OVERVIEW INFORMATION

U.S. Environmental Protection Agency
Groundwater Characterization and Remediation Division (GCRD)
Center for Environmental Solutions and Emergency Response (CESER)
Office of Research and Development

ENVIRONMENTAL RESEACH APPRENTICESHIP PROGRAM FOR COLLEGE AND UNIVERSITY STUDENTS

This is the initial announcement of this funding opportunity.

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I. FUNDING OPPORTUNITY DESCRIPTION

For Updates and Additional Information see EPA Research Funding Opportunities.
View projects awarded under previous solicitations at EPA Research Grant Areas.

A. Introduction

The U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD) seeks to support a Research Training Program for college and university students. The objective of this Request for Applications (RFA) is to support the training of undergraduate and graduate students on site at EPA's research facility located in Ada, Oklahoma. ORD conducts timely, mission-relevant, solution-oriented research based on the principles of integrity, sustainability, and responsiveness to the needs of the Nation. The *Environmental Research Apprenticeship Program (ERAP) for College and University Students* is designed to increase both the effectiveness and number of future environmental scientists and technicians by allowing trainees to collaborate with senior EPA-ORD scientists. The overall goal is to train the next generation of science, technology, engineering, and mathematics (STEM) scientists and engineers to further the Agency's mission to reduce greenhouse gas emissions, manage chemical risks, protect, and restore land, and protect America's water. The training will be conducted at EPA's facilities in Ada, Oklahoma. Some examples of the fields of study for desirable trainees include (but are not limited to) those majoring in environmental science, water policy, chemistry, engineering, computer science, ecology, and physical and biological sciences.

ORD's Consolidated Research/Training/Fellowships program supports research and development to: (1) determine the environmental effects of air quality, drinking water, water quality, hazardous waste, toxic substances, and pesticides; (2) identify, develop, and demonstrate effective pollution control techniques to prevent, reduce, and eliminate pollution; (3) perform risk assessments to characterize the potential adverse health effects of human exposures to environmental hazards; and (4) facilitate training and program participant support in these areas. This competition proposes training students through projects that are relevant to EPA-ORD's priorities, including, but not limited to, research in pollution prevention and green infrastructure; research to reduce greenhouse gas emissions; research of biological, physical, and chemical remediation; ecosystem research; and environmental research of watersheds, drinking water and wastewater.

The EPA anticipates funding one award under this RFA up to $800,000.

The *Environmental Research Apprenticeship Program for College and University Students* RFA supports STEM education through hands-on experience and training that brings classroom learning to life. To the extent practicable, applicants should describe the STEM education

ecosystem in their project. A STEM education ecosystem consists of partners united by a collective vision of supporting participation in STEM through the creation of accessible, inclusive STEM learning opportunities spanning all education stages and career pathways. A STEM education ecosystem continuously evaluates its activities and adapts as needed, plans for the long-term, and communicates its work to build broad support and advance best-practices.

EPA recognizes that it is important to engage all available minds to address the environmental challenges the nation faces. At the same time, EPA seeks to expand the environmental conversation by including members of communities which may have not previously participated in such dialogues to participate in EPA programs. For this reason, EPA strongly encourages all eligible applicants identified in Section III, including minority serving institutions (MSIs), to apply under this opportunity.

For purposes of this solicitation, the following are considered MSIs:

1. Historically Black Colleges and Universities, as defined by the Higher Education Act (20 U.S.C. § 1061(2)). A list of these schools can be found at Historically Black Colleges and Universities;

2. Tribal Colleges and Universities (TCUs), as defined by the Higher Education Act (20 U.S.C. § 1059c(b)(3) and (d)(1)). A list of these schools can be found at American Indian Tribally Controlled Colleges and Universities;

3. Hispanic-Serving Institutions (HSIs), as defined by the Higher Education Act (20 U.S.C. § 1101a(a)(5)). A list of these schools can be found at Hispanic-Serving Institutions;

4. Asian American and Native American Pacific Islander-Serving Institutions; (AANAPISIs), as defined by the Higher Education Act (20 U.S.C. § 1059g(b)(2)). A list of these schools can be found at Asian American and Native American Pacific Islander-Serving Institutions; and

5. Predominately Black Institutions (PBIs), as defined by the Higher Education Act of 2008, 20 U.S.C. 1059e(b)(6). A list of these schools can be found at Predominately Black Institutions.

B. Background, Goals, and Objectives

The Groundwater Characterization and Remediation Division (GCRD) of ORD's Center for Environmental Solutions and Emergency Response (CESER), located in Ada, Oklahoma, is the administering laboratory for the *Environmental Research Apprenticeship Program for College and University Students*. As the lead collaborating organization, and EPA's premiere laboratory for risk management research, GCRD conducts research in support of ORD's national research programs (including the FY 2022-2026 EPA strategic plan) on the most pressing environmental and human health research needs identified by EPA's program and regional offices and its partners, such as states, tribes, and other federal agencies. The research planning process within each national program identifies priority needs and maps out high-level strategies to address

them, which are then operationalized and implemented at the Center level. GCRD research activities primarily align within the Safe and Sustainable Water Resources (SSWR); Sustainable and Healthy Communities (SHC); Chemical Safety for Sustainability (CSS); and Air, Climate, and Energy (ACE) national research programs. GCRD's research supports EPA's programs to protect and restore the subsurface environment.

EPA intends to make awards under the *Environmental Research Apprenticeship Program for College and University Students* RFA that provide opportunities for undergraduate and graduate students to be mentored by EPA scientists at GCRD in Ada, Oklahoma. The ultimate goal is to produce STEM scientists and technicians who not only have relevant classroom experience, but who also have research laboratory experience. Additional background information on collaborating EPA-ORD-Ada organizations providing training experiences under this RFA can be found at the following sites:

CESER: About the Center for Environmental Solutions and Emergency Response (CESER)
GCRD: About the Groundwater Characterization and Remediation Division (GCRD)

The purpose of this announcement is to request applications to competitively select a technically and administratively qualified recipient to develop and administer a year-round research training program. The *Environmental Research Apprenticeship Program for College and University Students* will supplement the academic training of the trainees by enabling them to complete mentored training and projects on-site with EPA scientists at GCRD's federal research laboratories located in Ada, Oklahoma. The training can begin at any time during the calendar year and must be structured to occur in conjunction with the trainees' academic studies. Training must be conducted on-site at GCRD's facilities in Ada, Oklahoma, and the applicant must describe its approach for managing any logistics that are necessary to meet this objective. The applicant's training program must support: (a) undergraduate students who will gain research experience by working with GCRD scientists (mentors) on a part-time or full-time schedule, and (b) graduate students, enrolled in Masters programs, who will receive training in EPA research and will undertake more substantial research training projects in collaboration with EPA and university scientists on a part-time or full-time schedule. Students will gain research experience by working under the mentorship of GCRD scientists throughout the academic year. Students may also continue their training during the summer session. **Applications that do not propose the training and mentoring of both undergraduate and graduate students on-site at EPA-GCRD's facilities in Ada, Oklahoma will not be considered.**

For the training program to be effective and valuable, regular interaction with EPA mentors at GCRD's Ada, Oklahoma facilities is expected over the term of the trainees' appointments. The training program should require that the student trainees spend approximately 10+ hours per week during the academic year (Fall/Spring semesters) and approximately 20+ hours per week if participating in the summer session on-site at GCRD's research facilities. Actual number of hours worked per week will be determined based on each trainee's availability due to class schedule for each semester and scope of the project developed by the trainee.

Research themes for training opportunities will be identified by GCRD in collaboration with the

recipient. These themes will primarily reflect research priorities and funding availability at GCRD and include, but are not limited to: research in pollution prevention and green infrastructure, research to reduce greenhouse gas emissions, research of biological, physical, and chemical remediation, ecosystem research, and environmental research of watersheds, drinking water, and wastewater. Projects that are consistent with GCRD's research themes and suitable for training students will be coordinated with the EPA mentor and developed by the recipient. Some examples of the desired areas of study for trainees include, but are not limited to, environmental science, water policy, chemistry, engineering, computer science, ecology, and physical and biological sciences. The objective of the training program is not to provide products or services for EPA's direct use or augment its workforce. EPA will not select trainees or otherwise assume any supervisory responsibilities regarding the trainees selected by the recipient.

It is envisioned that the training program will increase both the effectiveness and number of future environmental scientists. The training received under the mentorship of GCRD scientists will complement the trainees' academic coursework. The recipient will be responsible for ensuring that the training plans are supportive of the trainees' academic training. Training in professional scientific ethics and quality assurance will typically be provided both by the recipient and EPA. The on-site cooperative training experience would be conducted with GCRD scientists and include problem and hypothesis formulation, experimental design, sample analysis, experiment set-up, data evaluation, quality assurance, reporting, presenting results and manuscript development and publication.

C. Authority and Regulations

The authorities for this RFA and resulting award are contained in the Clean Air Act, 42 U.S.C. 7403, Section 103(b)(3); the Safe Drinking Water Act, 42 U.S.C. 300j-1, Section 1442; the Clean Water Act, 33 U.S.C. 1254, Section 104 (b)(3); and the Solid Waste Disposal Act, 42 U.S.C. 6981, Section 8001.

For work with an international aspect, the above statutes are supplemented, as appropriate, by the National Environmental Policy Act, Section 102(2)(I).

Note that a project's focus is to consist of activities within the statutory terms of EPA's financial assistance authorities; specifically, the statute(s) listed above. Generally, a project must address the causes, effects, extent, prevention, reduction, and elimination of air pollution, water pollution, solid/hazardous waste pollution, toxic substances control, or pesticide control depending on which statute(s) is listed above.

Additional applicable regulations include: 2 CFR Part 200, 2 CFR Part 1500, and 40 CFR Part 45 (Training Assistance).

D. EPA Strategic Plan Linkage/Expected Outputs and Outcomes

Note to applicant: The term "output" means an environmental activity, effort, and/or associated work products related to an environmental goal or objective, that will be produced or provided over a period of time or by a specified date. The term "outcome" means the result, effect or

consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective.

The activities to be funded under this solicitation support EPA's FY 2022-26 Strategic Plan. The award made under this solicitation will support the following goals and objectives of the Strategic Plan:

Goal 1: Tackle the Climate Crisis
Objective 1.1: Reduce Emissions that Cause Climate Change

Goal 5: Ensure Clean and Safe Water for All Communities
Objective 5.1: Ensure Safe Drinking Water and Reliable Water Infrastructure
Objective 5.2: Protect and Restore Waterbodies and Watersheds

Goal 6: Safeguard and Revitalize Communities
Objective 6.1: Clean Up and Restore Land for Productive Uses and Healthy Communities
Objective 6.2: Reduce Waste and Prevent Environmental Contamination
Objective 6.3: Prepare for and Respond to Environmental Emergencies

Goal 7: Ensure Safety of Chemicals for People and the Environment
Objective 7.1: Ensure Chemical and Pesticide Safety
Objective 7.2: Promote Pollution Prevention

All applications should be for projects that support the goal(s) and objective(s) identified above. The award made under this announcement will further the goals of the Consolidated Research/Training/Fellowships program by training the next generation of STEM scientists to further the Agency's mission to reduce greenhouse gas emissions, manage chemical risks, protect and restore land, and protect America's water.

EPA also requires that grant applicants adequately describe environmental outputs and outcomes to be achieved under assistance agreements (see EPA Order 5700.7A1, Environmental Results under Assistance Agreements). Applicants should include specific statements describing the environmental results of the proposed project in terms of well-defined outputs and, to the maximum extent practicable, well-defined outcomes that will demonstrate how the project will contribute to the goal(s) and objective(s) described above.

Outputs and Outcomes
Outputs from the Research Training Program funded under this RFA are expected to include, but are not limited to:

- The training of up to 10+ trainees per year;
- Progress reports that summarize the trainees' projects, objectives, outputs/outcomes, approaches, learning experiences and budget allocations;
- Scientific and technical publications in the peer-reviewed literature;
- Attendance and presentations of data at national and international scientific meetings;

- Data and information essential to conducting environmental studies.

Examples of expected outcomes include, but are not limited to:

- Increase in the number of environmental scientists and technicians that have the training and experience to immediately enter the workforce upon graduation;
- Increase in the number of environmental scientists who can productively contribute to the understanding of the science needed to manage environmental risks;
- Increase in the overall knowledge and experience of the trainees being mentored and trained.

E. Program Components-Specific Areas of Interest

The application should address the following components:

1. The educational and technical merit of the training program should be described and should support EPA-ORD's goal and objective of training the next generation of STEM scientists. The program should provide for collaboration between a successful institution and GCRD in Ada, Oklahoma, for on-site training of a new generation of undergraduate and graduate students who will obtain degrees in STEM sciences and pursue careers in environmentally related fields. The training/mentorship will occur during the academic year with the option for continued training/mentorship during the summer session. Describe the STEM education ecosystem, its members, and how the STEM education ecosystem will effectively lead the project.
2. The applicant should describe the process and procedures for matching the trainees identified for the training program with the available training opportunities related to GCRD's research themes. GCRD will designate mentors through the EPA Project Officer. After award, the GCRD Mentors will provide research themes for potential projects to ensure a fit between the trainees' interests and qualifications and the training and research opportunities available at the GCRD laboratory. Research themes include, but are not limited to, research in pollution prevention and green infrastructure; research to reduce greenhouse gas emissions; research of biological, physical and chemical remediation; ecosystem research; and environmental research of watersheds, drinking water and wastewater.
3. The applicant should propose how it will provide and manage financial support to trainees. Training will be conducted on-site at GCRD's facilities in Ada, Oklahoma, on a regular basis during the academic year, with the option for continued training/mentorship during the summer session. The applicant must describe its approach for managing any logistics that are necessary to meet this objective. The trainees should spend approximately 10+ hours per week during the academic year (Fall/Spring semesters) and approximately 20+ (maximum of 40) hours per week if participating in the summer session on-site at GCRD's research facilities. Actual number of hours worked per week will be determined based on each trainee's availability due to their class schedule and hours needed to complete their training project(s). It is expected that undergraduate trainees will participate by working as summer interns and throughout academic quarters/semesters with GCRD scientists (mentors) on a part-time or full-time schedule,

and graduate trainees will undertake more substantial research projects in collaboration with GCRD and university scientists on a part-time or full-time schedule. The applicant should explain how it will provide scientific oversight for the selected trainees' development of personal training plans which outline their anticipated learning objectives and the anticipated benefits to their career.

4. The applicant should propose how it will provide guidance and direction to trainees to ensure they are following the health and safety and quality assurance requirements as described by GCRD Mentors while working at the laboratory and accomplishing the required coursework for their chosen degree without undue interference from their research responsibilities.
5. The program should be designed to recruit undergraduate and graduate students of high potential.
6. The applicant should describe how the program will advertise, in as wide a manner as practicable, the apprenticeships on a competitive basis, and receive, manage, and objectively review applications from students for apprenticeships. The applicant should describe the selection criteria to be used in the evaluation of potential trainees. Examples of selection criteria are: qualifications, career interests, experience, and academic record.
7. The applicant should identify an individual who will be designated to serve as the Principal Investigator (PI)/Project Manager. This individual should have the background capable of managing a research training program along with administrative experience.

Overall, the recipient, through the activities of the Principal Investigator/Project Manager and/or identified personnel, will be expected to be responsible for:

- Providing a single point of contact for the EPA Project Officer for all administrative and technical requirements of the cooperative agreement to ensure compliance with the agreement's terms and conditions;
- Competitively advertising training opportunities;
- Managing the evaluation and selection process for the trainees and providing the names and areas of study for the selected trainees in order for the EPA Project Officer to assign a mentor;
- Providing scientific oversight for training plans;
- Supporting the development of projects with the GCRD Mentor (relevant to GCRD's research themes) and ensuring trainees achieve anticipated results;
- Providing comments to the EPA Project Officer regarding progress on the trainees' projects, problems encountered, and solutions taken;
- Providing guidance and instruction, as necessary, ensuring the trainees follow acceptable scientific methods;
- Providing progress reports to the GCRD Project Officer;
- Ensuring apprenticeship results are incorporated in a final report that summarizes the trainees' project objectives, approaches, outputs/outcomes, and learning experiences;
- Providing guidance and assistance in the preparation of scientific publications; and
- Managing all supervisory/oversight functions, including, managing time and attendance and record keeping.

F. Special Requirements
Agency policy and ethical considerations prevent EPA technical staff and managers from providing applicants with information that may create an unfair competitive advantage. Consequently, EPA employees will not review, comment, advise, and/or provide technical assistance to applicants preparing applications in response to EPA RFAs. EPA employees cannot endorse any specific application.

Per 40 CFR 45.135(a), trainees must be citizens of the United States, its territories, or possessions, or lawfully admitted to the United States for permanent residence. EPA funds under the proposed cooperative agreement may only be used for participant support cost payments, scholarships, tuition remission and other forms of student aid for citizens of the United States, its territories, or possessions, or for individuals lawfully admitted to the United States for permanent residence.

Regarding trainees who are not U.S. citizens but are U.S. permanent residents, access to EPA facilities and/or EPA computer systems, networks and/or data by foreign national guests (FNGs) will be managed in accordance with *EPA's Identity Management and Personal Identity Verification (PIV)/Personal Identity Verification – Interoperable (PIV-1) Card Issuance for Foreign National Guests* Security Implementing Directive. The Directive establishes onboarding and credentialing standards and procedures for FNGs who are defined as non-U.S. citizens who are collaborating or conducting research with the EPA or working on behalf of the agency as a contractor, or other non-federal person.

Consistent with Agency regulatory obligations, applicants for and/or recipients of EPA financial assistance are prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability in their programs or activities. Therefore, applications should not contain provisions wherein decisions about how to structure and manage a trainee program, including the selection process, are based on race, color, national origin, sex, age, or disability.

G. Additional Provisions for Applicants Incorporated into the Solicitation
Additional provisions that apply to sections III, IV, V, and VI of this solicitation and/or awards made under this solicitation, can be found at EPA Solicitation Clauses. These provisions are important for applying to this solicitation and applicants must review them when preparing applications for this solicitation. If you are unable to access these provisions electronically at the website above, please contact the EPA point of contact listed in this solicitation (usually in Section VII) to obtain the provisions.

II. AWARD INFORMATION
It is anticipated that a total of approximately $800,000 will be awarded under this announcement, depending on the availability of funds, quality of applications received, and other applicable considerations. The EPA anticipates funding one award under this RFA. Requests for amounts in excess of a total of $800,000 per award, including direct and indirect costs, will not be considered. The total project period requested in an application submitted for this RFA may not exceed five years.

The EPA reserves the right to reject all applications and make no awards under this RFA. The EPA reserves the right to make additional awards under this announcement, consistent with Agency policy, if additional funding becomes available after the original selections are made. Any additional selections for awards will be made no later than six months after the original selection decisions.

In appropriate circumstances, EPA reserves the right to partially fund applications by funding discrete portions or phases of proposed projects. If EPA decides to partially fund an application, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the application, or portion thereof, was evaluated and selected for award, and therefore maintains the integrity of the competition and selection process. Awards may be fully or incrementally funded, as appropriate, based on funding availability, satisfactory performance, and other applicable considerations.

EPA intends to award one cooperative agreement under this announcement. Cooperative agreements provide for substantial involvement between the EPA and the selected applicant(s) in the performance of the work supported. **Applications may not identify EPA cooperators, specific interactions between EPA and those of the prospective recipient for the cooperative agreement will be negotiated at the time of award.**

Although EPA will negotiate precise terms and conditions relating to substantial involvement as part of the award process, the anticipated substantial federal involvement may include:

- The GCRD Mentor will provide assistance with the development of the trainees' research projects by providing relevant research themes and be responsible for ensuring that activities performed by the trainees at GCRD facilities in Ada, Oklahoma fulfill the requirements of their projects and are a beneficial learning experience for the trainees.
- GCRD staff will train the trainees in laboratory health and safety and quality assurance.
- The GCRD Mentor will provide on-site training in laboratory techniques, theory and operation of advanced laboratory instrumentation, experimental design, data evaluation, computer data base management, computer applications, library database search techniques, sample preparation and analysis, computer model application, as well as many other areas related to laboratory research.
- The GCRD Mentor will provide guidance and assistance in the preparation of scientific publications.

Note EPA does not have the authority to select employees or contractors employed by the recipient and the final decision on the content of reports rests with the recipient.

Potential applicants should contact the Technical Contact listed under Section VII. *Agency Contacts* regarding questions pertaining to EPA's substantial involvement.

III. ELIGIBILITY INFORMATION

Note: Additional provisions that apply to this section can be found at EPA Solicitation Clauses**.**

A. Eligible Applicants

This solicitation is available to U.S. States, territories and possessions, Federally Recognized Indian Tribal Governments of the U.S., and the District of Columbia; public and private universities and colleges, public and private nonprofit institutions, hospitals, and laboratories located in the U.S. and its territories or possessions; State and local government departments; and foreign universities/organizations. Profit-making firms and individuals are not eligible to receive assistance agreements from the EPA under this program.

Consistent with the definition of Nonprofit organization at 2 CFR § 200.1, the term nonprofit organization means any corporation, trust, association, cooperative, or other organization that is operated mainly for scientific, educational, service, charitable, or similar purpose in the public interest and is not organized primarily for profit; and uses net proceeds to maintain, improve, or expand the operation of the organization. The term includes tax-exempt nonprofit neighborhood and labor organizations. Note that 2 CFR § 200.1 specifically excludes Institutions of Higher Education from the definition of non-profit organization because they are separately defined in the regulation. While not considered to be a nonprofit organization(s) as defined by 2 CFR § 200.1, public or nonprofit Institutions of Higher Education are, nevertheless, eligible to submit applications under this RFA. Hospitals operated by state, tribal, or local governments or that meet the definition of nonprofit at 2 CFR § 200.1 are also eligible to apply as nonprofits or as instrumentalities of the unit of government depending on the applicable law. For-profit colleges, universities, trade schools, and hospitals are ineligible.

Nonprofit organizations that are not exempt from taxation under section 501 of the Internal Revenue Code must submit other forms of documentation of nonprofit status; such as certificates of incorporation as nonprofit under state or tribal law. Nonprofit organizations exempt from taxation under section 501(c)(4) of the Internal Revenue Code that lobby are not eligible for EPA funding as provided in the Lobbying Disclosure Act, 2 U.S.C. 1611.

National laboratories funded by Federal Agencies (Federally-Funded Research and Development Centers, "FFRDCs") may not apply. FFRDC employees may cooperate or collaborate with eligible applicants within the limits imposed by applicable legislation and regulations. They may participate in planning, conducting, and analyzing the research directed by the applicant, but may not direct projects on behalf of the applicant organization. An award recipient may provide funds through its assistance agreement from the EPA to an FFRDC for research personnel, supplies, equipment, and other expenses directly related to the research.

Federal Agencies may not apply. Federal employees are not eligible to serve in a principal leadership role on an assistance agreement. Federal employees may not receive salaries or augment their Agency’s appropriations through awards made under this program unless authorized by law to receive such funding.

The applicant institution may enter into an agreement with a Federal Agency to purchase or utilize unique supplies or services unavailable in the private sector to the extent authorized by law. Examples are purchase of satellite data, chemical reference standards, analyses, or use of instrumentation or other facilities not available elsewhere. A written justification for federal

involvement must be included in the application. In addition, an appropriate form of assurance that documents the commitment, such as a letter of intent from the Federal Agency involved, should be included.

If an application is submitted that includes any ineligible tasks or activities, that portion of the application will be ineligible for funding and may, depending on the extent to which it affects the application, render the entire application ineligible for funding.

Potential applicants who are uncertain of their eligibility should contact the Eligibility Contact listed under Section VII. *Agency Contacts*.

B. Cost sharing
Cost sharing is not required.

C. Other
All applications will be reviewed for eligibility and must meet the eligibility requirements described in Sections III.A., B., and C. to be considered eligible. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

a. Applications must substantially comply with the application submission instructions and requirements set forth in Section IV of this solicitation or else they will be rejected. However, where a page limit is expressed in Section IV with respect to the application, or parts thereof, pages in excess of the page limitation will not be reviewed. Applicants are advised that readability is of paramount importance and should take precedence in application format, including selecting a legible font type and size for use in the application.

b. In addition, initial applications must be submitted through Grants.gov as stated in Section IV of this solicitation (except in the limited circumstances where another mode of submission is specifically allowed for as explained in Section IV) on or before the application submission deadline published in Section IV of this solicitation. Applicants are responsible for following the submission instructions in Section IV of this solicitation to ensure that their application is timely submitted. Please note that applicants experiencing technical issues with submitting through Grants.gov should follow the instructions provided in Section IV, which include both the requirement to contact Grants.gov and email a full application to EPA prior to the deadline.

c. Applications submitted outside of Grants.gov will be deemed ineligible without further consideration unless the applicant can clearly demonstrate that it was due to EPA mishandling or technical problems associated with Grants.gov or SAM.gov. An applicant's failure to timely submit their application through Grants.gov because they did not timely or properly register in SAM.gov or Grants.gov will not be considered an acceptable reason to consider a submission outside of Grants.gov.

If an applicant submits more than one application under this announcement, each application must be submitted separately, and the scope of work proposed in each application must be

significantly different from the other application(s) in order for them to all be deemed eligible. If applications are submitted with scopes of work that do not significantly differ, then EPA will only accept the most recently submitted application and all other applications will be deemed ineligible.

Applications exceeding the funding limits or project period described in Section II will be rejected without review. Further, applications that fail to demonstrate a public purpose of support or stimulation (e.g., by proposing research which primarily benefits a Federal program or provides a service for a Federal agency) will not be funded.

Applications must propose the training and mentoring of both undergraduate and graduate students. Applications which do not propose the training and mentoring of both undergraduate and graduate students will not be considered. In addition, applications which do not propose trainee participation at EPA-ORD's Ada, Oklahoma facilities will not be considered. See Sections IV.C.5.ii.g and IV.C.5.iii.b.

IV. APPLICATION AND SUBMISSION INFORMATION

Note: Additional provisions that apply to this section can be found at EPA Solicitation Clauses.

Formal instructions for submission through Grants.gov are in Section F.

A. Grants.gov Submittal Requirements and Limited Exception Procedures

Applicants must apply electronically through Grants.gov under this funding opportunity based on the Grants.gov instructions in this announcement. If your organization has no access to the internet or access is very limited, you may request an exception for the remainder of this calendar year by following the procedures outlined here. Please note that your request must be received at least 15 calendar days before the application due date to allow enough time to negotiate alternative submission methods. Issues with submissions with respect to this opportunity only are addressed in Section IV.F. *Submission Instructions and Other Submission Requirements* below.

B. Application Package Information

Use the application package available at Grants.gov (see Section IV.F. "Submission Instructions and Other Submission Requirements"). Note: With the exception of the current and pending support form (available at Research Funding Opportunities: How to Apply and Required Forms), all necessary forms are included in the electronic application package. Make sure to include the current and pending support form in your Grants.gov submission.

C. Content and Form of Application Submission

The application is made by submitting the materials described below. **Applications must contain all information requested.**

1. Standard Form 424

The applicant must complete Standard Form 424, Application for Federal Assistance. Instructions for completion of the SF-424 are included with the form. However, note that EPA

requires that the entire requested dollar amount appear on the SF-424, not simply the proposed first year expenses. The form must contain the signature of an authorized representative of the applying organization. Please note the form will be automatically signed by the authorized organization representative when the "Sign & Submit" button is clicked in the Grants.gov Workspace.

2. Key Contacts, EPA Form 5700-54
The applicant must complete the "Key Contacts" form found in the Grants.gov application package. An "Additional Key Contacts" form is also available at Research Funding Opportunities: How to Apply and Required Forms. The Key Contacts form should also be completed for major subawards (i.e., principal investigators). Do not include information for consultants or other contractors. Please make certain that all contact information is accurate.

3. EPA Form 4700-4, Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance
(For tips on completing the form see: Tips for Completing EPA Form 4700-4.)

4. SF-424A Budget Information - Non-Construction Programs
Prepare a master budget table using Standard Form 424A, Budget Information for Non-Construction Programs, available in the Grants.gov electronic application package. Only complete "Section B-Budget Categories". Provide the object class budget category (a.-k.) amounts for budget years 1-4 under the "Grant Program, Function or Activity" heading. Each column reflects a separate budget year. For example, Column (1) reflects budget year 1. Provide a separate SF-424A with the total budget for years 1-4 in Column (1) and year 5 in Column (2). Column 5 of the second SF-424A will display the overall project total.

Applicants may not use subawards to transfer or delegate their responsibility for successful completion of their EPA assistance agreement. Note: Prior to naming a contractor (including consultants) or subrecipient in your application as a "partner", please carefully review Section IV.d, "Contracts and Subawards", of EPA's Announcement Clauses that are incorporated by reference in this announcement (See Section I.G). EPA expects recipients of funding to comply with competitive procurement contracting requirements as well as EPA's rule on Participation by Disadvantaged Business Enterprises in EPA Programs in 40 CFR Part 33. The Agency does not accept justifications for sole source contracts for services or products available in the commercial marketplace based on a contractor's role in preparing an application.

Please note that cost sharing is not required.

5. Project Narrative, submitted using Project Narrative Attachment Form and prepared as described below:

i. Table of Contents

Provide a list of the major subdivisions of the application indicating the page number on which each section begins.

ii. Abstract (1 page)

The abstract is a very important document in the review process. Therefore, it is critical that the abstract accurately describes the training effort being proposed and conveys all the essential elements of the training.

The abstract must include the information described below (a-h).

a. Funding Opportunity Title and Number for this application.
b. Project Title: Use the exact title of your project as it appears in the application. The title must be brief yet represent the major thrust of the project. Because the title will be used by those not familiar with the project, use more commonly understood terminology. Do not use general phrases such as "research on."
c. Investigators: List the Principal Investigator (PI), then the name(s) of each co-PI who will significantly contribute to the project. Provide a website URL or an email contact address for additional information.
d. Institution(s): In the same order as the list of investigators, list the name, city and state of each participating university or other applicant institution. The institution applying for assistance must be clearly identified.
e. Project Period and Location: Show the proposed project beginning and ending dates and the performance site(s)/geographical location(s) where the work will be conducted.
f. Project Cost: Show the total funding requested from the EPA (include direct and indirect costs for all years).
g. Project Summary: Provide five subsections which address the following: (1) describe the objectives of the project, (2) describe the expected results (outputs/outcomes) of the project and how they address the needs identified in the solicitation, **(3) identify the approximate number of BOTH undergraduate and graduate students that will be trained under the project, (4) affirm the trainee participation will occur at GCRD's Ada, OK facilities**, and (5) describe the typical amount of time a trainee will spend at ORD research facilities (Note: A typical trainee should spend approximately 10+ hours per week during the academic year and 20+ [40 maximum] hours per week if participating in the summer session on-site at EPA's research facilities).
h. Supplemental Keywords: Without duplicating terms already used in the text of the abstract, list keywords to assist database searchers in finding your project. A list of suggested keywords may be found at: Research Funding Opportunities: How to Apply and Required Forms.

iii. Project Narrative (20 pages)

The Project Narrative is the technical proposal that discusses the approach and organizational capabilities for accomplishing the objectives stated under Section I.E of this solicitation. It must also address all of the review criteria described in Section V of the announcement.

The project narrative must not exceed twenty (20) consecutively numbered (bottom center), 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins. While these

guidelines on page size, point type and margins establish the minimum type size requirements, applicants are advised that readability is of paramount importance and should take precedence in selection of an appropriate font for use in the application. The page limitation for the project narrative shall include all text, tables, figures, references, attachments, and appendices. Do not refer to institutional websites to address content in the Project Narrative. All sections listed below must be adequately described within the twenty-page Project Narrative page limit.

The project narrative should provide the following information (Please use section headings provided below):

a. **Educational and Technical Merit:** Describe the educational and technical merit of the research training program being proposed. Describe how collaboration with EPA-ORD-GCRD-Ada will support EPA-ORD's goal and objective of training the next generation of STEM scientists. Describe the STEM education ecosystem, its members, and how the STEM education ecosystem will effectively lead the project.
b. **Management of Training Program:** Describe the proposed approach for managing the training program, including providing financial support to trainees; processes and procedures for matching trainees identified for the training program with the available training opportunities related to EPA-ORD-GCRD-Ada's research themes; and providing scientific oversight for the selected trainees' development of personal training plans and research training projects. EPA-ORD-GCRD-Ada will designate mentors through the EPA Project Officer. The proposed training program should describe how it will disseminate guidance and provide direction to trainees to ensure: they are following the health and safety and quality assurance requirements as described by EPA-ORD Mentors while at the laboratory and are accomplishing the required coursework for their chosen degree without undue interference from their research responsibilities. The approach shall provide information on any anticipated differences in managing undergraduate and graduate students including the impact of potentially more complex projects identified by graduate students. Applicants should address logistical issues necessary to achieve these and the other objectives of this announcement as described in Section I. **Applications must describe the training of BOTH undergraduate and graduate students. The application must clearly state trainee participation will occur at EPA-ORD's Ada, OK facilities.**
c. **Recruitment:** Describe the proposed approach for competitively advertising apprenticeships in as wide a manner as practicable and approach for recruiting undergraduate and graduate students of high potential.
d. **Trainee Selection:** Explain the rationale and process for selecting trainees. Describe the process for receiving, managing, and objectively reviewing applications from students for apprenticeships. The applicant should describe the criteria to be used in the evaluation of potential trainees. Examples of evaluative criteria include: qualifications, career interests, experience, and academic record. Note that applications must not contain provisions wherein decisions about how to structure and manage a trainee program, including the selection process, may be based on race, color, national origin, sex, age, or disability.
e. **Expected Outputs and Outcomes:** Describe the expected outputs and outcomes resulting from the training program. Describe the plan for tracking and measuring

progress toward achieving the expected environmental outputs and outcomes including those identified in Section I.D. above.

f. **Personnel Expertise:** Provide the expertise, qualifications and competences of the Principal Investigator and key personnel and discuss the adequacy of their time commitment to successfully achieve the goals of the research training program. Include formal education, training, licenses, or other relevant training as it relates to expertise in conducting and/or overseeing activities described in Section I.
g. **Financial and Project Management:** Describe the approach, procedures, and controls for ensuring that awarded assistance funds will be expended in a timely and efficient manner and how project objectives will be timely and successfully achieved within the project period. Provide program schedules with associated milestones and target dates for completion.
h. **Budget:** Describe how the program budget makes the most efficient use of Agency funds for the collaborative training of undergraduate and graduate students, for instance, by minimizing direct costs for administrative support.
i. **Facilities and Resources:** Describe the facilities and resources (e.g., supplies, training tools) available to support the learning experience of participating trainees.
j. **Past Performance and Reporting History:** Provide information on the proposed Principal Investigator's (PI's) past performance and reporting history under prior Federal agency assistance agreements (assistance agreements include grants and cooperative agreements but not contracts) in terms of: (i) the level of success in managing and completing each agreement, and (ii) history of meeting the reporting requirements and documenting progress towards achieving the expected results (outputs/outcomes) under each agreement.

The past performance and reporting history information is required only for the proposed PI's performance under federally funded assistance agreements (assistance agreements include grants and cooperative agreements but not contracts) performed within the last five years. **Note: If no prior past performance information and/or reporting history exists, please state this in your application.**

In evaluating applicants under the past performance history factor, EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current/prior grantors (e.g., to verify and/or supplement the information provided by the applicant). **If you do not have any relevant or available past performance or past reporting information, please indicate this in your application and you will receive a nothing to report (NTR)/neutral score for these factors assuming EPA does not have any information in its files or from other sources that can be considered.**

The specific information required for each agreement is shown below.

1. Name of Awarding Agency.
2. Grant/Cooperative agreement number.
3. Grant/Cooperative agreement title.
4. Grantee Institution.

5. Brief description of the grant/cooperative agreement.
6. A discussion on whether the agreement was successfully managed and completed; if not successfully managed and completed, provide an explanation.
7. Information relating to the proposed PI's past performance in reporting on progress towards achieving the expected results (outputs/outcomes) under the agreement and meeting reporting requirements under the agreement. Include the history of submitting acceptable and timely progress/final technical reports, describe how progress towards achieving the expected results was reported/documented, and if such progress was not being made, provide an explanation of whether, and how, this was reported.
8. Total (all years) grant/cooperative agreement dollar value.
9. Project period.
10. Technical contact (project officer), telephone number, and Email address (if available).

iv. Budget Justification *[3 pages in addition to the Section IV.C.5.iii page limitations]*
Identify the amount requested for each budget category and describe the basis for calculating the personnel, fringe benefits, travel, equipment, supplies, contractual support, and other costs identified in the SF-424A. The budget justification should not exceed three consecutively numbered (bottom center), 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins. EPA provides detailed guidance on preparing budgets and budget justifications in the Agency's Interim General Budget Development Guidance for Applicants and Recipients of EPA Financial Assistance.

Budget information must be supported at the level of detail described below:

a. **Personnel:** List all staff positions by title. Give annual salary, percentage of time assigned to the project, total cost for the budget period, project role, and specify any annual cost of living adjustments. Compensation paid for employees engaged in cooperative agreement activities must be consistent with payments for similar work within the applicant organization. Note that for salaries to be allowable as a direct charge to the award, a justification of how that person will be directly involved in the project must be provided. General administrative duties such as answering telephones, filing, typing, or accounting duties are not considered acceptable.

   Below is a sample computation for Personnel:

Position/Title	**Annual Salary**	**% of Time Assigned to Project**	**Year 1**	**Year 2***	**Year 3***	**Total**
Project Manager	$70,000	50%	$35,000	$36,050	$37,132	$108,182
Env. Specialist	$60,000	100%	$60,000	$61,800	$63,654	$185,454
Env. Health Tech	$45,000	100%	$45,000	$46,350	$47,741	$139,091
Total Personnel			**$140,000**	**$144,200**	**$148,527**	**$432,727**

***There is a 3% increase after Year 1 for all personnel for cost-of-living adjustments.**

Note this budget category is limited to persons employed by the applicant organization ONLY. Those employed elsewhere are classified as subawardees, program participants, contractors, or consultants. Contractors and consultants should be listed under the "Contractual" budget heading. Subawards made to eligible subrecipients are listed under the "Other" budget heading. Participant support costs such as stipends or travel assistance for trainees (e.g., interns or fellows) are listed under the "Other" budget heading.

b. **Fringe Benefits:** Identify the percentage used and the basis for its computation. Fringe benefits are for the personnel listed in budget category (a) above and only for the percentage of time devoted to the project. Fringe benefits include but are not limited to the cost of leave, employee insurance, pensions and unemployment benefit plans. The applicant should not combine the fringe benefit costs with direct salaries and wages in the personnel category.

Below is a sample computation for Fringe Benefits:

Position/Title	**Base Fringe % Rate**	***Year 1***	***Year 2****	***Year 3****	**Total**
Project Manager	47.22%	$16,527	$17,022	$17,533	$51,082
Env. Specialist	50.83%	$30,498	$31,413	$32,355	$94,266
Total Fringe Benefits		**$47,025**	**$48,435**	**$49,888**	**$145,348**

***An annual inflation rate of 3% has been factored into years 2 and 3 of the fringe benefits.**

c. **Travel:** In a table format, specify the estimated number of trips, purpose of each trip, number of travelers per trip, destinations, and other costs for each type of travel for applicant employees. Travel costs for program participants should be specified in the "Other" budget category. Explain the need for any travel, paying particular attention to travel outside the United States. Foreign travel includes trips to Mexico and Canada but does not include trips to Puerto Rico, the U.S. territories or possessions. If EPA funds will not be used for foreign travel, the budget justification must expressly state that the applicant will not use EPA funds for foreign travel without approval by EPA. Include travel funds for annual program progress reviews and a final workshop to report on results.

Below is a sample computation for Travel:

Purpose of Travel	**Location**	**Item**	**Computation**	**Cost**
EPA Progress Review	Ada, OK	Lodging	4 people x $100 per night x 2 nights	$800
		Airfare	4 people x $500 round trip	$2,000
		Per Diem	4 people x 50 per day x 2 days	$400
Total Travel				**$3,200**

d. **Equipment:** Identify all tangible, non-expendable personal property to be purchased that has an acquisition cost of $5,000 or more per unit and a useful life of more than one year. Equipment also includes accessories and services included with the purchase price necessary for the equipment to be operational. It does not include: (1) equipment planned to be leased/rented; or (2) separate equipment service or maintenance contracts. Details such as the type of equipment, cost, and a brief narrative on the intended use of the equipment for project objectives are required. Each item of equipment must be identified with the corresponding cost. Particular brands of equipment should not be identified. General-purpose equipment (office equipment, etc.) must be justified as to how it will be used on the project. (Property items with a unit cost of less than $5,000 are considered supplies).

e. **Supplies:** "Supplies" are tangible property other than "equipment" with a per item acquisition cost of less than $5,000. Include a brief description of the supplies required to perform the work. Costs should be categorized by major supply categories (e.g., office supplies, computing devices, monitoring equipment) and include the estimated costs by category.

f. **Contractual:** List the proposed contractual activities along with a brief description of the scope of work or services to be provided, the proposed duration of the contract/procurement, the estimated cost, and the proposed procurement method (competitive or non-competitive). **Any procurement of services from individual consultants or commercial firms (including space for workshops) must comply with the competitive procurement requirements of 2 CFR Part 200.317-200.327. Please see EPA Solicitation Clauses for more details.** EPA provides detailed guidance on procurement requirements in the Agency's Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements.

Examples of Contractual costs include:

i. Consultants – Consultants are individuals with specialized skills who are paid at a daily or hourly rate. EPA's participation in the salary rate (excluding overhead) paid to individual consultants retained by recipients or by a recipient's contractors or subcontractors is limited to the maximum daily rate for a Level IV of the Executive Schedule (formerly GS-18), to be adjusted annually.

ii. Speaker/Trainer Fees – Information on speakers should include the fee and a description of the services they are providing.

g. **Other:** List each item in sufficient detail for the EPA to determine the reasonableness of its cost relative to the research to be undertaken. "Other" items may include equipment rental, telephone service and utilities and photocopying costs. Note that subawards, such as those with other universities or nonprofit research institutions for members of the project team, are included in this category. **Provide the total costs proposed for subawards as a separate line item in the budget justification and brief description of the activities to be supported for each subaward or types of subawards if the subrecipients have not been identified.** Subawards may not be used to acquire services from consultants or commercial firms. Please see EPA Solicitation Clauses for more details. The "Other" budget category

also includes participant support costs such as stipends or travel assistance for trainees (e.g., interns or fellows). **Provide the total costs proposed for participant support costs as a separate line item in the budget justification and brief description of the costs. If EPA funds will not be used for foreign travel by program participants, the budget justification must expressly state that the applicant will not use EPA funds for foreign travel without approval by EPA.** Note EPA funds under the proposed cooperative agreement may only be used for participant support cost payments, scholarships, tuition remission and other forms of student aid for citizens of the United States, its territories, or possessions, or for individuals lawfully admitted to the United States for permanent residence.

h. **Indirect Costs:** For additional information pertaining to indirect costs, please see the IDC Competition Clause at EPA Solicitation Clauses.

v. Resumes (2 Pages Per Resume)
Provide resumes for each senior/key person. Senior/key persons typically do not include undergraduate and graduate students. The resume is not limited to traditional materials but should provide materials to clearly and appropriately demonstrate that the senior/key person has the knowledge needed to perform their component of the proposed scope of work. The resume for each individual must not exceed two consecutively numbered (bottom center), 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins.

In addition to professional preparation (e.g., education and training), the resume should also include academic, professional or institutional appointments and positions, whether or not remuneration is received, and whether they are full-time, part-time, or voluntary.

vi. Current and Pending Support
Current and pending support information is used to assess the capacity of the individual to carry out the research as proposed and helps assess any potential scientific and budgetary overlap/duplication, as well as overcommitment with the project being proposed. Complete a current and pending support form (provided at Research Funding Opportunities: How to Apply and Required Forms) for each senior/key person. Senior/key persons typically do not include undergraduate and graduate students. Include all current and pending support regardless of source.

Current and pending research support means all resources made available, or expected to be made available, to an individual in support of the individual's research and development efforts, regardless of: (i) whether the source of the resource is foreign or domestic; (ii) whether the resource is made available through the entity applying for a research and development award or directly to the individual; or (iii) whether the resource has monetary value. Current and pending research support also includes in-kind contributions requiring a commitment of time and directly supporting the individual's research and development efforts, such as the provision of office or laboratory space, equipment, supplies, employees, or students.

Note to all prospective applicants requiring multiple Current and Pending Support Form pages: Due to a limitation in Adobe Acrobat's forms functionality, additional pages cannot be directly inserted into the original PDF form and preserve the form data on the subsequent pages. Multiple page form submissions can be created in Acrobat 8 and later using the "PDF Package" option in the "Create PDF from Multiple Files" function. If you have an earlier version of Adobe Standard or Professional, applicants will need to convert each PDF page of the form to an EPS (Encapsulated Post Script) file before creating the PDF for submission. The following steps will allow applicants with earlier versions of Adobe Standard or Professional to create a PDF package:

1. Populate the first page of the PDF, and save it as an EPS (Encapsulated Post Script) file.
2. Reopen the form, and populate it with the data for page 2. Save this page as a different EPS file. Repeat for as many pages as necessary.
3. Use Acrobat Distiller to convert the EPS files back to PDF.
4. Open Acrobat Professional, and combine the individual pages into a combined PDF file.

vii. Guidelines, Limitations, and Additional Requirements

a. Letters of Intent/Letters of Support

Letters of intent to provide resources for the proposed training or to document intended interactions are limited to one brief paragraph committing the availability of a resource (e.g., use of a person's time or equipment) or intended interaction (e.g., sharing of data, as-needed consultation) that is described in the Project Narrative. EPA employees are not permitted to provide letters of intent for any application.

Letters of support do not commit a resource vital to the success of the application. A letter of support is written by businesses, organizations, or community members stating their support of the applicant's proposed project. EPA employees are not permitted to provide letters of support for any application.

Note: Letters of intent or support must be part of the application; letters submitted separately will not be accepted. Any letter of intent or support that exceeds one brief paragraph (excluding letterhead and salutations), is considered part of the Project Narrative and is included in the 20-page Project Narrative limit. Any transactions between the successful applicant and parties providing letters of intent or support financed with EPA grant funds are subject to the contract and subaward requirements described here EPA Solicitation Clauses.

b. Funding Opportunity Number(s) (FON)

At various places in the application, applicants are asked to identify the FON.

The Funding Opportunity Number and Title for this RFA are:
EPA-G2024-ORD-A1, Environmental Research Apprenticeship Program for College and University Students

By submitting an application in response to this solicitation, the applicant grants the EPA permission to make limited disclosures of the application to technical reviewers both within and outside the Agency for the express purpose of assisting the Agency with evaluating the application. Information from a pending or unsuccessful application will be kept confidential to the fullest extent allowed under law; information from a successful application may be publicly disclosed to the extent permitted by law.

D. Submission Dates and Times

Applications **must be transferred to Grants.gov no later than 11:59:59 pm Eastern Time** on the solicitation closing date. Applications transferred after the solicitation closing date and time will be deemed ineligible without further consideration. EPA will not accept any changes to applications after the solicitation closing date.

It should be noted that this schedule may be changed without prior notification because of factors not anticipated at the time of announcement. In the case of a change in the solicitation closing date, a new date will be posted on EPA's Research Grants website and a modification posted on Grants.gov.

Solicitation Closing Date: **May 15, 2024,** 11:59:59 pm Eastern Time (applications ***must*** be submitted to Grants.gov by this time, see Section IV.F "Submission Instructions and Other Submission Requirements" for further information).

NOTE: Customarily, applicants are notified about evaluation decisions within six months of the solicitation closing date. Awards are generally made 6-9 months after the solicitation closing date.

E. Funding Restrictions

The funding mechanism for all awards issued under ORD solicitations will consist of assistance agreements from the EPA. All award decisions are subject to the availability of funds. In accordance with the Federal Grant and Cooperative Agreement Act, 31 U.S.C. 6301 et seq., the primary purpose of an assistance agreement is to accomplish a public purpose of support or stimulation authorized by federal statute, rather than acquisition for the direct benefit or use of the Agency.

EPA award recipients may incur allowable project costs 90 calendar days before the Federal awarding agency makes the Federal award. Expenses more than 90 calendar days pre-award require prior approval of EPA. All costs incurred before EPA makes the award are at the recipient's risk. EPA is under no obligation to reimburse such costs if for any reason the recipient does not receive a Federal award or if the Federal award is less than anticipated and inadequate to cover such costs.

If you wish to submit applications for more than one EPA funding opportunity you must ensure that the work proposed in each application is significantly different from any other that has been submitted to the EPA or from any other financial assistance you are currently receiving from the EPA or other federal government agency.

Collaborative applications involving more than one institution must be submitted as a single administrative package from one of the institutions involved.

Each proposed project must be able to be completed within the project period and with the initial award of funds. Applicants should request the entire amount of money needed to complete the project. Recipients should not anticipate additional funding beyond the initial award of funds for a specific project.

Coalitions

Groups of two or more eligible applicants may choose to form a coalition and submit a single application under this RFA; however, one entity must be responsible for the grant. Coalitions must identify which eligible organization will be the recipient of the grant and which eligible organization(s) will be subrecipients of the recipient (the "pass-through entity"). Subawards must be consistent with the definition of that term in 2 CFR 200.1 and comply with EPA's Subaward Policy. The pass-through entity that administers the grant and subawards will be accountable to EPA for proper expenditure of the funds and reporting and will be the point of contact for the coalition. As provided in 2 CFR 200.332, subrecipients are accountable to the pass-through entity for proper use of EPA funding.

For-profit organizations are not eligible for subawards under this grant program but may receive procurement contracts. Any contracts for services or products funded with EPA financial assistance must be awarded under the competitive procurement procedures of 2 CFR Part 200 and/or 2 CFR Part 1500, as applicable. The regulations at 2 CFR 1500.10 contain limitations on the extent to which EPA funds may be used to compensate individual consultants. Refer to the Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements for guidance on competitive procurement requirements and consultant compensation. Do not name a procurement contractor (including a consultant) as a "partner" or otherwise in your application unless the contractor has been selected in compliance with competitive procurement requirements.

F. Submission Instructions and Other Submission Requirements

Please read this entire section before attempting an electronic submission through Grants.gov.

If you do not have the appropriate internet access to utilize the Grants.gov application submission process for this solicitation, see Section IV.A above for additional guidance and instructions.

Note: Grants.gov submission instructions are updated on an as-needed basis. Please provide your Authorized Organizational Representative (AOR) with a copy of the following instructions to avoid submission delays that may occur from the use of outdated instructions.

1. SAM.gov (System for Award Management) Registration Instructions: Organizations applying to this funding opportunity must have an active SAM.gov registration. If you have never done business with the Federal Government, you will need to register your organization in SAM.gov.

If you do not have a SAM.gov account, then you will create an account using login.gov[1] to complete your SAM.gov registration. SAM.gov registration is FREE. The process for entity registrations includes obtaining Unique Entity ID (UEI), a 12-character alphanumeric ID assigned an entity by SAM.gov, and requires assertions, representations and certifications, and other information about your organization. Please review the Entity Registration Checklist for details on this process.

If you have done business with the Federal Government previously, you can check your entity status using your government issued UEI to determine if your registration is active. SAM.gov requires you renew your registration every 365 days to keep it active.

Please note that SAM.gov registration is different than obtaining a UEI only. Obtaining an UEI only validates your organization's legal business name and address. Please review the Frequently Asked Question on the difference for additional details.

Organizations should ensure that their SAM.gov registration includes a current e-Business (EBiz) point of contact name and email address. The EBiz point of contact is critical for Grants.gov Registration and system functionality.

Contact the Federal Service Desk for help with your SAM.gov account, to resolve technical issues or chat with a help desk agent: (866) 606-8220. The Federal Service desk hours of operation are Monday – Friday 8am – 8pm ET.

2. Grants.gov Registration Instructions: Once your SAM.gov account is active, you must register in Grants.gov. Grants.gov will electronically receive your organization information, such as e-Business (EBiz) point of contact email address and UEI. Organizations applying to this funding opportunity must have an active Grants.gov registration. Grants.gov registration is FREE. If you have never applied for a federal grant before, please review the Grants.gov Applicant Registration instructions. As part of the Grants.gov registration process, the EBiz point of contact is the only person that can affiliate and assign applicant roles to members of an organization. In addition, at least one person must be assigned as an Authorized Organization Representative (AOR). Only person(s) with the AOR role can submit applications in Grants.gov. Please review the Intro to Grants.gov-Understanding User Roles and Learning Workspace – User Roles and Workspace Actions for details on this important process.

Please note that this process can take a month or more for new registrants. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through Grants.gov and should ensure that all such requirements have been met well in advance of the application submission deadline.

Contact Grants.gov for assistance at 1-800-518-4726 or support@grants.gov to resolve technical

[1] Login.gov a secure sign in service used by the public to sign into Federal Agency systems including SAM.gov and Grants.gov. For help with login.gov accounts you should visit http://login.gov/help.

issues with Grants.gov. Applicants who are outside the U.S. at the time of submittal and are not able to access the toll-free number may reach a Grants.gov representative by calling 606-545-5035. The Grants.gov Support Center is available 24 hours a day 7 days a week, excluding federal holidays.

3. Application Submission Process: To begin the application process under this grant announcement, go to Grants.gov and click the red "Apply" button at the top of the view grant opportunity page associated with this opportunity.

The electronic submission of your application to this funding opportunity must be made by an official representative of your organization who is registered with Grants.gov and is authorized to sign applications for Federal financial assistance. If the submit button is grayed out, it may be because you do not have the appropriate role to submit in your organization. Contact your organization's EBiz point of contact or contact Grants.gov for assistance at 1-800-518-4726 or support@grants.gov.

Applicants need to ensure that the Authorized Organization Representative (AOR) who submits the application through Grants.gov and whose UEI is listed on the application is an AOR for the applicant listed on the application. Additionally, the UEI listed on the application must be registered to the applicant organization's SAM.gov account. If not, the application may be deemed ineligible.

Please submit all of the application materials described below using the Grants.gov application package accessed using the instructions above.

The application package consists of the following mandatory documents.

(a) Application for Federal Assistance (SF 424): Complete the form except for the "competition ID" field.

(b) EPA Key Contacts Form 5700-54: Complete the form. If additional pages are needed, see (e) below.

(c) EPA Form 4700-4, Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance: Complete the form.

(d) SF-424A, Budget Information for Non-Construction Programs: Only complete "Section B-Budget Categories". Provide the object class budget category (a. - k.) amounts for budget years 1-4 under the "Grant Program, Function or Activity" heading. Each column reflects a separate budget year. For example, Column (1) reflects budget year 1. Provide a separate SF-424A with the total budget for years 1-4 in Column (1) and year 5 in Column (2). Column 5 of the second SF-424A will display the overall project total.

(e) Project Narrative Attachment Form: Attach a single electronic PDF file labeled "Application" that contains the items described in Section IV.C.5.i through IV.C.5.vii.a (Table of Contents, Abstract, Project Narrative, Budget Justification, Resumes, Current and Pending Support, and Letters of Intent/Support) of this solicitation. *In order to maintain format integrity, this file must be submitted in Adobe Acrobat PDF*. Please review the PDF file for conversion errors prior to including it in the electronic application package; requests to rectify conversion errors will not be accepted if made after the solicitation closing date and time. If Key Contacts Continuation pages (see Research Funding Opportunities: How to Apply and Required Forms) are needed, attach them using the Project Narrative Form.

4. Application Submission Deadline: Your organization's AOR must submit your complete application package electronically to EPA through Grants.gov no later than **May 15, 2024**, 11:59:59 pm Eastern Time. Please allow for enough time to successfully submit your application and allow for unexpected errors that may require you to resubmit.

Applications submitted through Grants.gov will be time and date stamped electronically. Please note that successful submission of your application through Grants.gov does not necessarily mean your application is eligible for award. Any application submitted after the application deadline time and date deadline will be deemed ineligible and not be considered.

5. Technical Issues with Submission: If applicants experience technical issues during the submission of an application that they are unable to resolve, follow these procedures **before** the application deadline date:

a. Contact Grants.gov Support Center **before** the application deadline date.

b. Document the Grants.gov ticket/case number.

c. Send an email with the FON (EPA-G2024-ORD-A1) in the subject line to electronic-grant-submissions@epa.gov **before** the application deadline time and date and it **must** include the following:
   i. Grants.gov ticket/case number(s)
   ii. Description of the issue
   iii. The entire application package in PDF format.

Without this information, EPA may not be able to consider applications submitted outside of Grants.gov. Any application submitted after the application deadline time and date deadline will be deemed ineligible and **not** be considered.

Please note that successful submission through Grants.gov or email does not necessarily mean your application is eligible for award.

EPA will make decisions concerning acceptance of each application submitted outside of Grants.gov on a case-by-case basis. EPA will only consider accepting applications that were

unable to submit through Grants.gov due to Grants.gov or relevant SAM.gov system issues or for unforeseen exigent circumstances, such as extreme weather interfering with internet access. Failure of an applicant to submit prior to the application submission deadline date because they did not properly or timely register in SAM.gov or Grants.gov is not an acceptable reason to justify acceptance of an application outside of Grants.gov.

V. APPLICATION REVIEW INFORMATION

Note: Additional provisions that apply to this section can be found at EPA Solicitation Clauses.

A. Technical Review

All eligible applications will be evaluated by EPA reviewers based on the criteria and process described below. The purpose of the review is to evaluate the scientific merit of the application and the capability of the applicant to complete the project as proposed. Each application will be assigned a minimum of three reviewers and will be rated under a points system, with a total of 100 points possible. The individual scores of the EPA reviewers will be added and then averaged resulting in a final average score per application. Applications will be ranked in accordance with the final score. Preliminary funding recommendations will be provided to the selection official based on this ranking. The following criteria will be used to evaluate eligible applications:

1. The degree to which the proposed training program is feasible and relevant to EPA-ORD's goal and objective of training the next generation of STEM scientists and engineers; the degree to which the proposed training program has educational and technical merit; and the degree to which the training program adequately describes the STEM education ecosystem, its members, and how the STEM education ecosystem will effectively lead the project. **(15 points)**

2. The degree to which the application provides a reasonable and appropriate approach for managing the training program, including providing financial support to trainees; proposes reasonable and appropriate processes and procedures for matching trainees identified for the training program with the available training opportunities related to EPA-ORD-GCRD's research themes; and provides scientific oversight for the selected trainees' development of personal training plans and research training projects. Under this criterion, the Agency will also evaluate the extent to which applicants address logistical issues necessary to achieve the objectives of this announcement as described in Section I. **(20 points)**

3. The degree to which the training program adequately describes how it will disseminate guidance and provide direction to trainees to ensure: they are following the health and safety and quality assurance requirements as described by EPA-ORD Mentors while at the EPA laboratory and are accomplishing the required coursework for their chosen degree without undue interference from their research responsibilities. **(5 points)**

4. The degree to which the application adequately demonstrates how the applicant will competitively advertise apprenticeships in as wide a manner as practicable and recruit undergraduate and graduate students of high potential. **(5 points)**

5. The degree to which the application provides an adequate and detailed rationale and process for selecting trainees. The degree to which the application adequately describes the process for receiving, managing, and objectively reviewing applications from students for apprenticeships including descriptions of the criteria to be used in the evaluation of potential trainees. **(10 points)**

6. The degree to which expected outputs and outcomes resulting from the training program are adequately described. The degree to which the applicant's plan for tracking and measuring progress toward achieving the expected environmental outputs and outcomes including those identified in Section I.D is adequate and well defined. **(10 points)**

7. The degree to which the application demonstrates that the Principal Investigator and other key personnel have the appropriate expertise and qualifications to manage the training program effectively (includes formal education, training, licenses, or other relevant training as it relates to expertise in conducting and/or overseeing activities described in Section I). The degree to which the Principal Investigator's and other key personnel's time commitment is adequate to successfully achieve the goals of the proposed training program. **(10 points)**

8. The degree to which the approach, procedures, and controls for ensuring timely and efficient expenditure of awarded assistance funds are well defined and acceptable. The degree to which the approach for ensuring timely and successful achievement of project objectives is adequate and in accordance with the project narrative's schedule and milestones. The degree to which the budget structure is cost-effective, including how the project budget makes the most efficient use of Agency funds for the collaborative training of students, for instance, by minimizing direct costs for administrative support. **(10 points)**

9. The degree to which the applicant's resources and facilities (e.g., supplies, training tools) are available and adequate to support the learning experience of participating trainees. **(5 points)**

10. Past Performance and Reporting History **(10 points)**

    The EPA will evaluate the proposed PI's past performance and reporting history under prior Federal agency assistance agreements (assistance agreements include grants and cooperative agreements but not contracts) performed within the last five years in two areas (which are of equal weight): First, the history of successfully managing and completing these prior assistance agreements, including whether there is a satisfactory explanation for any lack of success.

Second, the history of meeting reporting requirements under the prior agreements and reporting progress toward achieving results (outputs/outcomes) under these agreements, including the proposed PI's history of submitting acceptable and timely progress/final technical reports that adequately describe the progress toward achieving the expected results under the agreements. Any explanation of why progress toward achieving the results was not made will also be considered.

If the proposed PI has no relevant or available past performance and/or reporting information, the applicant will be given a neutral rating (5 points) for those criteria. In evaluating applicants under this criterion the Agency may consider information from other sources including agency files and prior/current grantors (e.g., to verify and/or supplement the information provided by the applicant).

B. Funding Decisions

Final funding decisions are made by the ORD selection official based on the results of the technical review. In addition, in making the final funding decisions, the ORD selection official may also consider program balance, potential scientific and/or commitment duplication/overlap, and available funds. The applicant selected for funding will be required to provide additional information listed below under "Award Notices." The application will then be forwarded to EPA's Grants Management and Business Operations Division for award in accordance with the EPA's procedures.

VI. AWARD ADMINISTRATION INFORMATION

Note: Additional provisions that apply to this section can be found at EPA Solicitation Clauses.

A. Award Notices

Customarily, applicants are notified about evaluation decisions within six months of the solicitation closing date. Applicants recommended for funding will be required to submit additional certifications and may be asked to submit an electronic version of the revised project abstract. They may also be asked to provide responses to comments or suggestions offered by the reviewers and/or submit a revised budget. The EPA Project Officer will contact the PI to obtain these materials. Before or after an award, applicants may be required to provide additional quality assurance documentation.

The official notification of an award will be made by the Agency's Grants Management and Business Operations Division. Applicants are cautioned that only a grants officer is authorized to bind the Government to the expenditure of funds; preliminary selection by the ORD selection official does not guarantee an award will be made. For example, statutory authorization, funding, or other issues discovered during the award process may affect the ability of EPA to make an award to an applicant. The award notice, signed by an EPA grants officer, is the authorizing document and will be provided through electronic or postal mail.

B. Administrative and National Policy Requirements

Expectations and responsibilities of ORD cooperative agreement holders are summarized in this section, although the term grant is also used.

1. Meetings
The Principal Investigator will be expected to budget for, and participate in, All-Investigators Meetings (also known as progress reviews) approximately once per year with the EPA Project Officer and EPA scientists to report on cooperative agreement activities and discuss issues of mutual interest.

2. Approval of Changes after Award
Prior written approval of changes may be required from EPA. Examples of these changes are contained in 2 CFR 200.308. Note: prior written approval is also required from the EPA Award Official for incurring costs more than 90 calendar days prior to award.

3. Human Subjects
A grant applicant must agree to comply with all applicable provisions of EPA Regulation 40 CFR Part 26 (Protection of Human Subjects). In addition, grant applicants must agree to comply with EPA's procedures for oversight of the recipient's compliance with 40 CFR Part 26, as given in EPA Order 1000.17A (Policy and Procedures on Protection of Human Research Subjects in EPA Conducted or Supported Research). As per this Order, no human subject may be involved in any research conducted under this assistance agreement, including recruitment, until the research has been approved or determined to be exempt by the EPA Human Subjects Research Review Official (HSRRO) after review of the approval or exemption determination of the Institutional Review Board(s) (IRB(s)) with jurisdiction over the research under 40 CFR Part 26. Following the initial approvals indicated above, the recipient must, as part of the progress report(s), provide evidence of continuing review and approval of the research by the IRB(s) with jurisdiction, as required by 40 CFR 26.109(e).

Guidance for investigators conducting EPA-funded research involving human subjects may be obtained here:
Basic Information about Human Subjects Research
Protection of Human Subjects

4. Data Access and Information Release
EPA's requirements associated with data access and information release as well as copyrights, may be accessed at EPA Solicitation Clauses.

Congress, through OMB, has instructed each federal agency to implement Information Quality Guidelines designed to "provide policy and procedural guidance...for ensuring and maximizing the quality, objectivity, utility, and integrity of information, including statistical information, disseminated by Federal agencies." The EPA's implementation may be found at Information Quality Guidelines. These procedures may apply to data generated by grant recipients if those data are disseminated as described in the Guidelines.

5. Reporting
The recipient must agree to provide quarterly performance progress reports and a final report. The reports should be submitted electronically to the Technical Contact named in Section VII of this announcement.

The recipient must also agree to provide copies of, or acceptable alternate access to (e.g., web link), any peer reviewed journal article(s) resulting from the cooperative agreement during the project period. In addition, the recipient should notify the ORD Project Officer of any papers published after completion of the cooperative agreement that were based on activities supported by the cooperative agreement.

6. Quality Assurance
Trainees placed in EPA laboratories will be governed by the EPA quality system, as described in the approved Quality Management Plan (QMP) for the organization in which they are trained. Approved QMPs are in full compliance with the EPA's quality system requirements as expressed in these two documents:

- Policy and Program Requirements for the Mandatory Agency-wide Quality System, EPA CIO 2105.0, May 2000; and
- EPA Quality Manual for Environmental Programs, EPA CIO 2105-P-01-0, May 2000.

Trainees who are engaged in scientific research, including laboratory work must:

- Meet with the organization's Quality Assurance Manager (QAM),
- Work under an approved quality assurance project plan (QAPP), and
- As appropriate, use standard operating procedures (SOPs).

7. Acknowledgement of EPA Support
EPA's full or partial support must be acknowledged in journal articles, oral or poster presentations, news releases, interviews with reporters and other communications. The acknowledgement to be included in any documents developed under this agreement that are intended for distribution to the public or inclusion in a scientific, technical or other journal will be provided in the award's terms and conditions.

VII. AGENCY CONTACTS
Further information, if needed, may be obtained from the EPA contacts indicated below. Information regarding this RFA obtained from sources other than these Agency Contacts may not be accurate. Email inquiries are preferred.

Technical Contact: Susan C. Mravik; phone: 580-436-8553; email: mravik.susan@epa.gov
Eligibility Contact: Ron Josephson; phone: 202-564-7823; email: josephson.ron@epa.gov
Electronic Submissions Contact: electronic-grant-submissions@epa.gov