



WISCONSIN WATER RESOURCES INSTITUTE

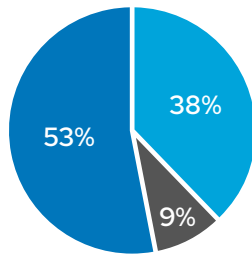
# Meeting Wisconsin's Water Needs Through Research, Training and Communication

## Safeguarding Wisconsin's water quality, quantity and management.

These are critically important responsibilities. For 61 years, each has been undertaken with science-based rigor by the University of Wisconsin Water Resources Institute (WRI) through a federal-state partnership that addresses present challenges and opportunities, along with emerging ones.

### Funding Sources

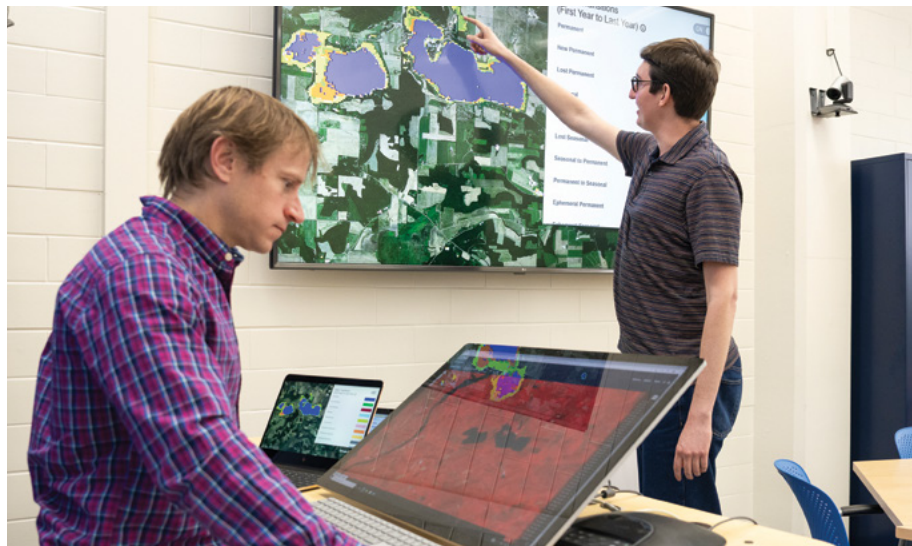
- State of Wisconsin 53%
- Federal Competed 38%
- WRI Core 9%



## FROM DISCOVERY TO APPLICATION

### What Is in Our Water? WRI Finds Out

WRI has long supported research into what's in our water, what we drink, bathe in, cook with and use in industry. Research in 2024-25 will investigate how changing Great Lakes water levels impact groundwater storage and flow, and how pollutants from oil spills can impact the release of natural chemicals in aquifer rocks that can further compromise groundwater quality.



Floods destroy homes, businesses and crop land. A Water Resources project is comparing how land use has affected the water table in order to find solutions.

## BY THE NUMBERS

ALL FIGURES FROM 2024 REPORTING



# 84,000 MILES

Rivers and streams in Wisconsin

# 15,000

Lakes in Wisconsin



# 5 MILLION

Acres of wetlands in Wisconsin

# 1.2 QUADRILLION

Gallons of groundwater in Wisconsin



Farmland and tree-covered rolling hills of the Driftless Area in southwest Wisconsin.

### Researching Private Well Contamination in Southwestern Wisconsin

WRI researchers are looking at well water contamination issues in southwestern Wisconsin to shed light on the relationship between groundwater, human and livestock waste, and antibiotic resistance. The fractured bedrock in that area allows surface and septic contaminants to seep through into groundwater aquifers.

A previous study found viral, bacterial and protozoan pathogens in 66 of 138 private wells sampled, including norovirus, salmonella and multiple species of *Cryptosporidium*. Researchers are working to determine the risk of gastrointestinal illness associated with these contaminants. In addition, the research team is identifying whether pathogens came from human or livestock waste, and they're testing for antibiotic resistance genes to learn more about their origin. These genes are the building blocks of antibiotic resistance, a growing public health issue. Knowing the amount and source of antibiotic resistance genes could help tailor current manure management strategies and shape future research in livestock production or human medicine.

### New Atrazine Science-Policy Fellowship

A new WRI-sponsored fellowship, in partnership with the Department of Agriculture, Trade and Consumer Protection, will assess the state's policy on using atrazine on crops. Groundwater monitoring in the 1980s and '90s found atrazine, used for killing weeds in farmers' fields, was responsible for groundwater and drinking water contamination. In March 1991, the Wisconsin Department of Agriculture, Trade and Consumer Protection enacted its first restrictions on atrazine use, establishing an atrazine management area and six prohibition areas. That initial approach has now evolved into outright prohibition areas, which have grown to 101, representing about 1.2 million acres. These areas where no atrazine can be applied on corn and other crops are located primarily in central and southern Wisconsin but do exist elsewhere. In fact, 35 out of Wisconsin's 72 counties have a prohibition area.

The science-policy fellow will quantify whether a prohibition area is effective or not and will explore implications of both of those conditions.

### BY THE NUMBERS CONTINUED



**900,000**

Private wells in Wisconsin



**73%**

Percentage of state residents who get drinking water from community water systems



**20**

Average annual number of research undergraduate and graduate students supported



**5**

Average number of research projects funded annually