Research Scholar Opportunity

We invite applications for a hydrologist, groundwater specialist, or postdoctoral researcher to support an inter-agency program focused on the effects of land-based contaminants on Hawaii Island water quality and coral reefs. The position will focus on evaluating fate and transport pathways of organic and inorganic contaminants of concern from watersheds into nearshore environments. The position will develop models of contaminants in ridge-to-reef hydrological systems and assess mitigation approaches for preventing the release of complex agricultural, commercial, and onsite sewage contaminant mixtures into the environment. The project is supported by Arizona State University and the USDA Forest Service in collaboration with the University of Hawai‘i.

Preferred experience and qualifications include:

- Groundwater modeling (steady-state/transient state simulations), including flow, biogeochemical reactive transport of organic and inorganic constituents, and simulation of remedial alternatives - experience with several of the following models: FEFLOW, RT3D, MODFLOW/MODPATH, MT3DMS, PHREEQC, PHT3D, PHAST, PEST, and common graphical user interfaces (GW Vistas, etc.).
- Knowledge of groundwater monitoring methods, hydraulics, piezometric mapping, transport modeling, geologic data analysis and geophysics, well monitoring, sampling, and development. Knowledge of soil, sediment, subsurface pollutant source identification and remediation methods.
- Skill in determining the fate and transport of pollutants in surface water and groundwater. Skill in calibration and sensitivity analysis methods for evaluating model accuracy. Skill in pollutant mapping, groundwater remediation techniques, and effectiveness assessment.
- Command of the English language in both oral and written forms.

Responsibilities:

- Lead and perform modeling work for an island-wide project involving groundwater flow, contaminant fate and transport, and groundwater/surface water interactions
- Evaluate field data that influence chemical fate and transport in groundwater, including analysis of hydraulic test results; environmental sampling results; soil, sediment and rock physical characteristics.
- Interpret and quantify groundwater flow and age dating analyses, porewater discharge in sediment, and the fate and transport of dissolved-phase constituents under the influence of groundwater/surface water interactions.
Applicants for the hydrologist position must hold an MS or PhD degree, with the latter required for the title of postdoctoral researcher. The position requires a degree in environmental/Earth science, environmental engineering, hydrology or a closely related field. Review of application materials will begin immediately and continue until the position is filled. Qualified candidates will be contacted to schedule a follow-up video conference interview. The hired candidate will interact with faculty and researchers across institutions and mentor graduate students. The salary is competitive and will be commensurate with experience.

Interested individuals should send a cover letter describing research experience and career goals, their curriculum vitae, and the names and contact information for three references to Andrea Scott by email to AndreaScott@asu.edu

The position will be based in Hilo, Hawai‘i, at the Center for Global Discovery and Conservation Science (http://gdcs.asu.edu), a unit within the Global Futures Laboratory at Arizona State University. GDCS leads spatially-explicit scientific and technological research focused on mitigating and adapting to global environmental change. GDCS-Hawai‘i is co-headquartered with the U.S. Forest Service Institute for Pacific Islands Forestry, and neighboring University of Hawai‘i at Hilo.