

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



**Arcata Field Office  
1695 Heindon Rd  
Arcata, CA 95521  
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**2010 Expenditure Report  
2011 Funding Request  
Stuyvesant-Kure Oil Spill Settlement Fund Trustee Council**



## ***Introduction***

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. The purpose of the restoration and maintenance activities is enhancement of the nesting area for the western snowy plover (*Charadrius alexandrinus nivosus*). The enhancement effort was expanded in 2010 to include oyster shell placement, predator deterrence and feral cat trapping.

This report provides a general overview of the newly renamed Mike Thompson South Spit Humboldt Bay Wildlife Area, henceforth South Spit, and describes projects completed with funds provided for 2010 funds and an updated 2011 and 2012 funding proposal.

## ***Background***



The South Spit is a long, mostly sandy stretch of the land that extends north east from Table Bluff at the southern boundary of Humboldt Bay in Humboldt County, CA. At the northern tip of South Spit is the entrance into Humboldt Bay. At approximately 4.5 miles long and approximately 800 acres, the South Spit is home to numerous plants and 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*), California ground squirrels (*Spermophilus beecheyi*), raccoons (*Procyon lotor*), and feral cats (*Felis catus*) are often observed. Song birds, shorebirds, raptors, and ravens (*Corvus corax*) also frequent the area.

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 western snowy plover (SNPL) breeding season (March 1<sup>st</sup> –September 15<sup>th</sup>), public access is not allowed in the Habitat Restoration Area (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 Foredune Restoration Area (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.

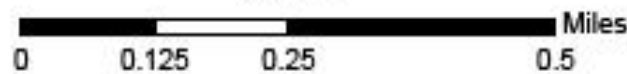


**Plover Restoration Area**

-  Habitat Restoration Area
-  Foredune Restoration Area



1:12,000



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.

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 (*Ammophila arenaria*) to facilitate SNPL breeding. The two restoration areas, the HRA and FRA, are bound by the Pacific Ocean to the west and beachgrass covered dunes on the other three sides. As a result, the beachgrass is controlled but not eradicated from the restoration areas.

The staff botanist has been working with our partners for over a decade to eradicate weeds west of South Spit Road starting at the County Park at the south end of the spit. The project is slowly moving northward toward the SNPL restoration areas but will take years for the hand pulling project to work up to the SNPL restoration areas. When that project reaches the HRA and FRA mechanical treatment may no longer be necessary.

Following restoration efforts in 2004 which created the HRA, surveys documented the first successfully hatched nest on the South Spit since 1999 (USDI 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.

The Snowy Plover Recovery Plan (U.S. Fish and Wildlife Service 2007) identifies nest sites within Recovery Unit 2 (RU2) including South Spit. The Recovery Plan describes the delisting objective for the RU2 subpopulation as 150 breeding adults with a goal of 30 breeding adults at the South Spit. The Recovery Plan describes actions needed to achieve delisting criteria which includes increasing available nesting and wintering habitat. For South Spit to reach the goal of 30 breeding adults would require a nest density of one nest per 3.4 acres over the existing restoration areas. Overall, RU2 continues to be well under the subpopulation objective (Colwell et al. 2009). The recovery unit has been trending down recently with a dramatic decline during the 2009 breeding season. The 2010 season was better than 2009 but still down from 2008 and prior years (Colwell et al. 2010). Thirty-one breeding individuals were present during the 2010 breeding season, a 61 percent increase over the 2009 season, but still below the 10–year average of 48.5 breeding adults.

### ***Expenditure of 2010 Funds***

Funds provided for SNPL restoration on the South Spit were used to purchase and deliver 160 cubic yards of oyster shells to the South Spit. Approximately 2.2 acres of the HRA were covered

with the oyster shells. The purchase of another 440 yards of oyster shell is complete with delivery expected to begin in January, 2011.

In December, beachgrass in the 24 acre HRA was re-treated using bulldozers. The gently sloping contour of the beach was maintained as the beachgrass was scraped off. For comparison the photo in figure 2, below, was taken in the same location as the photo on the cover.

Figure 2. Bulldozers were used to clear the HRA of beachgrass.



Twelve live traps were purchased for trapping feral cats. The traps were operated for six nights for a total of 72 trap nights. One striped skunk was captured and released while no cats were captured. Trapping will resume in the spring.

Bird spikes (100 linear feet) were obtained and placed on signs, stumps, and other potential avian predator perches near the HRA.

A requisition has been submitted to obligate funds for selective removal of beachgrass and bush lupine (*Lupinus arboreus*) to reduce the perch availability to avian predators. The work will take place in the late winter or early spring and can be done during the nesting season if necessary.

### ***Request for 2011 Funds:***

The BLM is again requesting additional funding to manage the HRA and FRA. Funds are needed to continue beachgrass control, hire staff, and provide educational materials to the public. The BLM also requests additional funds for follow-up work to reduce perches created by bush lupine and beachgrass.

### ***Educational Needs:***

Seasonal park aids (docents) have been hired annually to educate and inform the public of regulations regarding SNPL at the South Spit. The docents have proven to be extremely effective when talking to recreationists regarding the effects of their actions on SNPL and their habitat. Docents also provide a consistent and visible presence well above what law enforcement can provide. Docents (GS-5) cost \$16.50 per hour resulting in a monthly cost of \$2,640 each. Two docents for 5 months (800 hours each) will cost about \$26,400 per season.

The Western Snowy Plover Outreach Group (which includes BLM, California State Parks, Friends of the Dunes, Audubon, U.S. Fish and Wildlife Service, and Humboldt State University) has proposed producing a map of northern Humboldt County beaches focusing on dogs and possibly horses. The map will provide dog and horse owners with a convenient catalog containing the seasonal restrictions on dogs and horses at each beach. The map will also provide dog and horse owners with recreation opportunities where they are not restricted by SNPL breeding activity, such as the bay side of South Spit. The project cost for designing, producing and printing the map is estimated at \$10,000.

### ***Maintenance:***

The BLM is seeking additional funds for the continued maintenance of the HRA and FRA. The U.S. Fish and Wildlife Service (USFWS) has not supported the current management of the FRA due to allowing public access and vehicles to drive on the wave slope. The BLM is confident the FRA is a viable breeding area and will continue to maintain the area as needed. The BLM has demonstrated that between the law enforcement and docent presence at South Spit there are relatively few violations. The most common violation, by a wide margin, is dogs off leash which is not allowed in the HRA or the FRA during the breeding season. There are also infrequent vehicle violations in both the HRA and the FRA.

The use of heavy equipment has proven more cost effective than hand pulling to re-treat beachgrass. While we have relied on bulldozers up to this point, discing or plowing may also be good options. After application of oyster shells, discing and or plowing will be used to control beachgrass while keeping the oyster shells in place. While the methods are different, the cost of the heavy equipment is essentially unchanged. Large pieces of equipment cost approximately \$175–250 per hour. Cost is expected to be around \$400 per acre x 24 acres = \$9,600 per year for the HRA. The cost to treat the FRA is approximately the same. Mobilizing heavy equipment costs approximately \$2,000 per year to drop off and pick up the equipment depending on how many machines are used.

***Predator Management:***

Additional work around the HRA and FRA is proposed to re-treat beachgrass re-growth and continue reducing perch availability. The 2011 funds would be used to continue the work started in 2010. The cost for continuing the project is \$5,000.

No additional funds are requested for cat trapping supplies or bird spikes.

***Oyster Shell Application:***

To date, the BLM has 2.2 acres in oyster shells and has arranged for 10 more acres prior to the start of the 2011 breeding season.

The oyster shells were placed at the north end of the HRA during June 2010 and within a week a pair of SNPL was detected in the shells. Approximately one week after arriving, the pair nested in the southern end of the HRA well out of the oyster shells.

If the South Spit oysters shells are successfully attracting breeding SNPL and fledging chicks are found in those sites the BLM intends to cover the remaining 12 acres of the HRA in oyster shells.

Coast Seafoods is the largest local producer and sends their oysters to Washington State. While not a major hurdle, it will require trucking in oyster shells from another state. Assuming that such a project would entail hauling shells from Washington, a round trip distance of approximately 800 miles, about 16 hours of trucking would be required. Current trucking rates are about \$120.00 per hour, resulting in a transportation cost of approximately \$1,920.00 per load. A loader with a 3 cubic yard capacity would require about 4.4 hours (one 3-yard load per 20 minutes) per deliver each 40 yard load from the road to the HRA, a cost of about \$562.50 per load. If available, a 10-yard manure spreader can spread about 10 yards per hour at a lower hourly rate.

***Funding Request Summary***

<b>ACTIVITY</b>	<b>2011 COSTS</b>	<b>2012 COSTS</b>	<b>Total</b>
<b>HRA Maintenance</b>			
Delivery and pick up of heavy equipment	2,000	2,000	4,000
24 acres X 2 hours per acre X \$200 hour	9,600	9,600	19,200
<b>FRA Maintenance</b>			
24 acres X 2 hours per acre X \$200 hour	9,600	9,600	19,200
<b>Docents</b>			
2 docents X \$16.50hr X 800 hours (5 months)	26,400	26,400	52,800
<b>Educational Materials</b>			
Design, production and printing of a dogs and beaches map	10,000	0	10,000
<b>Oyster Shell Application</b>			
Ship 40 yards oyster shells to South Spit, free oyster shells, 16hrs trucking X \$120.00 X 12 loads	23,040	0	23,040
Apply oyster shells to HRA @ 9 cubic yards per hour X 54 hours X \$125hr	6,750	0	6,750
<b>Predator Management</b>			
Issue vegetation control contract	5,000	0	5,000
<b>10% Contingency</b>	9,239	4,760	13,999
<b>PROJECTED TOTAL PROJECT COSTS</b>	<b>101,629</b>	<b>52,360</b>	<b>153,989</b>

***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 list 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).

### ***2011 Reporting***

An annual progress report will be prepared and submitted to the Stuyvesant Oil Spill Trustee Council by December 31, 2011. The report will summarize all activities implemented with the allocated funds.

### ***References***

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