

**Opportunity Title:** Ecosystem Geo-Statistics Research

**Opportunity Reference Code:** EPA-NSSC-0007-45

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

**Reference Code** EPA-NSSC-0007-45

**How to Apply** Ready to send share your interest with EPA scientists?

- Submit application and supporting documents by clicking on Apply Now button.
- *For more information, contact* EPAjobs@orau.org. Do not contact EPA directly.
- Check out our website at: <https://www.orau.org/epa/jobs.html>

**Description** This opportunity has been re-posted to EPA-NSSC-0007-45NS

The EPA National Student Services Contract has an immediate opening for a full time Ecosystem Geo-Statistics Research position with the Office of Research and Development at the EPA facility in Gulf Breeze, FL.

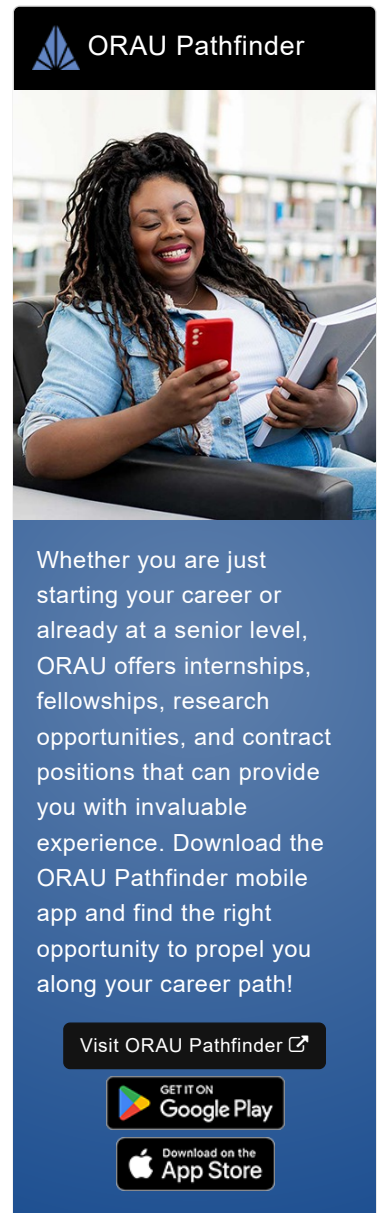
Within ORD, the Center for Environmental Measurement & Modeling (CEMM) conducts research to advance EPA's ability to measure and model contaminants in the environment, including research to provide fundamental methods and models needed to implement environmental statutes. The methods and models developed by CEMM are typically applied at the airshed, watershed and ecosystem level. Within CEMM, the Gulf Ecosystem Measurement and Modeling Division (GEMMD) provides leadership and specialized research in marine, estuarine, and watershed ecology and ecotoxicology to predict and assess the effects of human-generated stressors on the unique aquatic resources of the U.S. Gulf of Mexico & the Nation. GEMMD develops tools and the scientific basis that help facilitate sustainable environmental management decisions that maximize economic, ecosystem, social outcomes, and resiliency.

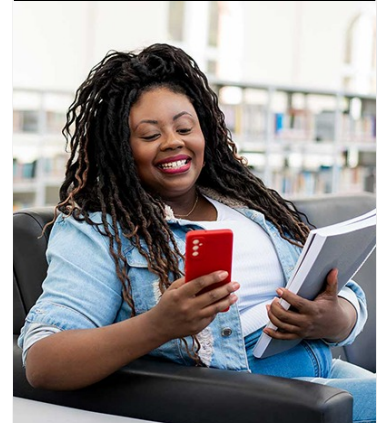
**What the EPA project is about**


As a team member you will receive training to provide the technical resources and expertise needed to develop, parameterize, and calibrate quantitative models to support ecosystem research. Topics will include predicting impacts of changes in land use/land cover, population growth, sea-level rise, and climate effects on coastal communities of the Gulf of Mexico and their associated drainage basins and terrestrial and aquatic ecosystems. You should expect to gain experience and knowledge in estimating ecosystems services, hydrologic networks, economic valuation, decision support tools, scenario analysis, outreach and education, scientific writing, and field and laboratory methods.

**What experience and skills will you gain?**


As a team member you will work with a multidisciplinary team focused on innovative research that examines the influence of ecological, economic and social environments in terms of community sustainability, human





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health, well-being and resilience. Activities will include data curation and extraction, quality control, data analysis, application of data to solve spatial problems through use of geostatistics and modeling. Research topics will cover characterizing community characteristics at multiple spatial scales; assessing ecosystem condition relevance in context of socio-ecological systems; investigating indicator development strategies; and creating approaches to quantify sustainability measures at multiple spatial scales. You should expect to gain experience and knowledge in geospatial theory and practices, the development and design of models and frameworks for the assessment of community characteristics, statistical analyses; outreach and education; and scientific writing. It is anticipated that you will contribute to research products and milestones to meet project objectives and provide services in support of research directed under the Sustainable and Healthy Communities Research Team.

#### **How you will apply your skills**

**Responsibilities** shall include:

- Data entry, documentation, and analysis
- Processing and refinement of spatial data using ArcGIS.
- Conducting quality control of collected secondary data.
- Conduct literature searches involving data needed for research products and models.
- Compiling and summarizing analytical data and literature references.

**Communications-related responsibilities** shall include:

- Participating as a member of a multi-disciplinary research team
- Interact with EPA scientists
- Report regularly via email to inform team members of progress.

#### **Required Knowledge, Skills, Work Experience, and Education**

- Experience working with spatial data and building maps in ArcGIS.
- Experience in formatting and normalizing data for use in a geospatial platform.
- Experience in creation and maintenance of geodatabases and spatial file management
- Experience using Microsoft Excel for formatting, normalizing, and managing data for statistical modeling.
- Experience in finding, extracting and organizing data from secondary data sources (electronic media, published standards, and downloadable databases).
- Experience compiling, organizing, and summarizing literature references

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- Experience developing graphics, tables and GIS products for scientific reports and manuscripts.

**Location:** This job will be located EPA's facility in Gulf Breeze, FL.

**Salary:** Selected applicant will become a temporary employee of ORAU and will receive an hourly wage of \$28.70 for hours worked.

**Hours:** Full-time

**Travel:** No overnight travel is anticipated.

**Expected start date:** The position is full time and expected to begin October 2020. The selected applicant will become a temporary employee of ORAU working as a contractor to EPA. The initial project is through May 14, 2021, with up to 4 additional option periods.

*For more information, contact [EPAjobs@orau.org](mailto:EPAjobs@orau.org). Do not contact EPA directly.*

- Qualifications**
- Be at least 18 years of age **and**
  - Have earned at least a Master's degree in biology, ecology, geography, geospatial sciences, or a related field of study from an accredited university or college within the last 24 months **and**
  - Be a citizen of the United States of America or a Legal Permanent Resident.

*EPA ORD employees, their spouses, and children are not eligible to participate in this program.*

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
  - **Degree:** Master's Degree or Doctoral Degree received within the last 24 month(s).
  - **Overall GPA:** 2.00
  - **Discipline(s):**
    - **Earth and Geosciences** ([21](#))
    - **Environmental and Marine Sciences** ([14](#))
    - **Life Health and Medical Sciences** ([45](#))

**Affirmation** I certify that I am at least 18 years of age; a recent graduate with at least a Master's degree in biology, ecology, geography, geospatial sciences, or a related field of study from an accredited university or college within the last 24 months; a citizen or a Legal Permanent Resident of the United States of America; and not a current employee of EPA ORD or the spouse or child of an EPA ORD employee.

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