

Funding Agency: US Army Corps of Engineers, Alaska District 2204 3 rd street JBER, AK. 99506	Funding Instrument: Cooperative Agreement Funding Opportunity No: POA52AF-CESU-18-06 CFDA No: 12.632 Program Title: Legacy Resource Management Program, Sikes Act 670c-1
Issue Date: 8 August 2018	Application Due Date: 7 September 2018
<p>Overview: POA53AF-CESU 18-06 MANAGEMENT, INVASIVE SPECIES, IRONWOOD TREES, BELLOWS AIR FORCE STATION, OAHU.</p> <ol style="list-style-type: none"> 1. Work Plan. 2. Invasive Tree Removal. 3. Native Planting. 4. Project Summary Report. <p>See Scope of Work for detailed information.</p> <p>Period of Performance is: Twelve (12) months from date of award. This requirement may be modified to extend the period of performance by one additional year if these tasks are still required and acceptable performance has been met. This does not obligate the Government to extend this agreement.</p>	
Estimated Total Funding: \$700,000	Anticipated Number of Awards: 1
Contents of Full Text Announcement	
I. Funding Opportunity Description	1. Project description, objectives & background
II. Award Information	2. Project Tasks and Requirements
III. Eligibility Information	3. Logistics & Site Access
IV. Application Information	4. Safety
V. Application Review Information	5. Supplies and Materials
	6. Project Communication
	7. GIS Data Requirements
	8. Deliverables and Schedule
	9. Monthly Progress Reports
	10. Period of Performance
	11. Points of Contact
<p>Contact Information: Questions that are related to Grants.gov including registration and system requirements should be directed to the Grants.gov contact center at 1-800-518-4726. For assistance with this funding Opportunity Announcement please contact Olen.R.Northern@usace.army.mil</p>	

Instructions to Applicant: The complete Funding Opportunity Announcement, application forms and Instructions can be downloaded directly from Grants.gov.

Applications in response to this Funding Opportunity Announcement must be submitted by 2:00PM Alaska time, on the Application Due Date. Applications may be submitted by mail, e-mail, or via the internet through Grants.gov. Each applicant is responsible to ensure their application has been received timely.

Applicants will have a Dun and Bradstreet Data Universal Numbering System (DUNS) number, and registered

See section IV of the Funding Opportunity Announcement for complete application submission information.

Section I: Funding Opportunity Description

POA53AF-CESU 18-06 MANAGEMENT, INVASIVE SPECIES, IRONWOOD TREES, BELLOWS AIR FORCE STATION, OAHU.

Section II: Award Information

Cooperative Agreement, \$700,000, 12 month period of performance, with the possibility of an additional one (1) year option.

Section III: Eligibility Information

Eligible Applicants – CESU Hawaii, N&W Alaska, PNW, CA, and Colorado Plateau.

Section IV: Application and Submission Information

1. Address to Request Application Package

The complete funding opportunity announcement, application forms, and instructions are available for download at Grants.gov. USACE is not responsible for any loss of internet connectivity or for an applicant's inability to access documents posted at the referenced website.

The administrative point of contact is Olen Northern, (907) 753-2525, Olen.R.Northern@usace.army.mil.

2. Content and Form of Application Submission

All mandatory forms and any applicable optional forms must be completed in accordance with the instructions on the forms and the additional instructions below.

a. SF 424 - Application for Federal Assistance

b. SF 424 A – Budget Information for Non-Construction Programs

c. SF 424 B – Assurances – Non-Construction Programs

d. Program Narrative – Brief program description illustrating applicant's ability to meet the goals and objectives described in Section I of the announcement.

Application shall be submitted NO LATER THAN 7-SEPTEMBER-2018

3. Submission Instructions

Applications may be submitted via e-mail and, or the internet.

a. Internet:

Applicants are required to submit proposals through Grants.gov. Applicants are responsible for ensuring that their Grants.gov proposal submission is received in its entirety. The Government bears no responsibility for data errors resulting from transmission of conversion processes associated with electronic submissions. The Government will bear no responsibility for delays in submissions due to technical difficulties at or with the Grants.gov website.

All applicants using Grants.gov to submit proposals must be registered and have an account with Grants.gov. It may take up to three weeks to complete Grants.gov registration. For more information on registration, go to <http://www.grants.gov/ForApplicants>.

b. E-mail:

If there is an issue with submission to Grants.gov, please contact the Corps at the email addresses below. Format all documents to print on Letter (8 ½ x 11”) paper. E-mail proposal to Olen.R.Northern@usace.army.mil

Section V: Application Review Information

1. Evaluation for Selection to receive consideration for award, the proposal must meet the requirements set forth in this FOA and be presented with adequate detail to assure the evaluator(s) have a good understanding of the proposed requirement(s). All proposals will be evaluated to determine the extent to which each offeror demonstrates a clear understanding of the requirements of the announcement, Scope of Work (SOW), and FOA.

The offeror shall submit a proposal that completely addresses all evaluation criteria and specifically identifies how each requirement will be satisfied. Technical proposal shall be no longer than 15-pages, font 12 (This page limitation is in addition to all required forms). All questions shall be submitted no later than 20 March 2018 at 2:00PM Alaska time.

2. Basis of Award: The selection decision will be based on the NFE offering the best overall value to the Government, with consideration given to all factors described below (weighted in descending order of importance). Proposals will not be ranked. The Government will not award a Cooperative Agreement to a grantee whose proposal contains a deficiency. The selection will not be based on lowest proposed cost, it will be based on an analysis of each criteria listed below. The proposal document shall be outlined as shown below.

Proposal Submission Evaluation Criteria and Basis of Award

MANAGEMENT-INVASIVE SPECIES

The Government will evaluate technical proposals in accordance with the criteria described herein and award a Cooperative Agreement task order to the responsible grantee whose proposal is determined to represent the best overall value to the Government. Proposals will not be ranked. The Government will not award a Cooperative Agreement to a grantee whose proposal contains a deficiency.

The evaluation factors for this action are:

- Factor 1, 40%: Experience (most important technical factor)
- Factor 2, 35%: Technical Approach (2nd most important technical factor)
- Factor 3, 25%: Cost (reviewed after the technical package for fairness and reasonableness, and weighted against the totality of the technical factors)

After listing proposal strengths, weaknesses and deficiencies, the Government will assign an adjective rating of Outstanding, Good, Acceptable, Marginal, or Unacceptable to each technical factor which reflects the Government's confidence in each offeror's ability, as demonstrated in its proposal, to perform the requirements stated in the grant. The adjectival ratings shall be assigned, using the following criteria, which incorporate a proposal risk assessment:

Weight	Adjectival Rating	Description
4	Outstanding	Proposal indicates an exceptional approach and understanding of the requirements and contains multiple strengths.
3	Good	Proposal indicates a thorough approach and understanding of the requirements and contains at least one strength.
2	Acceptable	Proposal indicates an adequate approach and understanding of the requirements.
1	Marginal	Proposal has not demonstrated an adequate approach and understanding of the requirements or contains an element of risk.
0	Unacceptable	Proposal does not meet requirements of the solicitation and, thus, contains one or more deficiencies and is unawardable.

PROPOSAL AND SELECTION CRITERIA

The Cooperator shall be evaluated in accordance with the selection criteria below. The selection criteria are listed in descending order of importance.

Factor 1 Experience

The Cooperator shall demonstrate prior project experience relevant to the attached SOW, completed within 5 years of the RFP, and other qualifications and technical competence in all of the following areas:

- (1) Experience supporting conservation of natural resources on installations, sustainable multipurpose use of the resources on installations, implementation of biosecurity practices, and invasive species eradication and/or control.
- (2) Support for U.S. Air Force natural resource programs.
- (3) Planning and managing time critical work, rehabilitating natural resources, performing studies, projects or plans in accordance with applicable guidance and regulations.
- (4) Recent experience performing work on remote tropical atolls.

The Cooperator shall provide examples of up to four (4) past projects of similar size, scope and complexity that best demonstrate the above qualifications. Submit projects that are at least 25% complete or were completed within the past five (5) years. The example project summaries shall be limited to one (1) page each. The example project summaries shall identify:

- Title/Subject
- Location
- Duration
- Brief description
- Roles and work self-performed
- Date project began and if completed
- Complexities or key accomplishments
- Client contact information

The Government will utilize the example project summaries to evaluate the capability and experience as a basis for comparing offerors to determine best value.

Factor 2 Technical Approach

The Cooperator shall provide a brief narrative of their technical approach and a milestone schedule. The narrative shall be no more than 1 page per main task and must include:

- A discussion of the technical approach to accomplish the performance work statement requirements, detailing number of hours anticipated to complete the project deliverables.
- A discussion of the quality assurance, quality control, and other technical activities that will be implemented to ensure that quality data are collected to support project data quality objectives

- A discussion of applicable regulatory requirements and how project requirements will be implemented.
- A discussion of all assumptions.

The Cooperator shall also provide an organizational chart with the proposed project team with defined roles, responsibilities, and lines of communication for all key personnel and sub-cooperators.

The evaluation standard has been met when the Cooperator demonstrates an understanding of the work that adequately addresses the task order requirements. The inclusion of numerous assumptions that significantly “assume away” Cooperator risk with regard to major issues or problems that may be encountered on the project will be considered unacceptable.

Factor 3 Cost

Provide proposed cost to the government. Allowable costs incurred by institutions of higher education is determined in accordance with the provision of OMB Circular A-21, "Cost Principles for Educational Institutions," ONR negotiated rates, and institutional policies. OMB's cost principles are contained in 2 CFR 200.400-.475 et seq.

Cost is considered less important than non-cost factors and will be evaluated for fairness and reasonableness per 2 CFR 200.400-.475 and OMB cost principles. If more than one proposal are rated as having equal non-cost factors, the lowest cost tender of the proposals received would be granted as the preferred tender unless there are extraordinary reasons for not doing so.

SCOPE OF WORK

MANAGEMENT, INVASIVE SPECIES, IRONWOOD TREES BELLOWS AIR FORCE STATION, OAHU August 2018

Total Project Cost Ceiling \$700,000

1.0 INTRODUCTION

Bellows Air Force Station (BAFS) located in Waimanalo, Hawaii is operated by Detachment 2, 18th Force Support Squadron of the 18th Mission Support Group based at Kadena Air Base (AB), Okinawa, Japan. This project will support BAFS complete invasive species management requirements from the Draft 2018 Bellows AFS Integrated Natural Resource Management Plan (INRMP). The project priority is removal of large common ironwood trees (*Casuarina equisetifolia*) and the resulting wood product, but also addresses strategy, management and planting of native species in coastal areas.

Task Orders may be issued for work located throughout the Pacific area of responsibility through a cooperative agreement (CA) created by the U.S. Army Corps of Engineers, Alaska District (USACE). Projects provided for execution under this CA by USACE do not include any functions to be performed that are inherently governmental. This determination is made with the assessment that places emphasis on the degree to which conditions and facts restrict the discretionary authority, decision-making responsibility, or accountability of Government officials using cooperator services or work products.

1.1 Project Objectives

Project objectives for coastal zone project areas (defined as within target areas shown on Figure 1), are listed below.

- Remove and control invasive plant species, especially ironwood trees that interfere with establishment of groundcover conducive to dune restoration.
- Stabilize beach erosion to the extent practicable through dune restoration measures
- Plant native species suitable for dune restoration and maintain areas (water, weed) for six months to ensure outplanting success.
- Utilize local sources for revegetation wherever possible, including local nurseries, onsite cuttings/seeds and the BAFS nursery. The BAFS nursery may be used for growing plants for this effort (i.e. propagation from on island seed or cuttings).
- Design and initiate an invasive species control, native species establishment, and dune stabilization program that includes long term monitoring and maintenance program with a three year goal of 15% or less cover from non-natives.

Project objectives for inland project areas (defined as within target areas shown on Figure 1, but outside the coastal area), are listed below.

- Remove ironwood trees. Stumps must be no greater than 6" in height relative to surrounding ground surface.

1.2 Background

The Sikes Act (16 USC 670a-670o, 74 Stat. 1052) of 1960 requires that each Department of Defense (DoD) installation create and maintain their own Integrated Natural Resources Management Plan (INRMP), the principal tool for managing military installation natural resources. The INRMP defines natural resources management goals and objectives that are consistent with the military mission, and ensures no net loss in the capability of installation lands to support the military mission. Bellows AFS has an INRMP that is

compliant with the Sikes Act and addresses dune restoration efforts. This INRMP is currently being updated and the most current version may be provided upon request by the Bellows Natural Resources Manager.

The DoD manages over 52 million acres of public land. As in the case with all government agencies, the DoD must manage its lands in accordance with all resource laws, such as the Sikes Act, National Environmental Policy Act (NEPA), National Historic Preservation Act, Endangered Species Act, Clean Water Act, Clean Air Act, etc. Compliance with these laws requires accurate, current data on the status of environmental and cultural resources on military installations and application of the data in management decisions. Collecting, analyzing and applying these data also support the objectives of the Legacy Resource Management Program.

Cooperative Agreements are entered into under the authority of Public Law (Pub. L.) 103-139, (see Pub. L. 101-511, Sec 8120); Delegation of Authority to USACE under Section 2684a of Title 10 U.S.C. by memorandum dated 17 July 2017; Title 32 – National Defense, Chapter 1 - Office of the Secretary of Defense, Part 21 - DoD Grants and Agreements (32CFR21.100-680); Title 32 - National Defense, Chapter 1 - Office of the Secretary of Defense, Part 22 - DoD Grants and Agreements - Award and Administrations (32CFR22.100-825); Title 32 - National Defense, Chapter 1 - Office of the Secretary of Defense, Part 32, DoD Administrative Requirements for Grants and Agreements with Institutions of Higher Education Hospitals, and Other Non-Profit Organizations (32CFR32.1-73); OMB Circular A-110, Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations; the Sikes Act (16 USC 670 a through f and 10 USC 2668 through 2671), within the purview of Pub. L. 91-190, NEPA (42 USC 4321, 4331 through 4335, and 4341 through 4347), Pub. L. 74-46, and 40 CFR Subpart 265.

2.0 MAJOR REQUIREMENTS AND TASKS

The tasks, expected requirements, deliverables and associated support documents for these tasks are discussed below. The Non-Federal Entity (NFE) will provide information to assist BAFS with obtaining all permits, consults and approvals (if any) necessary to support project execution. All deliverables related to this agreement will be referred to as a specific deliverable number; Section 5.0 outlines all project deliverables.

The NFE shall ensure that any sub-cooperators, suppliers, and support personnel follow all safety and health provisions established in the approved Health and Safety Plan (HSP), as described in the Draft Work Plan appendix (Task 1). The United States Air Force (USAF) program managers (PM) reserve the right to stop work under this project for any safety violations at no additional cost to the Government. The USAF PM will verify that the Cooperator has implemented corrective action before allowing continued performance.

2.1 Task 1: Work Plan

A **Draft Work Plan (Deliverable 1a)** shall be created by the NFE displaying how and when the work will be completed over the course of the period of performance. Within the work plan, the NFE shall populate a Project Planning Chart (PPC) which details the project schedule. Dates of site visits to the installation to perform any necessary surveys and implementation of invasive species control efforts shall be narrowed to down to specific calendar dates. The use of Gantt charts to depict project schedule is appropriate for the workplan. Deliverable submission dates shall also be depicted within the draft work plan. A list of employees, inclusive of their educational certificates and licenses shall also be portrayed in the work plan. An equipment list which the NFE intends to purchase using funds associated with this project, shall be depicted within the Draft Work Plan, in addition to the cost of each item. The Draft Work Plan will include separate sections for Task 2 and Task 3, and include separate subsections for inland and coastal zone project areas. The Draft Work Plan will also address initial, three (3) year, five (5) year, and 10 year goals for all project areas. The Draft Work Plan will identify those project areas able to be implemented with current

funding under this scope, but will be written with the scope and intent of execution in all numbered project areas on Figure 1.

The Draft Work Plan will include a Health and Safety Plan (HSP) as an appendix. The HSP will address safety zones around work sites, and comply with all applicable safety requirements.

The Draft Work Plan shall be submitted to the government within 60 calendar days of date of task order award. The government shall be afforded a 14 calendar day review period and shall provide the NFE with comments to utilize for finalization of the document. A final version shall be submitted within 14 days of receipt of the government review comments.

The NFE shall utilize the government comments to make final edits and changes to the work plan. A response to each government comment shall be documented by the NFE within a response to comment matrix, which shall be submitted alongside the **Final Work Plan (Deliverable 1b)**. The NFE shall populate a comment matrix which shall depict the NFE's written response to each government comment. The populated comment matrix in addition to a Final Work Plan addressing each comment, shall be submitted no later than 88 calendar days after award for BAFS approval.

2.2 Task 2: Invasive Tree Removal

This task includes the removal of common ironwood (*C. equisetifolia*) at BAFS, Hawaii. Removal includes cutting and removal of the tree down to within 6" of ground surface. Common ironwood is an invasive species common throughout the Hawaiian Islands. At BAFS, it grows mainly on sandy, coralline substrates near the shoreline (east), though "ironwood forests" cover roughly 32 acres across the base. Shade, and potentially allelopathic effects, from ironwood trees discourage native species establishment. Inland ironwood forests will continue to seed coastal established groves if left in place, therefore an extensive, simultaneous removal effort is preferred. In addition to the harmful effects on native plant establishment, ironwood trees pose a safety and structural damage hazard during high wind events.

The NFE will execute tree removal in accordance with Task 1, Final Work Plan and submit short term (two week notice) projected work schedule to the POC so that BAFS personnel can ensure the safety of guests. All trees confirmed for removal will be clearly marked by BAFS staff (with colored tape) at least two business days prior to removal. All aspects of tree removal, with exception of project management will be conducted by a bonded and licensed arborist. The NFE should make all efforts to maintain high standards of safety and cleanliness and minimize disruption to the environment and operations to the greatest extent possible. Additionally, the NFE is responsible for any damages to property, equipment, or environment. The NFE must replace or repair damages as appropriate. In areas potentially posing safety issues for structures, people or property, trees must be cut down in sections and safely lowered to ground to prevent damage to surrounding areas. Remaining tree stumps should be no more than 6" in height from adjacent ground surface. If tree debris cannot be hauled off BAFS immediately, the NFE must move it to the civil engineer waste hold area within 48 hours of removal. The NFE shall remove all tree material from BAFS within 30 calendar days of removal/cutting.

The NFE shall attempt, at all times, to avoid having trees or cut branches falling into or across any roads, trails, fields, ditches, streams or other bodies of water. Such debris shall be immediately removed. The vista shall be left with a clean appearance, free of debris and operating refuse. Trees will be described in all plans and reports according to size definitions outlined in Table 1. Co-dominate stems will be considered one tree if there is one trunk up to 24" from the ground.

Table 1. Tree Size Definition	
DBH (Diameter at 4.5 FT Aboveground Surface)	Inches
Small	1" - 7"
Medium Small	7" - 14"
Medium	15" - 24"
Medium Large	25" - 36"
Large	37" - 46"
X-Large	47" - 54"

Note: Trees greater than 15 feet in height shall not be cleared during the 'ope'ape'a (Hawaiian Hoary Bat/Lasiurus cinereus semotus) pupping season of 1 June to 15 Sept. Informal Section 7 Endangered Species Act consultation may be necessary where cutting trees greater than 15 feet in height outside of the pupping season. The NFE will support BAFS staff with necessary information to complete this informal consultation.

Section 7 consultation may also be necessary to address potential for adverse effects to the federally threatened Green sea turtle (*Chelonia mydas*), endangered Hawksbill sea turtle (*Eretmochelys imbricata*), and Hawaiian monk seal (*Neomonachus schauinslandi*) and associated critical habitat offshore of the installation. The NFE will assist with these consultations and comply with any resulting measures.

The project areas for tree removal under this scope are labeled in Figure 1, Invasive Species Removal Project Areas, BAFS, and will be identified in Task 1, Draft Work Plan. The NFE shall be immediately capable of addressing and interpreting all Environmental Laws and regulations as they pertain to the work performed. If deviations are required from the final workplan, the NFE shall provide the government with a notification and review period of 14 calendar days.



2.3 Task 3: Native Planting

Native planting subtasks will include: (1) native species planting that contribute to health and accumulation of sand dunes in coastal/strand areas and any sand stabilization tasks necessary prior to planting, and (2) planting inland non-invasive shade trees. Both approximate areas are shown in Figure 1, however more precise drawings should be developed in Task 1, Draft Work Plan.

Historically, BAFS coastal habitat constituted rolling sand dunes fed through the collection of wind-blown sand in native shrub and grasses. Intrusion of the invasive common ironwood contributed to the decline of this native ecosystem. Previous collaborative efforts led by BAFS staff utilizing community volunteers and

partners, such as UH Environmental Center students, Waimanalo Elementary and Middle School, are successful examples of invasive removal and preventative planting. The process for establishment of sites included: site selection and planning, site clearing of invasive plant species, irrigation installation, weeding, planting and mulching with native species, and then site recordation and maintenance. These early sites, numbered BASF 01-05, were not planned and executed according to a strict scientific methodology, however there were six standardized plots conducted on a pilot scale dune restoration program using six (6) standardized plots. It is desirable that future plots are executed utilizing previous “lessons learned” to allow for accurate data and observations, and repeatable results to benefit future dune restoration projects.

Planting priority should be placed on northerly parcels, beginning at the seawall and moving southward. Native plantings should begin at the high tide line or apparent seaward extent of established native plantings at adjacent restoration sites, inland to 100 ft. (Inward, non-coastal strand parcels can be planted with native coastal trees including non-strand species.) It is important to note that the coastal zones may require additional clearing for site preparation after completion of Task 3. This is to ensure removal of invasive species in the coastal zone that could impede establishment of native dune species.

A list of non-endangered/threatened plant species documented as being present in windward coastal beach plant communities and therefore potentially applicable for dune restoration at BAFS is provided below. Halophytic coastal strand species that have been successfully planted and demonstrated long term viability in the BAFS saline strand environment are designated with an “S” in table 1. Planting of federal or state endangered or threatened species is not allowed on BAFS or other DoD installations without formal review by DoD and have not been included on this list. No threatened or endangered species are to be planted at BAFS. To improve ecological resilience, dune integrity via root structure and support a more diverse community of pollinators and other insects, the plant selection has emphasized species diversity. Planting densities should range between 2 and 3 square feet per plant based on the kind of species planted. Plantings should emphasize diversity and consider site specific micro climate and sand/soil characteristics. *Sporobolus virginicus* and *Ipomoea pes-caprae* are the most successful shoreline edge species and should be considered in planting plans. Other successful strand species designated in table 1 are more appropriate candidates for mid and back dune planting schemes.

Table 1: List of Native Sand Dune and Beach Vegetation Species

Hawaiian Name	English Name	Latin Name	Status
<i>Ground Covers</i>			
Aki 'aki	Seashore rush grass	<i>Sporobolus virginicus</i>	I
Pōhuehue	Beach Morning Glory	<i>Ipomoea pes-caprae</i>	I
Akulikuli	Purslane	<i>Sesuvium portulacastrum</i>	I
Pa uoki iaka	Oval leaf clustervine	<i>Jacquemontia sandwicensis</i>	E
Aweoweo	Hawaiian Goosefoot	<i>Chenopodium oahuense</i>	E
Ohelo kai	Hawaiian desert thorn	<i>Lyceum sandwicense</i>	I
Ihi	Yellow Purslane	<i>Portulaca lutea</i>	I
Nama	Beach pea	<i>Nama sandwicensus</i>	E
Ilima papa	ilima	<i>Sida fallax</i>	I
<i>Shrubs</i>			
Aweoweo	Hawaiian Goosefoot	<i>Chenopodium oahuense</i>	E
Pohinahina	Round-leaf chastetree	<i>Vitex rotundifolia</i>	I
Mau'u akiaki	Button sedge	<i>Fimbristylis cymosa</i>	I
Naupaka	Beach Naupaka	<i>Scaevola taccada</i>	I
Nanea	Beach pea	<i>Vigna marina</i>	I
Maiapilo	Hawaiian caper	<i>Capparis sandwichiana</i>	E
Ulei	Hawaiian rose	<i>Osteomeles anthyllidifolia</i>	I
Hinahina-ku-kahakai	Seaside heliotrope	<i>Heliotropium anomalum</i>	E
<i>Trees</i>			

Hawaiian Name	English Name	Latin Name	Status
Mao	Hawaiian cotton	<i>Gossypium tomentosum</i>	ER
Hala	Hawaiian screwpine	<i>Pandanus tectorius</i>	I
Naio	Bastard sandalwood	<i>Myoporum sandwicense</i>	I
Iliahialo'e	Sandalwood	<i>Santalum ellipticum</i>	E
Aulu	Oahu soapberry	<i>Sapindus oahuensis</i>	E
Kou	Sea trumpet	<i>Cordia subcordata</i>	I
Loulu	Blue dwarf palm	<i>Pritchardia hillebrandii</i>	E
Wiliwili	Hawaiian coral tree	<i>Erthrina sandwicensis</i>	ER
N/A	Beach Heliotrope	<i>Tournefortia argentea</i>	NI

Legend: I- Indigenous, E- Endemic, ER- Endemic at Risk, NI- Non indigenous

Selection of species for planting will also be heavily weighted for the safety of BAFS guests and long-term maintenance burden. For example, while native *Pandanus tectorius* is viable in the strand environment, due to sharp ridges on its leaf edges, a smooth leaf non-native pandanus variety has been planted along the shoreline to prevent injury to BAFS guests.

After planting is complete, a perimeter post and line fence will be installed to prevent BAFS guests from walking on the planted areas. This Task will include at least three monitoring events that cover no less than a six month monitoring period. The results and conclusions from these monitoring events will be documented in Task 4.

2.4 Task 4: Project Summary Report

Results from the execution of Tasks 2 and 3 shall be summarized within a draft project summary report (**Deliverable 2a**). Invasive species tree removal results will be addressed separately from native out planting within the report. A summary of size and distribution of trees removed shall be included, in addition to the net level of effort expended. This summary is also required for initial planting and maintenance efforts for native species. The net effort expended to complete the tasks shall be quantified in hours and this net effort shall be included in the report. Hours shall be separated out amongst Task 2 and 3. Detailed descriptions of the methodologies used to complete tasks shall be included in the draft project summary report. The Draft Project Summary Report shall be submitted no later than 60 days after the final monitoring event in Task 3, or 330 days from award, whichever is sooner.

The government shall expend 14 calendar days reviewing the draft project summary report and issue comments to the NFE to address upon closure of the 14 calendar review period. The NFE shall create a response to each comment and create a response to comment matrix. The matrix or spreadsheet should depict each government comment as well as the NFE's response to each of those comments. After completing the responses, the NFE shall use the matrix to make appropriate changes to the draft project summary report in order to create a final product. The Final Project Summary Report and populated response to comment matrix (**Deliverable 2b**) shall be submitted to BAFS no later than 14 days after receipt of government comments.

3.0 LOGISTICS AND SITE ACCESS

The NFE will work with the staff at BAFS, Oahu to execute this project. The field work associated with this scope of work is intended to be carried out by qualified staff on the island of Oahu.

The NFE shall have access to BAFS in order to perform required tasks. To gain access, the NFE shall supply requested personal identifiable information of visiting personnel, to include sub-cooperators, to BAFS Security Forces (SFS) thru the Government representative and/or sponsor via the Form B-180 no later than 14 business days prior to work start date). BAFS SFS will conduct background checks on each individual listed on the Form B180 and will post an Entry Access Listing of authorized cooperators at the

Installation Entry Control Point when complete. Visitors shall present a valid identification card to the gate sentry for entry verification. The NFE, at no time, will have the authority to sponsor, escort or vouch additional personnel onto BAFS. NFE vehicles will be subject to search prior to entry onto BAFS. The NFE shall immediately notify SFS thru the Government representative anytime an individual is no longer required access to BAFS due to employment termination, re- assignment, etc.

3.1 Safety

The work site is located with BAFS, whose vision is to be the Department of Defense's premier training and vacation destination. Vacationers heavily utilize areas throughout the base, especially near bike trails, the beach, and other amenities. The Cooperator must ensure adequate safety zones around the work site. All work, equipment and vehicles shall comply with applicable safety regulations and the Health and Safety Workplan (HSP) as described in Task 1.

3.2 Supplies and Materials

This agreement includes the purchase of supplies needed to conduct the field work and observations. The NFE is required to submit a list of equipment within the draft work plan for review and approval. Any equipment and supplies purchased under this agreement will be itemized and the BAFS will have an opportunity at the end of the period of performance to retain the equipment and left over supplies. The NFE is responsible for all transportation costs associated with the project, inclusive of equipment shipment, vehicle rental, and any other transportation costs required to fulfill this Scope of Work.

3.3 Project Communication

The NFE shall not publish results of the project tasks without obtaining email or written permission from USAF. The USAF promotes academic publications which do not degrade the military mission and reserves the right to deny publication of information collected with funds generated from this project, if the USAF decides the draft publication degrades the military mission. The NFE shall not communicate the results of the project with any state or federal regulator or member of the media, but rather give the respect to the funding entity to provide such results to the regulatory entities and press in accordance with the Endangered Species Act and USAF public affairs process. In those instances when NFE staff associated with the project are contacted by the regulator or media, they shall direct such inquiries to the 15th Wing Air Force Public Affairs Office and forward the inquiry or contact to this public affairs office. Email contacts and phone numbers for the 15th Wing Air Force Public Affairs Office shall be provided to the NFE after award.

4.0 GIS DATA REQUIREMENTS

All products associated with this agreement that provide a map representation of the location of installation features, planting areas, trails, tree removal locations or other related overhead (plan) views of BAFS (partial or entire) must adhere to the following requirements. (NOTE: This requirement does not currently involve walls-in facility floor plans or interior renderings.) All maps and associated data must comply with the latest version of Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) available from the SDSFIE website: <http://www.sdsfie.org/>. These data shall be organized using the current version of the standard approved by the Headquarters Air Force (HAF) Geo Integration Office (GIO) as the functional lead for installation mapping and visualization. The SDSFIE will determine file and feature class identification and definition, attribution and valid domain values.

When any geospatial information collected as a result of a Cooperative Agreement includes information identified in the Common Installation Picture (CIP) or recognized Mission Data Set (MDS) the NFE will deliver data consistent with the established requirements for the data and will ensure functionality with the receiving system. Information shall be collected at no less than 1:1200 scales for base cantonment areas and 1:4800 scales for larger undeveloped base areas. Spatial data will meet or exceed National Map

Accuracy Standards at those scales. Metadata shall be provided and will use Federal Geographic Data Committee (FGDC) Content Standards for Digital Geospatial Metadata (CSDGM) for organization. Geospatial data shall be delivered in a geo-referenced GIS (Geographic Information System) format (feature-based file structures with one-to-one cardinality between spatial records and attribute records) which would include Environmental Systems Research Institute's (ESRI) shape file and geodatabase formats.

All attribute data as specifically outlined in the task order shall be included either in the GIS data file or as a separate table with a SDSFIE key variable that may be used to relationally join the separate table with the GIS data file. All geospatial data shall be delivered in the North American Datum 1983 (NAD83) projection, State Plane Coordinate System, using feet or metric coordinate units. Further guidance on mapping units, coordinate systems and projections is available from the Kadena AB GIO. Mapping- or Survey-Grade Global Positioning Systems (GPS) or comparable traditional survey methods shall be used to collect geospatial data.

Further information about precision requirements should be obtained from the Kadena AB GIO, but in general, this project's data is considered by the government to be "sensitive, but unclassified." The intent of this clause is to prevent intentional or unintentional dissemination of "sensitive, but unclassified" information to include unauthorized access to the source and product data by any entity wishing to do harm to the USAF or United States Government while the data resides on the NFE's computer network.

5.0 DELIVERABLES AND SCHEDULE

5.1 A kick-off meeting will be held within ten (10) days of award and shall discuss the project, address priorities, and historical knowledge. Attendees at the kick-off meeting will include at a minimum: the Bellows AFS technical POC, USACE Project Manager, Cooperator, and USAF POC. Attendees may participate via telecom, however attendance on-site is preferred.

5.2

Deliverable Number	Deliverable Title	Draft Submission	Final Submission	Submission Schedule
1a	Draft Work Plan	X		Within 60 calendar days of date of award
1b	Final Work Plan and Response to Comments Matrix		X	Within 88 calendar days of date of award
2a	Draft Project Summary Report	X		No later than no later than 60 days after the final monitoring event in Task 4, or 330 days from award, whichever is sooner
2b	Final Project Summary Report and Response to Comments Matrix		X	No later than no later than 88 days after the final monitoring event in Task 4, or 358 days from award, whichever is sooner

5.3 Monthly Progress Reports

The Cooperator shall provide monthly project status reports (email) to the USACE Project Manager and USAF POC. Monthly progress reports will include activities completed and anticipated work for the following month.

6.0 PERIOD OF PERFORMANCE

The period of performance for this task order is one year from date of award, with the option to fund additional efforts under each tasks for an additional 12 month pending availability of funds.

7.0 POINTS OF CONTACT

7.1 The USACE POC for Project Management is Charis Cooper. Cooperative Agreement questions should be addressed to the Grants Officer, Olen Northern. Correspondence should be addressed as follows:

Charis A. Cooper
U.S. Army Corps of Engineers
Planning, Programs & PM Division
ATTN: CEPOA-EC-EE
P.O. Box 6898
JBER, AK 99506-0898
Phone: 907-753-5692
Email: charis.a.cooper@usace.army.mil

Olen Northern
U.S. Army Corps of Engineers
Contracting Division
ATTN: CEPOA-CT
P.O. Box 6898
JBER, AK 99506-0898
Phone: 907-753-2525
Email: Olen.R.Northern@usace.army.mil

7.2 The POC for USAF Project Management is Breton Frazer. The BAFS point of contact is MSgt Arnold Sarmiento. Routine correspondence should be via email when appropriate.

Breton Frazer
Air Force Civil Engineer Center, Pacific Div
Phone: 808-449-1079
Email: breton.frazer.1@us.af.mil

MSgt Arnold Sarmiento
18 FSS DET 2/CE Superintendent
Phone: 808-478-1957
Email: arnold.sarmiento@us.af.mil

Compete POA-CESU-18-06
MANAGEMENT, INVASIVE SPECIES, IRONWOOD TREES
BELLOWS AIR FORCE STATION, OAHU

Lease vs. Buy Evaluation Factors

The NFE shall provide a cost analysis for Lease vs. Buy factors. The following factors shall be considered at a minimum, and shall contain numerical values where applicable.

Factors	Lease	Buy
Estimated Period of Use/Extent of Use		
Financial Advantages		
Cumulative Rental Payments for Estimated Time Period		
Transportation and Installation Costs		
Maintenance & Other Service Costs		
Potential Obsolescence of equipment due to imminent technological improvements		
Availability of Purchase Options		
Potential for Use by other Agencies after preliminary use has ended		
Trade-in or Salvage Value		
Imputed Interest		
Can the equipment be serviced by the government or other sources if it is purchased?		
Total Cost:		

Factors	Lease	Buy
Estimated Period of Use/Extent of Use		
Financial Advantages		
Cumulative Rental Payments for Estimated Time Period		
Transportation and Installation Costs		
Maintenance & Other Service Costs		
Potential Obsolescence of equipment due to imminent technological improvements		
Availability of Purchase Options		
Potential for Use by other Agencies after preliminary use has ended		
Trade-in or Salvage Value		
Imputed Interest		
Can the equipment be serviced by the government or other sources if it is purchased?		
Total Cost:		

MANAGEMENT, INVASIVE SPECIES, IRONWOOD TREES
BELLOWS AIR FORCE STATION, OAHU

Project Past Performance

Project Name,	
Project Location:	
Contract or Cooperative Agreement #:	
Size (Value):	
Technical Complexity:	
Technical Team Utilized:	
Point of Contact(s): Provide Email and phone number	