

## **PhD Graduate student opportunity in interdisciplinary water resources research at the University of New Hampshire:**

The [Water Systems Analysis Group](#) at the University of New Hampshire has an open PhD graduate student position in interdisciplinary research of integrated human-natural water systems. We are looking for a student to join a large interdisciplinary team studying the role of water in energy production, agricultural systems, climate change, and resilience to extreme weather events. Candidates must have a strong interest in interdisciplinary science and be able to work and communicate within a diverse team setting. Research activities will include hydrologic modeling, collaboration with economic modeling colleagues, data analysis, presentations at national conferences, and writing scientific journal articles.

PhD research topics supported by this project may include, but are not limited to:

- Water regulations and water trading markets, and how these interact with water resource resilience, climate change, energy production, and economic development in the U.S. West.
- Joint hydrologic-economic-land use studies to understand how cropland distribution and water use may change under drought conditions and the impact of agricultural adaptations.
- Developing macro-scale groundwater modeling methods and evaluating model skill in the context of applied groundwater resource science.

Students in the Water Systems Analysis Group are trained in the growing field of interdisciplinary Earth systems research, an essential tool for tackling Earth's greatest sustainability challenges. They gain both the disciplinary expertise and skills required to carry out hydrology research, and cross-disciplinary skills including science communication, collaboration, team management, and multi-institution research. We offer strong mentorship from both physical and economic scientists, professional development opportunities, and a network of university collaborators (see [PCHES](#), our University Consortium). Students will join UNH's interdisciplinary [Natural Resources and Earth System Science PhD program](#).

### **Requirements:**

- Bachelor's Degree or Master's Degree in one of the following: Earth or environmental science, geoscience, natural resources, hydrology, physical geography, mathematics, economics, engineering, biology, ecology, computer science, or related fields.
- Comfortable using quantitative reasoning and able to independently learn new quantitative skills.
- Programming experience is preferred, though not required so long as the applicant is committed to learning programming.
- Strong interest in interdisciplinary science and ability to work and communicate within a team setting.

Applications are accepted beginning May 18, 2023, and will remain open until the position is filled.

If you are interested, please contact Dr. Danielle Grogan ([danielle.grogan@unh.edu](mailto:danielle.grogan@unh.edu)) or Dr. Richard Lammers ([richard.lammers@unh.edu](mailto:richard.lammers@unh.edu))