

# UW-Stevens Point: Water and environmental analysis lab at UW-Stevens Point, Clean Water Act mark 50 years

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Fifty years ago, a landmark law was passed to protect and restore national waterways, which are vital to our health, ecosystems and economy. Since 1972, the Clean Water Act has helped prevent, reduce and eliminate pollution and create water that is drinkable, fishable and swimmable.

That same year, the University of Wisconsin-Stevens Point created a unit with similar goals. What started as the Environmental Task Force by Byron Shaw, late emeritus professor of water resources, is now the Water and Environmental Analysis Lab (WEAL). Over its 50 years, communities, student employees and hundreds of thousands of residents have benefited from its water testing programs, educational outreach and five decades of data collected from groundwater sources across the state and the nation.

“Consistency and longevity have allowed us to paint a picture of groundwater and well water quality across Wisconsin,” said Kevin Masarik, a groundwater specialist and director of the Center for Watershed Education at UW-Stevens Point, which houses the lab in the College of Natural Resources. “Everyone in Wisconsin benefits from clean drinking water, lakes and rivers. Our work empowers communities and individuals to learn as much as possible about their water quality, so they are better able to make decisions on managing one of our state’s most valuable resources. “

Self-sustaining, WEAL is supported by the fees for water testing by private well owners, lake associations, water organizations, counties and contracts from the U.S.

Geological Survey and Wisconsin Department of Natural Resources, as well as various grants. WEAL also receives water samples collected as part of Great Lakes Restoration Initiative projects from states across the Great Lakes basin, including New York, Michigan, Indiana and Ohio. WEAL has collected more than 125,000 different well samples from Wisconsin alone and analyzed water samples from as far away as Hawaii.

All of the well water data that WEAL collects feeds into an online resource for state water quality, the [Well Water Viewer](#). An interactive website, it offers different parameters, such as nitrate, lead and bacteria, across the counties and informs private well owners what testing may be needed for their property. WEAL offers several different testing packages, specific or broad based, depending on the clients' needs.

"People want an independent, unbiased source," said Masarik. "We've built a reputation for that. We can recommend what testing is needed. Our expertise comes from many years of helping people diagnose water quality issues, and then using that knowledge to help others who have the same problem."

WEAL takes great pride in the outreach to its clients and local communities. In partnership with the University of Wisconsin-Madison, Division of Extension, Masarik spends much of his time explaining water testing results to private well owners and groups across the state, sharing guidance and resources on water management. He and students also attend educational and sustainability fairs.

"All of the testing and outreach is centered on the Wisconsin Idea, that all should benefit from university resources and expertise beyond the boundaries of the classroom," he said.

WEAL employs seven full-time staff, 18 part-time student staff and two administrative professionals. The lab maintains certifications from the state DNR, and Department of Agriculture, Trade and Consumer Protection and U.S. Geological Survey. These efforts provide a level of trust and assure quality control for WEAL analysis, Masarik said.

"It's our mission to train future water quality specialists," said Juli Bowling, an environmental analytical chemist and co-director of WEAL. "Students are supervised by full-time staff and become full analysts. We'll hire students interested in the work that we do, from a variety of majors. There is a variety of work as well, from data

entry and GIS mapping to sample processing and analysis with all of our instruments. When they graduate, they are already familiar with regulations and have all the safety training.”

“Employees really appreciate the experience our students gain in the lab. They have high job placement,” Masarik said. Bowling added that students who go on to graduate school are steps ahead of their peers in their understanding of laboratory procedures and troubleshooting.

Sophomore Lizzi Gizzi, Galloway, Wis., started working at WEAL her first semester at UW-Stevens Point. Growing up next to the Little Wolf River, she has always been inspired to study water and nature, leading to a major in hydrology and a minor in chemistry.

“I heard about the job, and it was exactly what I wanted to do,” Gizzi said. “Once I started I knew it was the perfect place for me. I love the camaraderie here and knowing that I am helping people.”

Gizzi said she has learned valuable skills, such as teamwork, patience and critical thinking through WEAL, which has carried over to her involvement in the American Water Resource Association student organization on campus and its environmental projects.

Senior urban forestry major Cassidy Behnke, Brillion, Wis., has gained valuable experience working at WEAL. “I feel like I’ve gained new perspectives as a forester. I’ll be working in a city, where storm flooding could affect water-based systems and water quality.”

In addition, faculty and staff offer WEAL research and cutting-edge analytic techniques, Masarik said. “We are able to collaborate and learn from our campus colleagues. We wouldn’t be nearly as effective if we weren’t based on the UWSP campus.”

Even after 50 years, the work at WEAL is never done.

“The world is constantly changing, and water quality will always be at risk due to human activity and climate change,” said Masarik. “Without the longstanding Environmental Task Force and WEAL archive, we’d be less able to understand the impact our groundwater has on our lakes, rivers and streams. We hope to continue

testing of water and monitoring to better understand how its changing over the next 50 years.”

For water testing or water education, go to the WEAL [website](#), call 715-346-3209 or email [Water.and.Environmental.Analysis.Lab@uwsp.edu](mailto:Water.and.Environmental.Analysis.Lab@uwsp.edu).