



## USDA Forest Service Resource Assistant Program

- Position.** Climate Adaptation Resource Assistant  
Specifications – Natural Resource/Environmental Science with background in Hydrology and/or Ecology resources
- Duration.** 8 Month Fellowship (32 weeks): Starting June 2023 – February 2024 (potential start date June 19, 2023)
- Location.** Grand Mesa Uncompahgre and Gunnison NF (GMUG)  
Supervisor office - Delta, Colorado  
2250 South Main Street  
Delta, CO 81416  
<https://www.fs.usda.gov/gmug>

**Reports To.** Applicant would report to Lizandra Nieves-Rivera, Watershed Program Manager as part of the Watershed Crew as primary mentor in addition with specialty assignment and project with Carlyn Perovich, Forest Ecologist

### Job Overview

The position will be science oriented, and geared towards developing experience in natural resource management, monitoring, inventorying, and analysis. Through the combined mentoring opportunities, the RA will gain a strong background in soils, hydrology, ecology, botany, and climate change.

The RA would also have exciting opportunities to collaborate with the different Districts throughout the GMUG's diverse forest and environments, aiding districts with climate change specific assistance, whether NEPA-related or otherwise.

The RA position will be a key team member of the renewable resources and watershed program. As part of the team and with mentoring from researchers and specialists the participant will have produced a complete as seasonally possible Groundwater Dependent Ecosystem inventory (GDE) digital database and improvements.

This RA position will be co-mentored by the GMUG Forest Ecologist and the Watershed Program Manager offering a dynamic and comprehensive learning opportunity. The RA will be involved in regular meetings both one-on-one as well as interdisciplinary groups reflecting a range of specialists from soils, hydrology, ecology, forestry, range and more. There will also be mentoring opportunities that occur out in the field during various visits and reviews throughout the different districts. One of the GMUG's climate change focused projects that the RA would be working on is the Spruce Beetle Epidemic and Aspen Decline Management Response (SBEADMR) project. The SBEADMR project is a collaboration between Colorado Forest Restoration Institute (CFRI), the USFS Rocky Mountain Research Station, Colorado State University's Sibold Biogeography Lab, and the GMUG. This collaborative team works on developing science-based knowledge that the GMUG can use to inform



adaptive management strategies in beetle impacted spruce-fir forests. As the GMUG faces challenges associated with rapidly changing forest conditions, this information and knowledge is that much more imperative.

### **Responsibilities and Duties**

This is a casual work environment where employees typically carry out some field work related to their duties on a regular basis. The position will include approximately 50/50 or 60/40 field to office work ratio percentage (during position tenure), corresponding to approximate 4 months of field season, changing as winter conditions become present within the forest areas. Office work will be carried out in a climate-controlled office. The participant will be provided office space, a desk, and a computer equipped with the relevant software. Equipment might be a sharing equipment as well as a share office area.

- Participants would be part of the watershed field crew which will also incur in soil monitoring, stream surface flows, and watershed restoration projects.
- As a watershed field crew member, participant will be provided with field experience in a forest ecosystem under tasks such as water resources inventories, watershed restoration assessments, wetland restoration assessments, soil health and monitoring protocols, mining restoration sites analysis related to watershed features such as fens, wetland, etc.
- The RA would be working on is the Spruce Beetle Epidemic and Aspen Decline Management Response (SBEADMR) project. The SBEADMR project is a collaboration between Colorado Forest Restoration Institute (CFRI), the USFS Rocky Mountain Research Station, Colorado State University's Sibold Biogeography Lab, and the GMUG. This collaborative team works on developing science-based knowledge that the GMUG can use to inform adaptive management strategies in beetle impacted spruce-fir forests.
- Office time will be spent developing GIS products, entering field data, writing reports, and organizing photos and other imagery.
- Participant would assist in the Groundwater Dependent Ecosystem – database/inventory GMUG endeavors. the participant will produce a Groundwater Dependent Ecosystem inventory (GDE) digital database and improvement. All data will be uploaded into that GIS database and with complete QA/QC'd protocols. This also will include Updated GIS layers, GPS coordinates, photos, and data spreadsheets. GIS shapefiles and mapping information on wetlands in the forest. Collaboration in a potential report ready for publication, on analysis of data, could be one of the job duties, as well as forest climate change guidelines. Individual GIS shapefiles metadata are expected under ESRI regulations and potential generation of rest services or web maps/applications.
- The participant may be asked to reflect on and share their experiences and work products from their project with the GMUG Resource Renewable staff, GMUG watershed team, Forest leaderships and agreement partners/collaborators upon some's. Resources such as GIS



databases, power point presentations, handouts, Story maps, web maps and web applications could be some of the require presentation deliverables.

### **Qualifications**

The RA position will be a key team member of the renewable resources and watershed program. The desired skills the GMUG is seeking in a RA include: education in earth system sciences, geography, environmental sciences, biology, hydrology, natural resources or a related discipline; ability to work independently as well as in a highly collaborative environment; a strong commitment to diversity, equity, inclusion, and justice in sciences; solution-orientated and creativity towards addressing forest needs for monitoring and modeling the current and future impacts of climate change to support adaptation decision making. Skills in geographical information systems (GIS) and modeling are desired, though not required.

Positive teamwork and leadership capabilities: The participant will engage in different multi-faceted projects that focus their skills and reveal the work qualities of the individual. The project provides the opportunity for the participant to develop or apply personal responsibility in their work. The rigorous schedule of the field office itself helps develop project management skills. The participant will also work with multiple coworkers, colleagues, partners, collaborators, and volunteers in their project, which will help the individual develop/demonstrate communication skills, and experience navigating organizational hierarchies.

Field work will often involve strenuous physical activity, such as hiking in steep terrain at high altitudes, carrying heavy equipment, and/or working in uncomfortable weather (from hot to rainy), for many hours a day. Participants will be train with communication by radio and expected to follow pertinent protocols for safety.

Looking for participants with experience and/or objectives related geology and/or hydrology, soil science, ecology and overall natural and/or environmental science concepts. With educational background in geology, watershed, soils, and natural resources (botany, ecological). Knowledge and skills in GIS, ArcGIS Online, Avenza and Survey123, Collector, etc. would be helpful. As part of the watershed crew field participants are expected to work in both a team environment and individually, as well as able to work with the public.

### **Minimum Requirements**

- Completion of a 4 bachelor's degree at an accredited university, or higher or within last year of bachelor's degree completion.
- US citizenship or permanent residency. RAs must undergo a government background check if selected.
- Participation in US Forest Service Orientation Training scheduled for June 2023