

Opportunity Title: EPA Fellowship on Assessing Cumulative Impacts of Contaminants, Hazards, and Changing Climate and Building Equitable Resilience

Opportunity Reference Code: EPA-ORD-CPHEA-HEEAD-2022-03



Organization U.S. Environmental Protection Agency (EPA)

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A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click [here](#) for detailed information about recommendations.

All documents must be in English or include an official English translation.

Application Deadline 12/31/2022 6:00:00 PM Eastern Time Zone

Description ***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.** Click [here](#) for information about the selection process.

EPA Office/Lab and Location: A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Public Health Environmental Assessment (CPHEA), Health & Environmental Effects Assessment Division (HEEAD) located in Washington, D.C.

Research Project: The EPA Office of Research and Development (ORD) provides scientific leadership for evaluating human health and ecological risks associated with exposure to physical, chemical, and biological stressors, including environmental pollutants and climate change. CPHEA is responsible for environmental assessments that inform regulatory offices of the EPA, regions, states, communities, and authorized tribes. This involves the use of both environmental and social sciences to clearly articulate the attributes of ecosystems that are valued by stakeholders, analyze, and synthesize information from disparate sources, and communicate the uncertainties inherent in the conclusions. Assessments must also consider the context of decision making and the needs of decision makers, and as such use translational research approaches that involve stakeholders in problem formulation and development of assessment goals and strategies and result in products designed to be highly usable and actionable. The focus of this opportunity is at the intersection of social science, environmental assessment, and climate change vulnerability and adaptation.

The research participant will have the opportunity to engage in the development, analysis, and evaluation of indicators of nearby contamination, community sensitivity, and potential exposures, particularly in the context of contaminated sites and Brownfields redevelopment and reuse. This research project may include projections, analyses, and evaluations of potential future changes in conditions, cumulative impacts, vulnerabilities, adaptive capacity, and equitable resilience. The research participant may also engage in human-centered design (HCD) and social science related research contributing to a community-driven, guided process for evaluating equity and resilience to hazards, disasters, and threats, in collaboration with EPA Regions, states, and communities. HCD is an iterative approach that puts users at the center of the design process, generating innovative solutions for user needs.

Learning Objectives: The research participant will have the opportunity to learn and practice approaches for designing products, engaging with project partners, and developing outreach materials. The research participant will have the opportunity to be involved in qualitative or quantitative analyses of scientific data and the visualization and presentation of highly influential datasets. The participant will gain an understanding of how scientific evidence is used to inform EPA decision-making processes. The participant will also have the

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opportunity to collaborate with scientific staff in CPHEA, EPA Regions, states, and communities.

Under the guidance of a mentor, specific research training activities may include learning about:

- Designing and implementing HCD workshops with regional, state, community, and local partners to explore user needs and gather feedback on tools
- Climate change impacts, vulnerability, resilience, and adaptation in human and natural systems
- Assessing regional, state, and local needs and priorities for environmental and socio-economic indicators, equitable climate resilience, economic development, and regional planning
- Conducting prototype development and testing through co-production with project partners
- Conducting case studies of equitable resilience planning in local communities, using qualitative data gathering and analysis methods
- Ways that citizen science projects can be designed to enhance community capacity for addressing environmental problems
- Designing and executing regional case studies in collaboration with interdisciplinary teams of natural resource managers and other experts
- Contributing to sections of highly influential science assessments and literature reviews
- Preparing peer-reviewed manuscripts, reports, presentations, and process-oriented outreach materials

Mentor(s): The mentor for this opportunity is Meridith Fry (fry.meridith@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: Winter, 2022. All start dates are flexible and vary depending on numerous factors. Click [here](#) for detailed information about start dates.

Appointment Length: The appointment will initially be for one year and may be renewed upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click [here](#) for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's or doctoral degree in one of the relevant fields, or be currently pursuing one of the degrees with completion by the appointment start date. Degree must have been

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received within five years of the appointment start date.

Preferred skills:

- Expertise in stakeholder and community engagement, transdisciplinary or participatory methods in environmental science research, climate resilience and adaptation planning, and/or urban and regional planning
- Knowledge of socio-ecological systems approaches, human dimensions, and climate change impacts and adaptation, particularly for overburdened communities
- Expertise in multi-disciplinary approaches to environmental assessment and application to natural resource management
- Experience conducting virtual and in person workshops, developing technical summaries of workshop results including research priorities, and visualizing datasets
- Strong scientific writing skills evidenced by publications in peer-reviewed journals, as well as good communication skills such as giving oral presentations at scientific conferences
- Knowledge of the EPA's mission and awareness of the breadth of EPA's programs

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Communications and Graphics Design** (1 )
 - **Computer, Information, and Data Sciences** (3 )
 - **Earth and Geosciences** (3 )
 - **Engineering** (2 )
 - **Environmental and Marine Sciences** (7 )
 - **Life Health and Medical Sciences** (10 )
 - **Mathematics and Statistics** (2 )
 - **Other Non-S&E** (3 )
 - **Other Physical Sciences** (1 )
 - **Social and Behavioral Sciences** (15 )