

# Postdoctoral Opportunity – Practical Applications of Resilience Science

**Office of Research and Development  
National Health and Environmental Effects Research Laboratory  
U.S. Environmental Protection Agency  
Gulf Breeze, FL**

**Project Description:** A postdoctoral research project training opportunity is currently available at the U.S. Environmental Protection Agency's (EPA) National Health and Environmental Effects Research Laboratory (NHEERL). The appointment will be served with the Gulf Ecology Division (GED) in Gulf Breeze, Florida. An application can be found at <http://orise.orau.gov/epa/applicants/application.htm>. Please reference Project # **EPA-ORD/NHEERL-GED-2014-01** when calling or writing for information.

This research project will advance the field of resilience science by exploring the interdependence of ecological and social systems in developing resilience-informed approaches to address natural resource management and community sustainability planning. The research participant will be engaged in:

- understanding the advances in the scientific literature for establishing resilience metrics;
- developing measures that could contribute to an index of resilience for ecosystems and communities;
- investigating and modeling interdependence of ecological and social systems from a sustainability and resilience perspective;
- developing approaches to advance and promote sustainable ecosystem management decisions utilizing measures and metrics of resilience.

The research participant will learn to interpret, analyze and present human and ecosystem resilience data and metrics; manipulate and manage large data sets; and, expand their knowledge of the methods and statistical approaches for data analysis. The research participant will be mentored in data interpretation, presentation, and organization, and in methods to communicate scientific findings in a clear and concise manner. Professional development opportunities could also include presenting research at scientific meetings, authoring publications, and collaborating with external (non-EPA) scientists and engineers.

This research opportunity will provide the research participant exposure to: the field of resilience science; investigating and modeling interdependence of ecological and social systems; and developing frameworks and approaches that can be used to addressing research problems in natural resource management, and community sustainability planning.

## **Qualifications:**

Applicants must have received a doctoral degree in ecology, biological, biomathematics, or other fields related to sustainability science, within five years of the desired starting date, or completion of all requirements for the degree should be expected prior to the starting date.

The program is open to all qualified individuals without regard to race, sex, religion, color, age, physical or mental disability, national origin, or status as a Vietnam era or disabled veteran. U.S. citizenship or lawful permanent resident status is preferred (but a candidate also may hold an appropriate visa status; an H1B visa is not appropriate).

The appointment is full time for one year and may be renewed upon recommendation of EPA and contingent on the availability of funds. The participant will receive a monthly stipend. Funding may be made available to reimburse the participant's travel expenses to present the results of his/her research at scientific conferences. No funding will be made available to cover travel 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. **The participant does not become an EPA employee.**

**Technical Questions:** Dr. Matthew Harwell will be the mentor for this project. He can be contacted at [harwell.matthew@epa.gov](mailto:harwell.matthew@epa.gov).