STATEMENT OF OBJECTIVES (SOO)

FISCAL YEAR 2025 SPECIES DISTRIBUTION MODELING AT MARINE CORPS AIR GROUND COMBAT CENTER TWENTYNINE PALMS (Period of Performance: 3 Years from Award)

April 2025

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A. INTRODUCTION

Sustaining the Marine Corps Air Ground Combat Center's (MCAGCC) training environment is critical to the readiness of the United States Marine Corps (USMC) and depends heavily on the integrity and resilience of its desert soils, hydrological basins, weather, ecosystem processes, and organismal communities (MCAGCC 2024 Integrated Natural Resources Management Plan, INRMP). The ecology of these communities and their key species are integral to the durability of the natural and training environments, which rely heavily upon intelligent and informed management and conservation. This management and conservation rely heavily on accurately knowing the distribution, density, health, and ecosystem processes of these communities and key or keystone species.

Combining existing species studies with new, very precise LiDAR (Light Detection and Ranging) and orthophotography data for MCAGCC and neighboring properties, enables powerful modelling and management of species distributions and habitat suitability aboard MCAGCC. This project will advance the Marine Air Ground Task Force Training Command's (MAGTFTC) ability to conserve its natural and warfighter training environments, and enhance its resilience as an elite resource for the United States Marine Corps.

B. PURPOSE

This study will quantify and prioritize MCAGCC's ecologically important and at-risk habitats, including high value areas for biodiversity, sensitive species, durability, and vulnerability to extreme weather. This purpose includes developing guidance for ongoing monitoring, projects that enhance ecosystem and landscape durability, and means to prevent or abate deterioration of the ecosystem. These products will improve natural resource conservation, the endurance and tempo of MAGTFTC training, and MCAGCC infrastructure.

Objectives for this Cooperative Agreement are:

- 1. Quantify and model scales of sensitive species and community niches, from landscape or ecosystem engineer species niches to microclimate and microtopographic niches that harbor and shelter rare species, to recover and enhance species, and improve ecosystem resilience to extreme weather exemplified by deserts (e.g., severe drought, extreme temperatures, violent storms, and seismic changes to landscape and hydrology), and to limit disturbance.
- 2. Quantify the connectivity of these niches, their likelihood of occupation, their immediate and long-term threats and risks, and their suitability factors that can be improved and sustained by the MAGTFTC.
- 3. Describe and catalog those niches, recommend monitoring methods, schedules and thresholds to quantify niche condition and occupancy, and their priorities to the value to current and future mission needs, conservation efficacy, and cost-efficiency.

C. LOCATION

All work will be performed at the Marine Corps Air Ground Combat Center Twentynine Palms in San Bernardino, California. MCAGCC covers approximately 1,100 square miles of desert ecosystem, including mountainous terrain, extensive bajadas, and numerous intersecting playas, lava fields, and active seismic faults. The work will occur within the base boundaries. No work is expected beyond base boundaries except for inputs to local features within the boundary, if applicable.

D. DESIGNATED REPRESENTATIVES

- 1. The Base Technical Representatives (BTR) are Ecologists Christopher Reddin and Joshua Hibit, Environmental Affairs, MCAGCC, Building 1418 Box 788110, Twentynine Palms, CA 92278; Respectively: phone: (760) 830-5719 and 830-5200, and e-mail: christopher.reddin@usmc.mil, joshua.hibit@usmc.mil.
- The Cooperative Agreement Technical Representative (CATR) is David McNaughton, Natural Resources Specialist, NAVFAC SW, 750 Pacific Highway, 12th Floor, San Diego, CA 92132-0001; Phone: (619) 705-5569, <u>david.k.mcnaughton2.civ@us.navy.mil</u>.
- The Cooperative Agreement Administrator (CAA) is Christen Gonzales, Contract Specialist, NAVFAC SW, 750 Pacific Highway, 12th Floor, San Diego, CA 92132-0001; Phone: (619) 705-5529, and email christen.m.gonzales.civ@us.navy.mil.

The CATR is responsible for ensuring that all work is performed per the requirements and specifications outlined in this Cooperative Agreement, and that the work performed, including all written reports and professional services are of an acceptable technical quality. For this Cooperative Agreement, the CATR shall be the first and primary point of contact for the Recipient and Installation Representative (including their respective representatives or staffs) regarding any inquiries, questions, concerns, and issues related to the implementation of the requirements and specifications of this Cooperative Agreement. The CATR has no authority to make any changes to this Cooperative Agreement, only the CAA may affect any change to this Cooperative Agreement.

Any change in scope of work must be issued to the Recipient, in writing, by the Grants Officer to be binding on the government. No government employee has authority to change this Cooperative Agreement by oral or written directives, instructions, commitments and/or acceptances or any other manner.

The Cooperator will be designated at the time of proposal submission the individual within their organization who is authorized to negotiate with the Cooperative Agreement Administrator. The designation will stipulate the individual's authority to commit the Cooperator.

E. PERIOD OF PERFORMANCE

The period of performance covered by this agreement is 3 years from award. The end date is the anticipated date that the Government accepts the final report and data. However, the parties may extend the term of the Cooperative Agreement by written modification. Total duration of this agreement shall not exceed 60 months.

A thirty (30) day period, starting on date of award, will be used for the Recipient to provide preliminary documents to the CAA and CATR. Documents include, but are not limited to, Insurance documents/certificates, Accident Prevention Plans/Site Health and Safety Plans (as applicable), etc. Recipient may not begin performance until preliminary documents are submitted and accepted/approved as appropriate.

F. MATERIAL AVAILABLE FOR REVIEW

This action will be performed in accordance with:

- Marine Corps Order P5090.2A Environmental Compliance and Protection Manual
- MCAGCC, Integrated Natural Resources Management Plan (INRMP)
- Endangered Species Act
- Migratory Bird Treaty Act
- National Environmental Policy Act of 1969
- Sikes Act
- 10 USC §2684 Cultural Resource Management
- Clean Water Act
- Clean Air Act
- Biological Opinion for Ongoing Training and Recovery and Sustainment Partnership, June 2023.

Material available for review upon request includes permissible data in the GeoFidelis SDSFIE geodatabase and any related datasets that pertain to imagery and topography. Data deliverables from N62473-22-D-1203 N6247323F5340 include an estimated 6 to 8 terrabytes of high precision LiDAR and orthophotography data which will be the primary source of GIS data for this Cooperative Agreement. The Government reserves the right to require non-disclosure agreements, place restrictions on data use and sharing, or deny review for certain datasets or portions of datasets deemed sensitive.

G. GENERAL REQUIREMENTS

The Cooperator shall manage the total work effort and assure fully adequate and timely completion of these services. Included in this function shall be a full range of management duties including, but not limited to, planning, scheduling, analysis, quality control, lab work, and for meeting professional industry standards and protocols.

- 1. Work Control. The Cooperator shall implement all necessary work control procedures to ensure timely accomplishment of work requirements, as well as to permit tracking of work in progress. The Cooperator shall plan and schedule work to assure material, labor, and equipment are available to complete work with the quality standards established herein.
- 2. Work Schedule. The Cooperator shall schedule and arrange work as to cause the least inconvenience and interference with the normal occurrence of Government business and mission. All work shall be performed and completed in accordance with the time frames established in the Agreement Work Plan for each item of work. Changes to the schedule shall be submitted to the CATR and the BTR for approval.
- 3. Regular Working Hours. The Government's normal working hours are from 0800 to 1730 Mondays through Fridays except (1) Federal holidays and (2) other days specifically designated by the Grants Officer. Federal Holidays: New Year's Day, Martin Luther King, Jr. Day, Presidents Day, Memorial Day, Juneteenth National Independence Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day and Christmas Day.
- 4. MCAGCC Stipulations. The Cooperator must comply with all MCAGCC security rules, regulations, and day-today operational changes. Unannounced changes to day-to-day operational procedures may, at times, prohibit the Cooperator access to parts of MCAGCC. It is the

responsibility of the Cooperator to reschedule this work. The Cooperator shall visit MCAGCC as often as necessary to accomplish the purpose of this Agreement as detailed further in this Agreement. The Cooperator shall pre-arrange access with the BTR a minimum of two months prior to any field surveys. The Cooperator and/or his/her representative(s) shall inform the CATR and the BTR in writing, preferably via electronic mail, of any unusual activity observed while conducting surveys in the field (e.g., trespassers). Information should include: (1) location, (2) date, (3) time, and (4) any detailed facts regarding the activity.

- 5. Protection of Government Property. During execution of the work, the Cooperator shall take special care to protect Government property. The Cooperator shall return areas damaged as a result of negligence under this Agreement to their original condition (via consultation with BTR), including revegetation or replacement of damaged habitat if necessary. Collecting cultural material is prohibited. The Government will consider unauthorized collection a violation of the Archaeological Resources Protection Act (ARPA) and subject to criminal and civil penalties.
- 6. Hazards. Unexploded ordnance may be encountered while conducting fieldwork. Cooperator shall not touch or attempt to pick-up any ordnance. Cooperator shall place flagging in the general area of the ordnance and notify the BTR of the exact location of the ordnance as soon as possible.
- 7. Required Meetings. The Cooperator shall participate in Government-scheduled meetings as outlined in this Scope of Work.
- 8. Data and Publications. The U.S. Government retains ownership of all data and products collected as part of this Agreement. The Cooperator shall continually provide for secure safekeeping of the data and any other material pertaining to this Agreement. These data will not be used, in whole or in part, in any professional, scientific or non-scientific report, paper, or note, published or unpublished or be part of any technical or non-technical presentation, without prior written authorization from the CATR and the BTR. Authorship of any publication arising from this Agreement will be determined by a joint consultation between the Agreement, the CATR, and the BTR. In particular, the Cooperator shall acknowledge support of the U.S. Navy, the United States Marine Corps, and MAGTFTC, in any publications or publicly distributed articles, reports, or presentations. The Cooperator and/or his/her representatives shall provide the CATR and the BTR with a copy of all manuscripts, conference or symposium abstracts, and conference, lecture or symposium presentations, at least sixty days prior to the submission date of the manuscript or public presentation, for approval and release. Any publications resulting from this work shall be provided at no cost to the U.S. Government in quantities as shall be determined jointly by the U.S. Government and the Cooperator at the time of publication. The Cooperator will provide the Center with a set of original data at the end of this project. The U.S. Government retains the right to publication of the work. The U.S. Government retains the right to publish any analysis of the data.
- 9. General. MCAGCC is a live fire military installation. The Cooperator is responsible for personal health and safety requirements per 29 CFR 1910.120 for entering potentially hazardous environments. The Cooperator to include all field personnel shall attend mandatory safety briefings at Environmental Affairs Building 1418 and Range Safety prior to start of work (approximately four (4) hours of instruction). Adherence to MCAGCC Orders and Standing Operating Procedures in general industrial type areas is required. A minimum of at least two

personnel are required to enter the training areas. The Agreement personnel must sign a Hold Harmless Agreement before entering the training areas.

- 10. Personnel. The Cooperator shall provide the BTR with a list of all personnel who will be conducting the field work. It is the Cooperator's responsibility to obtain all necessary security and entrance clearances for all personnel and equipment for entrance to MCAGCC. The CATR and BTR shall work with the Cooperator to assist in obtaining necessary documents.
- 11. Training Area Entrance Requirements. Scheduling of the training areas will be secured through the BTR at least 60 days in advance. Once fieldwork commences, access to the training areas will also require coordinating with Range Control (call sign BEARMAT) via radio communication. During field work, the Cooperator and their personnel shall maintain communication with Range Control at all times; failure to maintain communication with Range Control at all times; failure to maintain communication with Range Control at all times; failure to maintain communication with Range Control at all times; failure to maintain communication with Range Control will jeopardize all access to the survey areas. The Cooperator shall register an Environmental Affairs handheld field radio from the BTR before every entry to the field. The BTR will inform the Cooperator of all applicable MCAGCC regulations, range rules, and access protocols.
- 12. Vehicle Requirements. The Cooperator and their employees are required to obtain a Privately Owned Vehicle (POV) waiver for all their vehicles that enter the training areas. These waivers shall be obtained through the BTR. POV waivers must be carried in each vehicle when within the boundaries of MCAGCC. If U.S. government vehicles are used, such information is not required. All personnel must carry photographic identification (see Section G13 below), and/or other passes as required and identified by the BTR while on government property. The Cooperator shall contact the BTR to initiate pass procedures and complete any required orientation. Violations of access, communications or other standard operating procedures may result in immediate termination of the treatment and survey effort. The Government will provide Standard Operating Procedures and Cooperator Guidelines to the Cooperator.
- 13. Photography. All photographic images acquired while the Cooperator is on military land, and adjacent BLM or state land, including but not limited to photographs, slides, photo-negatives, and digital images, are the property of the U.S. Marine Corps, regardless of the purpose of the image(s), and regardless of the ownership of the equipment and/or film. No person may publish any image without the approval of the BTR and CATR. No photographic image may be used in any way toward financial gain of the Cooperator or their associates without specific DON approval. Digital photographs are preferred and shall be included, fully annotated with dates, times, locations and subject, in the reports (as figures) or data compendium (CD-ROM).

H. SPECIFIC REQUIREMENTS

The Agreement includes the following tasks:

COOPERATOR INVOLVEMENT

Task 1: Geomorphological Analysis (Year 1)

The Cooperator shall use available topographic, geomorphic, imagery data, and ground-based studies to create, verify, and refine an inventory of species distributions, habitat suitability and refugia throughout the base. Identify hydrological potential and community productivity. Map

vegetation in priority locations using remotely-sensed data. Once these refugia are confirmed, they will be prioritized for monitoring based on ecological value.

Task 2: Monitoring Protocol (Year 1)

The Cooperator shall develop a natural community monitoring plan including field reconnaissance to a prioritized monitoring schedule. The monitoring plan should outline appropriate community-level protocols to document and track species diversity and abundance (including keystones of various taxon), disturbance and invasive species, and hydrological conditions. The protocol will recommend tools and forms for data collection, and survey timing and frequency.

Task 3: Protocol Enactment, Testing, and Baseline Data Collection (2 Years, Years 2-3)

The Cooperator will perform baseline monitoring for 2 winters and springs, to cover the full terrain, using the prioritizing protocols from Task 1 and previous years of data collection.

Task 4: GIS Development, Rating Systems, and Reporting (Year 3)

Using digital cartography, map and attribute the results of the prioritization model, the monitoring, and the conditions found through the initial surveys. Write a report of findings and basic recommendations. Outcomes will inform ensuing on-the-ground management and adaptive management of monitoring. Major recommended changes to the protocol will be provided at the time of final reporting, with a revised monitoring protocol as a document that is separate from the final report. This will enable installation staff to review the final report, with the protocol providing the latest monitoring guidance.

CATR INVOLVEMENT

The NAVFAC SW CATR agrees to provide substantial involvement as a Cooperator on this agreement. The CATR will function as a project manager, an agency representative, and a research partner. Functional responsibilities include:

- 1. The NAVFAC SW CATR will be involved in the development of methodology, data gathering, and/or report writing and editing.
- 2. The NAVFACSW CATR as a Project Manager will actively participate in the project planning and review including the development of the work plan, the execution of that plan, and review of the products and deliverables.
- 3. The NAVFACSW CATR will look for partnering opportunities and collaborators among the DoD community that may benefit the Cooperator's efforts. The CATR will facilitate cooperation between MCAGCC staff, other contractors and cooperators, and the Cooperator.
- 4. The NAVFACSW CATR will facilitate the dispersal of findings and products from the agreement through suggestion, limited presentation, or limited publication (such as short non-scholarly articles), or aid base or Cooperator personnel in doing so.

- 5. The NAVFACSW CATR will incur in-kind or direct expenditures in carrying out the activities specified in this statement of work.
- 6. The NAVFACSW CATR will act to approve project invoices or explain disagreements between the Cooperator and the Government. The CATR will mediate between the base and the Cooperator when necessary.

BTR INVOLVEMENT

- 1. The MCAGCC BTR will be a project and research partner.
- 2. The MCAGCC BTR will set MAGTFTC objectives and priorities and communicate those clearly to the team.
- 3. The MCAGCC BTR will gather and provide base-specific information to include sensitive areas, endangered species, cultural resource prohibitions, geographical knowledge, historical events such as floods and earthquakes, and known features of interest.
- 4. The MCAGCC BTR will secure access and transportation support to include training area and access scheduling, travel routes and landmarks, and local operational support.
- 5. The MCAGCC BTR will interact with BEARMAT and Conservation Law Enforcement Officers and communicate on behalf of the project (not to include immediate daily interactions such as radioing during field access or disciplinary actions).
- 6. The MCAGCC BTR as a Project Manager will actively participate in the project planning and review, including the development of the work plan, the execution of that plan, and review of the products and deliverables.
- 7. The MCAGCC BTR will be involved in the development of methodology, data gathering, and/or report writing and editing.
- 8. The MCAGCC BTR reserves the right to release findings and products from the project including status reports and mid-project deliverables especially to inform command, headquarters, and regulators such as the USFWS, or indigenous Tribes and Nations.
- 9. The MCAGCC BTR will communicate with Federal partners and regulators such as National Park Service, Bureau of Land Management, and US Fish and Wildlife Service as a single point of contact for MCAGCC. All communication in this regard should be directed through the BTR unless directed otherwise or in immediate need.

KNOWN SENSITIVE SPECIES AT MCAGCC

From the 2024 Integrated Natural Resources Management Plan (plants, then animals):

Scientific name	Common Name
Allium parishii	Parish's Onion

Scientific name	Common Name
Androstephium	Small-flowered
breviflorum	Androstephium
Castela emoryi	Emory's Crucifixion-thorn
<i>Chilopsis linearis</i> ssp. <i>arcuata</i>	Desert Willow
Chorizanthe spinose	Mojave Spineflower
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	Riverside Spineflower
Coryphantha alversonii	Foxtail Cactus
Cryptantha costata	Ribbed Cryptantha
Cryptantha holoptera	Winged Cryptantha
Cymopterus multinervatus	Purple-nerve Cymopterus
Cylindropuntia wigginsii	Wiggin's Cholla
Datura wrightii	Wright's Jimsonweed
Dudleya saxosa ssp. saxosa	Panamint Liveforever
Eremothera boothii ssp. boothii	Booth's Evening-primrose
Eriophyllum mohavense	Mojave Woolly Sunflower
Eriastrum harwoodii	Harwood's Eriastrum
Eriastrum sparsiflorum	Few-flowered Eriastrum
Euphorbia abramsiana	Abram's Spurge
Euphorbia parryi	Parry's Spurge
Euphorbia revolute	Revolute Spurge
Funastrum utahense	Utah Vine Milkweed
Galium angustifolium spp. gracillimum	Slender Bedstraw
Larrea tridentata	Creosote Bush

Scientific name	Common Name
Lasthenia glabrata ssp. coulteri	Coulter's Goldfields
Matelea parvifolia	Spearleaf
Menodora spinescens ssp. mohavensis	Mojave Mendora
Mentzelia tridentata	Dentate Blazing Star
Monardella robisonii	Robison's Monardella
Muilla coronate	Crowned Muilla
Nicotiana obtusifolia	Desert Tobacco
Penstemon	White-margined
albomarginatus	Beardtongue
Penstemon	Desert Beardtongue
pseudospectabilis	
Penstemon thurberi	Thurber's Penstemon
Physalis lobate	Lobed Ground-cherry
Populus fremontii ssp. fremontii	Fremont's Cottonwood
Portulaca halimoides	Desert Portulaca
Prosopis glandulosa var.	
torreyana	Honey Mesquite
Salvia columbariae	Chia
Sclerocactus polyancistrus	Mohave (Red-spined) Fishhook Cactus
Sidalcea neomexicana	Salt Spring checkerbloom
Simmondsia chinensis	Jojoba
Wislizenia refracta ssp. refracta	Jackass-clover

Scientific Name	Common Name	
Danaus plexippus	Monarch Butterfly	
Uma scoparia	Mojave Fringe-toed Lizard	
Gopherus agassizii	Desert Tortoise	
Aythya americana	Redhead	
Pelecanus erythrorhynchos	American White Pelican	
Haliaeetus leucocephalus	Bald Eagle	
Circus cyaneus	Northern Harrier	
Aquila chrysaetos	Golden Eagle	
Buteo swainsoni	Swainson's Hawk	
Charadrius nivosus	Snowy Plover	
Numenius americanus	Long-billed Curlew	
Chlidonias niger	Black Tern	
Geococcyx californianus	Greater Roadrunner	
Athene cunicularia	Burrowing Owl	
Asio otus	Long-eared Owl	
Asio flammeus	Short-eared Owl	
Chaetura vauxi	Vaux's Swift	
Calypte costae	Costa's Hummingbird	
Selasphorus sasin	Allen's Hummingbird	
Colaptes chrysoides	Gilded Flicker	
Falco peregrinus anatum	American Peregrine Falcon	
Contopus cooperi	Olive-sided	
	Flycatcher	
Empidonax trailii*	Willow Flycatcher*	

Scientific Name	Common Name	
Lanius ludovicianus	Loggerhead Shrike	
Vireo bellii*	Bell's Vireo*	
Riparia riparia	Bank Swallow	
Toxostoma lecontei	LeConte's Thrasher	
Toxostoma bendirei	Bendire's Thrasher	
Oreothypis luciae	Lucy's Warbler	
Setophaga petechia	Yellow Warbler	
Xanthocephalus xanthocephalus	Yellow-headed Blackbird	
	All raptors	
Macrotus californicus	California Leaf-nosed Bat	
Lasiurus xanthinus	Western Yellow Bat	
Corynorhinus (= Plecotus) townsendii	Townsend's Big- eared Bat	
Antrozous pallidus	Pallid Bat	
Nyctinomops femorosaccus	Pocketed Free-tailed Bat	
Eumops perotis californicus	Western Mastiff Bat	
Chaetodipus (= Perognathus) fallax pallidus	Pallid San Diego Pocket Mouse	
Canis latrans	Coyote	
Vulpes macrotis marsipus	Desert Kit Fox	
Taxidea taxus	American Badger	
Ovis canadensis nelsoni	Bighorn Sheep	
* No subspecies specified in		

* No subspecies specified in records.

I. MEETINGS/COORDINATION

Kick-off Meeting

<u>Kick-off Meeting</u>: The purpose of the kick-off meeting is to discuss any questions the Cooperator may have regarding the Agreement, explain Base access and security requirements/restrictions, clarify schedules and discuss other pertinent information on the work to be performed. This meeting will also serve to introduce the Cooperator to the site and any unique characteristics or specifics for application of the work plan.

Unless otherwise specified in the Agreement, the Cooperator personnel managing the Agreement are expected to be present in person at all meetings.

The Cooperator shall provide meeting minutes to the CATR via e-mail within 15 days after the meeting. Content of meeting minutes shall include, but not necessarily be limited to, a list of attendees with contact information, topics/issues discussed, problems and solutions identified, the "Task List" generated at the meeting with designation of responsible person for each task listed and due dates. The Cooperator shall incorporate any Government comments received on the meeting minutes. Revised meeting minutes shall be submitted via e-mail within five (5) days of receipt of Government comments.

Access and Safety Briefing

The Cooperator and all its employees and subcontractors will need to attend Environmental and Range Safety Briefings to gain field access. These briefings can be scheduled through the Environmental Office and usually take a half day to complete. Topics include desert tortoise conservation, desert survival, basic radio communications, and ordnance avoidance. This half day can be scheduled in conjunction with an on-site Kickoff Meeting or separately.

Annual Half Day Meetings (Small).

<u>End of Study</u>: There shall be one more meeting at the end of each year of the project to discuss results including coverage, future planning, method refinement, analysis, write-up, results, and any resulting publications the Cooperator may wish to prepare and submit. These meetings can be held at the end of the field effort before field personnel depart for the season.

Unless otherwise specified in the Agreement, the Cooperator personnel managing the Agreement are expected to be present in person at all meetings.

The Cooperator shall provide meeting minutes to the CATR and BTR via e-mail within 15 days after the meeting. Content of meeting minutes shall include, but not necessarily be limited to, a list of attendees with contact information, topics/issues discussed, problems and solutions identified, the "Task List" generated at the meeting with designation of responsible person for each task listed and due dates. The Cooperator shall incorporate any Government comments received on the meeting minutes. Revised meeting minutes shall be submitted via e-mail within ten (10) days of receipt of Government comments.

J. SUBMITTALS and SCHEDULES

Reports and meetings are meant to satisfy all Base and Options exercised. See Below for due dates, number of copies, and delivery formats.

#	Deliverable	BTR	CATR	Due Date
1	Work Plan & APP	Draft Workplan & APP delivered electronically. Final Workplan & APP [3 hard copies/1 electronic]	Draft Workplan & APP <u>delivered</u> electronically. Final Workplan & APP delivered electronically.	Draft Workplan and APP due within 30 days after the kickoff meeting to facilitate discussion. Final Workplan with APP due within 30 days after receiving Government comments.
2	Progress Reports	Via email and/or FTP	Via email and/or FTP	Semi-annual by the 10 th day of every 6th month through the project. Must precede or accompany invoicing.
3	Draft & Final Report	Electronic copy at all stages Draft Final Report via 2 bound copies and 2 sets of discs Final Report (& GIS) via 2 bound copies, 2 sets of discs, and 1 unbound copy/disc(s)	Electronic copy at all stages Draft Final Report via 1 bound copy, 1 set of discs, and email (or DODSAFE). Final Report via 2 bound copies, 1 set of discs, and email (or DODSAFE) submitted to BTR and 1 unbound copy, and 1 set of discs submitted to NAVFAC records management (see EWI 4 available from CATR or contact Diane Silva <u>diane.silva@navy.mil</u> for current submission instructions)	Draft Final Report due within 60 days of completion of work. Final Report due within 30 days after Gov't comment.
4	Three (3) Half Day Meetings	Electronic Copy of Meeting Minutes	Electronic Copy of Meeting Minutes submitted by email or DODSAFE	Following end of field sampling annually. "Meeting Minutes" due w/in ten (10) days after meeting. Cooperator has five (5) calendar days to submit final meeting

	minutes following Gov't comment.
	End of Study Conference scheduled w/in 15 calendar days of final analysis to discuss publications. Phone meetings scheduled as needed. "Meeting Minutes" due w/in ten (10) days after meeting. Cooperator has five (5) calendar days to submit final meeting minutes following Gov't comment.

Large and Complex Work Plan and Accident Prevention Plan (APP).

The Cooperator shall prepare a proposed Work Plan detailing how the Cooperator proposes to accomplish all Performance Objectives under the Agreement within 30 days after the kickoff meeting and before the commencement of any field work to facilitate discussion of methods at the meeting. The Government will respond with comments within 1 week of the meeting. The Final Work Plan shall incorporate the Government's comments and publish within 2 weeks of the kickoff meeting. The work plan shall comply with all mandates outlined in the base Agreement and shall incorporate project specifics detailed in the pre-performance meeting. The Work Plan shall include, but not be limited to, methodologies for executing each element of the project (both field and analytical treatments), data measurements and requirements, accuracy assessment plans (methodologies and acceptable range of results), project implementation (including site access, reports and their structures, quality control procedures, and preliminary work schedule), personnel and agency roles and qualifications, laboratory services and qualifications (if distinct from personnel and agency), permits and specimen repositories, references, and the accident prevention plan. Modifications to the work plan may be made at any point in the project so long as they are approved by the CATR, BTR, and the Cooperator before applying those changes.

Final work plan will be distributed to the CATR and BTR electronically.

The Recipient shall submit an Accident Prevention Plan/Health and Safety Plan concurrently with the Work Plan, but it shall be printed under a separate cover/separate file from the Work Plan. The APP will detail any anticipated hazards or threats to safety and detail any measures that can or should be taken to avoid or mitigate them. This plan should include Activity Hazard Assessments (AHAs) and any medical or safety certifications held by the project staff such as OSHA training, first aid, or cardiopulmonary resuscitation.

Final APP will be distributed to the CATR and BTR electronically.

Semi-annual (6-month) Progress Reports.

The Cooperator shall prepare Progress Report(s) detailing incremental accomplishment of all Performance Objectives under Agreements. Reports shall be due semi-annually by the 10th of the first month of the Federal half-year. Progress reports shall be prepared on a semi-annual basis on a timeline that matches the timing of the submission of invoices and submitted with or prior to the invoice (preferably attached to the invoice in WAWF). If no progress has been made or the project is on standby, a brief email will suffice to document that the semi-annual report had no significant findings. If the Cooperator prefers to submit quarterly invoices, a less detailed statement of labor and costs will accompany the additional two quarters to clarify invoice charges.

The final progress report of each year will include a summary of the status changes and project standing for the entire year-long period.

Each semi-annual report shall reference the Project, Document number, and Agreement number. The semi-annual report shall include the dates of the reporting period, a summarized account of work accomplished, a figure/map displaying locations of polygons surveyed, an estimate of percentage of work completed, and an estimate of costs to date [written by email separately from the written report and at the same time]. The semi-annual report shall include any past or future potential issues. Progress report structure and information required shall be amended as requested by the CATR.

Progress reports will be distributed to the CATR and BTR electronically.

Large Draft and Final Reports and Publications.

The Cooperator shall prepare a Draft (for Government review) and Final (incorporating Government comments) Report detailing the accomplishment of all Performance Objectives under Agreement during the project. The Draft Final Report is due within 45 days of completion of work and within 60 days of the end of the Period of Performance. The Final Report is due within 30 days of Government comments or by the end of the Period of Performance, whichever is sooner.

The final report will be a comprehensive report compiling, summarizing, and describing the information gathered in all years of this Agreement, satisfying the objectives of section B. The data compendia will be submitted simultaneously with the report, but physically separate from, and not cited in, the report. The compendia will not be cited in the report.

Primary Objectives.

Appendix A below outlines the format the Cooperator will submit for the Draft and Final Report. The draft report shall include line numbering for ease of comment reference. For purposes of the draft report all raw data, data sheets and electronic databases (including GIS data) shall be included with the electronic copy.

The BTR and CATR will review the Draft Report and provide comments and/or modifications to the Cooperator for incorporation into the report.

If the Cooperator takes exception to any of the requests for modification made, a meeting or telephone conference will be held to resolve the issue. If there are unresolved differences, the Cooperator will address these in a separate letter submitted to the BTR and the CATR.

Electronic, legible copies of all raw field data collected and any raw laboratory results are to be submitted at the same time as the draft report, but not as appendices to the report.

All electronic photographs are to be labeled with the project name, location of the photo, and date of the photo.

Final Report Specifics

1. Photographs/images taken as part of this Agreement shall remain Government property and are to be provided electronically on disc(s) with submission of the final report. Cooperators may use the photos internally, and for publication with prior approval by BTR and only with appropriate citation.

2. The final report will be submitted with all of the information contained in the draft report as modified by Government comment.

3. GIS Data - The Cooperator shall submit any new GIS data generated during the field surveys following the guidelines of the installation and the US Marine Corps GEOFidelis. GIS data will be reviewed by the BTR and shall not be considered final until all comments have been incorporated and data accepted by the BTR.

The final report will be distributed to the CATR and BTR electronically as well as in hard copy. The Cooperator shall provide one complete set of hard and electronic copies of the final report for each Agreement (including all photographs, appendices, and data compendia [i.e., copies of all data sheets completed in support of the project, all databases and other supporting information]) to the NAVFAC SW regional NCR Records Management. The transmittal cover sheet and mailing instructions can be found in EWI 4, available from the CATR. The hard copy sent to NCR Records Management shall be unbound and 3-hole punched without a binder. The digital copy provided should be on the minimum number of DVD's or CD's necessary to hold the required information. Two additional hard copies along with an electronic version and any electronic data on CD-ROM or DVD-ROM will be sent to the BTR.

K. DATA AND PUBLICATION

This Cooperative Agreement is subject to, and Recipient shall comply with, 2 CFR 200.315 concerning "Intangible Property," which includes use of research data. Any information or data protected by federal law will be identified by the Government prior to being provided to Recipient and the Government will notify the Recipient in advance of applicable limitations on such information. Except as to information so identified and limited, there are no restrictions on reporting or publishing reports based upon the fundamental research that is the subject of this Cooperative Agreement.

The Federal Government has the right to obtain, reproduce, publish or otherwise use the data first produced under this Agreement and authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

The DoN acknowledges and agrees that the Recipient's fundamental consideration in performing the research under this Agreement shall be Recipient's right to publish the results of such research for academic and scientific purposes. The Recipient shall submit, for review and comment, any proposed professional, scientific or non-scientific report, paper or note published or unpublished or be part of any technical or non-technical presentation or be provided to anyone not a party to this Agreement to the DoN thirty (30) days prior to the submission of the work mentioned above. This includes but is not limited to academic posters and presentations, press and internal articles and emails, and other such media.

The acknowledgments for any paper or presentation resulting from this work shall include the following statement: "This research was funded by the United States Marine Corps through Marine Corps Air Ground Combat Center Twentynine Palms."

Any publications resulting from this work shall be provided at no cost to the Department of the Navy (in the form of a digital copy).

The Recipient shall be responsible for ensuring all personnel participating in activities under this Agreement have read and acknowledged the DATA AND PUBLICATION provisions of this Agreement.

L. RELEASE OF INFORMATION

The Recipient shall not respond to any inquiries about this Cooperative Agreement from the news media or non-governmental organizations or other persons during the term of this Cooperative Agreement unless it has first consulted with the Government and a determination appropriately made by the cognizant Government representative concerning release of information pursuant to the authority (Federal or State) cited by the requester. All inquiries shall be directed to the Communications Strategy and Operations Directorate (COMMSTRAT) at the Installation and Public Affairs Officer (PAO) at NAVFAC SW through the MCAGCC Twentynine Palms Representatives, CATR, and CAA.

M. SAFETY

The Recipient will be required to develop an Accident Prevention Plan (APP) following the format in Appendix A of the EM 385-1-1, US Army Corps of Engineers Safety & Health Requirements Manual, 30 November 2014 or latest edition. The government CATR will contact the SW EV Safety Office to check if the project may qualify for the Abbreviated APP, prior to directing the recipient to prepare an APP. Additional specific plan or plans is/are required if the project involves work that is potentially hazardous. List of specific plans is located at section (i) of Appendix A of the EM 385-1-1.

Include an Activity Hazard Analysis (AHA) for all tasks reasonably anticipated to be performed as part of this scope of work. Format and instructions for the AHA is in section 1 of the EM 385-1-1. As a minimum, references used to develop the APP and AHA are: EM 385-1-1 (or latest addition), and

Local Activity safety plans and standard operating procedures. When developing the APP and AHA, address all sections that are deemed appropriate for performing the work in this CA, while ensuring a safe work environment for all personnel involved. The draft APP and AHA have to be reviewed by the Government Designated Authorities (SW EV Safety Office, CATR, ROICC/FEAD) prior to start of field work activities.

NOTE: AHA is an attachment required by the APP.

The APP and AHA will provide a safe and healthful environment for all personnel involved as well as personnel working near the sites for the DoN. The Recipient shall certify to CATR that the final APP and AHA have been reviewed with each Recipient employee working on this Cooperative Agreement prior to mobilization and start of fieldwork activities.

A Draft and Final APP and AHA will be submitted concurrently with the Work Plan but shall be printed under a separate cover from the Work Plan. The final APP and AHA shall be immediately accessible to the Site Safety and Health Officer (SSHO) and Project Manager at all times during the project, and a copy shall be available in every vehicle used for work under this Cooperative Agreement. The SSHO is required to have completed the 40-hour OSHA EM 385-1-1 Safety Training.

Man-hour reporting is also required by the EM 385-1-1 and the Unified Facilities Guide Specifications (UFGS) -01 35 26, (February 2012) change 2, 08/13. The recipient will provide a Monthly Exposure Report (MER) and will attach this report to the quarterly (or other specified interval) billing request. The CATR will submit a copy of the MER to the SW EV Safety Office.

Site Assist Visit (SAV). While the recipient is performing the job on-site, a SW EV Safety representative may perform an SAV. The recipient is required to comply with the contents of the final APP (with the AHA). Any modifications to the APP shall be approved first by the GDA prior to continuing work. Also the recipient has to comply with the requirements of the Section 1, Program Management, of the EM-385 -1-1, while at the job site.

N. HOLD HARMLESS

The US Government shall not be responsible for the loss of or damage to property of the Recipient and/or his/her representatives, or for personal injuries to the Recipient and/or his/her representatives arising from or incident to the use of government facilities or equipment. Recipient shall indemnify, hold harmless, defend and save Government harmless and shall pay all costs, expenses, and reasonable attorney's fees for all trial and appellate levels and post-judgment proceedings in connection with any fines, suits, actions, damages, liability and causes of action of every nature whatsoever arising or growing out of, or in any manner connected with, the occupation or use of Government Premises by Recipient, its employees, servants, agents, guests, invitees, and Recipients. This includes, but is not limited to, any fines, claims, demands and causes of action of every nature whatsoever that may be made upon, sustained or incurred by the Government by reason of any breach, violation, omission or non-performance of any term, covenant or condition hereof on the part of the Recipient, its employees, servants, agents, guests, invitees, or Recipients. This indemnification also applies to claims arising out of the furnishings of any utilities or services by the Government or any interruption therein or failure thereof, occasioned by the negligence or lack of diligence of Recipient or its respective officers, agents, servants or employees. However, this indemnify shall not extend to damages due to the sole fault of the Government or its employees, agents, servants, guests, invitees or Recipients. This covenant shall survive the termination of this Cooperative Agreement.

In the event of damage, including damage by contamination, to any US Government property by the Recipient, its officers, agents, servants, employees, or invitees, the Recipient, at the election of the US Government, shall promptly repair, replace, or make monetary compensation for the repair or replacement of such property to the satisfaction of the US Government.

O. INSURANCE

At the commencement of this Cooperative Agreement, the Recipient shall obtain, from a reputable insurance company or companies satisfactory to the Government, comprehensive general liability insurance. The insurance shall provide an amount not less than a minimum combined single limit of \$1,000,000.00 for any number of persons or claims arising from any one incident with respect to bodily injuries or death resulting therefrom, property damage or both, suffered or alleged to have been suffered by any person or persons resulting from or related to the presence or operations of the Recipient, its employees, agents or contractors under this Cooperative Agreement. The Recipient shall require the insurance company or companies to furnish the Government with a certified copy of the policy or policies, or certificates of insurance evidencing the purchase of such insurance. Each policy of insurance required under this Paragraph shall contain an endorsement reading as follows:

"The insurer waives any right of subrogation against the United States of America which might arise by reason of any payment made under this policy."

All insurance required of the Recipient hereunder shall be in such form, for such periods of time and with such insurers as the Government may require or approve. All policies or certificates issued by the respective insurers for public liability and property insurance shall name the United States of America as an additional insured, and shall provide that no cancellation, reduction in amount or any material change in coverage thereof shall be effective until at least 30 calendar days after receipt by the Government of written notice thereof, regardless of any prior act or failure to act or negligence of the Recipient or the Government or any other person concerning such amount or change in coverage.

The Recipient at its sole cost and expense, may insure its activities in connection with this Cooperative Agreement by maintaining a program of self-insurance that complies with the requirements of this Section O, including coverages specified in Attachment A hereof. Recipient shall also provide a copy of the exempting statute cited in support of its claim of self-insurance pursuant to Section 2 of Attachment A to this Cooperative Agreement. (The self-insurance clause is applicable only to appropriate state and local governments and qualifying institutions of higher education who provide evidence of a self-insurance program in accordance with this Section and Attachment A, Section 2.)

During the entire period the Cooperative Agreement shall be in effect, the Recipient shall require its contractors or agents or any contractor performing work at the Recipient's or agent's request on the affected Government Premises to carry and maintain the insurance required below:

"Comprehensive general liability insurance in the amount of 1,000,000.00."

The Recipient and any of its contractors or agents shall deliver or cause to be delivered promptly to the Cooperative Agreement Administrator, a certificate of insurance or a certified copy of each renewal policy evidencing the insurance required by this Cooperative Agreement and shall also deliver no later than thirty (30) calendar days prior to expiration of any such policy, a certificate of insurance evidencing each renewal policy covering the same risks.

In the event that any item or part of the premises or facilities shall require repair, rebuilding, or replacement resulting from loss or damage, the risk of which is assumed under this Section O, the Recipient shall promptly give notice thereof to the Government and, to the extent of its liability as provided in this Section O, shall, upon demand, either compensate the Government for such loss or damage, or rebuild, replace or repair the item or items of the premises or facilities so lost or damaged, as the Government may elect. If the cost of such repair, rebuilding, or replacement exceeds the liability of the Recipient for such loss or damage under this Section O, the Recipient shall affect such repair, rebuilding, or replacement if required so to do by the Government, and such excess of cost shall be reimbursed to the Recipient by the Government. In the event the Recipient shall have effected any repair, rebuilding, or replacement which the Recipient is required to effect pursuant to this Section O, the Government shall direct payment to the Recipient of so much of the proceeds of any insurance carried by the Recipient and made available to the Government on account of loss of or damage to any item or part of the premises or facilities as may be necessary to enable the Recipient to affect such repair, rebuilding or replacement. In the event that the Recipient shall not have been required to affect such repair, rebuilding, or replacement, and the insurance proceeds allocable to the loss or damage which has created the need for such repair, rebuilding or replacement have been paid to the Recipient, the Recipient shall promptly refund to the Government the amount of such proceeds.

P. PAYMENTS

Partial payments equal to the amount of work accomplished may be made quarterly; after submittal of the draft report; and after receipt of the final report.

The final payment of 20 percent of the Cooperative Agreement overall value shall be paid when the final report and all other submittals listed in Section I have been received and accepted by the CATR.

Any requirement for the payment or obligation of funds, under the terms of this Cooperative Agreement, shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 USC §1341 <u>et seq.</u> Nothing in this Cooperative Agreement shall be construed as implying that Congress will, at a later time, appropriate funds sufficient to meet deficiencies.

Payments will be made in accordance with Defense Federal Acquisition Regulation (DFAR) 252.232-7006 Wide Area Work Flow Payment Instruction. See Attachment WAWF Instructions for instructions on payment procedures.

Q. EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT REPORTING

Section 2(d) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. No. 109-282), as amended by section 6202 of the Government Funding Transparency Act of 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all

reported information be made public, therefore, the Contractor is responsible for notifying its subcontractors that the required information will be made public.

Unless otherwise directed by the Contracting Officer, by the end of the month following the month of award of a first-tier subcontract with a value of \$25,000 or more, (and any modifications to these subcontracts that change previously reported data), the Contractor shall report the following information at http://www.fsrs.gov for each first-tier subcontract:

(a) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has one.

(b) Name of the subcontractor.

(c) Amount of the subcontract award.

(d) Date of the subcontract award.

(e) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.

(f) Subcontract number (the subcontract number assigned by the Contractor).

(g) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(h) Subcontractor's primary performance location including street address, city, state, and country.

Also include the nine-digit zip code and congressional district.

(i) The prime contract number, and order number if applicable.

(j) Awarding agency name and code.

(k) Funding agency name and code.

(1) Government contracting office code.

(m) Treasury account symbol (TAS) as reported in FPDS.

(n) The applicable North American Industry Classification System (NAICS) code.

By the end of the month following the month of a contract award, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for the Contractor's preceding completed fiscal year at <u>http://www.ccr.gov</u>, if –

(a) In the Contractor's preceding fiscal year, the Contractor received -

- (i) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
- (ii) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(b) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <u>http://www.sec.gov/answers/execomp.htm</u>).

Unless otherwise directed by the Contracting Officer, by the end of the month following the month of a first-tier subcontract with a value of \$25,000 or more, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for each first-tier subcontractor for the subcontractor's preceding completed fiscal year at <u>http://www.fsrs.gov</u>, if

(a) In the Subcontractor's preceding fiscal year, the Subcontractor received –

- (i) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
- (ii) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(b) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <u>http://www.sec.gov/answers/execomp.htm</u>).

If the Contractor in the previous tax year had gross income, from all sources, under \$300,000, the Contractor is exempt from the requirement to report subcontractor awards. Likewise, if a subcontractor in the previous tax year had gross income from all sources under \$300,000, the Contractor does not need to report awards to that subcontractor.

END

Attachment A REPORT FORMAT

The Draft and Final Reports shall follow the formats described by The Ecological Society of America ('Ecology') or Cox et al. 2018 for Journal of Wildlife Management, which is available at <u>http://wildlife.org/wp-content/uploads/2018/01/TWS-Journal-Guidelines-2018.pdf</u>. Where the Journal of Wildlife Management Manuscript Guidelines do not provide sufficient direction, please follow the standards provided in Scientific Style and Format; The CSE Manual for Authors, Editors, and Publishers. Seventh Edition, Style Manual Committee Council of Science Editors. Unless approved otherwise by the government, all statistical analyses are to be reported after Tacha, Warde, and Burnham (1982).

- Reports shall be submitted on 8 ¹/₂ by 11-inch paper with folded maps or tables, as appropriate. All originals will be reproducible by black and white xerography and hard copies bound. Digital formats will include both MS Word and .PDF files that are compatible with Microsoft Office 2016 and Adobe Acrobat Reader, or more recent versions. Draft documents will include line and page numbers. Final documents do not require line numbers. The page numbers should be located in the upper outside corner of each page with a spinal title displaying project title and year(s).
 - a. The final report shall be arranged as follows:
 - i. Cover
 - 1. Final Report
 - 2. Title
 - 3. Marine Corps Air Ground Combat Center, Twentynine Palms
 - 4. Contract No.
 - 5. Task Order No.
 - 6. Contractor Project No.
 - 7. Date Produced
 - 8. Photograph of species or effort
 - 9. Submitted to: Logo, and Marine Corps Air Ground Combat Center, Twentynine Palms, logo, and NAVFAC Southwest
 - 10. Submitted by: Logo, and Company name
 - ii. Sub-title page showing:
 - 1. Title
 - 2. Prepared by listing with affiliations
 - 3. Prepared for listing
 - 4. Prepared under listing
 - 5. Date
 - 6. Recommended citation
 - iii. Table of contents arranged as follows:
 - 1. table of contents
 - 2. list of tables
 - 3. list of figures (photos are considered figures)
 - 4. list of appendices
 - iv. Introduction
 - 1. Summary (include an overview of the project)
 - 2. Objectives (clearly state the project's purpose and objectives)

- 3. Project Area
- 4. Environmental Setting
- v. Methodology
 - 1. All data collection methods must be explained in sufficient detail that another biologist could duplicate the effort. Descriptions should reflect the order of events and identify equipment used (both hardware and software).
 - 2. All statistical analyses for which results are reported in section vi should be explained here with a discussion detailing the reasons for choosing this set of methods.
- vi. Results
 - 1. Review all data collected from the various work elements of the study. Data is to be presented using both tables and figures, as appropriate.
 - 2. Identify and analyze any notable statistical trends resulting from statistical analyses.
 - 3. Identify in a table all the tasks performed, as well as the total person-hours expended per activity to complete the work, and any other information that would enable the reader to specifically quantify total person-hours required for the entire effort.
 - 4. Note the statistical significance of any findings including accuracy assessments and statistical strength. All results should refer back to a discussion in section v. Methodology.

vii. Discussion

- 1. Answer the questions provided in Section 2 and the work elements.
- 2. Discuss the quality of the data and the methods.
- 3. Identify factors which may be important in conducting more effective monitoring efforts in future years.
- 4. Discuss any implications that are important for the health and interaction of species, physical environment, and human factors.
- 5. Describe the significance of any new findings.
- viii. Management Recommendations
 - 1. Provide recommendations for changes and/or improvements to monitoring sites and methodologies, including but not limited to the types of data collected and methods that may be novel.
 - 2. Recommended management actions, research, or monitoring efforts to promote recovery of the species region wide.
 - 3. Any lessons learned from this treatment that may improve future treatments.
 - 4. Additional questions raised during the study by the Contractor or the Government that may require follow-up work.
 - ix. Conclusions
 - x. References