

**United States Department of the Interior
Bureau of Land Management**



**Arcata Field Office
1695 Heindon Rd
Arcata, CA 95521
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**2011 Expenditure Report
Stuyvesant-Kure Oil Spill Settlement Fund Trustee Council**



Introduction

This report provides a general overview of the Mike Thompson South Spit Humboldt Bay Wildlife Area (South Spit), and describes projects completed with funds provided by Stuyvesant-Kure Oil Spill Settlement Fund Trustee Council in 2011.

The Stuyvesant/Humboldt Coast Oil Spill Final Damage Assessment and Restoration Plan (DARP) (CDFG 2007) provided funding in 2010 for continued restoration and maintenance activities at South Spit. Portions of the work were not completed by the end of calendar year 2010. The work continued into 2011 when nearly all the funded work was completed. The purpose of the restoration and maintenance activities is enhancement of the nesting area for the western snowy plover (*Charadrius alexandrinus nivosus*). The nesting habitat enhancement effort included oyster shell placement, vegetation management, predator deterrence, and feral cat trapping.

In the time since the BLM has managed South Spit approximately 51 acres of beach habitat has been re-contoured and cleared of European beachgrass to facilitate SNPL breeding. The two restoration areas, the Habitat Restoration Area (HRA) and Foredune Restoration Area (FRA), are bound by the Pacific Ocean to the west and beachgrass covered dunes on the other three sides. As a result of the close proximity of the restoration area and beachgrass, the beachgrass is controlled but not eradicated from the restoration areas.

Following restoration efforts in 2004 which created the HRA, surveys documented the first successfully hatched nest on the South Spit since 1999 (BLM 2010). Successful nests with fledging chicks were documented yearly from 2005-2008, however no nests were initiated during the 2009 breeding season. One nest was initiated in 2010 and hatched three chicks but none of the chicks survived. 2011 saw no nesting activity on the South Spit and again the entire Recovery Unit fared poorly (Colwell et al. 2011).

Background

Through a Deed of Conservation Easement, the State of California conveyed to the Bureau of Land Management (BLM) an “interest” in and the “right” to manage the South Spit in all aspects of its use in perpetuity. The purpose of the Easement is “*to preserve, protect, enhance, and restore the conservation values of the Property; to provide dispersed recreation for the general public; and to prevent any use of the property that will significantly impair or interfere with such conservation values*” (BLM 2007). The South Spit was also designated a State of California *Wildlife Management Area* pursuant to California Department of Fish and Game Code, Chapter 5, Article 2, Sections 1525-1530. This designation is used for management purposes to protect and enhance habitat for wildlife species, and to provide the public with wildlife-related and other recreational uses.

The South Spit is a 4.4 mile long, mostly sandy stretch of land that separates the southern portion of Humboldt Bay from the Pacific Ocean. The northern tip of South Spit is the entrance into Humboldt Bay and the southern end is Table Bluff. The approximately 800 acre South Spit is

home to numerous animal species throughout the year. A small resident herd of black-tailed deer (*Odocoileus hemionus*) is often viewed from South Spit Road which bisects the area. Mammals such as striped skunks (*Mephitis mephitis*), gray fox (*Urocyon cinereoargenteus*), short-tailed weasels (*Mustela erminea*) California ground squirrels (*Spermophilus beecheyi*), raccoons (*Procyon lotor*), and feral cats (*Felis catus*) are often observed. Short-tailed weasels (*Mustela erminea*) are sighted several times each year. Song birds, shorebirds, raptors, and ravens (*Corvus corax*) also frequent the area.

Most of the South Spit vegetation is dominated by non-native species such as European beachgrass (*Ammophila arenaria*), yellow bush lupine (*Lupinus arboreus*), and ice plant (*Carpobrotus edulis*). Portions of the area are covered in annual grasses and low lying areas are seasonally flooded and vegetation consists of medium sized rushes (*Juncas sp.*). A few wind stunted Monterey Pines can also be found in the area. The BLM has been steadily restoring the dunes starting at the County Park and working north. The restoration effort has been entirely hand pulling based and requires multiple treatments of the same area. The main benefactors of the restoration effort have been the federally endangered plants Humboldt Bay wallflower (*Erysimum menziesii*) and beach layia (*Layia carnosa*). Eventually the restoration effort will reach areas of the South Spit where western snowy plovers (SNPL) have recently nested.

Most of the recreational use is concentrated at the County Park at the south end and the jetty at the north end. The jetty is a popular fishing area for various rock fish. The bay (east) side of the road is a popular hunting area for black brant (*Branta bernicla*).

During the SNPL breeding season (March 1st –September 15th), public access is not allowed in the HRA. The 0.5 mile of wave slope in front of the HRA is also closed to vehicles during the breeding season. The public is allowed to walk in the FRA during the breeding season with leashed dogs. The public is also allowed to drive on the waveslope in front of the FRA with a speed limit of 15 mph. The locations of the HRA and FRA are illustrated below in Figure 1.

Figure 1. Snowy plover restoration areas on the South Spit of Humboldt Bay, California.



Expenditure of Funds

The Trustee Council provided funds for the purchase and application of 600 cubic yards of oyster shells during the 2010 funding cycle. Oyster shells have been used successfully at other sites in California, Oregon, and Washington to increase nesting activity and nest success rates (USFWS 2009, 2010 unpublished data). The oyster shells are thought to provide cryptic cover SNPL use to conceal eggs and themselves. The purchase contract for the shells was established

and delivery of the shells began in the fall of 2010. Shells were delivered 40 cubic yards per load and stockpiled at the jetty near the project area. The supplier was able to deliver one or two loads per week. The HRA was bulldozed in December 2010 to remove European beachgrass and prepare the area for application of the oyster shells prior to the start of the SNPL breeding season. Approximately 440 cubic yards of shells had been delivered by late February when the contractor arrived to apply the shells. Approximately 2.2 acres of the HRA was covered in shells during the 2010 breeding season after re-consulting with the Arcata Fish and Wildlife Office. The additional shell purchase was expected to create a total of 12 acres of shell area in the HRA. The 440 cubic yards delivered prior to the breeding season resulted in expanding the shell area to approximately 10.5 acres, an increase of approximately 8.3 acres. Delivery of the remaining 160 cubic yards of shells occurred after the start of the breeding season and remains stockpiled at the Jetty. They will be used to increase oyster shell coverage to the proposed 12 acres. The shells have been applied in six plots separated by bare sand. The beach narrows in areas which resulted in six plots totaling approximately 10.5 acres instead of the proposed 12 acres. The remaining shells will be used to create a new plot or expand the southern plot.

Figure 2. A manure spreader towed behind a farm tractor was used to create alternating plots of oyster shells and bare sand.



Twelve live traps purchased in 2010 were deployed in 2011 for trapping feral cats. The traps were operated for three nights for a total of 36 trap nights. No animals were captured. We are evaluating our methods to increase capture success in the future.

Bird spikes (vertical wires that prevent birds from landing and perching) were again placed on signs, stumps, and other potential avian predator perches near the HRA.

The California Conservation Corps was contracted to remove potential avian predator perches from the HRA. They worked at the north end of the HRA removing bush lupine and beach grass. Approximate 2 acres were treated by hand pulling and using hand tools.

NEPA and ESA Requirements

Oyster shell application was included in the environmental assessment for the creation of the HRA (CA-330-03-011). The February 13, 2004 Letter of Concurrence resulting from the HRA project listed oyster shell application as a management option.

The South Spit Management Plan includes management of non-native plant species. Categorical Exclusions were prepared and finalized to address the installation of bird spikes (DOI-BLM-CA-N030-2010-0013) and feral cat trapping (DOI-BLM-CA-N030-2010-0012).

2012 Reporting

An annual progress report will be prepared and submitted to the Stuyvesant Oil Spill Trustee Council by December 31, 2012. The report will summarize all activities implemented with the allocated funds.

References

California Department of Fish and Game. 2007. Stuyvesant/Humboldt Coast Oil Spill Final Damage Assessment and Restoration Plan/Environmental Assessment. California Department of Fish and Game, California State Lands Commission and U.S. Fish and Wildlife Service. Sacramento, CA. 86pp.

Colwell, M.A, Luke J. Eberhart-Phillips, R.R. LeValley, S.E. McAllister, Allie Patrick, W.J. Pearson, and S.A. Peterson. 2011. Final Report: 2011 Snowy Plover Breeding in Coastal Northern California, Recovery Unit 2. Department of Wildlife, Humboldt State University, Arcata, CA and Mad River Biologists, 417 2nd Street, Suite 201, Eureka, CA 95501.

Bureau of Land Management. 2007. South Spit Management Plan. Arcata, CA.

Bureau of Land Management. 2010. Unpublished data. Arcata, CA.

U.S. Fish and Wildlife Service. 2009. Western Snowy Plover Numbers, Nesting Success, Fledging Success and Avian Predator Surveys in the San Francisco Bay, 2009. San Francisco Bay Bird Observatory and Don Edwards San Francisco Bay National Wildlife Refuge. Newark, CA.

U.S. Fish and Wildlife Service. 2010. Habitat Restoration Information for the Washington Coast. Willapa National Wildlife Refuge. Ilwaco, WA.