



JANET T. MILLS  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM  
COMMISSIONER

**To:** Board of Environmental Protection

**From:** Naomi Kirk-Lawlor, Senior Planner, Office of the Commissioner  
Rob Wood, Director, Bureau of Land Resources

**Date:** July 20, 2023

**Re:** Chapter 355: Coastal Sand Dune Rules

---

The Department is proposing to amend the existing 06-096 C.M.R. Chapter 355: Coastal Sand Dune Rules to update the Coastal Sand Dune Geology Map reference.

**Background**

Coastal sand dune systems are a protected natural resource under Maine’s Natural Resources Protection Act (NRPA), 38 M.R.S. §§ 480-A–480-JJ. NRPA permitting within this protected natural resource is governed by the Department’s Chapter 355 Coastal Sand Dune Rules. In describing coastal sand dunes, Chapter 355 currently cites outdated and discontinued maps and photos (dated 2001) which depict most, but not all, of the regulated sand dune system. This rulemaking would update the reference to cite the most recent Coastal Sand Dune Maps prepared by the Maine Geological Survey dated 2023. This reflects our best scientific understanding of where these protected natural resources exist in our State.

**Definition of Coastal Sand Dune Systems**

In 38 M.R.S. § 480-B and Chapter 355, coastal sand dune systems are defined based on their sediment characterization, locations, and the depositional processes that created them. In short, they are sand and gravel deposits in marine beach systems that were deposited by wind or wave action. The definition of coastal sand dune systems in Chapter 355 also states that, “Most coastal sand dune systems have been identified by the Maine Geological Survey and are shown on photos entitled *Beach and Dune Geology Aerial Photos* dated 2001. *Coastal Sand Dune Maps*, previously produced by MGS and dated 1990, have been discontinued.”

**Coastal Sand Dune Mapping Efforts**

Since the late 1980s, the Maine Geological Survey (MGS) has been working to map coastal sand dune systems in the State. The initial effort was based on 1986 aerial photography and fieldwork. MGS focused first on more highly developed areas of the coast, primarily within York and Cumberland Counties, and published its initial sand dune map series in 1990. Through the 1990s and 2000s, MGS worked to refine their mapping, releasing a map series in 2001 based on continued field work, permit application reviews, available orthophotography, and newly available LiDAR (Light Detection and Ranging) topographic data. In 2006, MGS again updated

|  |  |   |  |
|--|--|---|--|
| AUGUSTA<br>17 STATE HOUSE STATION<br>AUGUSTA, MAINE 04333-0017<br>(207) 287-7688 FAX: (207) 287-7826 | BANGOR<br>106 HOGAN ROAD, SUITE 6<br>BANGOR, MAINE 04401<br>(207) 941-4570 FAX: (207) 941-4584 | PORTLAND<br>312 CANCO ROAD<br>PORTLAND, MAINE 04103<br>(207) 822-6300 FAX: (207) 822-6303 | PRESQUE ISLE<br>1235 CENTRAL DRIVE, SKYWAY PARK<br>PRESQUE ISLE, MAINE 04769<br>(207) 764-0477 FAX: (207) 760-3143 |
|--|--|---|--|

its map series, including by identifying Erosion Hazard Areas within sand dune systems (after these areas were defined through Chapter 355 rulemaking). These efforts were focused mainly within the same geographic areas as the original 1990 maps. In 2011, MGS updated the map series again, expanding mapped areas slightly in York, Cumberland, and Sagadahoc counties to include previously unmapped, yet present, coastal sand dune systems.

Over the past decade, MGS has worked to try to map all the coastal sand dune systems in Maine, continuing to identify newly mapped dunes and Erosion Hazard Areas and to update the boundaries of previously mapped dunes in response to new information, including additional field work, permit application reviews, newer aerial imagery, and newer LiDAR topographic data.

MGS expects to continue updating their coastal sand dune maps based on the best available data in the future. For example, the seaward extent of the defined dune system, which extends to mean low water, has not been mapped yet due to a lack of data. New remote sensing data has recently become available that, in the future, will allow MGS to delineate a seaward boundary to sand dune systems, including beach areas down to the mean low water line.

### **Regulation of Coastal Sand Dune Systems**

Areas that meet the definition of coastal sand dune systems are protected natural resources and the Department has regulatory authority over activities in these areas pursuant to NRPA. In practice, for over a decade, the Department has not been exercising its regulatory authority for all coastal sand dune systems due to evolving internal guidance. Since 2011, MGS has continued to identify areas that meet the definition of coastal sand dune systems and Erosion Hazard Areas, but the Department has utilized this information only in York, Cumberland, and Sagadahoc Counties, and has utilized this information inconsistently in those counties during that time. Moreover, newly mapped dunes in Lincoln, Knox, Waldo, Hancock, and Washington Counties have not been actively regulated under Chapter 355 for the purposes of NRPA permitting.

The Department now proposes to update the outdated map reference in the Chapter 355 definition of coastal sand dune systems, in accordance with the best available science, and to require activities in all mapped coastal sand dune systems to meet the Chapter 355 standards. While these newly mapped systems already meet the definition of coastal sand dune systems and are therefore subject to the jurisdiction of NRPA and Chapter 355, the Department recognizes that it proposes to change how it currently implements this definition in practice, which will change how certain properties and activities are regulated. As such, an opportunity for public input is appropriate.

### **Requested Action**

The Department recommends amending Chapter 355 § 3(H) by striking the reference to outdated coastal sand dune system maps and replacing it with a reference to the most current map series produced by MGS, titled “2023 Coastal Sand Dune Geology Maps” (available at <https://www.maine.gov/dacf/mgs/pubs/digital/dunes.htm>). This proposal is a major substantive rulemaking. The Department recommends that the Board post the attached draft for public comment and schedule a public hearing.

**Estimated Time of Agenda Item:** 30 minutes

**Attachments:** Chapter 355 Coastal Sand Dune Rules, Section 3(H): Draft Rule Revision

MGS Summary Table: Previously Mapped and Newly Mapped Dune Areas

[Maine Geological Survey 2023 Coastal Sand Dune Geology Maps, 1:4,800 scale](#)