

## Appendix A - Plan Development and Update Process

### PLANNING PROCESS (2020 – 2023)

This Montana Drought Management Plan (Plan) is the product of a comprehensive and collaborative three-year planning effort led by staff from the Montana Department of Natural Resources (DNRC), Water Resources Division (Table 1). DNRC collaborated with seven regional stakeholder groups and the interagency Governor’s Drought and Water Supply Advisory Committee (Drought Committee), convened under a second title as the Montana Drought Task Force for the purpose of the planning process. The Plan incorporates the expertise and input of a wide range of water users from across the state, as well as state agencies, federal agencies, tribal partners, non-governmental organizations, university researchers, and other experts in natural resources policy, climate and drought science, hydrology, and social science.

The planning process was supported by an appropriation from the 2019 Montana Legislature, a Drought Contingency Planning Grant from the U.S. Bureau of Reclamation (2020), and in-kind support from DNRC, the Drought Committee, and hundreds of stakeholders across the state.

**Table 1. Planning timeline.** Updating the Montana Drought Management Plan took approximately three years.

Year	Major activities and accomplishments
2020	<ul style="list-style-type: none"> <li>- Procured Drought Contingency Planning Grant from Bureau of Reclamation</li> <li>- Developed planning process framework</li> <li>- Initiated drought monitoring analysis with Montana Climate Office</li> </ul>
2021	<ul style="list-style-type: none"> <li>- Finalized planning process framework</li> <li>- Established Drought Task Force</li> <li>- Conducted kick-off public webinar</li> <li>- Developed drought hub, mtdroughtinfo.org</li> <li>- Recruited stakeholders and held first meeting (introduction to drought, planning, and priorities for Plan)</li> <li>- Initiated meeting facilitation with University of Montana Center for Natural Resources and Environmental Policy</li> </ul>
2022	<ul style="list-style-type: none"> <li>- Developed response actions and operational and administrative framework with RESPEC (contractor)</li> <li>- Developed vulnerability assessment with JG Research &amp; Evaluation (contractor)</li> <li>- Continued meetings and communications (Drought Task Force and stakeholders)</li> <li>- Developed management recommendations for responding and adapting to drought</li> <li>- Developed seven profiles in adaptation</li> </ul>
2023	<ul style="list-style-type: none"> <li>- Drafted plan and conducted internal and external reviews</li> <li>- Released draft plan for public comment (45 days)</li> <li>- Developed Montana drought website</li> <li>- Released final plan (anticipated September 2023)</li> </ul>

### Drought Task Force

The Drought Task Force comprised representatives from seven executive branch agencies involved in drought response and management in Montana, who were already serving on the State’s Drought

Committee. The Drought Task Force/Drought Committee includes representatives from Departments of Agriculture, Commerce, Emergency Services, Environmental Quality, Fish, Wildlife & Parks, Livestock, and Natural Resources and Conservation. Given the Drought Task Force members' current roles on a state level drought advisory committee, they were well-positioned to identify their respective agencies' response actions and identify critical needs of their constituents for planning.

The Drought Task Force met regularly throughout plan development, including a series of eight meetings between fall 2021 and winter 2022. All meetings were noticed on the DNRC and MTdroughtinfo.org and open to the public. Outside of meetings, Task Force members reviewed and updated their agencies' response actions and provided valuable insight on sector-specific drought impacts and constituent needs.

### **Overview of Drought Task Force meetings**

- Meeting 1, September 21, 2021, hybrid – Overview of Plan objectives and planning process; and role of Drought Task Force.
- Meeting 2, December 8, 2021, virtual - Review of other Montana state-level plans and relevance to drought management; and discussion of drought impacts to state agencies using Colorado as an example.
- Meeting 3, March 9, 2022, virtual – Update to operational and administrative framework; and drought management dialogue with other entities (e.g., federal, tribal, local, nonprofit, and university).
- Meeting 4, June 1, 2022, hybrid – Review of other states' response frameworks; and discussion of drought stages and triggers for Montana.
- Meeting 5, July 6, 2022, hybrid – Identify and discuss gaps in state drought response based on existing state and federal programs; and enhancing role of Drought Committee in future drought management.
- Meeting 6, August 18, 2022, in person – Engagement of agency personnel with expertise in various drought-related programs; continued discussion of gaps in state response; recommendation of new response programs, policies, and initiatives.
- Meeting 7, October 5, 2022, in person – Proposed drought response framework for Plan.
- Meeting 8, December 20, 2022, in person – Preliminary results of vulnerability assessment and proposed management recommendations for plan.

## Stakeholder engagement

To facilitate stakeholder engagement and ensure systematic evaluation of drought vulnerability, impacts, and adaptation strategies, the planning team engaged diverse stakeholders across seven geographic regions based on the National Oceanic and Atmospheric Administration’s (NOAA) climate regions (Figure 1). Stakeholders were invited to participate in the planning process using existing professional connections and announcements to professional organizations (e.g.,

Montana Watershed Coordination Council newsletter). Approximately 150 stakeholders participated from across Montana. They represented a broad spectrum of water users and geographic areas, including the following water-use sectors: agriculture; conservation and land management; energy and industrial; planning and community

development and municipal water supply; and recreation and tourism. Stakeholder meetings included an informational webinar and a series of three meetings:



**Figure 1. Map of climate regions used to organize regional stakeholder groups.**

- Information webinar, October 14, 2021, virtual – Public webinar to welcome stakeholders to the planning process and solicit their involvement in the planning process (150 participants).
- Meeting 1, December 15, 2021, virtual – Statewide participation with break-out rooms for each region. Content included: introduction to the Plan; overview of planning process; defining drought; and priorities for the Plan (100 participants).
- Meeting 2, March 2022, virtual – Series of five meetings by region. Content included: drought vulnerabilities and impacts across regions and within sectors (participation varied by region for a total of 106 attendees).
- Meeting 3, December 15, 2022, virtual – Statewide participation with break-out rooms for each water-use sector. The results of vulnerability assessment were reviewed. Each water-use sector identified key needs and actions; discussed adaptation strategies; and prioritized top Plan recommendations for their sector (45 participants).

We also engaged stakeholders in the vulnerability assessment using one-on-one interviews and an online survey. We conducted 63 interviews and recorded 245 survey responses throughout the summer of 2022. Stakeholders provided insights about their experiences with drought, as well as strategies for adaptation.

## Technical Experts

DNRC hired seven consultant teams who worked closely with DNRC, stakeholders, and the Drought Task Force on different portions of the Plan.

- Public engagement process. Staff from the University of Montana Center for Natural Resource and Environmental Policy helped develop and guide the process for soliciting meaningful stakeholder engagement. They also provided professional meeting facilitation services.
- Monitoring and assessment. Scientists from the Montana Climate Office provided analyses to guide the use of various drought metrics in the monitoring and assessment process, including seasonality and temporal applications of indices and indicators. They also recommended the approach for using the U.S. Drought Monitor classifications as response action triggers.
- Vulnerability assessment. Researchers from JG Research & Evaluation conducted a statewide vulnerability assessment that incorporated qualitative and quantitative data. Qualitative data were collected through one-on-one interviews with stakeholders and an online survey. Quantitative data were gathered from various publicly available data (socioeconomic, ecological, demographic, and geographic).
- Response actions and operational and administrative framework. Staff from RESPEC researched and led the update to the state's response actions and operational and administrative framework for drought management.
- Adaptation profiles. Consultants created unique profiles of seven diverse Montanans adapting to drought in their communities. Each profile included a storytelling narrative and rich photography.

Additional consultants assisted with technical editing, graphic design, and web development.

## PUBLIC INVOLVEMENT, COMMUNICATIONS, AND OUTREACH

### Website

To facilitate public communication and engagement, the planning team and other DNRC personnel created a website on the ArcGIS Hub platform ([mtdroughtinfo.org](http://mtdroughtinfo.org)). The site went live on November 5, 2021, and was updated regularly with current meeting information, news, and calls for public comment.

The site serves as a central location for information about the process undertaken in developing the Plan. The webpages included:

- Home page – Introduction to the website, button links to other pages on the site, and an email newsletter sign-up for the public.
- The Plan and the People – Who is involved in the planning effort, how all the people intersect in the development of the plan, and regional stakeholder sign-up link.
- Current MT Drought Status – Managed by the Montana State Library with current and past drought information and impacts. The public can also submit drought impact reports here.
- Drought 101 – Basic drought information, such as definitions of drought, the difference between drought and climate, and drought impacts, as well as links to additional resources.
- Drought Monitoring – A review of drought monitoring and assessment in Montana and guidance for local monitoring.

- [Drought Stories: Impacts and Adaptations](#) – A story map with regional stories of drought impacts and adaptations; photo gallery of drought in Montana; and Media Drought Index (National Drought Mitigation Center, University of Nebraska-Lincoln).
- [Events and Public Comments](#) –Task Force and Regional Stakeholder meeting announcements were posted on this page along with agendas and registration information for any virtual meetings. In addition, public comments can be submitted on this page.
- [Meeting Materials](#) – A repository of the Task Force and Regional Stakeholder meeting information, including dates, agendas, meeting recordings, and summaries.
- [News](#) – Press coverage of the Plan and the 2021 drought.

A statewide drought website to showcase the Plan and provide resources and tools for drought management was developed during the summer of 2023. It is expected to go live when the final Plan is released in September 2023.

#### **Email Newsletter**

Interested stakeholders could sign up to receive periodic email newsletters throughout the planning process. The GovDelivery platform was used for the design and distribution of the newsletters. Fifteen newsletters were published during the development and public comment processes. Topics included: recruiting regional stakeholders, announcing regional meetings, updating recipients on current drought issues, and announcing the public comment period for the draft Plan. All newsletters provided links to associated content and pages on the plan website.

#### **Social Media**

Facebook was used to highlight upcoming webinars, direct users to the Drought Info website, and provide current information about drought. The public comment period and periodic reminders will be posted on Facebook.

#### **Public Notices in Newspaper and Press Releases**

DNRC issued press releases in fall 2021 that announced the planning process and the informational webinar (October 14, 2021). The Plan received additional news coverage in spring and summer 2022.

DNRC issued a press release at the start of the public comment period for the draft Plan. It was sent to all newspapers in the state and posted on the DNRC’s News & Events page. In addition, DNRC will book radio advertisements with the Northern Ag network, Montana Public Radio, and other stations.

#### **Draft Plan and Public Comment Period**

The 45-day public comment period began on June 19, 2023. A public rollout of the draft plan was held virtually on June 21, 2023 to provide an overview of the Plan and information about submitting comments. Additional meetings and presentations are being planned throughout the state. Comments were accepted at [mtdroughtinfo.org](http://mtdroughtinfo.org) or via email.

Comments will be categorized and addressed as they are received. A response document will provide overview of comments received and how they were addressed.

### Final Plan and Executive Summary Booklet

This Plan will be housed on the State’s drought website, which will provide an interagency, dynamic, and centralized platform to share planning resources and provide up-to-date drought information. Printed hard copies will also be available.

### POST-DROUGHT EVALUATION AND PLAN UPDATE PROCESS

The plan will be updated according to a regular schedule of annual, biennial, and five-year intervals, as well as following major drought occurrences (Table 2). DNRC staff will lead plan updates in coordination with the Drought Committee.

**Table 2. Overview of plan update process.**

<b>Review interval or trigger</b>	<b>Objectives</b>
<b>Annual review</b>	Ensure that new response action and/or monitoring and updates.
<b>Biennial review – odd years</b>	Track legislative changes ensure that new and revised drought-related policies are immediately integrated.
<b>Five-year review</b>	In-depth review and evaluation of the Plan, including stakeholder input.
<b>Post-drought evaluation</b>	Review plan with a focus on successes and shortcomings. Identify and address deficiencies, and incorporate updates.