

STATEMENT OF WORK  
FOR  
TORCH OIL SPILL SNOWY PLOVER HABITAT RESTORATION  
YEARS 1 THROUGH 5  
JON IGN010RN  
AT  
VANDENBERG AFB, CA

**Project Description**

The Western Snowy Plover, dune restoration area extends from the Santa Ynez River mouth southward approximately 0.62 mile to a point approximately 164 feet south of the public access trail at Surf Station in Area D. This project would remove non-native plants which have significantly reduced available nesting habitat. The area contains invasive species that, when restored, would create large areas free of invasive species, or join other existing, relatively undisturbed, dune vegetation types, to create a large continuous area of available breeding habitat. The restoration area comprises approximately 52 acres of snowy plover breeding habitat. The infestation of beachgrass in this area covers approximately 22 acres. Iceplant is found in isolated patches (less than one acre) throughout this section and in dense mats at the southern end. Acacia covers approximately six acres. The project would also restore native vegetation to the treated areas especially associated with special status plant species such as Beach layia. The goal of the restoration project over five years is to achieve 95 percent eradication of beachgrass, iceplant, and other non-native plants over the project area, and successfully establish self-sustaining native vegetation over 15 percent of the same area. A report will be submitted summarizing the results of the weed removal and planting. The following are activities to be completed for each restoration year:

*YEAR 1 (2008-2009)*

- Survey and flagging special status plant species – October to November
- Acacia removal – October to November
- Prescribed fire activities – October to November
- Herbicide treatment – October to February
- Seed collection and propagation – March to September
- Reporting – as described below

*YEAR 2 (2009-2010)*

- Survey and flagging special status plant species - October
- Herbicide treatment – October to February
- Monitoring of re-infestation and native species – October to February
- Revegetation– October to February
- Seed collection and propagation – March to September

- Reporting – as described below

#### *YEAR 3 (2010-2011)*

- Survey and flagging special status plant species - October
- Herbicide treatment – October to February
- Dune Recontouring - October
- Monitoring of re-infestation and native species – October to February
- Revegetation– October to February
- Seed collection and propagation – March to September
- Reporting – as described below

#### *YEAR 4 (2011-2012)*

- Survey and flagging special status plant species - October
- Herbicide treatment – October to February
- Monitoring of re-infestation and native species – October to February
- Revegetation– October to February
- Seed collection and propagation – March to September
- Reporting – as described below

#### *YEAR 5 (2013-2014)*

- Survey and flagging special status plant species - October
- Herbicide treatment – October to February
- Monitoring of re-infestation and native species – October to February
- Revegetation– October to February
- Reporting – as described below

### **Tasking**

**Plan of Action:** This project site would be accessed during periods of low tides through Wall Beach, when the sand bar at the Santa Ynez River is still in place. Equipment would access would occur by driving south below the high tide line from the Wall Beach parking lot, approximately one mile north of the project site. The Wall Beach parking lot would also serve as an equipment staging area for this site.

*Survey and flagging special status plant species* - Qualified biologists will conduct an initial survey for special status plants in Year 1. From Oct to Feb flagging of special status plants in areas selected for restoration/terrestrial wildlife surveys to note the presence of special status species would occur.

*Acacia removal* - Acacia would be mechanically removed. A steel tracked backhoe type vehicle with an articulating arm would be used to fell acacia trees and process material into smaller pieces. The smaller material would be hand raked into piles and left in place until fire treatment can be applied to eliminate the dead biomass. Fire treatment would be used to eliminate the aboveground biomass of large beachgrass (if any) infestations and acacia material. Chemical treatments would be used to eliminate isolated iceplant and beachgrass infestations, and beachgrass sprouts following fire treatment. Only DOD-approved herbicides will be used and applied as specified on non-native plants only.

*Prescribed fire activities* – Assistance in coordination with Vandenberg botanist and Hot Shots Crew will include strategic planning, designation of areas to be burned, and support of permitting activities as needed.

*Herbicide treatment* – Small patches of beachgrass infestations, windward faces of beachgrass ridges, and beachgrass sprouts after prescribed fire would be treated. Iceplant, acacia stumps and samplings would be treated. Rodeo would be the herbicide used and where applicable, the surfactant Agridex would be combined and a biodegradable marker dyed applied. Application would use a backpack sprayer or ATV mounted spray equipment avoiding native plants. Herbicides will only be used on large areas with less than 40% native plant cover.

*Dune Recontouring* - Approximately 28 acres of dune habitat would be contoured. A bulldozer would be used to move sand within the selected project area. All excess sand would be deposited within the upper portion of the tidal zone. Wave action and long shore current flow is expected to redistribute the sand along the beach. Following dune contouring, this area would be monitored and revegetated as needed where the seed bank of all native and special status species is assumed to have been removed during treatment.

*Monitoring of re-infestation and native species* – Monitoring will involve a maximum of eight photo points in key locations. Mapping areas of non-native plant cover and native cover prior to treatment would be accomplished to include estimates of coverage. Each year's goal is to reduce cover of non-native plants to a maximum of 50 percent of the year's initial non-native cover such that 95 percent eradication may be accomplished by the end of Year 5. Each year's goal for native plants is to achieve a minimum increase of five percent of the years initial cover such that successful establishment of self-sustaining native vegetation of over 15 percent may be accomplished by the end of Year 5. Monitoring strategies and goals may be adapted to best accommodate conditions in order to attain the Year 5 goals.

*Revegetation* – Intentional planting of native plants would be implemented in areas with dune contouring occur, where special status plant species may occur due to windward sand movement, or where sand stabilization is immediately needed to prevent cultural resource site exposure. Native seed would be collected prior to the start of eradication within the area. Revegetation includes containerized planting

and direct seeding of the following plants: *Abronia maritima* (beach sand verbena), *Ambrosia chamissonis* (beach bur), *Camissonia cheiranthifolia* (beach evening primrose), *Atriplex californica* (California saltbush), *Atriplex leucophylla* (beach saltbush), and *Malicothrix incana* (dandelion). Planting would create habitat similar in composition to areas adjacent snowy plover habitat.

*Seed collection and propagation* - From 1 Mar to 30 Sept, follow-up surveys for special status plants will be conducted and seeds will be collected where heavy equipment will be used.

**Herbicide/Pesticide use Requirement:** For herbicide management, all herbicides applied are to comply with the Armed Forces Pest Management Board (AFPMB) list of Approved herbicides and a list of those herbicides requested to be used must be submitted to the entomology shop prior to application or at the beginning of the contract. If another herbicide is preferred, AFSPC Form 38 is to be provided prior to application. All herbicides to be applied are to be provided to the VAFB pest program manager 15 calendar days prior to application. Any non-standard herbicides need to have command approval prior to use and will require a longer approval period.

Only certified personnel shall apply herbicides as described under Special Conditions, Qualified personnel to perform contract tasks section below.

Monthly herbicide use reports will be submitted to VAFB herbicide manager at the Entomology shop and CEVNN botanist/biologist 5 calendar days after the last herbicide application of the month. Quarterly reports will document the amount of sensitive species areas treated as specified in coordination with CEVNN.

**Site Visit and Data Acquisition:** Qualified biologists familiar with dune restoration and the flora and fauna of the area will be performing the site visits to determine conditions and assess retreatments and required plantings for the following year and 5-year period. The contractors will meet with the base botanist and wildlife biologist to assess the site.

**Provide Expected Outcome:** Surveys, GIS maps, and a biannual and annual report will be produced based on the *Plan for the Removal of Selected Invasive Plants from Western Snowy Plover Habitat at Vandenberg Air Force Base* (Restoration Plan) and updated documents. Improvement of snowy plover habitat and a reduction on invasive plants is expected in compliance with the Restoration Plan.

Expected deliverables include: Monthly reports as described above. A draft report (2 hard copies + 1 electronic CD copy) provided 01 May; following receipt of comments from 30 CES/CEVNN a final report will be provided (3 hard copies + 2 electronic CD copies) with GIS digital maps (2 electronic CD copies).

**Deliverable format(s):** GIS data will be formatted with metadata attribute fields specified by the CEVNN botanist and CES Planning to provide consistency with all submitted GIS plant species coverage and to provide data that is accurate, usable, and effective for endangered species management and recovery analysis. Hard copies and electronic copies of the draft and final report are specified below.

### Milestones

<b>ECD</b>	<b>Action (include deliverables)</b>	<b>OPR (Last name /Office symbol)</b>
<b>01 Aug 2009</b>	<b>Torch Oil Spill Snowy Plover Habitat Restoration 2008 Draft survey report Final survey report GIS digital map coverage</b>	<b>Lum/CEVNN</b>

### Deliverables

<b>Deliverable</b>	<b># hard copies</b>	<b># e-copies (include format types)</b>	<b>Estimated pages/layers</b>	<b>Date Due or Days after award</b>
<b>Site Visit Personnel</b>				<b>Within 30 days after award</b>
<b>Herbicide Monthly Reports (as needed)</b>	<b>1</b>	<b>1</b>	<b>10 max pgs</b>	<b>5 calendar days after last day of herbicide application for the month</b>
<b>Herbicide Quarterly Reports</b>	<b>1</b>	<b>1</b>	<b>10 max pgs</b>	<b>Jan, Apr, Jul, Oct</b>
<b>Draft Document Title</b>	<b>2</b>	<b>1</b>	<b>30 max pgs</b>	<b>10-11 months after award</b>
<b>Government Review</b>				<i>30-60 days</i>
<b>Final Document Title</b>	<b>3</b>	<b>2</b>	<b>40 max pgs</b>	<b>30 after receipt of comments</b>
<b>GIS data</b>		<b>2 CD copies GIS coverage for each species</b>	<b>3 layers (1 per species)</b>	<b>With Final</b>

### Points of Contact

<b>Name</b>	<b>Organization</b>	<b>Mailing addresses</b>	<b>Phone number</b>	<b>Fax number</b>	<b>E-mail address</b>
<b>Luanne Lum</b>	<b>CEVNN</b>		<b>805-606-</b>		<b>Luanne.lum@vandenberg.af.mil</b>

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## Special Conditions

**Government furnished information/materials.** CEVNN will provide any existing information and metadata format for GIS coverage.

**Qualified personnel to perform contract tasks.** The contractor shall ensure that only qualified, competent personnel carry out the tasks outlined in this SOW. Competent is defined as registered professional or, where registration is not applicable, trained and certified with a degree in a related field of study. Exceptions are administrative and support personnel who participate in document publication. Certified personnel performing herbicide application are:

REGINA BUTALA, SRS Technologies, QL 39318,

MORGAN BALL, SRS Technologies, QC 27578,

GREGORY WALLIS, SRS Technologies, QL 37831

Any additional certified applicators will submit their certification information and coordinate with the VAFB Pest Manager.

**All deliverables are USAF property.** All materials gathered and/or developed in the performance of these tasks listed shall be returned to and become property of the AF; and shall not be used and/or distributed by the contractor without specific written permission of the Project Manager. Certificate copies are to be provided to the Pest manager at the beginning of the contract and with every renewal.

**Deliverable Formats.** All electronic documents are to be in Microsoft Office (or whatever format is compatible with installation IT system). All documents, including photographs and maps, are to be dated. Final electronic deliverables are to be in MS Word (\*.doc) and Adobe Acrobat (\*.pdf), unless otherwise specified.

### Data Standards.

**GeoSpatial Data. Coordinated with CEVNN and Base Planning.**

**Public disclosure.** Neither the contractor nor staff shall give news releases or conduct media interviews concerning the work performed or results thereof. All information for public release will be released by the installation Public Affairs Office (PAO); all requests for information, including Freedom of Information Act, shall be directed to the PAO and installation project manager.

### Period of Performance

All tasks must be completed over a period of five years.

## APPENDIX A

### Quarterly Invasive Plants Reports For all Projects Requiring Invasive Plants Removal

- Report due dates for:

Quarter 1     Jan 5  
Quarter 2     April 5  
Quarter 3     July 5  
Quarter 4     October 5

- Quarterly reports for Quarters 1, 2, & 3 will include for each quarter:

1. Total acres of invasive species controlled.
2. Total acres within a T&E species habitat (of #1).
3. Total acres within a wetland habitat (of #1).
4. How were they controlled: mowed, pulled, sprayed, burned, biocontrol, other (specify)?
5. List by invasive species, the area controlled and what needs to be done to control.

- Quarterly reports for Quarter 4 will include:

1. Numbers 1-5 above for the 4<sup>th</sup> Quarter.
2. List by threatened or endangered species for the year: Method of removal and total acres treated by that method. Example:
  - Lompoc yerba santa, manual removal of pampas grass, 1 acre
  - Lompoc yerba santa, chemical removal of pampas grass, 5 acres
  - Western snowy plover, manual removal of European beachgrass, 2 acres

### Monthly Invasive Plants Reports

Include the following per location:

DATE,  
LOCATION/Site  
OPERATION TYPE,  
TOTAL UNITS TREATED (ACRE),  
TARGET PEST,  
APPLICATOR'S INITIALS,  
LABOR TIME hr,  
TRADE NAME (PRODUCT),  
EPA NUMBER,  
CONCENTRATE AMOUNT (gallons),  
TOTAL AMT OF APPLIED PRODUCT (gallons)