

# Chapter 305: NATURAL RESOURCES PROTECTION ACT

## PERMIT BY RULE



## Section 16: Activities in coastal sand dune

**NOTE:** This Section-by Section version of Permit By Rule is re-formatted to increase usability and includes additional guidance, annotations, and addendum. The entire rule, as published, is available below.

### Official Chapter 305 Rule (all sections):

<http://www.maine.gov/sos/cec/rules/06/096/096c305.docx>

#### AMENDED:

May 25, 2005 – filing 2005-174 December 5, 2006 – filing 2006-496

February 25, 2008 – Section 20 only, filing 2008-88

July 15, 2009 – filing 2009-339

July 30, 2011 – Section 16 only, filing 2011-211 (Final adoption, major substantive)

June 8, 2012 – filing 2012-146 (Final adoption, major substantive)

December 27, 2022 – Section 16-A only, filing 2022-256

## A. APPLICABILITY

1

This section applies to the following activities in coastal sand dune systems:

- (a) Repair or replacement of an existing seawall, patio, deck, driveway, walkway, porch or parking area;
- (b) Dune restoration or construction;
- (c) Installation or repair of underground utility lines;
- (d) Construction of a new structure or new development, other than a building or closed fence, in a back dune area;
- (e) New buildings or an addition to an existing building in a back dune when mitigation and enhancement measures are not required as determined by the DEP;
- (f) Construction of closed fences in a back dune, non-erosion hazard area;
- (g) Construction of open fences in a frontal dune or back dune erosion hazard area;
- (h) Construction of cobble-trapping fences with permanent anchors landward of an existing seawall in a developed area;
- (i) Construction of a walkway or driveway on existing developed area in a frontal dune; and
- (j) Installation of underground propane tanks.

PBR applications are reviewed on a case by case basis to determine the concern for damage due to shoreline change. In an area where concern for damage due to shoreline change is identified or mitigation and enhancement measures are required, the applicant is required to file for an individual Natural Resources Protection Act Permit, and is encouraged to contact the DEP for a pre-application meeting.

2



This section does not apply to the construction of a new structure or addition to an existing structure in V-Zones.

3



This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

**NOTE:** Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.

# NRPA Permit By Rule Section 16

## B. SUBMISSIONS

### Submissions for all sections:



PBR Notification Form



Location Map

### Submissions for Section 16:

1



The applicant is required to submit photographs of the area in which the activity is proposed

2



Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.

3



The following information must be submitted with the notification form.

- (a) A site plan that includes the following information.
  - (i) The dimensions and square footage of the lot.
  - (ii) The dimensions (including height) and square footage of existing and proposed structures and development e.g. houses, sheds, garages, decks, patios, driveways, parking areas, walkways, lawn, fences, etc. and their location on the lot (see definitions of Building, Footprint and Development in Section 16(D)). The existing and the proposed structures must be clearly distinguished.
  - (iii) The location of property lines and names of abutters.
  - (iv) The location of buildings on adjacent properties.

For patios, decks, driveways, walkways, porches, and parking areas that are to be repaired or replaced, the site plan must include the length and width of the existing structure, the height of the existing structure if it is elevated and the thickness of the existing structure;

For new buildings or an addition to an existing building in a back dune erosion hazard area, the site plan must include a post foundation designed to meet the requirements of the Department's Coastal Sand Dune Rules, 06-096 CMR 355(6)(G);
- (b) A copy of the most recent [Coastal Sand Dune Geology Map](#), produced by the Maine Geological Survey, which contains the project site and has the project site clearly identified on the photo;
- (c) For seawall repair or replacement only, an accurate plan drawn to scale by a licensed surveyor, coastal geologist or professional engineer showing the location of the existing and proposed wall and the elevation of the wall(s) referenced to a nearby permanent and reproducible elevation point, such as a described point on a building or other structure. The plan must be signed and dated by the person responsible for preparing the drawing;
- (d) If moving sand in an area seaward of the frontal dune between April 1 and September 1, a copy of the written approval to proceed from the Department of Inland Fisheries and Wildlife; and
- (e) For open or cobble-trapping fences, a detail showing a typical section of the fence and the dimensions of the fence including the size of the openings.

## NRPA Permit By Rule Section 16

# C. STANDARDS

1

No more than 40% of the lot may be covered by development including, but not limited to, buildings, driveways, walkways, parking areas, lawn or landscaped area, and land area previously developed; nor may the total area to be covered by the footprint of buildings exceed 20% of the lot, including existing buildings. Land area within the V-zone may not be included as part of a lot for the purposes of this section.

2

Where development that is existing or did exist within one year of application exceeds 40% of the total lot area, the percentage of developed area may not be increased.

3

Where the footprint of buildings that are existing or did exist within one year of application exceeds 20% of the total lot area, the percentage of area covered by buildings may not be increased.

4

An activity occurring on land adjacent to a coastal wetland, freshwater wetland containing over 20,000 square feet of open water or emergent marsh vegetation, great pond, river, stream or brook must meet the erosion control and setback requirements of Section 2, "Activities adjacent to protected natural resources".

5

Building or building additions may not result in a total structure greater than 35 feet in height or have a footprint greater than 2500 square feet. For purposes of determining whether the building is 35 feet high, the starting point for measuring the bottom elevation of the building is described in Chapter 355(5)(D). The top of the building is considered to be the highest point of the building excluding ancillary features such as weathervanes or chimneys that are attached to the building's primary roof but including features such as decks or observation towers that extend higher than the building's primary roof.

**NOTE:** The Department recommends that projects be constructed according to the Coastal Construction Manual published by the Federal Emergency Management Agency, which describes the best practices for residential construction in coastal areas.

6

A building may not be constructed so that any part of the building extends seaward of a line drawn between the seaward most point of buildings on adjacent properties if the construction would significantly obstruct the view from an adjacent building.

7

During project construction, disturbance of dune vegetation must be avoided and native vegetation must be retained on the lot to the maximum extent possible. Any areas of dune vegetation that are disturbed must be restored as quickly as possible. Dune vegetation includes American beach grass, rugosa rose, bayberry, beach pea, beach heather and pitch pine.

8

No fill may be placed on the project site other than that required for an approved dune restoration project or new construction. Foundation backfill and sand dune restoration and construction must utilize sand that has textural and color characteristics consistent with the natural sand's textural and color characteristics.

9

No sand may be moved seaward of the frontal dune between April 1 and September 1, unless written approval from the Department of Inland Fisheries and Wildlife has been obtained.

10

An activity involving dune restoration or dune construction must be performed between March 1 and April 1 or October 1 and November 15. Dune grass must be planted immediately after construction. Dune grass must be planted with 3 culms per hole. The holes must be spaced 18 inches apart. The planted dune grass must be protected from pedestrian traffic until the dune grass is well established. The density of the growing stand of dune grass must be at least 40 plants per 100 square feet.

## NRPA Permit By Rule Section 16 C. STANDARDS (CONT.)

- 11** A dune restoration/construction activity must use sand that has textural and color characteristics consistent with the natural sand's textural and color characteristics.
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- 12** A dune restoration or dune construction activity must minimize damage to existing dune vegetation and must follow the configuration and alignment of adjacent dunes as closely as possible. No sand or other materials may be placed below the normal high tide line..
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- 13** The replacement of a seawall may not increase the height, length or thickness dimensions of a seawall beyond that which legally existed within 24 months of submission of the notification form. The replaced seawall may not be significantly different in construction from the one that previously existed.
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- 14** A private walkway must be 4 feet or less in width. A public walkway must be 10 feet or less in width. Walkways must allow for sand movement and may not have a significant impact on vegetation outside of the footprint of the walkway. No portion of the walkway may be located in the V-Zone.
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- 15** The repair or replacement of a patio, deck, driveway, walkway, porch or parking area may not increase the height, length, width or thickness dimensions of the existing structure. The new or repaired patio, deck, driveway, walkway, porch or parking area may be constructed of a different material provided the dimensions remain the same.
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- 16** All proposed construction and development activity is limited to the location and extent depicted on the plan or drawing submitted pursuant to subsection B(3) of this section.
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- 17** An open fence must have openings that allow for the easy movement of water, wind and sand. If a picket board fence is proposed, the opening must be at least 4 inches wide or at least double the width of the picket board, whichever is greater. A continuous footing may not be used to support the fence and support posts may not be larger than 4 inches by 4 inches.
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- 18** A cobble-trapping fence may only be placed on properties that are adjacent to beaches with gravel and cobble sediment and have developed areas such as lawn between the building and the beach. Such a fence may not be placed on a naturally vegetated frontal dune ridge.
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- 19** A cobble-trapping fence must be placed landward of an existing seawall in a developed area, must not extend more than two feet beyond the building's foundation on either side, must not consist of more than one row of fencing, must not have openings smaller than 2 inches square or in diameter, and must not be higher than 4 feet above grade. The fence may be supported by permanent, small subsurface pipes or similar emplacements that are left in place all year. A permanent, continuous footing may not be used to support the fence. Cobbles and sediment trapped by the fence may be removed and placed immediately seaward of a frontal dune or seawall on the property.
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- 20** Underground propane tanks must be placed under an existing structure on the parcel.

## D. DEFINITIONS

The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- 1 **Back dunes.** Back dunes consist of sand dunes and eolian sand flats that lie landward of the frontal dune or a low energy beach. Back dunes include those areas containing artificial fill over back dune sands or over wetlands adjacent to the coastal sand dune system.
- 2 **Beach.** The zone of unconsolidated sand or gravel that extends landward from the mean low water line to the seaward toe of a dune. The definition of beach includes the beach face and berm.
- 3 **Beach nourishment.** (Deleted)
- 4 **Berm.** The flat or gently sloping area between the high tide limit and frontal dune. A berm is formed by deposition of sand transported to shore by tides, waves, wind and currents.
- 5 **Building.** A structure designed for habitation, shelter, storage, or as a gathering place that has a roof. For the purposes of this rule, the foundation is considered to be a part of the building. A porch with a roof, attached to the exterior walls of a building, is considered part of the building.
- 6 **C-zone.** (Deleted)
- 7 **Closed fence.** A fence that effectively blocks the movement of wind, water, or sand, such as a stockade fence or snow fence.
- 8 **Cobble.** A rock that is smaller than a boulder and larger than gravel.
- 9 **Cobble-trapping fence.** An open fence with a continuous porosity equal to or greater than 50% that is designed to prevent cobbles from passing through it .
- 10 **Development.** The alteration of property for human-related use including, but not limited to, buildings, decks, driveways, parking areas, lawns, landscaped areas, and areas of non-native vegetation, and any other appurtenant facilities, but excluding temporary structures.

D. DEFINITIONS (Cont.)

**11** **Dune vegetation.** Dune plant species typically adapted to Maine's coastal sand dune systems including, but not limited to, American beach grass, rugosa rose, bayberry, beach pea, beach heather and pitch pine.

**12** **Erosion hazard area**  
(a) Any portion of the coastal sand dune system that can reasonably be expected to become part of a coastal wetland in the next 100 years due to cumulative and collective changes in the shoreline from:  
(i) Historical long-term erosion;  
(ii) Short-term erosion resulting from a 100-year storm; or  
(iii) Flooding in a 100-year storm after a two-foot rise in sea level; or

(b) Any portion of the coastal sand dune system that is mapped as an AO flood zone by the effective FEMA Flood Insurance Rate Map, which is presumed to be located in an Erosion Hazard Area unless the applicant demonstrates based on site-specific information, as determined by the DEP, that a coastal wetland will not result from either (i), (ii), or (iii) occurring on an applicant's lot given the expectation that an AO-Zone, particularly if located immediately behind a frontal dune, is likely to become a V-Zone after 2 feet of sea level rise in 100 years.

**13** **Footprint.** The outline that would be created on the ground by extending the exterior walls of the building to the ground surface.

**14** **Foundation.** The portion of a structure that transmits the loads of the structure to the ground, including but not limited to: spread footings, foundation walls, posts, piers, piles, beams, girders, structural slabs, bracings, and associated connectors.

**15** **Frontal dune.** The frontal dune is the area consisting of the most seaward ridge of sand and gravel and includes former frontal dune areas modified by development. Where the dune has been altered from a natural condition, the dune position may be inferred from the present beach profile, dune positions along the shore, and regional trends in dune width. The frontal dune may or may not be vegetated with dune vegetation and may consist in part or in whole of artificial fill. In areas where smaller ridges of sand are forming in front of an established dune ridge, the frontal dune may include more than one ridge.

**16** **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.

D. DEFINITIONS (Cont.)

**17** **Lot.** Also referred to as a lot of record, all contiguous areas under a single present ownership as indicated by a deed and recorded in the registry of deeds constituting a piece of land measured and marked by metes and bounds descriptions or by some other approved surveying technique.

**18** **Open fence.** A fence through which water, wind and sand can easily move, for example, a split rail fence.

**19** **Permanent structure** (also referred to as a “structure” in this section). Any structure constructed or erected with a fixed location or attached to a structure with a fixed location for a period exceeding 7 months each year. Permanent structures include, but are not limited to: causeways, piers, docks, concrete slabs, piles, marinas, retaining walls, buildings, swimming pools, fences, seawalls, roads, driveways, parking areas, and walkways. Natural features, such as frontal dunes, are not considered permanent structures. For the purposes of this section, open decks and storage sheds that comply with the criteria outlined below are not considered to be structures.

(a) Open decks that: do not exceed a total of 200 square feet, including any existing decks on the property, are not located in a V-Zone, are supported by posts, and are elevated at least 3 feet above existing grade to allow unobstructed flow of sand, wind and water. One set of outside stairs, attached to the deck, will be considered part of the open deck but not included when determining the 200 square foot area.

(b) One storage shed per lot that does not exceed 100 square feet, provided that it is not located in a V-Zone and that it is not converted to a habitable structure.

**20** **Posts.** Any pilings or column supports that allow water and sand to move freely underneath the structure, and that are adequate to provide a foundation for the structure they supports. The term “post” does not include frost walls or breakaway foundation construction.

**21** **Seawall.** Vertical wall, or other sloped barrier that separates land from water areas, commonly constructed out of rocks, wood, concrete or other similar materials, generally built for the purpose of protecting structures or property from shoreline erosion caused by wave or current action. A seawall is presumed to be a permanent structure.

**22** **V-Zone.** That land area of special flood hazard subject to a one- percent or greater chance of flooding in any given year, and subject to additional hazard from high velocity water due to wave action. Wave heights or wave run-up depths are equal to or greater than 3 feet in V-Zones. V-Zones are as identified on the effective Flood Insurance Rate Maps and any subsequent Letters of Map Changes issued by FEMA.

# GUIDANCE & RESOURCES



## **Coastal Sand Dune Geology Online Maps**

<https://www.maine.gov/dacf/mgs/pubs/online/dunes/dunes.htm>

## **Coastal Sand Dune Geology Maps Information**

<https://www.maine.gov/dacf/mgs/pubs/mapuse/series/dunes/dunes-exp.pdf>

## **Maine Coastal Property Owner's Guide to Erosion, Flooding, and Other Hazards, 2nd edition:**

[https://digitalmaine.com/cgi/viewcontent.cgi?article=1605&context=mgs\\_publications](https://digitalmaine.com/cgi/viewcontent.cgi?article=1605&context=mgs_publications)