Introducing the Montana Mesonet

The Montana Climate Office (MCO) provides high-quality, timely, relevant, and scientifically based climate, drought and water resources information and services to Montanans. As Montana's official climate data stewards, we strive to provide information for specific sectors of interest by either geography or industry and assist stakeholders in adapting climate products to their needs. The MCO leads the development of the **Montana Mesonet**, a cooperative statewide soil moisture and meteorological information network that supports decision-making in agriculture, range, and forested watershed contexts.

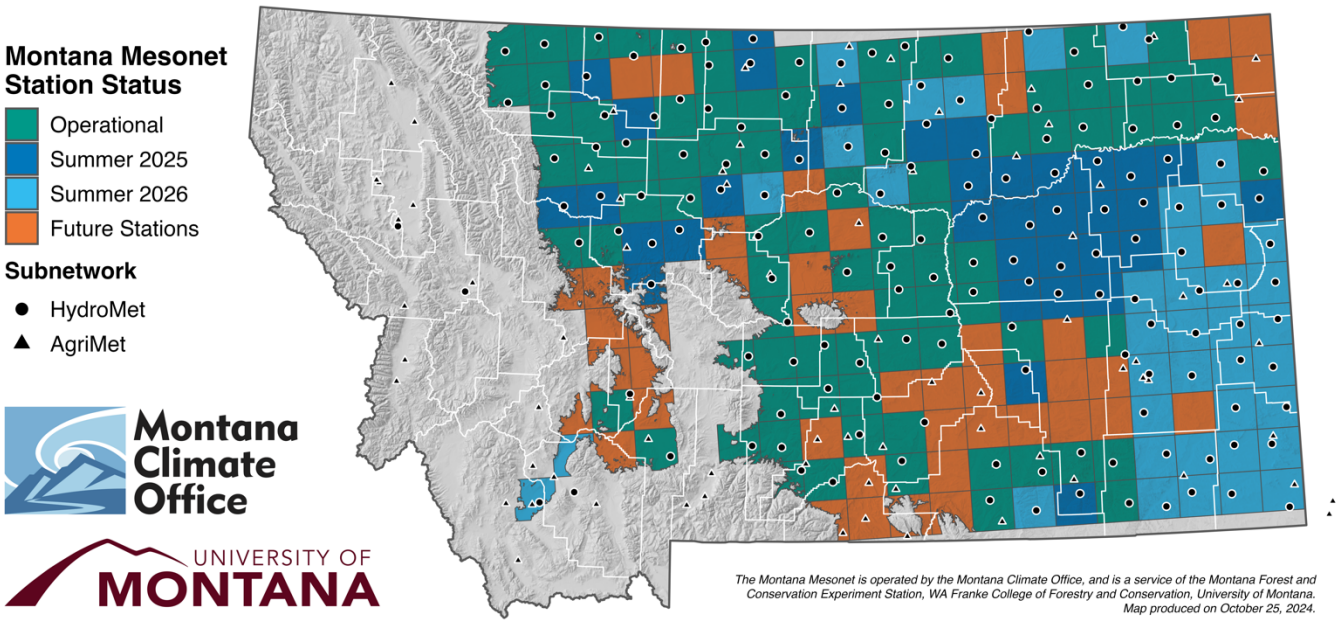
History of the Montana Mesonet

The Montana Mesonet is a partnership with private landowners, tribes, and state and federal agencies to build a state-of-the-art hydro-meteorological monitoring network in Montana. The network began in 2016 and grew to over 100 stations by 2020. The Montana Mesonet operates two subnetworks: a **HydroMet** of research-grade weather stations and an **AgriMet** focused on precision agriculture applications. In 2020, the US Army Corps of Engineers' (USACE) partnered with the MCO to build 205 HydroMet stations as part of the **Upper Missouri River Basin Plains Snow and Soil Moisture Monitoring Network (UMRB Network)**.

UMRB Network

In response to the historic 2011 and 2014 floods in the Missouri River Basin, the USACE established the UMRB Network to inform river and runoff models used by the National Weather Service and the USACE. **When completed in 2028, the UMRB Network will be among the densest meteorological, soil moisture, and snowpack monitoring networks in the world.** In all, the UMRB Network will consist of 540 stations across central and eastern Montana, North Dakota, South Dakota, Wyoming, and Nebraska at a density of one station for every 500 square miles. Home to the Missouri Headwaters, our Montana Mesonet will play an integral part in the management of the Basin's land and water resources.

Current Status



*For more information, visit **https://mesonet.climate.umt.edu** or email us at **mesonet@umontana.edu***