

Application Deadline: Open Until Filled

Job Title: Hydrologist (2 positions available)

Location: Portland, OR or Remote

Position Type: Full Time

Expected Start Date: February/March 2022

Who we are: The Freshwater Trust (TFT) is a non-profit leader in watershed analysis, restoration/ conservation program design, and implementation. Our team members are building tools and creating and testing new solutions that will help to create resiliency in our rivers. With a mission of preserving and restoring freshwater ecosystems, our approach is driven by science, data, and results (see our [Core Values](#)).

With headquarters in Portland, OR, TFT employs 45+ team members across Oregon, Idaho, Washington and California. We currently have three physical offices in Portland, Ashland, OR and Sacramento, CA. Our team members range in background and skillset; teams include a philanthropy and fundraising team, communications team, science and analytics team, restoration team, legal team, finance team, and administrative and systems support.

Who you are: This position requires a self-starter who is able to work in a dynamic, innovative, and fast-paced environment that emphasizes quality, analytical rigor, and critical thinking. This role is ideal for individuals with strong research and analytical skills, an interest in natural resource conservation, and a passion for using data and evidence to drive change. The position will focus on evaluation and design of water quantity and quality improvement strategies and decision-support tools to help increase the efficiency and effectiveness of restoration efforts. The Hydrologist should have a basic understanding of complex issues associated with agricultural water use.

Position Responsibilities:

- Work closely with other members of the Science and Analytics Team to model land management actions related to the quantity and quality of surface and groundwater.
- Apply and adapt existing models in order to assign and quantify impact and benefit values from land and water use changes.
- Use satellite imagery and other remotely sensed geospatial datasets and analytical tools to understand complex landscapes and predict future outcomes.
- Develop feedback loops so project data can be used to inform the Trust's quantitative framework.
- Provide analytical support to flow-related monitoring and field work, including development of hydrographs, analyzing water rights/gage data, and providing technical assistance.
- Contribute to analytical deliverables and visual representation of work products.

Skills and Qualifications:

- Masters or PhD in hydrology, water resources engineering, or similar water-related science or engineering domain
- Familiarity with complex issues related to agricultural water use, particularly those specific to TFT project areas (California, Oregon, Colorado, and Idaho)
- Experience designing and carrying out complex water temperature and flow analyses using large spatial datasets

- Proficiency with 2-D hydraulic models
- Understanding of movement of sediments and nutrients in watersheds and drainage systems
- Proficiency in Python and/or R; basic understanding of SQL
- Proficiency with geographic information systems and data analysis
- Ability to work independently and collaboratively in an open-office, team environment
- Problem-solver who is excited to work on highly complex problems and find creative solutions
- Understanding of the principles of data collection and analysis, statistics, and data visualization
- Strong research and analytical skills, with a focus on identifying gaps and finding solutions

Desirable Skills (academic or professional – not all skills are required):

- Experience building, calibrating, and running watershed models such as SWAT, and Heat Source
- Experience building, calibrating, and running groundwater and surface water flow models such as MODFLOW or HEC-RAS
- Experience deriving, calibrating, and running analytical hydrologic models
- Experience using Git version control systems, such as GitHub or GitLab
- Experience automating analytical processes
- Experience applying machine learning or other statistical modeling approaches for creating predictive models
- Experience developing object-oriented software
- Familiarity with Aquarius software

Seeking Perseverant, Creative and Energetic Candidates Who:

- Have a passion for the mission and values of The Freshwater Trust
- Exhibit professionalism, confidence, intellectual curiosity, and resilience.
- Are simultaneously team-oriented and strong individual contributors.
- Are fully vaccinated against COVID-19.
- Hold legal authority to work permanently in the US.

Compensation:

- Competitive salary based on experience
- The Freshwater Trust believes in investing in our employees, their health, and future through our benefits offerings. Our total rewards package includes full health and dental coverage, automatic retirement employer contributions, commuter benefits and cell phone reimbursement. Because we are all in, we value getting out, and support our staff with 5 weeks of paid time off plus over 10 paid holidays per year. We also offer perks such as staff retreats, sabbatical for full time staff after seven years, and professional development opportunities.

Application Instructions:

Please provide a cover letter and resume (including references) at:

<https://app.smartsheet.com/b/form/b6e2cb00560b4908acf0db5536bc1638>

The Freshwater Trust is an equal opportunity employer and does not discriminate in its selection of candidates for employment on the basis of race, color, national origin, religion, sex or sexual orientation, marital status, disability, age, military service, family medical history, legal source of income, gender identity, political affiliation, or family leave obligations.