

Seeking GIS Analyst

South Fork Research is seeking a GIS Analyst with experience and interest in fisheries and/or ecology to support the Columbia Habitat Monitoring Program (CHaMP), a program which monitors habitat for ESA listed salmon throughout the Columbia River Basin and other ecology and fisheries-related projects. A major highlight of this program is the collection and data processing of topographic surveys using total stations to produce a spatially explicit DEM of each site. This DEM is then used to generate metrics for statistical analyses and as input for hydraulic models and other habitat models. CHaMP (www.champmonitoring.org) started in 2011 and data collection occurs annually during the summer months, followed by data review in the fall, and tool preparation in the spring of each year. Currently a small team of GIS and habitat savvy individuals spearhead the technical aspects of the GIS development. We are enthusiastic, smart, hard-working, good people to work with and seek the same in a new colleague. The applicant must be capable of working independently, have strong communication skills, and be comfortable working in both a development and production work environment at all times, often simultaneously...

The GIS analyst will be responsible for:

- a) Reviewing and quality checking crew collected topographic data (ArcGIS)
- b) Developing beta code for tools to assist crews in collecting and processing data (Python)
- c) Testing new GIS tools in a standardized fashion
- d) Managing remote classification (vegetation) GIS processing
- e) GIS processing of hydrogeologic networks to support regional data analyses and mapping tools
- f) Contributing novel insight to the process

Applicant characteristics include:

- independent and motivated worker
- enthusiastic
- interest/experience in fisheries, ecology and/or fluvial geomorphology
- interest/experience in survey equipment/procedures, especially Total Stations
- quick learner
- intermediate to advanced GIS skills: map making, topology, geoprocessing using standard tools, model builder, data management using file and personal geodatabases
- beginning to intermediate programming skills in Python. Experience in VB, C#, or other GIS compatible languages would be useful, but not required.-solid data management skills (file organization, procedural documentation)
- good communication skills—comfortable with remote communication (phone, web conferencing) and working in small teams (2-4 individuals)
- comfortable handling and manipulating raster data
- experience with and/or capable of handling large datasets
- a leader and able to communicate with savvy and non-savvy GIS users

Initial list of responsibilities (example of prospective tasks):

- Troubleshoot crew-collected topographic data and processing issues which could include problems with data projections, benchmark reoccupation errors, and/or surveying blunders.
- Test metrics from River Bathymetry Toolkit, a GIS tool that processes natural resources stream data
- Generate scripts and/or models for processing network-based attributes of streams in entire Columbia River Basin
- Unsupervised/supervised GIS classification of vegetation using aerial imagery

-Produce spatial summaries of CHaMP basin topographic data

The GIS Analyst will have office space at the Northwest Fisheries Science Center (NOAA-Fisheries) in Seattle (near Montlake Bridge). The position is being considered as either a full or part time position, pending applicant availability. Rate is \$20/hour with the potential for benefits after a 3 month trial period.

The position will be open until filled and applications are reviewed as they are received. Please submit a cover letter, resume, and references to Carol Volk (carol@southforkresearch.org).