



MONTANA WATER CENTER

TURNING SCIENCE INTO SOLUTIONS

MISSION: Investigate and resolve the state's water resource issues through research and education.



54

Federally funded water research institutes in the United States. These institutes were created by the Water Resources Act of 1964, and collectively form the National Institutes for Water Resources (NIWR).

Annual base funding awarded to each water research institute from the United States Geological Survey (U.S. Department of the Interior) in 2023.

\$147,000

18

Estimated number of water research institutes that would immediately disappear without annual USGS base funding. Base funding for the institutes provides critical leverage to secure additional resources and funding.

Non-federal funds leveraged in the last three years by the Montana Water Center.

\$714,000

52

Early-career faculty and graduate students at four institutions supported by the Montana Water Center over the last three years.

Approximate number of individuals reached in the last three years through trainings, conferences, and education and outreach events supported by the Montana Water Center.

900



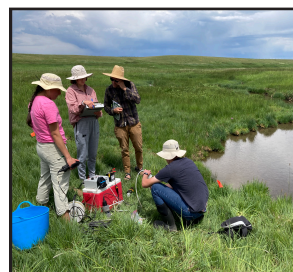
EDUCATION AND TRAINING

Training the Next Generation of Water Professionals

As part of the Montana University System, the Montana Water Center supports the next generation of water professionals who will manage Montana's agricultural, municipal, industrial, and ecological water needs.

Our support builds this new water workforce through graduate fellowships and faculty seed grants that fund graduate students: **87% of graduate fellows from the last ten years are now working as water professionals, with nearly 75% of them working in Montana and the Northern Rocky Mountain Region.** Graduate students supported as part of faculty seed grants have also joined the water workforce. Graduates are working in private consulting, academia, state and federal agencies, and the non-profit sector.

- Hydrogeologist, Alloy Group, Anaconda
- Hydrologist, Montana Department of Natural Resources and Conservation, Helena
- Research Geneticist, USFS, Rocky Mountain Research Station, Missoula
- Wastewater Specialist, Allied Engineering, Bozeman
- Civil Engineer, Woodard & Curran, Bozeman





2024 Outreach Events

Clark Fork Science Forum – Facilitate discussions at annual forum to discuss research findings and future research needs in the Clark Fork watershed.

2023 Meeting of the Montana Section of the American Water Resources Association (MT AWRA) – Co-organize annual meeting that brings together agency, non-profit, and private sector water resource specialists and university faculty and students to share their work and build connections for future collaboration.

Water Data in Montana, Special Session – Organized and funded a special session at the 2023 MT AWRA meeting focused on making water data accessible and usable for agencies and other entities who manage water resources in the state.

Water Quality in the Gallatin Watershed Workshop – Brought together managers and researchers to identify critical water quality issues in the Gallatin, discuss research needs, and envision collaboration around water quality involving both research and education; in partnership with MSU Extension and the Gallatin Watershed Council.

Montana Drought Management Plan – Participated in the creation of the Montana Department of Natural Resources and Conservation's new state Drought Management Plan.

Water Policy Interim Committee (WPIC), Montana Legislature – Updated legislators about Montana Water Center and Montana University System water research and highlighted intersections with top WPIC priorities, such as managed aquifer recharge, agricultural resilience, and drought and flood management.

USDA Agricultural Research Stations – Actively collaborating on sustainable soils research, with a focus on soil moisture and drought resilience.

On-Farm Efficiency, CSKT Compact Implementation Technical Team – At the request of CSKT, leveraging expertise from MSU Extension and Northwest Agricultural Research Station to create a program that improves on-farm efficiency on farmlands involved in the Compact and on farms in the surrounding region.

Watershed Group Outreach – Ongoing participant in group meetings to gain understanding of watershed-specific needs and connect groups with Montana University System expertise. Supporting the growing recognition that local watershed groups are integral to building on-the-ground solutions to Montana's most critical water resources problems.



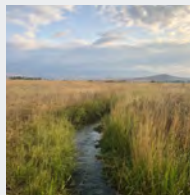
MEETING MONTANA'S WATER RESEARCH NEEDS

BIG IDEAS FOR 2024

The Montana Water Center supports research initiatives to address some of Montana's most pressing water issues.



Soil Health & Drought Management – In our region, soil moisture drives soil health, building drought resilience and protecting water quality in dryland agriculture and rangelands. We support collaborative research to enhance our soil moisture monitoring and modeling approaches, so producers and ranchers have the most accurate and timely information for management decisions.



Managed Aquifer Recharge – As the West faces declining water storage due to reductions in winter snowpack, it is essential to pursue alternative means of storing water for the warmer and drier summer months. We support the evaluation and utilization of storage capacity in aquifers, including the contributions of irrigated agriculture to aquifer recharge.



Water Quality & Human Health – Water quality emerged as the top concern for Montana in a recent MSU Extension statewide survey. We work on water quality issues in groundwater and surface water, such as nitrate, PFAS, salinity, and metals, with the goal of addressing research findings important for the health of local communities and ecosystems.



Irrigation Efficiency – Irrigation modernization can be an important element in keeping farming and ranching operations viable as they face the pressures of drought and shifting land use. We support active dialogue on how changes in irrigation efficiency can achieve the dual goals of sustainable on-farm production and maintenance of critical water supplies.