

**Opportunity Title:** GIS Analyses of Wetlands and Streams--Research Participation Program

**Opportunity Reference Code:** EPA-REG-4-WPD-2015-01

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-REG-4-WPD-2015-01

**How to Apply** A complete application consists of:

- An application
- Transcripts – [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 references

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

If you have questions, send an email to [EPArpp@orau.org](mailto:EPArpp@orau.org). Please include the reference code for this opportunity in your email

**Description** A postgraduate participant project is available at the U.S. Environmental Protection Agency's (EPA), Region 4 office in Atlanta, GA. The research participant will serve in the Ocean, Wetlands and Streams Protection Branch (OWSPB) of the Water Protection Division.

The OWSPB manages and conducts key wetlands, coastal, and ocean activities under the Clean Water Act Section 404, the Marine Protection Research and Sanctuaries Act (MPRSA) Sections 102 and 103 and the Ocean Dumping Program, the Section 403 Ocean Discharge Program and the Section 312 Marine Sanitation Device Program. The OWSPB provides regional expertise in stream and wetland restoration and mitigation, manages and implements marine and wetlands regulatory and restoration related issues and grants associated with numerous interagency/stakeholder workgroups, committees, and task forces.

This project will provide the participant with training and experience in: GIS analyses of wetlands and streams based on landscape position, ecosystem processes, ecological significance, wetness, soils, and physical disturbance; development of a searchable index of the [Wetland Program Development Grants](#) database that improves the ability of EPA programs to locate grant products; perform specific geospatial analysis for certain locations where ground-truth data exists for validation; and complete field work to obtain ground truth data.

Under the guidance of a mentor, the participant may be involved in a range of activities:


- Using national and regional datasets and EPA databases, and reviewing or contributing to various scientific documents;
- Conducting geospatial analysis, tool-building techniques, and applied research that will inform better decision-making in regards to restoration, resource use, and public health;
- Conducting scientific and regulatory analyses/evaluations;
- Compiling and applying technical information relating landscape and watershed physical and ecological attributes and stressors to




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ecosystem condition and recovery;

- Relating progress measures to the accomplishment of restoration and protection goals;
- Developing a searchable database;
- Conducting research outdoors in potentially hazardous locations or under inclement weather conditions.

Based on their involvement in the activities above, the participant will learn:

- About EPA's wetlands protection programs;
- How science and data are applied to determine the function of wetlands and streams;
- How datasets are compiled and tools developed to provide material for scientists to carry out a range of analyses for specific sites concerning ecosystem condition.

This project will provide excellent exposure to the interface of geospatial science and environmental policy. It offers hands-on exposure to a broad range of environmental and policy issues surrounding aquatic resource protection and restoration.

The EPA mentors for this project are Calista Mills ([mills.calista@epa.gov](mailto:mills.calista@epa.gov)) and Diana Woods ([Woods.Diana@epa.gov](mailto:Woods.Diana@epa.gov)).

This appointment is full-time for one year and may be renewed for up to an additional three years depending on the availability of funding. The participant will receive a monthly stipend. The annual stipend will be up to \$60,000. The participant will be reimbursed for approved research related travel expenses during the appointment. No funding will be made available to cover costs for pre-appointment visits, relocation costs, tuition and fees, or a participant's health insurance. The participant must show proof of health and medical insurance. This can be obtained through ORISE. **The participant does not become an EPA employee.**

**Qualifications** Applicants must have received a master's or doctoral degree in environmental sciences and assessment, environmental engineering, ecology, geosciences, information technology or related field that integrates environmental assessment and geospatial tools within five years of the desired starting date, or completion of all requirements for the degree should be expected prior to the starting date. Knowledge of stream and/or wetlands ecosystems, related restoration programs, and/or coastal science or engineering is desired.

**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** ([1](#)👁)
  - **Earth and Geosciences** ([1](#)👁)
  - **Engineering** ([1](#)👁)
  - **Environmental and Marine Sciences** ([1](#)👁)

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- **Life Health and Medical Sciences** ([1](#) )