






# Gallatin River Basin Real-Time Drought Watch Tool Instructions

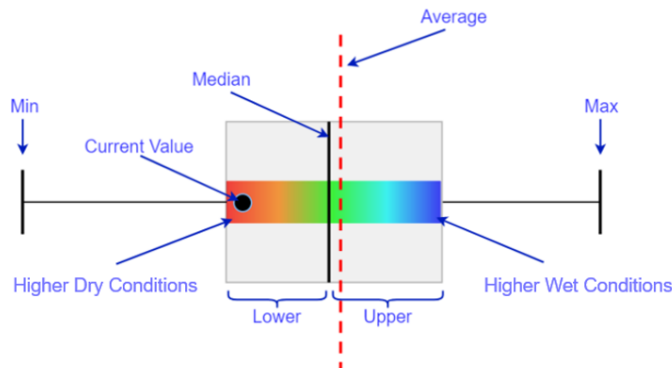
**U.S. Drought Monitor** – The U.S. Drought Monitor (USDM) is a map that is updated each Thursday to show the location and intensity of drought across the country. The USDM uses a five-category system, to score and label the intensity of drought including: Abnormally Dry, Moderate, Severe, Extreme, and Exceptional Drought. Drought categories show assessments of conditions related to dryness and drought including how much water is available in streams, lakes, and soils compared to usual for the same time of the year.

Map Tool	Instructions
	Zoom in and out of the map using the plus and minus buttons in the upper left corner to see which areas of Montana are impacted by drought according to the U.S. Drought Monitor.
	Click the question mark button in the upper right corner to view the U.S. Drought Monitor Legend indicating the map colors and how they correspond with the current drought score.
	Click the Drought Score button in the top center of the map to see how the Southwest Montana Drought Score has changed over the last 3 years.

**Drought Indicators** – Drought indicators are different variables or parameters used to describe drought conditions (e.g. precipitation, streamflow, temperature, snowpack, etc.). In order to get a complete picture of drought conditions, several variables should be examined.

Map Tool	Instructions
	Click the table button in the upper right corner of the map to view drought indicators for the Upper Gallatin River Basin and current impact compared to the average for the same time of year.
	Click the red location icons in the map to view table and box and whisker plots for several local drought indicators.

**How to Read Box & Whisker Plots** – The following graphic is a guide to reading the box and whisker plot. During each update cycle, the plot will change to match the current and historic monthly values.



**Drought Indicator descriptions and parameters:**

<b>Indicator</b>	<b>Description</b>	<b>Parameters Included</b>
U.S. Drought Monitor Drought Score	The Drought Score is an assessment of the intensity of drought and is reported as categories including Abnormally Dry, Moderate, Severe, Extreme, and Exceptional Drought.	<ul style="list-style-type: none"> <li>• Precipitation</li> <li>• Temperature</li> <li>• Evapotranspiration</li> <li>• Soil Recharge</li> <li>• Runoff</li> <li>• Moisture Loss</li> <li>• Snow Water Content</li> </ul>
Snowpack	Mountain snowpack, also described as snow water equivalent, is the depth of water that would cover the ground if the snow cover was in a liquid state. Snowpack is reported in inches (in).	<ul style="list-style-type: none"> <li>• Snow Water Content</li> </ul>
Streamflow	Streamflow, also known as discharge or runoff, is the volume of water flowing past a given point in the stream in a given period of time. Streamflow is reported as cubic feet per second (ft <sup>3</sup> /s).	<ul style="list-style-type: none"> <li>• Runoff</li> </ul>
Southwest Montana Palmer Drought Severity Index (PDSI)	The PDSI uses readily available temperature and precipitation data to estimate relative dryness. It is a standardized index that generally spans -10 (dry) to +10 (wet).	<ul style="list-style-type: none"> <li>• Rainfall</li> <li>• Temperature</li> <li>• Evapotranspiration</li> <li>• Soil Recharge</li> <li>• Runoff</li> <li>• Moisture Loss</li> </ul>
Standard Precipitation Index (SPI)	Standard precipitation is the probability of precipitation for a given time scale. For example, 6-Month SPI compares the precipitation for that period with the same 6-month period over the historical record.	<ul style="list-style-type: none"> <li>• Precipitation</li> </ul>
Static Water Level	The static water level is the distance from the land surface (or the measuring point) to the water in the well under non-pumping (static) conditions.	<ul style="list-style-type: none"> <li>• Groundwater wells</li> </ul>