

Post doctoral scholar in Groundwater Resources

Location: Corvallis, Oregon and Hermiston, Oregon (HAREC)

Duration: 1 year with potential renewal

Reports to: Todd Jarvis, OSU/INR-IWW & Scott Lukas (HAREC)

Position Summary

The Institute for Water & Watersheds (IWW), in concert with the Hermiston Agricultural Research and Extension Center (HAREC), seek to hire a Full-Time 12-month Post doctoral scholar (Post doc) (potentially renewable for a second year based on satisfactory performance and funding). The Post doc will focus on two tasks:

1. Harmonize various hydrogeologic conceptual models. Compare and contrast various hydrogeologic conceptual models including boundary conditions for any analytical or numerical models of the groundwater system. Compile and correlate groundwater flow, monitoring, barrier to flow, well construction, sub-area, cone of depression and other data sets compiled by Oregon Department of Agriculture, Oregon Water Resources Department, Oregon Health Authority, Department of Environmental Quality, and public & private monitoring and permit reports to complete the following:
 - a. Compile and present report within 1 year on the following:
 - i. Regions of the 352,000 acre Lower Umatilla Basin Ground Water Management Area (LUBGWMA) that have monitoring and regulatory control and where facts indicate that those regions are hydrologically disconnected from other areas of the LUBGWMA.
 - ii. An inferred map showing areas where connectivity could or could not exist and the data gaps present that prevents conclusion.
 - iii. Obtain peer review and present results, amend accordingly or justify reasoning for maintaining positions
2. Develop one peer reviewed data set, using all data sets that better quantify and qualify:
 - a. Groundwater sub-areas based upon hydrology and hydrogeology, well construction, barriers to flow, pumping regime (i.e. cone of depression), and other man-made and natural indicators.
 - b. Identify data gaps to development of sub-areas and recommend research, monitoring, modelling or other tools to fill data gaps.
 - c. Develop a comprehensive LUBGWMA groundwater model or develop project plan for development of model to test scenarios in conjunction with LUBGWMA Task Force coordination.
 - d. Develop an estimate of the cost to establish monitoring control in areas where inference exists and where data needs to be generated to establish control (including what types and the timeline for establishing technically defensible conclusion).

The Post doc position will provide economic, environmental and social value to the people of Oregon by supporting the sustainable management of Oregon's water resources, which are necessary for agricultural production, environmental protection, and supporting the life and livelihoods of urban and rural water users.

Decision Making Guidelines

This position is a Post doc position, and decisions made by this position are consistent with normal standards for tenure-track faculty. This includes applying for external grants, advising students, and participating in research and outreach projects.

Position Duties

This position has duties as follows:

1. Research (95%) – Contribute to nationally recognized, externally funded research programs in one or more of the topical areas listed above; generate scholarly outputs, in the form of peer-review journal articles and other accepted forms of scholarship reflecting research activities.
2. Grant Writing (5%) – Assist with generating external grants and/or contracts for the Post doc appointment to sustain future research.

The Post doc will be expected to be responsive to and contribute to OSU initiatives for promoting student success and enhancing diversity at OSU.

Minimum/Required Qualifications

- Ph.D in Hydrogeology, or a related field such as Biological, Ecological, Agricultural, Civil, and Environmental Engineering.
- Demonstrated scholarship in the area of hydrogeologic and groundwater analysis, modeling, and connection to related federal and state policies.
- GIS skills and ability to communicate and work with GIS specialists.
- Excellent communication skills.
- Commitment to promoting and enhancing diversity.

Preferred Qualifications

- Demonstrated commitment to working collaboratively with other researchers and teams.
- Demonstrated commitment to working collaboratively with public agencies, non-governmental organizations, and agriculturalists.

Working Conditions/Work Schedule

Position is based in Corvallis (90%) and Hermiston (10%).

Proposed Stipend/Range and Benefits

<https://gradschool.oregonstate.edu/postdocs/stipends-and-benefits>

Equal Opportunity Employer

<https://eoa.oregonstate.edu/affirmative-action>

Post Doc Handbook

<https://gradschool.oregonstate.edu/sites/gradschool.oregonstate.edu/files/postdoc-handbook-2020.pdf>

How to Apply

Please send a single PDF file (word document will not be opened) of the following documents to Todd Jarvis (todd.jarvis@oregonstate.edu) with reference "Postdoc Application LUBGWMA-Your Last Name" in the subject line.

1. a detailed curriculum vitae and academic transcript
2. cover letter describing how your qualifications and experiences have prepared you for this Post doc position (1 page)
3. statement of research interests and experience (1 page)
4. contact information for three references: one must be your Ph.D. advisor and Post doc advisor (for candidate with prior Post doc experience).

For full consideration, apply by: May 30, 2022

Start Date: July 5, 2022, or TBD

Applications after this date may be considered if position is not filled. Please note that only candidates that meet the required skills and expertise will be contacted.