



North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

August 24, 2012

Mr. Darrell L. Echols
Acting Park Superintendent
National Parks Service
NPS-Outer Banks Group
Manteo, NC 27954

Dear Mr. Echols:

Thank you for registering the natural areas identified by the North Carolina Natural Heritage Program as the Wright Brothers Dunes Natural Area. Your copy of the signed agreement is enclosed.

The Nature Preserves Act of 1985 establishes registry as a tool to recognize the ecological significance of natural areas such as this. Wright Brothers Dunes Natural Areas within the Wright Brothers National Memorial contains outstanding natural and scientific values justifying its recognition.

The Department of Environment and Natural Resources greatly appreciates your commitment and leadership in conservation of North Carolina's natural resources and looks forward to working with you on future projects.

Sincerely,



Dee A. Freeman

Enclosure
LEG/leg

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-707-8600 \ Internet: www.ncdenr.gov

An Equal Opportunity \ Affirmative Action Employer - 50% Recycled \ 10% Post Consumer Paper

One
North Carolina
Naturally

NORTH CAROLINA REGISTRY OF NATURAL HERITAGE AREAS

Letter of Intent and Agreement to Register and Protect Natural Areas

WHEREAS, the National Park Service is the owner of areas known as the Wright Brothers Dunes Natural Area, and consisting of approximately 193 acres. [Exhibit A]

WHEREAS, this area possesses the following natural values, justifying its recognition by the State as an outstanding part of the natural heritage of North Carolina:

The Wright Brothers Dunes Natural Area hosts the largest known population in the entire state of significantly rare maritime pinweed (*Lechea maritima* var. *virginica*) and one of the largest populations of the state Threatened sand heather (*Hudsonia tomentosa*). The distinctive Beach Heather Dune Natural Community occurs on the low, open dunes of the natural area.

AGREEMENT

The Registry Agreement is a mutual understanding between the National Park Service and the North Carolina Department of Environment and Natural Resources to protect outstanding examples of the natural diversity occurring in North Carolina and preserve unique and unusual natural features. In addition to an approach by landowners and managers that follows these principles and strives to maintain natural character and integrity, the North Carolina Natural Heritage Program submits the following site-specific management recommendations:

No active management needs are presently identified. The natural communities should be protected from artificial alterations. Traffic (foot and vehicle) should be extremely limited on the dunes at all times to prevent trampling of the rare plant species that occur there. Natural processes, including natural disturbances, should be allowed to operate unhindered.

THEREFORE, it is agreed between the parties whose names are affixed below that the Wright Brothers Dunes Natural Area be entered on the official North Carolina Registry of Natural Heritage Areas on the 24 day of August, 2012.

It is understood that this agreement involves no change of title or loss of ownership rights, but simply expresses the sincere intentions of the landowner to refrain from making or permitting changes that alter the natural values for which this area was registered within the boundaries outlined on the attached maps and/or survey descriptions.

It is further understood that neither the Department nor the National Park Service offers any assurances as to the conditions on the tracts involved or for the safety of persons thereon.

Neither party shall incur any liability for any injury to persons or property on the land as a result of this agreement.

These areas are hereby registered for an indefinite period until terminated in writing by either party to the other upon thirty (30) days notice.

By Darrell L. Echols
Darrell L. Echols
Acting Park Superintendent
National Parks Service
NPS-Outer Banks Group
Manteo, NC 27954

By Dee Freeman
Dee Freeman
Secretary
NC Department of Environment & Natural Resources
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

Date: 7/25/12

Date: 8.24.12

Wright Brothers Dunes Registered Heritage Area

Location: Dare County; Kitty Hawk 7.5 minute USGS topographic quad map; within the Wright Brothers National Memorial site on Bodie Island. The primary Natural Areas are found on three portions of the site, surrounding the monument (Map A).

Approximation Acreage: 192.80 acres

Land Use: The area is primarily used by tourists to the Wright Brothers National Memorial visitor's center and monument. An operating airstrip, First Flight Airport, is located in the middle of the property. The natural areas mostly on the periphery of the site serve as a buffer to the facilities and the maintained open areas.

Significance:

1. The dunes at the site host the largest known population in the state of significantly rare maritime pinweed (*Lechea maritima* var. *virginica*). A large population of the NC Threatened sand heather (*Hudsonia tomentosa*) is also one of the largest in the state and occurs at the site.
2. Primarily in the southeastern corner of the property, the distinctive Beach Heather Dune Natural Community (4th Approximation draft) occurs on the low, open dunes.

Description: The center of the Wright Brothers National Memorial is occupied by developed areas, including the memorial structure on top of a large, artificially stabilized dune, the visitor's center, and an airstrip. Substantial natural vegetation patches remain in the southeast corner, the south-central side, and the northwest corner. The natural areas are bordered by developed areas on adjacent private lands.

The natural remnants consist of patchy, low dunes that naturally remain open, surrounded by dense Maritime Evergreen Forest. The open dunes support the distinctive Beach Heather Dune Barren community (4th Approximation draft; treated as part of Dune Grass in the 3rd Approximation). The sparse vegetation includes the largest known populations in North Carolina of the NC Threatened sand heather (*Hudsonia tomentosa*) and Significantly Rare maritime pinweed (*Lechea maritima*), as well as other more common herbaceous species. Sparse, small, spreading live oak (*Quercus virginiana*) and loblolly pine (*Pinus taeda*) are scattered. This community is most extensive in the southeast corner of the site, but small patches are present in other portions. Though small, this is one of the few remaining occurrences of this rare community type that was historically characteristic of the Currituck Banks.

The surrounding Maritime Evergreen Forest is dominated by larger live oaks and loblolly pines, along with common persimmon (*Diospyros virginiana*) and Darlington oak (*Quercus hemisphaerica*). It appears relatively young, and may have grown up in recent years after artificial dune stabilization reduced salt water overwash.

Management recommendations:

No active management needs are presently identified. The natural communities should be protected from artificial alterations. Natural processes, including natural disturbances, should be allowed to operate unhindered. Traffic (foot and vehicle) should be extremely limited on the dunes at all times.

In the area north of the visitor's center are several ditches which have been maintained by the Town of Kill Devil Hills. Ditch maintenance has involved using heavy equipment in a cleared area approximately 15 feet wide along each side of the ditches. Some *Lechea maritima* var. *virginica* occurs within this zone. Preliminary monitoring of this species has shown that plants are able to recover from clearing; however, it is unclear if they will survive indefinitely with repeated clearing. We recommend regular monitoring for this species and other rare species to determine and ensure that impacts are not detrimental to this population. We encourage the National Park Service to pursue ending maintenance of these ditches. However, this pre-existing arrangement is not prohibited by the Registry Agreement.

Wright Brothers Dunes should be designated to the N.C. Registry of Natural Heritage Areas

Map A Wright Brothers Dunes Registered Natural Heritage Area

