

# JOB DESCRIPTION

**JOB TITLE** Geospatial Analyst  
**LOCATION** DC Metro Area  
**JOB NUMBER** 44625



Protecting nature. Preserving life.®

**STATUS** Full-Time Regular Position  
**DATE** September 2, 2016

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## SUMMARY

The Nature Conservancy (TNC) is expanding capacity to design, map, and measure the climate benefits of forest conservation, management, and restoration initiatives around the globe. We seek a Geospatial Analyst to conduct geospatial and other analyses for TNC's carbon science team. The primary focus of analysis will be related to quantifying and mapping climate mitigation opportunities for TNC's Natural Climate Solutions work (NCS). Analysis will extend to related aspects of TNC's conservation initiatives, including analysis of other ecosystem services (e.g. biodiversity, hydrology, soil health), as well as economic, social, and policy dimensions of our conservation work. The Geospatial Analyst will work closely with, and be supervised by, the Forest Carbon Scientist, but will be expected to work independently while providing leadership in technical dimensions of geospatial analysis as well as project coordination. The Geospatial Analyst will be a member of TNC's Global Lands Carbon Science Team based in Arlington, VA.

This position is funded for 1.5 years with the expectation that funding will be extended.

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## ABOUT US

The Nature Conservancy is the leading conservation organization working to make a positive impact around the world in more than 35 countries, all 50 United States, and your backyard. Founded in 1951, the mission of The Nature Conservancy is to conserve the lands and waters on which all life depends. One of our core values is our commitment to diversity. Therefore we are committed to a globally diverse and culturally competent workforce. Visit [www.nature.org/aboutus](http://www.nature.org/aboutus) to learn more.

The Global Lands team operates at the intersection of global development and environmental challenges. We aim to meet increasing demands for energy resources, water supply, food and fiber production with low environmental impact, and in a mindset where nature is seen as a critical input to these key human needs. We do this by engaging governments, the private sector and local communities to ensure that conservation is a critical outcome in economic development.

Our Global Lands team has four inter-related areas of work. The first is focused on transforming how development occurs on 'working' lands, broadly including croplands, pasturelands and forests. The second is influencing climate policy to advance the role of natural carbon storage in plants and soils as key component of climate mitigation policies. The third is advancing siting and mitigation practices where agricultural or energy development is occurring. The fourth is empowering communities and indigenous peoples to steward and restore natural resources where they live. In all of these areas the Global Lands team works closely with TNC state and country programs to advance conservation initiatives on the ground.

If you have a personal passion for conserving and protecting the natural world with a belief in The Nature Conservancy's mission, and meet or exceed the qualifications for this position described below, then please apply to this position and learn more about the Conservancy.

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## RESPONSIBILITIES & SCOPE

**Geospatial data analysis and management.** This responsibility will involve acquisition, production, management and analysis of large spatial datasets using ESRI ArcGIS software. Work may also require the use of other geospatial/remote sensing software (e.g. ERDAS Imagine, ENVI, IDRISI), programming platforms (e.g. Python, R) and various statistical packages (e.g. R, SAS) for the multivariate analysis of quantitative ecological data. This position will be expected to take responsibility for managing, organizing, updating and attributing a large geospatial database (~3 TB) for use of the carbon science team and collaborators. Development of new datasets may also be necessary (e.g. classification of remote sensing data). A high level of organizational skill is critical. Geospatial analysis will range from relatively basic analyses (e.g. zonal statistics) to sophisticated analysis (e.g. spatially explicit modeling of landscape vulnerability and future deforestation). Analyses will require familiarity with a range of data, including vector, raster, geodatabase and imagery/remotely sensed files (e.g. Landsat, MODIS, LIDAR, Radar (SAR) and aerial photography).

**Cartography.** The results of analyses will be presented to both technically-oriented and non-technical audiences. Effective and accessible visual display of results for a range of audiences is an important aspect of this position. The use of different media (e.g. webmaps, interactive visualization tools ) for map, report and general graphic production are a plus.

**Field work.** Geospatial analysis will focus on tropical forest systems where TNC NCS initiatives are located (e.g. Mexico, Indonesia, Gabon). Physically demanding field work in remote forest ecosystems is likely to be required. The amount of field work has yet to be determined, and will vary depending upon the capacity of partners and needs of the project. Field work may require the use of handheld GPS devices and processing of GPS data. Applicants should be prepared to work in variable weather conditions, at remote locations, in hazardous terrain and under physically demanding circumstances.

**Other.** Related responsibilities will include review of the scientific literature, writing and editing of technical and non-technical papers and memos, oral presentation of results to technical and non-technical parties, and training of staff in various countries.

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*The Nature Conservancy is an Equal Opportunity Employer. Our commitment to diversity includes the recognition that our conservation mission is best advanced by the leadership and contributions of men and women of diverse backgrounds, beliefs and cultures. Recruiting and mentoring staff to create an inclusive organization that reflects our global character is a priority and we encourage applicants from all cultures, races, colors, religions, sexes, national or regional origins, ages, disability status, sexual orientations, gender identities, military or veteran status or other status protected by law.*

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**MINIMUM  
QUALIFICATIONS**

- Graduate Degree in science related field and 1 year of experience or equivalent combination of education and experience. Background must include extensive experience with geospatial software, as related to responsibilities described above, with education or experience in ecology and/or conservation science.
- Experience working with Microsoft Office Suite Software and ESRI ArcGIS software.
- Experience collecting, manipulating, analyzing and interpreting scientific data and preparing reports of findings.
- Strong team player who can build relationships and work collaboratively across the organization and with Conservancy partners.
- Demonstrated experience collaborating with other parties to obtain different data sources.
- Demonstrated ability to successfully develop and implement multiple, complex projects in an unstructured environment, setting realistic deadlines and managing timeframes.
- Excellent analytical and project coordination capabilities.
- Willingness to travel significantly, including internationally, and work under physically demanding remote rural conditions.
- Experience communicating clearly via written, spoken and graphical means in English.
- Demonstrated commitment to the goals and philosophy of The Nature Conservancy.

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**PREFERRED  
KNOWLEDGE,  
SKILLS &  
EXPERIENCE**

- Five years of relevant professional experience. Background must include extensive experience with geospatial software, as related to responsibilities described above, with education or experience in ecology and/or conservation science.
- Experience working in developing tropical countries preferred, ideally with ability to work in the context of one or more relevant foreign language (e.g. Spanish, Portuguese, Bahasa).
- Facility with writing and adapting code in R statistical computing language, Python, or other programming platforms.
- Experience with designing and constructing interactive web maps and data visualization.
- Experience teaching technical and theoretical aspects of geospatial analysis to groups and/or individuals.

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**ORGANIZATIONAL  
COMPETENCIES**

Communications	Effectively expresses messages verbally and in writing. Actively listens to others. Fosters open exchange of issues. Is timely with information.
Flexibility & Innovation	Flexible to changing circumstances. Takes innovative approaches towards work. Takes calculated risks and makes dependable decisions in the face of uncertainty.
Interpersonal Savvy	Maintains positive working relationships. Contributes to productive partnerships inside and outside the organization. Understands team member roles and values the contributions of others. Effectively deals with conflict.
Open to Learning	Versatile learner and committed to self-improvement. Employs strengths effectively. Willingly shares knowledge with others. Seeks coaching on areas needing improvement. Adjusts behavior/performance as needed. Views mistakes as learning opportunities.
Organizational Awareness	Understands the basics of our business. Knows how local job relates to the big picture & contributes to the overall strategy. Knows how/why things work inside TNC. Easily moves through internal networks and channels for success.
Produces Results	Takes Initiative. Focuses on priorities. Strives for excellence. Is dependable and accountable for results. Persistent in the face of obstacles and meets deadlines.

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To apply to position 44625 submit resume (required) and cover letter separately using the upload buttons. All applications must be submitted in the system prior to 11:59 p.m. Eastern Time on September 30 2016.

**HOW to APPLY**

Click “submit” to apply for the position or “save for later” to create a draft application for future submission. Once submitted, applications cannot be revised or edited. Failure to complete required fields may result in your application being disqualified from consideration.

If you experience technical issues, please refer to our applicant user guide or contact [applyhelp@tnc.org](mailto:applyhelp@tnc.org).

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*The successful applicant must meet the requirements of The Nature Conservancy’s background screening process.*

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