# PERFORMANCE WORK STATEMENT

**Task Order Title: TBD**

**Task Order Solicitation # TBD**

**PWS Title: TBD**

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1. **Summary**

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| --- | --- |
| **EPA Organization** | ORD/CPHEA/PHESD |
| **Location** | Research Triangle Park, NC |
| **Required Level of Education** | Masters Degree |
| **Average Hours Per Week** | 40 |
| **Number of Students Sought** | 1 |

1. **Agency & Office Mission**

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 Center for Public Health and Environmental Assessment (CPHEA) provides the science needed to understand the complex interrelationship between people and nature in support of assessments and policy to protect human health and ecological integrity. Within CPHEA, the Public Health and Environmental Systems Division (PHESD) focuses on the interrelationships between people and their environment, promotes human health and well-being, and fosters healthy and safe communities.

As part of their mission, PHESD supports EPA’s mission to protect human health and the environment by developing and applying innovations in exposure science. Exposure science sets the context for understanding and solving real-world problems. A major component of the organization’s research portfolio is the EnviroAtlas ([www.epa.gov/enviroatlas](http://www.epa.gov/enviroatlas)). EnviroAtlas provides interactive tools and resources for exploring the benefits people receive from nature or "ecosystem goods and

services". Ecosystem goods and services are critically important to human health and well-being, but they are often overlooked due to lack of information. Using EnviroAtlas, many types of users can access, view, and analyze diverse information to better understand the potential impacts of various decisions.

# Description of Student Services

The student shall provide data management, data curation and data analysis support for the EnviroAtlas project. The student shall provide database management, file management, data curation and extraction, quality control, as well as performing qualitative and quantitative data analysis. The student shall be a member of a multi-disciplinary research team and shall support the development, maintenance, and analysis of EnviroAtlas data, tools, and web applications for both national and community scale ecosystem service indicators.

# Data Development and Analysis responsibilities shall include:

* + Development of meter-scale urban land cover data from aerial photography and lidar data using ENVI, Genie Pro, and/or eCognition image classification software
  + Analysis of land cover maps for ecosystem services and sustainability
  + GIS (Geographic Information System) processing of data layers
  + Quality control of geospatial data
  + Creation of metadata and fact sheets supporting the data products
  + Literature review.

**Communications-related responsibilities** shall include:

* + Participating as a member of a multi-disciplinary research team
  + Interacting with other members of the development team as well as EPA scientists
  + Documenting code, methods and land cover development efforts
  + Presenting work performed at a scientific conference as required.

# Required Knowledge, Skills, Work Experience, and Education

The student shall have:

* + A Masters degree in the fields of geospatial science, geography, ecology, environmental science, geosciences or a related field
  + Demonstrated education and/or experience in GIS (geographic information systems), geospatial data compilation and analysis
  + Experience with remote sensing and image processing
  + Strong written, oral and electronic communication skills
  + Experience programming in Python and R or other scripting languages
  + Experience using ENVI, GeniePro and/or eCognition software is desired but not required.

# Description of Working Conditions

Work shall be performed at the following location:

U.S Environmental Protection Agency 109 TW Alexander Drive

Research Triangle Park, NC 27709

The student shall be supervised by a mentor who will provide day-to-day direction, as well as coach,

advise and counsel the student, and review the student contractor’s work. The mentor for this position will be a federal EPA employee. The COR will inform the contractor of specific mentor information at the time of award.

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

# Travel

Occasional overnight travel may be required.

# Duration

The period of performance shall be from the start date through 14 May 2023 plus two (2) additional 12-month option periods.

# Use of Government Vehicles

Use of government vehicles by the student(s) is not anticipated.

# Quality Assurance

Any responsibilities pertaining to scientific research will meet the applicable quality requirements specified in the [Contract Level PWS Part IIB](https://intranet.ord.epa.gov/sites/default/files/2020-05/Contract%20Level%20PWS.docx) Quality Assurance.

The student will be expected to follow QA documentation as appropriate. Initially, the student will be supporting research described in the following QAPP:

Title: The title of the QAPP

QA ID: X-XXX-0012345-QP-1-X