



Montana Drought Management Plan

Building Resilience

MWCC 2024 Annual
Meeting



THE VISION:

Building Resilience

Stakeholder involvement

Modern, proactive plan that is accessible and actionable

Updated drought management framework

Programs, policies, and actions to
reduce impacts through better response and preparedness

Web-based tools & resources: **drought.mt.gov**



Stakeholder Engagement 2020 - 2023

Interagency Drought Task Force (7 representatives)

Regional Stakeholder Groups (~150 people)

One-on-one interviews and an online survey
(60+ and 245 people)

Technical advisors (15 – 20 multi-disciplinary experts)
and professional consultants

Reviewers (50+ people across state and federal
agencies, universities, NGOs, tribes, and water-use
sectors like health, municipal, and agricultural)

45-day public comment period – and Plan revision

THANK YOU to everyone who participated in this process!

Monitoring and Assessment

- Documentation of weekly monitoring process
- Descriptions of a wide range of drought metrics - meteorological, soil moisture, hydrologic, and vegetation
- Guidance for using drought metrics in monitoring – considerations for season and timescale – and local monitoring resources



Vulnerability Assessment

Vulnerabilities are the underlying causes of drought impacts.

Vulnerability assessment

- Planning tool
- Informs development of response actions and adaptation strategies
- Allows for systematic comparisons across the state (counties, sectors)
- Supports local and state decision-making with data

Five water-use sectors

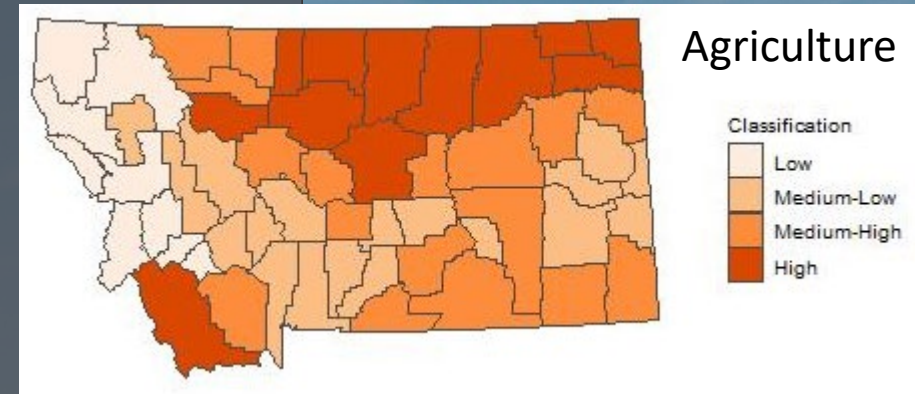
- Agriculture
- Conservation and land management
- Energy and industry
- Planning and community development
- Recreation and Tourism



Vulnerability Assessment

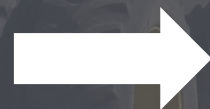
Scores

Indicator data combined to produce vulnerability score (data: various economic, environmental, water use, population for each sector)



Narratives

Interviews and survey responses; identified common themes



Ideas for responding and adapting

*...**one thing, is to provide either emergency funding or emergency loans, zero interest loans, long term zero interest loans**, like a 30-year loan that's easily affordable to pay back on crop ground, where you can drill wells, or put a pipeline in and some tanks because ECPs helping with range land, but if you have to cross BLM or state, they won't fund that portion of it. So **if maybe there's a way to fill in some of the holes** ... that would be great. – Farmer/Rancher*

Operational and Administrative Framework and Response Actions

- Identifies key players in state-level drought management and describes responsibilities
- Local, state, tribal, and federal entities involved in planning, monitoring, response, and/or relief

Stage	Trigger	Actions	Responsible party
Baseline	USDMM	Communications,	Agency, office, or
Watch	Classification +	monitoring,	committee
Warning	convergence of	regulatory, or support	
Emergency	evidence	resources	
Disaster			



A person wearing a white t-shirt and blue jeans is kneeling in a field, tending to plants. A wooden basket filled with leafy greens sits on the ground next to them. The background shows rows of plants in a field.

Management Recommendations

Water supply, storage, and delivery

Water policy

Funding

Drought and water supply monitoring

Human health

Community governance

Agency coordination and partnerships

Coordinating Adaptation Strategies Across State Planning Resources

Table 4, page 76 – Common concepts, strategies, and tools for building drought resilience.

Plan or report	Sponsor	Agriculture	Community planning	Fisheries and instream flow	Forest management	Funding	Human health	Monitoring and data	Policy	Recreation and tourism	Storage, floodplains, and riparian health	Water management and drought planning
Montana Drought Management Plan (2023)	DNRC	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Montana Forest Action Plan (2020)	DNRC				✓	✓		✓			✓	✓
Montana State Water Plan (2015)	DNRC	✓	✓	✓		✓		✓	✓	✓	✓	✓
Multi-Hazard Mitigation Plan & Statewide Hazard Assessment (2023)	MA -DES			✓	✓	✓			✓		✓	✓
State Wildlife Action Plan (2015)	FWP			✓							✓	✓
Statewide Fisheries Management Program and Guide (2019-2027)	FWP			✓		✓					✓	✓
Nonpoint Source Management Plan (2017)	DEQ	✓		✓	✓	✓		✓		✓	✓	✓
Priceless Resources - A Strategic Framework For Wetland And Riparian Area Conservation And Restoration In Montana 2013-2017	DEQ							✓			✓	✓
Montana Climate Assessment (2017)	IoE*	✓		✓	✓			✓				✓
Climate Change And Human Health (2021)	IoE*		✓		✓		✓		✓			✓
Montana's Resilience Framework For Communities (2019)	Commerce		✓				✓					
Montana Climate Solutions Plan (2020)	Montana Climate Solutions Council	✓	✓	✓	✓			✓		✓	✓	✓



Contact us!

Name	Title	Email
Michael Downey	Drought Program Coordinator	MDowney2@mt.gov
Danika Holmes	Upper Missouri River Basin Planner	DHolmes@mt.gov
Valerie Kurth	Clark Fork and Kootenai River Basins Planner	VKurth@mt.gov
Sale Rhodes (*starting 3/11)	Yellowstone River Basin Planner	Sale.Rhodes@mt.gov



