



**US Army Corps
of Engineers**®
Wilmington District

**General Re-evaluation Report and Environmental Assessment
Surf City, Onslow and Pender Counties, North Carolina
Coastal Storm Risk Management Project**



**Appendix N: Dune Planting Summer Guidelines
Final
February 2025**

U.S. Fish and Wildlife Service
Dune Planting Guidelines for North Carolina Beaches
November 20, 2019

Applicability

These dune planting guidelines were developed by the U.S. Fish and Wildlife Service (Service) in coordination with North Carolina Wildlife Resources Commission (NCWRC), to address dune planting during the sea turtle nesting season (May 1 to November 15 of any year). These guidelines apply to projects that total less than 2,500 linear feet (lf) of shoreline. The guidelines may be modified based on consultation on specific projects, or if new information is received.

General Recommendations

- For activities that utilize vehicles and other equipment on the beach, work should be completed during the winter work window (November 16 to April 30), particularly if the dune planting is not associated with a beach sand placement project.
- If a vehicle is required during the sea turtle nesting season, we recommend an ATV/UTV, to avoid and minimize impacts to sea turtles, seabeach amaranth, and shorebirds.
- Only plant native dune species. Hosier (2018), Rogers and Nash (2003), and the U.S. Department of Agriculture (USDA)(Shadow 2007; Lamphere 2006) recommend the following planting seasons for three commonly planted species:
 - American beachgrass (*Ammophila breviligulata*): Plant plugs from fall through spring.
 - Seaside panicum (*Panicum amarum*): Sprig in late winter, spring, or fall.
 - Sea Oats (*Uniola paniculata*): Plant in spring or fall.

Guidelines

The following guidelines apply if any work is conducted during the sea turtle nesting season (May 1 to November 15):

1. The applicant or contractor should notify the Service and NCWRC of intent to use the guidelines for any project. Information to provide with the notification should include project name, general location (addresses, lat/long in decimal degrees), general description of equipment and methods (including a watering plan), anticipated duration of project (in days), and a commitment to following these guidelines, and any other additional avoidance and minimization measures undertaken. Notification by email is acceptable.
2. The Service and NCWRC recommend that use of vehicles and equipment on the beach be limited to before May 15 or after October 31 to the extent possible, to avoid the peak sea turtle nesting period.
3. Only vehicles with less than 10 psi ground pressure should be driven or parked on the beach. Movement and parking of vehicles larger than an ATV/UTV should be confined to the wet sand area (except when traveling perpendicularly between the beach access point and the wet sand). This is defined as the area below the normal high tide line (or wrack line), and is typically marked by shell deposits at the top of the high tide swash zone.

4. To the extent possible, during sea turtle nesting season, watering should be accomplished from the landward side of dunes, and the use of water-supplying vehicles on the beach should be avoided.
5. The limits of the expected planting area for each day should be marked on the beach the night before, to inform the sea turtle patrol of the limits of the day's work. Physical markings may consist of a flagged stake at each end of the designated planting area.
6. Dune planting should begin only after sea turtle patrol has confirmed nesting/false crawls within the designated work area. Daily coordination should be conducted between sea turtle volunteers, the dune planting contractor, and NCWRC to ensure that the beach has been adequately surveyed and nests marked, prior to beginning of work. Coordinate with Maria Dunn (maria.dunn@ncwildlife.org) or Matthew Godfrey (matt.godfrey@ncwildlife.org) at NCWRC to establish the procedures for each project. Work should not be conducted at night.
7. Any vegetation planting should be installed by hand labor/tools.
8. An irrigation system should not be installed.
9. Once an area of beach is completed with planting, all equipment should be prohibited from that area.
10. Sand ruts created by traveling or parking on the beach should be removed by the end of each day.
11. A buffer distance of 50 feet should be marked at all nests and false crawls identified within the work area, in which no power equipment or vehicles should be used.
12. A buffer distance of 20 feet should be marked at all sea turtle nests and false crawls identified within the work area, in which no hand planting should be completed.
13. If a nest(s) cannot be safely avoided during construction, all activity within the affected project area should be delayed until complete hatching and emergence of the nest.
14. Nighttime storage of equipment or materials should be off the beach (landward of the dune crest).
15. Existing native dune vegetation should be disturbed only to the minimum extent necessary. Only native salt tolerant plant species should be installed.
16. Weekly notice of progress and a notification of completion should be provided to the Service and NCWRC, including the location of the area(s) planted, and remaining areas to be planted. Areas should be identified using street addresses, lat/longs, or landmarks, as available. Notification by email is acceptable.

17. In the event a nest is disturbed or uncovered during planting activity, all work should cease and notifications made to the U.S. Fish and Wildlife Service's (Service) Raleigh Ecological Services Field Office (919-856-4520, ext. 27) and to the NCWRC (252-241-7367).

Other Recommendations for Conservation:

The Service and NCWRC encourage local governments to develop and implement conservation plans or management actions to avoid and minimize anthropogenic impacts to nesting sea turtles, shorebirds, and seabeach amaranth. Local and regional measures may include prohibiting or limiting vehicle driving on the beach, establishment of vehicle access corridors, actions to minimize light pollution on the beach, limiting trash pick-up to evenings (once a day), and installation of educational signage.

Literature cited

- Hosier, P.E. 2018. Seacoast Plants of the Carolinas: A New Guide for Plant Identification and Use in the Coastal Landscape. Sea Grant Publication UNC-SG-18-01. University of North Carolina Press. 492 pp.
- Lamphere, J. 2006. Plant Guide for bitter panicum (*Panicum amarum*). USDA Natural Resources Conservation Service (NRCS) Golden Meadow Plant Materials Center, Galliano, LA 70874.
- Shadow, R. A. 2007. Plant fact sheet for Sea oats (*Uniola paniculata* L.). USDA NRCS, East Texas Plant Material Center, Nacogdoches, TX 75964.
- Rogers, S., and D. Nash. 2003. The Dune Book. Sea Grant Publication UNC-SG-03-03. University of North Carolina Press. 28 pp.