

**Cooperative Agreement for Cooperative Ecosystem Studies Units (CESU)-affiliated
Partner with the Desert Southwest Cooperative Ecosystem Studies Unit**

Project Title: *Aridification and the long-term management of Saguaro Cactus*

Funding Opportunity Description

The USGS Southwest Biological Science Center (SBSC) seeks to provide financial assistance for research investigating the vulnerability of saguaros to aridification in Saguaro National Park (hereafter SAGU), and how to make populations more resilient. The southwest U.S is experiencing a severe, long-term drought that is threatening regional water sources, human health, and plant and wildlife communities. Temperatures at SAGU increased 1.2°C since 1895 and are expected to climb in future decades. Managers at SAGU are observing changes in the vegetation communities, fire regimes, and water resources that are related to long-term drought and exacerbated by higher temperatures leading to long-term aridification.

The Park's namesake species, the saguaro cactus (*Carnegiea gigantea*), is a drought-adapted, long-lived keystone species that directly supports at least 100+ other plant and animal species. The park's saguaro population began rebounding in the 1960s after decades of decline, most likely due to management practices that protected nurse trees, which young saguaros require for shelter from environmental stress. Many of these plants are now reaching reproductive age. However, since the mid-1990s scientists have documented declines in saguaro seedling survival. In the park's Cactus Forest, recruitment since 1995 is <10% of what it was in prior decades, and similar results are observed throughout all habitats in the park.

While recent studies provide insight into how saguaros are responding to changing environmental factors, they do not address causal effects or provide direct answers to questions related to long-term survival of saguaros in the park; key information needed by managers to decide how to protect this species soon. are essential to achieving the park's mission. These questions are especially relevant today given the current poor recruitment in the plant's drier western range including Organ Pipe Cactus National Monument and in the urban heat island of Phoenix, Arizona, where there is anecdotal evidence that otherwise healthy saguaros may be dying due to extreme night-time temperatures.

Challenges to conserving an iconic, keystone species are not unique to SAGU and knowledge and management actions can be applied to other public lands on which saguaro's and potentially other iconic cactus occur.

Research Objectives:

Objective 1: What are the current and expected future ecological niches for Saguaro under different scenarios of aridification and drought?

This objective will be addressed in two parts. For the first part (objective 1a) researchers will use existing saguaro and abiotic data to define the environmental conditions suitable for saguaro

adults, and if data available, for saguaro recruitment and establishment, under current day conditions. In the second part (objective 2b), researchers will apply available data, for the variables determined in Obj. 1a as important for the saguaro, to project future niche suitability for saguaro across both districts of the park. These predicted species distribution models (SDM) for saguaro will be for a range of potential future temperature and precipitation conditions.

For objective 1a, researchers will use existing saguaro and abiotic data to develop statistical and, if available, SOILWAT2 simulation models that best describe the current ecological niche of saguaros at SAGU. Using that output, and data from ancillary studies as available, we identify the variables of importance for the saguaro life cycle, including for recruitment and establishment. In the second part (objective 1b), researchers use these variables as predictor data to project the future niche suitability for saguaro across both districts of the park. These predicted species distribution models for saguaro cacti will be for a range of projections up to the turn of the century. Where sufficient data is available models will address the full saguaro life cycle in the future - recruitment, establishment, and adult phases. To create the future models, researchers will apply niche modelling statistical approaches and or software Maxent and quantify model performance using established guidelines.

Objective 2: What areas of the Saguaro National Park are Saguaro Cactus most vulnerable to aridification and drought and in which areas might they be most resistant?

Map-based scenarios resulting from objective 1 will be evaluated in objective 2 wherein specific areas of the park most exposed to aridification, areas where saguaros could colonize novel habitat, and areas where saguaros are most resilient can be visualized. Projections of future conditions have inherent uncertainties. Researchers will approach the evaluation with park staff and team scientists using decision science approaches to evaluate potential management decisions based on the scenarios.

Researchers will create scenario maps based on the output of objective 1 to assist managers in prioritizing areas to focus protection, mitigation, and adaptation efforts. Research will identify areas at greatest risk where genetic diversity should be maintained and areas where novel habitat will likely emerge under future climate scenarios.

Award information

The award instrument for this project is a cooperative agreement.

It is anticipated that one award will be made with one base year and one additional budget year. The total estimated funding for this project is \$150,000. Funding in the amount of \$100,000 is estimated to be available for Budget Year 1, subject to availability. Additional funding for Budget Year 2 will be based upon satisfactory progress and the availability of funding. The recipient should submit the proposal to reflect the two-year project period.

Eligibility Information

This financial assistance opportunity is being issued under a Cooperative Ecosystem Studies Unit (CESU) Program. CESU's are partnerships that provide research, technical assistance, and

education. Eligible recipients must be a participating partner of the Desert Southwest Cooperative Ecosystem Studies Unit (CESU) Program.

Application and Submission Information

The USGS requires that all applications for financial assistance be posted through Grants.gov. To post your application, go to www.grants.gov, select "Applicants," "How to Apply for Grants," "Search for Opportunity Package" (highlighted in red on the bottom right of screen), and use the Funding Opportunity Number G25AS00333.

Questions are to be directed to Grant Specialist Katie Calder at kcalder@usgs.gov.

Content and Form of Application:

Cover page of written technical narrative:

1. Anticipated award recipient's name
2. Project title
3. Proposed project start date
4. Anticipated Principal Investigator Name (individual who will oversee the cooperative agreement) including title, address, phone number, , and email address
5. Authorized Representative administrative contact (Recipient staff member(s) in the recipient's research office who will administer the cooperative agreement) including name, title, address, phone number, and email address
6. Include names and affiliations of Co-PIs, and if they are funded by the project or in kind
7. Include names, titles, and contact information for expected USGS collaborators on the project
8. List any other cooperators and partners
9. List laboratories, equipment, study area(s), and facilities available for project work.
10. State experience of project staff to conduct the stated work objectives of the project

Proposal text should include the following:

- a. Introduction and Statement of Problem. Give a brief introduction to the research problem. Provide a brief summary of findings or outcomes of any prior work that has been completed or is ongoing in this area.
- b. Objectives. Clearly define goals of project. Include geographic scope. State how the proposal addresses USGS goals and its relevance and impact. Explain why the work is important.
- c. Procedures/Methods. This section should include a fairly detailed discussion of the work plan and technical approach to both field and laboratory techniques.
- d. Planned Products, Dissemination of Research Results, and Technology Transfer. List product(s) (reports, analyses, digital data, etc.) that will be delivered at the end of the project period. The USGS considers dissemination of research data and results to potential users of those results to be an integral and crucial aspect of projects funded by this program. Beyond the requirements for a final report, describe your plan for dissemination of project data and results that will result in the greatest possible benefit to customers as

defined by your proposal. Applicants are strongly encouraged to disseminate research results to the scientific community and appropriate professional organizations; local, State, regional and Federal agencies; and the public. The USGS encourages the Recipient to publish project reports in scientific and technical journals. *All products must adhere to USGS Fundamental Science Practices.*

- e. Schedule, Duration of Study, and Reporting Schedule. Provide anticipated project start and end dates and a project timeline of key milestones.
- e. References Cited. List all references to which you refer in text and references from your past work in the field that the research problem addresses. Be sure to identify references as journal articles, chapters in books, abstracts, maps, digital data, etc.
- f. Legal and Policy-Sensitive aspects (if applicable)
- g. Animal Use or Human subjects (if applicable)

Budget Narrative - This information will provide details and a breakdown of funds requested on the SF 424A form. Organize the narrative by Object Class Category titles on the SF-424A and ensure the amounts correspond to the SF-424A. Break out and show all project budget years you are applying for in your budget documents (budget narrative and SF-424A). Include the following:

- a. **Personnel:** For salaries and wages, list names, position/job title, job category/classification, rate of compensation, and how the rate was determined, or what it is based on. Include their total time/level of effort. For each personnel member also include role on the project.
- b. **Fringe benefits:** Indicate the rates/amounts in conformance with normal accounting procedures and recipient policy. Explain what costs are covered in this category and the basis of the rate computations. Attach fringe benefit rate sheet or agreement or provide a link to official rates if posted online.
- c. **Supplies:** Supplies include all tangible personal property other than those described in the equipment definition. A computing device is a supply if the acquisition cost is below the lesser of the capitalization level established by the recipient or subrecipient for financial statement purposes or \$10,000, regardless of the length of its useful life. Enter the cost for all tangible property. Include the cost of office, laboratory, computing, and field supplies separately. Provide detail on any specific item, which represents a significant portion of the proposed amount.
- d. **Equipment:** Equipment means tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost that equals or exceeds the lesser of the capitalization level established by the recipient or subrecipient for financial statement purposes, or \$10,000. Show the cost of all equipment necessary for achieving the objectives of the project. Each item should be itemized and include a full justification and a dealer or manufacturer quote, if available.
*Title to non-expendable personal property shall be vested solely with the Recipient. Under no circumstances shall property title be vested in a sub-tier recipient.
- e. **Contractual:** Identify the tasks or problems for which such services would be used. List the contemplated consultant, the estimated amount of time required (level of effort), and the quoted rate per day or hour.

- * **Lab Analyses.** Include geochemical analyses, radiocarbon age dating, etc. Briefly itemize cost of all analytical work (if applicable); Could also fall under Other Direct Costs.
- f. **Travel:** State the purpose of each budgeted trip and itemize the estimated travel costs for each trip required. Include purpose of travel, to and from locations, persons traveling by name if known, number of days for each trip, the per diem (lodging and M&IE) rates (in accordance with GSA allowable published rates and recipient travel policy), the cost of each method of transportation and how that cost was determined, and any miscellaneous expenses for each trip. Calculations of other special transportation costs (such as charges for use of applicant-owned vehicles or vehicle rental costs) should also include a justification of cost
- * **Field Expenses.** Briefly itemize the estimated travel costs (i.e., number of people, number of travel days, lodging and transportation costs, and other travel costs).
- g. **Other direct costs:** Itemize the different types of costs not included elsewhere; such as, shipping, computing, equipment-use charges, or other services.
- * **Publication costs.** Show the estimated cost of publishing the results of the research, including the final report. Include costs of drafting or graphics, reproduction, page or illustration charges, and a minimum number of reprints.
- h. **Total Direct Charges:** Totals for items a - j.
- i. **Indirect Charges (Overhead):** Indirect cost/general and administrative (G&A) cost. Show the proposed rate, modified total direct cost base, and total proposed amount for indirect costs based on the cost principles applicable to the Applicant's organization. If the Applicant has separate rates for recovery of labor overhead and G&A costs, each charge should be shown. Provide copy of recipient's official negotiated indirect cost rate agreement. NOTE: CESU NEGOTIATED IDC RATE IS APPROVED AT 17.5%.
- j. **Total:** Total items h and i.
- Missing budget details will delay awarding timelines. USGS will not support any costs incurred prior to the start date established on the award by the Contracting Officer.***

USGS Data Management Plan Requirements

Proposals submitted to USGS must include a supplementary document labeled "Data Management Plan" (DMP). This supplementary document should describe how the proposal will conform to USGS policy on the dissemination and sharing of research results and associated data. A valid DMP may include only the statement that no detailed plan is needed (e.g. "No data are expected to be produced from this project"), as long as the statement is accompanied by a clear justification. This supplementary document may include:

- the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced over the course of the project;
- the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);
- policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
- provisions for re-use, re-distribution, and the production of derivatives; and

- plans for archiving data, samples, and other research products, and for preservation of free public access to them.

Additional guidance on data management plans is available from the USGS Data Management website here: <https://www.usgs.gov/data-management/data-management-plans>

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined DMP by the lead PI that also addresses all subaward data management needs, regardless of the number of non-lead collaborative proposals or subawards included.

Prohibition on Issuing Financial Assistance Awards to Entities that Require Certain Internal Confidentiality Agreements.

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Section 743 of Division E, Title VII of the Consolidated and Further Continuing Resolution Appropriations Act of 2015 (Pub. L. 113-235) prohibits the use of funds appropriated or otherwise made available under that or any other Act for grants or cooperative agreements to an entity that requires employees or contractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.

Recipients must not require their employees or contractors seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.

Recipients must notify their employees or contractors that existing internal confidentiality agreements covered by this condition are no longer in effect.

Biographical Sketch Common Format (Attachment A)

This Biographical Sketch Common Form provides instructions for submission of a biographical sketch by each individual identified as a senior/key person on a Federally funded research project. The biographical sketch used to assess how well qualified the individual, team, or organization is to conduct the proposed activities.

Consistent with NSPM-33, individuals are required to disclose contracts associated with participation in programs sponsored by foreign governments, instrumentalities, or entities, including foreign government-sponsored talent recruitment programs. Further, if individuals receive direct or indirect support that is funded by a foreign government-sponsored talent

recruitment program, even where the support is provided through an intermediary and does not require membership in the foreign government-sponsored talent recruitment program, that support must be disclosed. Individuals must also report other foreign government sponsored or affiliated activities. In accordance with 42 USC § 19232, individuals are prohibited from being a party in a malign foreign talent recruitment program.

A table entitled, NSPM-33 Implementation Guidance Pre- and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending (Other) Support¹ has been created to provide helpful reference information regarding pre-award and post-award disclosures. The table includes the types of activities to be reported, where such activities must be reported in the application, as well as when updates are required in the application and award lifecycle. A final column identifies activities that are not required to be reported.

Individuals are reminded not to submit any personal information in the biographical sketch. This includes items such as: home address; home telephone, fax, or cell phone numbers; home e-mail address; driver's license number; marital status; personal hobbies; and the like. Such personal information is not appropriate for the biographical sketch and is not relevant to the merits of the proposal. The Federal research funding agency is not responsible or in any way liable for the release of such material.

The Biographical Sketch Common Form is provided in Attachment A. DOI does not currently have a required format for this document. The format of the information is at the discretion of the applicant, however the required information and attestation with signature must be present. Templates provided by other federal agencies are acceptable.

Current And Pending (Other) Support Common Format (Attachment B)

The individual agrees to update this disclosure at the request of the Federal research funding agency prior to the award of support and at any subsequent time the agency determines appropriate during the term of the award. (Refer to the Federal research funding agency's policy on updating award support).

Instructions for Submission of the Current and Pending (Other) Support Common Form.

Current and pending (other) support information is used to assess the capacity or any conflicts of commitment that may impact the ability of the individual to carry out the research effort as proposed. The information also helps assess any potential scientific and budgetary overlap/duplication with the project being proposed.

This document provides instructions on submission of current and pending (other) support information for each individual identified as a senior/key person on a Federally funded research project.

A separate submission must be provided for each proposal and active project, as well as in-kind contributions using the instructions and format specified below. Note that there is no page limitation for this section of the application, though some fields have character limitations for consistency and equity.

Consulting activities must be disclosed under the proposals and active projects section of the form when any of the following scenarios apply:

The consulting activity will require the senior/key person to perform research as part of the consulting activity;

The consulting activity does not involve performing research, but is related to the senior/key person's research portfolio and may have the ability to impact funding, alter time or effort commitments, or otherwise impact scientific integrity; or

The consulting entity has provided a contract that requires the senior/key person to conceal or withhold confidential financial or other ties between the senior/key person and the entity, irrespective of the duration of the engagement.

Consistent with NSPM-33, individuals are required to disclose contracts associated with participation in programs sponsored by foreign governments, instrumentalities, or entities, including foreign government-sponsored talent recruitment programs. Further, if individuals receive direct or indirect support that is funded by a foreign government-sponsored talent recruitment program, even where the support is provided through an intermediary and does not require membership in the foreign government-sponsored talent recruitment program, that support must be disclosed. Individuals must also report other foreign government sponsored or affiliated activities. In accordance with 42 USC § 19232, individuals are prohibited from being a party in a malign foreign talent recruitment program.

In accordance with the NSPM-33 Implementation Guidance, senior/key persons typically do not include graduate students.

A table entitled, NSPM-33 Implementation Guidance Pre- and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending (Other) Support² has been created to provide helpful reference information regarding pre-award and post-award disclosures. The table includes the types of activities to be reported, where such activities must be reported in the application, as well as when updates are required in the application and award lifecycle. A final column identifies activities that are not required to be reported.

Individuals are reminded not to submit any personal information in the current and pending (other) support. This includes items such as: home address; home telephone, fax, or cell phone numbers; home e-mail address; driver's license number; marital status; personal hobbies; and the like. Such personal information is not appropriate for the current and pending (other) support template and is not relevant to the merits of the proposal. The Federal research funding agency is not responsible or in any way liable for the release of such material.

The format for submission of the two types of support: (a) proposals and active projects; and (b) in-kind contributions are provided in Attachment B. DOI does not currently have a required format for this document. The format of the information is at the discretion of the applicant, however the required information and attestation with signature must be present. Templates provided by other federal agencies are acceptable.

Project Abstract Summary (PAS) (Attachment C)

In accordance with the Office of Management and Budget (OMB) Memoranda M-21-20 and M-22-02, Federal agencies are now required to provide complete and accurate financial assistance award descriptions within USAspending.gov. As such, the Department of the Interior is requiring its bureaus and offices to provide a Project Abstract Summary for all financial assistance awards to include the following information:

Use the following sections to format your PAS:

- Project title
- Include a plain language description Award purpose (avoid acronyms or Federal or agency-specific terminology);
- Activities to be performed;
- Deliverables and Expected Outcomes;
- Intended beneficiary(ies) as well as;
- Subrecipient activities, if known or specified at the time of award

Project Abstract Summary character limitation as 1 page or less (no more than ~4000 characters) and use of 12 pt. font and Times New Roman is recommended.

Upon issuance of the cooperative agreement, this Project Abstract Summary will be publicly available at USAspending.gov.

Review and Selection Process

Applications are considered based on the completeness of documentation, meeting of stated basic eligibility (reference Eligibility Information above), and other category requirements. Specific evaluation factors are identified below. Budget information will be evaluated for reasonableness and appropriateness to applicant project goals.

Proposals are reviewed by U.S. Geological Survey and/or federal technical personnel. Individual proposals are evaluated and scored. Evaluations, scores, and recommendations will be submitted to the Contracting Officer for final award determination.

Proposals will be evaluated on the following criteria:

- A. What background do the investigators have working with spatial modeling approaches such as MaxEnt? (40 points)
- B. What background do the investigators have working with SOILWAT? (5 points)
- C. What background do the investigators have with developing scenario maps? (25 points)
- D. What experience do the investigators have with arid-land systems? (15 points)

- E. What background do the investigators have with the ecology of the saguaro cactus? (15 points)

Award Administration Information

Award recipients are responsible for managing the day-to-day operations of the grant/cooperative agreements and sub-award supported activities to assure compliance with applicable Federal requirements and regulations and to ensure that performance goals are being achieved.

Recipient Responsibilities Regarding Subrecipients and Contractors

Recipients who pass Federal funds to subrecipients and contractors must ensure that the entities understand and comply with the applicable award statutes, regulations, and agency requirements. Recipients should carefully review their official award documents for any additional administrative and programmatic requirements. See also, 2 CFR § 200.332 “Requirements for pass-through entities.”

Progress Reports

- a) The recipient must submit annual progress reports electronically through GrantSolutions (<https://home.grantsolutions.gov/home/>) within 90 calendar days after the agreement year (i.e., 12 months after the approved effective date of the agreement and every 12 months thereafter until the expiration date of the agreement.). For agreements with a total anticipated performance period of twelve months (12) months or less, only a final technical report will be required. A progress report is not required in the final budget year, unless the recipient requests an extension to the project period.
- b) The progress reports shall include the following information:
 - (i) A comparison of actual accomplishments to the objectives of the agreement established for the budget period and overall progress in response to the performance metrics.
 - (ii) The reasons why established goals were not met, if appropriate.
 - (iii) Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.
 - (iv) An outline of anticipated activities and adjustments to the program during the next budget period.
- c) Between the required reporting dates, events may occur which have significant impact upon the project or program. In such cases, the recipient shall inform the USGS as soon as the following types of conditions become known:

- (i) Problems, delays, or adverse conditions which will materially impair the ability to meet the objective of the agreement. This disclosure must include a statement of the action taken, or contemplated, and any assistance needed to resolve the situation.
- (ii) Favorable developments which enable meeting time schedules and objectives sooner or at less cost than anticipated or producing more or different beneficial results than originally planned.

Final Technical Report

- a) The Recipient must submit the final technical report electronically through GrantSolutions (<https://home.grantsolutions.gov/home/>). The final performance report will be due 120 calendar days after the period of performance end date.
- b) The final technical report shall document and summarize the results of Recipient's work. The report shall include a quantitative description of activities and overall progress in response to the performance metrics which documents and summarizes the results of the entire agreement. The final report shall include tables, graphs, diagrams, sketches, etc., as required to explain the results achieved under the agreement. The report shall also include recommendations and conclusions based upon both the experience and the results obtained.

Annual Financial Reports

- a) The Recipient must submit an annual SF 425, Federal Financial Report, for each individual USGS award. The SF 425 is available at grants.gov/forms/forms-repository/post-award-reporting-forms. The SF 425 will be due within 90 days following the end of the annual period or within 90 days following the end of each annual period coinciding with the award start date.
- b) The SF 425 must be submitted electronically through GrantSolutions (<https://home.grantsolutions.gov/home/>). Recipient must include the USGS award number (see page 1, block 4 titled: Grant No.) in the subject line of all e-mail correspondence. If, after 90 days, recipient has not submitted a report, the recipient's account in Automated Standard Application for Payments (ASAP) will be placed in a manual review status until the report is submitted.

Final Financial Report

- a) The Recipient will liquidate all obligations incurred under the award and submit a final SF 425, Federal Financial Report in accordance with C.3.b. no later than 120 calendar days after the agreement completion date.
- b) Recipient will promptly return any unexpended federal cash advances or will complete a final draw from ASAP to obtain any remaining amounts due. Once 120 days has passed

since the agreement completion date, USGS shall unilaterally de-obligate federal funds as reflected in the final SF 425.

c) Subsequent revision to the final SF 425 will be considered only as follows:

- (i.) When the revision results in a balance due to the Government, the recipient must submit a revised final SF 425, Federal Financial Report, and refund the excess payment whenever the overcharge is discovered, no matter how long the lapse of time since the original due date of the report.
- (ii.) When the revision represents additional reimbursable costs claimed by the recipient, a revised final SF 425 may be submitted to the USGS Grants Management Official with an explanation. If approved, the USGS will either request and pay a final invoice or reestablish the ASAP subaccount to permit the recipient to make a revised final draw. Any revised final report representing additional reimbursable amounts must be submitted no later than 1 year from the due date of the original report, i.e., 15 months following the agreement completion date. USGS will not accept any revised SF 425 covering additional expenditures after that date and will return any late request for additional payment to the Recipient.

Publications

a) Acknowledgment of Support

Recipient is responsible for assuring that an acknowledgment of USGS support:

- 1) is made in any publication (including World Wide Web pages) of any material based on or developed under this agreement, in the following terms:

This material is based upon work supported by the U.S. Geological Survey under Grant/Cooperative Agreement No. (see page 1, block 4 titled: Grant No.).

- 2) is orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines.

b) Disclaimer

Recipient is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this agreement, contains the following disclaimer:

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Geological Survey. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Geological Survey.

c) USGS Logo

Use of the USGS logo (also known as "visual identity" or "identifier") constitutes the recipient's agreement to and acceptance of the following terms:

- The USGS identifier is trademarked and not in the public domain.
- Use of the trademarked USGS identifier is authorized by USGS for use only by recipients of USGS funding.
- Use is authorized on information products that result from research funded by the financial assistance award.
- Use of the USGS identifier for any other purpose without written permission from USGS is prohibited; doing so constitutes trademark infringement.
- Recipient will adhere to the design requirements, which are as follows:
 - The USGS identifier must appear in black, white, or green only.
 - The USGS identifier cannot be modified in any way except for proportional sizing.
 - The USGS identifier should appear at the same size as logos of other agencies, if any.
 - If used on a digital product, the USGS identifier should link to www.usgs.gov

d) Publication

Publication of the results of any project carried out under this assistance award is authorized in professional journals, trade magazines, or may be made by the USGS. Such manuscripts or publications submitted to journals or professional publications for publication shall be accompanied by the following notation:

"This manuscript is submitted for publication with the understanding that the United States Government is authorized to reproduce and distribute reprints for Governmental purposes."

e) Copies for USGS

Recipient is responsible for assuring that the USGS Project Office is provided a digital version, preferably as a MS Word DOCx file, of every accepted manuscript upon acceptance for publication by the journal.

f) Department of the Interior Requirements

Two copies of each publication produced under a grant or cooperative agreement shall be sent to the Natural Resources Library with a transmittal that identifies the sender and the publication. These copies can be in print or digital format. If a publication in a born-digital document only available online, a digital copy or a link to where the publication may be

available on the Internet must be sent to <Library@ios.doi.gov>. The address of the library is:

U.S. Department of the Interior Library
1849 C Street, NW, Room 1151, MS 1151
Washington, DC 20240

Payment

Payments under financial assistance awards must be made using the Department of the Treasury Automated Standard Application for Payments (ASAP) system (www.asap.gov).

- a) The recipient agrees that it has established or will establish an account with ASAP. USGS will initiate enrollment in ASAP. If the recipient does not currently have an ASAP account, they must designate an individual (name, title, address, phone and e-mail) who will serve as the Point of Contact (POC).
- b) With the award of each grant/cooperative agreement, a sub-account will be set up from which the recipient can draw down funds. After recipient's complete enrollment in ASAP and link their banking information to the USGS ALC (14080001), it may take up to 10 days for sub-accounts to be activated and for funds to be authorized for drawdown in ASAP.
- c) Inquiries regarding payment should be directed to ASAP at 855-868-0151.
- d) Payments may be drawn in advance only as needed to meet immediate cash disbursement needs.

Geospatial Requirements:

The Geospatial Data Act of 2018 outlines specific requirements for federal recipients when collecting or producing geospatial data using Department of the Interior financial assistance funds. Here's a summary of the key points:

- **Due Diligence Search:** Federal recipients must first check the GeoPlatform.gov list of datasets to see if the needed geospatial data, products, or services already exist.
- **Use of Existing Data:** If the required data is already available, recipients must use it rather than producing new data.
- **Production of New Data:** If the needed data is not available, recipients must produce new geospatial data, products, or services in accordance with guidance and standards established by the Federal Geospatial Data Committee (FGDC), which can be found at www.fgdc.gov.
- **Submission Requirements:** Recipients must submit a digital copy of all GIS data produced or collected under the award to the relevant bureau or office.
- **Data Format:** All GIS data files must be in an open format.
- **Metadata Requirements:** All delineated GIS data (such as points, lines, or polygons) should be compliant with approved open data standards and include complete feature-level metadata.

These requirements ensure that geospatial data is managed efficiently, used appropriately, and made accessible in a standardized format for future use and sharing. open data standards with complete feature level metadata.

2 CFR 1402.315 Availability of Data

(a) All data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, valuation products or other scientific assessments in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual, resulting from a financial assistance agreement is available for use by the Department of the Interior, including being available in a manner that is sufficient for independent verification.

(b) The Federal Government has the right to:

- (1) Obtain, reproduce, publish, or otherwise use the data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, or other scientific assessments, produced under a federal award; and
- (2) Authorize others to receive, reproduce, publish, or otherwise use such data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, or other scientific assessments, for federal purposes, including to allow for meaningful third-party evaluation.

Recipient Integrity and Performance

[Award Term and Condition for Recipient Integrity and Performance Matters: Appendix XII to 2 CFR Part 200](#). Applies to awards with a total Federal share of more than \$500,000, except for awards to foreign public entities. See also [§ 200.113 Mandatory Disclosures](#).

Terms and Conditions applicable to the Award:

The Award will contain the U.S. Geological Survey (USGS) Terms and Conditions, which incorporates the DOI General Terms and Conditions, available at:
<https://www.doi.gov/grants/doi-standard-terms-and-conditions>. Full text is available upon request.

Agency Contacts

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Phone (international): 1-606-545-5035

Email: support@grants.gov

USGS contact: Nikolas Lushenko, nikolas_lushenko@ios.doi.gov

Applicants are strongly urged to submit questions via e-mail to:

Katie Calder, Grant Specialist
U.S. Geological Survey
Acquisitions and Grants Branch
12201 Sunrise Valley Drive, MS 205
Reston, VA 20192
E-mail : kcalder@usgs.gov

For technical questions concerning the content, goals, and objectives, please contact:

Kathryn Thomas
U.S. Geological Survey
Southwest Biological Science Center
University of Arizona
Tucson, AZ 85719
Phone: 520-668-8299
Email: Kathryn_a_thomas@usgs.gov

--End of Program Announcement --