

STATEMENT OF WORK  
**TORCH OIL SPILL SNOWY PLOVER HABITAT RESTORATION**  
PHASE 4  
**JON IGN010RN**  
VANDENBERG AFB, CA  
30 January 2014

**Project Description**

The Torch restoration area extends along the coastal dunes 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 (Area D). The restoration area comprises approximately 52 acres and 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 contoured areas. The goal of the restoration project 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. Established photo points will document and monitor progress.

This project in Phase 4 would follow-up with herbicide treatment of non-native iceplant, beachgrass, and acacia which have significantly reduced available nesting habitat for the Western snowy plover. Mechanical contouring of dunes shall occur where the remaining dune is two feet or higher than the adjacent intertidal flats to create dune structures optimal for snowy plover breeding habitat. Heavy equipment shall 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. Intentional revegetation shall be implemented in areas where dune contouring has occurred, as the seed bank of most native and special status species would be removed or buried too deep for proper germination to occur.

Revegetation techniques should include containerized stock planting and direct seeding. Native plant species that should be used in intentional revegetation efforts are:

Dunedelion (*Malacothrix incana*)  
Surf thistle (*Cirsium rhotophilum*)  
Beach spectacle pod (*Dithyrea maritima*)  
Giant coreopsis (*Coreopsis gigantea*)  
Dudleya (*Dudleya* sp.)

Native seed shall be collected prior to the start of dune contouring within the restoration site and surrounding areas.

Deliverables include monthly herbicide use reports, quarterly reports of activities and funds expended for the quarter and cumulatively, and a final report summarizing the results of the invasive species removal, planting, and restoration tasks including GIS data. The following are activities to be completed for Phase 4:

#### *PHASE 4 (2014-15)*

- Native plant salvage and storage – February 2014
- Seed collection and propagation – February 2014 to January 2015
- Dune Recontouring – February 2014
- Revegetation – October 2014
- Herbicide treatment – October 2014 – January 2015
- Monitoring of re-infestation and native species – February 2014 to January 2015
- Reporting – as described below and in Appendix A

#### **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, at the railroad tracks with railroad coordination, or at the Surf Beach station in coordination with the railroad. Equipment access from Wall Beach would occur by driving south below the high tide line from the Wall Beach parking lot, located approximately one mile north of the project site. The Wall Beach parking lot would also serve as an equipment staging area for this site. Access via Ocean Beach park is no longer feasible with an ATV but may be accessed by foot. As a last option, coordination with Vandenberg staff and Southern Pacific Railroad may be necessary for access at Surf Station.

*Native plant salvage and storage* – In February 2014, coreopsis and dudleya will be collected within the restoration area prior to dune re-contouring. Salvaged plants will be kept in a suitable location.

*Seed collection and propagation* - From February 2014 to January 2015, native seeds will be collected where heavy equipment will be used or in nearby areas. Seeds shall be cleaned as necessary and appropriately stored for use. Propagation may be necessary depending on conditions of up to 1000 seedlings.

*Dune Re-contouring* – In February 2014 approximately 28 acres of dune habitat would be contoured. Heavy equipment 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.

*Revegetation* – Intentional planting of native plants would be implemented in October 2014 in areas where dune contouring and/or special status plant species occur. Native seed would be collected and revegetation efforts would include 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). The area will be monitored to evaluate strategic areas needed for planting as the season progresses after contouring. Planting would create habitat similar in composition to areas adjacent snowy plover habitat where there is no natural recruitment or where it would be needed for stabilization purposes.

*Herbicide treatment* – Herbicide treatment will occur from October 2014 to January 2015. 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. Only DOD-approved herbicides will be used and applied as specified targeted on non-native plants.

Small patches of European beachgrass infestations and beachgrass sprouts would be treated as necessary with Imazapyr. Application of Polaris at 1% Imazapyr will be used with Dyne-Amic which is a methylated seed oil surfactant. Imazapyr has been found to more effectively target European beach grass rhizomes so that no live material will be present. Iceplant, acacia stumps, and exotic invasives other than European beachgrass would be treated with Rodeo. Where applicable, the surfactant Agridex would be combined and a biodegradable marker dyed applied.

*Monitoring of re-infestation and native species* – Monitoring of re-infestation and native species will be conducted February 2014 to January 2015 and 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 Phase 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 Phase 5. Monitoring strategies and goals may be adapted to best accommodate conditions in order to attain the Phase 5 goals.

**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 30 CES/CEIEA five calendar days after the last herbicide application of the month. Request contract use DD Form 1532 or approved state reporting form. A Final Report will document the amount of sensitive species areas treated during Phase 4 as specified in coordination with CEIEA. Quarterly herbicide reports will not be required under this contract.

**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 retreatment and required plantings. The contractors will meet with the 30 CES/CEIEA Project Manager 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 December 2014; following receipt of comments from 30 CES/CEIEA a final report will be provided (2 hard copies + 1 electronic CD copy) with GIS digital maps (1 electronic CD copy).

**Deliverable format(s):** GIS data will be formatted with metadata attribute fields specified by 30 CES/CEIEA 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.

**Deliverables**

<b>Deliverable</b>	<b># hard copies</b>	<b># e-copies</b>	<b>Estimated pages/layers</b>	<b>Date Due or Daysafter award</b>
Site Visit Personnel				Within 30 days afteraward

Herbicide Monthly Reports (as needed)	1	1	10 max pgs	5 calendar days after last day of herbicide application for the month
Draft Report	2	1	30 max pgs	01 December 2014
Review				01 January 2015
Final Report	2	1	40 max pgs	15 January 2015
GIS data		2 CD copies GIS coverage for each species	3 layers (1 per species)	With Final

### Points of Contact

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30 CES/CEIEA  
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### Special Conditions

**Government furnished information/materials.** 30 CES/CEIEA 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. 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 CEANC 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.

**Contract Type**

- Firm Fixed Price
- Time and Materials

**Period of Performance**

Period of Performance for Phase 4 will begin on 01 February, 2014 and end no later than 31 January, 2015.

## APPENDIX A

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

- Report due dates for:

Quarter 2    5 April 2014  
Quarter 3    5 July 2014  
Quarter 4    5 October 2014  
Quarter 1    5 Jan 2015

- Quarterly reports for Quarters 1, 2, & 3 will include the following 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.
6. Describe all activities accomplished including funds expended for the quarter and cumulatively.

- Quarterly reports for Quarter 4 will include:

1. Numbers 1-6 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:
  - Iceplant, manual removal of pampas grass, 1 acre
  - Iceplant, chemical removal of pampas grass, 5 acres
  - European beachgrass chemical removal, 2 acres

### Monthly Invasive Plants Reports

At a minimum, 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 & ACTIVE INGREDIENT AMOUNT (lbs),  
TOTAL AMT OF APPLIED PRODUCT (gallons)