

BLM Direct Hire Authority for Resource Assistant
Program
GIS Projects – Occupational Series
0150/0301/1350/1370

GSA Project ID: 2017639

Project Title: GIS Resource Assistant (2 Positions)

Location: BLM New Mexico/Carlsbad Field Office

Related Degree: Bachelors of Science degree in Geography

Project Mentor: Natalie Rhoads

nrhoads@blm.gov

Project Description

This project is to find a good intern candidate to help with the daily work load within the Carlsbad Field Office as a Geographic Information Specialist (GIS). The Carlsbad Field Office is currently one of the busiest BLM offices in the Nation for approving oil and gas permits and realty applications. Because of this heavy work load we need an intern that will help with data entry into our SDE system. We are looking for an individual who has a good understanding of geographic sciences and computer systems to help support GIS technology. Geographical sciences include aerial photography interpretation satellite image processing, remote sensing techniques, three dimensional geographic analysis, computer based cartography, and a wide range of data collection procedures. The intern must have a thorough and effective mix of technical skills in the geographic and computer science disciplines as well as a working appreciation of the agency mission and operational procedures sufficient to support various local office programs. The intern would work alongside a seasoned employee to teach them the roles and functions of a GIS Specialist. This would provide the intern the access to one of the busiest offices in the country and a wealth of knowledge in many different geographic science practices. The intern would be taught the beginning processes of the local GIS systems. They would work with local GIS Specialists to learn the functions of majority of their job duties and responsibilities. They would also learn about working within an interdisciplinary team environment, consisting of Natural Resource Specialists, Biologists, Archaeologists, Range Management Specialists, Hydrologists, Cave and Karst Specialists, Realty Specialists, Geologist, Petroleum Engineers, and NEPA Planners. This interdisciplinary team interaction would help to teach the intern about important team building skills and interactions within an office setting. The intern would also have the opportunity through the interdisciplinary team to learn about the many resources and multi-use mission that the BLM is faced with. The intern would provide input in the development of technical resolutions to Geographic Sciences problems for the purpose of determining statewide and office Bureau policy.

Project Expectations

- Work with local GIS Specialists to understand duties to perform and learn the local geodatabase systems and current issues
- Develop resource priority list.
- Create workflow objectives and deliverables from resource needs.
- Participate with field trips, meetings, presentations, and training for multiple resources to better understand their workflow needs in preparation for field going tablets.
- Develop, test GIS datasets. Create documentation for new workflows. Schedule training and then train resource specialists to implement new workflows.
- Present a power point presentation and report to management on what they have learned while on their internship.

BLM Direct Hire Authority for Resource Assistant
Program
GIS Projects – Occupational Series
0150/0301/1350/1370

GSA Project ID: 2017640

Project Title: GIS Geology/Fluid Minerals Resource Assistant

Location: BLM New Mexico State Office

Related Degree: Geology, GIS

Project Mentor: James Glover

jglover@blm.gov

Project Description

This project will involve developing a GIS tool and documentation regarding the tracking and monitoring of Federal Oil and Gas lease suspensions in NM, OK, KS, and TX. The individual will work with fluid minerals and GIS technical staff to develop a GIS tool for linking lease suspension data in LR2000 to active lease and APD data in IT4RM. This web-based tool will allow the spatial viewing and querying of lease suspensions, showing their location, status, conditions of the suspension, timeframes, and relevant documents in IT4RM. Lease suspensions are a major component of the BLM NM oil and gas program and are a significant and ever growing workload for fluid minerals staff. Currently, no official statewide method exists for tracking and monitoring lease suspensions in the four-state region. BLM NM will undertake this project to provide a web accessible GIS-based system that will automate the monitoring and tracking of lease suspensions and reduce staff processing time and workload.

Project Expectations

- Work directly with BLM State Office Geologist to understand duties and set up access to LR2000, IT4RM, AFMSS databases and ArcMap software
- Work with BLM State Office Geologist to understand the leasing and lease suspension
- Establish a draft conceptual model for lease suspension GIS tool (with supervisor assistance)
- Establish a working group and meet with GIS and Fluid Minerals technical staff to generate list of data inputs that will be required for the lease suspension tool
- Work independently to electronically compile and organize all data identified in meetings with GIS and technical staff
- Work independently with GIS technical staff to begin linking lease suspension data to IT4RM
- Travel to Carlsbad Field Office and meet with geology and adjudication staff to review how field offices are currently reviewing and tracking lease
- Build and test lease suspension tool with support from Fluid Minerals Geologist and GIS staff
- Provide a progress report to the Intern Supervisor and Fluid Minerals group on the status of the project.
- Make final adjustments, compile all project files, perform data clean-up, and finalize the lease suspension tool
- Deliver a draft user handbook and technical documentation that explains the proper implementation of the tool by end users in IT4RM
- Compile the project files to transition to the Intern Supervisor.
- Present a formal project summary and presentation to the State Office and deliver a live demonstration of the lease suspension tool

BLM Direct Hire Authority for Resource Assistant
Program
GIS Projects - Occupational Series
0150/0301/1350/1370

GSA Project ID: 2017665

Project Title: GIS Paleontology Resource Assistant

Location: BLM Moab Field Office/Utah

Related Degree: Geographic Information Science/Geology/Paleontology/Geography

Project Mentor: ReBecca Hunt-Foster

rhuntfoster@blm.gov

Project Description

The Mill Canyon Dinosaur Tracksite (MCDT) was discovered in 2009, and preserves over 200 dinosaur tracks from six different kinds of dinosaurs. An interpretive trail was built at this site in 2015 and the site was opened to the public in early 2016. A digital map of all of the tracks needs to be constructed from photogrammetric data collected in 2015. This map would be used on-site for interpretation purposes, with the online story map in development for Canyon Country Paleontology sites, and in our Hands on the Land lesson plans for teachers, and would give visitors a better understanding of which animals made each track. Goals for this project would be to take the 2015 digital data and create a digital track map of the surface, showing position and maker of all of the tracks present at the site. The participant would be responsible for creating and maintaining metadata based off the original data, and creating map projects from digital spatial data. This data would also be used for long term monitoring efforts at the site, and would be available to researchers and partners for study. Applicant must be patient, detail oriented, and comfortable working in a diverse team environment. Applicant should have or be working toward a degree in geology, geography, information systems, environmental science, or other related field. Recent undergraduate students, graduate students, and recent graduates are welcome to apply. Geoscience faculty are also welcome to apply. The intern will be working with ESRI based GIS software (the market/government standard) and Trimble GPS hardware/software. The intern should have extensive experience with GIS software (minimum of three classes), be familiar with GPS technologies, and have previously developed geodatabases. The participant should be able to work well independently, both in the office and in the field with little supervision.

Project Expectations

- Working with raw photogrammetry data
- Working with ArcGIS to digitize track locations and shapes
- Finalizing maps
- Ground trothing

BLM Direct Hire Authority for Resource Assistant
Program
GIS Projects – Occupational Series
0150/0301/1350/1370

GSA Project ID: 2017671

Project Title: GIS Paleontology Resource Assistant

Location: BLM WO-301 Renewable Energy Coordination Office

Related Degree: Cartography and GIS, geography, or environmental science degree with GIS experience.

Project Mentor: Georgeann Smale

gsmale@blm.gov

Project Description

This position is in the Directorate of Energy, Minerals and Realty Management (WO-300), in the Division of Renewable Energy Coordination (WO-301). The intern would assist with the project team with ongoing review of the West-Wide Energy Corridors. In particular, the incumbent would provide support for project geospatial mapping needs, to locate the existing energy-related right-of-way (ROW) uses within the energy corridors. Without GIS coverage of existing uses, the BLM does not have an adequate understanding of remaining corridor capacity to accommodate additional energy infrastructure. This GIS ROW mapping endeavor must interface with larger GIS mapping efforts underway at various levels of the BLM, including the ongoing GIS Sprint, as well as advanced efforts in certain State Offices (SOs), such as BLM New Mexico, BLM California and BLM Oregon. The incumbent would act as the point of contact with those efforts, and provide a preliminary analysis of those efforts and their intersection with our project. In addition, project-level funding is in place for initial data clean-up and mapping and the intern will assist with initiating the following tasks: 1) ROW database clean-up (LR 2000) working with the BLM SOs and the BLM National Operations Center (NOC), and 2) creation of GIS coverages of linear ROW grants by a contractor (Premiere Data Services) based on the LR2000 data. The dedicated efforts of a capable and knowledgeable intern will support our early steps toward a comprehensive and accurate ROW GIS dataset.

Public websites for additional background information:

- BLM Energy, Minerals & Realty Management webpage: <https://www.blm.gov/wo/st/en/prog/energy.html>
- West-wide Energy Corridors: <http://corridoreis.anl.gov/index.cfm>
- BLM's Land & Mineral Legacy Rehost 2000 System - LR2000: <https://www.blm.gov/lr2000/>

Project Expectations

- Act as the temporary project point of contact for the BLM Washington Office (WO) with the BLM SOs as we strategize comprehensive development of GIS ROW coverages.
- Analyze and incorporate SO strategies into the WO-300 preliminary geospatial data schema for the energy corridors.
- Support the project manager by interfacing with contractors for
- LR2000 data clean-up via Data Flux at the BLM NOC.
- Creation of GIS coverages by Premiere Data Services.
- Assist WO-300 with GIS data source collection for energy planning GIS data from BLM and external sources, and GIS data from SOs for newly authorized or pending major transmission infrastructure.