

Water Policy Interim Committee
Snow Survey Overview and Snowpack Update
March 26, 2026

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Carrot Basin SNOTEL
Madison Range

Presentation Outline

- Snow Program Overview
- Water-year precipitation
- Current snowpack conditions
 - Water Supply Forecasts
- Water Supply Outlook Report

**Anaconda Range Near
Mudd Lake Snow Course**

Snow Program Overview

**Glacier National Park
Flattop Mtn. SNOTEL**

Spring and Summer Streamflow

Soil Moisture
5-15%



Winter
Snowpack
50-80%



Spring Precipitation
20-30%



Snow Survey and Water Supply Forecasting Program

- Measure Snow
 - Manually at Snow Courses
 - Operate the SNOTEL network
- Collect Data from other Agencies
 - Mostly streamflow & reservoirs
- Issue Monthly Water Supply Forecasts
 - March to June
 - Forecast Hydrologist are at the National Water & Climate Center
- Disseminate Data
 - Interactive Map
 - Water Supply Outlook Reports



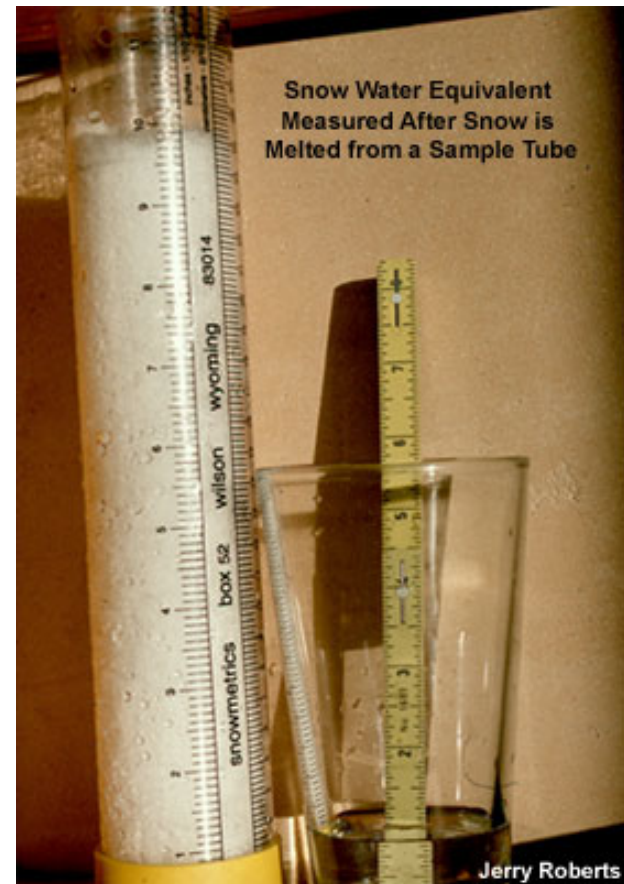
**Dr. James E. Church on
Mt. Rose, Lake Tahoe area,
1906**

Quantifying Snow

Snow Depth



Snow Water Equivalent (SWE)



Data Collection

Snow Course – Manually Measured



**Kings Hill Snow Course
Little Belt Mountains**

SNOWpack TELEmetry (SNOTEL) – Automated Weather Station



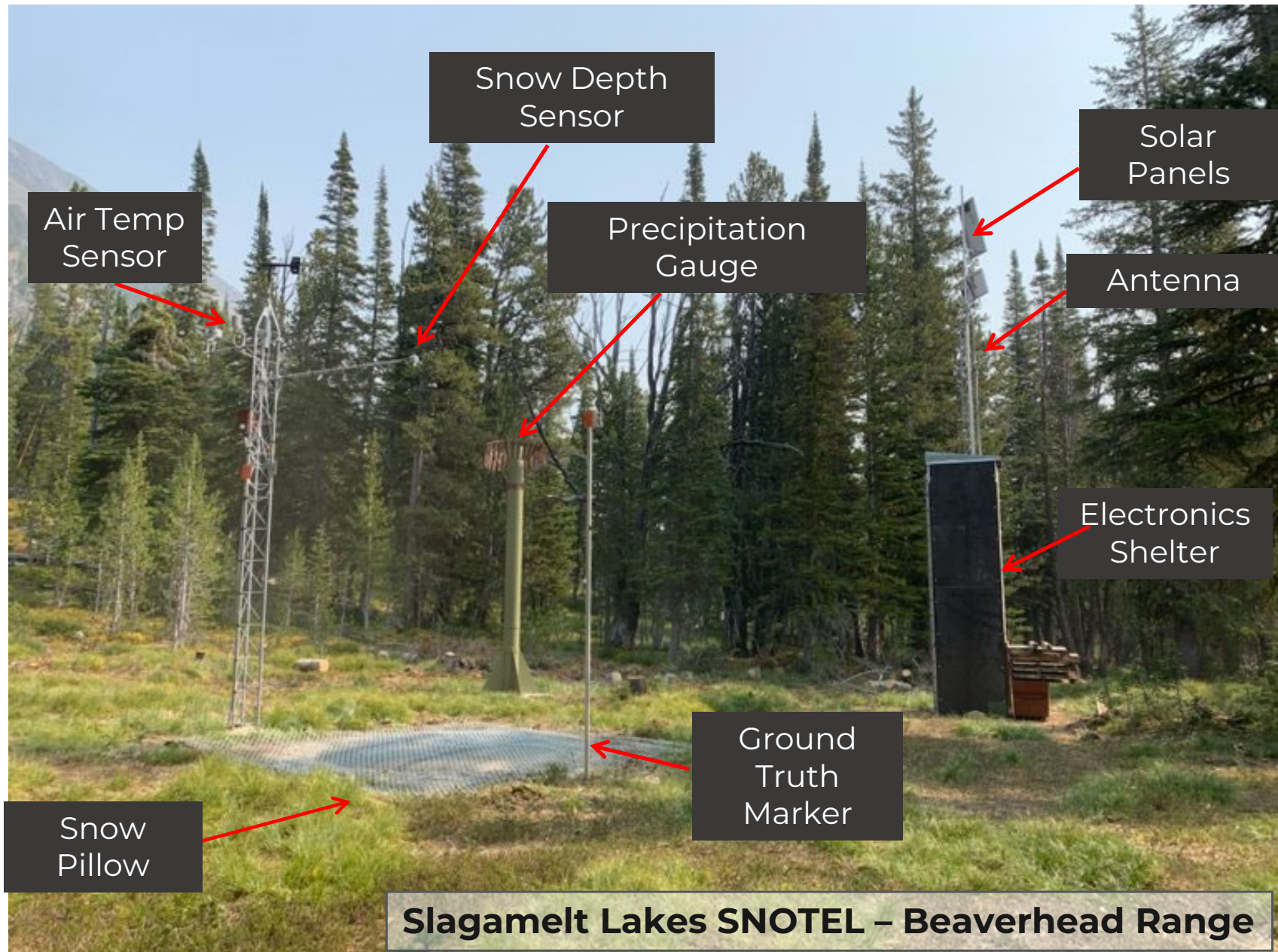
**Mill Creek SNOTEL
Absaroka Range**

Cooperative Snow Surveyors

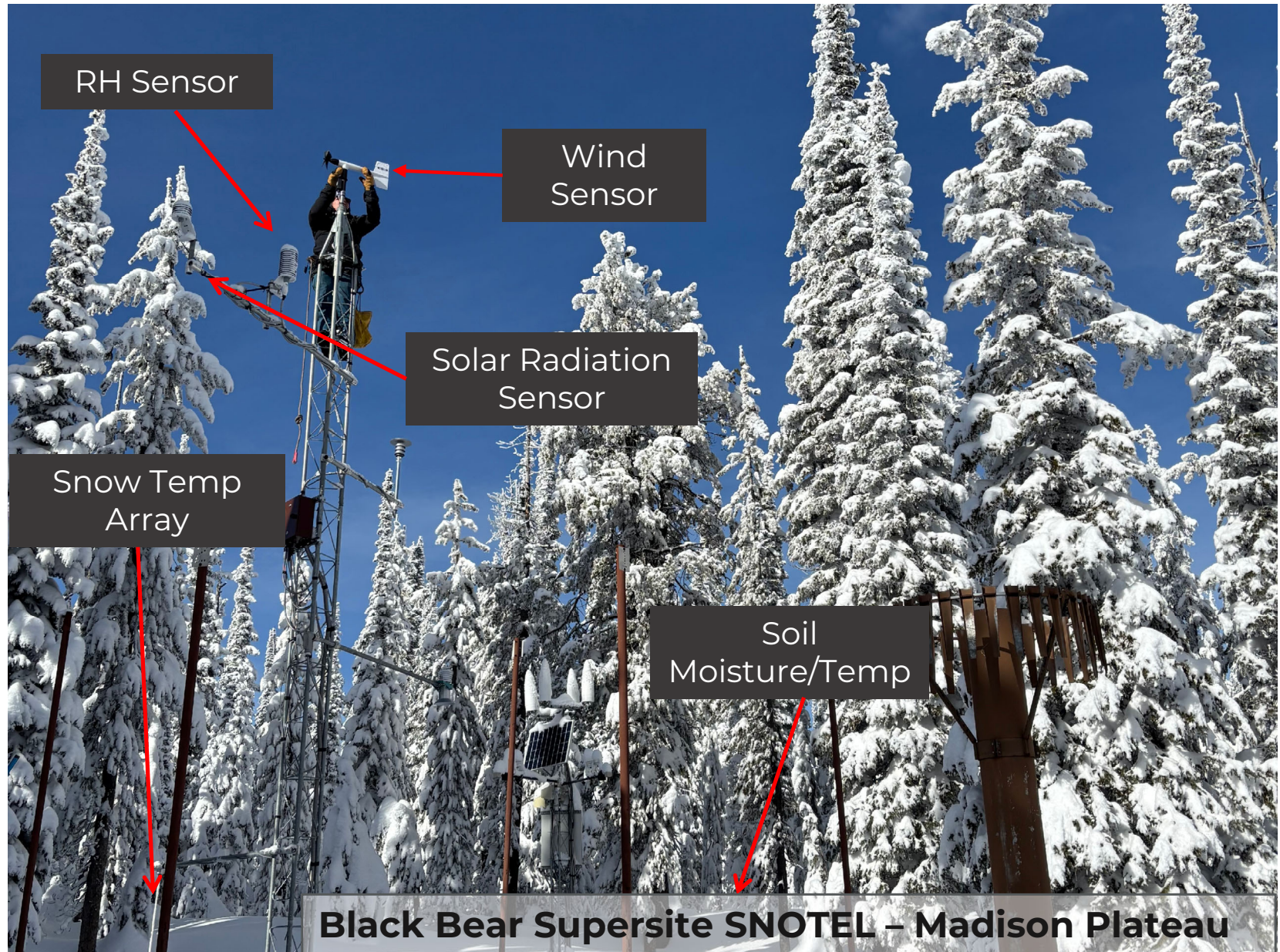
- US Forest Service
- National Park Service – Glacier and Yellowstone
- Confederated Salish & Kootenai Tribes
- Alberta Ministry of Environment
- MT DNRC – Stillwater State Forest
- NRCS Field Offices
- Beaverhead Watershed Committee
- University of Montana – Lubrecht Experimental Forest
- US Fish & Wildlife Service
- Paid Contractors
- Wyoming State Engineers Office



Standard SNOTEL Site

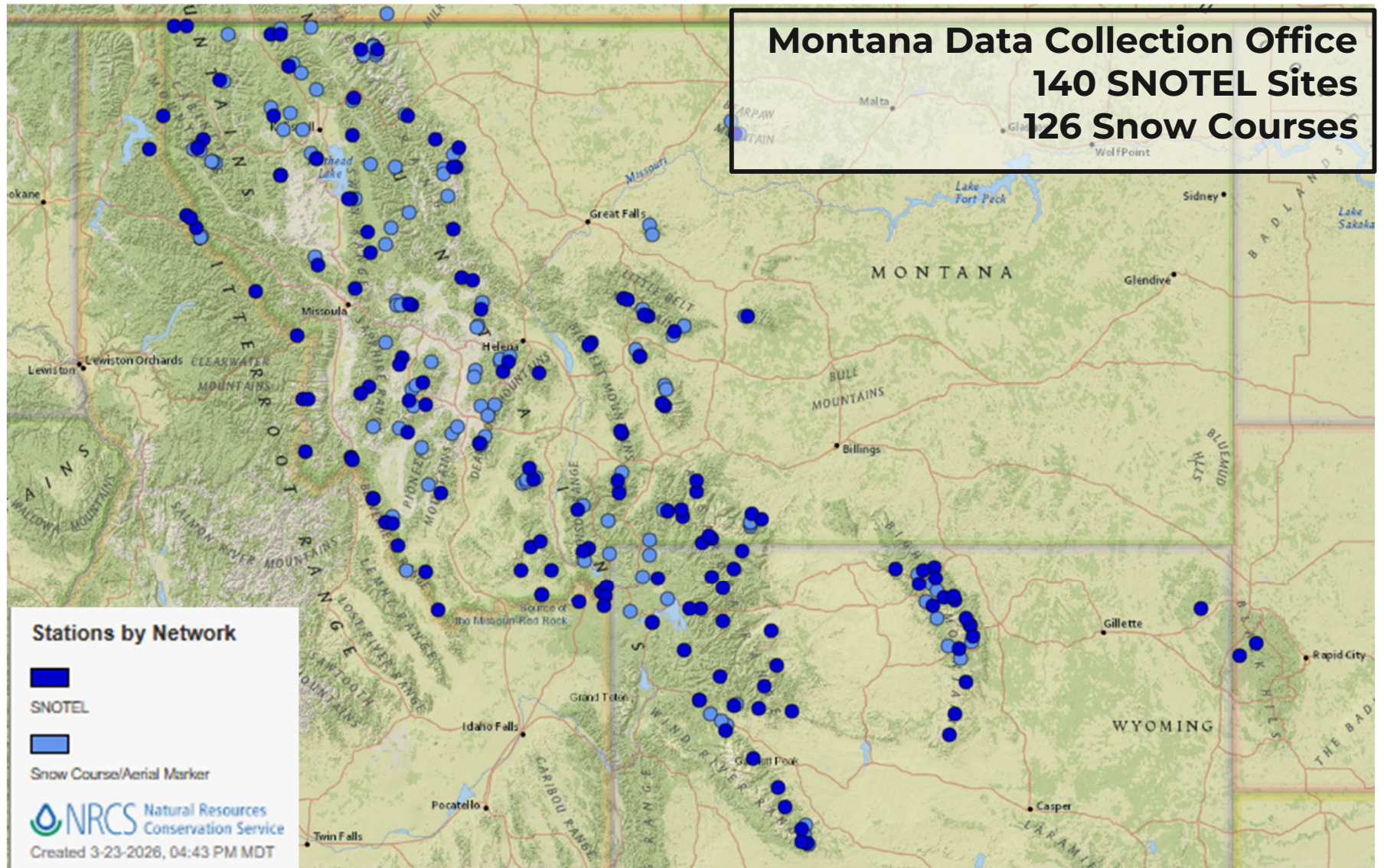


Supersite



Black Bear Supersite SNOTEL – Madison Plateau

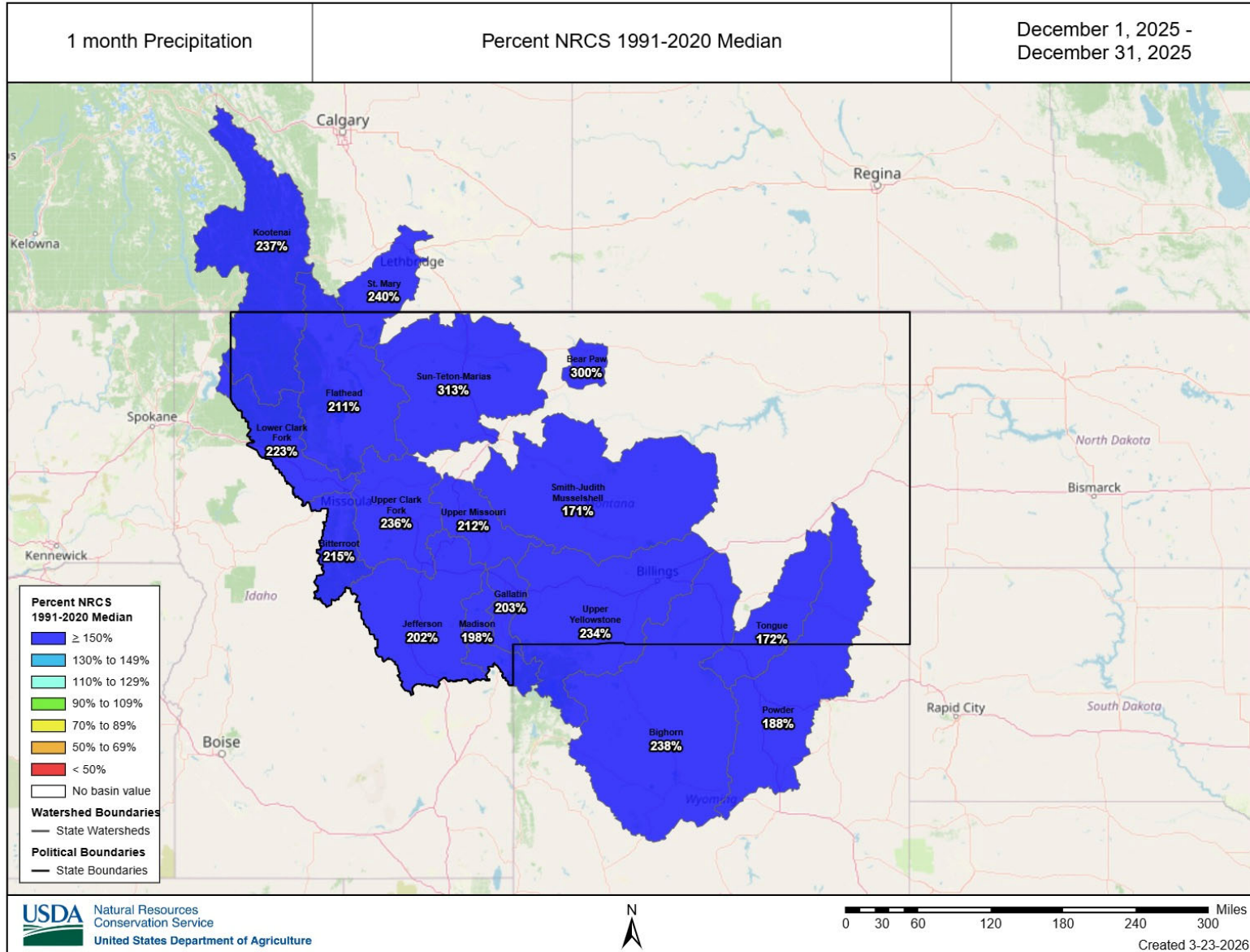
Station Overview



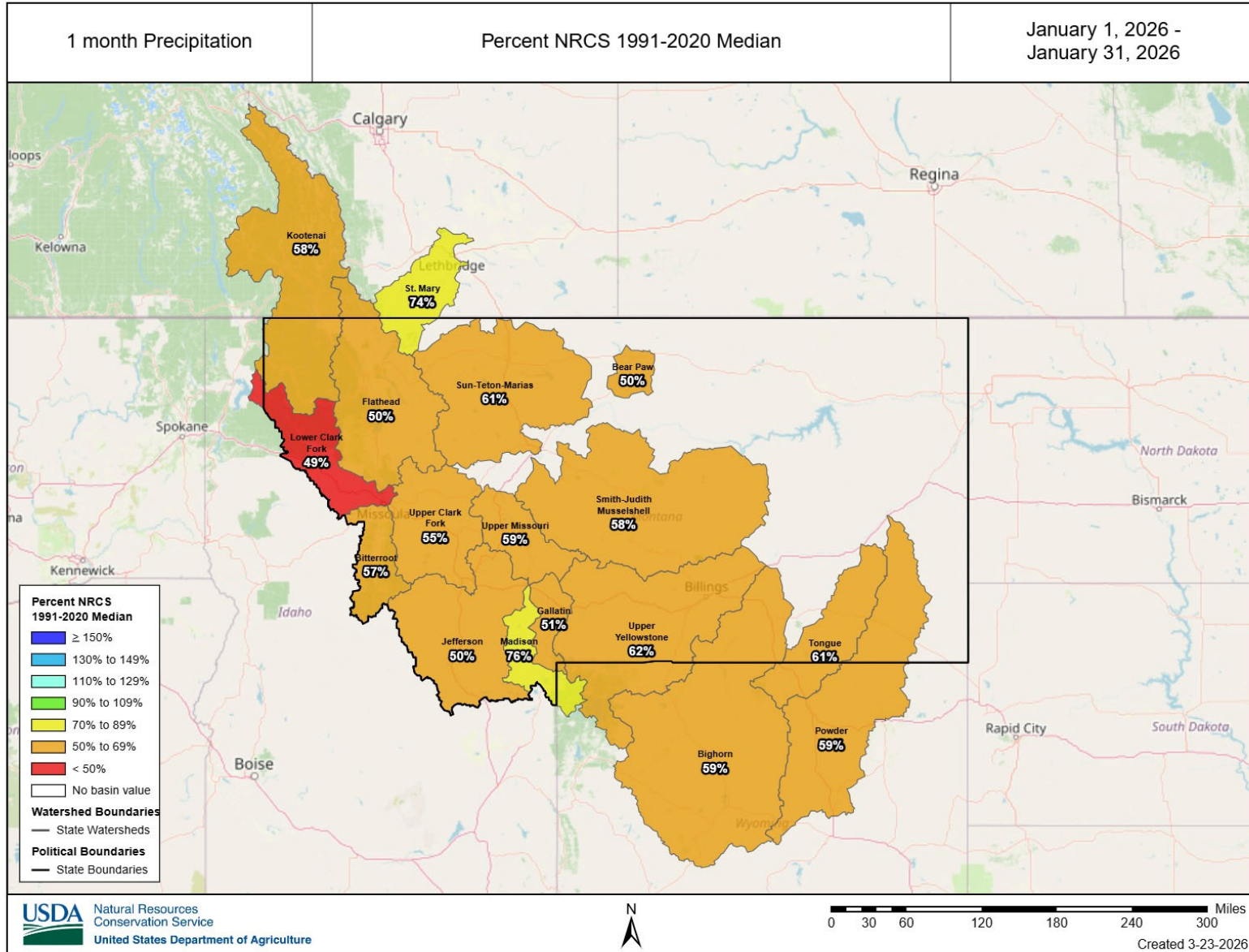
Water-Year-To-Date Precipitation

**Elk Peak Alt. SNOTEL
Castle Mountains**

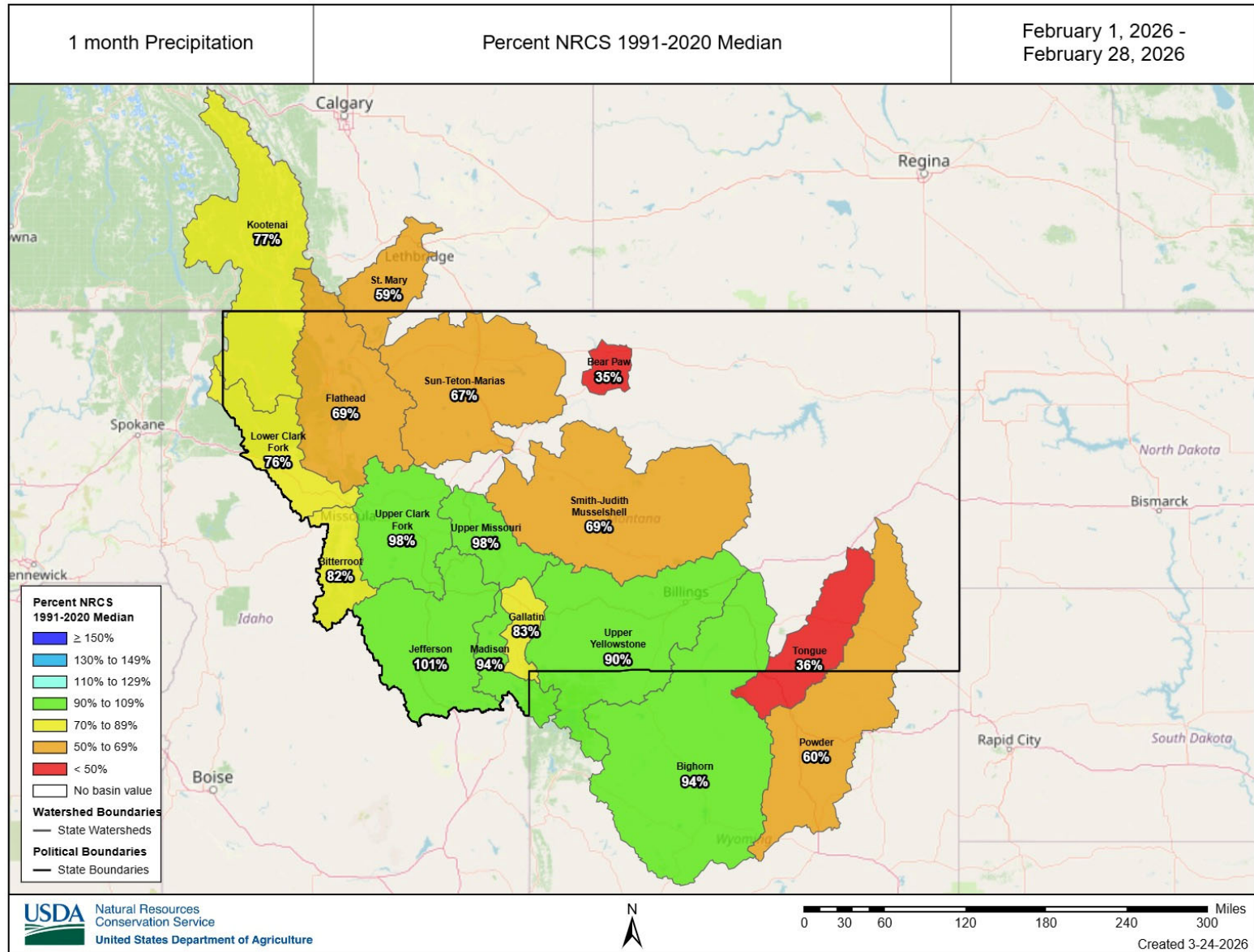
December SNOTEL Precipitation



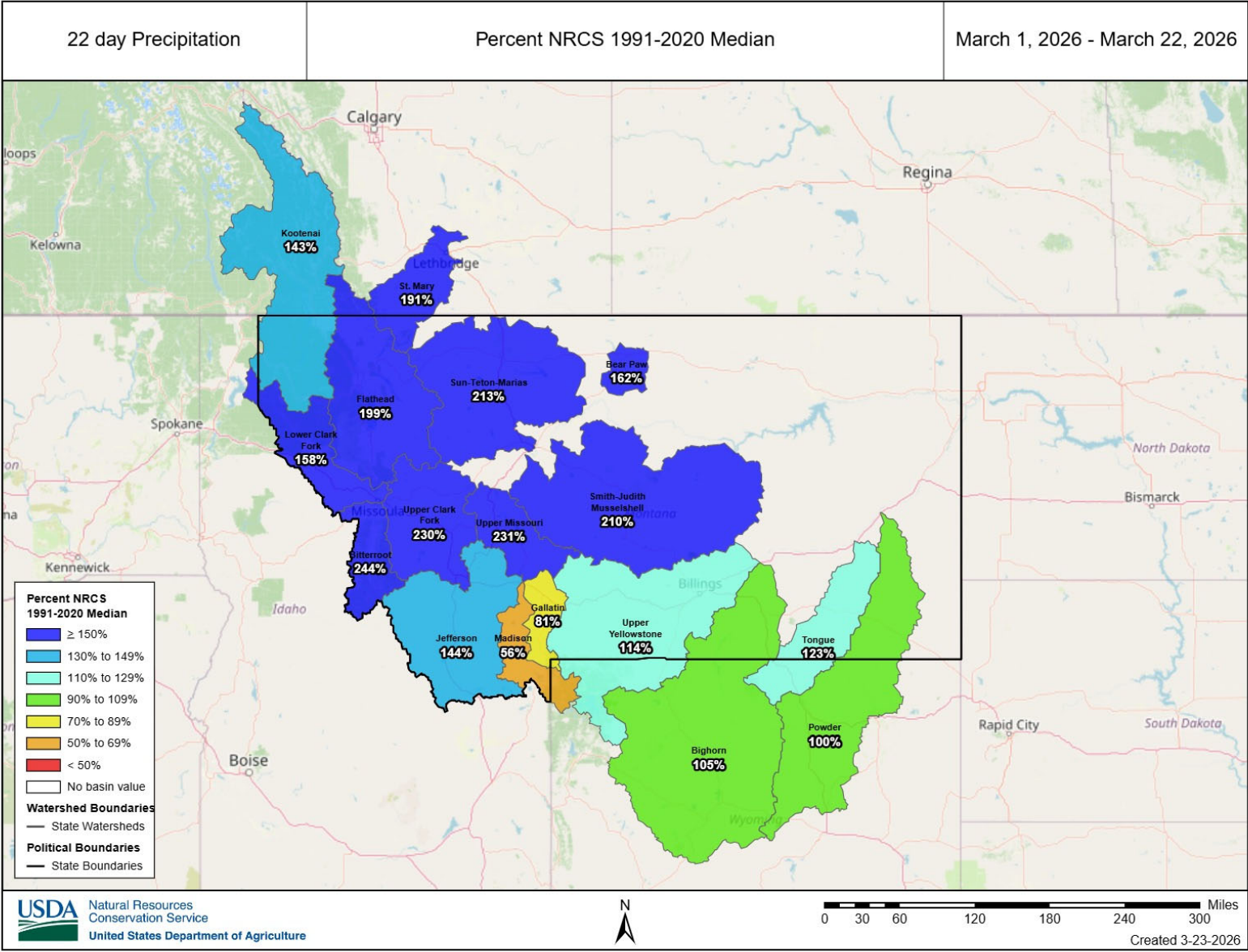
January SNOTEL Precipitation



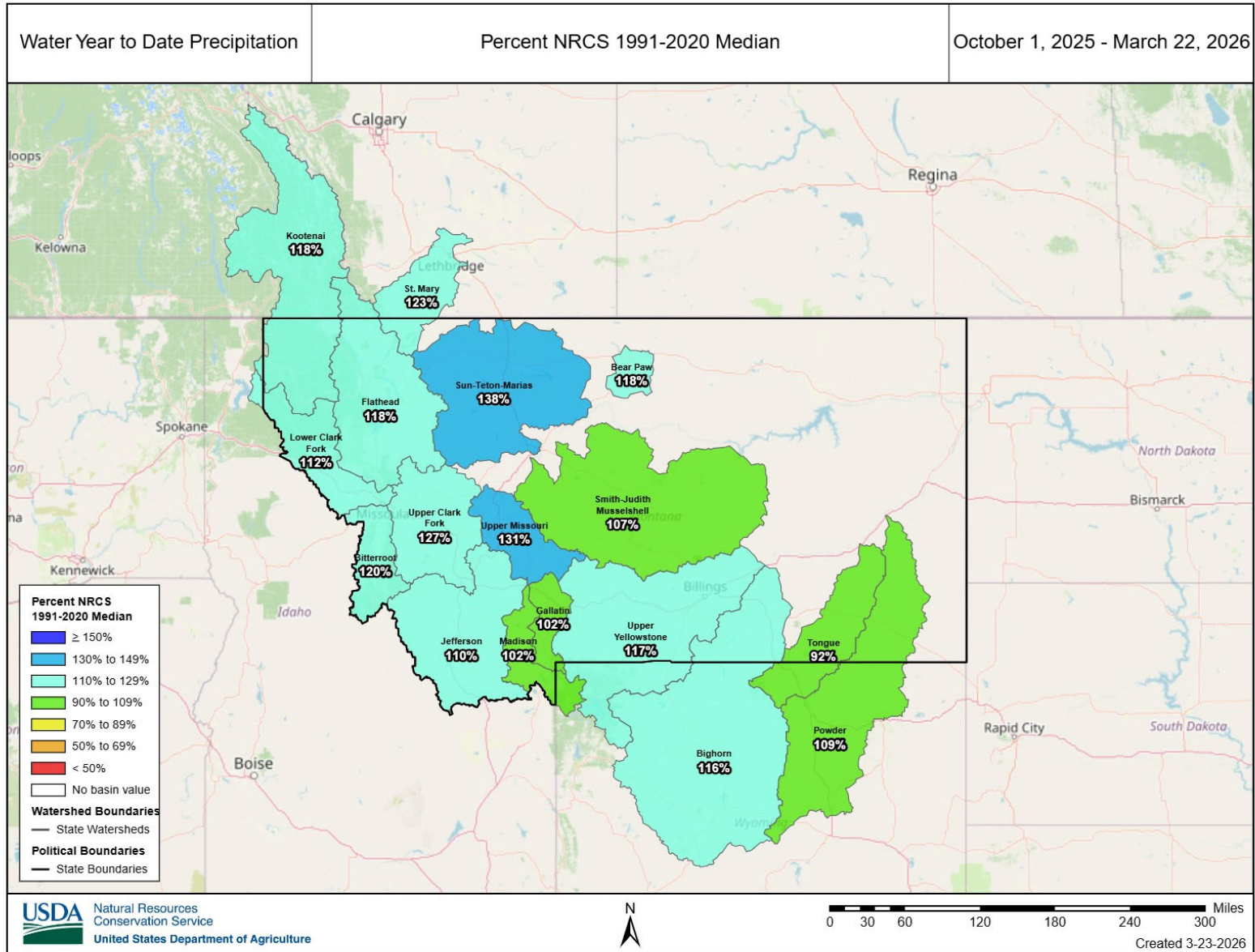
February SNOTEL Precipitation



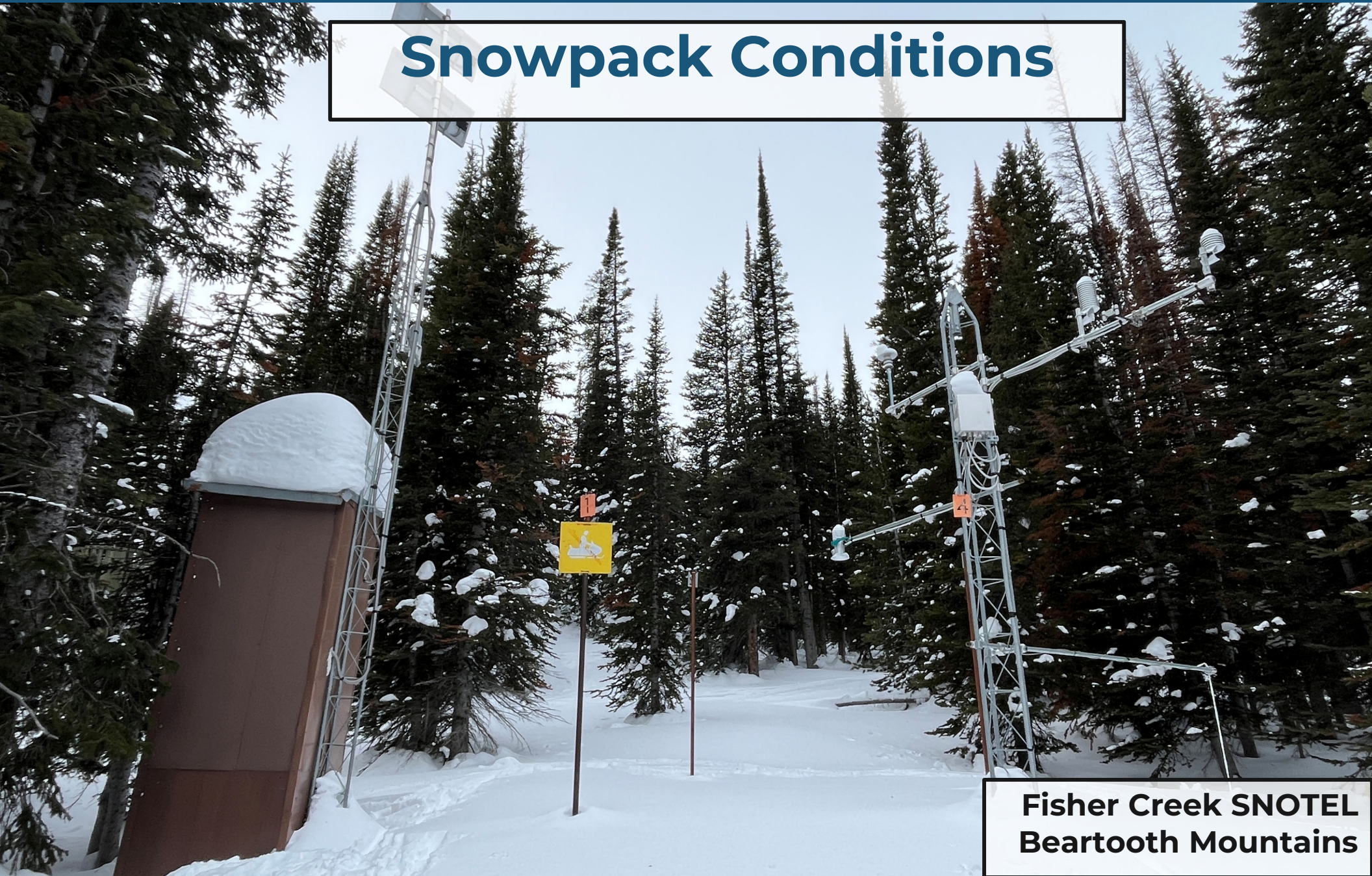
March SNOTEL Precipitation



Water-Year-To-Date SNOTEL Precipitation

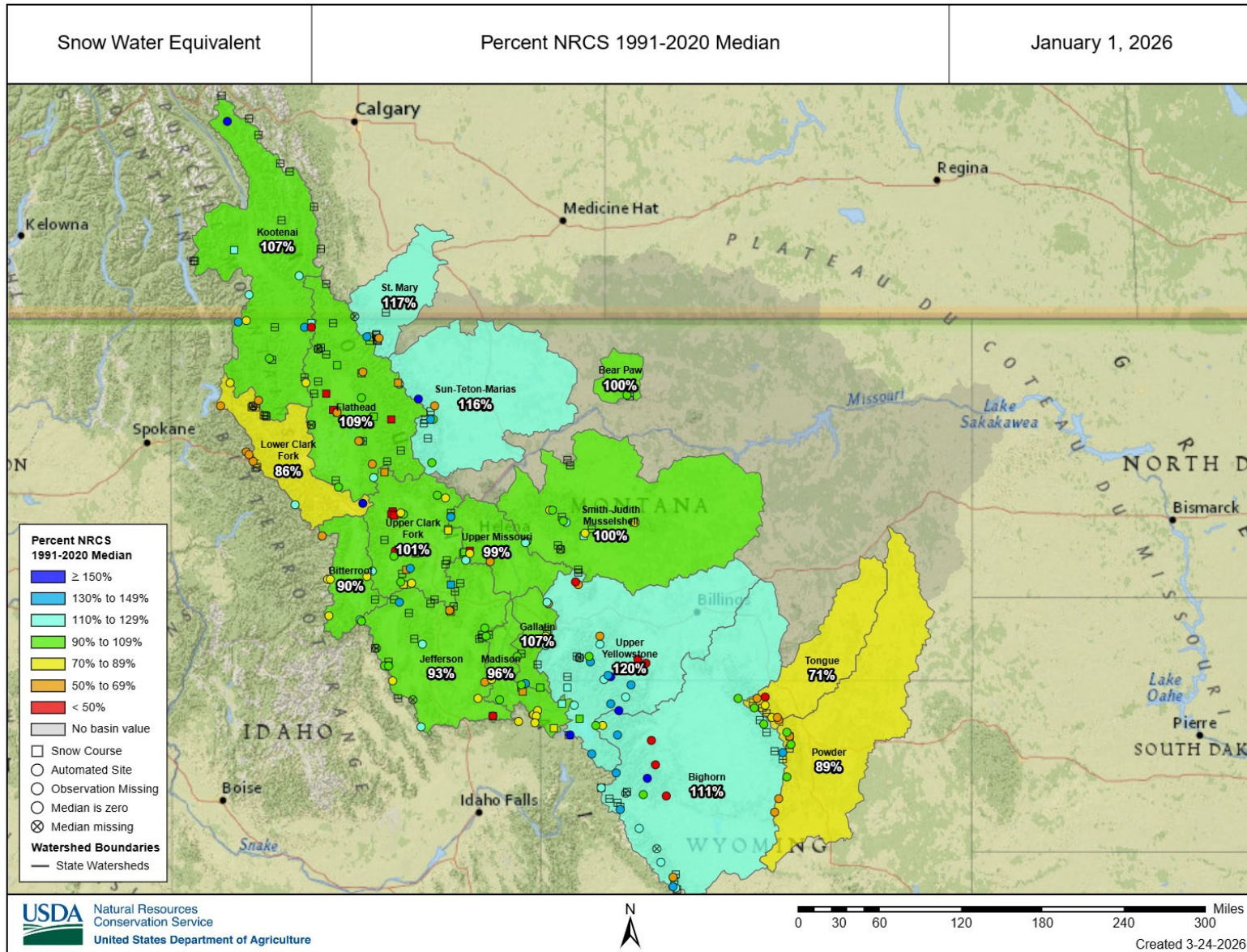


Snowpack Conditions

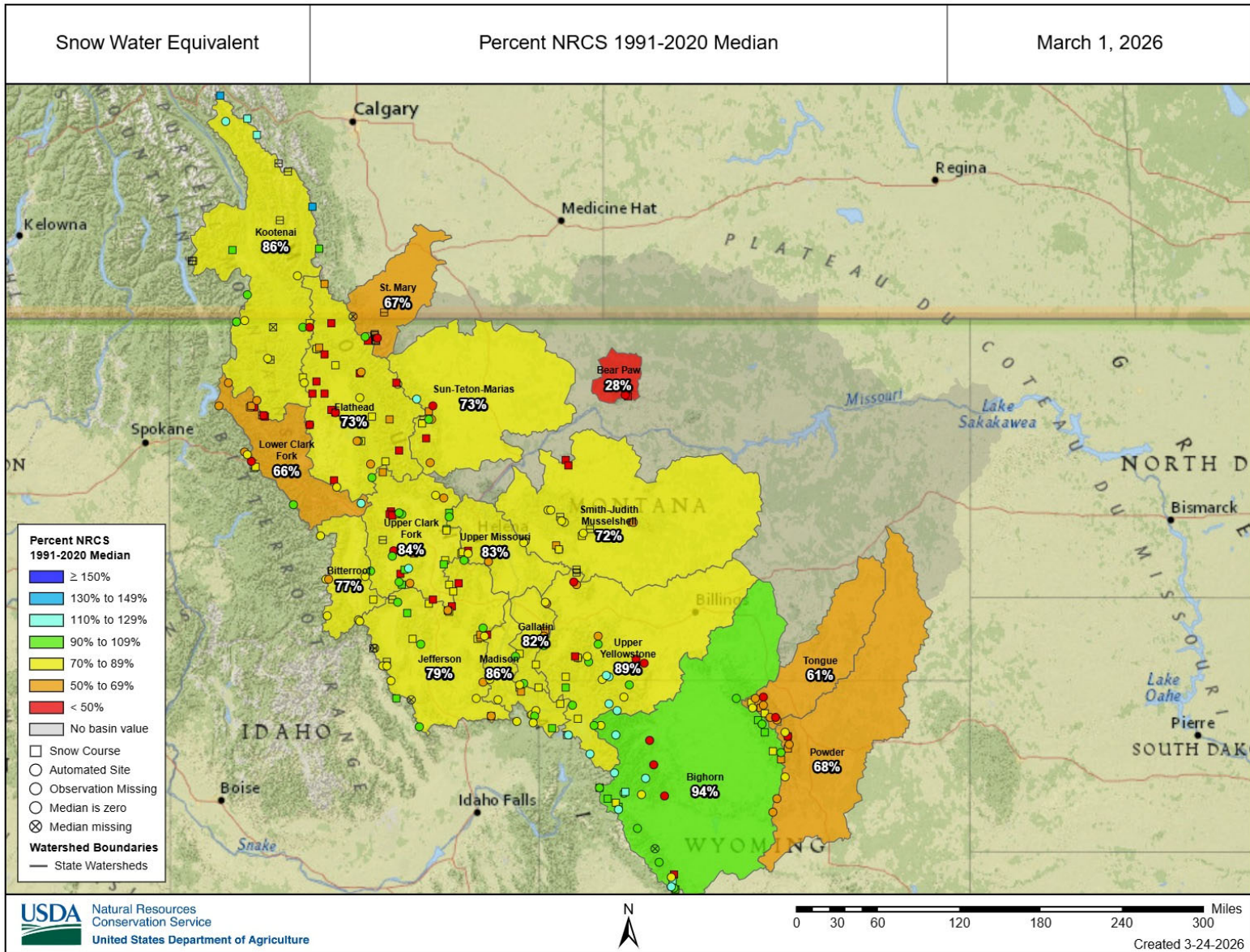


**Fisher Creek SNOTEL
Beartooth Mountains**

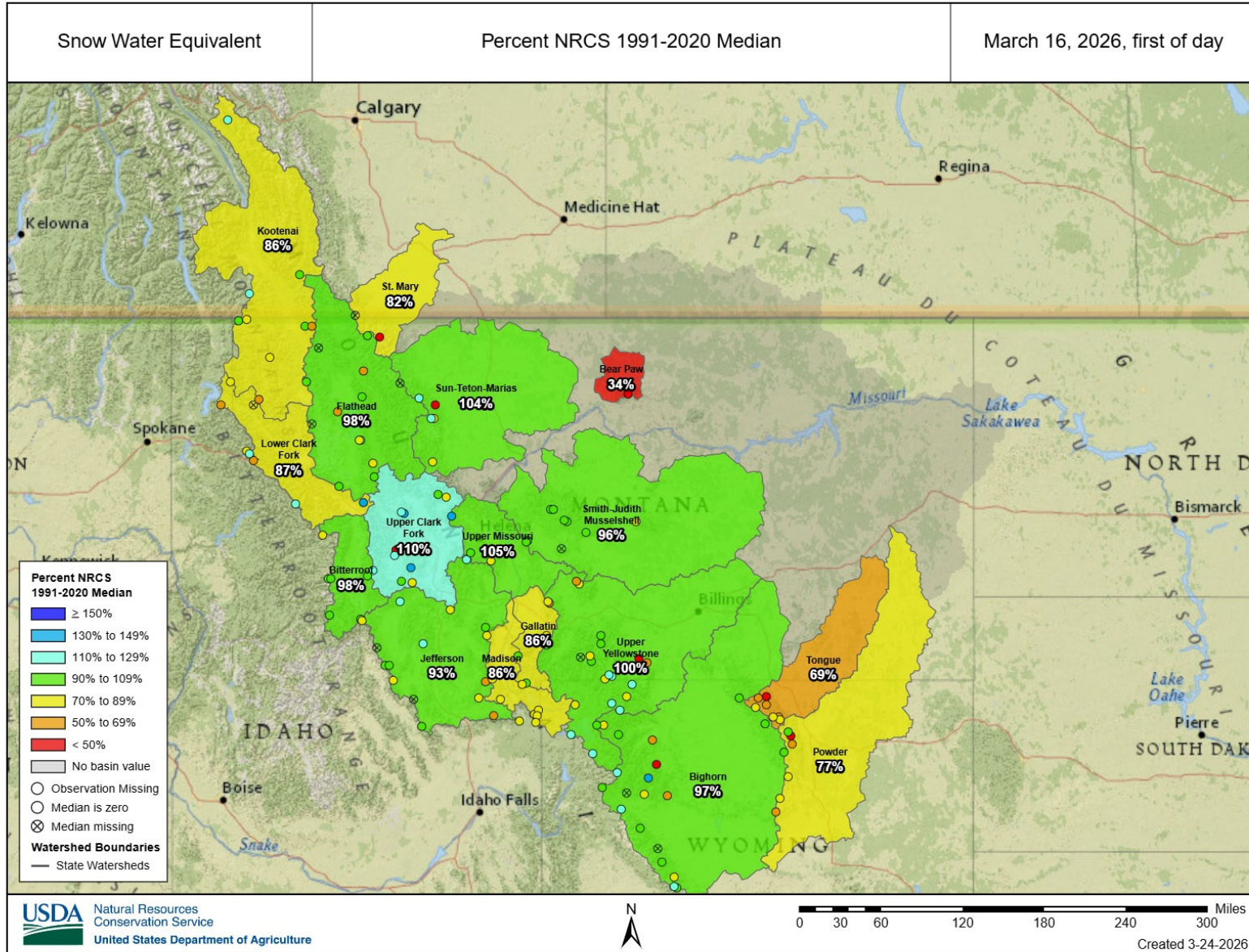
January 1 SNOTEL Snow-Water-Equivalent



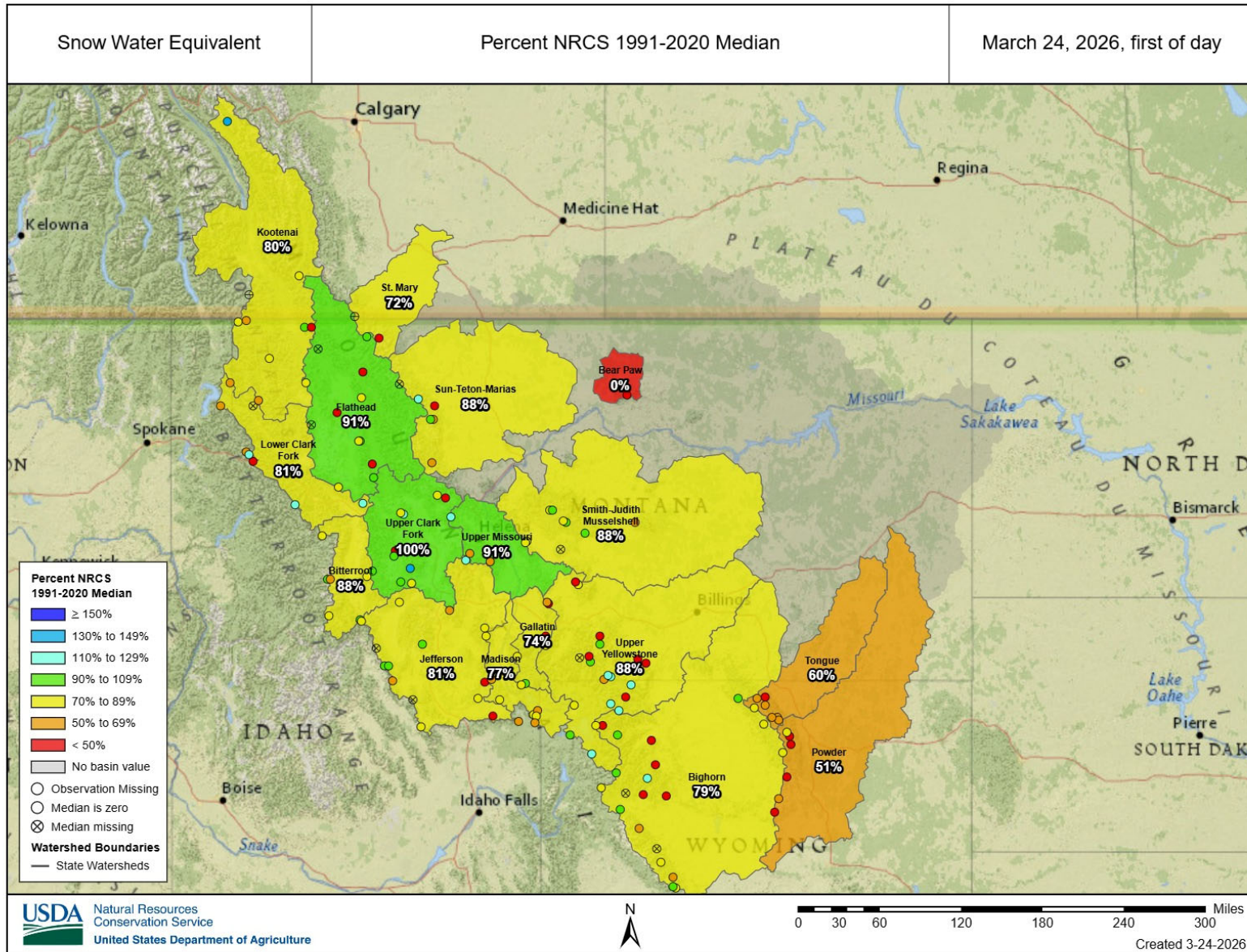
March 1 SNOTEL Snow-Water-Equivalent



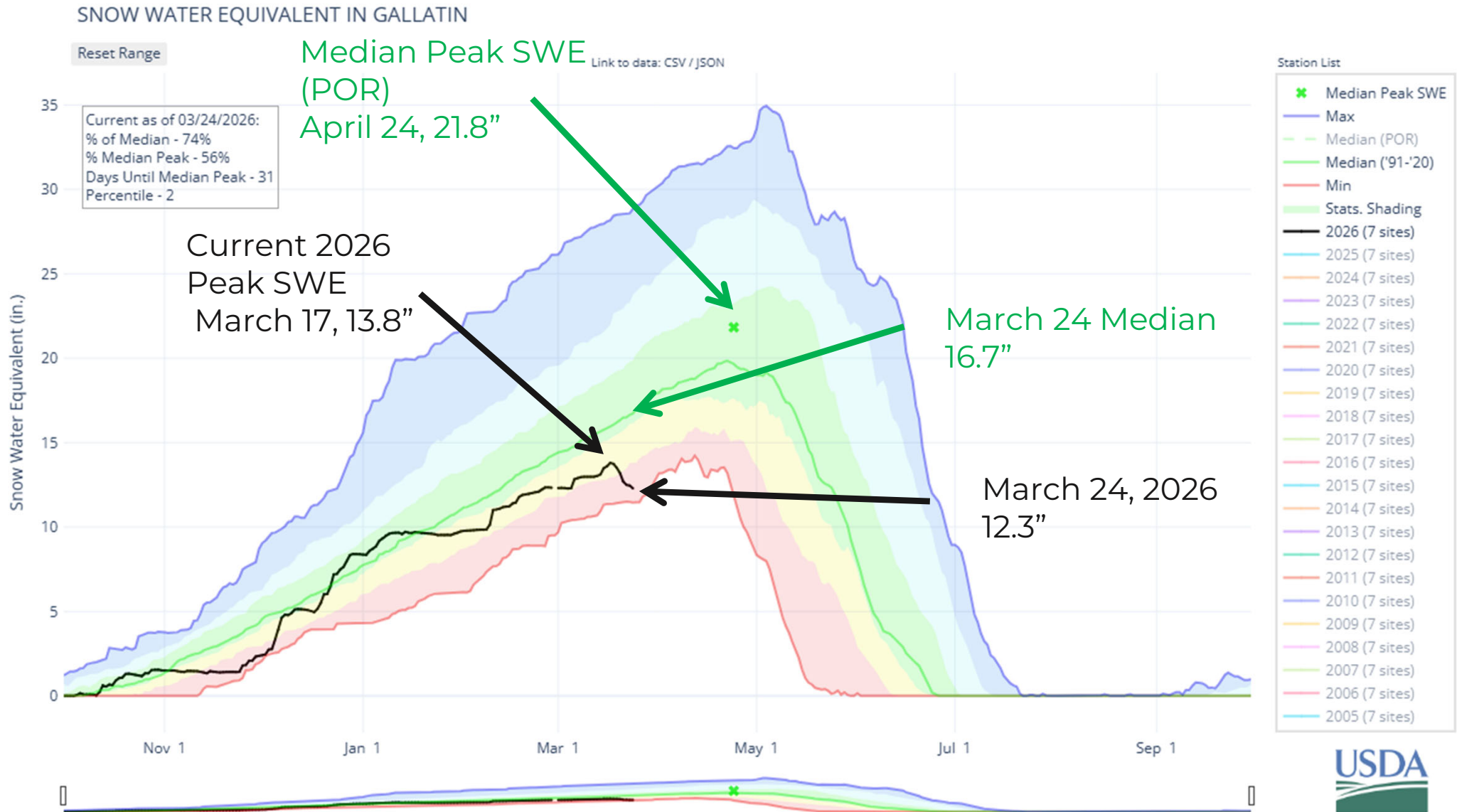
March 15 SNOTEL Snow-Water-Equivalent



March 24 SNOTEL Snow-Water-Equivalent



Gallatin Snow Water Equivalent Plot



Water Supply Forecasts

**South Fork
Flathead River**

NRCS Water Supply Forecast Information

Volumetric Streamflow Forecasts: A prediction of streamflow volume that flows past a point on a stream during a specified season.

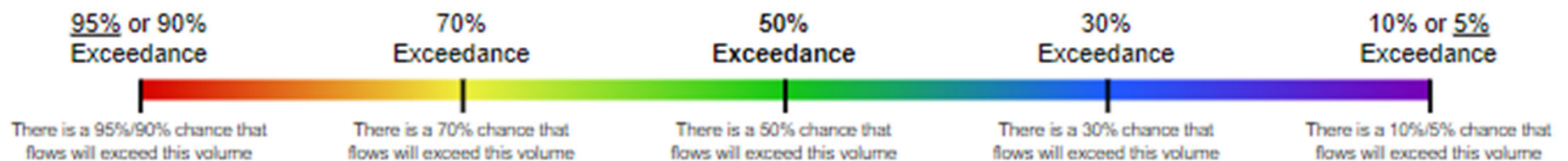
Montana Publication Dates (Forecast Periods):

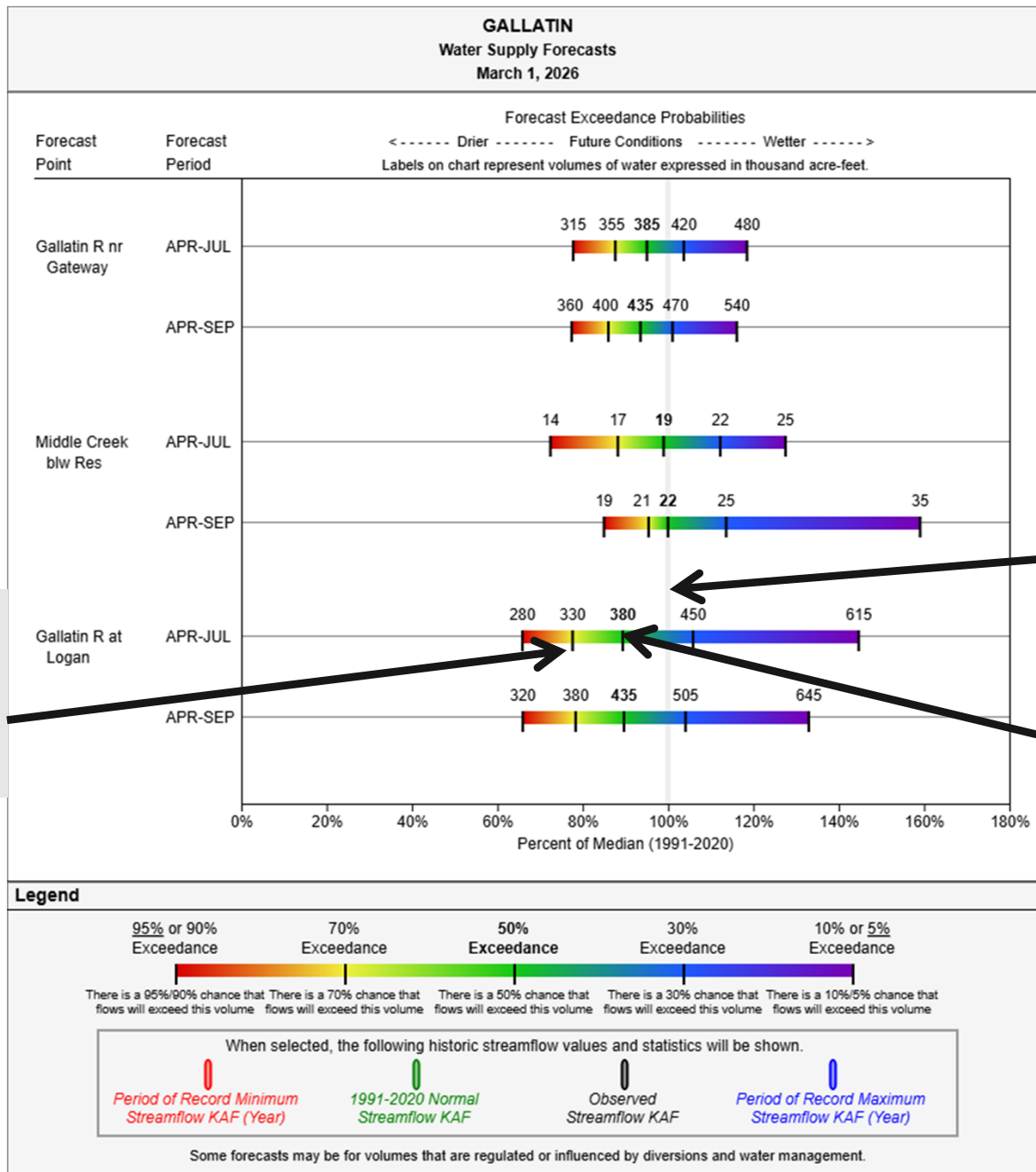
- **March 1** (April – July & April – September)
- **April 1** (April – July & April – September)
- **May 1** (May – July & May – September)
- **June 1** (June – July & June – September)

Forecast Exceedance Probabilities

Future Conditions

← Drier ----- Normal ----- Wetter →



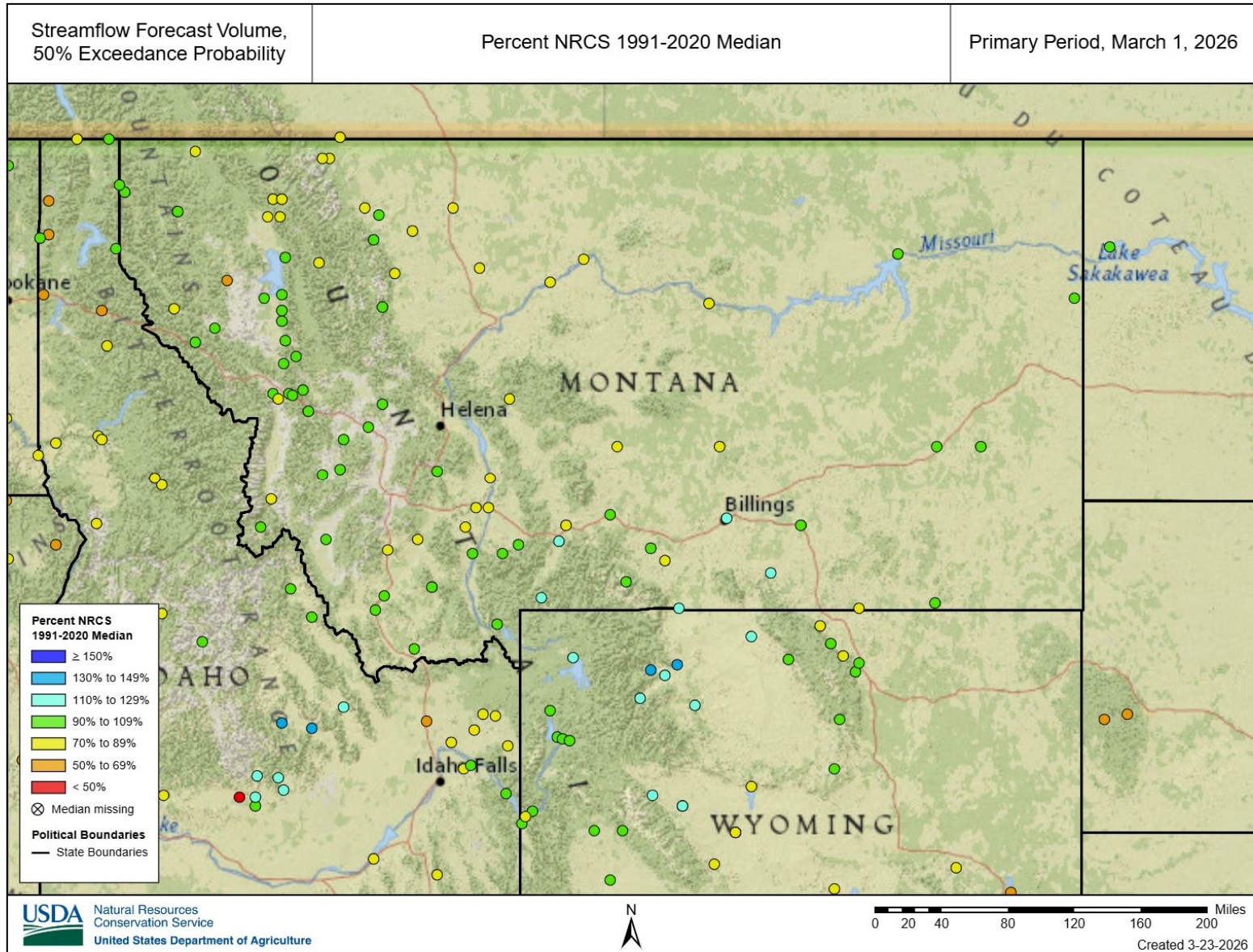


Forecasted streamflow, 70% chance exceedance

Normal streamflow

Forecasted streamflow, 50% chance exceedance

March 1st 50% Exceedance Forecast



Water Supply Outlook Report

Monthly Report (Issued January – June) Streamflow Forecasts (Issued March – June)

Montana Water Supply Outlook Report

March 1, 2026



The photos above highlight the tale of two snowpacks. On the right is the Revais Creek Snow Course (4830 ft) northwest of Missoula, and like much of the state, there is minimal snow. The photo on the left is the Carrot Basin SNOTEL (9200 ft) north of West Yellowstone; a reminder that there is still snow to be found up high. Despite a few high elevation holdouts, Montana sits farther below a normal snowpack than at this time last month. If warm and dry conditions persist, even the higher elevations will start to struggle to hold on. (photo left: Eric Larson – February 19, 2026) (photo right: Quentin Means – February 23, 2026)



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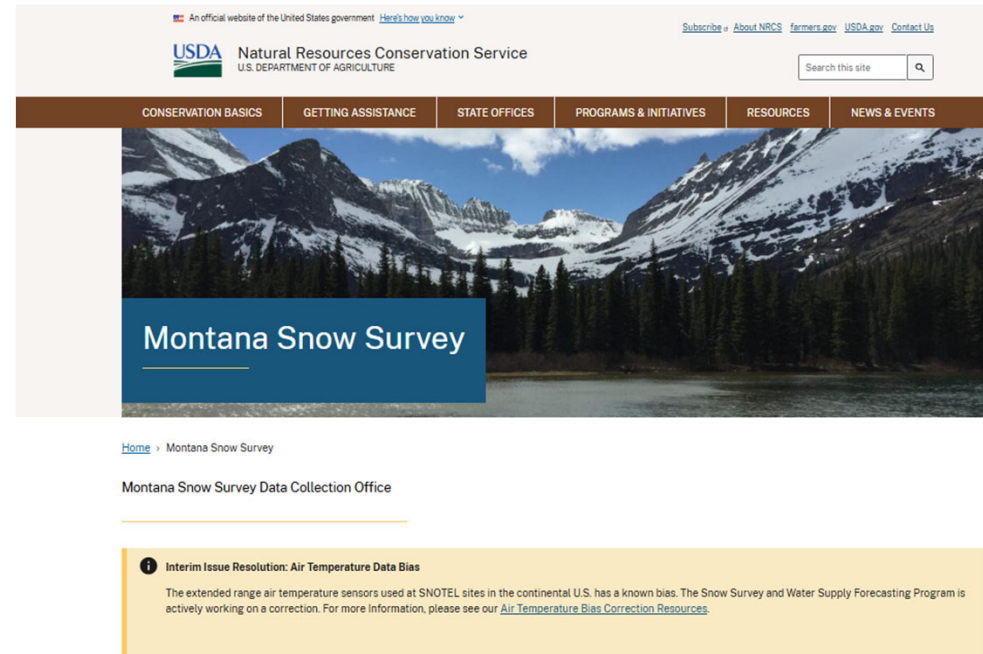
Montana Snow Survey Home Page

You can navigate to SNOTEL data and reports from the USDA-NRCS Montana Snow Survey Homepage.

<https://www.nrcs.usda.gov/montana/snow-survey>

Here you can find information including:

- Program Information
- Current Conditions
- Water Supply Outlook Reports
- Station Information
- Contact Information
- Frequently Asked Questions



Questions?



Montana Snow Survey Webpage

<https://www.nrcs.usda.gov/montana/snow-survey>



NRCS Interactive Map and Charts

<https://nwcc-apps.sc.egov.usda.gov/>

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