

## Statement of Work

### **Arroyo Toad Survey and Upland Study at Naval Weapon Station Seal Beach Detachment Fallbrook, CA**

#### **Background**

This project will occur on Naval Weapons Station Seal Beach Detachment Fallbrook (“Detachment Fallbrook” or “Station”) in northwestern San Diego County, California. The federally listed endangered arroyo toad (*Anaxyrus californicus*; ARTO) occurs within the Santa Margarita River (SMR) on the Station. The SMR defines the majority of the Station’s boundary with the northern side of the river owned by Marine Corps Base Camp Pendleton. In accordance with the Station’s Wildland Fire Management Plan Biological Opinion (FMP BO; FWS- SD-3506.3) and Integrated Natural Resources Management Plan (INRMP), Detachment Fallbrook is required to conduct periodic monitoring for the ARTO that includes a five-year comprehensive ARTO breeding survey and habitat suitability mapping along the SMR.

The primary purpose of this project is to survey for the presence/absence and relative abundance of breeding ARTO, map habitat suitability, and to fulfill the monitoring requirements of Detachment Fallbrook’s Wildland Fire Management Plan Biological Opinion (FMP BO; FWS-SD-3506.3). The FMP BO requirements focus on the breeding component of the ARTO life history.

The following statement is the requirement as stated in the FMP BO:

“The Santa Margarita River will be surveyed for breeding adult toads at least once every 5 years. Surveys should be scheduled during years when winter/spring rainfall is (or predicted to be) above average, to maximize the potential for detecting breeding toads. The habitat suitability for toads, and distribution and amount of all riparian habitat within surveyed areas will also be assessed and reported concurrent with toad survey results following methodologies and classifications commonly used in southern California for this species. All surveys will be conducted by qualified personnel familiar with toad biology and survey methodologies.” (p. 9, FMP BO)

For mission support purposes, the Navy also wishes to better understand the non-breeding component of the ARTO life cycle and the extent to which the species utilizes upland habitat aboard the Station. In 2003, a predictive model of ARTO distribution on the Detachment was developed based on a suite of factors associated with the ecology and behavior of the ARTO. The purpose was to predict the dispersion density of ARTO on the Station. The model was mostly (if not entirely) a GIS based exercise with slope and distance from potential breeding habitat being the primary factors considered in model development. Overall, the model predicts ARTO movement, barriers to movement, and toad density on the Station. This model was reviewed for its ability to predict these metrics in 2010; the review identified multiple issues with the model including inadequate data. More work on the model, including a continuation of rigorous field testing in upland areas and incorporation of different GIS

data was suggested. Herpetological survey data conducted at Detachment Fallbrook since the 2010 model review, as well as historical data, will be available to the cooperator.

## **Objectives**

The objectives of this project are to:

- (1) produce BO-compliant 5-year survey results (breeding component of life cycle),
- (2) yield greater insight into actual and potential upland (non-breeding) habitat utilization by ARTO on Detachment Fallbrook which will be reflected in a revised model (GIS map) of potential ARTO movement/distribution, and
- (3) contribute to the herpetological diversity and distribution accounts inventory for the installation.

This project will supply the required information to ensure mission readiness is not impeded by accidental takes of this federally protected species and directly support the Integrated Natural Resource Management Plan of the installation.

## **Services Requested**

### **Task 1: Riverine Field Surveys**

The cooperator shall survey for signs for breeding ARTO (presence of eggs, larvae, juveniles, and adults) along the approximately 4.7 linear miles (7.6 km) of the Santa Margarita River that borders Detachment Fallbrook. (This portion of the SMR has an estimated 376.3 acres [152.3 ha] of associated riparian habitat.) Surveys shall be in accordance with USFWS protocol for this species (e.g., reporting requirements, avoidance/minimization of potential harm/injury to animal, etc.), with the exception of where this SOW specifies otherwise. Survey shall be conducted during a year when winter/spring rainfall is (or predicted to be) adequate, ideally above average, to maximize the potential for detecting breeding toads. Surveys shall not be conducted during extreme conditions (e.g., extended drought, cold weather) when detection of ARTO presence is unlikely.

- Surveyor shall have a current 10(a)(1)(A) permit or a minimum of 100 hours of documented supervised field experience working with this species.
- A minimum of six (6) survey passes must be conducted along the entire length of the SMR as it borders the Station during the breeding season, which generally occurs from 15 March through 1 July.
  - At least five (5) survey passes shall be daytime surveys, with at least seven (7) days between surveys.
  - At least one survey pass shall be in the months of April, May, and June.
  - Nighttime surveys should be conducted in areas where conditions appear suitable for ARTO but no ARTO (eggs, larvae, metamorphs, adults) have been detected during the day.
  - To the extent feasible, nighttime surveys should occur within the same 24-hour period as a daytime survey. Should the 24-hour period not be feasible, the nighttime survey should be conducted as soon after a daytime survey as possible, with no

greater than 3 days between a daytime and nighttime survey. (Due to steep topography in the SMR drainage along the Station boundary, there are only a couple of places where one can reasonably enter/exit the drainage. This can create long survey days along some stretches and it may not be feasible to re-survey with the same field crew within 24 hours. However, locations of all ARTO sightings in the daytime – especially eggs, larvae, metamorphs – shall be conveyed to nighttime surveyors to exercise avoidance and minimization of potential impacts.)

- Nighttime surveys will be conducted with a minimum of two (2) personnel for safety reasons (only one surveyor needs to meet the qualifications for conducting the survey).

Daytime surveys shall include an assessment and mapping of ARTO habitat suitability.

- Basic pool data (water depth, velocity, temperature, turbidity, salinity, etc.) should be collected on any occupied pools and unoccupied but apparently suitable pools.

- The map shall indicate where the adjacent upland habitat appears to have the potential for ARTO expansion and where the terrain presents barriers to movement (provide descriptions, including whether barrier is generally considered more “permanent” such as rocky outcrop or “temporary” such as dense undergrowth that could be opened up if there was a fire).

- Surveyor shall document the presence and abundance of predators, exotic flora/fauna, and other habitat features that may inhibit ARTO population sustainability/growth.

- Presence of exotic plants (e.g., dense stands of *Arundo*) or even native species (e.g., thick mats of watercress) that may be inhibitory to ARTO.

- Presence of nonnative fauna (e.g., bullfrogs, bluegill, crayfish)

- Areas of potential erosion/sedimentation into the river.

## **Task 2: Upland Field Surveys**

To improve Detachment Fallbrook’s ARTO predictive model (potential occupancy map) by conducting arroyo toad surveys (to include pitfall trapping or equivalent level of effort surveys) in upland areas and revise/update the current GIS model using new GIS layers, data from 2010, and any additional data gathered during the course of this study. Upland surveys will include telemetry of up to 20 individual arroyo toads, preferably detected in upland habitats outside of the riparian habitat, and tracked for a full year.

## **Task 3: Reporting**

The Cooperator shall provide an electronic and hard copies of draft and final summary reports to the Contracting Officer Representative (CORs) and Station Technical Representative (STR). The report shall include biological background, methods, results, and discussion. Maps shall be used in the report to help depict spatial and temporal distribution of all arroyo toads and incidental captures located during the study. Tabular data shall be submitted in Microsoft Excel and the report shall be submitted in Microsoft Word. GIS data shall be submitted with draft and final reports. Two hard copies of the draft report and three hard copies of the final report are requested.

## **Geographical Information System (GIS) Deliverables**

The Cooperator shall deliver GIS deliverables following the latest version of the Spatial Data Standard for Facilities, Infrastructure and Environment (SDSFIE) format. Accompanying the final GIS delivery will be a sufficient level of metadata regarding the project files to allow a reasonable understanding of the source, accuracy, modifications to, and applicability of the data provided. All submitted metadata must follow Federal Geographic Data Committee (FGDC) Standards specified in Content Standard for Digital GeoSpatial Metadata (FGDC-STD-001-1998) (FGDC 1998).

## **Performance Period**

The Period of Performance for this investigation will be until 30 November 2016.

## **Special Provisions**

A permit issued by the U.S. Fish and Wildlife Service is required for surveying and handling of the ARTO since this species is listed as endangered. The cooperator will be responsible for obtaining the necessary permits and authorizations from the U.S. Fish and Wildlife Service and/or State of California before the work is conducted.

## **Station Technical Representative**

Christy Wolf  
Conservation Program Manager  
Naval Weapons Station Seal Beach Detachment Fallbrook  
700 Ammunition Road  
Fallbrook CA 92028-3187  
[christy.wolf@navy.mil](mailto:christy.wolf@navy.mil)  
(760) 731-3425

Access to on-base areas at Seal Beach Naval Weapons Station Detachment Fallbrook shall be coordinated with Ms. Christy Wolf (see Attachment A).

## **Contracting Officer Representatives**

Chris Petersen  
Natural Resource Specialist  
Naval Facilities Engineering Command Atlantic  
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## Attachment A

### Passes and Badges:

The Cooperator shall be responsible for obtaining all necessary security and entrance clearances for himself/herself, his/her personnel, and any cameras, radio-transmitting devices (including cellular phones), and vehicles to be used. The Cooperator and his personnel must comply with all Station security and safety rules, regulations, requirements, and day-to-day operational changes thereto. All Cooperator personnel while on U.S. Government property, specifically Naval Weapons Station Seal Beach Detachment Fallbrook, must carry identification badges. The Cooperator shall contact the SC to determine badge and pass procedures. To obtain badges, the Cooperator and his personnel will need to provide the SC with the following information prior to conducting work on the Station:

Name, Date of Birth, Place of Birth, and Proof of Citizenship or Naturalization.

The Cooperator shall maintain current Employment Eligibility Verification (I-9) forms for all personnel. Upon expiration, or by request of the SC, identification badges must be surrendered to the office where the passes were obtained. The Cooperator and his personnel must possess a valid state driver's license to operate motorized vehicles on the Station, and shall provide evidence of insurance, required by California state law, for each non-government vehicle used at the Station.

When an employee leaves the Cooperator's service, the employee's pass and badge shall be returned within 10 calendar days.

All Cooperator employees shall obtain the required employee and vehicle passes. The Government will issue badges without charge. Each employee shall wear the Government issued badge over the front of the outer clothing. When an employee leaves the Cooperator's service, the employee's pass and badge shall be returned within 10 calendar days.

In addition to the badge requirements for access to magazine areas of the Station, non-military personnel who require routine access to the Station must obtain a RAPID Gate access pass. The RAPID Gate Program enables electronic verification of identity and access privileges at the access control points, thereby improving security and streamlining access to the installation.

The Cooperator must enroll in the program and register any employees who will require unescorted access to the Station. The Cooperator is responsible for all costs associated with participating in RAPID Gate. There are two options for obtaining access into the installation. These are:

- (a) RAPID Gate 90 day access pass - approximately \$59 per each personalized RAPID Gate ID Credential.
- (b) RAPID Gate 1 year access pass- approximately \$159 per each personalized RAPID Gate ID Credential.

Fees for RAPID Gate are subject to change. Questions about RAPID Gate Program should be addressed to [info@rapidgate.com](mailto:info@rapidgate.com) with the subject line RE: RAPID Gate Program, or by calling 1-877-RAPIDGate (1-877-727-4342).

For anyone without a valid Military ID or a valid RAPID Gate ID credential, temporary one-day access (e.g., meeting participation) may be granted. Full escort may be required. To obtain a temporary one-day badge and vehicle pass, individual(s) will be required to: check in at the Pass and Identification Office during regular office hours (Monday through Friday, 0700-1200 and 1230-1530); provide a valid Driver's license, proof of insurance, and vehicle registration. The Cooperator must provide a minimum of two (2) business days advanced notification for temporary, one-day access requests. Any temporary, one-day badges must be returned to the Pass and Identification Office upon departure from the Station.