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» 2015 EPA Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study

Funding Opportunities

U.S. Environmental Protection Agency

Office of Research and Development

National Center for Environmental Research

Science to Achieve Results (STAR) Program

2015 EPA Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study

This is the initial announcement of this funding opportunity.

Funding Opportunity Number: [\(See Section I.D. for descriptions\)](#)

NUMBER	TOPIC TITLE
EPA-2015-STAR-A1	Emerging Environmental Approaches and Challenges- Environmental Innovation (A1)
EPA-2015-STAR-A2	Emerging Environmental Approaches and Challenges- Information Science (A2)
EPA-2015-STAR-A3	Emerging Environmental Approaches and Challenges- Synthetic Biology for Environmental Purposes (A3)
EPA-2015-STAR-B1	Air, Climate and Energy- Clean Air (B1)
EPA-2015-STAR-B2	Air, Climate and Energy- Global Change (B2)
EPA-2015-STAR-B3	Air, Climate and Energy- Green Energy/Natural Resources Production and Use (B3)
EPA-2015-STAR-C1	Chemical Safety for Sustainability- Adverse Impacts from Exposures to Endocrine Disrupting Compounds (C1)
EPA-2015-STAR-C2	Chemical Safety for Sustainability- Environmental Health and Safety of Engineered Nanomaterials (C2)
EPA-2015-STAR-C3	Chemical Safety for Sustainability- Computational Chemistry for Predictive Toxicology (C3)
EPA-2015-STAR-C4	Chemical Safety for Sustainability- Communicating and Translating Emerging Science for Evaluating Impacts of Chemicals (C4)
EPA-2015-STAR-D1	Human Health Risk Assessment- Public Health (D1)
EPA-2015-STAR-D2	Human Health Risk Assessment- Risk Assessment and Risk Management (D2)
EPA-2015-STAR-E1	Safe and Sustainable Water Resources- Drinking Water (E1)
EPA-2015-STAR-E2	Safe and Sustainable Water Resources- Water Quality-Coastal and Estuarine Processes (E2)
EPA-2015-STAR-E3	Safe and Sustainable Water Resources- Water Quality - Hydrogeology and Surface Water (E3)
EPA-2015-STAR-F1	Sustainable and Healthy Communities- Multidisciplinary Approaches To Optimize Decision Outcomes (F1)
EPA-2015-STAR-F2	Sustainable and Healthy Communities- Tribes and American Indian/Alaska Native/Pacific Islander Communities (F2)

Catalog of Federal Domestic Assistance (CFDA) Number: 66.514

Solicitation Opening Date: April 8, 2015

Solicitation Closing Date: May 26, 2015, 11:59:59 pm Eastern Time (ET)

11:59:59 PM Eastern Time (ET) for submission of All Letters of Recommendation.

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SUMMARY OF PROGRAM REQUIREMENTS

Synopsis of Program:

The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is offering Graduate Fellowships for master's and doctoral level students in environmental fields of study. The deadline for submission of applications is May 26, 2015 at 11:59:59 PM. Subject to availability of funding and other applicable considerations, the Agency plans to award approximately 55 new fellowships in the Fall of 2015. The Fellowship Program provides up to \$44,000 per year of support per fellowship. Master's level students may receive a maximum of two years of support (\$88,000). Doctoral students may be supported for a maximum of three years (\$132,000), usable over a period of five years.

This solicitation provides the opportunity for the submission of applications for projects that may involve human subjects research. Human subjects research supported by the EPA is governed by EPA Regulation 40 CFR Part 26 (Protection of Human Subjects). This includes the Common Rule at subpart A and prohibitions and additional protections for pregnant women and fetuses, nursing women, and children at subparts B, C, and D. Research meeting the regulatory definition of intentional exposure research found in subpart B is prohibited by that subpart in pregnant women, nursing women, and children. Research meeting the regulatory definition of observational research found in subparts C and D is subject to the additional protections found in those subparts for pregnant women and fetuses (subpart C) and children (subpart D). All applications must include a Human Subjects Research Statement (HSRS, as described in Section IV.B. Item 7 of this solicitation), and if the project involves human subjects research, it will be subject to an additional level of review prior to funding decisions being made as described in Sections V.C and V.D of this solicitation. Additional information can be found in Section I.A of the full announcement.

Guidance and training for investigators conducting EPA-funded research involving human subjects may be obtained here:

[Basic Information about Human Subjects Research](#)
[Electronic Code of Federal Regulations](#)

Award Information:

Anticipated Type of Award: Fellowship

Estimated Number of Awards: Approximately 55 awards.

Anticipated Funding Amount: Approximately \$7.2 million total for all awards

Potential Funding per Fellowship: \$44,000 per year per fellowship. Master's level students may receive support for a maximum of two years for a total of up to \$88,000. Doctoral students may be supported for a maximum of three years for a total of up to \$132,000, usable over a period of five years. Cost sharing is not required.

If recommended to receive a fellowship, you should be contacted no later than August 1, 2015 and should subsequently receive your official notification of award by Fall 2015, for the fall term. Please note that this schedule may be changed without notification due to factors that were not anticipated at the time of announcement. The earliest anticipated start date for these awards is September 1, 2015.

Eligibility Information:

Students must attend a fully accredited U.S. college or university (located in the U.S. or its territories) for their graduate studies. Students must also be citizens of the U.S. or its territories or possessions, or be lawfully admitted to the U.S. for permanent residence. Resident aliens must have their green card at the time of application to be eligible. Do not provide the green card number with your application; however, you may be asked to provide it at a later time to verify eligibility with the U.S. Citizenship and Immigration Service of the Department of Homeland Security.

Application Materials:

To apply under this solicitation, use the application package available at Grants.gov (for further submission information see Section IV.E. "Submission Instructions and Other Submission Requirements"). The necessary forms for submitting a STAR application will be found on the National Center for Environmental Research (NCER) web site, [Forms and Standard Instructions Download Page](#) . If you are not currently registered with Grants.gov, you need to allow approximately one week to complete the registration process. See Section IV for further information on application submission procedures.

If you do not have the technical capability to utilize the Grants.gov application submission process for this solicitation, see Section IV.A below for additional guidance and instructions.

The following application materials must be submitted:

1. Application for Federal Assistance, Standard Form (SF) 424
2. EPA Key Contacts Form (5700-54)
3. Front Page
4. Personal Statement
5. Proposal Description
6. Background Information:
 - Education & Relevant Experiences
 - Publications & Presentations
 - Course Work
7. EPA Human Subjects Research Statement (HSRS)
8. Letters of Recommendation (sent by reference letter writers)

Applications must identify a single topic and corresponding Funding Opportunity Number (FON), as described in Section I.D. that is appropriately related to the proposed area of inquiry. If your application seems to fit under more than one topic/FON, you still must choose a single topic/FON for purposes of submission. Your application can be submitted to one, and only one, FON. In instances where more than one application is submitted, EPA will contact the applicant to determine which application(s) will be withdrawn.

Agency Contacts:

Further information, if needed, may be obtained from the EPA/NCER resources listed below. To obtain information most quickly, consult the [Fellowship Handbook](#). If your question is not covered, then send a query to 2015FellowshipsRFA@epa.gov. You will receive a personal response through a return email. Information regarding this RFA obtained from sources other than those indicated below may not be accurate.

Technical Contact (Program questions, topics, etc.) email: 2015FellowshipsRFA@epa.gov with FON and 'Attn: Technical Contact' in the subject line.

Electronic Submissions Contact: (grants.gov, recommendation letters, etc.) email: 2015FellowshipsRFA@epa.gov with FON and 'Attn: Submission Contact' in the subject line.

Eligibility Contact email: 2015FellowshipsRFA@epa.gov with FON and 'Attn: Eligibility Contact' in the subject line.

I. FUNDING OPPORTUNITY DESCRIPTION

A. Introduction

The U.S. Environmental Protection Agency (EPA), National Center for Environmental Research (NCER), invites applications for the Science to Achieve Results (STAR) Fellowships for graduate environmental study for master's and doctoral level students. The deadline for submission of applications is May 26, 2015. Subject to availability of funding and other applicable considerations, the Agency plans to award approximately 55 new fellowships in the Fall of 2015. The Fellowship Program provides up to \$44,000 per year of support per fellowship. Master's level students may receive support for a maximum of two years (\$88,000). Doctoral students may be supported for a maximum of three years (\$132,000), usable over a period of five years. This amount covers a monthly stipend of \$2,250 for up to 12 months totaling \$27,000 for the year, \$5,000 for authorized expenses, and up to \$12,000 for tuition and fees. The actual amount awarded will vary depending on the amount of tuition and fees and the number of months the stipend is required. These fellowships are intended to help defray costs associated with advanced, environmentally-oriented study leading to a master's or doctoral degree.

EPA recognizes that scientific, technical, engineering and mathematical (STEM) competence is essential to the Nation's future well being in terms of national security and competitive economic advantage. For instance, the health and vitality of the economy is predicated, in part, on the availability of an adequate supply of scientists, technicians, engineers and mathematicians, to develop innovative technologies and solutions. In other words, this country must engage all available minds to address the challenges it faces. Minorities, persons with disabilities, and women historically have been under-represented in the STEM fields. For this reason, EPA strongly encourages all eligible applicants, including women, minorities, and persons with disabilities to apply. At the same time, the EPA seeks to expand environmental conversations by including members of communities which have not equitably participated in such dialogues; therefore EPA strongly encourages such eligible applicants, including applicants from Minority Academic Institutions (MAIs), to apply.

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

1. Historically Black Colleges and Universities, as defined by the Higher Education Act (20 U.S.C. Sec. 1061). A list of these schools can be found at [White House Initiative on Historically Black Colleges and Universities](#);
2. Tribal Colleges and Universities, as defined by the Higher Education Act (20 U.S.C. Sec. 1059(c)). A list of these schools can be found at [White House Initiative on American Indian and Alaska Native Education](#);
3. Hispanic-Serving Institutions (HSIs), as defined by the Higher Education Act (20 U.S.C. Sec. 1101a(a)(5)). There is no list of HSIs. HSIs are institutions of higher education that, at the time of application submittal, have an enrollment of undergraduate full-time equivalent students that is at least 25% Hispanic students at the end of the award year immediately preceding the date of application for this grant; and
4. Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs), as defined by the Higher Education Act (20 U.S.C. Sec. 1059g(a)(2)). There is no list of AANAPISIs. AANAPISIs are institutions of higher education that, at the time of application submittal, have an enrollment of undergraduate students that is not less than 10 % students who are Asian American or Native American Pacific Islander.

Topic areas are arranged according to the Office of Research and Development's suite of integrated, trans-disciplinary research programs organized around the sustainability paradigm, including Air, Climate & Energy (ACE), Chemical Safety for Sustainability (CSS), Human Health Risk Assessment (HHRA), Safe and Sustainable Water Resources (SSWR), and Sustainable and Healthy Communities (SHC).

This solicitation provides the opportunity for the submission of applications for projects that may involve human subjects research. Human subjects research supported by the EPA is governed by EPA Regulation 40 CFR Part 26 (Protection of Human Subjects). This includes the Common Rule at subpart A and prohibitions and additional protections for pregnant women and fetuses, nursing women, and children at subparts B, C, and D. Research meeting the regulatory definition of intentional exposure research found in subpart B is prohibited by that subpart in pregnant women, nursing women, and children. Research meeting the regulatory definition of observational research found in subparts C and D is subject to the additional protections found in those subparts for pregnant women and fetuses (subpart C) and children (subpart D). All applications must include a Human Subjects Research Statement (HSRS, as described in Section IV.B. Item 7 of this solicitation), and if the project involves human subjects research, it will be subject to an additional level of review prior to funding decisions being made as described in Sections V.C and V.D of this solicitation.

Please note that surveys, interviews, and focus groups with individuals may constitute human subjects research.

The additional level of review is conducted by the EPA Human Subjects Research Review Official (HSRRO). In making a determination about conditional and later final approval, the HSRRO will apply both EPA Regulation 40 CFR 26 and EPA Policy Order 1000.17 Change A1, where human exposure research is interpreted as any intervention that manipulates subjects' environment (i.e., modifies subjects' exposure).

Guidance and training for investigators conducting EPA-funded research involving human subjects may be obtained here:

[Basic Information about Human Subjects Research](#)
[Electronic Code of Federal Regulations](#)

B. Background

The STAR Fellowship program was initiated in 1995. Close to 1,800 STAR fellowships have been awarded since the inception of the program. The U.S. is projected to have considerable human resource needs in the science, engineering, and policy fields (Jackson 2002, National Research Council 2007). The STAR Fellowship program is part of the national effort to help meet those workforce needs, especially in the environmental arena (US EPA 2003). The goal of the fellowship program is to encourage promising students to obtain advanced degrees and pursue careers in an environmental field. This goal is consistent with the mission of EPA, which is to provide leadership in the nation's environmental science, research, education, assessment, restoration, preservation, pollution prevention and sustainability efforts. The STAR Fellowship program has proven to be beneficial to the public by providing a steady stream of well-trained environmental specialists to meet society's environmental challenges (National Research Council 2003). It has also provided new environmental research in engineering and in the physical, biological, health, and social sciences.

The specific Strategic Goal and Objective from the EPA's Strategic Plan that relate to this solicitation are:

Goal 3: Cleaning Up Communities and Advancing Sustainable Development, Objective 3.1: Promote Sustainable and Livable Communities.

The EPA's FY 2014–2018 Strategic Plan can be found at: [EPA's FY 2014–2018 Strategic Plan](#)

C. Authority and Regulations

The authority for this RFA and resulting awards is contained in the Clean Air Act, Section 103, 42 U.S.C. 7403; Clean Water Act, Section 104, 33 U.S.C. 1254; Safe Drinking Water Act, Section 1442, 42 U.S.C. 300j-1; Federal Insecticide, Fungicide, and Rodenticide Act, Section 20, 7 U.S.C. 136r; Solid Waste Disposal Act, Section 8001, 42 U.S.C. 6981; and Toxic Substances Control Act, Section 10, 15 U.S.C. 2609.

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

Research projects should focus on work supported under one of the above mentioned funding authorities. Projects that relate to other funding authorities, such as the Comprehensive Environmental Response, Compensation, and Liability Act or CERCLA (i.e., Superfund sites and Brownfields) are generally not eligible for funding under this RFA. Applications dealing with hydraulic fracking will not be funded by EPA through this program.

Descriptions of the authorizing statutes are provided below:

CAA: Clean Air Act--Section 103:

Section 103 of the Clean Air Act authorizes the EPA to make grants for research, investigations, experiments, demonstrations, surveys and studies relating to the causes, effects (including health and welfare effects), extent, prevention and control of air pollution.

CWA: Clean Water Act--Section 104:

Section 104 of the Clean Water Act authorizes the EPA to make grants for research, investigations, experiments, training, demonstrations, surveys and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution.

SDWA: Safe Drinking Water Act--Section 1442:

Section 1442 of the Safe Drinking Water Act authorizes the EPA to make grants for research, training, studies, and demonstrations relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and other impairments of man resulting directly or indirectly from contaminants in water, or to the provision of a dependably safe supply of drinking water, including (A) improved methods: (i) to identify and measure the existence of contaminants in drinking water (including methods which may be used by State and local health and water officials), and (ii) to identify the source of such contaminants; (B) improved methods to identify and measure the health effects of contaminants in drinking water; (C) new methods of treating raw water to prepare it for drinking, so as to improve the efficiency of water treatment and to remove contaminants from water; (D) improved methods for providing a dependably safe supply of drinking water, including improvements in water purification and distribution, and methods of assessing the health related hazards of drinking water; and (E) improved methods of protecting underground water sources of public water systems from contamination.

FIFRA: Federal Insecticide, Fungicide and Rodenticide Act--Section 20:

Section 20 of the Federal Insecticide, Fungicide and Rodenticide Act authorizes the EPA to make grants for pesticide-related research, development, monitoring, public education, training, demonstrations, and studies.

SWDA: Solid Waste Disposal Act--Section 8001:

Section 8001 of the Solid Waste Disposal Act authorizes the EPA to make grants for research, investigations, experiments, training, demonstrations, surveys, public education programs and studies relating to: (1) adverse health and welfare effects from solid waste; (2) solid waste management programs; (3) resource recovery and conservation, and hazardous waste management systems; (4) production of usable forms of recovered resources; (5) waste reduction; (6) improved solid waste collection and disposal methods; (7) identification of solid waste components; (8) small scale and low technology solid waste management systems; (9) methods to improve performance of recovered solid waste; (10) improvements in land disposal practices; (11) methods for sound disposal of resources, including sludge and coal slurry; (12) methods of hazardous waste management; and (13) air quality impacts from the burning of solid waste.

TSCA: Toxic Substance Control Act--Section 10:

Section 10 of the Toxic Substance Control Act authorizes the EPA to make grants for research, development, monitoring, public education, training, demonstrations and studies directed toward the development of the fundamental scientific basis of screening and monitoring techniques used to detect toxic chemical substances and quantify the effects of toxic chemical substances and mixtures in the environment.

NEPA: National Environmental Policy Act --Section 102(2)(F):

For fellowships with an international aspect, the above statutes are supplemented, as appropriate, by the National Environmental Policy Act (NEPA), Section 102(2)(F) which authorizes support to foreign recipients and international work/travel by domestic recipients. (Note: NEPA cannot be the sole supporting statute for a proposed fellowship.)

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. These activities should relate to the gathering or transferring of information or advancing the state of knowledge. Proposals should emphasize this "learning" concept, as opposed to "fixing" an environmental problem via a well-established method. Proposals relating to other topics which are sometimes included within the term "environment" such as recreation, conservation, restoration, protection of wildlife habitats, etc., must describe the relationship of these topics to the statutorily required purpose of pollution prevention and/or control.

Applicable Regulation: 40 CFR Part 46 (Fellowships)

D. Specific Areas/Topics of Interest

This Request for Applications (RFA) solicits applications from students to perform graduate level investigation towards protecting human health and the environment.

Applications are welcomed from students studying any academic discipline to the extent that the particular topic of proposed research is related to EPA's mission and germane to one of the funding authorities listed above. This includes students studying in ecology, economics, engineering, modeling, the health sciences, physical sciences, earth sciences, exposure sciences, social sciences, informational sciences, mathematical and computer sciences, and environmental sciences. Applications are also welcomed from students who have not traditionally participated in environmental conversations or research, including those that attend Minority Academic Institutions (MAIs).

The mission of the EPA STAR Fellowship Program is to help ensure that the U.S. meets its current and projected human resource needs in the environmental science, engineering, and policy fields. Thus, the EPA is looking to fund students at the graduate level who are committed to meeting the challenges of today and the next generation by pursuing a career related to protecting human health and the environment. Proposals may come from students in traditional and interdisciplinary academic disciplines; from students studying in emerging fields that will require increased human capacity such as in the social and exposure sciences; from students utilizing multidisciplinary approaches and/or addressing multiple media; and, in areas which focus on environmental justice, environmental education, and/or building decision making capacity.

Selected candidates will have identified skills, achievements, and potential in concert with the STAR Fellowship program's strategic goals: bolstering the environmental generation of tomorrow, bridging to diverse communities, and boosting excellent research and development that advance the protection of human health and the environment through education. Candidates will be evaluated for their demonstrated commitment to an environmental career, for

their potential for success in the proposed area of inquiry, and for their proposal's potential to have broader societal impacts. More specific information on the evaluation criteria are found in Section V.

This RFA solicits applications from students performing investigations in a variety of environmentally-related research topics which are described below. By providing financial support across disciplines, EPA expects to continue to assist in increasing the nation's environmental workforce and ability to produce leading edge environmental research, and in advancing the nation's environmental research and development enterprise (Executive Office of the President 2011).

Funding Opportunity Numbers (FON)/Topics

EPA will select students whose projects meet high standards of scientific excellence and creativity, have the potential to broaden the academic frontiers of protecting human health and the environment today and in the next generation, and fall within the purview of EPA's authorizing statutes (see Section I.C. "Authority and Regulations" for more details).

Thus, EPA seeks to fund projects that address protection of human health and the environment from a wide variety of perspectives and approaches, focusing on the purposes of pollution prevention and/or control.

Applications must identify a single topic and corresponding Funding Opportunity Number (FON), as described in Section I.D. that is appropriately related to the proposed area of inquiry. If your application seems to fit under more than one topic/FON, you still must choose a single topic/FON for purposes of submission. Your application can be submitted to one, and only one, FON. In instances where more than one application is submitted, EPA will contact the applicant to determine which application(s) will be withdrawn. The review assignments will be made based on the one FON that you indicate in your application. EPA staff will *not* assist in identifying a topic/FON. Applicants should review the relevant authorizing statutes listed in Section I.C. Additionally, see the glossary of statutes prior to the descriptions.

Note: Your planned course of study/project must focus on one of the following topics of environmental significance and your application should describe the relationship of the topic area to the statutorily required purpose of pollution prevention and/or control.

The applicant's project must focus on activities within the statutory terms of EPA's financial assistance authorities; specifically, the statute(s) listed in Section I.C 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. These activities should relate to the gathering or transferring of information or advancing the state of knowledge. Proposals should emphasize this "learning" concept, as opposed to "fixing" an environmental problem via a well-established method. Proposals relating to other topics which are sometimes included within the term "environment" such as recreation, conservation, restoration, protection of wildlife habitats, etc., must describe the relationship of these topics to the statutorily required purpose of pollution prevention and/or control.

STAR GRADUATE FELLOWSHIP
TOPICS and FUNDING OPPORTUNITY NUMBERS (FON)

NUMBER	TOPIC TITLE
EPA-2015-STAR-A1	Emerging Environmental Approaches and Challenges- Environmental Innovation (A1)
EPA-2015-STAR-A2	Emerging Environmental Approaches and Challenges- Information Science (A2)
EPA-2015-STAR-A3	Emerging Environmental Approaches and Challenges- Synthetic Biology for Environmental Purposes (A3)
EPA-2015-STAR-B1	Air, Climate and Energy- Clean Air (B1)
EPA-2015-STAR-B2	Air, Climate and Energy- Global Change (B2)
EPA-2015-STAR-B3	Air, Climate and Energy- Green Energy/Natural Resources Production and Use (B3)
EPA-2015-STAR-C1	Chemical Safety for Sustainability- Adverse Impacts from Exposures to Endocrine Disrupting Compounds (C1)
EPA-2015-STAR-C2	Chemical Safety for Sustainability- Environmental Health and Safety of Engineered Nanomaterials (C2)
EPA-2015-STAR-C3	Chemical Safety for Sustainability- Computational Chemistry for Predictive Toxicology (C3)
EPA-2015-STAR-C4	Chemical Safety for Sustainability- Communicating and Translating Emerging Science for Evaluating Impacts of Chemicals (C4)
EPA-2015-STAR-D1	Human Health Risk Assessment- Public Health (D1)
EPA-2015-STAR-D2	Human Health Risk Assessment- Risk Assessment and Risk Management (D2)
EPA-2015-STAR-E1	Safe and Sustainable Water Resources- Drinking Water (E1)
EPA-2015-STAR-E2	Safe and Sustainable Water Resources- Water Quality-Coastal and Estuarine Processes (E2)

EPA-2015-STAR-E3	Safe and Sustainable Water Resources- Water Quality-Hydrogeology and Surface Water (E3)
EPA-2015-STAR-F1	Sustainable and Healthy Communities- Multidisciplinary Approaches To Optimize Decision Outcomes (F1)
EPA-2015-STAR-F2	Sustainable and Healthy Communities- Tribes and American Indian/Alaska Native/Pacific Islander Communities (F2)

All projects should describe the relationship of these topic areas to the statutorily required purpose of pollution prevention and/or control.

Funding Authority Statutes and Acronyms

CWA	Clean Water Act
CAA	Clean Air Act
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
SWDA	Solid Waste Disposal Act
TSCA	Toxic Substances Control Act
SDWA	Safe Drinking Water Act

Research projects should focus on work supported under one of the above mentioned funding authorities. Projects that relate to other funding authorities, such as the Comprehensive Environmental Response, Compensation, and Liability Act or CERCLA (i.e., Superfund sites and Brownfields) are generally not eligible for funding under this RFA. In addition, applications dealing with hydraulic fracking will not be funded by EPA through this program.

In general, EPA aims to support research and demonstration projects that will seek sustainable solutions to protect the environment, strengthen our communities and foster prosperity. The concept of sustainability is based on language in the U.S. National Environmental Policy Act of 1969 (NEPA). This definition is reiterated in Executive Order 13514, Federal Leadership in Environment, Energy, and Economic Performance, stating that the goal of sustainability is “to, create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations.”

A sustainable future can best be accomplished using a systems-based or holistic approach that seeks to understand the interactions and impacts which exist among the three pillars of sustainability (environment, society, and economy), as well as identifies interactions among multiple decision sectors in an effort to better understand the consequences of our actions, anticipate unintended consequences and identify possible co-benefits. EPA is interested in investigations and studies that seek sustainable and integrated solutions, protect the environment, strengthen our communities and foster prosperity.

EPA is interested in supporting fellowships in the following topic areas that propose a trans-disciplinary approach, integrating elements of the social and economic sciences alongside natural science disciplines, so as to expand the importance of social and cultural dimensions of sustainability in the protection of the environment and human health. Note: Applications must be submitted to only one of the FONs below.

- 1. Emerging Environmental Approaches and Challenges (A)
EPA-2015-STAR-A1 – Environmental Innovation (A1)

Applications in this topic area are for interests in, and investigations at the intersection of, sustainability and innovative technology development, and utilization. More specifically, this category is for applicants whose graduate environmental study and/or project have a component involving the identification, development, and field demonstration of innovative environmental technologies, methods, or management approaches. Innovation is the process of making changes; a new method, custom or device. Innovation can take the form of wholly new applications or applications that build on existing knowledge and approaches for new uses. Disruptive innovations are of special interest. Applicants are encouraged to consult with their business/management school and appropriate faculty about how best to make innovation the focus of their proposed research as it relates to the statutes listed above.

Projects may include, but are not limited to, research on the following: using “open innovation” R&D practices to identify and create green technologies; demonstrating technologies built on green engineering principles that can help solve environmental problems; developing and utilizing green technologies; exploring the innovative aspects of increasing the sustainability of recycling in the United States and developing countries; investigating how policy and non-federal regulatory approaches increase the demand for innovative environmental technologies, etc.

Projects may also focus on trans-disciplinary approaches, integrating elements of the social and economic sciences, so as to expand the importance of social and cultural dimensions of sustainability in innovative efforts as they pertain to environmental and human health protection.

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

EPA-2015-STAR-A2 – Information Science (A2)

Applications in this topic area are for environmental interests with a focus toward data-driven discovery and decision-making. Taking a lesson from the predictive power of “Big Data”, this category aims to tease out the math and computer-oriented techniques that could help inform synergistic environmental thinking and decisions for pollution prevention and control efforts. Some examples of these techniques include but are not limited to:

1. generation of new data through technologies that enhance monitoring and measuring environmental phenomena (e.g. high-throughput assays that register changes in metabolic pathways);
2. integration of data across multiple sources and institutions (e.g. semantic web applications based on shared ontological structures), and
3. analysis of data associations through advanced algorithms (e.g. randomized data sampling to generate underlying probability distributions).

Projects may include applying informatics to environmental health, public health, ecosystem services, and/or environmental economics; broadening environmental decision-making and policy-development at the State, Local, and/or Tribal levels by using more expansive information processing techniques; engineering newer informational systems and technologies for environmental protection, etc.

Proposals in this topic should focus on facilitating environmental research and management by developing ways to access and/or integrate databases of environmental information, and developing new algorithms enabling different environmental datasets to be combined in order to test sustainable environmental hypotheses.

Projects may also focus on trans-disciplinary approaches, integrating elements of the social and economic sciences, so as to expand the importance of social and cultural dimensions of sustainability in the information sciences as they pertain to environmental and human health protection.

Note: Proposals related to American Indian/Alaska Native/Pacific Islander communities and/or Tribes may also be well suited for the Tribes and American Indian/Alaska Native/Pacific Islander Communities FON/Topic (F5).

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

EPA-2015-STAR-A3 – Synthetic Biology for Environmental Purposes (A3)

Synthetic biology (Synbio) is a) the design and construction of novel biological functions and systems and b) the re-design of existing natural biological systems for useful purposes. Applications in this topic area are for interests in Synbio techniques that focus on environmental purposes and uses related to pollution prevention/control.

Projects submitted to this topic area may include, but are not limited to, techniques for pollution related issues (e.g., prevention, control, mitigation), biofuel production, chemical detection, etc.

Note: Proposals related to Nanotechnology or American Indian/Alaska Native/Pacific Islander communities and/or Tribes may also be well suited for the Nanotechnology FON (C2) or the Tribes and American Indian/Alaska Native/Pacific Islander Communities FON/Topic (F5).

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

2. Air, Climate and Energy (B)

EPA-2015-STAR-B1 – Clean Air (B1)

Applications in this topic area are for interests in and investigations on the science of air quality and pollution. Proposals may focus on air pollution assessment, monitoring, transport, transformation, control, prevention,

management, and modeling.

Projects may include, but are not limited to, studying secondary formation of air pollutants, spatial temporal heterogeneity of particulate matter (PM) size fractions and components, studying the atmospheric science of air pollution mixtures, as well as trans-disciplinary approaches, integrating elements of the social and economic sciences, so as to expand the importance of social and cultural dimensions as they relate to clean air.

Authorizing statutes: CAA

EPA-2015-STAR-B2- Global Change (B2)

Applications in this topic area are for interests in and investigations on the science of global change, particularly climate variability and change in the U.S. Proposals in this topic focus on global change impacts and mitigation of these impacts on air quality, water quality, ecosystems, human health, and socio-economic systems.

Projects may include, but are not limited to, examining the impacts of global climate change on air quality, water quality, aquatic or terrestrial ecosystems, or human health; modifying air or water quality management systems or decision support tools to respond to risks posed by climate change; understanding the environmental consequences of potential climate mitigation strategies; as well as trans-disciplinary approaches, integrating elements of the social and economic sciences, so as to expand the importance of social and cultural dimensions as they relate to global climate change.

Authorizing statutes: CAA, CWA

EPA-2015-STAR-B3- Green Energy/Natural Resources Production and Use (B3) (focusing on multimedia pollution prevention)

Applications in this topic area are for interests in and investigations on the science and engineering of sustainability as they pertain to green energy production or the extraction and use of natural resources. Proposals may focus on 1) the benefits and impacts of green energy production on air quality, water quality, ecosystems, human health, and socio-economic systems, or 2) the impacts of natural resource extraction and use on air quality, water quality, ecosystems, human health, and socio-economic systems. Note:

Applications dealing with hydraulic fracking will not be funded by EPA through this program.

Projects may include, but are not limited to, examining the links between green energy or natural resource production and use on air quality, water quality, aquatic or terrestrial ecosystems, or human health; as well as trans-disciplinary approaches, integrating elements of the social and economic sciences, so as to expand the importance of social and cultural dimensions as they relate to dimensions of green energy production and use.

Authorizing statutes: CAA, CWA, SDWA, SWDA

3. Chemical Safety for Sustainability (C)

EPA-2015-STAR-C1- Adverse Impacts from Exposures to Endocrine Disrupting Compounds(C1)

Applications in this category are for interests in and investigations of potential for adverse environmental and human health impacts associated with exposures to exogenous EDCs. Proposals in this topic focus on the science to characterize impacts associated with real-world exposures to large sets of chemicals.

Projects may include, but are not limited to, application of bio-informatics, computational biology, and computational exposure science approaches to measure, mine, model, and interpret emerging high and medium throughput data streams. The objective of research in this area is to build the science for efficient and effective measurement and prediction of exposures and impacts of EDCs.

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

EPA-2015-STAR-C2- Environmental Health and Safety of Engineered Nanomaterials (C2)

Applications in this topic are for interests and investigations on human and environmental health impacts associated with exposures to engineered/manufactured nanomaterials. Proposals in this topic focus on how to

characterize engineered/ manufactured nanomaterials–ENMs (including nano–bio and other emerging compounds) in complex biological and environmental media and how to efficiently evaluate and predict potential for risks across the material life cycle associated with use of ENMs in consumer products.

Projects may include, but are not limited to: developing methods to characterize ENMs in biological and environmental matrices, identifying critical intermediate properties of ENM that are predictive of potential risks; and evaluating alternative testing schemes for predicting impacts of ENM as used in real–world conditions.

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

EPA–2015–STAR–C3– Computational Chemistry for Predictive Toxicology (C3)

The intersection of recent advances in high–throughput screening (HTS), mechanistic toxicology, computational chemistry and cheminformatics provide the foundation to identify influential chemical determinants of adverse biological impacts of chemicals. Applications in this topic are for interests in and investigations on the science of how information on chemical properties, structure and function can be used to rapidly evaluate chemical risks. Proposals in this topic focus on elucidating chemical features predictive of potential for adverse environmental and human health impacts.

Projects may include, but are not limited to, development of methods for rapidly measuring chemical properties for chemicals outside the domain of current methods, development and evaluation of quantitative structure activity relationship (QSAR) models for predicting adverse environmental and human health endpoints, and novel computational approaches to link upstream chemistry with downstream biology incorporating considerations of transformations in real–world biological and environmental systems.

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

EPA–2015–STAR–C4– Communicating and Translating Emerging Science for Evaluating Impacts of Chemicals (C4)

As the pace and complexity of emerging science increases, there is a critical need for demonstrated and evaluated approaches to translate and communicate this science within the research community, and to policy and decision makers so they can understand and act on state–of–the–art information. Applications in this category are for interests in and investigations of science translation to foster uptake by researchers in the wider scientific community, as well as to inform public and private sector policies and decisions on chemical use. Proposals in this topic focus on development and evaluation of methodologies and tools for communicating and translating emerging science on impacts to human health and the environment from exposures to chemicals.

Projects may include, but are not limited to, development of:

- Strategies and tools for integrating, communicating and translating complex data for evaluating safety and potential adverse impacts of chemicals (including high throughput toxicity data, computational toxicology results, computational chemistry predictions, exposures across the lifecycle of chemicals and products, adverse outcome pathway information, etc.) to stakeholders (including the wider scientific community, science journalists, industry, NGOs, and public policy makers)
- Approaches for translating and delivering emerging data and tools to high level non–federal policy and decision makers through verbal, written, visual, and electronic media.
- Metrics for evaluating effectiveness of communication/translation of science and/or for quantifying the impact of science on decisions. The objective of research in this area is to build the methodological basis and evaluation metrics for efficient and effective translation and uptake of new scientific information to support non–federal policy, decisions and actions related to chemical regulation and use.

Note: Nanotechnology related proposals may also be well suited for the Nanotechnology FON/Topic (C2).

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

4. Human Health Risk Assessment (D)

Applications in this topic are for interests in and investigations on the science of human health risk assessment, including understanding exposures and health effects that can lead to protection of human health. Proposals in this topic focus on advancing the field of risk assessment, including cumulative risk research; community–based risk assessment research; exposure assessment; susceptible subpopulations and

lifestages research; and tools for risk management decisions.

Projects may include, but are not limited to, studying exposures and health effects of environmental contaminants (especially unique exposures from cultural practices, unique geographic regions, or environmental justice communities) and cumulative risks posed by exposure to mixtures of contaminants (and/or a combination of chemical, physical, biological and social/psycho-social stressors); providing new insights into how environmental contaminants may affect vulnerable populations (e.g., children and older adults) and susceptible populations that are at high risk of suffering the adverse effects of environmental factors (e.g., minority, low-income and indigenous populations, populations with pre-existing medical conditions, populations that are linguistically isolated, etc.); what key factors impact exposures of these subpopulations; developing and evaluating novel exposure assessment tools (e.g., methods, models); evaluating alternative exposure metrics in epidemiologic studies; evaluating the effectiveness of State, Local, and/or Tribal policy, regulatory and risk communication actions to reduce health risks resulting from exposure to environmental contaminants; applying health impact assessment on State, Local, and/or Tribal policy policies, projects or programs dealing with environmental health issues, etc.

Subtopics—applicants to this topic area must choose one of the subtopics below:

EPA-2015-STAR-D1 – Public Health (D1)

(e.g. environmental epidemiology, biostatistics, human exposure, health economics, health physics, health impact assessments, etc.)

EPA-2015-STAR-D2– Risk Assessment and Risk Management (D2)

(e.g., cumulative risk research; community-based risk assessment; exposure assessment; susceptible subpopulations and lifestages research; tools for risk management decisions; intervention strategies; environmental health communications and education; environmental justice, etc.)

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

5. Safe and Sustainable Water Resources (E)

EPA-2015-STAR-E1 – Drinking Water (E1)

Applications in this topic are for interests in and investigations on the science of drinking water quality. Proposals in this topic focus on protecting drinking water sources, producing and distributing safe drinking water, managing health risks associated with exposure to waterborne contaminants, and promoting the safety and sustainability of drinking water resources and drinking water infrastructure.

Projects may include, but are not limited to, developing assessment tools to characterize the occurrence of waterborne contaminants in drinking water supplies and quantify the extent of exposure from drinking these sources; adapting management and monitoring strategies to protect surface and ground water sources of drinking water; developing treatment technologies and/or understanding their efficacy; characterizing microbial ecology within distribution systems; as well as trans-disciplinary approaches, integrating elements of the social and economic sciences, so as to expand the importance of social and cultural dimensions as they relate to drinking water quality.

Authorizing statutes: SDWA

Water Quality (E2, E3)

Applications in this topic are for interests in and investigations on the science of water quality. Proposals in this topic focus on assessing, protecting, and restoring surface and ground water quality, aquatic ecosystems, watershed management, and source control management.

Projects may include, but are not limited to, developing better tools and technologies for assessing, monitoring and managing the impacts of nonpoint source pollution; developing approaches, tools, technologies, and models to characterize and manage the combined effects of multiple stressors on aquatic life and water quality; studying harmful algal blooms; adapting management strategies to assess surface and ground water quality; determining causes of impairments; developing sustainable and innovative tools to manage, restore, and protect these resources; as well as trans-disciplinary approaches, integrating elements

of the social and economic sciences, so as to expand the importance of social and cultural dimensions as they relate to water quality.

Subtopics—applicants to this Water Quality topic area must choose one of the subtopics below:

EPA-2015-STAR-E2– Coastal and Estuarine Processes (E2)

(e.g., harmful algal blooms, acidification, pollution impacts on fisheries, water quality monitoring, hypoxia, intervention strategies, impact on eco services)

EPA-2015-STAR-E3– Hydrogeology and Surface Water (E3)

(e.g., waterborne disease, sewage effluent, drinking water purification, etc.)

Authorizing statutes: CWA, SWDA, SDWA

6. Sustainable and Healthy Communities (F)

EPA-2015-STAR-F1– Multidisciplinary Approaches to Optimize Decision Outcomes (F1)

Proposals in this topic focus on using systems-based approaches to identify and account for unintended consequences and co-benefits that cross decision-sectors as well as developing innovative solutions that minimize environmental impacts while reducing costs of implementation for communities. Projects may showcase multidisciplinary training that combines, for example, environmental sciences with economics, public health with ecosystem services, or engineering of the built environment (e.g. architecture or transportation) with community public health. Projects should also focus on how data, methods, models, and tools may be used by states, communities, and tribes to understand the net costs and benefits of decision alternatives or to develop and promote innovative solutions that build on natural and social capital to improve community well-being. Additionally, understanding of systems approaches such as acquired through the study of systems ecology or operations research is considered invaluable.

Projects may also focus on, but are not limited to, promoting an understanding of the linkages between human and environmental health (i.e. considering both as part of an integrated system rather than simply looking at response to stressors for either), identifying built environment design elements that promote human health and equity (including access to ecosystem services), or that improve the environmental, health and economic accounting that informs analysis of the trade-offs inherent with community decision-making.

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

EPA-2015-STAR-F2– Tribes and American Indian/Alaska Native/Pacific Islander Communities (F2)

Applications in this topic are for interests and investigations at the intersections of American Indian/Alaska Native/Pacific Islander communities and/or Tribes (including indigenous populations in other global regions) and protecting human health and the environment. Proposals in this topic focus on related environmental health, sustainability, and pollution prevention/remediation strategies and issues.

Projects may include, but are not limited to, assessing the impacts of environmental challenges on American Indian/Alaska Native/Pacific Islander communities and/or Tribes such as climate change, mining activities, water quality, drinking water reliability, invasive species (as the species relates to a specific pollutant or climate change), and land-use changes; exploring how American Indian/Alaska Native/Pacific Islander lifeways may be connected to unique risk and exposure pathways; exploring sustainability through tribes' traditional ecological knowledge and/or local ecological knowledge of an area; expanding the understanding of cumulative risk in tribes, American Indians/Alaska Natives/Pacific Islanders and related communities; analyzing environment-related governance amongst American Indian/Alaska Native/Pacific Islander communities such as risk management, multi-sectoral or emerging approaches, ecosystem-based management approaches, etc; exploring integrated approaches to providing reliable supplies of safe drinking water to American Indian/Alaska Native/Pacific Islander communities, etc.

Authorizing statutes: CAA, CWA, FIFRA, SWDA, TSCA, SDWA

Research projects should focus on work supported under one of the above mentioned funding authorities. Projects that relate to other funding authorities, such as the Comprehensive Environmental Response,

Compensation, and Liability Act or CERCLA (i.e., Superfund sites and Brownfields) are generally not eligible for funding under this RFA. In addition, applications dealing with hydraulic fracking will not be funded by EPA through this program.

E. References (i.e., examples of supportive documentation)

Jackson, Shirley Ann. [The Quiet Crisis: Falling Short in Producing American Scientific and Technical Talent, Building Engineering and Science Talent \(PDF\)](#) (12 pp, 2.08 MB, [about PDF](#)) (2002).

National Research Council. [Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future](#). (2007)

Environmental Protection Agency. [EPA's FY 2014–2018 Strategic Plan](#)

National Research Council. [The Measure of STAR](#). (2003).

Executive Office of the President. ["Innovation, Education, and Infrastructure: Science, Technology, STEM Education, and 21st Century Infrastructure in the 2012 Budget." \(PDF\)](#) (13 pp, 214 K, [aboutPDF](#)) (2011).

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 particular application.

This solicitation provides the opportunity for the submission of applications for projects that may involve human subjects research. There are many scientific and ethical considerations that must be addressed in such studies by the study sponsor and research team, including, but not limited to, those related to recruitment, retention, participant compensation, third-party issues, researcher-participant interactions, researcher-community interactions, communications, interventions, and education. All such research must comply with the requirements of 40 CFR Part 26, and any human observational exposure studies must also adhere to the principles set forth in the [Scientific and Ethical Approaches for Observational Exposure Studies \(SEAOES\) \(PDF\)](#) (133 pp, 1.21 MB, [about PDF](#)) (EPA/600/R-08/062) document. SEAOES, which was published by researchers in EPA and which discusses the principles for the ethical conduct of human research studies, serves as a resource for applicants interested in applying under this solicitation. References to "SEAOES Principles" in this solicitation refers, in general, to the issues of interest in conducting human subjects research studies that maintain the highest scientific and ethical standards and safety during the conduct of these studies. All applications must include a Human Subjects Research Statement (HSRS; described in Section IV.B. Item 7 of this solicitation) and if the project involves human subjects research, it will be subject to an additional level of review prior to funding decisions being made as described in Sections V.C and V.D of this solicitation.

The fellowship awards expected to be made under this RFA may involve the collection of "Geospatial Information," which includes information that identifies the geographic location and characteristics of natural or constructed features or boundaries on the Earth or applications, tools, and hardware associated with the generation, maintenance, or distribution of such information. This information may be derived from, among other things, a Geographic Positioning System (GPS), remote sensing, mapping, charting, and surveying technologies, or statistical data.

II. AWARD INFORMATION

It is anticipated that a total of approximately \$7.2 million will be awarded under this RFA, depending on the availability of funds, the quality of applications received, and other applicable considerations. The EPA anticipates funding approximately 55 fellowships under this RFA. The projected maximum award per fellowship is \$44,000 per year total costs (up to \$88,000 for Master's level students and up to \$132,000 for Doctoral students). Requests for amounts in excess of a total of \$88,000 for Master's level students and \$132,000 for Doctoral students will not be considered. Master's level students may receive support for a maximum of two years. Doctoral students may be supported for a maximum of three years, usable over a period of five years.

The EPA reserves the right to reject all applications and make no awards, or make fewer awards than anticipated, 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.

The fellowship provides a maximum of \$44,000 per year (up to \$88,000 for two years of support for master's fellows and up to \$132,000 for three years of support for doctoral fellows). The support covers stipend, tuition, and expenses

as follows:

Stipends: For the 2015–2016 academic year, stipends will be \$27,000 for 12 month tenure, prorated monthly at a maximum of \$2,250 for shorter periods. Funds for unused months are forfeited. Stipends are paid directly to the fellow. At its discretion, the institution may supplement a fellow's stipend from institutional funds in accordance with the supplementation policy of the institution.

Tuition and Academic Fees: Up to \$12,000 per year (apportioned over the various academic semesters/quarters) will be provided directly to the institution. For the purposes of this fellowship, health insurance is an expense, not an academic fee.

Expense Allowance: Up to \$5,000 per year will be provided directly to the institution to pay for items and activities for the direct benefit of the student's education and research, such as health insurance, books, supplies, computers, data analysis, publication costs, travel to technical and scientific meetings, and domestic and international travel required to conduct the proposed research. Specific instructions regarding the disbursement and management of the expense allowance will be provided during the award process.

EPA Fellowship Workshop: If an EPA Graduate Fellows' Workshop is held within a Fellow's program tenure, the Fellow is expected to attend the workshop. Resources to support workshop travel, lodging, etc. are to be taken from the expense allowance.

International Activities: The Fellow's proposed research may be conducted outside the U.S. However, EPA allows only \$5,000 for all expenses, including travel. See "Expense Allowance" above for details. If it becomes necessary to travel outside the U.S. or its territories, you must notify your EPA Project Officer six (6) months in advance. You will also be required to obtain local permits in other countries to conduct research there. Your Project Officer will obtain the necessary EPA and State Department approvals before the fellowship funds can be used to conduct these activities. Fellows who travel overseas using federal funds will be required to comply with the provisions of the Fly America Act.

III. ELIGIBILITY INFORMATION

A. Eligible Applicants

Applicants must attend a fully accredited U.S. college or university (located in the U.S. or its territories) for their graduate studies. Individuals must be citizens of the U.S. or its territories or possessions, or be lawfully admitted to the U.S. for permanent residence. Resident aliens must have their green card at the time of application to be eligible for this fellowship opportunity. Do not provide the green card number with your application; however, you may be asked to provide it at a later time to verify eligibility with the U.S. Citizenship and Immigration Service of the Department of Homeland Security.

Applicants do not need to be enrolled in or formally accepted into a full time graduate program at the time they apply for a fellowship, but proof of enrollment or acceptance must be produced prior to the award of the fellowship. To be eligible for this fellowship, applicants must be pursuing a master's or doctoral degree in an environmentally-related topic area at a fully accredited U.S. college or university (based in the U.S. or its territories).

Applicants who are in a graduate program at the time of application and meet either of the following two criteria as of the solicitation closing date ARE NOT eligible to receive a fellowship: 1) have completed more than one year in their current master's program; or 2) have completed more than four years in their current doctoral program. However, applicants enrolled in a master's program who intend to pursue a doctoral degree beginning in the fall of 2015 may apply for a doctoral fellowship.

Applicants who currently have another federal fellowship are not eligible. However, acceptance of a fellowship under this announcement does not necessarily preclude acceptance of another private, state, regional, local, or non-profit scholarship, fellowship, traineeship, research assistantship, teaching assistantship, or grant aid.

Employees of the U.S. government may apply, but must be able to prove separation from Federal service before accepting this fellowship.

Applications must be submitted by the student. Applications submitted by the institution on behalf of the student will be rejected without review.

Diversity: EPA recognizes that scientific, technical, engineering and mathematical (STEM) competence is essential to the Nation's future well-being in terms of national security and competitive economic advantage. For instance, the health and vitality of the economy is predicated, in part, on the availability of an adequate supply of scientists, technicians,

engineers and mathematicians, to develop innovative technologies and solutions. In other words, this country must engage all available minds to address the challenges it faces. Minorities, women, and persons with disabilities historically have been under-represented in the STEM fields. For this reason, EPA strongly encourages women, minorities, persons with disabilities and MAI applicants as described in Section I.A. to apply.

B. Cost-Sharing

Cost sharing is not required.

C. Other

Applications must substantially comply with the application submission instructions and requirements set forth in Section IV of this announcement or they will be rejected without review. In addition, where a page limit is expressed in Section IV with respect to parts of the application, pages in excess of the limitations will not be reviewed. In addition, applications must be submitted through Grants.gov as stated in Section IV of this announcement (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 announcement. Applicants are responsible for following the submission instructions in Section IV of this announcement (see Section IV.E. "Submission Instructions and Other Submission Requirements" for further information) to ensure that their application is timely submitted. Applications submitted after the submission deadline will be considered late and deemed ineligible without further consideration unless the applicant can clearly demonstrate that it was late due to EPA mishandling or because of technical problems associated with Grants.gov or relevant SAM.gov system issues. 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 late submission. All applicants must also follow the instructions for verifying that their application was received by NCER or their application may not be accepted for review. Also, applications exceeding the funding limits 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.

Applicants may submit only one application for this announcement. Applications must identify a single topic and corresponding Funding Opportunity Number (FON), as described in Section I.D. that is appropriately related to the proposed area of inquiry. If your application seems to fit under more than one topic/FON, you still must choose a single topic/FON for purposes of submission. Your application can be submitted to one, and only one, FON. In instances where more than one application is submitted, EPA will contact the applicant to determine which application(s) will be withdrawn.

Applicants whose applications are deemed ineligible for funding consideration will be notified within fifteen calendar days of the ineligibility determination.

Potential applicants who are uncertain of their eligibility should email: 2015FellowshipsRFA@epa.gov with FON and 'Attn: Eligibility Contact' in the subject line.

IV. APPLICATION AND SUBMISSION INFORMATION

A. Internet Address to Request Application Package

Applicants, except as noted below, must apply electronically through Grants.gov under this funding opportunity based on the Grants.gov instructions in this announcement. If an applicant does not have the technical capability to apply electronically through Grants.gov because of limited or no internet access which prevents them from being able to upload the required application materials to Grants.gov, the applicant must contact OGDWaivers@epa.gov or the address listed below in writing (e.g., by hard copy, email) at least 15 calendar days prior to the submission deadline under this announcement to request approval to submit their application materials through an alternate method.

Mailing Address:

OGD Waivers
c/o Barbara Perkins
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Ave., N. W.
Mail Code: 3903R
Washington, DC 20460

Courier Address:

OGD Waivers
c/o Barbara Perkins

Ronald Reagan Building
1300 Pennsylvania Ave., N.W.
Rm # 51267
Washington, DC 20004

In the request, the applicant must include the following information:

Funding Opportunity Number (FON)

Applicant Name

Applicant's Contact Information (email address and phone number)

Explanation of how you lack the technical capability to apply electronically through Grants.gov because of 1) limited internet access or 2) no internet access which prevents them from being able to upload the required application materials through www.Grants.gov.

EPA will only consider alternate submission exception requests based on the two reasons stated above and will timely respond to the request -- all other requests will be denied. If an alternate submission method is approved, the applicant will receive documentation of this approval and further instructions on how to apply under this announcement. Applicants will be required to submit the documentation of approval with any initial application submitted under the alternative method. In addition, any submittal through an alternative method must comply with all applicable requirements and deadlines in the announcement including the submission deadline and requirements regarding proposal content and page limits (although the documentation of approval of an alternate submission method will not count against any page limits).

If an exception is granted, it is valid for submissions to EPA for the remainder of the entire calendar year in which the exception was approved and can be used to justify alternative submission methods for application submissions made through December 31 of the calendar year in which the exception was approved (e.g., if the exception was approved on March 1, 2015, it is valid for any competitive or non-competitive application submission to EPA through December 31, 2015). Applicants need only request an exception once in a calendar year and all exceptions will expire on December 31 of that calendar year. Applicants must request a new exception from required electronic submission through Grants.gov for submissions for any succeeding calendar year. For example, if there is a competitive opportunity issued on December 1, 2015 with a submission deadline of January 15, 2016, the applicant would need a new exception to submit through alternative methods beginning January 1, 2016.

Please note that the process described in this section is only for requesting alternate submission methods. All other inquiries about this announcement must be directed to the Agency Contacts listed in Section VII of the announcement. Queries or requests submitted to the email address identified above for any reason other than to request an alternate submission method will not be acknowledged or answered.

Use the application package available at Grants.gov (see Section IV.E "Submission Instructions and Other Submission Requirements"). Instructions for completing these forms follow.

An email will be sent by NCER to the applicant to acknowledge receipt of the application and to transmit other important information. The email will be sent from receipt.application@epa.gov; any email sent to this address will not be accepted. Please be aware that this notification is separate from the one you will receive from Grants.gov. NCER does not notify you of receipt of your Letters of Recommendation.

Due to the volume of applications received, the emailed acknowledgement from receipt.application@epa.gov may take several weeks. Thus, our staff will not respond to queries regarding applications received before June 25, 2015. Please make a notation on your calendar to contact the program at 2015FellowshipsRFA@epa.gov from June 25, 2015, to no later than 5:00 PM ET July 9, 2015, for information if you have not received the notification from receipt.application@epa.gov by that time. *Failure to follow these instructions may result in your application not being accepted for review.* See "Submission Instructions and Other Submission Requirements" for additional information regarding acknowledgment of receipt of submitted applications. Be sure to check your email spam folder and/or check your spam filter settings to ensure emails from EPA are delivered to your email inbox.

B. Content and Form of Application Submission

The application is made by submitting the materials described below. Applications must contain all information requested and be submitted in the formats described. It is essential that all contact information be that of the applicant unless specifically requested otherwise.

The following forms and documents are required under this announcement:

Summary of Application Materials

Mandatory documents:

1. Application for Federal Assistance, Standard Form (SF) 424
2. EPA Key Contacts Form (5700-54)
3. Front Page
4. Personal Statement
5. Proposal Description
6. Background Information:
 - Education & Relevant Experiences
 - Publications & Presentations
 - Course Work
7. Human Subjects Research Statement (HSRS)
8. Letters of Recommendation (sent by referees)

The application is made by submitting the materials described below. For Items 3-7 prepare these using standard 8.5" x 11" page size, 12-point, Times New Roman font, 1" margins on all sides, and single spacing. While these guidelines 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 proposal.

Do not exceed the page limits indicated. Excess pages will not be reviewed. References in the end notes do not count towards the page limits. Images may be included; however they will be reproduced only in black and white. All images, in-text citations, and footnotes are included in the page limits.

The applicant submits Items 1-7 as part of the Grants.gov application (See "Submission Instructions and Other Submission Requirements"). The Letters of Recommendation (Item 8) are submitted directly to EPA by those individuals writing the letters (see "Submission Instructions and Other Submission Requirements").

NOTE: GRE scores are NOT needed and must NOT be sent to EPA. Only prepare and send the materials described below.

1. Standard Form 424

The student, that is the individual applying for funding, must complete Standard Form 424. This form will be the first page of the application. Use the Standard Form 424 in the electronic application package (see Section IV.E "Submission Instructions and Other Submission Requirements").

Instructions for Standard Form 424

Follow the instructions detailed below for items that may cause difficulty.

Only the yellow highlighted fields of the form need to be completed.

1. Check "Preapplication."
- 8.a. The applicant is the student submitting the application (not an Institution).
- 8.b. Enter "00-0000000"
- 8.f. The contact person is the applicant (see 8.a.).
9. Enter "P: individual"
15. Provide a Title for your environmental research project. The Title (no more than 150 characters) must be brief yet represent the major thrust of the project. Because the Title will be used by those not familiar with the project, avoid highly technical words and phrases and use more commonly understood terminology. Do not use general phrases such as "research on."
- 16.a. For help finding the appropriate Congressional District, see Legislative Resources at [United States House of Representatives](#) (upper right hand corner where it says "Find Your Representative.") For U.S. territories (e.g., Puerto Rico), please enter 00.16.b. Enter "00".
- 17.a. Enter a Start Date of 09/01/2015.
- 17.b. Enter an End Date up to two (2) years later for master's degree support or up to three (3) years later for Ph.D. degree support. If necessary, these dates can be modified if you receive a fellowship.
- 18.a. Enter the amount of funding you are requesting (up to \$88,000 for Master's degree, up to \$132,000 for

- Ph.D.)
18.b.–f. Enter "0".
19. Enter "c" Program is not covered.

The Authorized Representative is the applicant (see 8.a.). You may enter "student" as the title. "Close Form" will save and close the form.

2. EPA Key Contacts Form (5700–54)

The applicant must complete the "Key Contacts" form as the second page of the application as directed below. Use the EPA Key Contacts Form (5700–54) in the electronic application package (see "Submission Instructions and Other Submission Requirements."). Please make certain all contact information is accurate.

Key Contacts Form Instructions:

Authorized Representative: Enter the applicant's name and current address information.

Payee: Enter the applicant's permanent address information. This is the address NCER will use for correspondence.

Administrative Contact: Enter the business information for the applicant's advisor. Leave blank if the applicant has not identified an advisor.

Principal Investigator: Leave blank or, if the applicant has a second advisor, please enter the second advisor's information here.

3. Front Page (1 page limit)

Use standard 8.5" x 11" page size, 12–point, Times New Roman font, 1" margins on all sides, and single spacing. While these guidelines 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 proposal. Do not exceed the page limit. Excess pages will not be reviewed.

Starting with a blank page, please begin each item on a separate line using the appropriate lettered heading.

- a. Your name: Last name, first name, middle initial/name.
- b. Your citizenship. If not a U.S. citizen, you must be lawfully admitted to the U.S. for permanent residence to be eligible for this opportunity. Please state your eligible resident status here. You must have a green card at the time of application. EPA will request a copy of your green card if you are selected as a finalist and may verify this number with the U.S. Citizenship and Immigration Service of the Department of Homeland Security.
- c. Funding Opportunity Number and Topic Title.
- d. Current College/University, School or Department: Name and location of the college/university, school or department you are currently attending. If you are not attending a college or university at the time of application, put "N/A."
- e. Intended College/University, School or Department: Name and location of the college/university, school or department from which your graduate degree will be obtained. NOTE: If you are undecided about the school you will attend, please enter "Not selected yet." If you are considering multiple institutions, list your top two choices.
- f. Include the Title of your project–the same Title used in Standard Form 424.
- g. Degree Sought: State if you are seeking funding to support either a master's or doctoral degree, e.g., M.S., M.A., M.P.H., Dr.P.H., Ph.D. Include the month and year you expect the degree to be awarded.
- h. Environmental Discipline. List your major discipline for your graduate studies.
- i. Educational Level (at the time of application). Enter one of the following choices:
 - (1) Entering Master's Student (EM) if you are seeking funding for a master's program, and have completed less than one year* toward this degree.
or
 - (2) Entering Doctoral Student (ED) if you are seeking funding for a doctoral program, have completed less than one year toward this degree, and will have no other graduate or professional degree as of the solicitation closing date(e.g., MS, MA, MPH, etc.).
or
 - (3) Doctoral Student (DS) if you are seeking funding for a doctoral program, have completed less than one year toward this degree, and will have completed another graduate or

professional degree as of the solicitation closing date (e.g., MS, MA, MPH, etc.).
or

(4) Continuing Doctoral Student (CD) if you are enrolled in a doctoral program and have completed more than one year, but less than four years*, toward this degree.

* Students who have completed more than one year in their current master's program or more than four years in their current Ph.D. program at the time of the solicitation closing date are not eligible to apply for STAR Fellowships (see Section III).

For submission via Grants.gov this item (Item 3) will be combined with Items 4, 5, 6 and 7 into one PDF file that will be uploaded into Grants.gov as the "Mandatory Project Narrative" (See Section IV.E "Submission Instructions and Other Submission Requirements").

4. Personal Statement (2 page limit, not including end note references)

Use standard 8.5" x 11" page size, 12-point, Times New Roman font, 1" margins on all sides, and single spacing. While these guidelines 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 proposal.

Do not exceed the 2 page limit. Excess pages will not be reviewed. References in the end notes do not count towards the page limit. Images may be included; however they will be produced only in black and white. All images, in-text citations, and footnotes are included in the page limit.

Refer to the "Criteria for External Peer Review" and "Criteria for Internal Programmatic Review" described in Section V "Application Review Information" before completing your Personal Statement. This Item will provide information on how, and by whom, your application will be reviewed. In general you should:

- Explain your academic and environmental career goals.
- Describe how your proposed course of study and/or project will help you achieve these goals.
- Speak to your leadership and collaborative potential, communication ability, and potential for broadening investigation and engagement in environmental problems and their solutions.
- Include any background information you believe is pertinent and provides insight into why you have chosen the goals you are pursuing.

For submission via Grants.gov this Item (Item 4) will be combined with Items 3, 5, 6 and 7 into one PDF file that will be will be uploaded into Grants.gov as the "Mandatory Project Narrative" (See Section IV.E "Submission Instructions and Other Submission Requirements").

5. Proposal Description (3 page limit, plus additional pages as needed for cited references)

Use standard 8.5" x 11" page size, 12-point, Times New Roman font, 1" margins on all sides, and single spacing. While these guidelines 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 proposal.

Do not exceed the 3-page limit. Excess pages will not be reviewed. References in the end notes do not count towards the 3-page limit. Images may be included; however they will be produced only in black and white. All images, in-text citations, and footnotes are included in the 3-page limit.

Refer to the "Criteria for External Peer Review" and the "Criteria for Internal Programmatic Review" described in Section V "Application Review Information" before completing your Proposal Description.

The Proposal Description should reflect your educational level (see guidelines below). You are advised, at a minimum, to address the general guidelines below, and those specific to your own educational level. Citation/reference pages are in addition to the page limits for the Proposal Description. You may use any citation format you choose.

General Guidelines for all Proposal Descriptions:

- Describe the scientific and societal importance of your chosen environmental field of study.

Articulate how your planned course of study and/or project is relevant to the protection of human health and the environment, how it relates to your chosen FON, and how it relates to the authorizing statute (see I.C “Authority and Regulations”).

- Explain what broader societal impacts you might have as a fellow by virtue of your particular environmental interests as well as broader environmental applications resulting from your approach. “Broader societal impacts” refers to how the proposed activities have the potential to expand the capacity of society and the research enterprise to protect human health and the environment. Broader societal impacts and environmental applications include:
 - broadening public awareness, understanding, and engagement of all citizens—including those citizens from communities that have been historically under-represented in the environmental decision making process (e.g., tribes, women, communities of color, communities in economically distressed cities and towns, young people, persons with disabilities, linguistically isolated communities, etc.), in environmentally-related investigation/problem solving;
 - addressing possibilities for disseminating environmental research results and information;
 - collaborating in a trans-disciplinary setting, and with other [non-federal] sectors and users to advance the quality of environmental inquiry as well as environmental decision-making; and
 - advancing sustainability—which means approaches that seek to understand the interactions which exist among the three pillars of sustainability (environment, society, and economy) in an effort to better understand the consequences of our actions. Investigations and study that seek sustainable solutions protects the environment, strengthens our communities and fosters prosperity.

Minimum Recommended Guidelines for Proposal Description at Specific Educational Levels:

Entering Masters (EM):

- The degree requirements for your program and your planned course of study.
- A description of your thesis if you will be undertaking one or what environmental project you would like to propose and why it is important and potentially beneficial to the environment.

Entering Doctoral (ED):

- The degree requirements for your program and your planned course of study.
- What environmentally-related dissertation/research project you would select, and why it would be important and potentially beneficial to the environment.

Doctoral Student (DS):

- What environmentally-related dissertation topic/research project you would select, and why it would be important and potentially beneficial to the environment.
- Influential publications in your area of interest.

Continuing Doctorate (CD):

- Your dissertation topic, the goal of your research, and the environmental problem you are focusing on and/or your hypothesis.
- Key research published on your topic and how results of that research relate to your topic (include a list of cited literature for your research in the end notes).
- The rationale, environmental need, and approach of your research (hypothesis testing).
- Expected results of your research and environmental benefits.

For submission via Grants.gov this item (Item 5) will be combined with Items 3, 4, 6 and 7 into one PDF file that will be uploaded into Grants.gov as the “Mandatory Project Narrative” (See Section IV.E “Submission Instructions and Other Submission Requirements”).

6. Background Information

Start each section on a separate page.

Education & Relevant Experiences (1 Page limit – Resume format)

List the academic degrees you have received or expect to receive in the near future, including the dates, discipline, and the institution. Also list your relevant experiences (this could include but is not limited to paid

employment, military service, research assistantships, internships, special studies, volunteer work, etc.); provide dates and a short description of your duties in each position, listing most recent first, also provide names and addresses (City and State) of employers.

Publications & Presentations (2 Page limit)

If you have published in the technical/scientific literature, provide a bibliography here. If you have published in any other media (newspaper, book, etc.) provide listing here. If you have not yet published, write "NA." Also include any presentations you have given at professional meetings (Please provide the following presentation information: title, date, type [e.g. oral or poster] and name of meeting or conference).

Course Work (use as many pages as are necessary)

Provide, in tabular form, the following information about your past and current course work (much of this information should be obtained from your transcripts): the institutions at which the credits were earned, dates, names and catalog numbers of courses taken, credit hours, grades received, and cumulative GPA for all courses taken at each degree level. Be sure to list any degree(s) received. Abbreviations are allowed if their meaning is generally understood. Note if courses were audited or not completed. If any institution you attended had a grading system different from the traditional "A, B, C" system, explain the system in a short footnote. Do not leave anything out. Include data from your entire college career. **DO NOT INCLUDE COPIES OF YOUR TRANSCRIPTS.** Top-ranked applicants will be required to submit official copies of transcripts for validation prior to the award of the fellowship.

For submission via Grants.gov this item (Item 6) will be combined with Items 3, 4, 5 and 7 into one PDF file that will be uploaded into Grants.gov as the "Mandatory Project Narrative" (See Section IV.E "Submission Instructions and Other Submission Requirements").

7. EPA Human Subjects Research Statement (HSRS) (4 page limit)

Human subjects research supported by the EPA is governed by EPA Regulation 40 CFR Part 26 (Protection of Human Subjects). This includes the Common Rule at subpart A and prohibitions and additional protections for pregnant women and fetuses, nursing women, and children at subparts B, C, and D. While retaining the same notation, subparts B, C, and D are substantively different in 40 CFR 26 than in the more commonly cited 45 CFR 46. Particularly noteworthy is that research meeting the regulatory definition of intentional exposure research found in subpart B is prohibited by that subpart in pregnant women, nursing women, and children. EPA Policy Order 1000.17 Change A1 further clarifies this definition to include any intervention that manipulates their environment (i.e. modifies subjects' exposure). Research meeting the regulatory definition of observational research (any research that is not intentional exposure research) found in subparts C and D is subject to the additional protections found in those subparts for pregnant women and fetuses (subpart C) and children (subpart D). These subparts also differ markedly from the language in 45 CFR 46. For more information, please see: [Project Review by the Human Subjects Research Review Official \(HSRRO\)](#).

Procedures for the review and oversight of human research subject to 40 CFR Part 26 are also provided in [EPA Order 1000.17 Change A1 \(PDF\)](#) (41 pp, 333 K). These include review of projects for EPA-supported human research by the EPA Human Subjects Research Review Official (HSRRO). EPA Order 1000.17 Change A1 requires preliminary approval by the HSRRO of all proposed EPA-supported human research before the agreement can be entered into. Additional requirements must be met and final approval received from the HSRRO before the research can begin. When reviewing human observational exposure studies, EPA Order 1000.17 Change A1 requires the HSRRO to apply the principles described in the [Scientific and Ethical Approaches for Observational Exposure Studies \(SEAOES\) \(EPA/600/R-08/062\) \(PDF\)](#) (133 pp, 1.21 MB) document and grant approval only to studies that adhere to those principles.

All applications submitted under this solicitation must include a HSRS as described below. Please use the definitions below to determine whether the proposed research involves human subjects, and then prepare a HSRS as explained below in the "HSRS Requirements" section.

Definitions (from 40 CFR Part 26 Subparts A, B, and C) to determine the involvement of human subjects in proposed research:

- "Human subject" means a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information.
- "Intervention" includes both physical procedures by which data are gathered and manipulations of the

subject or the subject's environment that are performed for research purposes.

- "Interaction" includes communication or interpersonal contact between investigator and subject.
- "Private information" includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record).
- "Individually identifiable" means the identity of the subject is or may readily be ascertained by the investigator or associated with the information.
- "Research involving the intentional exposure of a human subject" means a study of a substance in which the exposure to the substance experienced by a human subject participating in the study would not have occurred but for the human subject's participation in the study. In addition, EPA Policy 1000.17 Change A1 requires the HSRRO to conceptualize intentional exposure research quite broadly:
 1. Research that includes the gathering of physiological measurements (e.g. monitoring a subject's cardio respiratory performance) or the collection of body fluids, tissue or expired air from subjects; or (2) Research that requires subjects to perform specific tasks other than their normal activities or manipulates their environment (e.g., modifies their exposure); or (3) Research that gathers or records private information (as defined in 40 CFR 26.102 (f)(2)) in a manner that associates such information with an identifiable subject.
- "Observational research" means any human research that does not meet the definition of research involving intentional exposure of a human subject. Please note that surveys, interviews, and focus groups with individuals may constitute human subjects research. Additional information is available at: [Basic Information about Human Subjects Research](#)

Human Subjects Research Statement (HSRS) Requirements

If the proposed research does not involve human subjects as defined above, provide the following statement in your application package as your HSRS: "The proposed research does not involve human subjects." Applicants should provide a clear justification about how the proposed research does not meet the definition (for example, all samples come from deceased individuals OR samples are purchased from a commercial source and provided without identifiers, etc.).

If the proposed research does involve human subjects, then include in your application package a HSRS that addresses each applicable section listed below, referencing the specific location of the information in the Proposal Description, providing the information in the HSRS, or explaining why the section does not apply to the proposed research. (Not all will apply.) Please use the definitions provided above to ensure consistency in the interpretation of terminology. Do not exceed four consecutively numbered, 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins.

NOTE: Before EPA approves any research involving human subjects, the requirements of the regulations at 40 CFR Part 26 must be met. Also, before EPA approves human observational exposure research, EPA will examine it to ensure consistency with the SEAOS Principles. The federal Office for Human Research Protections requires that federally funded human subjects research only be conducted at facilities covered by a Federalwide Assurance (FWA). An FWA is a document that designates the Institutional Review Board that will review and oversee the research, specifies the ethical principles under which the research will be conducted, and names the individuals who will be responsible for the proper conduct of the research. The factors below are not intended to be exhaustive of all those needed for the HSRRO to provide the final approval necessary for research to be conducted, but provide a basis upon which the HSRRO may grant the conditional approval necessary for the funding process to begin.

Items 1 – 9 must be completed for all studies involving human subjects. For studies involving intentional exposures (i.e. increases, decreases, or otherwise modifies subjects' exposure), also complete Items 10 – 14.

1. Human Subjects involvement, characteristics, and design: Describe the proposed involvement of human subjects in the work being proposed.
2. Benefits of research/value to society: Discuss the potential benefits of the research to the research participants and others, including the value of the knowledge to be gained by the research.
3. Potential risks to subjects: Describe the potential risks to human subjects (physical, psychological, financial, legal, or other) and assess their likelihood and seriousness to the human subjects.
4. Protection against risks: Describe planned procedures for protecting against or minimizing potential risks and assess their likely effectiveness.
5. Protection of privacy and confidentiality: Describe how data, specimens, and/or records will be collected, managed, and protected, including at collaborating sites, if any, as well as at the primary site.
6. Protection of vulnerable groups: Explain the rationale for inclusion of vulnerable populations and describe

- the additional protections in place, if any, for protecting vulnerable populations in the research
7. Risk/benefit relationship: Justify how the risks are reasonable in relation to expected benefits.
 8. Informed Consent Process: Describe planned procedures for the process of obtaining and maintaining informed consent. Include a description of the circumstances under which consent will be sought and obtained, who will seek it, the nature of the information to be provided to prospective subjects, and the method of documenting consent.
 9. Relationship between researcher and community: If the research will take place in a community setting, describe the procedures in place for defining the community, obtaining its involvement in the research, and establishing and maintaining trust.

Items 10–14: Projects involving the intentional exposure (i.e. increases, decreases, or otherwise modifies subjects' exposure) of human subjects require additional justification. Note that intentional exposure of children, pregnant women or nursing women is prohibited, according to 40 CFR Part 26, subpart B. Please refer to the definition of "intentional exposure" described earlier in this section.

Please also note that projects involving intentional exposure of human subjects should only be considered if they have the potential of providing a clear health or environmental benefit or if acquisition of such information is not obtainable by any other means. In no case should the exposure cause lasting harm to study participants.

Provide the following for intentional exposure studies:

10. Justification for exposure: Please provide the scientific background and rationale for the study design, subject selection, and value of the study to public health. Include any information about previous animal studies and (if available) human observational studies that justify the need for exposure research.
11. Participant Selection and Informed Consent: Describe how subjects will be recruited for the study and how both participant selection and the informed consent process described earlier conform to best practices in exposure research.
12. Compensation for Research Participation: Describe the amount of compensation being offered to participants, as well as the distribution plan, and justify these practices with respect to best practices in exposure research.
13. Compensation for Research-Related Injury: Discuss how you plan to ensure that participants receive needed medical care for injuries incurred in the study, without cost to the participants.
14. Appropriate Review and Oversight: Describe the constitution of the IRB that will review this research and defend its ability to consider whether the study(ies) has the potential of providing a clear health or environmental benefit to the community. In addition, describe the procedures for reporting adverse events or unanticipated problems to the IRB, as well as how these events will be analyzed with respect to risk to subjects.

The EPA HSRRO must also consider the following items to determine if the necessary conditions for scientifically and ethically acceptable intentional human dosing studies have been satisfied in order to approve intentional exposure research:

- prior animal studies and, if available, human observational studies;
- a demonstrated need for the knowledge to be obtained from intentional human dosing studies;
- justification and documentation of a research design and statistical analysis that are appropriate to address an important scientific question, including adequate power to detect appropriate effects;
- an acceptable balance of risks and benefits, and minimization of risks to participants;
- equitable selection of participants;
- free and informed consent of participants; and
- review by an appropriately constituted IRB.

Instructions:

For submission via Grants.gov this item (Item 7) will be combined with Items 3, 4, 5 and 6 into one PDF file that will be uploaded into Grants.gov as the "Mandatory Project Narrative" (See Section IV.E "Submission Instructions and Other Submission Requirements").

SAVE all Items, 3, 4, 5, 6 and 7 into one file. Convert this one file into a PDF file. Check the file to ensure there are no conversion errors. Label the file "MandatoryProjectInfo". This file will be uploaded into Grants.gov as the "Mandatory Project Narrative" (See "Submission Instructions and Other Submission Requirements"). Please do not use spaces or special characters in the file name as this may cause Grants.gov to reject your application.

Special Note to Fellowship Applicants

Unlike other EPA grant applicants, you are submitting as an individual. A great deal of information specific to you as an individual is requested in your application. If recommended for award, you may be requested to supply your green card number (for permanent residents), social security number, and birth date; but at this point in the process, please do not include them in your application. Please review your application before submission to assure none of these items have been unintentionally included.

8. Letters of Recommendation

Each applicant must arrange for the submittal of three (3) current letters of recommendation on official letterhead. If the applicant has a sponsor or advisor for his/her graduate program, one of these letters of recommendation should come from that individual.

At least two (2) should be from individuals who have knowledge of the applicant's academic record (the sponsor's or advisor's letter should be one of these). The third letter may be from an individual who has supervised the applicant (e.g. a mentor, internship supervisor, or work supervisor). Applicants are advised to seek letters of recommendation from sources other than current EPA employees. Absent extenuating circumstances, EPA will not accept letters of recommendation from current EPA employees. However, if the applicant worked for or interned with a current EPA employee or studied under a current EPA employee, then EPA will accept a letter of recommendation under those circumstances. Letters should not be written by the applicant. Letters of recommendation are critical components of the application. The student is strongly advised to present the guidelines below to the individuals writing the recommendations.

Applicants are advised to start the process of having Letters of Recommendation composed and submitted by the letter writers as early as possible. Applicants are responsible for ensuring that all Letters of Recommendation are submitted by the letter writers so that they are received by EPA by the due date and time specified below. Applicants are also advised to review these instructions and assure they have provided all necessary information to their letter writers.

Only those letters that are timely submitted will be considered during the review process. Failure to submit three (3) Letters of Recommendation may negatively affect the score during the evaluation outlined in Section V.

Applicants must start the letter of recommendation process by going to the following web page to receive a unique ID number and web page url to send to each of their letter writers:

Letters of Recommendation

Applicants must fill out their contact information at the above web page and receive a

A – unique ID number, and

B – url (website link)

Applicants should receive a confirmation email with that same ID number and url. Applicants must give their newly assigned ID number and the url to each of their letter writers to be used to electronically submit the recommendation letters.

Guidelines for Letter Writers

1. Letters of Recommendations should be written on official letterhead.
2. Letter writers should go to the url sent by the applicant to receive submission instructions using the applicant's unique ID number. Submission instructions for letter writers are also provided below. Letters of Recommendation must be submitted in PDF format only (no zip files). Both the letter writer and the applicant should receive confirmation emails once the letter has been submitted.
3. Letter Writers should include the Funding Opportunity Number (FON), corresponding Topic Title, and applicant's name at the beginning of the letter. The applicant should provide the FON and corresponding topic title to the Letter Writers.
4. Letter Writers are advised to use the applicant's full name (as opposed to nicknames or shortened names). Please do not include sensitive personal information about the applicant such as birth date or social security number.
5. Letter Writers should write letters specifically about the applicant. Letters of Recommendation that appear to be mass produced do not generally lead to high rankings by the reviewers. It is always useful if the

writer also conveys a sense of who the applicant is as an individual, particularly the applicant's maturity, responsibility, and integrity.

6. Letter Writers should write Letters of Recommendation that speak to elements of the "Criteria for External Peer Review" and the "Criteria for Internal Programmatic Review" (See Section V "Application Review Information."). Letters of Recommendation should provide insights into the applicant's:
- scientific acumen and creativity,
 - motivation for environmentally-related study,
 - potential for success, including in a research environment and in trans-disciplinary settings,
 - leadership potential, including ability to collaborate,
 - communication ability, including ability to disseminate environmental research results and information, and
 - potential for broadening investigation and engagement in environmental problems and their solutions.
7. *Letters must be in PDF format* and must be submitted directly to EPA electronically per the instructions above. No zip files will be accepted. All letters of recommendation must be submitted to the EPA no later than 11:59:59 PM ET on the solicitation closing date, May 26, 2015, in order to be considered during the review process.
- NCER cannot guarantee that Letters of Recommendation that do not denote the applicant's name, FON, and corresponding Topic Title will be matched with the appropriate application. Due to the potentially large number of applicants, NCER CANNOT ACKNOWLEDGE NOR VERIFY RECEIPT OF LETTERS OF RECOMMENDATION.
 - *It is the applicant's responsibility to ensure that Letters of Recommendation are submitted by the letter writers in a timely manner.* NCER will close the url to the public after the solicitation closing date. NCER will not accept late letters unless the writer can show that he or she attempted to send the letter before the solicitation closing date but was prevented from doing so by circumstances beyond his or her control.

Letters must be submitted through the process described above using the applicant's unique ID and associated url. Letters of recommendation cannot be submitted through Grants.gov. Failure to submit three (3) Letters of Recommendation may negatively affect the score during the evaluation outlined in Section V.

Confidentiality:

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.

EPA recommends that you do not include confidential business information ("CBI") in your proposal/application. However, if confidential business information is included, it will be treated in accordance with 40 CFR 2.203. Applicants must clearly indicate which portion(s) of their proposal/application they are claiming as CBI. EPA will evaluate such claims in accordance with 40 CFR Part 2. If no claim of confidentiality is made, EPA is not required to make the inquiry to the applicant otherwise required by 40 CFR 2.204(c)(2) prior to disclosure. The Agency protects competitive proposals/applications from disclosure under applicable provisions of the Freedom of Information Act prior to the completion of the competitive selection process.

Pre-proposal/Application Assistance and Communications:

In accordance with EPA's Assistance Agreement Competition Policy (EPA Order 5700.5A1), EPA staff will not meet with individual applicants to discuss draft proposals, provide informal comments on draft proposals, or provide advice to applicants on how to respond to ranking criteria. Applicants are responsible for the contents of their applications/proposals. However, consistent with the provisions in the announcement, EPA will respond to questions from individual applicants regarding threshold eligibility criteria, administrative issues related to the submission of the proposal, and requests for clarification about the announcement. Please note that applicants should raise any questions they may have about the solicitation language to the contacts identified in Section VII as soon as possible so that any questions about the solicitation language may be resolved prior to submitting a proposal. In addition, if necessary, EPA may clarify threshold eligibility issues with applicants prior to making an eligibility determination.

C. Submission Dates and Times

Special Note to Fellowship Applicants

Unlike other EPA grant applicants, you are submitting as an individual. A great deal of information specific to you as an individual is requested in your application. If recommended for award, you may be requested to supply your green card number (for permanent residents), social security number, and birth date; but at this point in the

process, please do not include them in your application. Please review your application before submission to assure none of these items have been unintentionally included.

Applications must be submitted to Grants.gov by 11:59:59 PM ET on the solicitation closing date, May 26, 2015. Applications submitted through Grants.gov will be time and date stamped electronically.

The application consists of the following mandatory documents:

- Item 1. Application for Federal Assistance, Standard Form (SF) 424 entered through Grants.gov
- Item 2. EPA Key Contacts Form (5700-54) entered through Grants.gov

Items 3, 4, 5, 6 & 7:

Uploaded as one PDF file labeled "MandatoryProjectInfo" to be submitted through Grants.gov. Attach the file by selecting "Add Mandatory Project Narrative" (See "Submission Instructions and Other Submission Requirements").

Note that Letters of Recommendation (Item 8) cannot be submitted through Grants.gov. They must be submitted as described above.

Letters of Recommendation:

All Letters of Recommendation (see IV.B. Item 8 above) must be submitted via the process described above by the letter writers to the EPA no later than 11:59:59 PM ET on the solicitation closing date, May 26, 2015.

It should be noted that this schedule may be changed without prior notification because of factors that were not anticipated at the time of announcement. In the case of a change in the required solicitation closing date, a new date will be posted on the [NCER web site](#) and on grants.gov. Applications received after the closing date will be returned to the sender without further consideration.

D. Funding Restrictions

The funding mechanism for all awards issued under STAR 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 a grant 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. In issuing a fellowship agreement, the EPA anticipates that there will be no substantial EPA involvement in the design, implementation, or conduct of the research. However, the EPA will monitor research progress through annual reports and other contacts with the Fellow. Additionally, once selected, continued funding is contingent on availability of funds.

Applications must not include management fees or similar charges in excess of the direct costs and indirect costs at the rate approved by the institution's cognizant audit agency, or at the rate provided for by the terms of the agreement negotiated with EPA. The term "management fees or similar charges" refers to expenses added to the direct costs in order to accumulate and reserve funds for ongoing business expenses, unforeseen liabilities, or for other similar costs that are not allowable under EPA assistance agreements. Management fees or similar charges may not be used to improve or expand the project funded under this agreement, except to the extent authorized as a direct cost of carrying out the scope of work.

If applicable, all costs incurred under this program must be allowable under 2 CFR Part 200 Subpart E. In accordance with applicable law, regulation, and policy, any recipient of funding must agree to comply with restrictions on using assistance funds for unauthorized lobbying, fund-raising, or political activities (i.e., lobbying members of Congress or lobbying for other federal grants, cooperative agreements, or contracts). See e.g. 2 CFR 200.450. Funds generally cannot be used to pay for travel by federal agency staff. Proposed project activities must also comply with all state and federal regulations applicable to the project area. The applicant must also review the solicitation for any other programmatic funding restrictions applicable to this program. If awarded funding, the recipient must refer to the terms and conditions of its award for other funding restrictions applicable to its award. It is the responsibility of the recipient to ensure compliance with these requirements. In addition, please see 2 CFR §1500.8 for information on pre-award costs.

Generally, applicants are not prohibited from submitting the same or virtually the same proposal to EPA under multiple competitions, if appropriate. However, if an applicant does so, and the proposal is selected for award under another competition, that may affect their ability to receive an award under this competition for that proposal.

E. Submission Instructions and Other Submission Requirements

You may submit only one application for this announcement.

Contact individuals to submit your Letters of Recommendation as soon as possible. They are sent separately via the process described in Section IV.B. Item 8.

Please read this entire section before attempting a submission through Grants.gov. It is the responsibility of the applicant to ensure that these instructions are followed. Failure to follow these instructions may result in your application being rejected without review.

START EARLY! Grants.gov requires a new individual registration to submit an application for this solicitation; however, registration is not required to view the application package. To begin the application process under this grant announcement, go to [Grants.gov](#) and click on "Applicants" on the top of the page and then "Apply for Grants" from the dropdown menu. In the "Before You Apply: Get Registered" section, select "Register as an Individual." Allow at least one day for the registration to be activated. Safeguard your username and password, as this information can take a great deal of time to retrieve should it be misplaced. Note that the use of an organizational registration (e.g., an academic institution registration) will result in a Grants.gov rejection.

Due to the potentially high volume of applications submitted as the deadline time approaches, it is possible that the Grants.gov electronic submission and telephone assistance systems may become overwhelmed. To assure successful transmission, it is highly recommended that you do not delay submission of your application past 10:00 AM ET on the deadline day. The complete application must be submitted to Grants.gov no later than 11:59:59 PM ET on May 26, 2015. Please note that the Grants.gov telephone assistance line (1-800-518-4726) is open 24 hours a day, seven days a week, excluding Federal holidays.

Note for Fellowship Applicants

As part of the registration process with Grants.gov, applicants need to enter a Funding Opportunity Number (FON) on the "Registration with Credential Provider" page. There is a problem with some FONs that results in an error message. If you encounter this problem, please enter the following FON: 0716-INDV-REGISTRATION.

To begin the application process under this grant announcement, go to [Grants.gov](#) and click on "Applicants" on the top of the page and then "Apply for Grants" from the dropdown menu and then follow the instructions accordingly. Please note: To apply through grants.gov, you must use Adobe Reader software and download the compatible Adobe Reader version. For more information about Adobe Reader, to verify compatibility, or to download the free software, please visit [Adobe Reader Compatibility](#)

You may also be able to access the application package for this announcement by searching for the opportunity on [Grants.gov](#). Go to [Grants.gov](#) and then click on "Search Grants" at the top of the page and enter the Funding Opportunity Number, EPA-2015-STAR-XX, or the CFDA number that applies to the announcement (CFDA 66.514), in the appropriate field and click the Search button. Alternatively, you may be able to access the application package by clicking on the Application Package button at the top right of the synopsis page for the announcement on [Grants.gov](#). To find the synopsis page, go to [Grants.gov](#) and click "Browse Agencies" in the middle of the page and then go to "Environmental Protection Agency" to find the EPA funding opportunities.

Application Package Preparation. See instructions at Section IV.B above. The grants.gov application package consists of 1 through 4 below.

1. On the initial Grant Application Package page, complete the "Application Filing Name" field by entering the Applicant's name, starting with the last name. Note: Applicants do not need to complete the "Competition ID" field.
2. Application for Federal Assistance (SF 424): Follow the instructions in Item 1 of Section IV.B. above.
3. EPA Key Contacts Form 5700-54: Complete the form as described in Section IV.B. Item 2. above.
4. Items 3-7 Attachment Form (click on "Add Mandatory Project Narrative"): Attach a single electronic file labeled "MandatoryProjectInfo" that contains Items 3, 4, 5, 6 and 7 described in Section IV.B. above. This file must be submitted in PDF format. 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.

Letters of Recommendation cannot be submitted electronically through Grants.gov; see Section IV.B. Item 8 above for submission instructions. All Letters of Recommendation MUST be submitted by the letter writers via the process described in Section IV. B. Item 8 no later than 11:59:59 PM ET on May 26, 2015.

Once the application package has been completed, the "Submit" button should be enabled (you may need to "Check Package for Errors" as well as save the file before this occurs). If the "Submit" button is not active, please contact Grants.gov for assistance (Telephone: 1-800-518-4726). Applicants should save the completed application package with two different file names to avoid having to re-key the forms should submission problems be experienced.

Submitting the application to Grants.gov:

Minor problems are not uncommon with transfers to Grants.gov. In addition, slow connection and transfer rates are generally experienced as the deadline time approaches due to high demand. To assure successful transmission, it is highly recommended that you do not delay submission of your application past 10:00 AM ET on the deadline day. For frequently asked questions concerning submissions via Grants.gov, please see [Applicant Resources](#).

Close all other software before attempting to submit the application package. Click the "Submit" button of the application package. Your internet browser will launch and a sign-in page will appear within a few minutes. Enter your individual registration user name and password.

A successful transfer should take no longer than 10-15 minutes and will end with an on-screen acknowledgement. "Print Screen" or "screen capture" this acknowledgement for documentation purposes. (Note: Subsequent Email acknowledgements from Grants.gov regarding your submission may take as long as 48 hours to arrive.) If you experience submission problems, reboot the computer -- turning the power off may be necessary -- and re-attempt the submission. If submission problems continue, contact Grants.gov for assistance (Telephone: 1-800-518-4726 or e-mail: support@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 desk operates 24 hours a day, seven days a week, except Federal Holidays. If you are experiencing problems resulting in an inability to upload the application to Grants.gov, it is essential to contact grants.gov for assistance before the application deadline.

Transmission Difficulties. If transmission difficulties continue after following the above instructions, follow the guidance below. NCER may decide to review the application if it is clearly demonstrated that the transmission difficulties were due solely as a result of unavoidable and unresolvable problems associated with the transfer to Grants.gov. Failure of an applicant to submit timely because they did not properly or timely register in grants.gov is not an acceptable reason to justify acceptance of a late submittal. The decision regarding acceptance of the application for review will be made by NCER management and provided to the applicant within ten calendar days of the request. All emails, as described below, are to be sent to Submission Contact (2015FellowshipsRFA@epa.gov) with the FON and 'Attn: Submission Contact' in the subject line within one business day of the closing date of this solicitation. Note: Grants.gov will issue a "case number" upon being contacted for assistance.

1. Unsuccessful transfer of the application package: If a successful transfer of the application cannot be accomplished due to electronic submission issues, send an email to Submission Contact (2015FellowshipsRFA@epa.gov) with the FON and 'Attn: Submission Contact' in the subject line before 11:59:59 PM ET on the solicitation closing date. In that email, document the problem, include the Grants.gov "case number," and attach the entire application in PDF format.
2. Grants.gov rejection of the application: If a notification is received from Grants.gov stating that the application has been rejected for reasons other than late submittal or use of an institutional rather than an individual registration, immediately send an email to Submission Contact (2015FellowshipsRFA@epa.gov) with the FON and 'Attn: Submission Contact' in the subject line within one business day of the closing date of this solicitation. In that email, document the problem, include all materials provided by Grants.gov, and attach the entire application in PDF format.

Grants.gov will send several emails during their processing of the application. The last email will state that the application has been transferred to the Agency and is undergoing review. Save these emails for documentation purposes; however, the *critical* email is the one acknowledging receipt by the NCER Fellowship Program. This email will be sent from receipt.application@epa.gov.

Due to the volume of applications received, the emailed acknowledgement from receipt.application@epa.gov may take several weeks. Thus, EPA staff will not respond to queries regarding applications prior to June 25, 2015. Please make a notation on your calendar to contact the program at 2015FellowshipsRFA@epa.gov from June 25, 2015 to no later than 5:00 PM ET July 9, 2015, for information if you have not received the notification from receipt.application@epa.gov by that time. *Failure to follow these instructions may result in your application being rejected without review.*

Letters of Recommendation must be submitted by the letter writers via the process described in Section IV. B. Item 8 above. Do not have letter writers mail Letters of Recommendation. Letters of Recommendation received by mail will be

rejected.

Applications MUST be submitted to Grants.gov no later than 11:59:59 PM, Eastern Time (ET), on May 26, 2015.

V. APPLICATION REVIEW INFORMATION

A. External Peer Review

All eligible fellowship applications are reviewed by appropriate external technical peer reviewers based on the criteria and process described below. This review is designed to evaluate each application according to how well it meets the criteria listed below. The individual external peer reviewers include non-EPA scientists, engineers, social scientists, and/or economists who are accomplished in their respective disciplines and proficient in the technical subjects they are reviewing. This review is designed to evaluate each applicant on his or her potential for success in an environmental graduate study program.

Prior to the external technical peer review panel meeting, all reviewers will receive electronic copies of all applications to be reviewed by the entire panel. Each application will be assigned to a minimum of three primary peer reviewers, one of whom will be assigned the role of Rapporteur. Each reviewer will be assigned up to approximately 18 applications on which to serve as a primary reviewer. During the review period leading up to the panel meeting, primary reviewers will read the entire application package for each application they are assigned. They will also prepare a written individual evaluation for each assigned application that addresses the peer review criteria described below and rate the application with a score of excellent, very good, good, fair, or poor.

At the beginning of the entire panel meeting, each primary reviewer will report their ratings for each application they reviewed. The panel will automatically discuss those applications that receive one of the following rating combinations from the primary reviewers:

- a minimum of two ratings of Excellent and one rating of Good, or
- a minimum of one rating of Excellent and two ratings of Very Good.

In addition, any primary reviewer may nominate one of their assigned applications for panel discussion if the application receives one of the following rating combinations from the primary reviewers:

- two ratings of Excellent and one rating of either Fair or Poor,
- one rating of Excellent, one rating of Very Good, and one rating of Good, or
- three ratings of Very Good.

Applications that are not discussed will be declined for further consideration.

After the discussion of an application by the entire panel, the primary reviewers may revise their initial ratings and if they do so, this will also be documented.

The final ratings of the primary reviewers will then be averaged by EPA into the final peer review score (excellent, very good, good, fair, or poor) for the application. This is reflected in a peer review results document developed by the Rapporteur, which combines the individual initial and final evaluations of the primary reviewers, and may capture any substantive comments from the panel discussion. This score will be used to determine which applications undergo the internal programmatic review discussed below. Only applications that receive a final score of *Excellent* will be forwarded to the internal programmatic review as described below. A peer review results document is also developed for applications that are not discussed. However, this document is a consolidation of the individual primary reviewer initial evaluations, with an average of the scores assigned by the primary reviewers.

Reviewers will consider the entirety of the application—including the Personal Statement, Education & Experiences, Publications & Presentations, and Course Work Information—with respect to the criteria below. Additionally, the content of the Letters of Recommendation will be considered with respect to how they speak to the criteria below. Applications with fewer than three letters of recommendation may not be rated as highly.

Reviewers will consider the educational level of the applicant, as defined in Section IV.B. Item 3.i when applying the Criteria below.

Criteria for External Peer Review: (Criteria I–III are to be weighted equally)

Criterion I. The Applicant's Potential for Success in the Proposed Area of Inquiry. Reviewers will consider the following elements, to be weighted equally:

- The candidate's organizational, analytical, and written skills;
- The candidate's demonstrated potential for success in a research environment;
- The candidate's scientific curiosity, creativity, acumen, and potential for success in research appropriate to his/her educational level as indicated in their planned course of study (which may include a thesis/dissertation topic description and listing relevant research literature based on educational level); and,
- The planned course of study and/or proposed project, as appropriate to the candidate's educational level (*i.e.* EM, ED, DS, CD according to the educational level guidelines specified in Section IV.B. Item 5), for its technical merit, social application, potential for success, and expected environmental benefits.

Criterion II: The Applicant's Demonstrated Commitment to an Environmental Career. Reviewers will consider the following elements, to be weighted equally:

- The degree to which the candidate possesses a strong potential to meet stated goals in pursuing an environmental career;
- The candidate's demonstrated commitment to the environment and/or potential for leadership and collaboration in the environmental arena;
- The candidate's demonstrated potential for success in attaining an advanced degree in an environmentally-related field; and,
- The candidate's demonstrated potential for broadening investigation and engagement in environmental problems and solutions.

Criterion III. The Applicant's Potential for Broader Societal Impacts. "Broader societal impacts" refers to how the proposed activities have the potential to expand the capacity of society and the research enterprise to protect human health and the environment.

Reviewers will consider the following, which are weighted equally:

- The applicant's demonstrated potential, by virtue of his/her environmental interests, for broadening public awareness, understanding, and engagement of all citizens—including those citizens from communities that have been historically under-represented in the environmental decision making process in environmentally-related investigation/problem solving (e.g. tribes, women, communities of color, communities in economically distressed cities and towns, young people, persons with disabilities, linguistically isolated communities, etc.);
- How the applicant addresses possibilities for disseminating environmental research results and information; and,
- How the applicant proposes to collaborate in a trans-disciplinary setting, and with other [non-federal] sectors and users, to advance the quality of environmental inquiry and environmental decision-making, as well as sustainability principles (which means approaches that seek to understand the interactions which exist among the three pillars of sustainability (environment, society, and economy) in an effort to better understand the consequences of our actions. Investigations and study that seek sustainable solutions protects the environment, strengthens our communities and fosters prosperity.

B. Internal Programmatic Review

Applications receiving a final score of excellent as a result of the external peer review process will then undergo an internal programmatic review conducted by technical experts from the EPA. All other applications are automatically declined.

Those applications which receive a final score of excellent from the external peer review are further subjected to an internal programmatic review to help determine which applications to recommend for award. This process helps ensure that proposals relate to the mission of the EPA, and assures an integrated, balanced research portfolio for the Agency. EPA experts conducting the internal programmatic review assess the excellent applications against the criteria and process described below.

Criteria for Internal Programmatic Review:

Comment on the Relevance to EPA's Mission of Protecting Human Health and the Environment. Reviewers will consider the following elements, which are weighted equally:

- The strength and degree to which the proposed area of inquiry has the potential to improve environmental management decisions and practices and/or improve the managing of complex environmental and human health problems;
- The strength and degree to which the proposed area of inquiry provides a focus for future approaches towards assessing and managing environmental and human health risks.

C. Human Subjects Research Statement (HSRS) Review

Applications being considered for funding after the Programmatic Review that involve human subjects research studies will have their HSRS reviewed by EPA's HSRRO prior to award. The HSRRO will review the information provided in the HSRS and the Proposal Description to determine if the ethical treatment of human subjects is described in a manner appropriate for conditional approval to be granted.

D. Funding Decisions

Final funding decisions are made by the NCER Director based on the results of the external peer review and internal programmatic review and, where applicable, the EPA HSRRO's assessment of the applicant's human subjects research (see Section IV.B. Item 7). In addition, in making the final funding decisions, the NCER Director may also consider the availability of funds; program goals such as distribution of awards across disciplines, institutions, geography, and degree level being sought. Applicants selected for funding will be required to provide the additional information listed below under "Award Notices." The application will then be forwarded to EPA's Grants and Interagency Management Division for award in accordance with the EPA's procedures.

VI. AWARD ADMINISTRATION INFORMATION

A. Award Notices

A Peer Review Results document summarizing the scientific review will be provided to each applicant with an award or declination letter. If recommended to receive a fellowship, you should be contacted no later than August 1, 2015 and should subsequently receive your official notification of award in the Fall of 2015, for the fall term. Please note that this schedule may be changed without notification due to factors that were not anticipated at the time of announcement. The earliest anticipated start date for these awards is September 1, 2015.

You are advised to retain this announcement for future reference.

The official notification of an award will be made by the EPA's Grants and Interagency Management Division. Applicants are cautioned that only a grants officer is authorized to bind the Government to the expenditure of funds; preliminary selection by the NCER Director in the Office of Research and Development 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.

Selected applicants will be required to provide the following information to complete the application process:

1. EPA Form 5770 2, "Fellowship Application". This form is available on the NCER web page ([Fellowships](#)).
2. Additional information and documentation about your educational status and tuition/other costs.
3. Sealed official transcripts.
4. Fellowship Recipient Abstract, not to exceed one page, which should include: Project Title, Name of Fellow, Institution, EPA Project Officer, Project Period, FON/Topic, Description of Research Project (including Objective(s)/Research Questions(s), Approach, Results or Expected Results, Potential to Further Human Health and Environmental Protection, and Keywords).
5. A project synopsis written in non-technical terms not to exceed 595 characters (approximately seven typed lines).

B. Disputes

Disputes related to this assistance agreement competition will be resolved in accordance with the dispute resolution procedures set forth in 70 FR 3629, 3630 (January 26, 2005) which can be found at [Dispute Resolution Procedures](#). Questions regarding disputes may be referred to the Eligibility Contact.

C. Administrative and National Policy Requirements

Terms and conditions associated with this award can be found at [Guidance & Frequent Questions](#).

- i. Reporting: A fellow is expected to manage fellowship funds efficiently and effectively and make sufficient progress towards completing the project activities described in their proposal description in a timely manner as well as remain in good standing as a student in the graduate program. The fellowship agreement will include terms/conditions implementing this requirement. Fellowship recipients must provide annual progress reports in order to retain their funding, and must provide a final report upon termination of the award. Fellows are encouraged to maintain contact with the Agency for at least five years after graduation.
- ii. Meetings: If EPA hosts a STAR Graduate Fellows Workshop, Fellows are required to attend as long as they are in the program. Resources to support this travel are to be taken from the expense allowance.

- iii. **Human Subjects:** An applicant must agree to meet all EPA requirements for studies using human subjects prior to implementing any work with these subjects. These requirements are given in 40 CFR Part 26. Studies involving intentional exposure of human subjects who are children or pregnant or nursing women are prohibited by Subpart B of 40 CFR Part 26. For observational studies involving children or pregnant women and fetuses please refer to Subparts C & D of 40 CFR Part 26. U.S. Department of Health and Human Services regulations at 45 CFR Part 46.101(e) have long required "... compliance with pertinent Federal laws or regulations which provide additional protection for human subjects." EPA's regulation 40 CFR Part 26 is such a pertinent Federal regulation. Therefore, the applicant's Institutional Review Board (IRB) approval must state that the applicant's study meets the EPA's regulations at 40 CFR Part 26. No work involving human subjects, including recruiting, may be initiated before the EPA has received a copy of the applicant's IRB approval of the project and the EPA has also provided approval. Where human subjects are involved in the research, the recipient must provide evidence of subsequent IRB reviews, including amendments or minor changes of protocol, as part of annual reports.

Guidance and training for investigators conducting EPA-funded research involving human subjects may be obtained here:

[Basic Information about Human Subjects Research](#)
[Electronic Code of Federal Regulations](#)

- iv. **Animal Welfare:**
A fellowship recipient must agree to comply with the Animal Welfare Act of 1966 (P.L. 89-544), as amended, 7 U.S.C. 2131-2159. The recipient must also agree to abide by the "U.S. Government Principles for the Utilization and Care of Vertebrate Animals used in Testing, Research, and Training." (50 Federal Register 20864-20865 (May 20, 1985))

* This clause applies if a research facility (defined as any school (except elementary or secondary), institution, organization or person) receives funds under a grant from a federal agency for the purpose of carrying out research, tests, or experiments involving animals.

- v. **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. Any documents developed under the agreement for distribution to the public or inclusion in a scientific, technical, or other journal shall include the following statement:

This publication [article] was developed under Assistance Agreement No. _____ awarded by the U.S. Environmental Protection Agency to [name of recipient]. It has not been formally reviewed by EPA. The views expressed in this document are solely those of [name of recipient or names of authors] and do not necessarily reflect those of the Agency. EPA does not endorse any products or commercial services mentioned in this publication.

A graphic that can be converted to a slide or used in other ways, such as on a poster, is located at [Guidance & Frequent Questions](#). EPA expects recipients to use this graphic in oral and poster presentations.

- vi. **Website References in Solicitation:** Any non-federal websites or website links included in this solicitation are provided for proposal preparation and/or informational purposes only. U.S. EPA does not endorse any of these entities or their services. In addition, EPA does not guarantee that any linked, external websites referenced in this solicitation comply with Section 508 (Accessibility Requirements) of the Rehabilitation Act.
- vii. **Unfair Competitive Advantage:** EPA personnel will take appropriate actions in situations where it is determined that an applicant may have an unfair competitive advantage, or the appearance of such, in competing for awards under this announcement. Affected applicants will be provided an opportunity to respond before any final action is taken.
- viii. **Copyrights and Data Access:** In accordance with 40 CFR 46.205, if a fellowship recipient develops intangible property under a fellowship agreement (e.g., copyrighted software), EPA reserves a royalty-free, nonexclusive and irrevocable right to reproduce, publish or otherwise use the work for Federal purposes, and to authorize others to do so. EPA's requirements for dealing with such intangible property are found at 2 CFR 200.315. Examples of federal purpose include but are not limited to: (1) Use by EPA and other federal employees for official Government purposes; (2) Use by federal contractors performing specific tasks for the Government; (3) Publication in EPA documents provided the document does not disclose trade secrets (e.g. software codes) and

the work is properly attributed to the recipient through citation or otherwise; (4) Reproduction of documents for inclusion in federal depositories; (5) Use by state, tribal and local governments that carry out delegated federal environmental programs as “co-regulators” or act as official partners with EPA to carry out a national environmental program within their jurisdiction; and (6) Limited use by other grantees to carry out federal grants provided the use is consistent with the terms of EPA’s authorization to the grantee to use the copyrighted material.

In addition, pursuant to 2 CFR 200.315(e), if EPA receives a Freedom of Information Act request for research data that (1) relates to published research findings produced under an EPA award and (2) was used by the Federal Government in developing an agency action that has the force and effect of law, then EPA shall request, and the award recipient shall provide, within a reasonable time, the research data so that it may be made available to the public through procedures established under the FOIA.

- ix. EPA Financial Assistance Conflict of Interest Policy: As required by 2 CFR §200.112, EPA has established a policy regarding conflicts of interest for applicants and recipients of Federal financial assistance awards from EPA. The policy can be found at [EPA's Interim Financial Assistance Conflict of Interest Policy](#). Applicants should review this policy and its requirements which include certain disclosure requirements. Applicants and recipients must complete the applicable disclosure requirements.

Any questions about these clauses should be raised to the EPA program contact identified in the solicitation. Except as noted all Section VI Clauses apply to every award and/or solicitation. Questions about the applicability of any of these clauses should be raised to the EPA program contact identified in the solicitation.

- x. Confidentiality Statements (if applicable): Awards made under this announcement are subject to the provisions contained in the Consolidated and Further Continuing Appropriations Act, 2015, Public Law 113–235, Division E, Title VII, Section 743. This provision prohibits EPA from awarding funds made available by the Act to an entity that requires employees or contractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

VII. AGENCY CONTACTS

Further information, if needed, may be obtained from the EPA/NCER resources listed below. To obtain information most quickly, consult the "Guidance & FAQs." If your question is not covered, then send a query to the 2015FellowshipsRFA@epa.gov email address. You will receive a personal response through a return telephone call or email. Information regarding this RFA obtained from sources other than those indicated may not be accurate.

[Guidance & FAQs: Fellowship](#)

Technical Contact: (Program questions, topics, etc.) email: 2015FellowshipsRFA@epa.gov with FON and ‘Attn: Technical Contact’ in the subject line.

Electronic Submissions: (grants.gov, recommendation letters, etc.) email: 2015FellowshipsRFA@epa.gov with FON and ‘Attn: Submission Contact’ in the subject line.

Eligibility Contact: email: 2015FellowshipsRFA@epa.gov with FON and ‘Attn: Eligibility Contact’ in the subject line.

