

## **North Atlantic Landscape Conservation Cooperative**

### **Position Description: 1-Year Contract GIS Analyst 2012-2013**

The North Atlantic LCC is seeking a GIS Analyst to fill a 1-year contract position based in the Northeast Regional Office of the U.S. Fish and Wildlife Service (FWS) in Hadley, Massachusetts. The GIS Analyst will be an independent contractor under contract to the Wildlife Management Institute. The position will provide GIS support for LCC projects, such as the Northeast Landscape Conservation Design Project, which has the goal of establishing cooperative means to make existing and future conservation design information and tools more available and accessible to conservation partners; to produce composite maps depicting landscape conservation designs; and to develop spatial data layers summarizing environmental conditions affecting a suite of important ecological and cultural resource elements in the Northeast. A complementary GIS Analyst position, partially funded by the LCC, is being created at the Eastern Division of The Nature Conservancy in Boston, MA. The two positions will serve as LCC team members and provide GIS support for Northeast Landscape Conservation Design and other LCC projects, with the immediate charge to assist in the development, population, and maintenance of a collaborative conservation data management system to make linked databases accessible to partners via web and cloud technologies. Specific objectives for the Hadley-based GIS Analyst will be to: (1) Organize existing conservation data for the Northeast to make information more available for LCC partners; (2) Synthesize data to develop landscape designs that will allow partners to map and prioritize focus areas for conservation; (3) Translate maps and other tools to make landscape design data useful at various scales and in various formats; (4) Provide assistance to ensure that science and tools are understood and consistently adopted and implemented in support of on-the-ground conservation.

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#### **JOB DUTIES**

1. Act as GIS liaison with LCC partner organizations, government agencies, and universities engaged in the Northeast Landscape Conservation Design Project and other priority projects. Oversee and track spatial data distribution to partner organizations. Manage GIS-based projects with LCC staff and collaborators.
2. Test, refine, and implement protocols to support database linkages and data sharing via web and cloud technologies, including the creation of metadata documents, maintenance of metadata libraries, validation of accessibility procedures, and version maintenance.
3. Perform research, data acquisition, development, landscape analysis, data management, mapping, and other complex applications of spatial data to support conservation projects in the LCC.
4. Research and acquire state, regional, and federal datasets for mapping and analysis from all available sources.
5. Process spatial and other relational datasets derived from cartographic and tabular source material to build, maintain, and populate spatial databases.

6. Participate in collaborative regional conservation planning and modeling activities, such as the Northeast Landscape Conservation Design Project and regional mapping for state wildlife action plans.
  7. Provide technical, mapping, and analytical support to LCC science staff and partners on a range of conservation projects.
  8. Work with partners, translate scientific concepts into appropriate GIS analyses, and effectively communicate GIS results to both lay and scientific audiences through written material, verbally and cartographically.
  9. Work with a variety of staff to produce high-quality maps for proposals, presentations, and communications/fundraising needs. Aid in the development of, and maintain content for, a public facing website that allows external partners to download data, view maps, and obtain reports.
  10. Provides project leadership through strong communication and coordination between technical and conservation staff.
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#### **REQUIRED KNOWLEDGE AND SKILLS:**

- MS or BS degree and certification in related field and 3-5 years related experience or equivalent combination of education and experience. Demonstrated experience in the following areas: complex spatial analysis, data modeling, and landscape scenario analysis
- Excellent working knowledge of ESRI GIS software (ArcGIS/ArcInfo and Spatial Analyst in particular), geographic information, analytical techniques, data and metadata standards; knowledge of public and private data sources. Prefer familiarity with scripting in Python.
- Familiarity and proficiency learning and applying spatial analysis and habitat modeling packages, particularly those relevant to wildlife and natural resources, and including familiarity with the use spatial statistics implemented in the program R.
- Experience preparing data and implementing models, including manipulating, combining, reclassifying, and performing mathematical operations on data layers, specifying model parameters requested by habitat modeling software packages, and developing maps based on model results.
- High level of proficiency in the acquisition, organization, and web dissemination of large spatial datasets.
- High level of proficiency addressing data quality and inter-operability, such as issues of scale, resolution, attribute consistency, projection, and data formatting.
- Experience in the spatial and cartographic representation of biological data sets.
- Demonstrated skill in the development of hardcopy, digital, and online map products.
- Experience managing a geographic database, developing metadata, and coordinating data sharing.
- Familiarity with the use of web and cloud-based data management applications to support GIS, including some proficiency in web GIS, mainly ArcGIS Server, and an understanding of open source solutions.

- Ability to translate scientific concepts into appropriate GIS analyses, and in turn, to effectively communicate GIS results to various audiences, verbally and cartographically.
  - Strong organizational skills and attention to detail. Ability to set priorities and organize time efficiently. Ability to work effectively within a team.
  - Demonstrated experience interpreting and communicating results to conservation practitioners.
  - Demonstrated experience collaborating with other parties to obtain different data sources.
  - Ability to make practical sense out of processed data and apply to real world applications.
  - Managing time and diverse activities under deadlines while delivering quality results.
  - Managing and prioritizing tasks from multiple sources.
  - Working knowledge of common software applications (e.g.; Word, Access, Excel, Web browsers).
  - Communicating clearly via written, spoken, and graphical means
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#### **COMMUNICATIONS/INTERPERSONAL CONTACTS:**

- Ability to work cooperatively with a number of staff and external parties, sometimes under pressure, in order to complete project work and goals in a timely manner.
  - Provide a variety of information to staff and others, contributing to conservation projects and assisting workflow throughout the organization.
  - Work and communicate effectively with a diverse group of people, including scientists, preserve staff and others, providing and obtaining needed information
  - Ability to simplify and explain complex scientific and/or conservation data to general audiences.
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#### **WORKING CONDITIONS/PHYSICAL EFFORT:**

- Work requires only minor physical exertion and/or physical strain.
  - Work environment involves only infrequent exposure to disagreeable elements.
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#### **SALARY AND BENEFITS:**

- Salary range \$57K - \$75K, commensurate with experience.
  - Employee benefits are not provided.
  - The Contractor shall be obligated to pay all taxes arising from the compensation and will be required to maintain general liability insurance coverage.
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**INTERESTED CANDIDATES:**

- Please submit a resume, transcripts, and/or other documentation of relevant experience, and a letter describing how the applicant's education and experience specifically qualify them to perform each of the job duties listed above by August 3, 2012 to Scot Williamson, [wmisw@together.net](mailto:wmisw@together.net)
- Inquiries and questions may be directed to Steven G. Fuller, [sfuller71@comcast.net](mailto:sfuller71@comcast.net) or B.J. Richardson, [BJ\\_Richardson@fws.gov](mailto:BJ_Richardson@fws.gov)