Opportunity Title: Assessing Effectiveness Following Restoration of Aquatic Systems
Opportunity Reference Code: EPA-ORD-NERL-SED-2019-09

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-ORD-NERL-SED-2019-09
How to Apply	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

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

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

Application Deadline	9/11/2019 3:00:00 PM Eastern Time Zone
Description	***Applications will be reviewed on a rolling-basis.**

A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD). The research participant will collaborate with the National Risk Management Research Laboratory (NRMRL) and National Health and Environmental Effects Research Laboratory (NHEERL) and the research participant will be located in the National Exposure Research Laboratory (NERL), Systems Exposure Division (SED) in Cincinnati, Ohio.

This research project involves research regarding methods, indicators and sampling designs to assess restored sites' function and resiliency to disturbance and on- and off-site improvements. For example, millions of dollars are being invested in restoration through the Great Lakes Restoration Initiative (GLRI) as well as in restoring sites in the Chesapeake, San Francisco Estuary, Puget Sound and others around the United States. This research project will focus on the effectiveness of various restoration techniques and provide evidence of the ecological and human health benefits of such techniques.

Ecological restoration projects are a critical aspect of restoring the functional state of an ecosystem when impacted by legacy and ongoing poor management practices. In the context of the Remediation, Restoration, Revitalization (R2R2R) paradigm, the Great Lakes National Program Office (GLNPO) manages Areas of Concern to address Beneficial Use Impairments and these management efforts require both remediation and restoration to address GLNPO's programmatic objectives. However, objective criteria for evaluating the effectiveness of these restoration projects are needed for this and related Office of Land and Emergency Management (OLEM) programs. Methods, indicators and sampling designs to assess the restored site's function and resiliency to disturbance and on- and offsite improvements will be examined from prospective and retrospective case studies of restored sites such as the Areas of Concern (AOCs) and Superfund sites.

The research participant will have the opportunity to gain experience and knowledge in the research areas of restoration and project evaluation and may be involved in the following activities:

- Identifying methods, indicators and sampling designs to assess restored sites and future restoration projects that are scientifically rigorous and can be practically implemented
- Contributing to a database of Great Lakes and OLEM restoration projects
- Participating on Office of Research of Development (ORD) , OLEM, and GLNPO project teams with Federal scientists, other ORISE, and additional partners
- Developing research summaries and other communications for technical and nontechnical audiences
- Scientific synthesis, data analysis, report preparation and literature searches

The research participant may gain knowledge of how the EPA interacts within the federal government and with relevant stakeholders on issues related to restoration evaluation through participation in agency meetings, project team meetings, and scientific conferences. The research participant may better understand how to plan, track, and report on research activities. The research participant may gain hands-on experience

and new knowledge through direct participation in evaluation of past, current, and future restoration projects.

This training opportunity will provide the research participant with exposure to collaborative interagency efforts related to innovative technology identification and demonstration related to restoration evaluation methods and sampling. It will also advance the research participant's knowledge in project management and scientific communication.

This research project involves the research, development, and demonstration of innovative technologies and approaches that advance the science of ecological restoration and sustainable watershed management. The research project supports GLNPO, OLEM, and the ORD Sustainable Healthy Communities research programs.

The mentor for this opportunity is Tammy Newcomer-Johnson (newcomer-johnson.tammy@epa.gov).

Anticipated Appointment Start Date: October 1, 2019

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. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at EPA in the Cincinnati, Ohio, area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

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

Preferred skills:

- Knowledge or practical experience regarding EPA programs, particularly the Great Lakes Restoration Initiative, Great Lakes Program Office, and the Office of Land and Emergency Management's Brownfields and Superfund Programs
- Knowledge or practical experience regarding toxic substances and Areas of Concern, invasive species, and Nonpoint Source Pollution impacts on nearshore health, habitats and species
- Knowledge or practical experience regarding with restoration ecology, monitoring, and evaluation
- Strong written and oral communication skills, and the ability to comfortably interact with internal and external stakeholders from a wide variety of programs, offices, groups, and entities
- Strong analytical skills with regard to document review, synthesis of large datasets, program planning, public policy, and technical issues

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 10/1/2019 11:59:00 PM.
- **Discipline(s):**
  - **Earth and Geosciences** (23 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (13 👁)
  - **Life Health and Medical Sciences** (47 👁)
  - **Other Physical Sciences** (12 👁)
  - **Social and Behavioral Sciences** (1 👁)