

# Montana Drought Status by County - April 2010

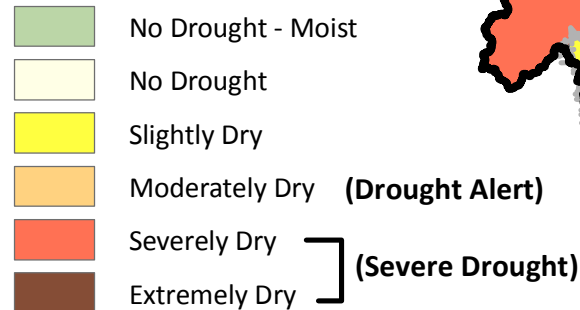
## Map Key

 Continental Divide

 Drought Impact Type

## Drought Status

### April 2010



**Drought Impact Types** - **A** = Agricultural - Soil Moisture, Range conditions

**H** = Hydrological - Water Supplies, Streamflow, Groundwater

**Drought Alert** - Governor's Drought

Advisory Committee strongly encourages local officials to convene local drought committees.

**Severe Drought** - Local officials should have local drought planning efforts underway or should reconvene the local drought committee at the earliest opportunity.

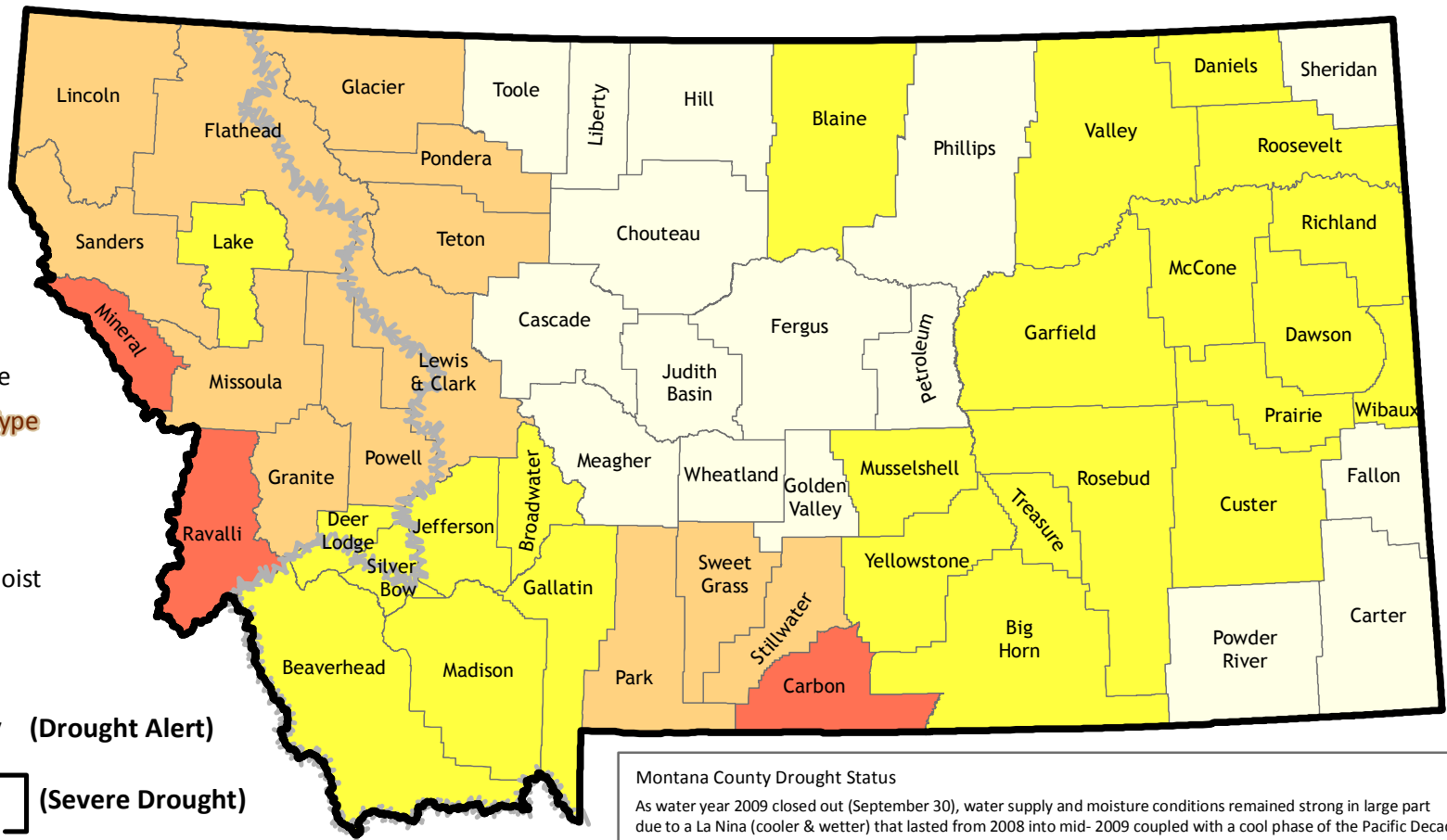
For recommended responses, see the Montana Drought Plan



<http://nris.mt.gov/drought/>



<http://drought.mt.gov>



## Montana County Drought Status

As water year 2009 closed out (September 30), water supply and moisture conditions remained strong in large part due to a La Nina (cooler & wetter) that lasted from mid- 2009 coupled with a cool phase of the Pacific Decadal Oscillation (PDO) that enhanced the effects of the La Nina. See: [http://nris.mt.gov/Nrcs/Jul09/swsi07\\_09.pdf](http://nris.mt.gov/Nrcs/Jul09/swsi07_09.pdf) By November, the Montana Drought Status map showed 55 of the 56 counties in the No Drought category, with only Toole County rated as Slightly Dry. However, the La Nina of 2008-2009 faded away in April 2009 as equatorial waters of the eastern Pacific began to warm ushering in the warm phase of ENSO, El Nino, which usually brings warmer and drier than usual conditions to Montana. By January, the El Nino had strengthened to what NOAA characterized as a "strong" event.

December saw mountain snowpack water equivalents fall behind the 30-year averages in western Montana and along the Rocky Mountain Front, but the central part of the state remained above average. December 2009 closed out as the coldest since 1983 and fifth coldest December of record. The NWS 2010 water year map (Oct-Dec) showed valley precipitation in the eastern one-half of the state as between 85- and 200 percent, in contrast to west of the Divide, where the range was from 40- to 85 percent. The December status map reflected drying as the Committee took all counties, save 10 central and two southwestern counties, into the Slightly Dry category.

By mid-January the snow water content of the mountains of the Upper Missouri and Yellowstone river basins languished at around 75 percent, with the Bitterroot and Lower Clark Fork basins falling below 60 percent. The dryness of late fall and December prompted the Committee to further downgrade five counties along the west edge of the state to Moderately Dry over snowpack concerns. Generally, the water supply conditions are consistent with El Nino years of the recent past. But with a cool phase of the PDO persisting and present for the first time in many years during an El Nino event, records show that the cool overarching PDO may soften the warm and dry tendencies of the El Nino as winter progresses.