



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

March 12, 2020

**REQUEST FOR STATEMENTS OF INTEREST
NUMBER W9126G-20-2-SOI-2984
PROJECT TO BE INITIATED IN 2020**

Project Title: Natural Resource Support at Fort Carson

Responses to this Request for Statements of Interest will be used to identify potential investigators for a project to be funded by Fort Carson, which provides professional and technical support for its Integrated Natural Resources Management Plan (INRMP) in order to facilitate successful implementation of the 16 USC 670c-1 Sikes Act. Approximately **\$180,563.00** is available to support the base tasks associated with this project for the base period. Additional funding may be available for the two optional tasks.

NOTE: Attached to this document you will find a **DRAFT Statement of Objectives** for your reference only. Again, at this time we are only requesting that you demonstrate available qualifications and skills for performing similar or same type of work. **A full study proposal and proposed budget are NOT requested at this time.**

Background: Provide Bat Surveys support to the Fort Carson, Colorado, Natural Resources Program.

Type of Award:

In accordance with the *Sikes Act* (Sec. 103A [16 USC 670c-1]) “the Secretary of a military department may enter into cooperative agreements with States, local governments, Indian Tribes, non-governmental organizations, and individuals” This project is in support of the Integrated Natural Resources Management Plan, as directed in the *Sikes Act*, and as a result, it is anticipated that a cooperative agreement through the CESU program will be awarded. Such awards may be administered through a CESU only upon mutual agreement and official authorization by both parties of the acceptance of the application of the CESU Network IDC rate (17.5%).

NOTE: Must be a non-federal partner in the Cooperative Ecosystem Studies Units (CESU) Program to be qualified for consideration. Suggested area is Desert Southwest CESU Region.

Brief Description of Anticipated Work:

This research focuses on the following objectives:

- 1) Acoustic Monitoring: To get more robust data on species presence, abundance and diversity at different bat habitat types across the military landscape, acoustic recording boxes shall continue to be deployed at Fort Carson (FC) and Pinon Canyon Maneuver Site (PCMS) in

areas of high bat use within different habitat types. Additionally, at mine entrances/exits, acoustic loggers shall be placed to capture species presence and movements, temporally and spatially, within the mine systems.

- 2) Capture – Bat Netting and Roost Monitoring: Bat netting/capture events shall continue to be conducted at each of the acoustic recording sites to provide more robust data providing an assessment of bat species diversity, reproductive status, WNS scarring records, and age distribution on FC and PCMS. Monitoring shall provide insight to the assemblage of species that occur in these areas.
- 3) Telemetry: A telemetry component shall provide an assessment of bat foraging behavior and potential roosting locations for rare species of FC and PCMS.
- 4) Bat Habitat Investigation and Surveys: Mines outside of the Stone City mine complex shall be searched for new openings and the mine systems surveyed. Mine investigation shall determine bat use. Further roosting habitat searches shall be completed in areas across FC and PCMS where roosting habitat exists, such as rock cliff faces, etc.
- 5) Stone City Mine Complex Schematic and Modification of Mine Gate: A new Stone City mine complex schematic shall be completed following mine surveys. The mine opening where the tri-colored bat was captured previously shall be modified from solid impenetrable grate to a moving gate.
- 6) Habitat Modeling: Bat species presence/absence habitat models shall be created to provide greater understanding of bat use/occurrence across the FC and PCMS military landscape.

NOTE: At this time we are only requesting that you demonstrate available qualifications and skills for performing similar or same type of work. Cooperators demonstrating specific research experience with the tricolored bat (*Perimyotis subflavus*), the Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), and the little brown bat (*Myotis lucifugus*) are preferred. You will be evaluated for a request for a proposal based on skills and qualifications demonstrated in your SOI.

Period of Performance. 18 months from date of project award.

Materials Requested for Statement of Interest/Qualifications:

Please provide the following via e-mail attachment to: sandra.justman@usace.army.mil and brian.d.hesford@usace.army.mil (Maximum length: 2 pages, single-spaced 12 pt. font).

1. Name, Organization, Cage Code, Duns number, and Contact Information (Email)
2. Brief Statement of Qualifications (including):
 - a. Biographical Sketch
 - b. Relevant past projects and clients with brief descriptions of these projects,
 - c. Staff, faculty or students available to work on this project and their areas of expertise,
 - d. Any brief description of capabilities to successfully complete the project you may wish

to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

Note: A full study proposal and proposed budget are NOT requested at this time.

Review of Statements Received: All statements of interest received will be evaluated by a board comprised of one or more people at the receiving installation or activity, who will determine which statement(s) best meet the program objectives. Based on a review of the Statements of Interest received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the investigator's specific experience and capabilities in areas related to the study requirements.

Please send responses or direct questions to:

USACE

Sandra Justman, Contract Specialist

CESWF-CT

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CENWO-PM

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Timeline for Review of Statements of Interest: RSOI is required to be posted on www.grants.gov for a minimum of 30 days. Review of Statements of Interest will begin **04/12/2020**.

[End of RSOI]

**STATEMENT OF OBJECTIVES
FOR
BAT SURVEYS
FOR
U.S. ARMY GARRISON FORT CARSON, COLORADO**

Cooperative Ecosystems Studies Unit (CESU) Cooperative Agreement

1. PURPOSE

- 1.1. The United States Army Garrison (USAG) Fort Carson is responsible for conservation management on installations lands at Fort Carson (FC) and the Piñon Canyon Maneuver Site (PCMS) in Colorado. The PCMS is included as part of FC and will be considered as FC in this document, except where PCMS is specifically mentioned. Article I B of the master agreement states the objectives of the CESU are to: provide research, technical assistance and education to federal land management, environmental and research agencies and their potential partners; develop a program of research, technical assistance and education that involves the biological, physical, social sciences needed to address resource issues and interdisciplinary problem-solving at multiple scales and in an ecosystem context at the local, regional, and national level; and place special emphasis on the working collaboration among federal agencies and universities and their related partner institutions.
- 1.2. The objective of the work to be performed under this cooperative agreement is to provide natural resources support to the Fort Carson Environmental Division for natural resources management.
- 1.3. Natural resource tasks associated with this cooperative Agreement (CA) include conducting bat surveys at Fort Carson and PCMS. The Fort Carson Integrated Natural Resources Management Plan (INRMP) states that baseline surveys for bats (Order: Chiroptera) are a required implementation, but only two years of preliminary acoustical data has been collected back in 2013-2014, but of limited quality. A first year survey/study was conducted during fiscal year 2019 (FY19). The FY19 surveys were well documented, and are currently being appropriately analyzed along with the preliminary acoustical data from years ago. The FY19 work involves acoustical monitoring with newer, more robust and efficient acoustic equipment (model SM4) on FC and the PCMS. In addition, bat trap netting events were completed from spring to fall in FY19. A comprehensive analysis of all the data collected is currently being completed, which will include the analysis of the 2013-14 previously collected acoustic data.

Another year of bat survey work is needed to further investigate data discovered recently with FY19 acoustical data and visual surveys in the mine system that occurs on FC. In the past, Fort Carson was most interested in two species of bat, the tricolored bat (*Perimyotis subflavus*) and the Townsend's big-eared bat (*Corynorhinus townsendii*)

pallascens), because of their rarity and potential listing on the U.S. Fish and Wildlife Service's (USFWS) Endangered Species Act (ESA), but had little record of occurrence on FC. Recently these two species have been confirmed on FC through visual observation a FC mines and through acoustic recordings. However, other species have now been discovered on FC that also are species of concern. The little brown bat (*Myotis lucifugus*) is believed to have been sighted in our mines and confirmed through acoustic monitoring on FC, with call signatures discovered through Colorado Parks and Wildlife (CPW) participation in acoustic monitoring on FC. The USFWS previously determined that the little brown bat warrants ESA protection. The little brown bat and the tricolored bat are both currently in review status for determination of listing on the ESA. Other species of bat are of special concern because their distribution has never been documented in this area of Colorado, and/or because the species is rare. Species that have never been confirmed to occur in this area of Colorado, which have been verified by capture and/or acoustic monitoring on FC, include the canyon bat (*Perimyotis hesperus*), eastern red bat (*Lasiurus borealis*), evening bat (*Nycticeius humeralis*), California myotis (*Myotis californicus*), and spotted bat (*Euderma maculatum*). Furthermore, the canyon bat and evening bat distribution did not previously include the state of Colorado. In addition, the spotted bat is rare, and not known to occur in large numbers throughout its range.

White-nose syndrome (WNS) is a disease that affects hibernating bats and is caused by a fungus. WNS has killed millions of bats in North America. At some sites, 90-100% of bats have died. Two of the species that have been hit the hardest by this disease are the tri-colored bat and the little brown bat. There currently is no cure for WNS, and the disease has spread from the northeastern U.S. across the west, although scientists are diligently working on ways to control the disease. WNS has not yet been documented to occur in Colorado, but it has in neighboring states. Part of this work on FC will be to search for and document any signs of WNS for state and federal agencies, while incorporating measures to keep WNS out of FC and the state.

The ultimate goal of the baseline surveys is to inform management through a series of inventories on bat presence, diversity, relative abundance, and distribution throughout the installations. Coupled with data processing and analysis, baseline surveys will help guide FC natural resources management while supporting training.

Work conducted under this cooperative agreement must be in accordance with 16 U.S.C. 671c-1, Cooperative and Interagency Agreements for Land Management on Installations. In accordance with its mission, USAG must comply with federal laws, including the National Historic Preservation Act of 1966, as amended [54 United States Code (U.S.C.) § 300101 et seq.], National Environmental Policy Act of 1969 (42 U.S.C § 4321 et seq.); Archaeological and Historical Protection Act of 1974, as amended (16 U.S.C. §§469-469c-2); Archaeological Resources Protection Act (16 U.S.C §§ 470aa-470mm); Native American Graves and Repatriation Act (25 U.S.C §§3001-3013); other cultural resource-related legislation, executive orders, and presidential memoranda; all implementing regulations; DoD directives, instructions, policy, and guidance; and U.S.

Army regulations, policy, and guidance. In addition, USAG must abide by State of Colorado methods, standards, and guidelines for cultural resources work.

2. AUTHORITY

The AUTHORITY TO ISSUE A COOPERATIVE AGREEMENT IS... Section 670c-1, Title 16 United States Code, Sikes Act.

- 2.1. In accordance with the Sikes Act (Sec. 103A [16 USC 670c-1]) “the Secretary of a military department may enter into cooperative agreements with States, local governments, Indian Tribes, non-governmental organizations, and individuals,..” This project is in support of the Integrated Natural Resources Management Plan (INRMP), as directed in the Sikes Act.
- 2.2. In accordance with section 6305 – *Using cooperative agreements* of the *Federal Grant and Cooperative Agreements Act of 1977* (31 U.S.C. § 6301 et seq.), all CESU projects must carry out a public purpose of support or stimulation, instead of acquiring goods or services for the exclusive direct benefit of the United States Government. Examples of carrying out a public purpose may include, but are not limited to, the following:
 - Project results/outputs add to the scientific literature/knowledge base, with applicability and utility beyond the scope of the project footprint/study area
 - Academic and other nonfederal partner institutions (and their personnel) gain professional experience, increase knowledge, and develop skills and abilities
 - Students benefit from direct interaction with federal scientists, program and technical staff, and field unit managers
- 2.3. In accordance with section 6305 – *Using cooperative agreements* of the *Federal Grant and Cooperative Agreements Act of 1977* (31 U.S.C. § 6301 et seq.), substantial involvement is expected between the Department of Defense and the recipient when carrying out the activity contemplated by the cooperative agreement. The DoD agrees to participate at a national level in support of the CESU program as accepted in the Master MOU for the establishment and continuation of the CESU program Article II 1-4 and Article VI 1-7.

The installation further (hence DoD) agrees to provide substantial involvement as directed under the appropriate master agreement to include, but are not limited to, the following:

- Involved in development of study methodology, data gathering, analysis, and/or report writing.
- Actively participates and collaborates in carrying out the project plan of work, reviews and approves activities, helps train or select project staff or trainees.
- Coordinate research activities with other installation entities and

- scheduling of range time.
- Technical assistance and guidance.
- Participation in status meetings including kick off meeting and weekly, monthly, and quarterly project update meetings.

3. DESCRIPTION OF OBJECTIVES

The objective of this cooperative agreement is to provide natural resources support to the Fort Carson Conservation Program via conducting bat surveys at FC and the PCMS. All survey areas included under this project are located on FC and the PCMS. A preliminary presentation and data gathering meeting shall be scheduled prior to field work. A work conference shall be scheduled to prepare for field work and deliver any Government furnished materials. Specific acoustic box, netting, and data-logger locations will be provided at a work conference following initial preliminary data gathering and monitoring.

3.1 Summary of Tasks

Work shall be a continuation and enhancement to the first year baseline surveys that were conducted during FY19. The following outlines the various survey and monitoring techniques needed to provide a thorough review for two years of data collection for analysis.

3.1.1 Acoustic monitoring: To get more robust data on species presence, abundance and diversity at different bat habitat types across the military landscape, acoustic recording boxes shall continue to be deployed at Fort Carson (FC) and the Pinon Canyon Maneuver Site (PCMS) in areas of high bat use within different habitat types. Additionally, at mine entrances/exits, acoustic loggers shall be placed to capture species presence and movements, temporally and spatially, within the mine systems.

3.1.2 Capture – Bat netting and roost monitoring: Bat netting/capture events shall continue to be conducted at each of the acoustic recording sites to provide more robust data providing an assessment of bat species diversity, reproductive status, WNS scarring records, and age distribution on FC and the PCMS. Monitoring shall provide insight to the assemblage of species that occur in these areas.

3.1.3 Telemetry: A telemetry component shall provide an assessment of bat foraging behavior and potential roosting locations for rare species of FC and the PCMS.

3.1.4 Bat habitat investigation and surveys: Mines outside the Stone City mine complex shall be searched for new openings and the mine systems surveyed. Mine investigation shall determine bat use. Further roosting habitat searches shall be completed in areas across FC and the PCMS where roosting habitat exists, such as rock cliff faces, etc.

3.1.5 Stone City mine complex schematic and modification of mine gate: A new Stone City mine complex schematic shall be completed following mine surveys. The mine

opening where the tri-colored bat was captured previously shall be modified from solid impenetrable grate to a moving gate.

3.1.6 Habitat modeling: Bat species presence/absence habitat models shall be created to provide greater understanding of bat use/occurrence across the FC and the PCMS military landscape.

3.2 TASKS

The specifics of each task are provided in this section. All field work shall be completed between April and September, but acoustic monitoring can occur throughout the year, dependent on ability of the recording boxes, and as determined between Cooperator and Fort Carson Conservation Program (with the Fort Carson Directorate of Public Works [FC DPW]).

TASK 1

Acoustic Monitoring

At PCMS at least nine recording locations will be deployed. At FC at least 10 recording locations will be deployed. Acoustic recording devices shall be equivalent to the capabilities of the Wildlife Acoustics Song Meter SM4 acoustic recorder to be consistent with recording equipment used for FY19 surveys. The non-federal entity (NFE) will provide acoustic recording equipment. Data shall be downloaded monthly or as needed based on memory capacity of the equipment and bat call volume to not lose acoustic recording data. Fort Carson Department of Public Works will assist with support for some routine monthly data downloads. All downloaded data will be analyzed by the Cooperator. The Cooperator shall be responsible for repairing any acoustic recording equipment as required during the Period of Performance.

The acoustic recording devices shall be placed in areas of high bat use within different habitat types. Habitat types will be at a more coarse scale due to the lack of recording devices and manpower. Habitat types should be determined between FC DPW and the NFE. Areas of high bat use may need to be found using bat echolocation detection/recording devices, to be provided by the NFE. The need to find new places for acoustic recording devices shall be determined by FC DPW after evaluation of FY19's acoustic call numbers.

TASK 2

Capture Surveys – (Bat netting and roost monitoring)

Capture surveys shall be conducted during four reproductive stages; gravid (June), lactation (July), volancy (August), and swarming (September/October). Capture surveys should be conducted at least once at each of the 19+ sample sites within the four reproductive periods.

Continued monitoring of the Stone City mine complex bat roost locations shall be completed to provide estimates of bat species arrival, departure, and peak use timing. A series of internal surveys shall be conducted, along with long-term installation of acoustic

and microclimate dataloggers. Mine investigation shall determine bat use, presence of WNS, mine stability, and entry/egress of bats at various openings.

Information to be collected for each bat species includes, at a minimum, weight and morphometric measurements, and species, age, sex, and reproductive status identification. Also, an examination for WNS will be completed.

TASK 3

Telemetry

A minimum of 4 - 10 individual bats shall be fitted with a 0.3g Very High Frequency (VHF) transmitter. This size transmitter will allow for attachment to any bat weighing 8.5g or heavier, and will allow for up to 21 days of transmitting. Transmitters will be attached during the three capture sampling periods to bat species of concern that are designated by FC DPW personnel. Once the VHF transmitters are attached, the NFE will use two mobile VHF receivers and a single stationary VHF receiver to triangulate bat locations. The Cooperator shall provide all telemetry equipment. The equipment shall be approved by FC DPW.

TASK 4

Bat habitat investigation and surveys

Mines outside the Stone City mine complex shall be searched for new openings and newly discovered mines/openings shall be surveyed.

TASK 5

Habitat Modeling

Bat species presence/absence habitat models shall be created using a combination of the capture and acoustic records. Habitat modeling shall consist of a logistic regression model based on climatic, vegetative, geological, and training covariates.

TASK 6

Stone City Mine Complex

Stone City mine complex schematic and modification of mine gate: After completion of the mine surveys, a new Stone City mine complex schematic shall be completed. Searches for old Stone City mine schematics and information should be investigated and used for surveys and the new schematic. Upon completion and Fort Carson approval of the Stone City mine complex schematic, the Cooperator will digitize the schematic.

The opening of the mine area where the tri-colored bat was documented shall have the solid grate modified to a moving gate that can be opened for entry and closed with padlock. The mine opening information: ID number MSTON0838; Local ID 45-33. Any new locations with tri-colored bat captures or identifications within the mine complex shall be investigated for future entry modifications, as needed.

3.3 OPTIONAL TASKS

Pending availability of Government funding, the following optional tasks may be awarded during the Period of Performance:

TASK 7 (Optional Task 1) -

Telemetry of up to 20 additional individual bats (dependent on capture success). Task 7 methodology is the same as Task 3 methodology. Cooperator shall have a Period of Performance of 12 months from date of this optional task award.

TASK 8 (Optional Task 2) -

Further roosting habitat searches shall be completed in areas across FC and the PCMS where roosting habitat exists. When possible, night emergence at roosting habitat shall be done to determine bat presence. This task will consist of five days at FC and five days at PCMS. Cooperator shall have a Period of Performance of 12 months from date of this optional task award.

3.4 TIME SPECIFICATIONS

Time Frame	Gate Modification	Mine surveys	Bat netting and roost monitoring	Telemetry	Acoustic Monitoring	Complete Reports
Fall-Winter (or when & where bats will not be disturbed)	X	X			X	
Spring/Summer/Fall			X	X	X	
Fall-Winter						X

4. QUALIFICATIONS / REQUIREMENTS

4.1. Personnel. The Cooperator shall provide the necessary personnel to perform the required services. The Government and the Cooperator understand and agree that the services to be delivered are non-personal services, and both parties recognize that no employer-employee relationships between the Government and the Cooperator and/or between the Government and the Cooperator's employees. Cooperator personnel performing under this project shall not be placed in a position where they are employed by a Federal Officer or under the supervision, direction, or evaluation of a Federal Officer, military or civilian.

Cooperator personnel shall conform to standards of conduct and codes of ethics that are consistent with those applicable to Government employees as provided in the Joint Ethics Regulation 5500.7.R. Cooperator personnel shall present a neat, professional appearance and be easily identified. This shall be accomplished by wearing distinctive clothing bearing the company's name or by wearing appropriate badges that contain the company's and employee's name.

Cooperator personnel shall also wear a distinctive Cooperator furnished security (ID) badge/lanyard readily identifying the individual as a Cooperator employee. The badge shall be worn in a conspicuous place at all times when performing work under the cooperative agreement, including attendance at Government meetings and conferences that take place outside of the Government facility.

Cooperator personnel shall identify themselves as a Cooperator employee when answering or placing calls on a Government telephone and when leaving outgoing or incoming messages on voicemail. Use of acronyms in this identification is insufficient to meet this requirement.

All Cooperator email signatures shall identify them as such and will include their employer's name.

No Cooperator staff is authorized to make any directions or commitments for the Government to any outside parties to prevent unauthorized commitments.

The Cooperator shall provide a representative for the performance of work under this project. The name of this person and an alternate(s) who act(s) for the Cooperator when the representative is absent shall be designated in writing to the USACE Project Manager and the designated Fort Carson Point of Contact (POC). The Cooperator representative and alternate shall have full authority to act for the Cooperator on all project matters relating to daily operation of this project, and must be able to read, write, speak, and understand English.

4.2 Special Qualifications / Certifications

Cooperator employees responsible for data collection shall possess a basic knowledge of regional bat species, bat species known to occur on the installation (FC and the PCMS), data collection, and field methods for sampling bats. Upon request, FC DPW biologists will be available to provide assistance for bat identification prior to data collection efforts. However, any such assistance provided shall not relieve the Cooperator or its employees of responsibility for having the required knowledge. The Cooperator employee(s) that conduct(s) the data analyses and report writing should have general knowledge of bat-habitat relationships, analytical expertise in species distribution model and resource selection functions, and be able to demonstrate writing ability in the form of a track record of first-author peer reviewed publications.

4.3 Safety and Permitting

The Cooperator shall follow all directions in dealing with personal safety and adhering to the CPW Scientific Collection License. DPW biologists will be responsible for applying for, attaining, and disseminating copies of the CPW Scientific Collection Permit to the Cooperator.

4.4 Accessibility / Security Requirements

Vicinity maps identifying the general area will be provided at a pre-work conference or as requested before conference. Specific site maps identifying units and road access will be available upon request. Access to work sites will be coordinated a minimum of three (3) weeks prior through FC DPW POC (listed in section 8.0 or as specified at a late time by FC DPW). However, Fort Carson Range Control will always be able to deny work site access, with little or no prior notice, to accommodate training requirements. Delays need to be reported to the FC DPW POC immediately. It is recommended that the Cooperator call the FC DPW POC the day before planned work to confirm that access is still available. The FC DPW POC will report substantive delays to the Grants Officer's Technical Representative (GOTR), as/if they occur.

Cooperator personnel performing work under this project shall have a current and valid vehicle registration, insurance, and driver's license. The Cooperator shall maintain file copies of vehicle registration, insurance, and driver certifications, which are subject to inspection at any time for the duration of the project.

Access and general protection/security policy and procedures: This standard language is for Cooperator employees with an area of performance within Army controlled installation, facility, or area. Cooperator and all associated sub-cooperator employees shall provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. Cooperator workforce must comply with all personal identity verification requirements (FAR clause 52.204-9, Personal Identity Verification of Cooperator Personnel) as directed by DOD, Headquarters, Department of the Army (HQDA) and/or local policy. In addition to the changes otherwise authorized by the changes clause of this project, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in Cooperator security matters or processes.

The Cooperator employees, to include sub-cooperator employees, requiring access Army installations, facilities and controlled access areas shall complete AT Level I awareness training within 60 calendar days after the project start date or effective date of incorporation of this requirement into the project, whichever is applicable. The Cooperator shall submit certificates of completion for each affected Cooperator employee and sub-cooperator employee, to the GOTR or to the Grants Officer (GO), if a GOTR is not assigned, within 30 calendar days after completion of training by all employees and sub-cooperator personnel. The Cooperator shall submit certificates of completion for each affected Cooperator employee and sub-cooperator employee, to the GOTR or to the grants officer, if a GOTR is not assigned, within 05 calendar days after

completion of training by all employees and sub-cooperator personnel. AT level I awareness training is available at the following website: <http://jko.jten.mil>.

The Cooperator and all associated sub-cooperators shall brief all employees on the local iWATCH program (training standards provided by the requiring activity ATO). This local developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the GOTR. This training shall be completed within 30 calendar days of project award and within 05 calendar days of new employees commencing performance.

For Cooperators that do not require CAC, but require access to a DoD facility or installation. Cooperator and all associated sub-cooperators employees shall comply with adjudication standards and procedures using the National Crime Information Center Interstate Identification Index (NCIC-III) and Terrorist Screening Database (TSDB) (Army Directive 2014-05/AR 190-13), applicable installation, facility and area commander installation/facility access and local security policies and procedures (provided by government representative), or, at OCONUS locations, in accordance with status of forces agreements and other theater regulations.

For Cooperators requiring Common Access Card (CAC): Before CAC issuance, the Cooperator employee requires, at a minimum, a favorably adjudicated National Agency Check with Inquiries (NACI) or an equivalent or higher investigation in accordance with Army Directive 2014-05. The COOPERATOR employee will be issued a CAC only if duties involve one of the following: (1) Both physical access to a DoD facility and access, via logon, to DoD networks on-site or remotely; (2) Remote access, via logon, to a DoD network using DoD-approved remote access procedures; or (3) Physical access to multiple DoD facilities or multiple non-DoD federally controlled facilities on behalf of the DoD on a recurring basis for a period of 6 months or more. At the discretion of the sponsoring activity, an initial CAC may be issued based on a favorable review of the FBI fingerprint check and a successfully scheduled NACI at the Office of Personnel Management.

Army Training Certification Tracking System (ATCTS) registration for Cooperator employees who require access to government information systems. All Cooperator employees with access to a government info system must be registered in the ATCTS (Army Training Certification Tracking System) at commencement of services, and must successfully complete the DOD Information Assurance Awareness prior to access to the IS and then annually thereafter. For all Cooperators with security clearances. Per AR 381-12 Threat Awareness and Reporting Program (TARP), Cooperator employees must receive annual TARP training by a CI agent or other trainer as specified in 2-4b. OPSEC Training. Per AR 530-1, Operations Security, new Cooperator employees must complete Level I OPSEC training within 30 calendar days of their reporting for duty. All Cooperator employees must complete annual OPSEC awareness training.

4.5 Other General Information

U.S. Government records, copies of original results and reports, verified original data, corrected data, and corrected supporting final reports that are maintained by the Cooperator shall remain the property of the U.S. Government. These files/results must be surrendered to the USACE Project Manager, the GOTR, and USAG Fort Carson POCs at the end of this project.

Neither the Cooperator nor any of its project service providers shall disclose or cause to disseminate any information concerning operations of military activities. Such actions could result in violation of the project and possible legal actions.

All inquiries, comments, or complaints arising from any matter observed, experienced, or learned of as a result of or in connection with the performance of this project, the resolution of which may require the dissemination of official information, shall be directed to the USACE Project Manager, the GOTR, and USAG FC POCs.

The Cooperator shall only conduct business with designated government personnel listed as POCs. Names of authorized personnel shall be provided to the Cooperator by the government, in writing, and updated as necessary through the project period.

5. GOVERNMENT FURNISHED MATERIALS OR PROPERTY

All Government-furnished items and services shall be utilized in strict performance of task related duties and the Cooperator shall maintain policies that prohibit fraud and abuse.

5.1 Services

The Government will provide all Fort Carson-specific training to Cooperator employees, if necessary. The Government will provide the Cooperator authority to access all USAG Fort Carson-controlled, UNCLASSIFIED with a need-to-know, information needed to perform the required duties.

5.2 Materials

The Government will provide the Cooperator with all of the relevant data required to accomplish development of specific requirements and objectives described in the PWS and exhibits. Below is what the Government will provide the Cooperator:

- List of bat species known to occur on Fort Carson
- ARCGIS geodatabases with the proper data format, or a list of attributes to be collected, along with the proper data format (NOT the Global Positioning System [GPS] units themselves)
- GIS shapefiles showing approximate locations of acoustic boxes, netting, and data-logger locations
- Survey schedule

5.3 Equipment

If downrange training area access is necessary during the course of the project, Government radios will be provided and hand-receipted for each use. This is a safety precaution due to limited cellular service.

6. COOPERATOR FURNISHED ITEMS / SERVICES

- The Cooperator shall furnish all items required to perform this Statement of Objectives, other than those specifically listed as to be furnished by the Government. At a minimum the Cooperator shall provide all acoustic recording devices and accessories, and all telemetry study equipment that is of newest technology for receivers, transmitters, and other equipment.
- Within 10 days of project award, and within five days after any changes, the Cooperator shall submit (to the designated Fort Carson POC) a list of personnel who will perform work under this project, and credentials held for each such person.

7. PERIOD OF PERFORMANCE

Period of performance will be 18 months from date of award.

8. COORDINATION

Roger Peyton, Conservation Branch Chief
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9. DELIVERABLES

In addition to task specific deliverables, the following Cooperative Agreement deliverables must be provided.

1. ArcGIS geodatabase containing location of all encountered bats. Attribute fields shall include, at a minimum, date/time of each capture (i.e., acoustically or in-hand), UTM coordinates of each capture, species of each capture, and type of methodology being employed for each capture.
2. ArcGIS geodatabase containing summary data for each capture (acoustically or in hand) survey. Attribute fields shall include, at a minimum, location surveyed, acoustic, net, or receiver surveyed, date of survey, duration of survey (minutes), number of bats encountered, and number of bat species encountered.
3. ArcGIS geodatabase containing summary data for each bat capture. Attribute fields shall include, at a minimum, date/time of capture, amount of time from initial encounter to capture, UTM coordinates of capture, species, sex (if applicable), morphometric measurements, and photo IDs for photos taken.
4. ArcGIS geodatabase containing all telemetry points, home range polygons, and habitat modeling data, as applicable. Attribute fields for telemetry shall include, at a minimum, unique identification of bat, species, date/time of triangulation, and UTM coordinates of each point. Habitat modeling attribute fields shall include, at a minimum, species, habitat classifications and other landscape variables, distance to and/or presence of water, and distance to capture point, if applicable.
5. Jpeg files for all capture photos taken. Jpegs shall be associated with a unique ID that will readily allow for association between photos and capture data.
6. Species distribution models for FC and the PCMS for all encountered species. Type of software used to formulate models and associated programming code shall be provided by the Cooperator.
7. Occupancy rates, detection probabilities, and associated variances for each encountered species. Type of software used to formulate models and associated programming code shall be provided by the Cooperator.
8. Monthly Progress Reports and Site Visit Reports after every site visit at FC and/or the PCMS. Site visits are any visit to do bat work at FC and/or the PCMS (e.g., acoustic downloads, telemetry events, mine work/visits, netting).
9. A final report summarizing all data collection and all data analyses. Report should follow the format of a peer-reviewed scientific manuscript (Introduction, Methods, Results, Discussion). Copies of all raw data and computer generated data and/or databases shall be available upon request.

10. ArcGIS geodatabase containing a new Stone City mine complex schematic/map. Attribute fields shall include, at a minimum, opening locations, location of significant structures and mine features, bat locations, and roost locations. A map quality paper copy, report, and raw data shall also be provided.

9.1 Monthly Progress Report (MPR) - The Cooperator shall provide the USACE Project Manager, the GOTR, and USAG Fort Carson POCs a monthly progress report. The MPR shall include the status of deliverables, work completed, and projected work to be completed in the following month. The update is due the 5th business day of every month and shall be delivered via e-mail. Reports should be prepared in accordance with 2 CFR 200.328.

9.2 Format for Technical Reports – All preliminary draft, draft final, and final reports for Tasks 3.1, 3.2, 3.3, and 3.5 described above must meet the following specifications:

- Text materials shall be typed on fully white, offset bond paper, 8 ½-inch by 11-inch with 1 ¼-inch binding margins on the left and right sides, 1-inch at top and bottom, and single-line spacing with double spacing between paragraphs. Font type and size should be Arial 12. All text pages (including appendices) must be sequentially numbered. Typescript reports failing to meet these specifications will not be accepted.
- The title page of the report must bear the date (month and year) the report was submitted, to whom the report was submitted, by whom the report was submitted, and under which cooperative agreement number the report was submitted.
- Drawings, photographs, maps, or plates shall not have an image larger than 10 inches by 16 inches with sufficient margin for binding on the left side. It is preferable, however, that illustrations be reduced to 8 ½-inch by 11-inch format with suitable margin. All illustrations, drawings, maps, etc. are to be termed “figures” and must be cited by sequential number within the body of the text.
- A single, complete bibliography shall list all sources and references consulted for both the body of the text and technical appendices required for special studies not specifically incorporated in the text of the report.

9.3 Format for Spatial Data - The Cooperator shall prepare maps and other graphics, as appropriate, to support the activities required under this SOO. The Cooperator shall include graphic documentation of sites, resources, and buildings, as appropriate, in the reports specified for this PWS.

All products associated with this PWS that provide a map representation of the location of installation features (historic, existing, or planned) to include installation maps, site plans, area development plans, building exterior as-built descriptions, or other related overhead (plan) views of the installation (partial or entire) must adhere to the following

requirements. (NOTE: This requirement does not currently involve interior 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 will be organized using the current version of the standard approved by the Army's Installation Geospatial Information & Services Program. The SDSFIE shall determine file and feature class identification and definition, attribution and valid domain values. When any geospatial information collected as a result of the project includes information identified in the Common Installation Picture (CIP) or recognized Mission Data Set (MDS), the COOPERATOR shall deliver data consistent with the established requirements for the data and shall ensure functionality with the receiving system.
- Metadata shall be provided, and shall use the Federal Geographic Data Committee (FGDC) Content Standards for Digital Geospatial Metadata for organization.
- Geospatial data must 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) shapefile and geodatabase formats, and it must be compatible with the Fort Carson Cultural Resources Master Geodatabase. All attribute data, as specifically outlined in the task order contract, must 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 must be delivered in the World Geodetic System 1984 (WGS84) projection using metric coordinate units. Further guidance on mapping units, coordinate systems, and projections is available from the USAG POC.
- Mapping- or Survey-Grade Global Positioning Systems (GPS) or comparable traditional survey methods shall be used to collect geospatial data. The use of mapping- or survey-grade GPS shall depend on the precision requirements of the product data. Further information about precision requirements should be obtained from the USAG POCs.

Source data and product data remain the property of the U.S. Government. As part of the Work Plan (Section 8.2), the Cooperator is required to explain their process for protecting all geospatial data, including but not limited to geometry, attributes, metadata, topologies, and relational database schemas and operations used in association with this SOO. The Cooperator may be required to sign a non-disclosure agreement attesting to the same before source data are released. Further information about security and nondisclosure

requirements should be obtained from the USAG POC. Some installation map data, source and/or product, may be 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 Army or U.S. Government, while the data resides on the Cooperator's computer network. The Cooperator is not authorized to release this information to any third party without the explicit consent of the USAG. All source information must be returned to the USAG POC or destroyed upon completion of this project.

10. OTHER

This cooperative agreement may be administered through a CESU only upon mutual agreement and official authorization by both parties of the acceptance of the application of the CESU Network IDC rate (17.5%).

Any resulting cooperative agreement will be subject to and recipient/Cooperator shall comply with 2 CFR 200.313 “Equipment”, 200.314 “Supplies”, and 200.315 “Intangible Property” which includes use of research data.