

Dune Protection

Some municipalities have been protecting dunes for decades, realizing that little else offers protection for property owners from the occasional northeaster. These same dunes offer protection for numerous other inhabitants, including nesting black skimmers and piping plovers, which appear the Federal Endangered and Threatened Species List. They also provide reserves of sand to replenish beaches and aesthetically improve an area.

If people could design the ideal dune, perhaps it would be tan enough to guard against the greatest waves, short enough to maintain a view and easy access and it would definitely be stationary. However, our intuition and observation tells us that nature has an alternate design in mind; our ordinances need to reflect the reality that dunes are constantly shifting.

We have included key sections from a number of noted municipal ordinances.

Elements of a strong ordinance;

- Recognize that dunes are dynamic and naturally migrate. Legally defined dune boundaries, or building lines, need to be reviewed yearly and following every large damaging storm (Atlantic City, Atlantic County).
- Restrict public access specifically foot traffic and motorized vehicles. Limited walkways may be zigzagged, or placed perpendicularly to approaching waves, to address the problem of overwash onto street ends. Use signs to notify and educate visitors about restrictions (Ocean City, Cape May County).
- Create design criteria for walkways and platforms to prevent the vertical erosion of dunes. Walkways and platforms should be raised, allowing sand and water to pass beneath (Mantoloking and Bay Head, Ocean County). Alternatively walkways must consist of an artificial surface, such as roll-up sidewalks, mats or cordgrass.
- Determine the ideal dune height above mean sea level. The U.S. Natural Resources Conservation Service (NRCS) recommends a height of between 12 to 16 feet
- Provide clear guidelines for maintaining dunes and related vegetation. Dune maintenance includes replenishing sand, using sand fencing, planting vegetation, and prohibiting the removal of beneficial vegetation. Specifically state who is responsible for such activities, for instance if the landholder immediately adjacent must install fencing and vegetation.
- Follow the current recommendations of the NRCS for plantings and sand fencing (Brick Township, Monmouth County).
- Mantoloking, Ocean County, has deemed all portions of its dune ordinance necessary, and therefore not subject to waiver or variance.
- Provide enforcement, through inspections and written notices, and penalties for violations. A model ordinance developed by Rutgers University's Institute of Marine and Coastal Sciences includes a list of permitted and prohibited activities, standards for dune system creation, expansion, repair and maintenance.

FOR FURTHER INFORMATION

- "Draft Coastal Hazard Management Report," 1996. Rutgers University Institute of Marine and Coastal Sciences.

Rutgers University Model

Coastal Dune Protection Ordinance Draft

Permitted And Prohibited Activities:

Construction:

Construction seaward of the Landward Edge of the Dune and the placement there, except temporarily, or any object that would impede the flow of sand are prohibited, except as provided in this Ordinance and in accordance with any CAFRA regulations, the Land Use Ordinance Borough with the following exceptions (Mantoloking)

- Dune management programs designed to either maintain, restore, or reconstruct dune fields such as supplemental planting of natural vegetation., placement of sand fences, construction of artificial dunes or berms or any other programs that may be authorized through written approval. (Brigantine)

Dune Platforms:

Although Dune Platforms are not recommended because they affect dune stability and sand transport, some communities permit them. Therefore the following is a guide to communities, which already permit dune platforms to ensure there is a limited amount of disturbance to the dunes.

1. Each oceanfront lot shall be allowed a dune platform not to exceed 200 square feet, situated within the dune area and specifically located and delineated by the owner of the premises. The dune platform shall, in all events, be maintained in the same fashion and subject to the same regulations as may govern use of pathways and walkways;
2. The specifications for a dune platform call for neither length or width greater than 18 feet, an elevation of at least 18 inches above any point of sand surface, supporting post 4x4, beams no greater than 6 inches in vertical sections, handrails no more than 2 inches in vertical section, planking shall be no more than 4 inches in width installed with at least a 16 percent gap area in order to permit dune grass to grow underneath;
3. The permit application for a Dune Platform is to be accompanied by a sketch, to scale, showing that it is at least 10 feet to landward of the mapped current Dune Crestline. The sketch may be prepared by the Dune Inspector;
4. Whenever the dune builds to the point that a part of the dune platform surface is less than an inch above the sand surface within 5 feet, that platform shall be raised or rebuilt using an existing dune platform does not require a permit. Reconstruction of a dune platform shall be subject to issuance of a permit. (Combination of Mantoloking and Point Pleasant)

Sand Removal:

Sand which is transported upon lands by action of wind, tides, storms, or any combination thereof shall not be removed from the lot upon which it is deposited by such action

Surplus sand deposited upon any improved street ends shall be restored into the Beach and Dune area. (Mantoloking)

Trespassing:

1. No person shall be in the Dune Area unless;
 - (a) Upon an improved Pathway, Walkway or Dune Platform; or
 - (b) in the performance of such activities as may be reasonable and necessarily required to construct or maintain the dune or allowed structures or
 - (c) for the purposes of inspection, topographical survey, or enforcement of this Ordinance; entry for these purposes will not be deemed an actionable trespass. (Mantoloking.)
2. No persons shall operate a motor vehicle across or upon any Dune Area except as may be necessitated for allowed construction or for dune maintenance. (Bay Head)

Tampering with Dune Protection Devices:

1. The removal, cutting, burning or destruction of Dune Vegetation, Sand Fence, or such other types of dune protection devices approved by the Borough Council in the Dune area is prohibited, except as necessary for construction or maintenance authorized pursuant to the ordinance. (Mantoloking)
2. Placement of nonliving brush, shrubs or other debris in the dune area or beach is prohibited. (Atlantic City)