



2022 SPSD Soil Science Collaborative Research

**Fiscal Year (FY) 2022
Soil Science Collaborative Research
Proposals
National Funding Opportunity (NFO)**

**No. USDA-NRCS-NHQ-SOILS-22-
NOFO0001124**



Notice of Funding Opportunity (NFO)

SUMMARY INFORMATION

Federal Awarding Agency Name: U.S. Department of Agriculture – Natural Resources Conservation Service

Notice of Funding Opportunity Title: 2022 Soil Science Collaborative Research Proposals

Notice of Funding Opportunity Number: No. USDA-NRCS-NHQ-SOILS-22-NOFO0001124

Assistance Listing: This program is listed in the Assistance Listings on [Sam.gov](https://sam.gov) under 10.903.

SAM (System for Award Management) is a web-based, government-wide application that collects, validates, stores, and disseminates business information about the federal government's trading partners in support of the contract awards, grants, and electronic payment processes.

Notice of Funding Opportunity Summary

This Notice of Funding Opportunity (NFO) is being released prior to appropriation and/or apportionment of funds for fiscal year 2022. Enactment of additional continuing resolutions or an appropriations act may affect the availability or level of funding for this program.

The Natural Resources Conservation Service (NRCS), an agency under the United States Department of Agriculture (USDA), is announcing the potential availability of funding for agreements for the purposes of:

- Promoting research collaboration between the NRCS Soil and Plant Science Division (SPSD) and university cooperators on significant national issues;
- Providing technology transfer and training for NRCS staff;
- Assisting in training of students in soil science and related fields.

Proposals must be for projects based in the United States and its territories and possessions and focus on the priorities described in Section A of this notice. Research proposals are sought. NRCS anticipates that the amount available for support of this program in FY 2022 will be up to \$1,500,000.00. Eligibility is limited to institutions of higher education in the Cooperative Ecosystem Studies Unit (CESU) network (<http://www.cesu.psu.edu/>). Proposals are requested for competitive consideration of awards for projects 2-3 years in duration.

This notice identifies the objectives, eligibility criteria, and application instructions for projects. Proposals will be screened for completeness and compliance with the provisions of this notice. Incomplete and/or noncompliant proposals will be eliminated from competition, and notification of elimination will be sent to the applicant.

For new users of Grants.gov, see Section D. for information about steps required before submitting an application via Grants.gov.

Key Dates

Applicants must submit their applications via Grants.gov by 11:59 pm Eastern Time on April 12, 2022. For technical issues with Grants.gov, contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov. Awarding agency staff cannot support applicants regarding Grants.gov accounts.

For inquiries specific to the content of the NFO requirements, contact the federal awarding agency contact (section G of this NFO). Please limit questions to those regarding specific information contained in this NFO (such as dates, page numbers, clarification of discrepancies, etc.). Questions related to eligibility or the merits of a specific proposal will not be addressed.

The agency anticipates making selections by June 1, 2022 and expects to execute awards by August 15, 2022. These dates are estimates and are subject to change.

Federal Funding Floor and Ceiling Amounts

The estimated funding floor for this opportunity is \$100,000, and the estimated funding ceiling is \$300,000. The funding floor means the minimum agreement funding amount for the Federal share per agreement awarded. The ceiling is the maximum agreement funding amount for the Federal share per agreement awarded. These numbers refer to the total agreement amount, not any specific budget period.

Federal Financial Assistance Training

The funding available through this NFO is Federal financial assistance. Grants 101 Training is highly recommended for those seeking knowledge about Federal financial assistance. The training is free and available to the public via <https://www.cfo.gov/grants-training/>. It consists of five modules covering each of the following topics: 1) laws, regulations, and guidance; 2) financial assistance mechanisms; 3) uniform guidance administrative requirements; 4) cost principles; and 5) risk management and single audit. FPAC agencies also apply Federal financial assistance regulations to certain non-assistance awards (e.g., non-assistance cooperative agreements).

Table of Contents

A.	PROGRAM DESCRIPTION.....	5
B.	FEDERAL AWARD INFORMATION	8
	1. Available Funding	8
	2. Type of Award.....	8
C.	ELIGIBILITY INFORMATION	9
	1. Eligible Applicants	9
	2. Other	9
	3. Cost Sharing or Matching.....	10
D.	APPLICATION AND SUBMISSION INFORMATION	10
	1. Information for New Users of Grants.gov.....	10
	2. Electronic Application Package	13
	3. Content and Form of Application Submission	14
	4. Submission Dates and Times and Correspondence.....	19
	5. Intergovernmental Review	19
	6. Funding Restrictions.....	19
	7. Indirect costs limitations	21
E.	APPLICATION REVIEW INFORMATION.....	21
	1. Review and Selection Process	21
	2. Merit/Technical Criteria	22
	3. Administrative and Risk Criteria.....	23
	4. Awards Over the Simplified Acquisition Threshold (if applicable)	24
F.	FEDERAL AWARD ADMINISTRATION INFORMATION.....	24
	1. Federal Award Notices	24
	2. Administrative and National Policy Requirements	25
	3. Reporting	26
G.	FEDERAL AWARDED AGENCY CONTACT	26
H.	OTHER INFORMATION	26

APPENDIX A - Instructions for Completing SF 424

APPENDIX B - Instructions for Completing SF 424A

APPENDIX C - Budget Narrative Guidance

A. PROGRAM DESCRIPTION

The authorizing statutes and regulations for this opportunity are 16 U.S.C. 590a-f and 590q and 42 U.S.C. 3271-3274. (CFDA 10-903).

This competitive cooperative research program focuses on soil science and soil survey research topics and needs that have been identified through:

- Soil and Plant Science Division (SPSD) priorities
- National-level National Cooperative Soil Survey (NCSS) conference committees

The purpose of the 2022 SPSP Soil Science Collaborative Research Proposals is to promote research that informs and improves soil survey. As such, each proposal must include significant collaboration with soil survey personnel (such as Major Land Resource Area (MLRA) soil survey offices, Regional Offices or State Soil Scientists). Proposal deliverables and their connection to soil survey must be clearly explained. Research needs were informed by the national NCSS research committee. Deliverables should have application to or fill gaps in soil survey databases.

NRCS expects to fund a total of 4 – 5 agreements, depending on funding availability.

The objectives of the research are to:

- Promote research collaboration between the NRCS Soil and Plant Science Division (SPSD) and university cooperators on significant national issues.

Proposals exhibiting substantial collaboration between the applicant, multiple NCSS cooperators (i.e., a multi-state project), and NRCS soil scientists (National Soil Survey Center (NSSC) Research Soil Scientists, Soil Survey Regional and Major Land Resource Area (MLRA) Soil Survey Office (SSO) soil scientists, State Soil Scientists, and/or Resource Soil Scientists) are encouraged to apply.

- Provide technology transfer and training for the larger soil survey community (including NRCS staff).

Each proposal should include a technology transfer component that documents how research results can be incorporated into Soil Survey field or office functions (databases, interpretations, etc.). In addition, the plan should document how research findings will be shared with the NCSS (e.g., publications, onsite training, and/or other mechanisms). At a minimum, the presentation of results as a webinar will be required for all agreements.

- Assist in training of students in soil science and related fields.

Proposals that include a strong education component (undergraduate and graduate student involvement) are encouraged, as are proposals from early career scientists and faculty.

Any properties studied, outputs delivered, or models developed should use or be linked to soil survey specific terms. For instance, USDA-NRCS defines Dynamic Soil Properties (DSPs) as properties that change with natural and anthropogenic disturbances (including land use and management) on the human time scale. DSPs measured by soil survey include bulk density, soil organic carbon, aggregate stability, and infiltration rate. Further information can be found in NRCS eDirective NB 430-20-7 SOI <https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=44936>.

Proposals submitted under this request must be aligned with one or more components of the Soil and Plant Science Division and NCSS priorities, which are:

Soil Health and DSPs

Dynamic soil properties as collected by SPSP and cooperators can be used to inform soil health assessment and interpretation. SPSP is collecting data on a limited number of soils and management systems. Collaborative research projects are needed to leverage ongoing DSP projects and ask important questions about the sensitivity and reliability of these methods.

Potential topics include:

- Utilize and extend soil health assessment data collected by NRCS (for methods and properties utilized by soil survey: see the Soil Health Tech Note and DSP guidance materials)
- Investigate the response of soil health indicators to climate change.
- Tie DSP data into Dynamic Soil Survey (DSS)

Novel Use of Legacy Data:

There have been many legacy soil datasets identified in the grey literature. Data exists in a range of formats and contexts including descriptions in text files, laboratory measurements in pdf's, and historic photographs. There is a need to capture and utilize this data before it becomes unavailable.

Potential topics include:

- Identify and utilize legacy datasets
 - Create processes to curate and use novel datasets.
- Create a framework to operationalize the collection, modeling and data usage of mid infrared (MIR) spectra
- Evaluate the value of soil and ancillary data on improved products, interpretations, calculations, and/or conservation decisions
- Enhance concepts of benchmark soils and characteristic catenas for use in research extension, monitoring, and evolving areas soil data collection (such as Hydrology, DSS, Ecological Site Descriptions, DSPs)

Change Detection:

Successful land management decisions require accurate, timely soil data and interpretations. In areas of landscape disturbance and rapid change (such as flooding, scouring and landslides), tools are needed to identify areas that should have soil survey updates to mapping, properties or interpretations.

Potential topics include:

- Create novel methods and decision tools to identify when current soil data is inadequate
- Predict soil survey changes needed due to climate change
- Identify areas that need to be remapped due to disasters and disturbances such as flooding, landslides, or major development operations

Research Support for Dynamic Soil Survey:

The future of soil survey will include new techniques in data capture and delivery. Dynamic Soil Survey (DSS) is the overarching concept of delivering temporally and spatially explicit information on dynamic soil properties, hydrology, soil health and ecological status. Proposals for this topic should integrate cooperation with National Soil Survey Center Research Branch and the Dynamic Soil Survey (DSS) focus team. See the focus team website for contacts and information. [Dynamic Soil Survey Team | NRCS Soils \(usda.gov\)](#)

Potential topics include:

- Integration of soils, climate, hydrology, DSP, and ESD into an interactive decision support delivery tool.
- Prediction algorithms for soil moisture content based on soil survey and weather data
- Interpretations for soil biology status based on soil and land management information

Soil Climate:

Soil moisture and temperature monitoring, measurement and prediction is critical for informing land management decisions across all kinds of lands. Remote sensing and monitoring networks do not always adequately account for soil landscapes and soil property distributions. Work is needed to better integrate soil climate measurements with soil survey information.

Potential topics include:

- Show the utility of soil data for climate modeling and water balances
- Use SCAN, SNOTEL and other monitoring data to inform DSP and DSS work.
- Improve accessibility of watershed-level soil data for use in water resource work
- Develop real-time forecast tools for soil moisture, water table, and runoff

Mid-infrared (MIR) spectral application tools:

MIR spectra can be used to reliably estimate key soil properties (e.g. clay, carbon, pH, etc.). The Kellogg Soil Survey Laboratory has developed a growing, quality, and internationally renowned MIR spectral library that captures the variability of soil resources nationwide. Fifteen NRCS MLRA soil survey offices, from Puerto Rico to Alaska, are now equipped with MIR technology, with future expansion planned. Work is needed to develop ready-made, web-based applications that employ MIR and site data for use by soil survey operations. Submissions addressing this topic should include the development of tools that can be used by soil survey offices such as estimation services and validation applications.

Potential topics include:

- Developing validated, web-based, public-access portals for using MIR for:
 - the prediction of soil taxonomy to the sub-group level
 - soil health assessment and monitoring/surveillance
 - soil biological properties and condition

B. FEDERAL AWARD INFORMATION

1. Available Funding

a. Estimated Funding

The Federal funding agency expects to award approximately \$1,500,000 through this opportunity. However, the agency retains the discretion to award a larger or lesser amount.

This NFO is being released prior to appropriation and/or apportionment of funds for fiscal year 2022. Enactment of additional continuing resolutions or an appropriations act may affect the availability or level of funding for this program.

b. Start Dates and Performance Periods

Projects may be between 2 and 3 years in duration. Applicants should plan their projects based on an estimated project start date of August 15, 2022.

c. Number of Awards

The agency expects to make 5 award(s).

2. Type of Award

a. Type of Federal Award

The agency plans to award cooperative agreements pursuant to this opportunity. The agency will be substantially involved in the work performed under the agreement and will undertake activities such as the following:

- a. Agency and recipient collaboration or joint participation
- b. Direct agency operational involvement or participation during the activity

b. Procurement Contracts

The agency does not expect to award procurement contracts associated with this NFO.

c. Eligibility of Renewal or Supplemental Project Applications

Applications for renewal or supplementation of existing projects are not eligible to compete with applications for new Federal awards. An application for renewal means an application submitted to continue an existing agreement that meets the objectives and requirements of this NFO. An application for supplementation of an existing project means an application to add components to an existing agreement so that it would meet the objectives and requirements in this NFO.

C. ELIGIBILITY INFORMATION

1. Eligible Applicants

Applicants and applications must meet eligibility criteria by the application deadline to be considered for award. Eligible applicant type is determined by the implementing program statute. Applicant entities identified in the SAM.gov exclusions database as ineligible, prohibited/restricted, or excluded from receiving Federal contracts and certain Federal assistance and benefits will not be considered for Federal funding, as applicable to the funding being requested under this Federal program (2 CFR 200.206(d)).

Eligibility for this opportunity is limited to the following entity types:

- a. Private institutions of higher education that are part of a CESU network
- b. Public and State-controlled institutions of higher education that are part of a CESU network

For more information on the Cooperative Ecosystem Studies Unit (CESU) network please see: <http://www.cesu.psu.edu/>

2. Other

Any award made pursuant to this NFO will be made to a single entity. Applicants that apply as “partnerships” or other similar groupings must clearly describe the relationship between the applicant and the “partner” parties. In all but exceptional cases, it must be reflected in the award as an awardee/sub awardee relationship.

An applicant organization may submit more than one application for different projects or proposing different approaches. In the case of applications submitted as revisions or corrections to a previously submitted application under this NFO, the agency will consider the last application submitted prior to the established deadline.

Awards made pursuant to this NFO are not Farm Bill incentive contracts; therefore, the awards in and of themselves are not limited by the payment limitation in 16 USC Chapter 58. However, any agricultural producers receiving a payment through participation in a project awarded under this NFO must meet the eligibility requirements

of 7 CFR Part 12 and 7 CFR Part 1400 and have control of the land involved for the term of the proposed award period.

3. Cost Sharing or Matching

There is no cost sharing or matching requirement for this opportunity. There is no competitive advantage to applicants who voluntarily provide a match.

D. APPLICATION AND SUBMISSION INFORMATION

1. Information for New Users of Grants.gov

a. Overview

While a Grants.gov account is not required to download an NFO and related documents, it is required to submit an application. If your organization has never submitted an application via Grants.gov, please be aware that there are several steps you must take to register your organization before you can submit an application. **Completing those steps can take a significant amount of time, plan accordingly.**

For information about the Grants.gov pre-award phase of the grant lifecycle see <https://www.grants.gov/web/grants/learn-grants/grants-101/pre-award-phase.html>.

b. Register to Apply through Grants.gov

Carefully review the registration steps and gather information requested prior to beginning the registration process to avoid last-minute searches for required information. For assistance with the registration process, contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov.

Organizations must complete all steps to register (steps i. through v. below). Complete organization instructions are included on Grants.gov here: <https://www.grants.gov/web/grants/applicants/organization-registration.html>.

Although creating a Grants.gov account online can take only minutes, SAM registrations may take several weeks. Therefore, organizations should begin the process early to ensure they have sufficient time to complete registration and meet required application submission deadlines.

Individuals are not subject to the Unique Entity Identifier (UEI)/DUNS or SAM requirement and may begin with step iii., Create a Grants.gov Account, listed below. (Note: Individuals are not eligible for all opportunities.)

c. Steps to Register

- i. *Obtain a DUNS Number or UEI:* All entities applying for funding must have a Data Universal Numbering System (DUNS) Number from Dun & Bradstreet (D&B) or a UEI issued by SAM.gov. Applicants must enter the DUNS Number/UEI in the data entry field labeled "UEI" on the SF-424 form.
- ii. *Register with SAM:* All organizations must register with System for Award Management (SAM) to apply online through Grants.gov. SAM registration must be renewed annually. Part of the SAM registration process includes designating an Electronic Business Point of Contact (EBiz POC). **The EBiz POC plays an integral part in the organization's Grants.gov registration and application process.** The individual in that role must authorize all other roles in Grants.gov. For more detailed instructions for registering with SAM, refer to <https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>
- iii. *Create a Grants.gov Account:* From the Grants.gov webpage (<https://www.grants.gov/>), click "Register" in the top right-hand corner and follow the on-screen instructions or refer to the detailed instructions here <https://www.grants.gov/web/grants/applicants/registration.html>
- iv. *Add an Organization Applicant Profile to a Grants.gov Account:* A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant. If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all your grant applications. To add an organizational profile to your Grants.gov account, enter the DUNS Number/UEI for the organization in the UEI (Unique Entity Identifier) field while adding a profile. For more detailed instructions about creating a profile on Grants.gov, refer to <https://www.grants.gov/web/grants/applicants/registration/add-profile.html>
- v. *EBiz POC Authorized Profile Roles:* After you register with Grants.gov and create an Organization Applicant Profile, you must establish roles for individuals in the organization. The Authorized Organizational Representative (AOR) role is critical; it gives an individual permission to complete and submit applications on behalf of the organization. (Please be aware that the EBiz POC and the person with AOR Role cannot be the same individual; they must be different people.) Without this role, the organization cannot submit any applications. The request for role assignment will be routed to the organization's EBiz POC for approval. Once approved, the AOR can submit an application online. For more detailed instructions about creating a EBiz POC authorized profile on Grants.gov, refer to

<https://www.grants.gov/web/grants/applicants/registration/authorize-roles.html>

Track Role Status: To track your role request, refer to

<https://www.grants.gov/web/grants/applicants/registration/track-role-status.html>

d. Electronic Signature

When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role that submitted the application is inserted into the signature line of the application, serving as the electronic signature. Please be aware that the EBiz POC and the person with AOR Role cannot be the same individual; they must be different people. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the organization as a user with the AOR role. **This step (step c.v. above) is often missed, and it is crucial for valid and timely submissions.**

e. Workspace.

Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. For each NFO, you can create individual instances of a workspace. An applicant can start an application in Workspace and return to work on it later within Workspace.

f. Apply for an Opportunity

Below is an overview of applying on Grants.gov. For complete instructions on how to apply for opportunities, refer to

<https://www.grants.gov/web/grants/applicants/workspace-overview.html>

- i. Create a Workspace: Creating a workspace allows you to complete an application online and route it through your organization for review before submitting.
- ii. Complete a Workspace: Add participants to the workspace to work on the application together, complete all the required forms online or by downloading PDF versions, and check for errors before submission. The Workspace progress bar will display the status of your application process as you apply. As you apply using Workspace, you may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.
 - Adobe Reader: If you decide not to apply by filling out webforms you can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at <https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html>

- **Mandatory Fields in Forms:** In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully submit your application.
 - **Complete SF-424 Fields First:** The forms are designed to fill in common required fields across other forms, such as the applicant name, address, and DUNS Number/UEI. Once it is completed, the information will transfer (i.e., prepopulate) to the other forms.
- iii. **Submit a Workspace:** An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting your application package at least 24-48 hours prior to the close date to provide you with time to correct any potential technical issues that may disrupt the application submission.
- iv. **Track a Workspace Submission:** After successfully submitting a workspace application, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the application. The number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace.

For additional training resources, including video tutorials, refer to <https://www.grants.gov/web/grants/applicants/applicant-training.html>

2. Electronic Application Package

Applicants interested in submitting an application in response to this NFO must submit it via Grants.gov; the agency will not accept applications submitted via email or any other method. Applicants are urged to submit early to the Grants.gov system.

For technical issues with Grants.gov, contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov. Awarding agency staff cannot support applicants regarding Grants.gov accounts.

Address to Request Application Package

All information necessary to apply for this opportunity is included in the [Grants.gov](#) opportunity announcement.

3. Content and Form of Application Submission

The agency may choose not to consider applications that fail to comply with the required content, format, and page limits, or those that are incomplete.

To be considered for funding under this opportunity, an application must contain the documents in a-e below.

a. Project Narrative

Each page must be numbered and have one-inch margins. The text of the project narrative must be single spaced and typed in a standard typeface (e.g., Times New Roman, Arial, Courier) with no smaller than 12-point font. The project narrative must not exceed 10 pages. This page limitation applies to the project narrative only.

- i. Identification of which research priority the proposal is being written to address.
- ii. Problem statement/Need and justification for project: Identify priority area to be addressed.
- iii. Expected project deliverables that will contribute to achieving the Soil Survey mission
- iv. A brief review of current related literature
- v. Research objective(s)
- vi. Hypothesis to be tested
- vii. Research methods and procedures: Provide enough detail to allow evaluation of the adequacy of the approach and methods for meeting project objectives. As applicable, the methods should include:
 - Description of project area, including soils, topography, land use/vegetation, and climate
 - Field sampling and measurement design, techniques, and methods
 - Laboratory analyses (include specific methods)
 - Data analysis, including statistical procedures if applicable
 - Description of the involvement of NRCS soil scientists
- viii. Project timetable, including:
 - Sample collection and field measurements (if needed)
 - Laboratory analyses (if needed)
 - Data analyses

- Data interpretation
- Deliverables: including report/manuscript writing
- ix. Information transfer plan: Describe means for disseminating information of the research results and promoting its application, including project reports, webinars, peer-reviewed publications, guidebooks, new technique methods, software, workshops, etc.
- x. Documentation of the involvement of, and training provided to, graduate and/or undergraduate students and to NRCS field scientists.
- xi. References

Proposals that fail to comply with the required content and format will not be considered for funding. Material exceeding stated page limits and/or formatting structure will not be considered. Incomplete and/or noncompliant narratives will not be considered.

If your proposal will include information collection from non-Federal sources, ensure the collection meets the requirements of the Paperwork Reduction Act. Surveys of individuals or entities are generally prohibited without prior approval from the Office of Management and Budget. For additional guidance about allowable and unallowable activities, please visit the following website: <https://pra.digital.gov/do-i-need-clearance/>.

The following documents do not count toward the above stated page limit.

- b. Executive Summary.** One page with Title, PIs, research priority addressed, total funds requested and brief description of the proposal.
- c. Background Information**
 - i. Investigator's qualifications. Include resumes of the principal investigator(s) (limited to 2 pages each, with no more than 15 pertinent publications listed).
 - ii. Brief description of existing facilities.
 - iii. Existing collaborative agreements/relationships with NRCS.
 - iv. Results from prior NRCS support.
- d. Data management plan.** All data from USDA funded agreements must be properly documented with data made available through public repositories such as the National Agriculture Library, Ag Data Commons. [Data Management Plan for NIFA-Funded Research, Education, and Extension Projects \(usda.gov\)](#)

e. Application Form

(Standard Form 424 Application for Federal Assistance) See Instructions for Completing SF 424 located at the end of this document.

f. Standard Form (SF) 424A, Budget Information - Non-Construction Programs

Fill in all spaces as appropriate. Section B, Item 6, Column 1 should reflect the agency funds, and Column 2 should reflect the applicant's matching funds. This form is the summary budget for the **project** and should include the **full project totals** on pages one and two. This means applicants must include all years of funding on this form. See Instructions for Completing SF 424A located at the end of this document. Refer to Section D of this opportunity for information regarding indirect costs.

g. Budget Narrative

- i. In a separate document titled "Budget Narrative," explain and justify all requested budget items/costs. (Refer to the budget narrative guidance located at the end of this document.) Detail how the totals on the SF-424A were determined and demonstrate a clear connection between costs and the proposed project activities. For personnel salary costs, include the base-line salary figures and the estimates of time (as percentages) to be directly charged to the project. Describe any item that under the applicable Federal cost principles requires the agency's approval and estimate its cost. The pages included as the budget narrative to not count toward the page limit.
- ii. Any non-Federal entity (except State and local governments that receive more than \$35 million per year in Federal funding) that does not have a current negotiated (including provisional) rate may elect to charge a de minimis rate of 10 percent of modified total direct costs (MTDC) which may be used indefinitely. No documentation is required to justify the 10 percent de minimis indirect cost rate. As described in [2 CFR 200.403](#), costs must be consistently charged as either indirect or direct costs but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.
- iii. Modified Total Direct Cost (MTDC) means all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward (regardless of the period of performance of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and

fellowships, participant support costs and the portion of each subaward in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs.

- iv. As required in 2 CFR Part 200, Subpart F Audit Requirements, all U.S. states, local governments, Federally recognized Indian tribal governments, and non-profit organizations expending \$750,000 or more in Federal award funds in a fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System.

h. Grants.gov Lobbying Form, Certification and Disclosure of Lobbying Activities

Under Title 31 of the United States Code, Section 1352, an applicant or recipient must not use any federally appropriated funds (both annually appropriated and continuing appropriations) or matching funds under a grant or cooperative agreement award to pay any person for lobbying in connection with the award. Lobbying is defined as influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress connection with the award. Submission of an application also represents the applicant's certification of the statements in 2 CFR Part 418, Appendix A- Certification Regarding Lobbying. If you/your organization have/has made or agrees to make any payment using non-appropriated funds for lobbying, you must also complete and submit the SF LLL, Disclosure of Lobbying Activities located at 2 CFR 418, Appendix B. See 2 CFR 418.110 for more information on when additional submission of this form is required.

i. Negotiated Indirect Cost Rate Agreement (NICRA) if applicable

If charging indirect costs (including for cost share), upload the NICRA under Other Attachments (listed as an Optional Form) in the Grants.gov Opportunity Application Package. See Section D for information regarding indirect costs.

j. Disclosure of Potential Conflict of Interest

In accordance with 2 CFR 400.2, the NFO must include a requirement that applicants disclose in writing any potential conflicts of interest.

Applicants must maintain written standards of conduct covering conflicts of interest and governing the performance of its employees in the selection, award, and administration of Federal awards. No employee, officer, or agent may participate in the selection, award, or administration of a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of

interest would arise when the employee, officer or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties referenced, has a financial or other interest in or a tangible personal benefit from an applicant considered for a Federal award. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the applicant.

If the applicant has a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe, the applicant must also maintain written standards of conduct covering organizational conflicts of interest. Organizational conflict of interest means that because of the relationships with a parent company, affiliate, or subsidiary organization, the applicant is unable or appears to be unable to be impartial in conducting a Federal award action involving a related organization.

k. Post Award Documentation N/A

l. Unique entity identifier (UEI)/DUNS and System for Award Management (SAM)

Each applicant (unless the applicant is an individual excepted from those requirements under 2 CFR 25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR 25.110(d)) is required to: (i) Be registered in SAM before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. The agency may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time the agency is ready to make an award, it may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

Entities must obtain a DUNS or UEI and register in SAM prior to registering with Grants.gov. A description of each is below. Entities are strongly encouraged to apply early for their SAM registration.

System for Award Management (SAM) Registration: To register, go to: <https://www.sam.gov>. The Federal Service Desk is available for registration assistance and can be contacted via the Help tab at the website listed above.

Awarding agency staff cannot support applicants regarding DUNS/UEI or SAM issues.

The Government intends to replace the D-U-N-S® number with a “new, non-proprietary identifier” requested in, and assigned by SAM.gov. This new identifier is being called the Unique Entity Identifier (UEI), or the Entity ID. See [Planned UEI Updates in Grant Application Forms](#) for UEI updates.

4. Submission Dates and Times and Correspondence

Applicants must submit applications via Grants.gov. Applications must be received by 11:59 pm Eastern Time (ET) on April 12, 2022. An application submitted or resubmitted after the deadline is late (an application is considered on time at 11:59.59 pm ET, but it is late at 12:00 am ET). Late submissions will not be reviewed or considered.

Grants.gov will provide either an error or a successfully received transmission in the form of an email sent to the applicant with the Authorized Organizational Representative (AOR) role attempting to submit the application. The Grants.gov Support Center reports that some applicants end the transmission because they think that nothing is occurring during the transmission process; be patient and give the system time to process the application.

If you have trouble submitting an application to Grants.gov, you should FIRST contact the Grants.gov Help Desk to resolve any issues. Keep a record of any such correspondence. See Section D. 2. for Grants.gov contact information.

For applications successfully transmitted to Grants.gov before the deadline: The applicant with the AOR role who submitted the application will receive:

- an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov
- an email with the official date/time stamp (this stamp is used to determine if the application was received prior to the deadline) and Grants.gov

When the agency successfully retrieves the application from Grants.gov and acknowledges the download of submissions, Grants.gov will also provide an electronic acknowledgment of receipt of the application to the applicant.

5. Intergovernmental Review

This funding opportunity is not subject to Executive Order 12372, “Intergovernmental Review of Federal Programs.”

6. Funding Restrictions

Funds may not be used to pay any of the following costs unless otherwise permitted by law and approved in writing by the agency in advance of incurring such costs:

- a. Costs above the amount of funds authorized for the project.
- b. Costs incurred prior to the effective date of the award, including time spent applying for this opportunity.

- c. Costs which lie outside the scope of the approved project and amendments thereto.
- d. Entertainment costs, regardless of their apparent relationship to project objectives.
- e. Compensation for injuries to persons, or damage to property arising out of project activities.
- f. Consulting services performed by a Federal employee during official duty hours when such consulting services result in the payment of additional compensation to the employee.
- g. Capital expenditures for general purpose equipment, buildings, and land and for improvements to land, buildings, or equipment which materially increase their value or useful life. See 2 CFR 200.439 for additional information.
- h. Management fees and profit. Any funds awarded to for-profit entities must be used for reimbursement of award related direct and indirect costs only.
- i. Meals may be charged to an award only if they are necessary for the performance of the project. For instance, meals (normally only lunch) that are a necessary part of the costs of meetings and conferences (i.e., required attendance and continuity of a meeting), the primary purpose of which is the dissemination of information, are allowable, as are costs of transportation, rental of facilities, speakers' fees, and other items incidental to such meetings or conferences. Note: Meals consumed while in official travel status do not fall in this category. They are considered to be per diem expenses and should be reimbursed in accordance with the organization's established travel policies subject to statutory limitations or in accordance with Federal travel policies.
- j. Costs normally charged as [indirect costs](#) may not be charged as [direct costs](#) without proper justification and agency approval. Proper justification includes documentation that the costs meet the criteria for allowability (see 2 CFR 200.403). Examples of such costs include rent, utilities, depreciation on buildings and equipment, the costs of operating and maintaining facilities, and general administration and general expenses, such as the salaries and expenses of executive officers, personnel administration, and accounting.
- k. Salaries that are not commensurate with level of work. All costs must be reasonable to be allowable (2 CFR 200.403), and 2 CFR 200.404 defines a reasonable cost as one if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost. Salaries determined not to be reasonable compared to the level of work will be unallowable.

This list is not exhaustive. For additional information please refer to 2 CFR Part 200, subpart E, Cost Principals.

7. Indirect costs limitations

- a. A non-profit organization or institution of higher education awarded a cooperative agreement will be limited to a 10 percent indirect cost rate (10 percent of total direct costs) in accordance with the agency's annual appropriations act. The 10 percent indirect cost rate applies to both federal and non-federal funds. Other types of entities are not subject to this statutory limitation.
- b. To be eligible to recover any indirect cost under a Federal award, recipients must either 1) have a current negotiated indirect cost rate agreement (NICRA) with a Federal agency that has not expired; or 2) qualify for use of the de minimis rate authorized by 2 CFR 200.414(f). A State, local, or tribal governmental department or agency unit that receives more than \$35 million in direct Federal funding is not eligible for the de minimis rate.
- c. Applicants not subject to a statutory limitation, which have a current NICRA must calculate indirect costs using the rate and base specified in their NICRA. A recipient may voluntarily reduce or waive recovery of indirect costs at its sole discretion and must not be encouraged or coerced in any way to do so by the agency. A copy of the applicant's current NICRA must be provided with the application. Indirect costs may not be recovered under an expired NICRA.
- d. If an applicant with a current NICRA is subject to the statutory limitation, indirect costs must be calculated as follows. First, multiply the NICRA rate by the base stated in the NICRA to arrive at Amount A. Next, multiply the statutory limit of 10 percent by the total of all direct costs to arrive at Amount B. The lower of Amount A and B is the amount of indirect cost to include on the budget.
- e. Recipients are prohibited from shifting unallowable indirect costs to another Federal award unless specifically authorized to do so by legislation.
- f. Applicants who are individuals applying for funds separate from a business or non-profit organization they may operate are not eligible to charge indirect costs to their award. If you are an individual applying for funding, do not include any indirect costs in your proposed budget.

E. APPLICATION REVIEW INFORMATION

1. Review and Selection Process

Applications will be screened for completeness and compliance with the provisions of this notice. Incomplete, noncompliant, and/or applications not meeting the formatting criteria may be eliminated from competition. In that event, the agency will send notification of elimination to the applicant. The agency intends to select and award without conducting any discussions or allowing applicants to correct

deficiencies or omissions in their applications. Consequently, applicants must ensure their applications are complete and accurate. However, while the agency intends to select without contacting applicants, it reserves the right to request applicants to revise their applications to correct deficiencies or omissions it identifies. If this occurs, the agency will conduct discussions with all applicants, identify deficiencies and omissions for all, and give applicants an opportunity to submit a revised application by a common cut-off date. The agency may also contact individual applicants to clarify certain components of their applications.

Merit/technical reviews will be conducted by a technical review board nominated by the approving official. Risk reviews will be conducted by the FPAC Business Center, Grants and Agreements Division. The approving official will make the final award decisions. The approving official for this opportunity is the National Leader for Soil Research.

2. Merit/Technical Criteria

Proposals will be evaluated according to the following criteria:

Collaboration: Does the proposal explicitly document direct collaboration with multiple NCSS collaborators and SPSP affiliated soil scientists?
Relevance and importance: Does the proposal fit within the mission of the Soil Survey and directly address a research priority described in Section A (Program Description)? Are the results potentially applicable to more than one State or MLRA?
Scientific merit: Does the proposed research have potential to expand the fundamental knowledge in its priority area(s)? Is it scientifically sound? Is the investigator aware of past research in the area? Is the proposal well written, organized, and complete?
Feasibility: Are the hypotheses, objectives, methodologies, designs, and techniques adequate and completely described? What is the likelihood of success given the methods, timeframe, and funding proposed?
Information transfer: Can the proposed research results enhance and improve our ability to meet one or more parts of the Soil Survey mission? Does the proposal address methods to transfer knowledge gained and potential impact of the results?
Data Management: Does the proposal contain an appropriate data management plan?

Training: Does the proposal have a strong educational component and provide for student support?
Qualifications of the investigators: Are the qualifications of the investigators adequate to complete the proposed research? Are the facilities and equipment adequate?
Budget: Is the budget reasonable and adequate for the proposed research?

3. Administrative and Risk Criteria

Notice of selection after merit/technical evaluation does not guarantee that an applicant will receive an award. Following notification of selection for funding (see Section F), the FPAC Business Center, Grants and Agreements Division's staff conducts a final administrative and risk review of those applications. The administrative review includes, but is not limited to, a check to ensure that NFO requirements were met (e.g., applicant meets eligibility criteria, application was submitted via Grants.gov by the established deadline), and proposed costs are allowable, allocable, and necessary. During this process, it may be necessary to request further documentation from the applicant (e.g., organizational information as part of the risk assessment, more detail regarding proposed costs).

In addition, to comply with the requirements at 2 CFR 200.206, the agency will follow, at a minimum, the risk review process described below (additional steps may be taken).

The awarding agency will check SAM to ensure the applicant is not suspended or debarred, which would preclude receiving an award. In addition, prior to making a Federal award with a total Federal share greater than the simplified acquisition threshold (\$250,000), the agency must review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (the Federal Awardee Performance Integrity Information System, FAPIIS) (see 41 USC 2313 and 2 CFR 200.206(a)).

An applicant must meet the following standards to be considered for award:

a. Financial Stability

The applicant maintains an adequate financial resources or cash flow to meet its financial obligations on a routine basis in order to successfully complete any agreement it may be awarded.

b. Quality of Management Systems and Ability to meet Management Standards prescribed in 2 CFR Part 200

The applicant has a financial management system adequate to segregate and track federal funds. It has adequate systems in place for proper agreement administration; compliance with the standards outlined in 2 CFR Part 200 Section D for procurement, property, and records management; and required financial and performance reporting.

c. History of Performance

If the applicant has previously obtained Federal financial assistance award, it has never failed to materially comply with the Federal award terms and conditions and further that it has never had an award terminated on that basis.

Submission of an application constitutes certification that an applicant meets these standards (items a. through c. above). The agency may request documentation to substantiate the certification. Based on risk assessment, the agency may impose specific award conditions in accordance with 2 CFR 200.208.

4. Awards Over the Simplified Acquisition Threshold (if applicable)

- a. Prior to making a Federal award with a total Federal share greater than the simplified acquisition threshold (\$250,000), the agency must review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM, the Federal Awardee Performance Integrity Information System, FAPIIS. FAPIIS is a federal database intended to serve as a government-wide source of information about the prior performance and compliance of federal procurement contractors, grantees, and cooperative agreement holders (see 41 U.S.C. 2313 and 2 CFR 200.206(a)).
- b. An applicant may review information in FAPIIS accessible through SAM and comment on any information about it that a Federal awarding agency previously entered.
- c. The agency will consider any comments by the applicant, in addition to the other information in FAPIIS, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.206, Federal awarding agency review of risk posed by applicants.

F. FEDERAL AWARD ADMINISTRATION INFORMATION

1. Federal Award Notices

The agency will provide notice that an application has been selected before it actually makes the Federal award. As such, the selection notification is not an

authorization to begin performance. Any pre-award costs incurred by the awardee will not be reimbursed. The Notice of Grant and Agreement Award (ADS-093) signed by the authorized agency official is the only authorizing document and will be provided electronically to the entity's authorized official for signature.

Both successful and unsuccessful applicants will be notified of the award decision via letter.

2. Administrative and National Policy Requirements

All project funds will be used in accordance with 2 CFR Part 200 and the General Terms and Conditions, which are available at the following website:

<https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html>.

Projects performed pursuant to this opportunity may be subject to the National Environmental Policy Act (NEPA). If applicable, NRCS must work with awardees to complete an environmental review of each awarded project before project commencement. In addition, prior to any ground-disturbing activities related to NRCS funding, the awardee must work with NRCS staff to complete an environmental evaluation (EE) related to those activities. Awardees may be required to prepare or pay for preparation of an environmental assessment (EA) or environmental impact statement (EIS), should any environmental review find that an EA or EIS is required.

In addition, a National Historic Preservation Act (NHPA), Section 106 review and consultation by an NRCS State or area office with consulting parties (such as the pertinent State Historic Preservation Officer and federally recognized Indian Tribes) may be required prior to the implementation of project activities that have the potential to impact cultural resources. NHPA Section 106, its implementing regulations (36 CFR Part 800), and other related authorities, require Federal agencies to determine if a project has the potential to cause an effect to historic properties and, if so, if they are adverse and how the effects may be addressed. The NHPA review and compliance in accordance with Section 106 of NHPA and implementing regulations at 36 CFR Part 800 must be completed by NRCS and applicants may be required to pay for any cultural resource surveys needed for NRCS to assess project effects. More information on the applicant's role in the NHPA Section 106 process can be found on the Advisory Council on Historic Preservation website at

<https://www.achp.gov/digital-library-section-106-landing/section-106-applicant-toolkit>.

Consultation with the U.S. Fish & Wildlife Service and/or the National Marine Fisheries Service under the Section 7 of the Endangered Species Act (ESA) is also required for projects that may affect listed or proposed species or destroy or modify critical habitat. The ESA consultation in accordance with Section 7 of the ESA and implementing regulations at 50 CFR Part 402 must be completed by NRCS

prior to the implementation of project activities that have the potential to impact species or habitat protected under the ESA. More information on the Section 7 consultation process can be found at

<https://www.fws.gov/endangered/what-we-do/consultations-overview.html>.

The data from these agreements will be made available on a public repository and shared with the National Soil Survey Center.

3. Reporting

Reporting will follow the guidelines included in the agency's General Terms and Conditions, which are available at the following website:

<https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html>

If the Federal share of any agreement awarded under this opportunity notice may include more than \$500,000 over the period of performance, recipients must also comply with the post award reporting requirements reflected in Appendix XII of 2 CFR Part 200 — Award Term and Condition for Recipient Integrity and Performance Matters.

Applicants that receive awards pursuant to this opportunity and any sub awardees must comply with the reporting requirements described at 2 CFR Part 170 unless an exception applies. Applicants must ensure they have the necessary processes and systems in place to comply with those requirements. A list of exceptions can be found at 2 CFR 170.110(b).

G. FEDERAL AWARDING AGENCY CONTACT

For questions regarding this opportunity, please contact the following individual with the NFO number in the subject line:

Name: Aileen Anderson
Grants Management Specialist
FPAC Business Center

Email: aileen.anderson@usda.gov with a copy to FPAC.BC.GAD@USDA.GOV

H. OTHER INFORMATION

1. Questions regarding this opportunity must be submitted to the Federal Awarding Agency Contact identified above via email with the NFO number in the subject line.
2. For technical issues with Grants.gov, please contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov. Awarding agency staff cannot support applicants regarding Grants.gov accounts.
3. **Freedom of Information Act (FOIA)**

Applications are considered confidential information. Applications are not shared with individuals or entities seeking public disclosure through the Freedom of Information Act (FOIA) without the consent of the applicant. More specifically, Executive Order 12600 and USDA FOIA regulation 7 CFR Part 1, Subpart A requires the awarding agency to provide notice to applicants that a third party has requested copies of their business information and requires the awarding agency to consult with applicants regarding the releasing their records.

4. Government Obligation

The Federal Government is not obligated to make any Federal award as a result of this opportunity. Only authorized federal officials can bind the Federal Government to the expenditure of funds.

5. Any award made pursuant to this NFO may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
6. This request represents the continuation of annual funded research projects for the last ten years. It is anticipated that there will be continued funded research at a level dependent on agency priorities and allocations. More information on the USDA/NRCS soils program can be found at <https://soils.usda.gov>.

U.S. Department of Agriculture Non-Discrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at <https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer> and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

- (1) mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410
- (2) fax: (202) 690-7442; or
- (3) email: program.intake@usda.gov

USDA is an equal opportunity provider, employer, and lender.

APPENDIX A – Instructions for Completing the SF424

INSTRUCTIONS FOR USDA-FPAC AGENCIES

Applicants must review these instructions to ensure the form is completed correctly. This will reduce the likelihood that the form will need to be returned for correction and potentially delay execution of any resultant agreement.

Item	Name	Instructions
1	Type of Submission	Select “Application” since this is first time your entity is applying for this funding opportunity.
2	Type of Application	Select “New” since this application is being submitted to an agency for the first time for this funding opportunity.
3	Date Received	Leave blank.
4	Applicant Identifier	Leave blank.
5a	Federal Entity Identifier	Leave blank.
5b	Federal Award Identifier	Leave blank.
6	Date Received by State	Leave blank.
7	State Application Identifier	Leave blank.
8a	Applicant Legal Name	Enter the legal name of applicant. This name must be consistent with the name as registered in the System for Award Management (SAM). If the name in SAM is not correct, update it.
8b	Applicant Employer/Taxpayer Identification Number (EIN/TIN)	Enter the employer or taxpayer identification number of applicant assigned by the Internal Revenue Service. This number must be consistent with the number in the applicant’s SAM registration.
8c	Applicant Organizational DUNS/Unique Entity Identifier	Enter the DUNS number of applicants. This number must be consistent with the number in the applicant’s SAM registration. The DUNS number is a total of 13 digits. The first 9 are the basic DUNS number from SAM. The last four digits are reserved for a certain purpose and is usually “0000” for most applicants.
8d	Applicant Address	Enter the mailing address of applicant. This address must be consistent with the mailing address in the applicant’s SAM registration.
8e	Applicant Organizational Unit	Not required.
8f	Applicant Contact Information	Provide the name and contact information of person to be contacted on matters involving this application. This does not necessarily need to be the person with authority to sign the application. It is a point of contact for agency staff to contact regarding the application.
9	Type of Applicant 1	Select the type of entity the applicant is. This type must be consistent with the entity type listed in the applicant’s SAM registration.
10	Name of Federal Agency	Enter the applicable agency: USDA-NRCS, USDA-FSA, or USDA-RMA
11	Catalog of Federal Domestic Assistance Number/Federal Assistance Listing and Title	Enter the CFDA number from the Notice of Funding Opportunity. For the title, see https://beta.sam.gov/
12	Funding Opportunity Number and Title	Enter the opportunity number and title from the Notice of Funding Opportunity
13	Competition Identification Number and Title	Leave blank.
14	Areas Affected by Project (Cities, Counties, States, etc.)	Leave blank.

15	Descriptive Title of Applicant's Project	Enter a concise title for the project.
16a	Congressional District of Applicant	Enter the Congressional district based on the physical address of the applicant as listed in the applicant's SAM registration. District numbers can be found at http://www.house.gov/representatives/find/ .
16b	Congressional District(s) of Program/Project	Enter the Congressional district(s) for all districts affected by the program/project. Enter in the format: first 2 characters for state abbreviation and next 3 characters for the district number (e.g., "CA-005" for California 5th district, "NC-103" for North Carolina's 103 district). If all congressional districts in a state are affected, enter "all" for the district number (e.g., "MD-all" for all congressional districts in Maryland). If nationwide (i.e., all districts within all states are affected, enter "US-all"). Attach an additional list of program/project congressional districts, if needed. District numbers can be found at http://www.house.gov/representatives/find/ .
17a	Proposed Project Start Date	Enter an estimated date consistent with what is stated on the Notice of Funding Opportunity. Do not anticipate an earlier award date, even though an earlier award may be possible.
17b	Proposed Project End Date	Enter the estimated end date consistent with the start date and what is stated on the Notice of Funding Opportunity
18a-g	Estimated Funding	Enter the project's total amount of funding by organization including the Federal share, applicant share (if any), and any other sources of applicant funding, other than their own funds. <i>These values must be consistent with the values on the SF-424A and the Budget Narrative.</i> a. <u>Federal</u>: enter the amount of Federal funds being requested. b. <u>Applicant</u>: enter cost share/match being provided by the applicant itself. Do not include cost share/match being provided by commitments from the sources listed below. c. <u>State</u>: enter the amount of any cost share/match being provided by a State government entity. d. <u>Local</u>: enter the amount of any cost share/match being provided by a Local government entity. e. <u>Other</u>: enter the amount of any cost share/match being provided by a source other than those listed above. f. <u>Program Income</u>: enter the amount of program income (if any) used for meeting cost share/match requirements (see 2 CFR 200.80 and 200.307). g. <u>Total</u>: enter the sum of all amounts. <i>This must equal the total proposed budget amounts above.</i>
19	Executive Order 12372	Select the applicable response as to whether or not the application is subject to State review under state laws or procedures. Executive Order 12372 can be found at https://www.archives.gov/federal-register/codification/executive-order/12372.html
20	Federal Debt Delinquency	Select the applicable response as to whether or not the applicant is delinquent on any Federal debt.
21	Certification and Signature	Check the "I Agree" box and provide the name and contact information for the person who is authorized by the applicant to submit the application on its behalf. The form will be electronically signed during the submission process on Grants.gov.

APPENDIX B – Instructions for Completing the SF424A

INSTRUCTIONS FOR USDA-FPAC AGENCIES

Applicants must review these instructions to ensure the form is completed correctly. This will reduce the likelihood that the form will need to be returned for correction and potentially delay execution of any resultant agreement.

SECTION A – BUDGET SUMMARY		
Column	Name	Instructions
(a)	Grant Program Function or Activity	FPAC agencies do not require the project budget be broken down into separate programs, functions, or activities on this form. That level of detail, if desired, is reserved for the Budget Narrative which is a related, but separate document. Enter “Federal” in 1(a) and Non-Federal in 2(a). Leave the remaining rows blank.
(b)	Catalog of Federal Domestic Assistance Number	Enter the CFDA number from the Notice of Funding Opportunity in 1(b) and 2(b). Leave the remaining rows blank.
(c)	Estimated Unobligated Funds: Federal	Leave this entire column blank.
(d)	Estimated Unobligated Funds: Non-Federal	Leave this entire column blank.
(e)	New or Revised Budget: Federal	Enter the total amount of the Federal funds requested in Row 1. Leave the remaining rows blank. This amount must be consistent with the amount in Block 18a of the SF-424.
(f)	New or Revised Budget: Non-Federal	Enter the total amount of the Non-Federal cost share/match in Row 2 and leave the remaining rows blank. This amount must be consistent with the total amount of Blocks 18b through 18f of the SF-424.
(g)	Total	This auto-calculates and is the total proposed agreement budget. This amount must be consistent with the total amount in Block 18g of the SF-424.

SECTION B – BUDGET CATEGORIES		
Column	Name	Instructions
(1)	Grant Program Function or Activity 1	The form will auto-populate “Federal” in the heading of Column 1. See the list of budget cost categories at the end of this table for guidance on what types of costs to include in each category. The total of Column 1 must be consistent with the Federal total in Section A.
(2)	Grant Program Function or Activity 2	The form will auto-populate “Non-Federal” in the heading of Column 2. See the list of budget cost categories at the end of this table for guidance on what types of costs to include in each category. The total of Column 2 must be consistent with the Non-Federal total in Section A.
(3)	Grant Program Function or Activity 3	Leave this entire column blank.
(4)	Grant Program Function or Activity 4	Leave this entire column blank.
(5)	Total	This auto-calculates.
		<i>All costs must comply with the cost principles of 2 CFR Part 200, Subpart E – Cost Principles. All costs must be allowable (2 CFR 200.403), allocable to the agreement (2 CFR 200.405), and reasonable in amount (2 CFR 200.404).</i>

	Personnel	Compensation for employees of the applicant, for example, wages and salaries. See 2 CFR 200.1, Compensation-Personal Services. Do not include the cost of fringe benefits in this category. Such costs must be listed in the “Fringe Benefit” category. Do not include the personnel cost of contractor’s or other organizations with which a contract or other agreement for their services exists. Those amounts must instead be listed under the “Contractual” category as part of the total value of the contract or agreement. Do not include the value of donated or volunteer services (or third-party in-kind contributions of services) as it may <i>not</i> be charged to the Federal award either as a direct or indirect cost (2 CFR 200.434). However, the value of those services may be used to meet cost sharing/matching requirements (2 CFR 200.306).
	Fringe Benefits	Fringe benefits should be separated out from the personnel category and are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to, the costs of leave (vacation, family-related, sick or military), employee insurance, pensions, and unemployment benefit plans. Also, see 2 CFR 200.431, Compensation-Fringe Benefits. Do not include the fringe benefit cost of contractor’s or other organizations with which a contract or other agreement for their services exists. Those amounts must instead be listed under the “Contractual” category as part of the total value of the contract or agreement.
	Travel	Travel costs are the expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business of the applicant. This only includes the travel costs directly incurred by employees of the applicant. Also, see 2 CFR 200.475, Travel Costs. Travel costs do not include the cost of renting a conference room for people who are in travel status. Instead, that type of cost should be included under the “Contractual” category. Travel costs incurred by a third-party under a contract or agreement with the applicant should instead listed under the “Contractual” category as part of the total value of the contract or agreement.
	Equipment	The common dictionary definition or common use of the term “equipment” does not apply to financial assistance agreements. Consequently, property that might otherwise normally be considered equipment, might actually be considered “supplies” as defined by 2 CFR 200.1. “Equipment” is defined as “tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-Federal entity for financial statement purposes, or \$5,000. See also §200.12 Capital assets, 2 CFR 200.1 Computing devices, 2 CFR 200.1 General purpose equipment, 2 CFR 200.1 Information technology systems, 2 CFR 200.1 Special purpose equipment, and 2CFR 200.1 Supplies.

		Include the cost of all equipment planned to be acquired under the agreement in this budget category. Do not include the value of third-party in-kind contributions of property as it may <i>not</i> be charged to the Federal award either as a direct or indirect cost (2 CFR 200.434). However, the value of this property may be used to meet cost sharing/matching requirements (2 CFR 200.306). Do not include the cost of renting or leasing equipment in this category. Instead, such costs should be included under the “Contractual” category. Also, see 2 CFR 200.465. Also, see 2 CFR 200.439, Equipment and Other Capital Expenditures, regarding allowability of costs.
	Supplies	Property that might otherwise normally be considered equipment, might actually be considered “supplies” as defined by 2 CFR 200.94 (see section above regarding the definition of equipment). “Supplies” is defined as all tangible personal property other than those described in 2 CFR 200.1 Equipment. A computing device is a supply if the acquisition cost is less than the lesser of the capitalization level established by the non-Federal entity for financial statement purposes or \$5,000, regardless of the length of its useful life. See also 2 CFR 200.1 Computing devices and 200.1 Equipment. Include the cost of all supplies acquired under the agreement in this budget category. Non-tangible goods and services associated with supplies, such as printing services, photocopy services, and rental costs should be included in the “Other” category. Do not include the value of third-party in-kind contributions of property as it may <i>not</i> be charged to the Federal award either as a direct or indirect cost (2 CFR 200.434). However, the value of this property may be used to meet cost sharing/matching requirements (2 CFR 200.306). Also, see 2 CFR 200.453, Materials and Supplies Costs, Including Costs of Computing Devices, regarding the allowability of costs.
	Contractual	Services to be carried out by an individual or organization other than the applicant in the form of procurement. It excludes the acquisition of equipment and supplies, which is included under those respective categories. Do not include the value of donated or volunteer services (third-party in-kind contributions of services). While the value of those services may be used to meet cost sharing/matching requirements, it may <i>not</i> be charged to the Federal award either as a direct or indirect cost (2 CFR 200.434). Also, see 2 CFR 200.459, Professional Service Costs, regarding the allowability of costs.
	Construction	Include any construction, alteration, or repair of real property (e.g., buildings and facilities).

	Other (Direct Costs)	This category includes all other direct costs that do not fit in any of the other direct costs categories above. “Direct costs” is defined by 2 CFR 200.413. The costs in this section must be broken down in the budget narrative. Include sub-awards in this category Also, see 2 CFR 200.466, Scholarships and Student Aid Costs, regarding tuition remission.
	Indirect Charges	This category includes the amount of indirect cost permitted under the agreement. “Indirect costs” is defined by 2 CFR 200.414.

SECTION C – NON-FEDERAL RESOURCES

Not required to be completed

SECTION D – FORECASTED CASH NEEDS

Not required to be completed

SECTION E – BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

Not required to be completed

SECTION F – OTHER BUDGET INFORMATION

Not required to be completed

APPENDIX C - Budget Narrative Guidance

All costs must comply with the cost principles of 2 CFR Part 200, [Subpart E – Cost Principles](#). All costs (both Federal and any required non-Federal cost-sharing/match) that are part of an award must be:

- allowable ([2 CFR 200.403](#)),
- allocable to the agreement ([2 CFR 200.405](#)), and
- reasonable in amount ([2 CFR 200.404](#)).

A thorough budget narrative will aid the administrative review and processing of a recommended award. Amounts included in a budget and budget narrative are estimates; in the event of an award, payments will be based on actual expenditures. The following is guidance for your use in preparing a thorough budget narrative. The guidance follows the order of the budget items.

COST-SHARING/MATCHING: If required, you must provide the information below for the Federal portion of costs and *separately* provide the information below with the same level of detail for the cost-sharing/matching portion, as applicable, as part of the budget narrative.

PERSONNEL – Only include employees of applicant organization

This category includes salaries and wages of personnel of the applicant organization (i.e., employees) that will be working directly on the project. For each individual, identify their role and describe their contributions to the project. Also include their annual salary, percent of effort, and the period of time they will contribute to the project along with the associated funds requested for support. The following format is an appropriate way to provide the information.

Mr. Jones – Project Director. Accountable for assuring that all project activities are carried out in a timely, cost-efficient and responsible manner. He will provide oversight of daily activities and lead and direct the project toward accomplishment of the objectives of the project. He is responsible for the submission of the required reports.

Salary	% effort	Project Duration	Funds Requested
\$50,000	25%	12 months	\$12,500

FRINGE BENEFITS – Only related to salaries identified under Personnel

Fringe benefits include, but are not limited to, the costs of leave (e.g., vacation, family-related, sick or military), employee insurance, pensions, and unemployment benefit plans. Also, see [2 CFR 200.431](#), Compensation-Fringe Benefits. Provide information about how fringe benefits are determined along with the amount requested.

For instance:	Amt. Requested
Fringe benefits - 25% of salaries and wages (\$12,500 @ 25%).	\$3,125

TRAVEL

Refer to your organization's travel policy for guidance on how to arrange travel. If your organization lacks a policy, it is expected that you follow the U.S. federal government policy, see <http://www.gsa.gov/federaltravelregulation>.

For the budget narrative, identify the total funds requested for travel. Provide as much detail as possible including purpose, destination, dates of travel, and number of individuals for each trip. If the dates of travel are not known, specify estimated length of trip. Identify what will be followed (e.g., organizational travel policies or government per diem rates). The following are a few examples of how to provide the information.

- 2 people - travel to Washington D.C. once per year for a two-day meeting [identify purpose of meeting].
 - Airfare \$800 x 2 for airfare = \$1,600
 - Airport parking = \$64
 - Hotel for 3 nights x 2 @ \$200 = \$1,200
 - Meals for 2 days x 2 = \$24;
 - Rental car for 3 days @ \$110/day = \$330
 - Total for trip: \$3,439
- Local travel for project manager is calculated at .50 per mile throughout primary service area x 326 miles/month x 12 months = \$1,956.

EQUIPMENT

Equipment is defined as an item of property that has an acquisition cost of \$5,000 or more (unless the organization has established lower levels) and an expected service life of more than one year. List each item of equipment along with the applicable cost. Include justification of its need in accomplishing the goals of the project.

Example: To complete objectives #1 and #2, Refrigerated Trailer is required. XYZ Refrigerated Trailer, Model #123, at \$5,555

These costs should only include the costs to purchase new equipment. The cost of renting or leasing equipment is not to be included in this category but instead, include under the Contractual category. If equipment is costly, include a lease vs purchase comparison in the budget narrative in support of route chosen.

SUPPLIES

Supplies is defined in [2 CFR 200.1](#) as all tangible personal property other than those described in [2 CFR 200.1](#) Equipment. A computing device is a supply if the acquisition cost is less than the lesser of the capitalization level established by the non-Federal entity for financial statement purposes or \$5,000, regardless of the length of its useful life. Suggest also viewing [2 CFR 200.453](#), Materials and Supplies Costs, Including Costs of Computing Devices, regarding the allowability of costs.

Indicate general categories of expendable supplies including an amount for each category. Caution: If a category is viewed as too general or the associated amount is too high, further itemization may be requested. Therefore, use good judgement in determining the level of detail to provide.

Example: General office supplies \$50/mo. x 12 mo. =	\$600
Postage \$37/mo. x 8 mo. =	\$296
Laptop Computer 1 x \$900 =	\$900
Printer 1 x \$300 =	\$300
Projector 1 x \$900 =	\$900
Copies 8000 copies x .10/copy =	\$800

CONTRACTUAL

This category includes consultants, subcontracts, etc.

Consultants -- List the total costs for all consultant services. Identify each consultant, the services he/she will perform, total number of days, rate of pay, travel costs, per diem, and total estimated costs.

Contract -- A contract is defined in [2 CFR 200.1](#) as a legal instrument by which a non-Federal entity purchases property or services needed to carry out the project or program under a Federal award. The term as used in this part does not include a legal instrument, even if the non-Federal entity considers it a contract, when the substance of the transaction meets the definition of a Federal award or subaward (see §200.1 Subaward).

Explain the need for each agreement and how their use will support the purpose and goals of the project. For each contract, describe the associated activities, scope of work or services to be provided and how the costs were estimated. If budgeting for a procurement action, document if a solicitation process has occurred or if the contract will be a sole source.

Example:

- ABC Company: Training \$250/individual x 3 staff 5 days = \$ 750
- Amy White to provide Technical Assistant Services
 - 1FTE @ \$25,000 + 20% Fringe Benefits of \$5,000 = \$30,000
 - Travel at 2,000 miles @ .50 per mile = \$ 1,000
 - Training course \$ 175

Supplies @ \$42.50 x 12 months =	\$ 510
Telephone @ \$40 x 12 months =	<u>\$ 480</u>
	\$32,165

- John Doe, Consultant \$40 per hour x 220 hours for 12 month period = \$ 8,800
- To Be Announced Outreach Coordinator Annual salary \$30,000 x 10% level of effort/12 months = \$ 3,000

CONSTRUCTION

Construction efforts are to be included under this category with the same level of detail as described under the “Other” category below.

OTHER

Costs not fitting under one of the other categories are to be included under this category. The level of detail is to be commensurate with other categories. Subawards should be included in this category. Per [2 CFR 200.1](#), a subaward is an award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a Federal award received by the pass-through entity. It does not include payments to a contractor or payments to an individual that is a beneficiary of a Federal program. A subaward may be provided through any form of legal agreement, including an agreement that the pass-through entity considers a contract.

Example: Outreach Workshop

Rental of facilities (\$750/2 days)	\$1,500
Information technology services	\$ 400
Training packets (approx. 125/\$40 each)	<u>\$5,000</u>
Total	\$6,900

Note: Percentage for contingencies is not an allowable cost.

INDIRECT

[2 CFR 200.1](#) defines *Indirect (F&A) costs* as those costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved. To facilitate equitable distribution of indirect expenses to the cost objectives served, it may be necessary to establish a number of pools of indirect (F&A) costs. Indirect (F&A) cost pools must be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived.

This cost category guidance includes several components:

- Calculation (This is to be included as part of the budget narrative)
- Indirect Cost Rates
 - Negotiated Rate
 - 10% De Minimis Rate
- Limitation (i.e., indirect cost cap)

- Unrecovered Indirect Costs for Cost-sharing/Match
- Voluntarily Reduce/Waive

Calculation.

If indirect costs are requested as part of the proposed budget, you must provide details used in determining the indirect costs requested. For instance, provide the calculation specifying the amounts used in applying the base (the base specified in the applicable rate agreement) by the applicable rate (see indirect cost rate info below as well as Limitation section). The calculation can be displayed in different formats but must capture the components (i.e., amounts used in applying the base and the applicable rate).

EXAMPLE 1: For purposes of this example, the recipient uses the 10% de minimis indirect cost rate (10% of Modified Total Direct Cost (MTDC)). MTDC means all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward. MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000.

	<u>Budget</u>	<u>Indirect Eligible Amounts</u>
Salaries and wages	\$50,000	\$50,000
Materials and supplies	3,000	3,000
Equipment	5,500	-0-
Subaward	30,000	<u>25,000</u>
		\$78,000 x 10% = \$7,800 Indirect Costs

EXAMPLE 2: For purposes of this example, the recipient has a Negotiated Indirect Cost Rate Agreement (NICRA) of 20% with a base of salaries and fringe benefits.

	<u>Budget</u>	<u>Indirect Eligible Amounts</u>
Salaries and wages	\$50,000	\$50,000
Fringe Benefits	10,000	10,000
Materials and supplies	3,000	-0-
Equipment	5,500	-0-
Subaward	30,000	<u>-0-</u>
		\$60,000 x 20% = \$12,000 Indirect Costs

Indirect costs may only be recovered if the non-Federal entity has one of the following indirect cost rates.

1. **Negotiated Rate:** If the organization has a *current* NICRA established with the cognizant Federal agency (the agency that provides the most funds to the organization), then

provide a copy of the NICRA; expired rates are not acceptable. If unable to obtain a current negotiated rate from the cognizant agency, you are permitted to opt to use the 10% de minimis cost rate (you may only be reimbursed for allowable direct cost). Violation of cost accounting principles is not permitted when re-budgeting or charging costs to awards. Rather, costs must be consistently charged as either indirect or direct costs. Along with a copy of the NICRA, include the rate and base as part of the budget narrative.

Example: Rate 24.87% of MTDC - 24.87% applied to the following items: \$97,300 of Personnel, \$23,352 of Fringe, \$110,000 of other, and the first \$25,000 of three (3) subawards = \$76,015.65 indirect costs

- 2. 10% De Minimis Cost Rate:** In accordance with [2 CFR 200.414\(f\)](#), any non-Federal entities, unless excepted, may elect to forgo calculation of an indirect cost rate and request a 10% de minimis indirect cost rate. The 10% de minimis rate is applied to modified total direct costs (MTDC). For this purpose, MTDC means total direct costs related to the award, such as direct labor, fringe benefits, materials and supplies, publications, consultant services and travel costs. MTDC excludes the following costs: equipment, capital expenditures, participant support costs and the portion of each subaward and subcontract in excess of \$25,000. Violation of cost accounting principles is not permitted when charging costs to awards. Rather, costs must be consistently charged as either indirect or direct costs.

If the 10% de minimis option is chosen, it must be used consistently for all Federal awards until such time you choose to negotiate for a rate, which you may apply to do at any time. If the organization previously opted for the de minimis rate, a copy of the rate agreement must be provided. If the organization is currently electing the de minimis rate, use an indirect cost rate of no more than 10% of MTDC when preparing the budget. If selected for award, a de minimis rate agreement will be executed along with the award, as appropriate.

Example: Rate 10% of MTDC – 10% applied to the following items: \$45,000 of Personnel, \$10,800 of Fringe, and \$59,000 of Other = \$11,480 indirect costs

Limitation: Some programs may not allow the recovery of indirect costs. In such instances, the limitation flows down to subcontractors. Refer to the applicable notice of funding opportunity to determine if indirect costs are unallowable.

USDA appropriation acts limit indirect costs to 10 percent for cooperative and contribution agreements with nonprofit entities; for purposes of this limitation “nonprofit entities” includes institutions of higher education. For agreements subject to this limitation first apply the 10 percent indirect cost rate to the agreement’s total direct costs; this is shown on line 6.i of the SF424A. Then calculate indirect costs using the rate and the direct cost application base specified in the recipient’s NICRA. Use whichever rate results in the lower amount.

If the organization has a NICRA, both the NICRA calculation and the 10% TDC must be completed in order to determine the lesser (i.e., maximum allowed indirect costs) for the applicable project.

Calculation instructions: First, multiply the NICRA rate by the base stated in the NICRA to arrive at Amount A. Next, multiply the statutory limit of 10% by TDC to arrive at Amount B. The lower of Amount A and B is the maximum amount of allowable indirect cost, therefore include this amount on the budget.

Unrecovered Indirect Costs for Cost-sharing/Match: 2 CFR 200.306(c) provides,

“Unrecovered indirect costs, including indirect costs on cost sharing or matching may be included as part of cost sharing or matching only with the prior approval of the Federal awarding agency. Unrecovered indirect cost means the difference between the amount charged to the Federal award and the amount which could have been charged to the Federal award under the non-Federal entity's approved negotiated indirect cost rate.”

Voluntarily Reduce/Waive: A recipient may voluntarily reduce or waive recovery of indirect costs at its sole discretion and must not be encouraged or coerced in any way to do so by the agency. If organizations waive indirect cost recovery and request only direct costs, the organization is required to include in the award budget only those types of costs consistently treated as direct costs by the organization.