



2010 Rocky Mountain Area Fire Season Outlook

Issued: Tuesday, May 4, 2010

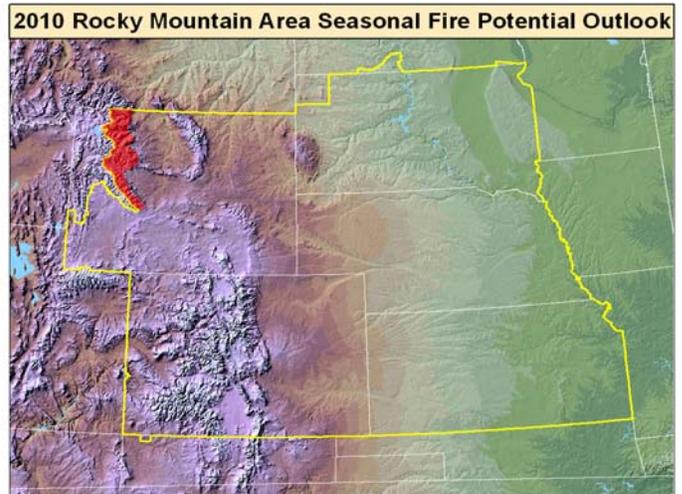
Next Update: Tuesday, June 1, 2010

PRODUCT INTENT & DESCRIPTION

Fire season potential is predicted for the period May – September, in terms of the “Potential” for significant fire events that may require mobilization of additional resources from outside the area in which they originate.

SUMMARY

The 2009-2010 winter season resulted in below average precipitation amounts across much of western and northern Wyoming, western portions of South Dakota, and northern sections of Colorado. Elsewhere, near average precipitation was noted during the winter season. An active weather pattern in mid and late April reversed a dry start to the 2010 spring season, with many locations experiencing wet conditions. Additionally, many locations over northern sections of the RMA, where snowpack and precipitation deficits were greatest and drought conditions reached severe levels, have benefited from recent wet trends as well. Given the overall active winter weather pattern in 2009-2010 and recent wetness, grass fire season was much quieter than the 2008 and 2009 seasons. The spring of 2010 yielded only 14,000 acres, compared to 62,000 acres in 2009 and 60,000 in 2008. Though more grass fires may occur over northern sections of the RMA during the next few weeks, expected green-up will decrease the risk by June 1.



16 years of reported fire data yields an annual **median** of 278,000 acres and approximately 10,000 ignitions across the Rocky Mountain Area. The annual **averages** (mean) yield 413,000 acres with approximately 9,000 ignitions (The **averages** are skewed from the 2000 and 2002 fire seasons and lack of fire statistics prior to 1994 and the median values are closer approximations for historical averages). As it normally does, fire season will begin to take shape over Colorado in June through early July, before migrating northward in mid July through September over northern sections of the RMA. There are no strong climate signals that result in an early onset of fire season. The June through September outlook (**map above**) highlights two areas of concern. The red area highlights northwest Wyoming as above average fire potential for mid July through September. This area is an extension of an above average region that includes portions of eastern Idaho, western Montana and eastern Washington (**See National Fire Potential Map-Page 4**).

The following prediction factors were used to formulate this outlook:

- Drought conditions have significantly improved across the plains of eastern Colorado and western Kansas during the last year, but have worsened across western Wyoming. The current drought monitor (See Input Graphics on Page 3) shows “severe” drought conditions across western Wyoming.
- Snowpack across the Rocky Mountain Area ranges from near average to below average across southern Colorado to **much below** average over northwest Wyoming. Snow water equivalence percent of average (as of May 3, 2010) ranges in northwest Wyoming range from 50% to 59% of average.
- El Nino is expected to weaken during the spring; however lingering effects are expected for the next several weeks with an active weather pattern over much of the western U.S. Though snowpack is below average over portions of the RMA, an active spring pattern should offer up precipitation opportunities for the next several weeks.
- Tropical sea-surface temperatures are forecast to weaken from the current El Nino state and become neutral over the next several weeks.
- Climate forecasts from the Climate Prediction Center and others support above average temperatures west of the divide this summer, especially July through August. Wetter than average conditions are forecast east of the divide, with no tilt either way west. However, other forecasts support drier than average summer conditions from northwest Colorado through western Wyoming.
- The southwest monsoon is forecast to start on time. Climate forecasts suggest wet conditions along and east of the divide.

- Average greenup is expected across the RMA.
- Carry over grasses from previous growing seasons are abundant across the RMA. Many forests across the Rocky Mountain Area have been devastated by the mountain pine beetle. Dry and hot periods make these areas more susceptible to large fire potential.



Figure 1. Shoshone National Forest



Figure 2. Summit County Colorado

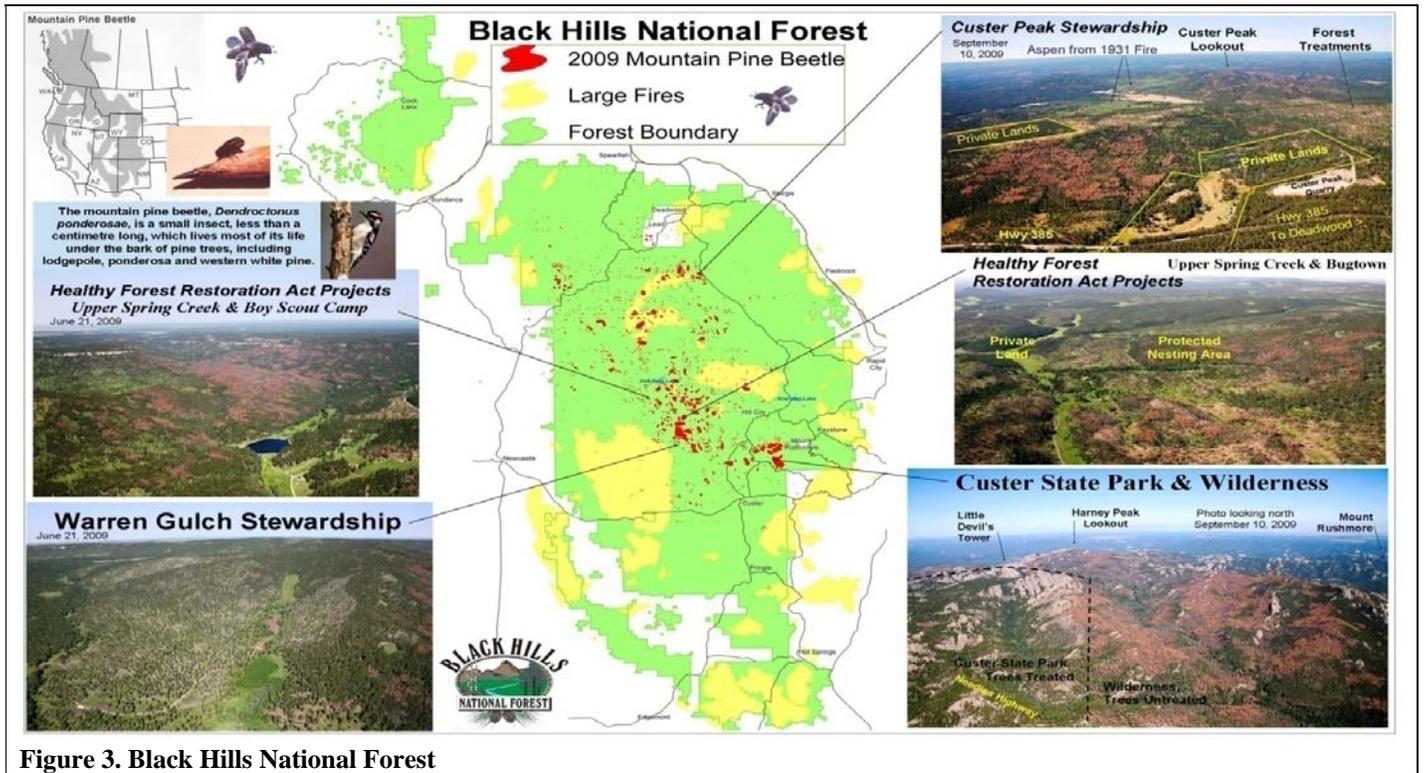


Figure 3. Black Hills National Forest

Bottom-line: Above average fire potential is forecast for portions of northwest Wyoming which is an extension of above average fire potential over western Montana, eastern Idaho and eastern Washington (See National Outlook Map-Page 4). Below average snowpack, severe drought conditions, forecasted above average temperatures and below average precipitation July through August are current climate factors that support an above average fire potential forecast for that area. Similar conditions may develop for much of western Wyoming and northwest Colorado; however confidence for that area remains low at this time. Average fire potential is forecast elsewhere. Average fire potential means that these areas will likely experience short durations of fuel and fire weather conditions that support periods of large fire activity, but not extended periods of fuel and fire weather conditions that result in multiple large fires for several weeks.

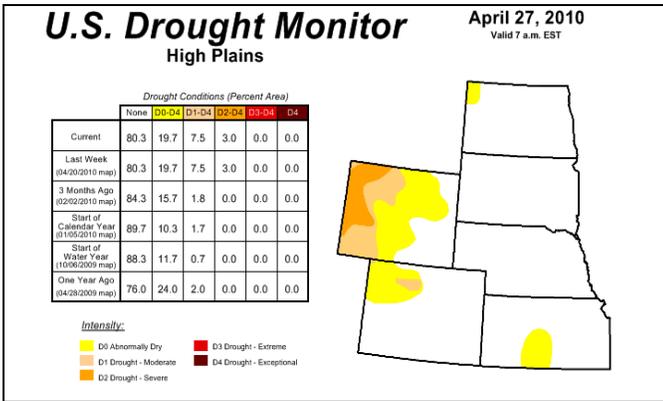


Figure 4. U.S. Drought Monitor-April 27, 2010

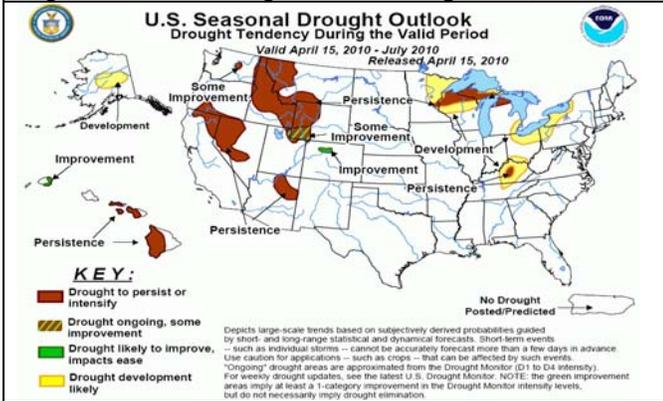


Figure 5. Drought Outlook

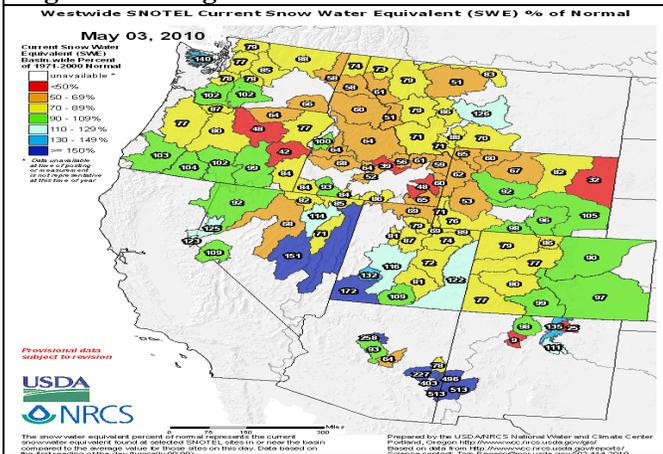


Figure 6. Westwide Snotel-Current SWE% Normal

U.S. Drought Monitor

Drought conditions have worsened over the past year across western Wyoming. **“Moderate” to “Severe”** drought indices were noted over western Wyoming, with abnormally dry conditions across central Wyoming and northwest Colorado. Long term drought acts to increase dead fuel loadings, deplete fuel moisture values in dead fuels (especially heavier fuels), and can also lead to unusually low fuel moisture values in live fuels.

Drought Outlook

Drought Forecast from the Climate Prediction Center-April 15, 2010. Though some improvement is likely over the next several weeks, **“Severe”** drought conditions are forecast to persist in much of western Wyoming through July 2010.

Westwide Snotel SWE% of Normal

As of May 3, 2010, below average snowpack is noted across western Colorado and especially western Wyoming, with values ranging from 55% to 85%.

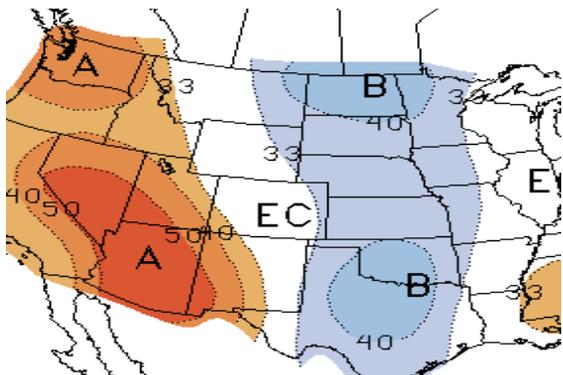


Figure 7. Temperature Outlook: May-July 2010

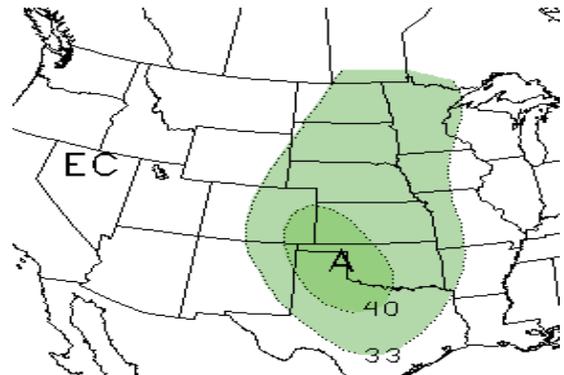


Figure 8. Precipitation Outlook: May-July 2010

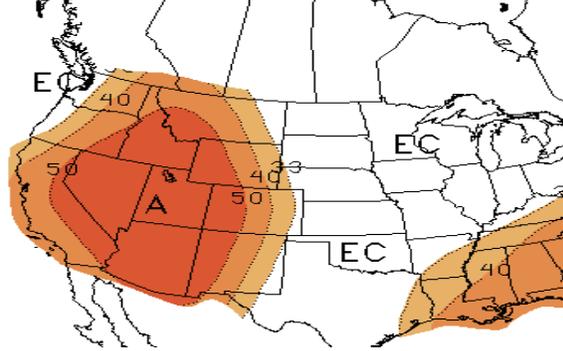


Figure 10. Temperature Outlook: July-September 2010

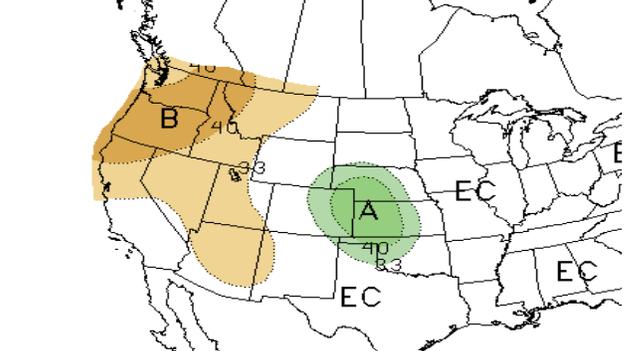


Figure 11. Precipitation Outlook: July-September 2010

Temperature outlooks from the Climate Prediction Center indicate near average readings through late spring (Figure 7), with increasing odds for above average temperatures July through September (Figure 10) across western sections of the Rocky Mountain Area. Precipitation outlooks (Figures 8 and 11) support wetter than average odds across eastern sections of the Rocky Mountain Area through late spring and into the summer months, with no tilts towards dry or wet during this period across western sections. However, other outlooks support drier than average conditions from northwest Colorado into western Wyoming from July through September.

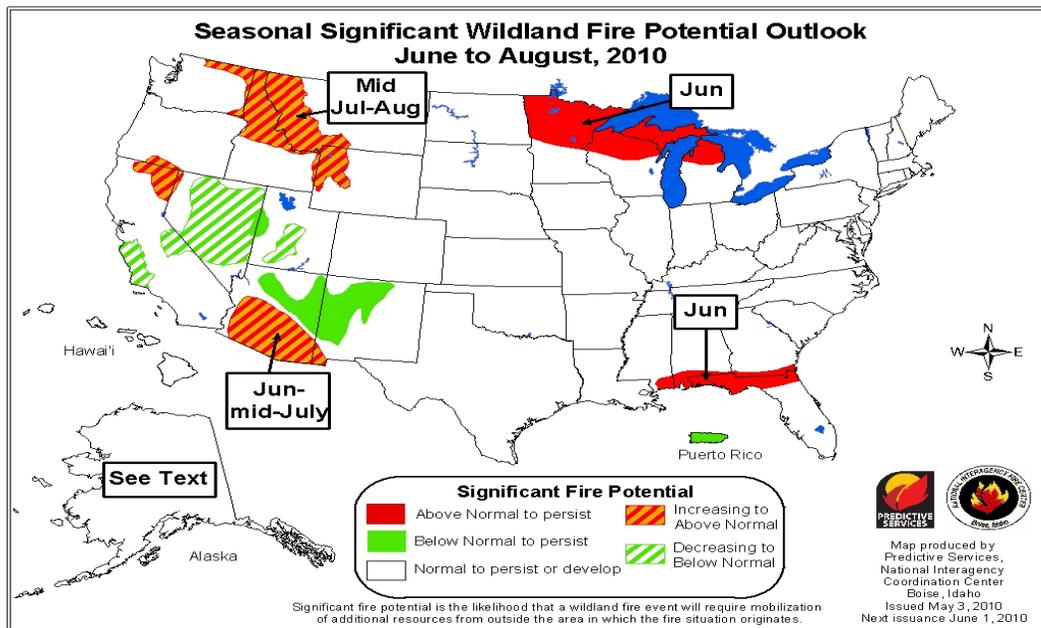


Figure 12. 90-Day Seasonal Outlook-June through August 2010

Predictive Services Group
Rocky Mountain Area Coordination Center