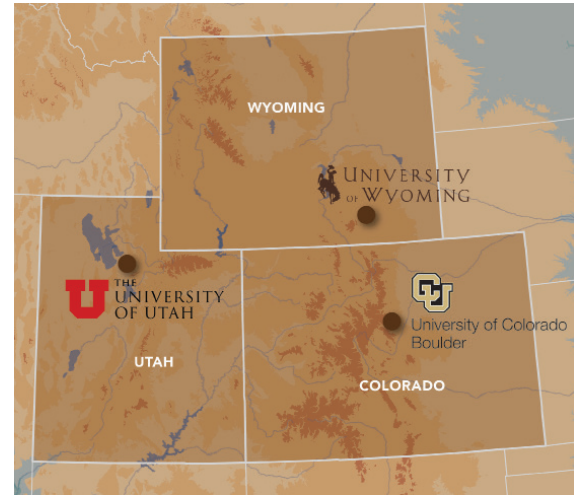


CONNECTING SCIENCE AND DECISIONS



WESTERN WATER ASSESSMENT
A NOAA CAP TEAM

Western Water Assessment (WWA) is an applied research program that works directly with communities, water managers, hazard risk planners, and other partners in Colorado, Utah, and Wyoming. WWA helps them make the best use of science to build resilience and manage risks from weather and climate hazards like wildfire and smoke, flooding, drought, and extreme heat. WWA's team includes faculty, researchers, and students with expertise across the physical and social sciences—hydrology, geography, atmospheric science, policy, and law—at the University of Colorado Boulder, University of Utah, and University of Wyoming.



Building Water Security and Resilience Across the West

1. Wildfire Resilience



WWA is working with partners to **build wildfire-resilient communities and resilient water systems in the region**. One newly launched effort will identify the long-term wildfire recovery needs of impacted rural communities in Colorado, in partnership with county public health experts, emergency managers, community leaders, and state agencies. Other projects are using laboratory experiments, snowpack monitoring, and computer simulations to develop better guidance for post-wildfire changes in water availability and water quality. **Ongoing partnerships with impacted communities and water managers mean that this work can be quickly used to help inform decisions such as maintaining safe drinking water after wildfires.**

2. Water Security



WWA has worked with Utah water resource managers for 15 years to help **improve their understanding of how changing snowpack and drought will affect critical water resources and inform management decisions**. WWA worked with Weber Basin Water Conservancy District to develop a vulnerability assessment of their watershed and with Salt Lake City Department of Public Utilities (SLCDPU) to develop a forecast tool for December–March precipitation that helps water managers in Utah and around the West better anticipate water shortages each year. This tool has the potential to transform regional water providers' ability to predict seasonal water supply at the start of winter.

3. Rural Community Safety and Economic Resilience



Over the past 6 years, WWA convened a series of workshops to **support rural communities in building resilience to hazards like flooding, wildfire, and drought-stressed water supplies**. The workshops brought together decision-makers and community members to ensure that **rural needs were heard and centered their local knowledge** to identify concerns, information needs, and public and private-sector actions to reduce hazard impacts. Communities including Lander, WY, Springdale and Moab, UT, and Carbondale, Cortez, Durango, and Routt County, CO identified new vulnerabilities, connected siloed managers to improve planning, developed potential adaptation strategies, and improved community understanding of changing risk. For example, WWA helped one community identify that an emergency flood shelter was situated in the floodplain, another community launched a water conservation program to build drought resilience, and yet another used workshop findings to inform municipal budgeting decisions.

One workshop participant in Colorado said, *“the socio-economic aspects discussed were not on my radar ... the local impact, what we can do better, what we need to plan and budget for, where are our weak points, what are our strong ones, what other stakeholders need to be involved, [and] how broad the impacts could be.”*

Tools and Resources

WWA develops and maintains a set of **free, easy-to-use tools and resources** on our website that help partners and the public access information about weather, climate, water, hazards, and extreme events. **Water managers, communities, agencies, and researchers use these tools regularly to improve decisions.**

Intermountain West Climate Dashboard

The [Intermountain West Climate Dashboard](#) is an online resource for up-to-date weather, water, and seasonal climate information for the WWA region. It was designed to provide water managers with infographics to support seasonal water supply planning and is used by many other resource managers and planners. We also release regular Intermountain West Climate Briefings that summarize monthly weather and climate conditions.

Utah Hazard Planning Dashboard

The [Utah Hazard Planning Dashboard](#) connects hazard planners with critical resources about historical incidence, current risks, and forecasts of future occurrence of key hazards like drought, wildfire, flooding, and extreme heat, that are important to Utahns. We developed the tool in partnership with Utah Division of Emergency Management and communities to ensure it was easy to use and would help protect communities and plan for future hazard risks.

One local decision-maker said the Intermountain West Climate Dashboard is a **“One-stop shop for seeing the information I need in one place. Just fast and concise and shows what I need for situational awareness to start the week.”**

Partners

WWA's work is centered in partnerships with communities and decision-makers who manage resources and protect communities against hazard risk, and our success stems from this commitment. We are grateful to work with a wide range of partners from rural, suburban, and urban communities, counties, federal and state agencies, utilities, applied academic programs, resource management agencies, non-profit organizations, and Tribes. Visit our [website](#) for a full list of partners across our projects and programs.

Leveraging the U.S. Investment in Science for Decision-Makers

WWA is one of 13 regionally-based, interdisciplinary teams across America in the NOAA Climate Adaptation Partnerships (CAP) network. For a modest investment, this network partners directly with America's communities and resource managers to help them build resilience to the impacts of floods, wildfires, hurricanes, droughts, and other extreme weather and climate impacts. CAP teams have developed deep relationships and trust with communities and decision-makers across the country over the last 30 years. The program has also garnered bipartisan support from congressional lawmakers over the years in recognition of the essential work they do. **The CAP model is unique across the federal government and is often used as an example of how to produce usable science with partners.** The CAP program is housed within the NOAA Climate Program Office and is funded under the Regional Climate Data and Information budget line.



Climate Adaptation Partnerships (CAP)

Benefits of Western Water Assessment and CAP

- Helping communities reduce economic damages from droughts, floods, wildfires, extreme heat, and other hazards and weather extremes
- Providing trusted information in response to extreme events and to help partners prepare for hazards
- Ensuring science is responsive to information needs for on-the-ground decision making via tools, trainings, and synthesis
- Taking the billions of dollars invested in weather and climate research the last mile, making it usable for communities and resource managers to protect lives and property
- Informing innovative solutions that promote economic prosperity and community safety across a wide range of sectors and landscapes

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