

## **HRC Hydraulic Engineer**

Founded in 1993, Hydrologic Research Center (HRC) is a non-profit, public-benefit research, technology transfer and training organization dedicated to the development of effective and sustainable solutions to global water issues. HRC's mission is to advance the science of hydrology and allied water sciences through research and development work, and to provide operations, technology transfer and training services that infuse science, engineering and decision theory into water resources management and multi-hazard risk management. HRC's projects are funded by local agencies, federal competitive grants, and various international institutions. At present, HRC has developed and implemented operational systems that support hydrometeorological forecasters in more than 70 countries, serving about 3 billion people worldwide. Please visit the HRC website for more details: <https://www.HRCwater.org>.

### **Job Description**

HRC is in search of a hydraulic engineer specializing in computational river flow routing and its applications for flood warnings and water resources management. As part of the HRC science team, you will be working with other researchers and computer engineers in the development and implementation of tailored numerical modeling solutions for a variety of channel flow applications. The typical work associated with the position includes numerical modeling and prediction of river flow in urban settings and in large watersheds. The model development often requires integration of hydraulic control structures and systems (e.g. reservoirs, sluice gates and diversion canals), data assimilation, calibration techniques, risk assessment, inundation mapping, integration with storm surge and coastal inundation, quantitative and statistical analyses of model results, and user training of the numerical codes and background theories. The prospective candidate is expected to have a solid research background in hydraulics, hydrology, and water resources management or other closely related fields. Strong quantitative and scientific computing skills are essential for the position.

### **Specific Requirements**

- A Ph.D. degree, plus up to 5 years or higher of relevant experience in hydraulic engineering or an allied field with emphasis on numerical modeling.
- Experience in scientific computation of 1-D and 2-D channel routing.
- Experience in modeling of hydraulic structures and their integration with channel routing.
- Ability to work well with multidisciplinary teams of scientists and engineers.
- Ability to communicate analysis results with various audiences, including non-technical audiences, in the form of technical reports, training materials, and presentations.
- Ability to travel domestically and internationally.
- Experience with teaching and technology transfer.
- Proficiency with programming languages, such as C, Matlab, Fortran, Python, Bash shell scripting.

### **Additional Information and Instructions:**

HRC's office is located in San Diego, California. All staff are currently working remotely in California but with regular in-person group meetings.

Salary commensurate with qualifications and experience. Salary range is \$85,000 to \$96,000. HRC provides a competitive benefits program including retirement, medical, dental and vision plans and paid vacations, holidays and sick leave.

Candidates should email a cover letter highlighting the reasons for their interest in the position, their current CV, and the names of three references who are familiar with the candidate's past work to: "Chair, HRC Hydraulic Engineer Search Committee" at the email address: [hiring@hrcwater.org](mailto:hiring@hrcwater.org). Selected candidates will be provided an application form that must be completed prior to final selection.

The position will remain open until filled.

HRC is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, protected veteran status, gender identity or sexual orientation.

In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification document Form I-9 upon hire.