Seeking postdoctoral and post-master's applicants for the Wisconsin Water Resources Science-Policy Fellowship with a focus on evaluation of atrazine data and effectiveness of restrictions on atrazine use

Application Deadline: **March 17, 2024**

The University of Wisconsin-Madison's Aquatic Sciences Center (UW), home to the University of Wisconsin Water Resources and Sea Grant Institutes, and in partnership with the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) seek postdoctoral and post-master's candidates interested in tackling timely science and policy challenges related to water resources management and water quality in Wisconsin. Together, these programs will fund a Wisconsin Water Resources Science-Policy Fellow position. This program places a recent master's or doctoral graduate within a state program full-time for one year, with the Fellow bringing technical skills to address water issues and tackle groundwater quality challenges and receiving valuable real-world science-policy experience from the resource professionals who will serve as mentors. This mutually beneficial partnership will result in advancing science to support policy decisions as well as valuable training opportunities for new professionals entering the work force.

This fellowship offers a placement within the Environmental Quality Unit at DATCP in Madison to gain insight into and contribute solutions for the significant water quality challenges linked to atrazine use and its detection in Wisconsin's drinking water. This unique position entails working with both people and data on the atrazine issue, focusing on protecting human health and ensuring the safety of drinking water through data evaluation, groundwater sampling and outreach efforts.

Atrazine, a widely used weed killer in Wisconsin's agricultural practices, poses increased health risks health risk when concentrations in drinking water exceed 3 parts per billion. Despite decades of restrictions, including a ban in 101 specified regions known as prohibition areas under ATCP 30, persistent questions remain regarding atrazine trends over time and the effectiveness of these measures.

The Environmental Quality Unit at DATCP oversees multiple groundwater monitoring programs dedicated to assessing the presence of atrazine and other pesticides in Wisconsin groundwater. With decades of data collected from wells located in prohibition areas, the unit is actively pursuing a comprehensive evaluation of atrazine prohibition areas. This entails analyzing historical data, identifying trends, conducting gaps analysis, devising a sampling strategy, and performing sampling activities. In this role, the Fellow will take the lead in these activities, playing a pivotal role in identifying solutions and ensuring the safety of drinking water for Wisconsin residents. Working in the Environmental Quality Unit also involves contributing to impactful outreach projects that address the diverse needs of counties, other state agencies, and the general public.

The Fellow will work closely with DATCP staff, other state and federal agencies such as the Wisconsin Department of Natural Resources (DNR) and the Wisconsin Department of Health Services (DHS), and professionals from a variety of fields to tackle the important water quality challenges of atrazine in Wisconsin drinking water. The fellowship mentor team will include Environmental Quality unit supervisor Mark McColloch (DATCP), Dr. Carla Romano (DATCP), and Dr. Jennifer Hauxwell (UW).

We seek applicants from a variety of backgrounds including hydrogeology, environmental engineering, geological engineering, water resources, environmental science, etc. to conduct ongoing atrazine prohibition areas evaluations. Core priorities for this fellowship include:

- Evaluate historical atrazine groundwater data, such as comparing groundwater data before and after the establishment of atrazine prohibition areas.
- Assess the total number and location of active private potable wells within the prohibition area, using the DATCP database and the DNR Groundwater Retrieval Network.
- Identify data gaps.
- Evaluate groundwater data, flow maps, soil data, and well properties information to identify wells that require additional sampling.
- Conduct additional groundwater sampling.
- Interpret water testing results. Write and send letters with groundwater results to well owners.
- Devise a comprehensive workflow for assessing the effectiveness of management strategies for any pesticides that are or will be subject to restriction.
- Participate in various outreach and education activities, including bimonthly meeting with DNR and DHS, interagency drinking water meeting, developing outreach material for residents living in areas that may have concerning concentrations of atrazine in drinking water, and giving oral or webinar presentations for various scientific and non-scientific audiences.
- Assist the UW and/or DATCP with potential water quality-focused mini-projects.

The Fellow will have opportunities to work with a variety of stakeholders such as other state agencies, local partners, and members of the public. This position offers a unique opportunity to broaden understanding of statutes and regulatory frameworks. Through this project, the Fellow will gain a better understanding of, and experience serving in, the role of an applied scientist in pesticides management and pesticides groundwater monitoring. The Fellow will also have the opportunity to expand their science and communication skill sets, learning best practices to effectively convey technical information to a broad range of audiences. In addition to the core priorities above, the fellowship provides flexibility in pursuing other projects uniquely suited for the Fellow related to water quality research, outreach, and/or policy.

This Fellow is intended to be stationed in Madison at the DATCP office (2811 Agriculture Dr.) but will be allowed to work remotely 60% of a two-weeks period. The position requires occasional travel, including overnight stays.

More detail on the fellowship is below. If you have any questions, please contact:
Dr. Jennifer Hauxwell at *jennifer.hauxwell@aqua.wisc.edu*

Eligibility
Students or postgraduates who will have graduated in the past five years with a graduate degree in hydrogeology, environmental engineering, geological engineering, water resources, environmental science, etc, are eligible to apply. Fellows must have completed all degree requirements before starting the fellowship. Please note that successful applicants are responsible for ensuring their eligibility to work in the United States (i.e. a citizen or national of the United States, a lawful permanent resident, a foreign national authorized to work in the United States) on or before the effective date of appointment. University sponsorship is not available for this position. Fellows must have a valid driver's license.

Stipend and Expenses
Annual stipends are dependent on the Fellow's academic background, with post master's Fellows earning $45,000/year and postdoctoral Fellows earning $57,000/year http://www.ohr.wisc.edu/benefits/new-emp/grad.aspx). Fellows will be allotted funds to cover fellowship-related travel and can include conferences. Additional travel associated with the fellowship may be covered by the host agency at the agency's discretion.

Application Requirements
Application packages should be sent to *jennifer.hauxwell@aqua.wisc.edu* at the University of Wisconsin Water Resources Institute and should include:

1. A cover letter that describes your background and abilities, your expectations from the fellowship experience and how this experience fits with your career goals (2 pages or fewer)

2. Curriculum vitae with relevant educational, professional and volunteer experience (no length limit)
3. Copies of all undergraduate and graduate student transcripts
4. Up to 4 writing samples, both informal and formal (e.g., popular articles, web resources, web-based applications/visualizations/decision tools, journal articles or other technical documents, etc.)
5. A list of three professional references with contact information, including a faculty member from your graduate institution familiar with your academic record

Please use the naming convention “Last name – description of file” for all files associated with the application (e.g. “Smith – cover letter”, “Smith – cv”, “Smith – transcripts”, etc.).

Selection Process

Wisconsin Sea Grant and Wisconsin Department of Agriculture, Trade and Consumer Protection staff will identify a short list of candidates for interviews. Interviews will be conducted by a panel with representatives from both programs to determine the best fit for the position. It is expected that applicants will possess strong analytical skills, an ability to manage projects and work independently, and excellent written and verbal communication skills.

Length of Assignment

The length of assignment is guaranteed for one year. The position may start as early as April 2024, however, this timeline may be adjusted to accommodate the needs of the candidates or funding institutions.

Timeline

March 17, 2024 – Deadline for submission of applications
Late March to early April – Interviews
April - June (approx.) – Fellowship begins