan and connecting the owner/agent with the applicable state/federal authorities. The TIS Administrator must perform the T&E and TIS Reviews. Contact the TIS Administrator at invasivespadm.bi@gmail.com or 231-330-0422.

APPLICANT AUTHORIZATION

I hereby authorize the State of Michigan, County, and/or Township Officials to inspect the site of this project. Further, I certify that the information provided in this application is true and accurate.

Applicant's Signature: _____

Print Name:	Address:	
City:	State:	Zip Code:
Phone number where you can be contacted during the day:		

RETURN APPLICATION/ATTACHMENTS, ALONG WITH FEE PAYMENT(S) TO THE APPLICABLE TOWNSHIP, TO:

Zoning Administrator, via zoningadmin.bi@gmail.com, or P.O. Box 85, Beaver Island, MI 49782.

If you have questions regarding this permit, contact the Zoning Administrator at:

- 231-448-2000 or 231-448-2830 (an alternative office), or
- Via office hours or by appointment

Official use only: (Same check, payable to the applicable township may be used for any combination of these fees)

Application Fee Amount	\$500	Check No:
Vegetation Assurance Plan (VAP) Fee Amount (if requested)	\$250	Check No:
VAP by others; but T&E/TIS review Fee Amount	\$150	Check No:

Welcome to Critical Sand Dune Area Permitting Training

Heads up #1

Island Bundled Infrastructure Projects

- **August 2024: Road Commission millage ballot for paving rds**
- **CY2025 and 2026 Project Schedule**
- **January/March 2025: All projects out to bids**
- **2025 Spring/Fall: Road Projects Construction**
- **Possible projects undergoing consideration/funding**
 - One mile of East Side Drive**
 - Donegal Bay Bike Path Phase 2 (Phase 1)**
 - Rehab some of Kings Highway and downtown**
 - Other miscellaneous**
- **Fall 2025: Beaver Island Airport Materials**
- **Spring 2026: Beaver Island Airport Construction**

Heads up #2

Zoning Enforcement

Expect more robust Zoning Enforcement:

Permit compliance; including 3-4 Zoning Administration inspections and special focus on CSDA compliance and shoreline protection.

Land use compliance

Zoning Permit Applications

New zoning permit applications being prepared for non-CSDA areas, Rezoning, Special Use, Appeals to ZBA, Signs

Zoning Ordinances (not CSDA)

To be updated winter of 2023/2024

Heads up #2B

Zoning Enforcement

Shoreline protection – current zoning requirement:

If the project is near Lake Michigan or an inland lake a 25' shoreline projection strip must be part of the project plan (this strip has other regulations regarding vegetation). Except for properties within the Marine Related Zone, all structures (with some exceptions) must be kept 100' away from the high-water mark (HWM) of Lake Michigan and 50' away from the high-water mark of an inland lake, stream, or creek.





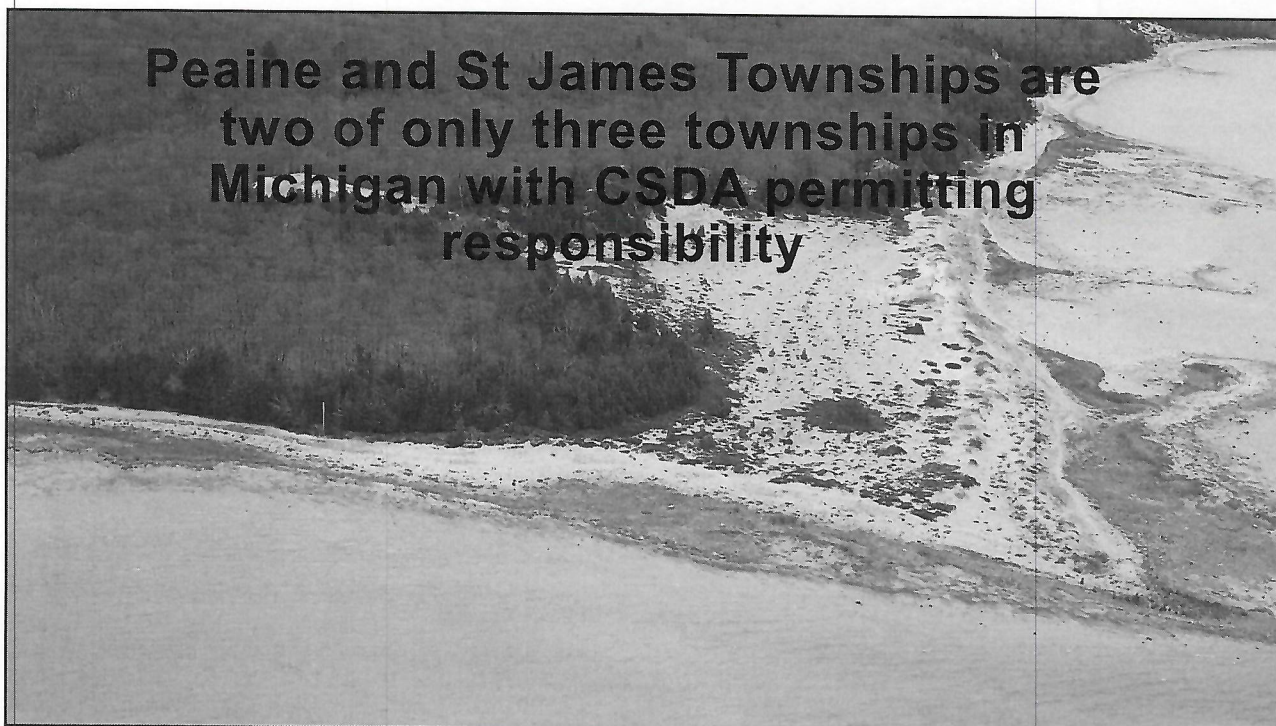
Oblique photos from April 2012, EGLE CSDA Website

CRITICAL SAND DUNE AREA PERMITTING ON BEAVER ISLAND, MI

AUGUST 30, 2023

Introductions: Township Officials
EGLE CSDA/Shoreline Protection

Townships' Regulations based on state law and Twp Ordinances



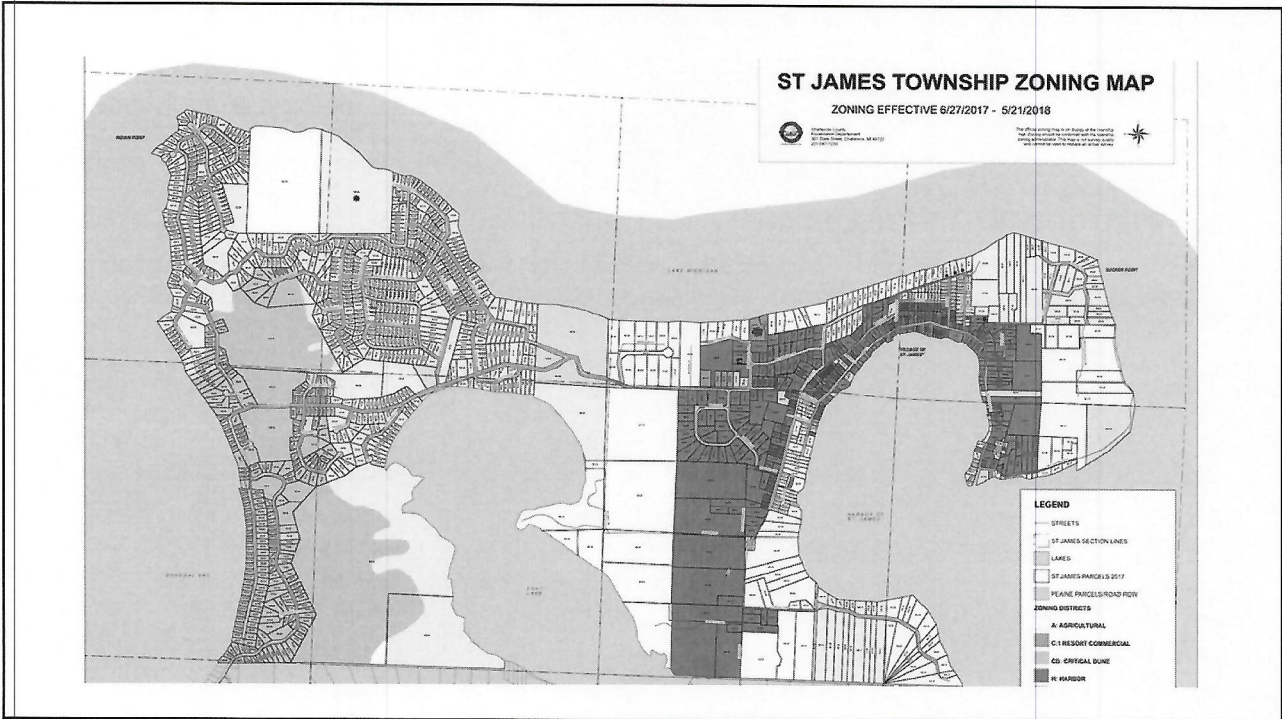
Peaine and St James Townships are two of only three townships in Michigan with CSDA permitting responsibility

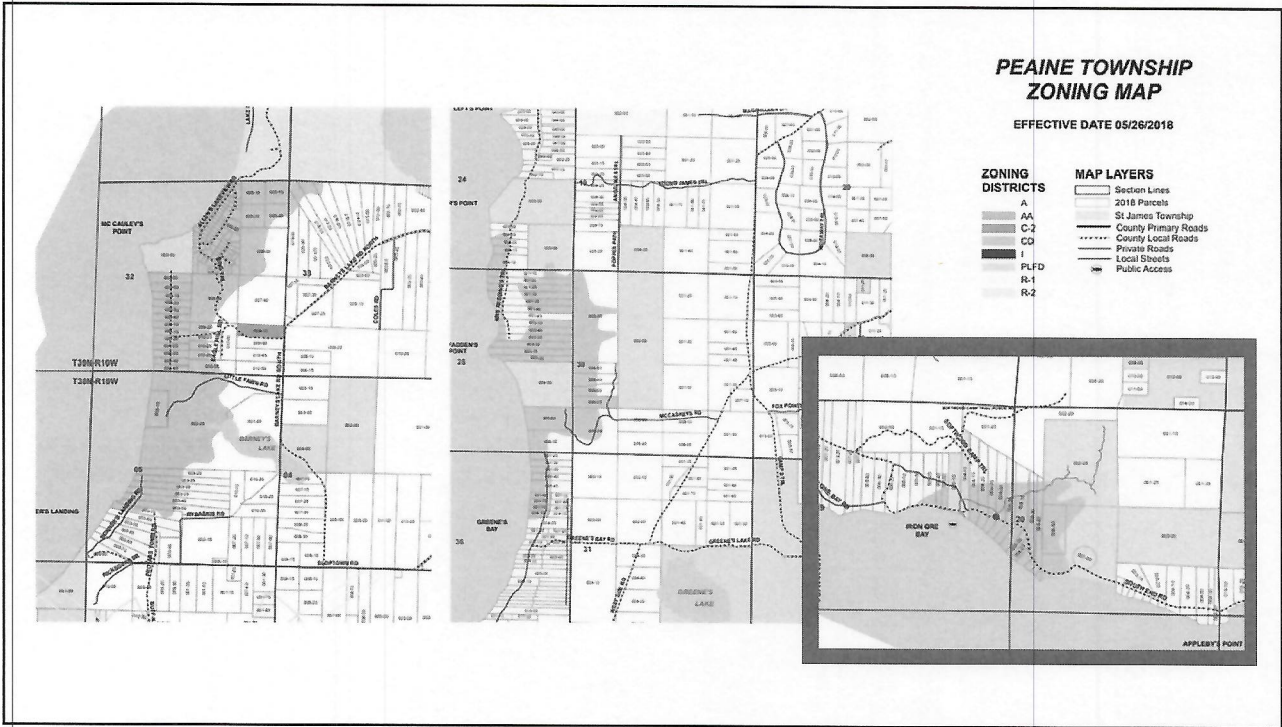
The CSDA on Beaver Island was identified on July 5, 1989, and includes 880 acres in Peaine Township and over 5.11 miles of shoreline and 766 acres in St James Township and over 2.9 miles of shoreline.

The regulated area is a barrier dune defined as “the first landward sand dune formation along a shoreline of a Great Lake or a sand dune formation designated by the Department of Natural Resources.”

These critical dune areas are unique, irreplaceable, and a fragile resource that provide significant recreational, economic, scientific, geological, scenic, botanical, educational, agricultural, and ecological benefit of the Townships and to people from the state of Michigan and from other states and countries who visit this resource.

Part 353, Sand Dunes Protection and Management, of the NREPA; Section 36505 of NREPA prohibits a ‘take’ of a T&E species.





The old way

Critical Dune Permit Application

When a Permit is Required

Prior to vegetation removal, land alteration, structural development, or establishment of any other use covered in the Zoning Ordinance.

This is a more restrictive standard than is applied in most zoning ordinances.

Minimum Statutory Requirements for Items to Accompany Applications

- Soil erosion and sedimentation control approval.
- Sewage treatment or disposal approval.
- Assurance that vegetation removal is done according to plans or instructions.
- An environmental assessment or environmental impact statement for special use projects.
- Review does not begin until all of the submittal requirements have been met.

10



New Ordinance(s) for Each Township

New CSDA Permit Application

**Peaine Township: Ordinances 02 and 03 of 2017
which cover Zoning Ordinances 6.15 and 11.9**

**St James Township: Ordinance 01 of 2023 which
covers Zoning Ordinances 6.14, 11.08, and 12.10**



A new application form

We are combining the regular zoning ordinance requirements (e.g., dimensions) with the updated CSDA zoning ordinances

PEAINE TOWNSHIP AND ST JAMES TOWNSHIP CHARLEVOIX COUNTY, MICHIGAN CRITICAL SAND DUNE AREA ZONING PERMIT APPLICATION

To construct a project within the designated Critical Sand Dune Area (CSDA) of Beaver Island Archipelago's within Charlevoix County, this CSDA zoning permit application must be completed and approved prior to starting any construction, including clearing and excavation. This Critical Sand Dune (CSD) Area permit application is to be completed in accordance with the applicable Township's CSDA Ordinance(s) and State of Michigan CSD Area legislation.

The CSDA on Beaver Island were identified on July 5, 1989, and includes 880 acres in Peaine Township and over 5.11 miles of shoreline and 766 acres in St James Township and over 2.9 miles of shoreline. The regulated area is a barrier dune defined as "the first landward sand dune formation along a shoreline of a Great Lake or a sand dune formation designated by the Department of Natural Resources." These critical dune areas are unique, irreplaceable, and a fragile resource that provide significant recreational, economic, scientific, geological, scenic, botanical, educational, agricultural, and ecological benefit of the townships and to people from the State of Michigan and from other states and countries who visit this resource.

THIS CSDA PERMIT APPLICATION MUST BE ACCOMPANIED BY ALL REQUIRED DOCUMENTATION AND SUBMITTED TO THE ZONING ADMINISTRATOR. The required documentation is noted below. This CSD Area Zoning Permit is required in lieu of the Township's Zoning Permit.



Homeowners/Agent

Obtain or prepare to include in Application:

- Soil Erosion Permit
- Septic Permit
- Vegetation Assurance Plan
- Driveway permit and plan/cross-section(s)
- Site Plan (May need licensed professional engineer or registered architect to complete)
- Other items in accordance with non-CSDA zoning ordinances

County Dept of Building Safety; Health Dept of NW Michigan; Charlevoix County Road Commission

- **Soil Erosion Permit – if required**
- **Septic Permit – if required**
- **Driveway Permit – if required**

MICHIGAN'S CRITICAL DUNE AREAS PROGRAM

Frequently Asked Questions:

VEGETATION ASSURANCE FOR A PROJECT IN A CRITICAL DUNE AREA



Why is vegetation important?

The coastal sand dunes are home to unique vegetation communities each with its own mix of trees, shrubs, herbs, and grasses. This vegetation gives each project site its own character. The removal or damage to existing vegetation during construction may increase erosion on the site and lead to a decrease in the stability of the land. Sand is easily eroded when plants, and their roots, are removed. Vegetation stabilizes and holds the dunes in place. If the site is not stabilized the characteristics that make the site so appealing may disappear. There may also be increased costs for ongoing sand plowing and invasive plant removal on unstable sites. Replacing the vegetation removed during construction will lessen erosion and maintain the stability of the dune. Property owners will continue to enjoy the unique character of their dune property after construction on a site stabilized with native vegetation.

What does the law say?

The law requires the property owner provide an assurance that the cutting and removal of trees and other vegetation for a proposed use in a critical dune area will be in accordance with the [Forest Management Guidelines for Michigan](#) (Guidelines) prepared by the Michigan Society of American Foresters and updated in 2010, MCL 324.35313 (1)(c). The law also requires restabilization of the dune with native vegetation for a structure proposed within 100 feet landward of the crest, MCL 324.35304 (4)(c). Projects that are likely to increase erosion or

VEGETATION ASSURANCE PLAN

**SAMPLE: Vegetation Assurance for 1234 View Drive, Duneville
April 27, 2019**

Project site description: The site is a forested dune with a mix of red oak (*Quercus rubra*), hemlock (*Tsuga canadensis*), white cedar (*Thuja occidentalis*), white pine (*Pinus strobus*) and low growing plants typical of a mesic northern forest community.

Proposed development: Impacts to the existing vegetation are proposed within the building footprint and septic field. Trees over 3 inches diameter at breast height and saplings will be impacted. Total number of trees removed for the project will be six: two hemlock; one white cedar; two red oak; and one white pine. Low growing vegetation will be removed from the impact areas. Impact will occur to 0.5 acres of forested dune. See the attached site plan.

Seasonal issues: Oaks are at risk of being infected with oak wilt if trees are pruned or roots disturbed between April 15 and July 15.

Special considerations: The mature trees on the site will be protected. A survey for endangered and threatened species was conducted and noted Pitcher's Thistle (*Cirsium pitcheri*) on the lakeward facing slope. The thistle location is outside of the impact area and will not be disturbed during construction. Garlic mustard (*Alliaria petiolata*), an invasive species, was found onsite.

Proposed actions for maintaining site stability during and after construction:

1. Stumps and roots of trees/shrubs cut down outside the building footprint and septic field will be left in place.

Owner/agent creates a Vegetation Assurance Plan

- **TIS Administrator may create if owner/agent agrees**

VEGETATION ASSURANCE PLAN TO INCLUDE: T&E SPECIES PERMIT(S)



**Michigan Department of Natural Resources-Wildlife Division
THREATENED/ENDANGERED SPECIES REPORT**

BY THE AUTHORITY OF PART 206, ENDANGERED SPECIES PROTECTION OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT AND PART 401 OF 1994 AND THE RULES ESTABLISHED THEREUNDER

<p>MAIL TO: WILDLIFE DIVISION DEPARTMENT OF NATURAL RESOURCES PO BOX 30444 LANSING MICHIGAN 48909-7844</p>	<p>INSTRUCTIONS: PLEASE PROVIDE ALL APPLICABLE INFORMATION IN THE REPORT AND MAIL TO THE WILDLIFE DIVISION WITHIN 10 DAYS OF THE EXPIRATION DATE OF THE PERMIT OR BY DECEMBER 31, FOR EACH YEAR OF A MULTI-YEAR PERMIT.</p>					
<p>PERMITTEE'S NAME (Last, First, Middle)</p>						
<p>NAME OF ORGANIZATION OR BUSINESS (if applicable)</p>						
<p>ADDRESS</p>						
<p>CITY, STATE, ZIP CODE</p>						
<p>TELEPHONE/EMAIL ADDRESS PERMIT NUMBER</p>						
<p><small>AS A HOLDER OF A THREATENED/ENDANGERED SPECIES PERMIT, YOU ARE REQUIRED TO COMPLETE THIS REPORT EVEN IF YOU DO NOT COLLECT, OBSERVE, OR RELOCATE ANY LISTED SPECIES. FAILURE TO REPORT MAY RESULT IN LOSS OF PERMIT PRIVILEGE. WHERE APPLICABLE, COPIES OF COMPLETE SPECIES LABELS OR REPORTS MAY BE SUBSTITUTED IN LIEU OF COMPLETING THIS FORM. HOWEVER, BE SURE TO PROVIDE THE INFORMATION ON THE FORM NOT INCLUDED ON THE LABEL OR IN THE REPORT. COMPLETE ONE FORM FOR EACH SITE AND FOR EACH SPECIES AT A SITE.</small></p>						
<p><input type="checkbox"/> I did not collect, observe, or relocate any threatened or endangered species during the period covered by my permit. (sign and date form on reverse side)</p>						
<p><input type="checkbox"/> I collected, observed, or relocated the species listed below</p>						
<p>SPECIES (scientific and common names)</p>						
<p>DATE OF OBSERVATION</p>						
<p>LOCATION (Legal description or UTM COORDINATES)</p> <table style="width: 100%; border: none;"> <tr> <td style="border: none;">County</td> <td style="border: none;">Town</td> <td style="border: none;">Range</td> <td style="border: none;">Section</td> <td style="border: none;">T₁</td> </tr> </table>		County	Town	Range	Section	T ₁
County	Town	Range	Section	T ₁		
<p><small>DETAILED DIRECTIONS TO SITE: Include directions from nearest town or road. Draw or attach a map indicating the exact location of the observation, collection, and/or relocation site (photocopies of USGS topographic maps preferred).</small></p>						

- Two Threatened & Endangered Species Permits or letters stating such permits are not needed
- TIS Coordinator assists with preliminary review and connects owner/agent to MDNR and/or USFW

VEGETATION ASSURANCE PLAN TO INCLUDE: TIS TREATMENT PLAN

Beaver Island TIS Program: Species Report



Peaine and St. James Townships' Terrestrial Invasive Species (TIS) Program conducted a plant species survey on Tuesday June 20, 2023 at [REDACTED]

[REDACTED] listed are the common, invasive and threatened species that were found within the Open Dune Natural Community this property is a part of.

Invasive Species

- Spotted Knapweed (*Costarea stoebe*)

Threatened Species

- Pitcher's Thistle (*Cirsium pitcheri*)

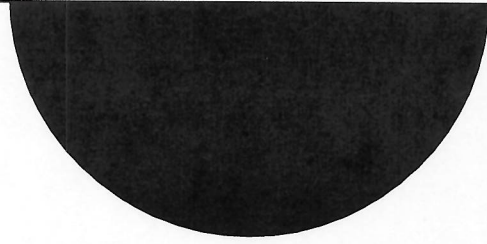
Common Species

- Beach Grass (*Ammophila brevifragula*)
- Hairy Puccoon (*Lithospermum carolinense*)
- Bearberry (*Arctostaphylos uva-ursi*)
- Field Sagewort (*Artemisia campestris*)
- Wild Wormwood (*Artemisia campestris*)
- Showy Milkweed (*Asclepias speciosa*)
- Juniper (*Juniperus communis*)
- Sand Cherry (*Prunus pennsylvanica*)
- Shrubby Cinquefoil (*Dasiphora fruticosa*)
- Bladder Campion (*Silene vulgaris*)

Spotted Knapweed were most commonly found along edges of the roadway, driveway and hillside/foredune. Invasive species are highly successful at establishing themselves within areas that have been disturbed so the Spotted Knapweed may increase in population on the property next year. The TIS Program's 2022 Shoreline Survey of the Ordinary High-Water Mark (OHWM) resulted in no known invasive species within this area before construction but no acute survey of the property was done by the TIS Program before this date.

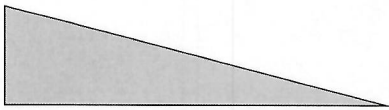
High concerns for the Open Dune community include negative impacts of invasive species and

- Describe how the owner will prevent the establishment of invasive species plants
- TIS Treatment Plan will be created by the island's TIS Administrator

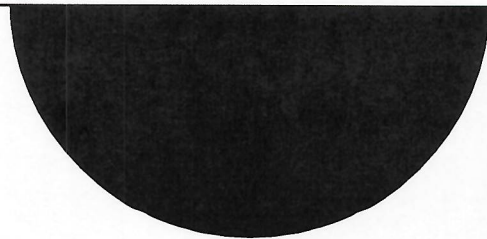
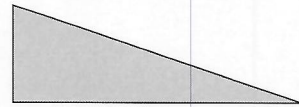


If the construction area contains any slopes are 1 on 4 or greater, on a dune greater than 6' in height, special rules apply.

**1' vertical rise in a
4' horizontal plane
(1 on 4 or 25%)**



**1' vertical rise in a
3' horizontal plane
(1 on 3 or 33%)**



If the dune feature is six feet or less in height, is isolated, and not attached to a larger feature, its steepness of slope is not a factor in determining if the feature can be impacted. All sides must be less than 6'.

The lower six feet of a larger dune feature should not be isolated when making the height measurement. Dunes undulate; can rise a few feet, level off, and then rise again. View all sides of a dune to determine whether one side is taller or if the feature is part of a larger dune. The entire dune feature is to be considered when making the height determination.

DRIVEWAYS

- Driveway permit, if required
- Scaled plan of driveway with cross-sections
- 16' width maximum
- Only one driveway (more require variances)
- If slopes within driveway area are 1 on 4 or greater, a license professional engineer needs to create the site plans and cross-sections (a registered architect may do this work for slopes between 1 on 4 and 1 on 3)
- If slopes are greater than 1 on 3, the LPE is required to certify under their seal that the accessibility measures are not likely to increase erosion or decrease stability

LPE or RA need to consider:

- Storm water drainage that provided for disposal of storm water without serious erosion
- Methods for controlling erosion from wind and water
- Restabilization, by design elements including vegetation, cut-and-fill, bridges, traverse, and such other elements as are required in the judgement of the architect or engineer to meet these requirements

SITE PLANS

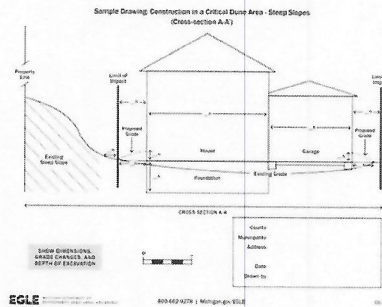
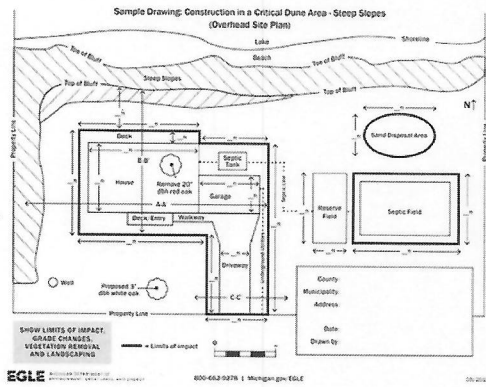
Site Plans must be scaled drawings, they are to include:

- Lot lines and dimensions, and a north arrow
- Locate existing and intended driveways and structures and dimensions of each (if the existing driveway and/or structure is to remain)
- Cross-sections showing the depth of the greatest impact between the existing grade and proposed grade
- Note the existing and proposed grades
- Location and type of trees and note major areas with the type of vegetation

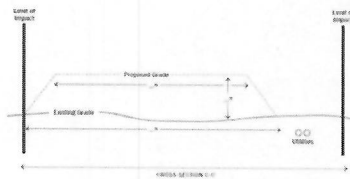
Site Plans must be sealed by a licensed professional engineer or registered architect and provide for the disposal of storm waters without serious soil erosion and without sedimentation of any stream or other body of water if:

- The project is within 100' of the sand dune crest on the landward side
- The project impacts slopes that exceed a 1' vertical rise in a 4' horizontal plane

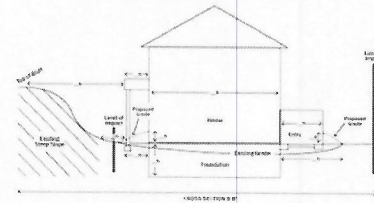
LPE/RA SITE PLAN GUIDE FOR STEEP SLOPES



Sample Drawing: Construction in a Critical Dune Area - Driveway (Cross-section C-C')



Sample Drawing: Construction in a Critical Dune Area - Steep Slopes (Cross-section B-B')



Two other site plan guides available

Zoning Administrator

- **Receives CSDA permit application - reviewed for completeness and applicable requirements**
- **Submits to the TIS Administrator and Planning Commission at least two weeks before any regular meeting**
- **Submits to the ZBA at least 8 days after a Planning Commission meeting with a decision relative to a CSD application, if variances are requested or the PC denied issuing the permit. A special ZBA meeting will be scheduled.**

Planning Commission

Planning Commission: Reviews all permits for -

- Applicable completed attachments
- Dimensional requirements for all sites

Large lots: 100,000 sft (2.3 acres), with 200' minimum width, are required for eligibility for permits

Narrower lots: May be permitted for use at the discretion of the PC provided that the lot was a lot of record as of 7/5/1989

Other lots: Lots recorded after 7/5/1989 and the lot is located lakeward from the crest, a permit cannot be issued.

Planning Commission

Planning Commission: Reviews all permits for -

- Work within the lakeward facing slope or foredune but only for a lot that was a lot of record as of 7/5/1989 and no land is available on the landward side of the crest
- Work within 100' of the landward side of the crest
- Work on any slopes between 1 on 4 (25%) and 1 on 3 (33%)



Planning Commission

Planning Commission: Permit reviews consider -

- **Requirements, public interest, alternatives to minimize adverse affects and assure compliance with all state and local requirements**
- **Within 60 days of the filing of the application deny or approve the permit based on sufficient facts or data, reliable scientific principles and methods applicable to the data, and that the facts or data considered are recorded in the file**



Planning Commission

Planning Commission: Permit reviews consider -

- **If the permit is denied, the property owner may request a reevaluation of the affected property for assessment purposes to determine the fair market value under the restriction**



Zoning Board of Appeals

Zoning Board of Appeals: Considers variance requests such as -

- **Dimensional variances are needed**
- **Setback variances are only allowed on lots recorded prior to 7/5/1989, or shoreline erosion rendered the lot non-conforming, or the first landward dune greater than 20' height that is not a foredune is located at least 500' inland.**



Zoning Board of Appeals

Zoning Board of Appeals: Considers variance requests such as -

- **Request for work on slopes greater than 1 on 3 (33%)**
- **PC finds contour change, silvicultural practices, or vegetation removal is more likely than not to increase erosion or decrease stability**



CSDA Permit Fees as of August 16, 2023

- **Application submittal fee: \$500 (was \$300)
and**
- **Vegetation Assurance Plan (VAP)
development fee: \$250
or**
- **T&E/TIS Assessment for VAP, if VAP
performed by others: \$150**



Beaver Island CSDA Manual

- **Informational CSDA Manual**
- **New CSDA Application**



Zoning Board of Appeals

Zoning Board of Appeals: Considers variance requests such as -

- **Other uses that do not comply with Section 35304, such as:**
 - **Structures proposed on the lakeward side of the crest;**
 - **Structures proposed within 100' of the crest that do not comply with Section 35304(4): Such a use needs: a) sealed plans, b) have construction access from the landward side, c) be stabilized with indigenous vegetation, and d) not reduce the elevation of the crest. If these criteria are met, a variance is not required.**



Zoning Board of Appeals

Zoning Board of Appeals: Considers variance requests such as -

ZBA will base approval if a practical difficulty would occur to the owner of the property if the variance would be denied. Primary consideration is given to assuring human health and safety are protected.

Real Estate Pre-Purchase Inquiries

REAL ESTATE INQUIRIES ABOUT LIKELY PERMIT APPROVAL

Neither township will provide pre-purchase or post-purchase speculative information regarding the possible approval of any potential project built within CSDA as there are too many variables required to be considered. This consideration can only be done after a CSDA permit application is completed, submitted to the Zoning Administrator, and undergoes the appropriate review and approval is granted.

That said, we acknowledge the interest in the key considerations for obtaining a CSDA permit. The key considerations appear to be:

- **Size and recorded date of the lot**
- **Location of the lot**
- **Slope of the lot**
- **Vegetation on the lot**

1. The size and recorded date of the lot: There is a good chance that any CSDA permit application will be approved, subject to many other variables and if either a, b, or c were applicable.

a. The lot is greater than 100,000 sq ft (approx. 2.3 acres).

b. The lot is smaller than 100,000 sq ft but the lot recorded prior to 7/5/1989. Note that most, but not all, Port St James lots were recorded in the 1960s.

c. If the property is a lot that was recorded after 7/5/1989 and the lot is located on the landward of the crest, it would be reviewed normally under the applicable parts of the zoning ordinance.

2. The location of the lot. If the lot is on or near Lake Michigan and the property contains the first crest off the lake, then construction on the lakeward side is problematic. If the lot was recorded after 7/5/1989 AND is entirely located lakeward of the crest, MCL 324.35304(3) prohibits issuance of a permit. Allowance for construction and access from the landward side is more likely but if the construction is outside the first 100' of the crest, if the construction must be within the 100' landward zone of the crest due to lack of space, more engineering is required than for a project constructed outside this 100' zone.

3. The slope of the lot. If the work is going to impact slopes greater than 25%, then special engineering is required. If the work is going to impact slopes greater than 33% then additional engineering is required, the approval is done through a variance and primary part of the decision is based upon assuring the protection of human health and safety. The construction of an observation deck, for example, is not health/safety related and such a request would be denied.

4. The vegetation of the lot. The site needs an evaluation of the existing vegetation and there are procedures to address removal of vegetation and replacement of vegetation within the disturbed area as well as other areas, to mitigate the loss of trees as an example.

Dept of Environment, Great Lakes, & Energy

Due to deficiencies found by EGLE during a regular audit in September 2022/Notice of results on 5/8/23, we will have one year of EGLE oversight of township permitting beginning in August/September 2023 and assistance provided thereafter.

QUESTIONS?

REFERENCES

EGLE:

www.michigan.gov/criticaldunes

DNR (T&E):

www.michigan.gov/dnr
managing your resources, wildlife,
threatened/endangered species

peainetwp.org:

planning and zoning, zoning

stjamestwp.org:

planning and zoning, zoning information,
zoning applications & information



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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Applications for Critical Dunes

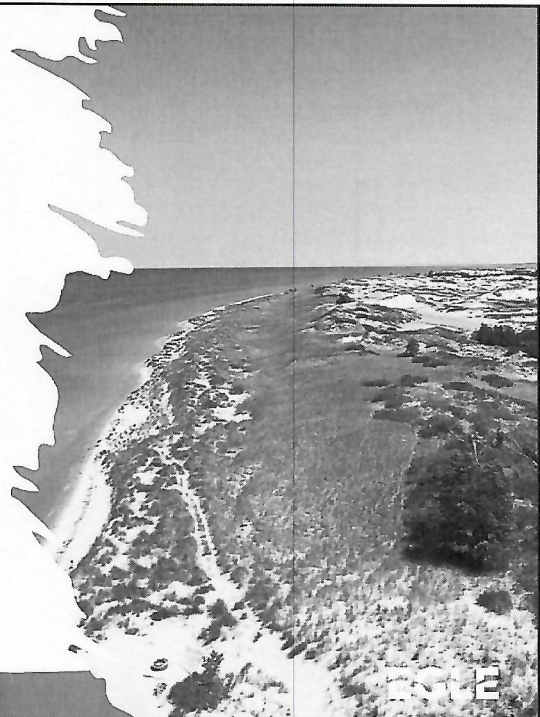
Keri Kent
Water Resources Division
Gaylord District Office
989-619-2443 | KentK4@michigan.gov

1



Background

- Michigan has the most freshwater dunes on the planet
 - Over 300,000 acres!
- Non-renewable resource
- Directly connected to cycles of the Great Lakes
- Support unique ecological communities



2



Background

Why do we have protections?

- Sand mining
 - 1976- PA 222
- Excess Recreation and Development
 - 1989- Critical Dune Atlas
 - 1994- codified as Part 353 in NREPA



3

EGLE



Background

Impacts from excessive and overuse activities

- Elimination of vegetation, leading to destabilization and greater erosion
- Prevention or exacerbation of natural dune movement
- Introduction of invasive species

4

EGLE

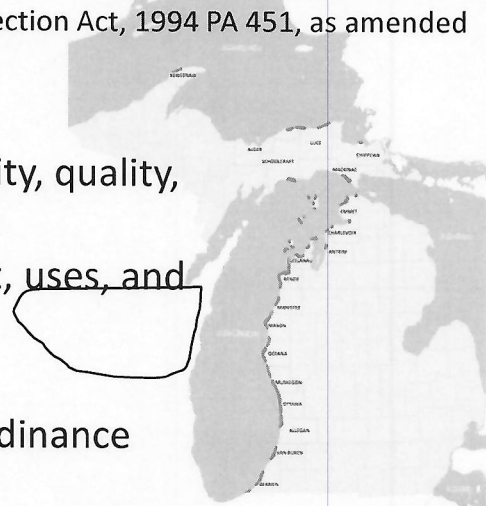
Part 353, Sand Dunes Protection and Management

Natural Resource and Environmental Protection Act, 1994 PA 451, as amended

Purpose:

- To preserve and protect the diversity, quality, functions, and values of the dunes
- To balance economic development, uses, and public access

LUGs may adopt their own zoning ordinance that meets the criteria of Part 353



5

EGLE

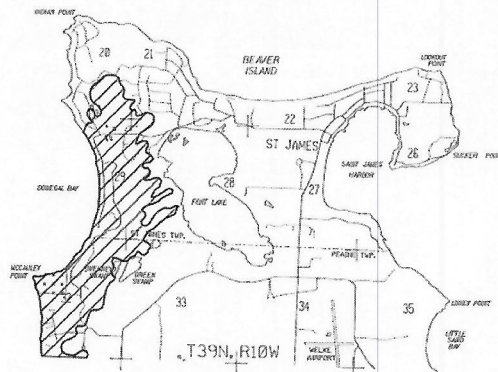
Critical Dunes- Need to Know

Is my property in CDA?

Maps:

- Critical Dune Atlas
- MiEnviro
- Wetlands Map Viewer
- GIS- Open Data Portal

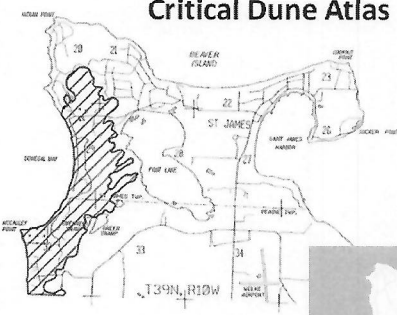
<https://www.michigan.gov/egle/about/organization/water-resources/sand-dunes/critical-dunes/maps>




6

EGLE

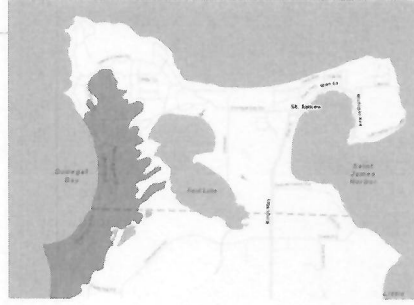
Critical Dune Atlas




Google Earth + GIS data



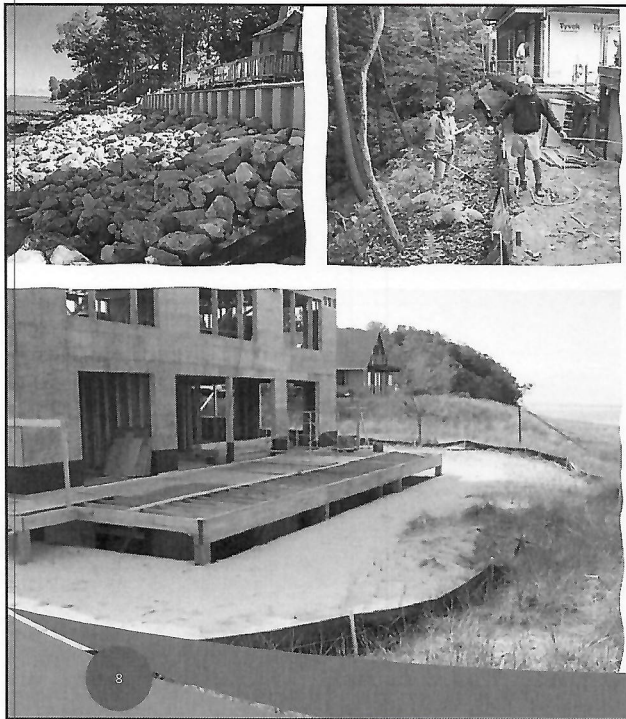
Wetlands Map Viewer



<https://www.mcgi.state.mi.us/wetlands>



7



8

Regulated Activities

- Contour changes and uses
- Structures
 - houses, decks, pools, additions, garages, patios, retaining walls, parking areas, landscaping driveways, roads, and more
- Hardened shorelines
- Septic systems
- Vegetation Removal

www.Michigan.gov/CriticalDunes



Non-permissible impacts

- Lowering of the primary dune crest
- Any use which has significant depletion or degradation of the **diversity, quality, and function of the dune** within the local unit of government

Restricted impacts, prohibited without variance

- Structures lakeward of the dune crest, including shoreline protection
- Impacts to slopes greater than 33%*

*Exceptions for driveways and accessibility measures

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EGLE

Application Requirements

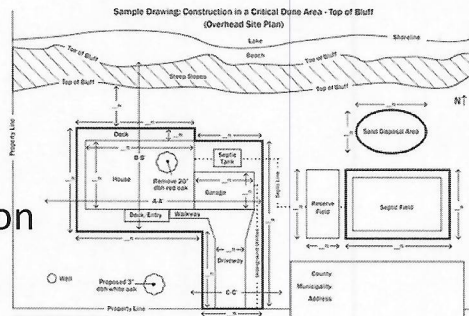
- Part 91 Soil Erosion and Sedimentation Control permit/waiver
 - Issued by county
- Septic system permit
 - Issued by Health Department
- Vegetation Assurance Plan
- Site plans, overhead and side-views

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EGLE

Site Plans: Need to Include

- Property lines and setbacks
- Location of dune crest
- Extent of disturbance and construction
- Dimensions of proposed impacts
- Areas of Vegetation Removal

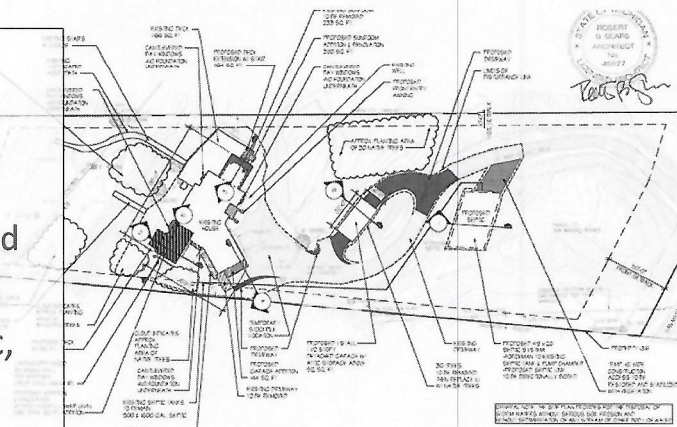


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EGLE

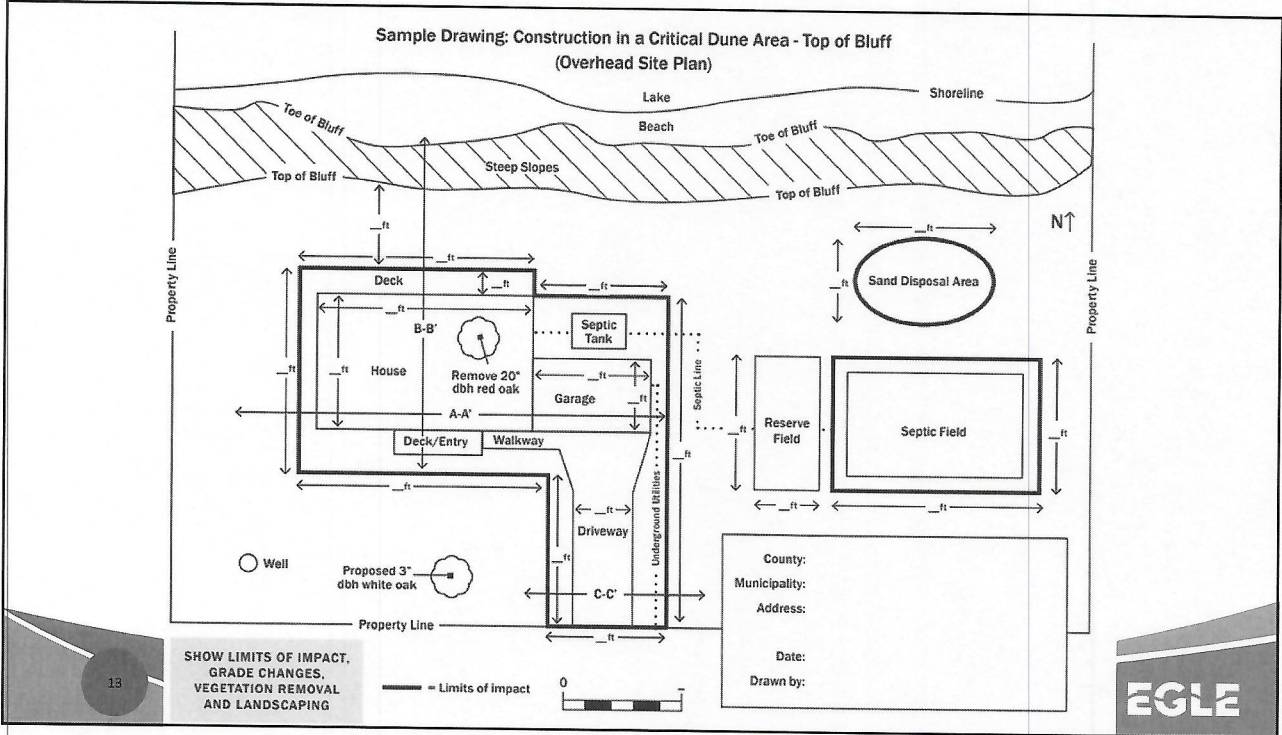
Site Plans: If Applicable

- Depth of excavations
- Grade changes
- Area with steep slopes
 - Contour maps near proposed structures may be required
- Locations of utilities, septic, spoils staging, stormwater drainage, and access

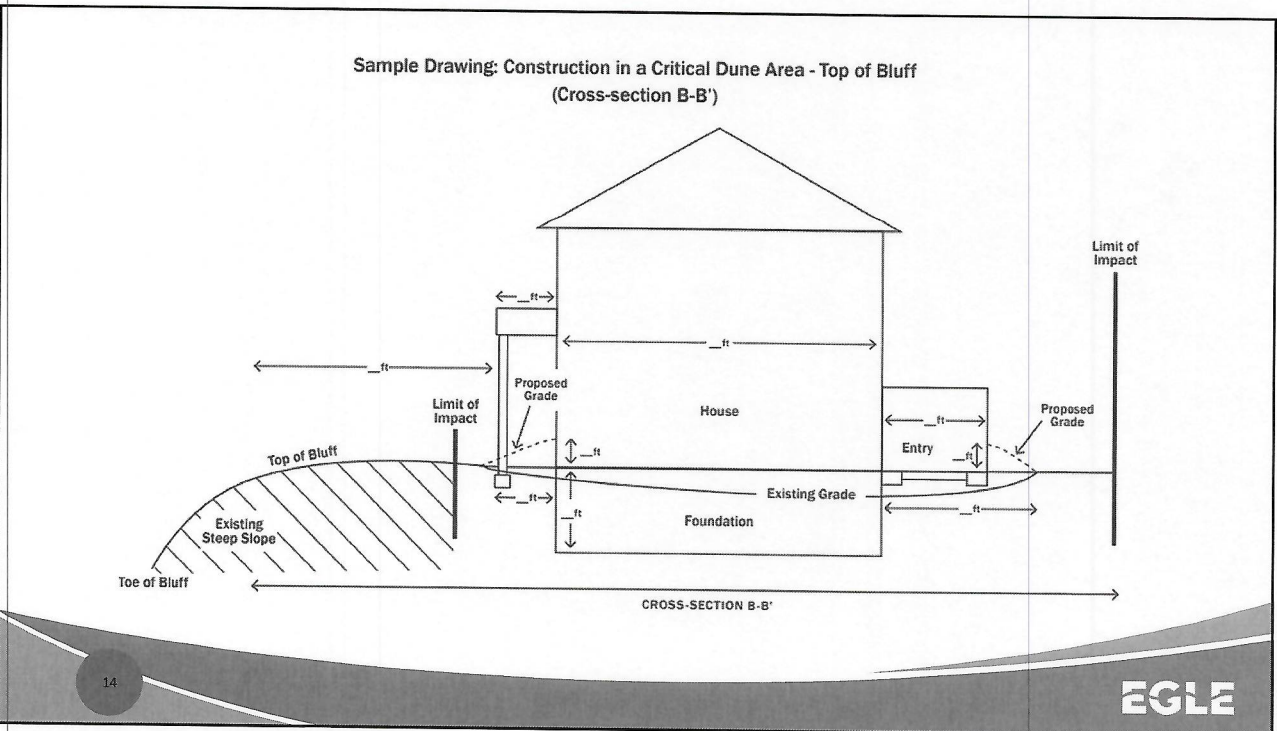


12

EGLE



13



14

Site Plans

Plans need to be signed and sealed by a professional architect or engineer if:

- The project is located within 100 feet of the crest of the dune
- The project impacts slopes greater than 1-on-4 (25%)
- The project impacts slopes greater than 1-on-3 (33%)

Certify under seal that the project is
not likely to increase erosion or decrease stability



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EGLE

Vegetation Assurance Plan

- Assurance that the cutting and removal of trees and other vegetation will be done in accordance with the Forest Management Guidelines for Michigan.
- Addresses how site stability will be maintained during and after construction.
- Special considerations including threatened or endangered species, seasonal issues, and invasive plant removal

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EGLE

Natural Communities

The vegetation assurance plan should identify the natural community type present on site and should use native plant species that correspond that that community.



Open-Dune



Great Lakes Barrens



Inter-dunal Wetlands

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<https://www.michigan.gov/egle/about/organization/water-resources/sand-dunes>



Natural Communities



Wooded Dune and Swale Complex



Dry-Mesic Northern Forest



Mesic Northern Forest

<https://www.michigan.gov/egle/about/organization/water-resources/sand-dunes>

18



Threatened and Endangered Species

Due to the unique communities within CDA, there are many sensitive species.

ALL projects should be evaluated for potential T/E species impacts



Pitcher's Thistle (*Cirsium pitcheri*)



<https://huronpines.org/2020/08/18/treasures-in-the-sand/>

<https://www.fs.usda.gov/wildflowers/plant-of-the-week/cirsium-pitcheri/>



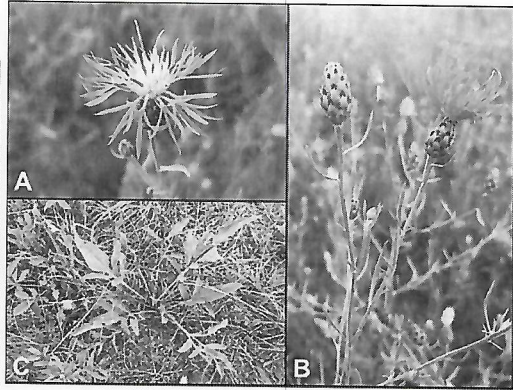
the-sand/

Look-alikes

Wild wormwood,
Artemisia campestris

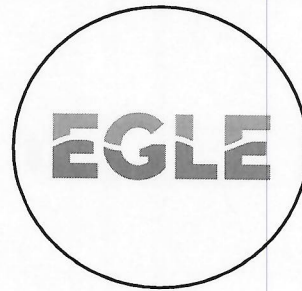


Spotted knapweed, *Centaurea stoebe*
Invasive!



Michigan Department of
Environment, Great Lakes, and Energy

800-662-9278
Michigan.gov/egle



Follow us at: Michigan.gov/egleConnect

CRITICAL SAND DUNE AREA PERMIT STATEMENT REAL ESTATE INQUIRIES ABOUT LIKELY PERMIT APPROVAL

Neither township will provide pre-purchase or post-purchase speculative information regarding the possible approval of any potential project built within CSDA as there are too many variables required to be considered. This consideration can only be done after a CSDA permit application is completed, submitted to the Zoning Administrator, and undergoes the appropriate review and approval is granted.

That said, we acknowledge the interest in the key considerations for obtaining a CSDA permit. The key considerations appear to be:

1. The size and recorded date of the lot: There is a good chance that any CSDA permit application will be approved, subject to many other variables and if either a, b, or c were applicable.
 - a. The lot is greater than 100,000 sft (approx. 2.3 acres).
 - b. The lot is smaller than 100,000 sft but the lot recorded prior to 7/5/1989. Note that most, but not all, Port St James lots were recorded in the 1960s.
 - c. If the property is a lot that was recorded after 7/5/1989 and the lot is located on the landward of the crest, it would be reviewed normally under the applicable parts of the zoning ordinance.

2. The location of the lot: If the lot is on or near Lake Michigan and the property contains the first crest off the lake, then construction on the lakeward side is problematic. If the lot was recorded after 7/5/1989 AND is entirely located lakeward of the crest, MCL 324.35304(3) prohibits issuance of a permit. Allowance for construction and access from the landward side is more likely but if the construction is outside the first 100' of the crest. If the construction must be within the 100' landward zone of the crest due to lack of space, more engineering is required than for a project constructed outside this 100' zone.

3. The slope of the lot: If the work is going to impact slopes greater than 25%, then special engineering is required. If the work is going to impact slopes greater than 33% then additional engineering is required, the approval is done through a variance and primary part of the decision is based upon assuring the protection of human health and safety. The construction of an observation deck, for example, is not health/safety related and such a request would be denied.

4. The vegetation on the lot: The site needs an evaluation of the existing vegetation and there are procedures to address removal of vegetation and replacement of vegetation within the disturbed area as well as other areas, to mitigate the loss of trees as an example. This includes an evaluation of the Threatened and Endangered (T&E) species at the project site and seeking the proper permit to "take" or remove T&E species – it is possible that the project may be moved to another portion of the lot to minimize the take of T&E species.