December 2011

Alabama Dune Restoration Project

General Project Description

The cities of Gulf Shores and Orange Beach, State of Alabama (Gulf State Park), and the U.S. Fish and Wildlife Service (Bon Secour National Wildlife Refuge) and the Bureau of Land Management (Fort Morgan Beach) form the largest group of coastal land owners along the Alabama Gulf Coast. These owners collectively own and/or manage more than 20 miles of dune habitat. This restoration project would result in the formation of a partnership, the Coastal Alabama Dune Restoration Cooperative (CADRC), to restore natural resources that were injured by the Deepwater Horizon oil spill response efforts.

Dune habitat in Alabama has been affected by the ***Deepwater Horizon*** oil spill, including response efforts. The Trustees propose to restore 55 acres of primary dune habitat by planting native dune vegetation and installing sand fencing. The proposed project will help prevent erosion by restoring a "living shoreline," a coastline protected by plants and natural resources rather than hard structures.

Planting will occur as follows:

- To maximize stabilization and to limit wind erosion plants will be mixed in the following proportions: 70% Sea oats grasses; 20% Panic grasses and smooth cord grasses, and 10% ground cover plants (sea purslane, beach elder, white morning glories and railroad vine), and planted on 18-inch centers.
- All plants will be grown from seeds or cuttings derived from the Alabama or North Florida coast to ensure appropriate genetic stocks are used in the project.
- Slow release fertilizer (osmocote 18-6-12 e.g.) will be used to ensure proper establishment of the plants.
- The plants will be installed 6" deep to ensure that sufficient moisture is available to roots, and properly covered with sand to stabilize and protect the plants.

Sand fencing will occur as follows:

- Protective sand fencing that lines the dune feature and contributes to sand accumulation along the toe of the dunes will be installed for the cities of Orange Beach and Gulf Shores and on Bureau of Land Management lands.

Signage will occur as follows:

- Informative dune restoration signage will be placed on the project area at a rate of 10 to 25 signs per mile to reduce human disturbance of restored areas.
- The dune enhancement serves to stabilize the dune feature and promote dune growth and further increase protection of dune habitat.

Resource Benefits and Relationship to Injury

The goal of this project is to provide early restoration for some of the natural resources that have been injured as a result of the ***Deepwater Horizon*** oil spill, including response efforts. The project will help restore an area of the beach where oiling and the extensive use of all-terrain vehicles and heavy equipment during the response have inhibited plant growth and prevented the natural seaward expansion of the dunes since May 2010.

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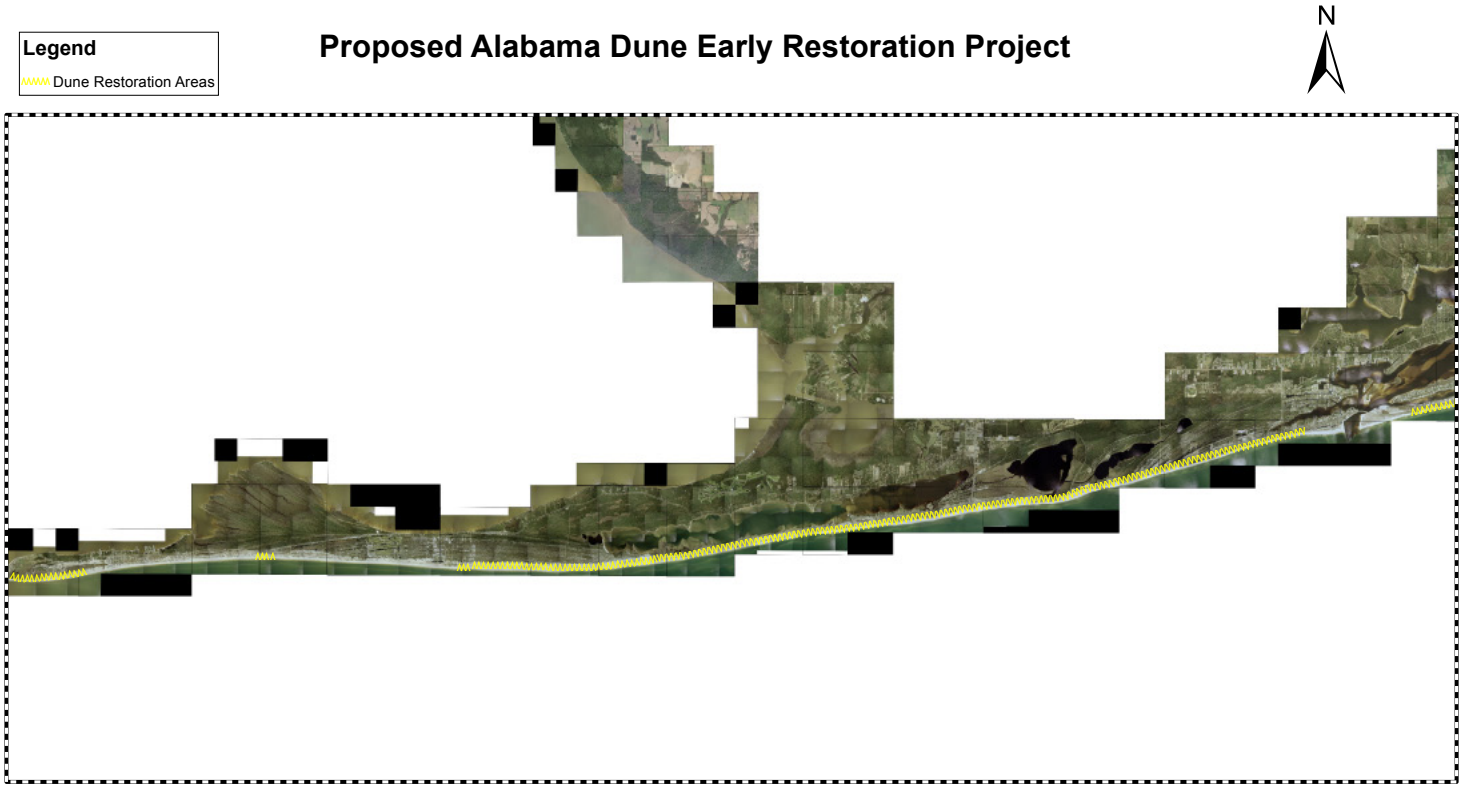
Methods and Results of Offsets Estimation

For the purposes of negotiations of Offsets with BP in accordance with the Framework Agreement, the Trustees used widely accepted methodologies. Habitat Equivalency Analysis was used to estimate Offsets provided by the Alabama Dune Cooperative Restoration Project. Offsets reflect units of discounted service acre years (DSAYs) of primary dune habitat, and would be applied against primary dune habitat along the Alabama coast injured by the Deepwater Horizon Oil Spill as determined by the Trustees' total assessment of injury. In estimating DSAYs, the Trustees considered a number of factors, including, but not limited to, benefits of revegetating primary dune habitat, the time period that it would take for revegetated habitat to provide different levels of ecological benefits, estimated project life span, potential impact of hurricanes and drought, and the ecological benefits of created dune to relative to existing dune habitats that were not affected by the oil spill. Total estimated Offset for the Alabama Dune Cooperative Restoration Project is 240 DSAYs.

Estimated cost

$1,145,976

For more information contact:

Jereme Phillips, Refuge Manager, Bon Secour National Wildlife Refuge, jereme_phillips@fws.gov, 251-540-7720.

Proposed Alabama Dune Early Restoration Project