

**Opportunity Title:** Geospatial Data Development and Curation Support at EPA

**Opportunity Reference Code:** EPA-SSP-0024-16

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

**Reference Code** EPA-SSP-0024-16

**How to Apply**

- Submit application and supporting documents by clicking on Apply Now button.
- *For more information, contact [EPAjobs@orau.org](mailto:EPAjobs@orau.org).* Do not contact EPA directly.

**Description** The EPA Environmental Research and Business Support Program has an immediate opening for a Geospatial Data Development and Curation Support position at EPA with the Office of Research and Development at EPA's Research Triangle facility in Raleigh-Durham, NC.

The Office of Research and Development at the EPA supports high-quality research to improve the scientific basis for decisions on national environmental issues and help EPA achieve its environmental goals. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

The Environmental Public Health Division (EPHD) within the Office of Research and Development (ORD) at EPA focuses on the public-health impacts of environmental exposures. The research utilizes publicly available databases and human-subjects data to investigate the health effects of air and water pollutants and other environmental exposures. The Epidemiology Branch of EPHD hosts the leader for the community component of the EnviroAtlas project under the national Sustainable and Healthy Communities Research Program. EnviroAtlas (<https://www.epa.gov/enviroatlas>) is an online decision support tool that allows users to view and analyze the geographical distribution of ecosystem services supply, demand, and drivers of change at multiple scales across the country. Relationships between aspects of human health and well-being and indicators of ecosystem services are explored, documented, and portrayed to support a full accounting of how decisions affect communities' progress towards sustainability, including equitable distribution of community green infrastructure.

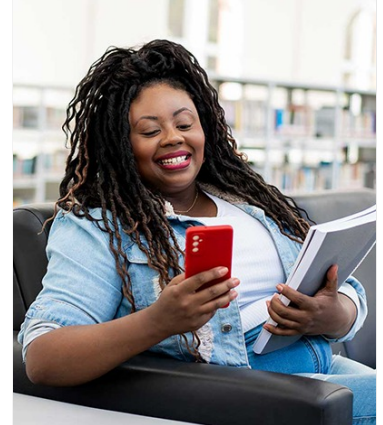
The selected candidate shall support the EnviroAtlas community component with geospatial data development and curation, involving the manipulation and management of many large data sets. He/she shall perform ongoing quality control and metadata documentation as an integral part of this support. Related activities will involve the generation of data factsheets, map graphics, and conference posters. He/she will be a member of a multi-disciplinary environmental health research team. As such, he/she shall also assist team members with GIS research needs, and support GIS data and coding requests from external EnviroAtlas community and research collaborators.

**Data development responsibilities shall include assisting with:**


- Running and modifying Python code to generate 100+ existing geospatial metrics at census block-group scales and finer for new



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EnviroAtlas communities;

- Developing FGDC-compliant metadata for each metric, using the EnviroAtlas metadata template and existing code;
- Trouble-shooting and problem-solving associated with code malfunctions;
- Identifying and extracting publicly-available and EPA-licensed datasets as inputs to existing geospatial metrics for new EnviroAtlas communities;
- Checking online displays of newly-added community maps and legends for errors, and documenting errors for correction by the EnviroAtlas web interface team;
- Exploring, proposing, and potentially developing new geospatial metrics on urban ecosystem services supply, demand, and/or drivers of change, including future scenarios;
- Assisting with EnviroAtlas studies by advising on or generating new research metrics, such as address-based spatial buffers and moving-window calculations using EnviroAtlas 1-meter landcover raster data;
- Supporting EPA and external collaborators with EnviroAtlas coding and metric generation; and
- Maintaining an online laboratory notebook with daily updates, as appropriate, on technical steps, problems encountered, alternate methods attempted and outstanding issues requiring resolution.

**Data curation responsibilities shall include assisting with:**

- Archiving critical intermediate geospatial datasets, by community, on the shared team data drive;
- Transmitting final EnviroAtlas geospatial metrics and metadata to the project data manager for posting online and archiving on the shared team data drive;
- Developing and maintaining spatial datasets of community boundaries and census block-groups for use by team members and external collaborators; and
- Establishing and maintaining a well-organized electronic filing system on the individual workstation and external data drives.

**Related responsibilities shall include assisting with:**

- Drafting factsheets for new metrics and EnviroAtlas communities using standard templates;
- Developing map graphics for EnviroAtlas presentations and communications with collaborators;
- Creating abstracts and posters for scientific meetings, and presenting work at meetings; and
- Writing Methods sections for manuscripts.

**Location:** This job will be located EPA's Research Triangle facility in Raleigh-Durham, NC.

**Salary:** The selected applicant will become a full time temporary employee of ORAU and will receive an hourly wage of \$28.14 for hours worked.

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**Hours:** Full Time.

**Travel:** Occasional overnight travel may be required.

**Working Conditions:** The selected candidate shall be supervised by a mentor who will provide day-to-day direction, as well as coach, advise and counsel the selected candidate, and review his/her work.

This position will involve work in an administrative setting and is not expected to involve exposure to hazardous elements.

**Expected Start Date:** The position start date is September 2017. The selected applicant will be temporary employees of ORAU working as a contractor to EPA. The initial contract period is through May 14, 2018. EPA may elect to renew the contract for an additional two (2) 12-month optional periods.

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

**Qualifications Eligible applicants must:**

- Be at least 18 years of age and
- Have earned at least a Master's degree in geographic information systems, or in geography, ecology, environmental science, urban planning, engineering, or a related field or closely related field 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.*

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

Successful candidates shall have:

- Experience in advanced geospatial data manipulation and programming methods;
- Experience with ArcGIS software and Python code;
- Excellent organizational skills and attention to detail;
- Strong verbal and written communication skills; and
- Experience with Microsoft Office spreadsheet and word processing software.

**Eligibility Requirements**

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree received within the last 24 month(s).
- **Discipline(s):**
  - **Communications and Graphics Design** ([1](#)👁)
  - **Earth and Geosciences** ([21](#)👁)
  - **Engineering** ([27](#)👁)
  - **Environmental and Marine Sciences** ([14](#)👁)

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- **Life Health and Medical Sciences** ([45](#) 👁)
- **Other Non-Science & Engineering** ([5](#) 👁)
- **Social and Behavioral Sciences** ([28](#) 👁)

**Affirmation** I certify that I am at least 18 years of age; have earned at least a Master's degree in geographic information systems, or in geography, ecology, environmental science, urban planning, engineering, or closely related field 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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