



Request for Proposals (RFP)

Proposals are Due December 10, 2024
(5:00 pm PST)

*Vegetation Surveys for
2025 Pilot Study for
Mohave Ground Squirrel*
RFP MGSWCB 24-2

MGSCC Grant Coordinator:

Kathryn Simon, Email kathy.simon@mgsconservation.org, Phone 909-289-4649

Alternate MGSCC Contact for Administrative Questions:

Don Mitchell, Email don.mitchell@mgsconservation.org, Phone 909-754-6939

Proposals will be disqualified and not reviewed if they are

- ◆ Submitted after the submittal end time stated above,
- ◆ Incomplete, or
- ◆ Not meeting the specifications of the scope of work and costs detailed below.

Introduction

The Mohave Ground Squirrel Conservation Council (MGSCC) is a 501(c)(3) nonprofit organization formed in January 2023 with a mission to assure the perpetual survival of viable populations of Mohave Ground Squirrels throughout their historical range and any future expansion areas. More information can be found for the MGSCC at our website at mgsconservation.org.

The MGSCC has been awarded several grants related to establishing a long-term monitoring program for the Mohave ground squirrel (*Xerospermophilus mohavensis*), a California threatened species endemic to the western Mojave Desert of California. 2025 will be the second year of a pilot program designed by U.S. Geological Survey (USGS) to assist in determining methods for expanding this effort throughout the species' range. As part of this effort, vegetation surveys will be conducted for the purposes of informing remote sensing for vegetation.

Proposal Schedule

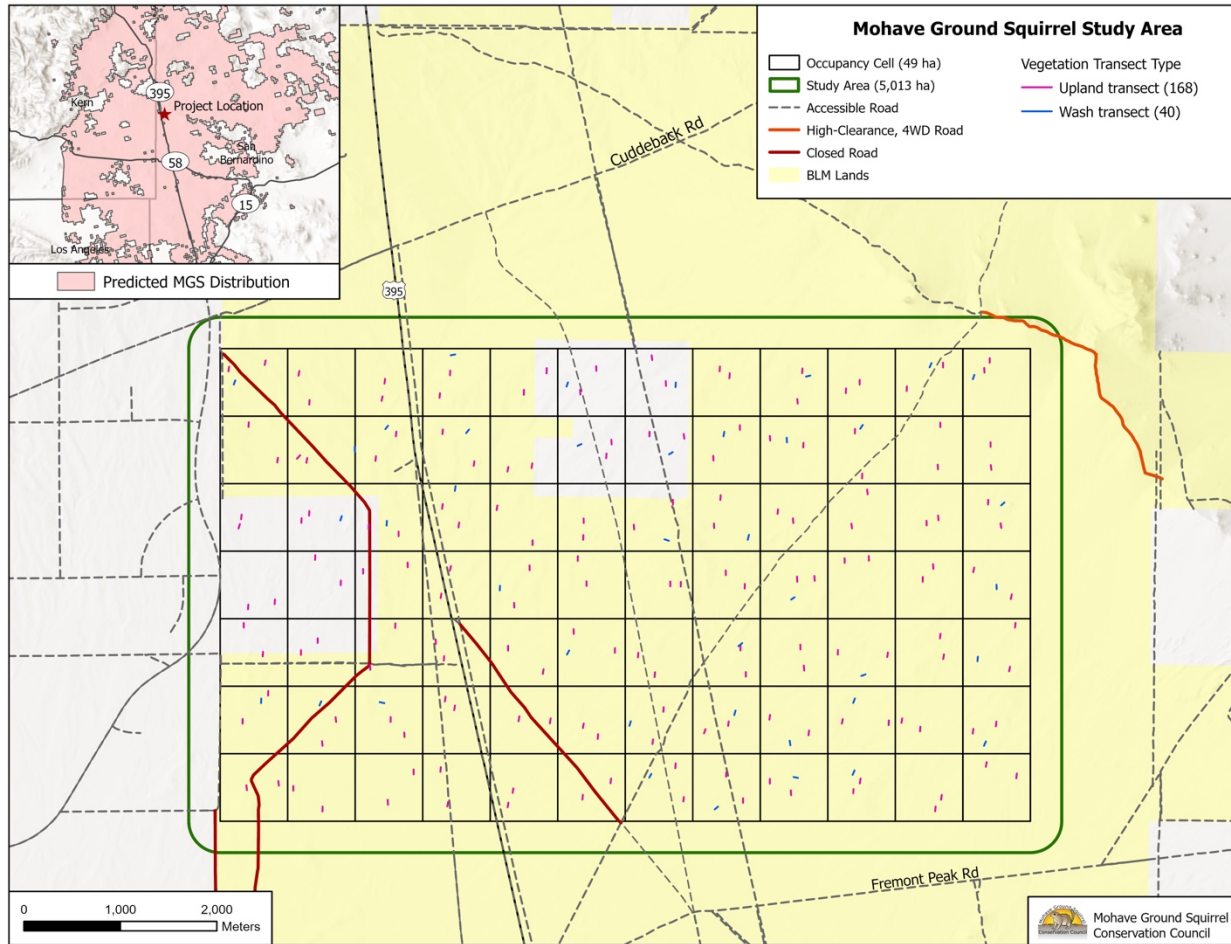
November 15, 2024, 5pm PST
November 21, 2024, 5pm PST
December 10, 2024, 5pm PST

Questions sent to contacts above.
All questions and answers to be posted on MGSCC website.
All final proposals due to contact listed above via email.

Performance Period and Location

The period of performance for this work is February through September 2025, with vegetation surveys to be conducted in Spring 2025 during periods of greatest ability to detect annual species.

The figure below shows the location of the approximately 5,000-acre study area, existing vegetation transects, and open routes of travel.



Scope of Work

Line-intercept transects will be used to estimate cover by perennial species, and ancillary information will be collected on species richness using a relevé technique and quadrats for annual vegetation measurements as described below.

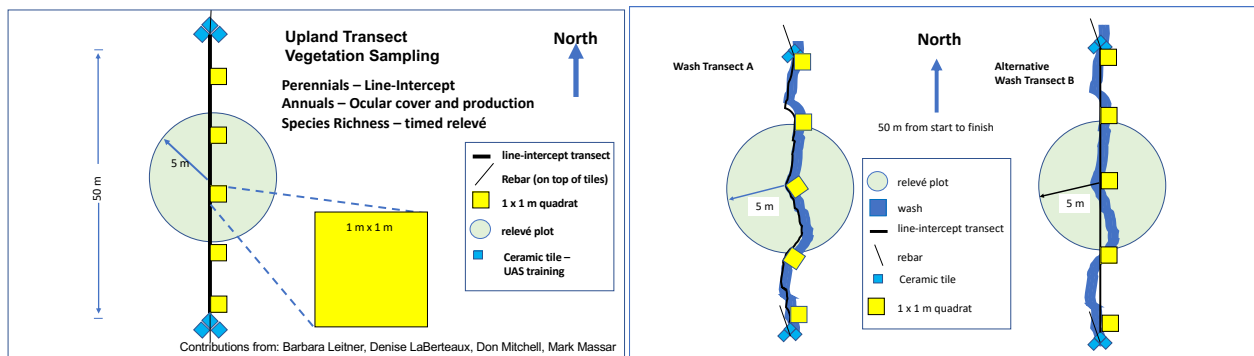
In spring 2024, 208 vegetation transects were established for the study area as shown on the figure above. Rebar and ceramic tiles remain in place from 2024 surveys to assist in completing the same transects in 2025. The diagrams on the following pages illustrate how these transects are set up, and descriptions of surveys are discussed below.

Perennials

Line-intercept transects will be completed in both upland and wash areas to provide absolute measures of cover by perennial plant species, as well as measurements of canopy gap between shrub canopies. There will be 208 existing line-intercept transects of 50 m length with each end marked by re-bar surrounded by three white 4-inch ceramic tiles as a remote sensing target (see diagrams below). The re-bar provides start and end points that are highly reproducible during ground-based or aerial surveys.

Upland transects will run from south to north and will be measured starting at 0 m on a 50-m tape stretched between the two re-bar stakes and run to the 50-m mark. Generally wash transects will run upwash from the start point and will be established along the left edge of wash looking up the wash (example in figure Wash Transect A). Some areas within the study site are very difficult to interpret wash edges. When the field teams find it impossible to establish the wash edge the wash transect can be run straight up the wash approximating the left edge to the extent possible (example Wash Transect B). In all cases, every perennial plant will be identified to species and measured at its initial intercept with the line in a continuous measurement to the end of its intercept. Overlapping canopies will be measured and recorded by individual plant by their beginning and ending points regardless of individual plant overlap. Presumed clones (e.g., *Larrea tridentata*, *Lycium* spp.) will be measured as single individuals. Judgement calls may be required for these decisions by the professionals running the transects, and such circumstances can be discussed with project managers. Dead plants that are upright and whose stems are still attached to roots will also be measured on the line-intercept and identified as close to species as possible and status as “dead”. For each perennial plant recorded along the line-intercept, the proportion of the entire plant alive and dead will also be recorded, as well as crushed plant cover (e.g., by vehicles) for damage classification. Stems that are separated from the ground will be considered litter. Phenological status of the majority of entire plant (i.e., vegetative, bud, flower, fruit, senescent) will be listed for each perennial plant that is encountered.

Data Collection – Veg Sampling



Relevé plot. At the 25-m mark of each 50-m line-intercept transect, a timed, circular relevé plot will be established with a 5 m radius to provide a robust estimation of local annual and perennial species richness and perennial relative abundance. These data will increase the knowledge about capturing rare species that can be missed on the line-intercept. On the Relevé plot all plants rooted in the plot (perennials and the current year’s annuals, whether fresh or senescent) will be identified to species, and percent cover of the live portion of each perennial species, or portion thereof that is in the plot, will be estimated to the nearest 1%. Both people can search for 15 minutes while one records species as they are encountered. It is possible that the duration of the relevé be adjusted after consultation with the project manager depending on production in 2025 to maximize efficiency. A formula to calculate relative abundance for each perennial species will be included in the data spreadsheet.

Annuals

Annual sampling will be scheduled to coincide with peak production in the area. Annual plant cover and average height, to the nearest 1 cm, on quadrats will be used to estimate annual plant biomass. There will be five 1 m² quadrats located along each line-intercept transect at the 0-m, 10-m, 20-m, 30-m, and 40-m marks, and they will be placed on the east side of the line-intercept to avoid trampling during perennial work and conducted prior to the Relevé plot. Cover of annuals will be estimated to the nearest 1% or

categorized as <1% if cover is less than 1% by ocular estimation to species on each 1 m² quadrat. Training and cover charts will be provided for comparison among cover estimates. Depending on the abundance of certain species, such as *Erodium cicutarium* and *Brassica tournefortii*, they may bias the estimates or make it difficult to make estimates. Therefore, estimating average height will take into consideration the varying biomass of individual plants.

Meetings

Meetings will be held throughout 2025 to ensure successful completion of this scope of work. The following meetings are anticipated, and all meetings will be held online using Microsoft Teams:

- ◆ February 2025 – kickoff meeting with Contractor, MGSCC and USGS. Contractor will be supplied with login info for Field Maps and Survey123, and access to data systems that will be used in 2025.
- ◆ Approximately 2 additional shorter meetings throughout the year to coordinate with MGSCC and USGS to ensure continued success of vegetation data collection and deliverables.

Additional Scope Elements

1. The Lead Botanist for this effort will meet with USGS and MGSCC project managers and the Lead Data Manager for the project prior to fieldwork and review:

- a. Project expectations and schedule,
- b. Data methods for digital and/or hard copy data collection,
- c. Data requirements including a preliminary plant list to agree on perennials versus annuals. Additional species will be added and categorized as encountered. In 2024, the following perennial herbs were treated as annuals:

Lomatium mohavense

Stephanomeria parryi

Euphorbia albomarginata

Dipterostemon capitatus ssp. *pauciflorus*

And the following perennial herbs were not treated as annuals:

Astragalus laynae

Astragalus lentiginosus

Sphaeralcea ambiguum

Mirabilis laevis

Delphinium parishii ssp. *parishii*

2. Recording all data as required in FieldMaps and/or Survey 123 and/or on paper data sheets as provided by MGSCC.
3. If data were recorded on paper data forms, then enter that data into Excel spreadsheets.
4. Transect markings (rebar and tiles) have been left in the field and not re-collected after the 2024 effort for repeated surveys in spring 2025. Contractor will replace any rebar or tile that is missing.
5. To facilitate the success of this important pilot study contractors may be visited at any time by the MGSCC project manager or USGS research team during the workday for observation and discussion when it does not interfere with the work being accomplished. In addition, funders and agency staff from other federal and state agencies, and funders may visit the project. MGSCC and USGS will make every effort to inform the point of contact for the surveys of visitors.

Materials Provided by MGSCC

MGSCC maintains a project field house in Ridgecrest, CA approximately 30-45 minutes from the study area. The successful contractor will be provided full access to the house and storage area. Amenities at the house include high-speed internet, printer, sleeping and shower facilities, fully equipped kitchen, and laundry facilities. Additional materials and information to be provided by MGSCC include:

- ◆ Example transects and relevé plots will be established in the field and a ½ to one day training will be conducted with USGS and MGSCC personnel at the beginning of this effort. Any costs for this training will be included in costs under this scope of work.
- ◆ Rebar, tiles, measuring tapes, and annual quadrats as needed. Materials will be available at the project storage unit in Ridgecrest.
- ◆ FieldMaps and/or Survey 123 licenses as needed.
- ◆ Digital files for paper data forms.
- ◆ Access letters for this project will be provided to the successful bidder (BLM and private landowners), as well as maps where access has not been granted on private parcels.

Contractor Provided Materials

Contractor is expected to provide the following in their scope of work and cost estimate:

- ◆ Transportation, lodging, food.
- ◆ Insurance including auto and commercial liability insurance.
- ◆ Contractor will follow all requirements of BLM and other landowners regarding access. Access will only be by open BLM routes and by foot. Four-wheel drive or similar vehicles may be needed to access some sites as most of the study area is accessible only by dirt roads.

Deliverables

Deliverables include those that are daily, monthly and end of agreement as outlined below.

Daily Deliverables

1. Completion of FieldMaps and Survey 123 (as provided by MGSCC) daily.
2. Notification by phone and/or email to the MGSCC Project Manager within 24 hours of any logistical issues with specific information on location and details.

Monthly Deliverables

Invoicing for the previous month within 5 business days of the end of the month.

End of the Agreement

1. Provide MGSCC with the Excel spreadsheets, if data were collected on paper forms.
2. Return of all MGSCC equipment to Ridgecrest storage unit and clearance from MGSCC member on all equipment being present and in acceptable condition.
3. Final invoicing by September 5.

Proposal Elements

Provide an approach and costing information.

Approach to complete the scope of work described above.

The approach should be no more than 6 pages single-sided, 1.5 line spacing and will include the following information:

- ◆ Approach to completing scope, or portion of scope proposed.
- ◆ Key personnel.
- ◆ 2 similar projects with brief description.

Resumes and/or CVs may be included as an attachment and not included in page length. Limit each resume to two pages maximum of most relevant information.

Provide one cost, Not-to-Exceed amount, for the entire scope of work presented above.

Please provide any information on discounts applied related to non-profit research funding.

Additional Information

Retention: the MGSCC grants have a retention clause and up to 10% of each invoice may be held in retention until the end of each state fiscal year. MGSCC does intend to pass the same retention to subcontractors in contracts.

Evaluation Criteria: Proposals will be evaluated based on the following criteria: project understanding and technical approach, technical expertise, and cost. Each proposer will also be screened for potential conflict of interest.

Intellectual Property and Data Ownership: All intellectual property rights and data generated from this research project shall remain the exclusive property of MGSCC. The contractor acknowledges and agrees that they do not have any ownership rights, title, or interest in any intellectual property or data produced during this project.