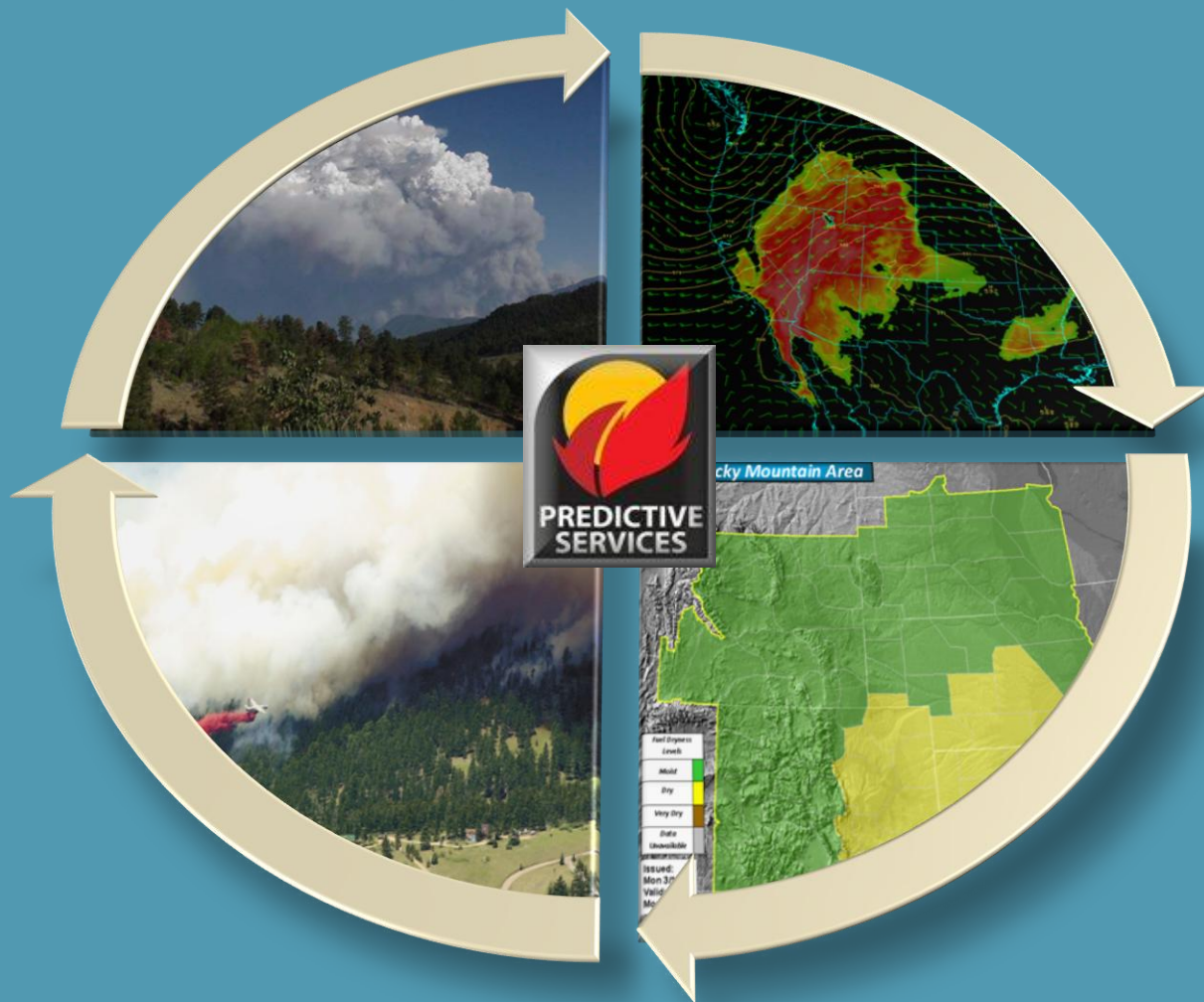




Rocky Mountain Area

2011 Seasonal Outlook-June 1, 2011



Tim Mathewson - Fire Meteorologist- RMACC
Russ Mann- Fire Meteorologist- RMACC
Marco Perea- Intelligence Coordinator- RMACC



Rocky Mountain Area

Considerations

- ❑ **Current Snowpack**
- ❑ **Precipitation Anomalies**
- ❑ **Recent Fire Activity**
- ❑ **2011 Seasonal Outlook**



Arctic Air

L

Strong Polar Jet

L

Wet

Wet

Flooding

Wet

L

Fall 2010

Late Winter/Early Spring 2011

L

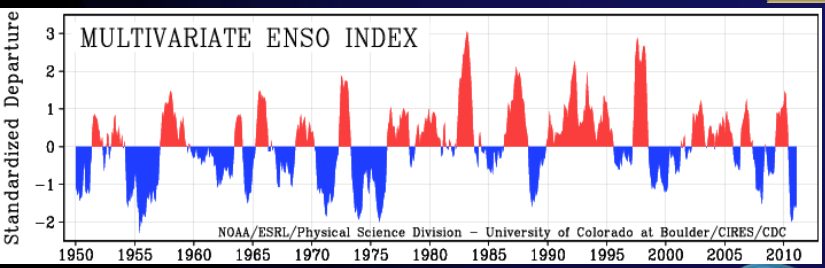
Dry

L

L

Increase in Tornado Activity

Fires



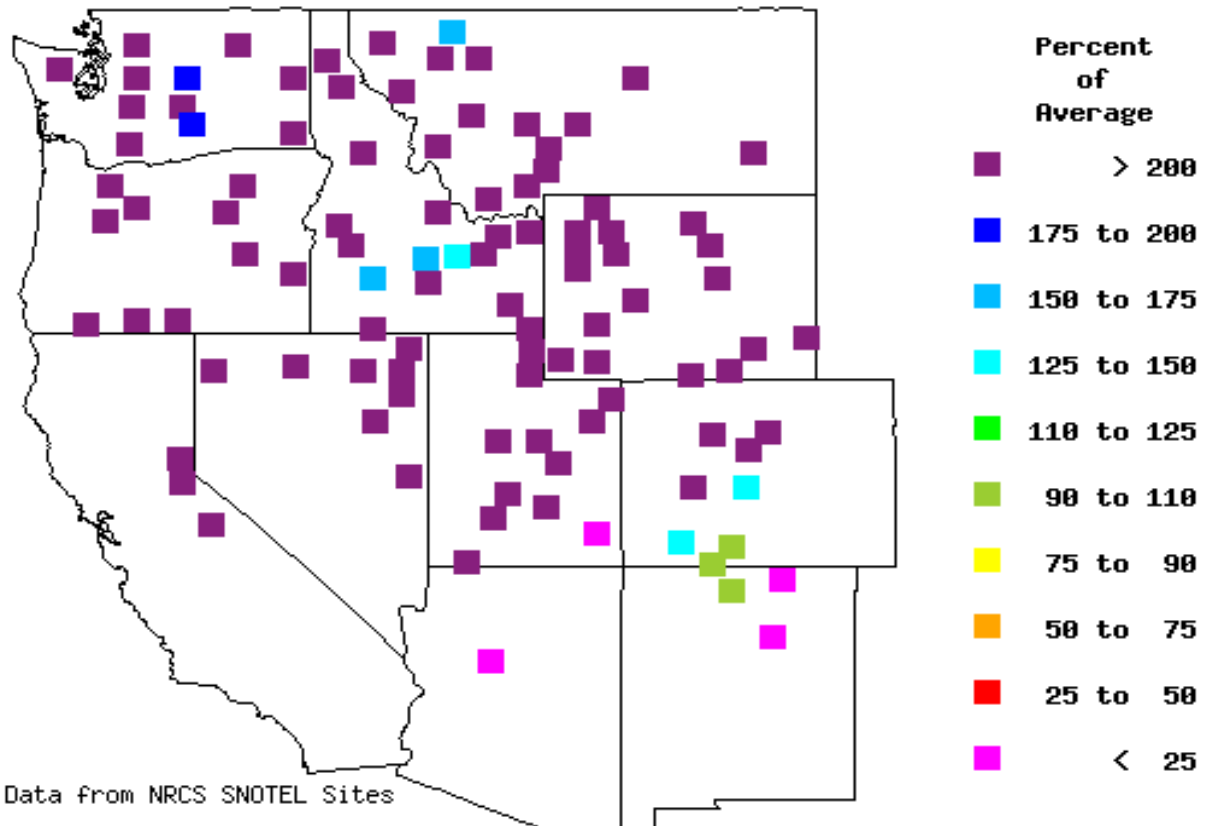
Strong La Nina



Rocky Mountain Area

Western U.S. Snowpack

Basin Average Snow Water Content. (% of Average.)



Report Date:

JUNE 1 , 2011

Provisional Data
Based on Mountain Data from NRCS SNOTEL Sites

Data provided by
Water and Climate Center
Natural Resources Conservation Service
Portland, Oregon

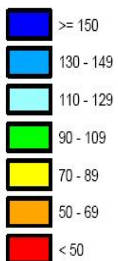
Western Regional Climate Center
Desert Research Institute
Reno, Nevada



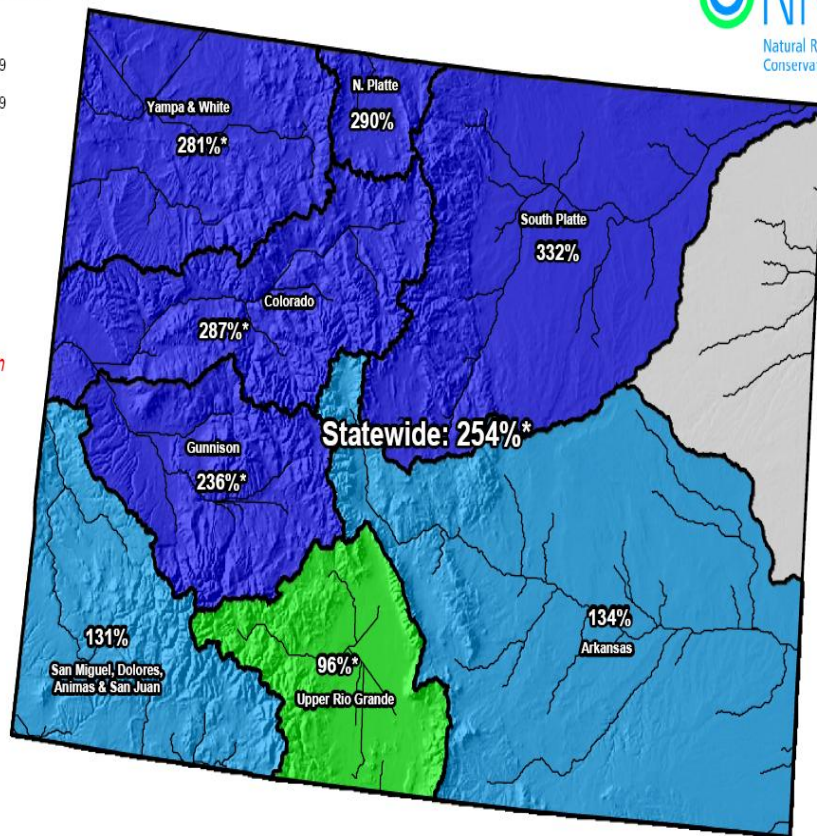
Rocky Mountain Area Colorado Snowpack

Colorado SNOTEL Snowpack Update Map

Percent of Average



Provisional Data
Subject to Revision



Colorado Snowpack

Statewide: 254% Ave.

Conclusions:

Snowpack Map is Misleading and Represents Drainage Averages and Does Not Reflect the Dry Conditions Across Southeast Colorado. Flooding Remains a Concern this Summer.

Current as of Jun 01, 2011

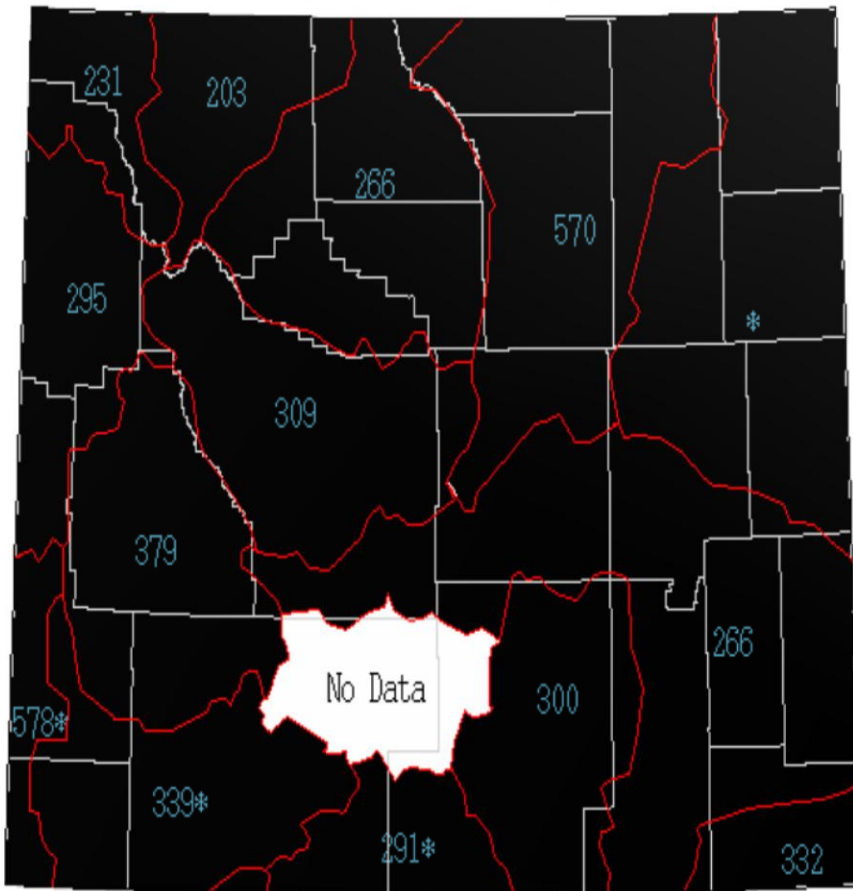
*Data may not provide a valid measure of conditions



Rocky Mountain Area

Wyoming Snowpack

SWE % of Average as of Wednesday, 01 June 2011



Percent of Average

- > 200
- 175 to 200
- 150 to 175
- 125 to 150
- 110 to 125
- 90 to 110
- 75 to 90
- 50 to 75
- 25 to 50
- < 25

Wyoming Snowpack

Snowpack:

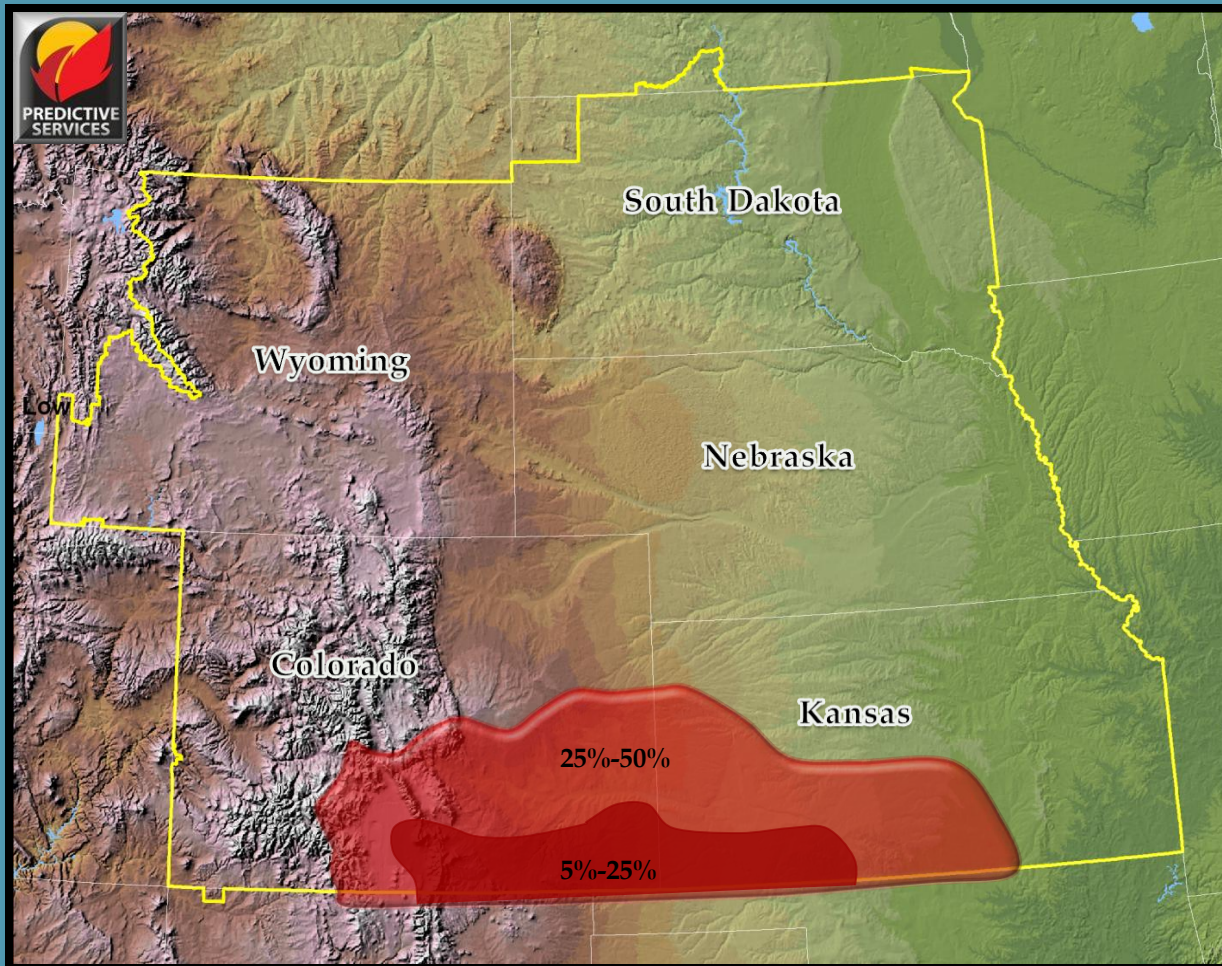
> 200% of Normal

Flooding is a Concern this Summer



Rocky Mountain Area

30-Day Percent of Average Precipitation



The Last 30-Days



5%-25% Average

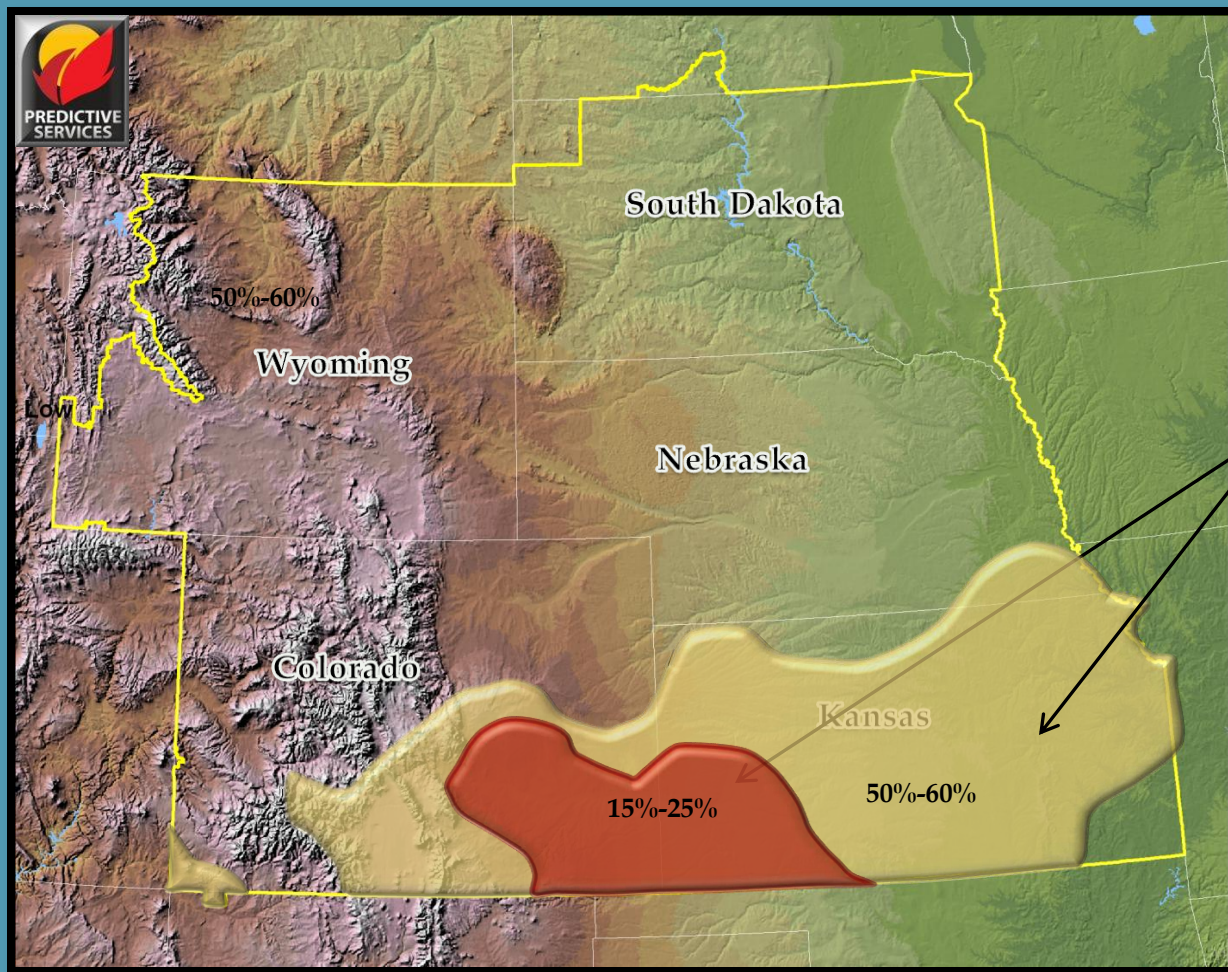


25%-50% Average





Rocky Mountain Area

9-Month Percent of Average Precipitation



**Dry Period
Began Late
Summer 2010**

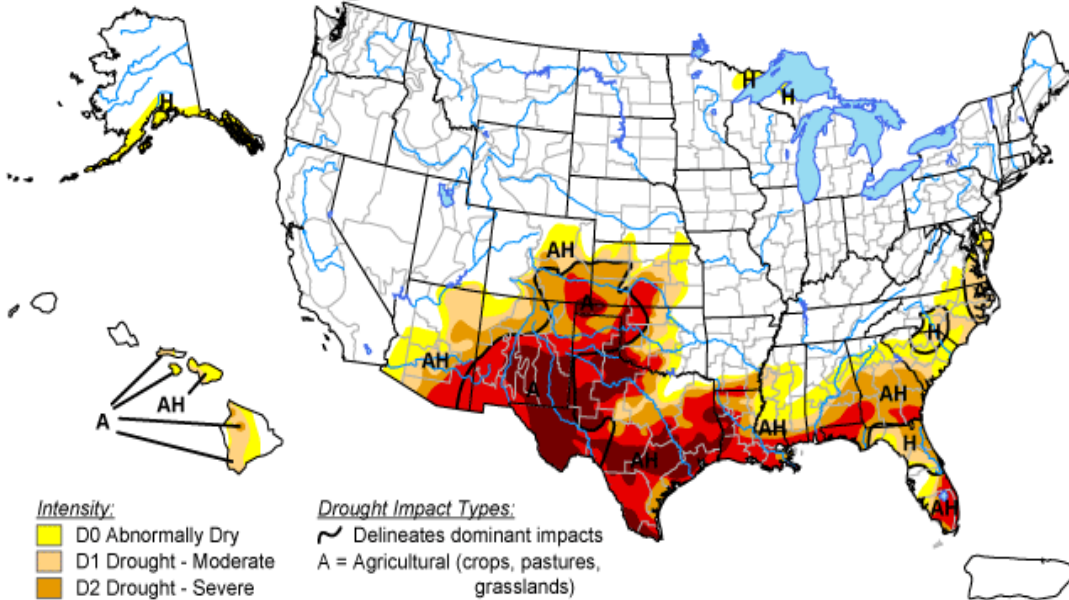
-  50%-60% of Average
-  15%-25% of Average



Rocky Mountain Area National Drought Conditions

U.S. Drought Monitor

May 24, 2011
Valid 8 a.m. EDT



- Intensity:**
- D0 Abnormally Dry
 - D1 Drought - Moderate
 - D2 Drought - Severe
 - D3 Drought - Extreme
 - D4 Drought - Exceptional

- Drought Impact Types:**
- Delineates dominant impacts
 - A = Agricultural (crops, pastures, grasslands)
 - H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, May 26, 2011
Author: David Miskus, NOAA/NWS/NCEP/CPC

Intensifying Drought

- Abnormally Dry
- Moderate
- Severe
- Extreme
- Exceptional



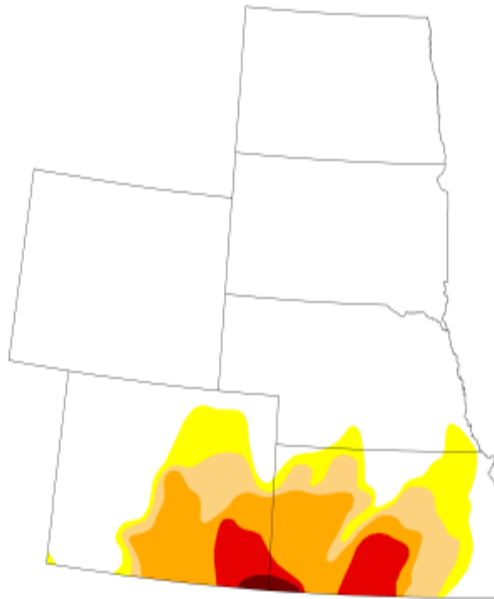
Rocky Mountain Area National Drought Conditions

U.S. Drought Monitor High Plains

May 24, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	77.40	22.60	16.73	11.20	3.42	0.34
Last Week (05/17/2011 map)	71.93	28.07	21.96	14.40	3.53	0.10
3 Months Ago (02/22/2011 map)	62.25	37.75	19.14	2.39	0.00	0.00
Start of Calendar Year (12/28/2010 map)	60.35	39.65	19.57	2.63	0.00	0.00
Start of Water Year (09/28/2010 map)	65.06	34.94	3.73	0.00	0.00	0.00
One Year Ago (05/18/2010 map)	86.26	13.74	6.47	2.97	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Intensifying Drought

- Abnormally Dry
- Moderate
- Severe
- Extreme
- Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>

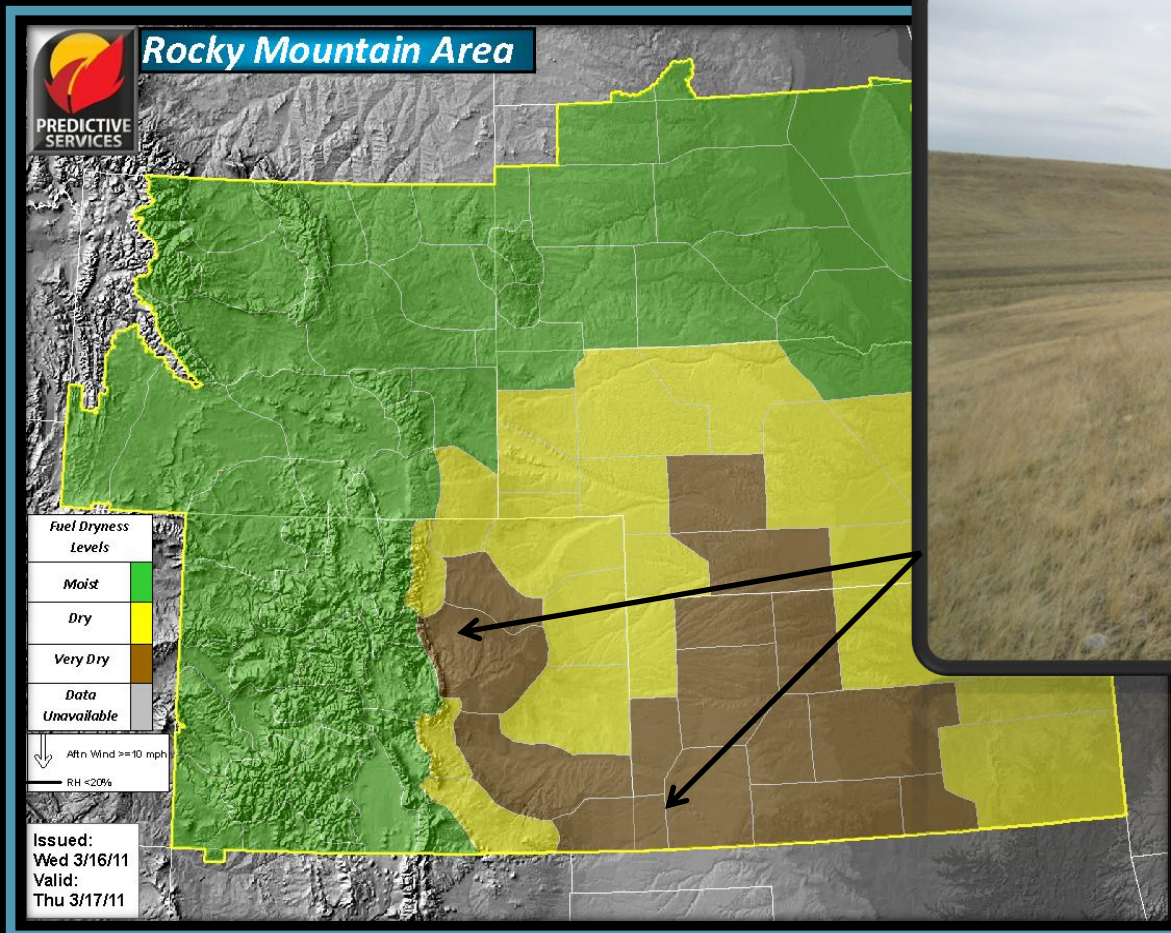


Released Thursday, May 26, 2011
David Miskus, NOAA/NWS/NCEP/CPC



Rocky Mountain Area

Spring Dryness Levels and Fuels



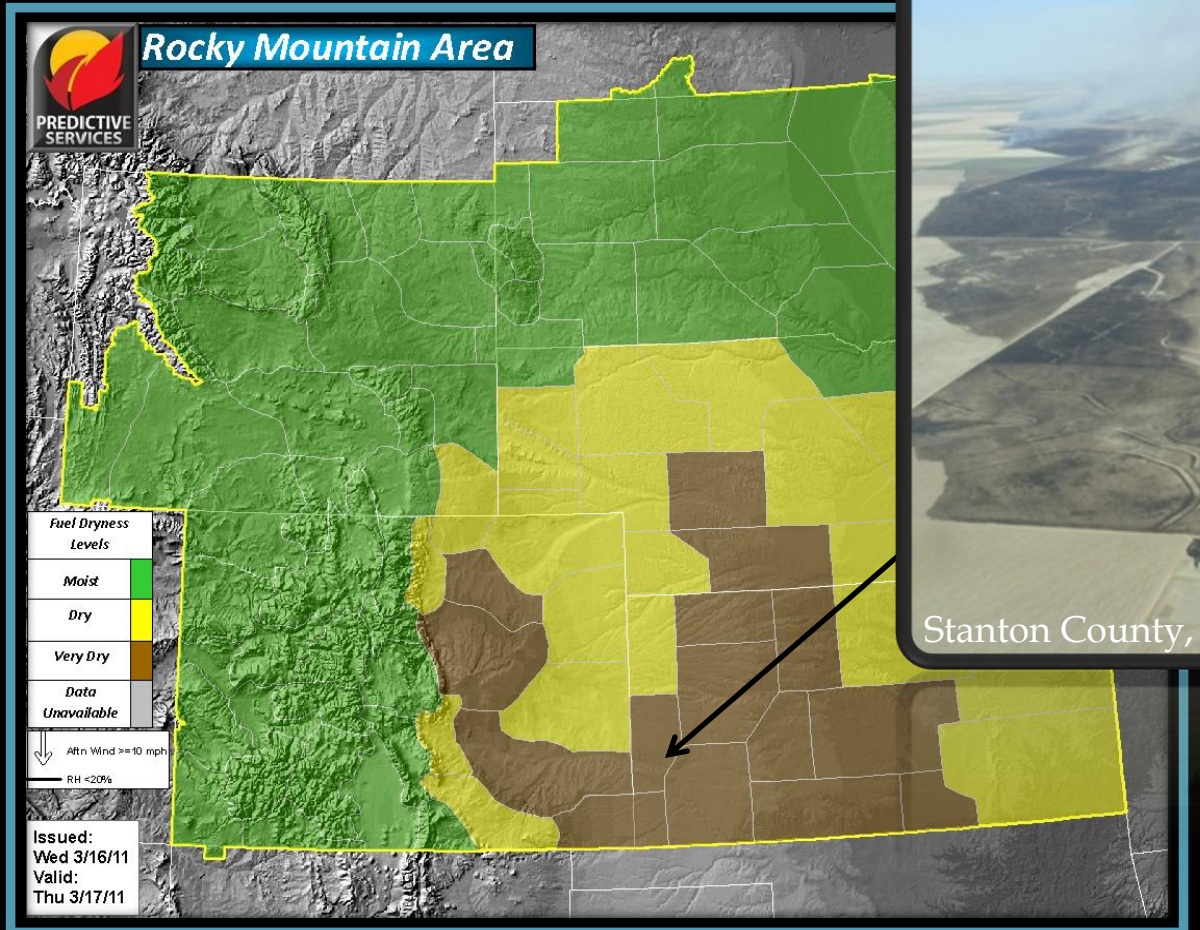
**Significant Grass Fuel Loading
From the 2010 Growing Season**

**Minimal new grasses due to the
lack of precipitation below
average soil moisture**



Rocky Mountain Area

Spring Dryness Levels and Fuels



Stanton County, KS- March 22, 2011- 38,000 Acres

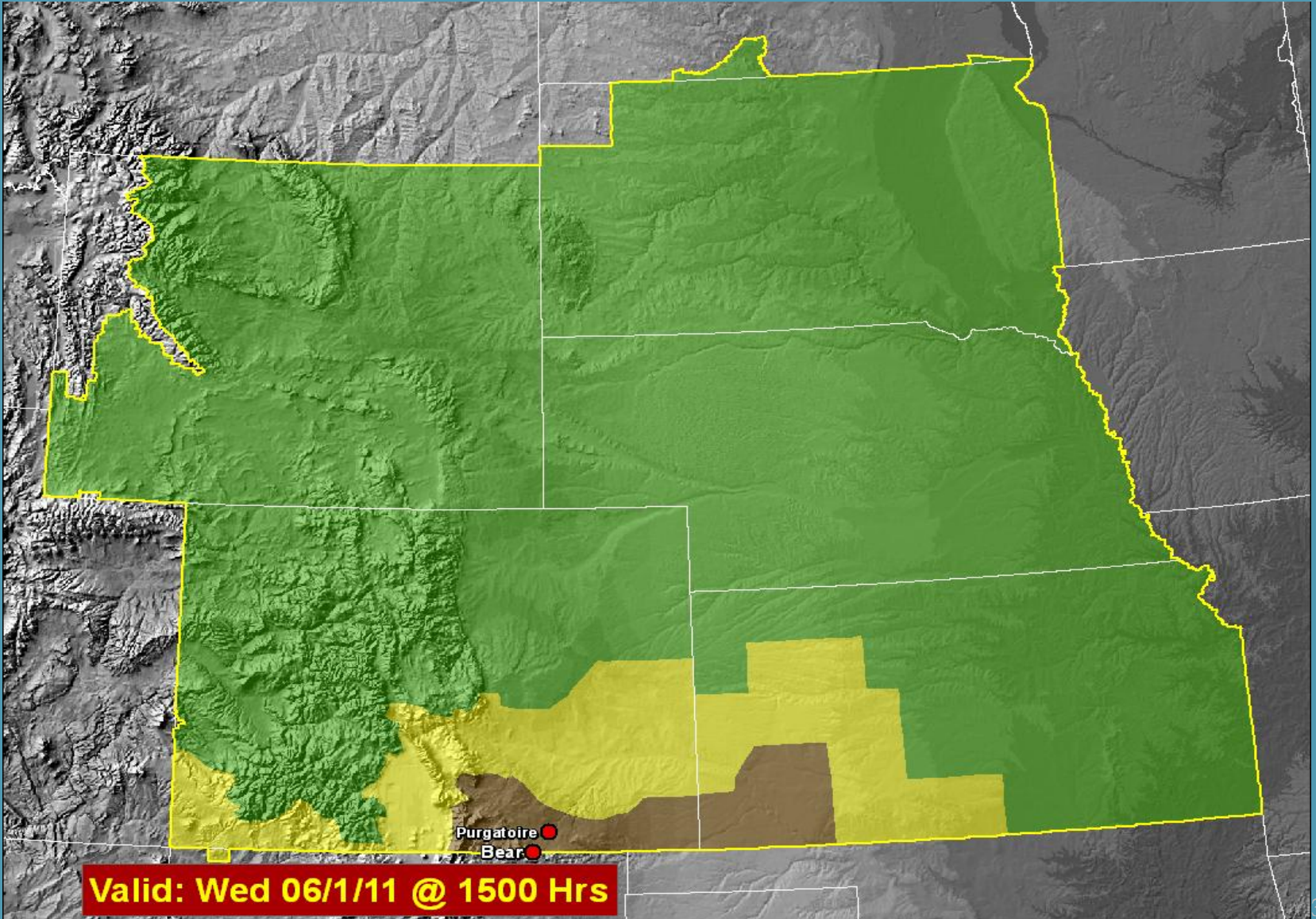
**Significant Grass Fuel Loading
From the 2010 Growing Season**

**Minimal new grasses due to the
lack of precipitation below
average soil moisture**



Rocky Mountain Area

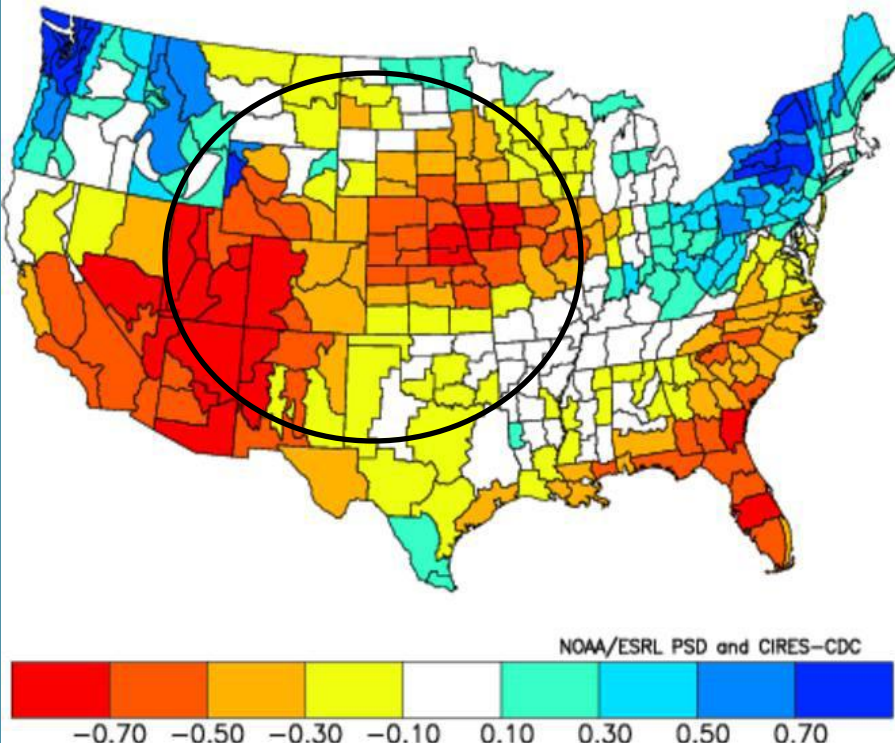
Recent Fuel Dryness and "Reported" Large Fires



Rocky Mountain Area

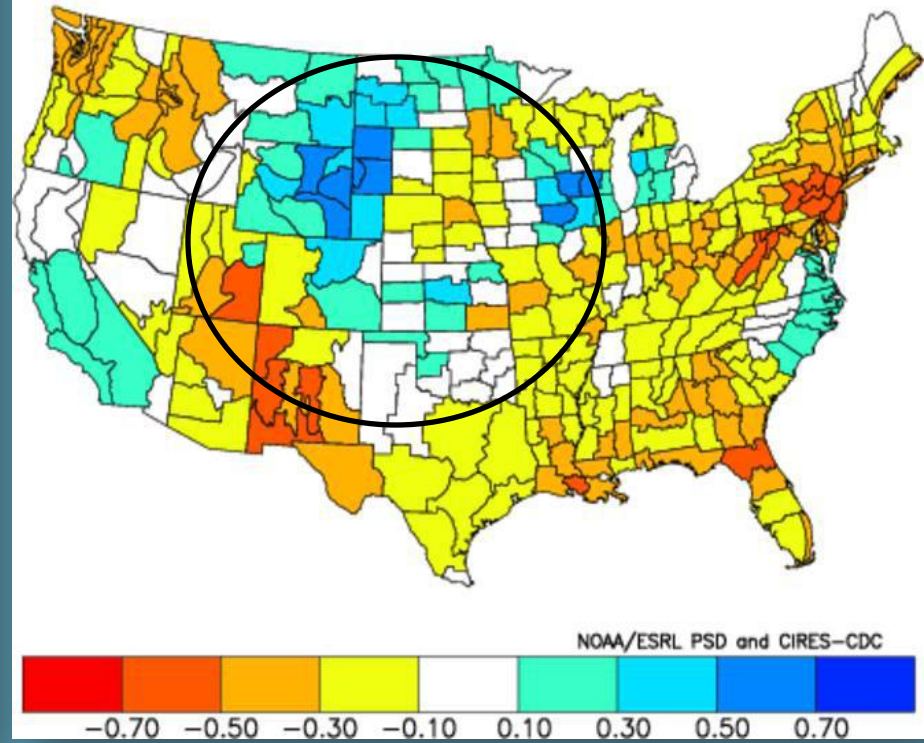
The Outlook

Composite Standardized Precipitation Anomalies
Versus 1950–1995 Longterm Average
Mar 1950,1955,1956,1967,1971,1974,1976,1989,1999,2000
2008



March- Composite Precipitation Analogs

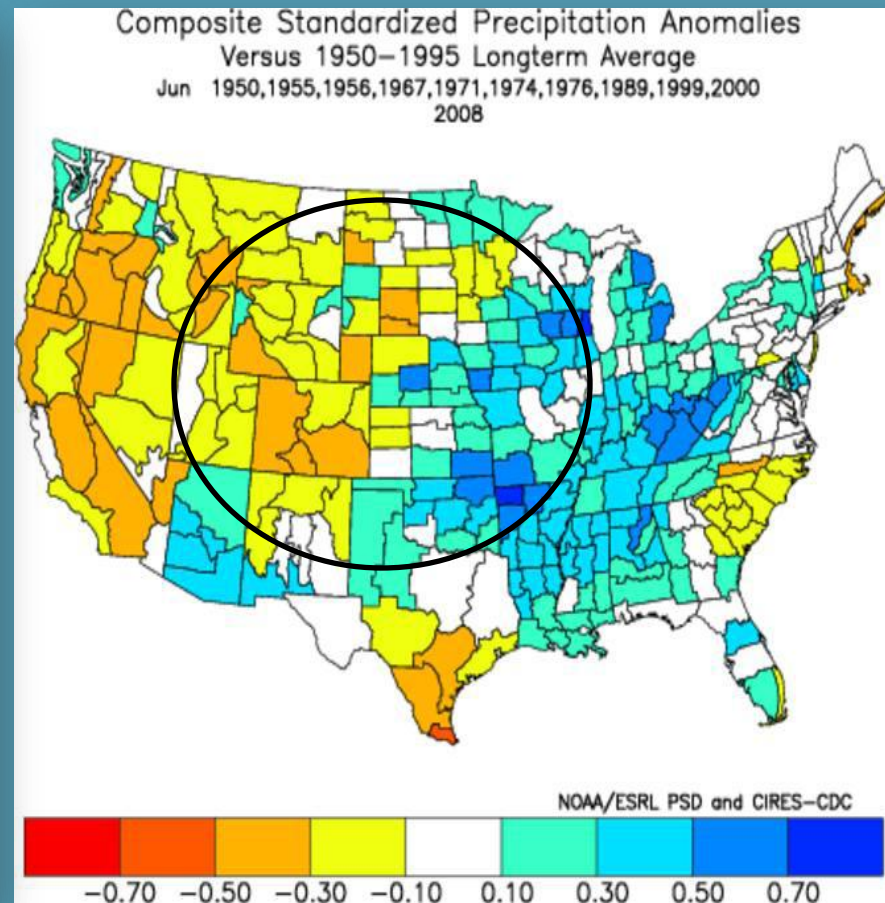
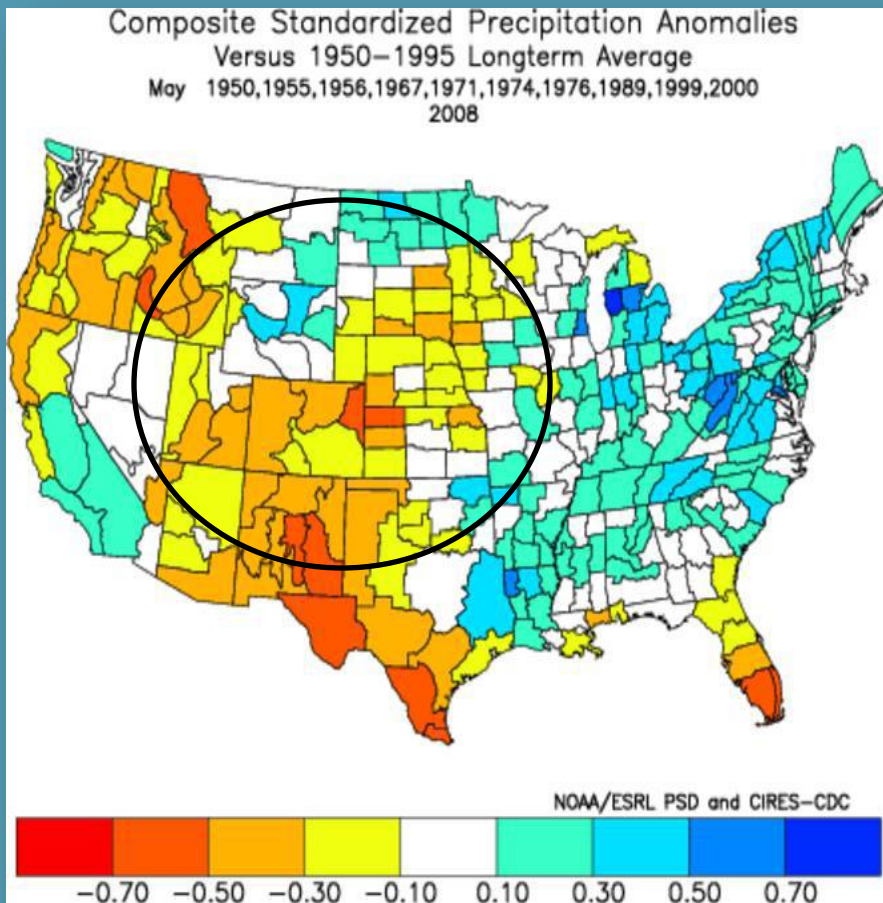
Composite Standardized Precipitation Anomalies
Versus 1950–1995 Longterm Average
Apr 1950,1955,1956,1967,1971,1974,1976,1989,1999,2000
2008



April- Composite Precipitation Analogs

Rocky Mountain Area

The Outlook



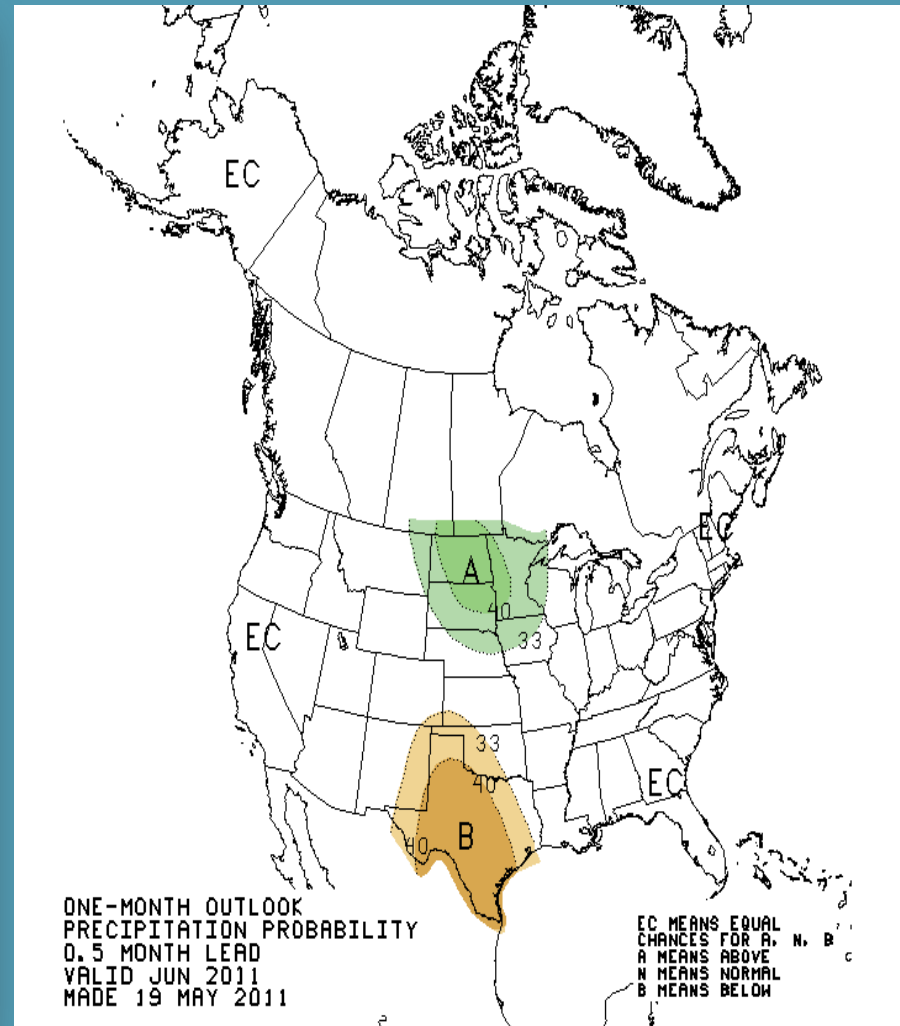
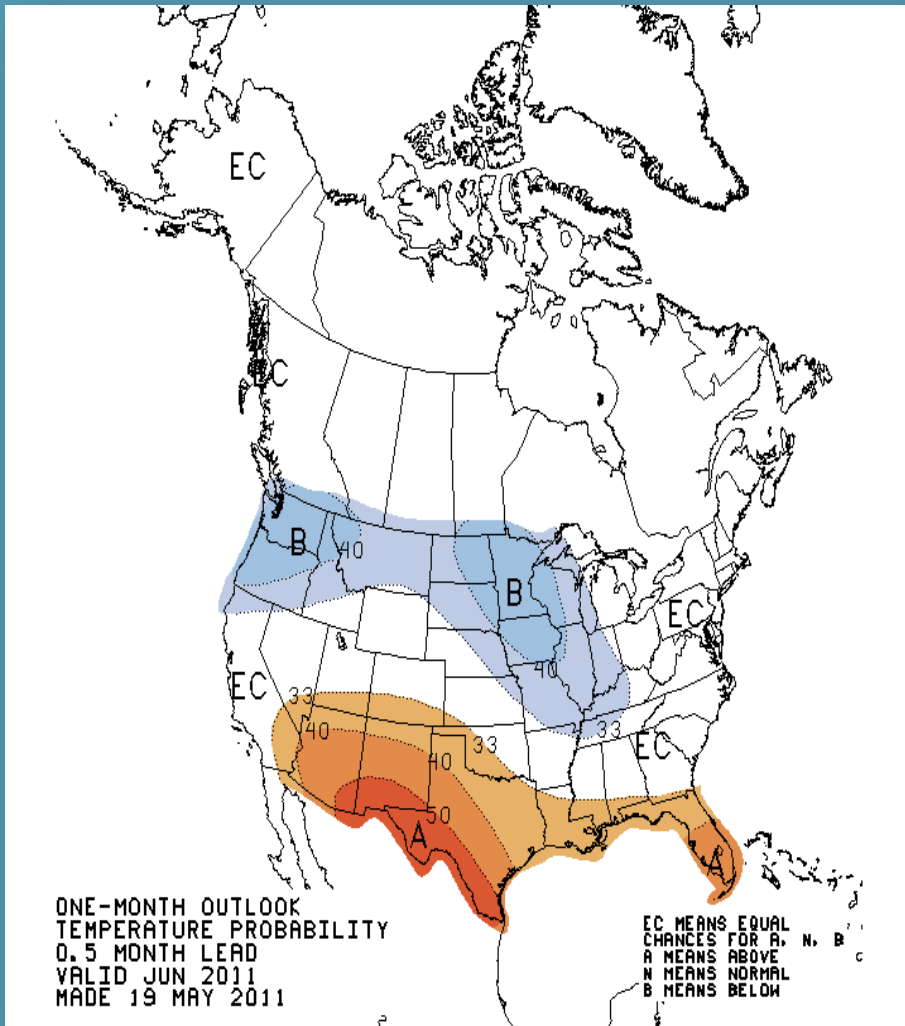
May- Composite Precipitation Analogs

June- Composite Precipitation Analogs



Rocky Mountain Area

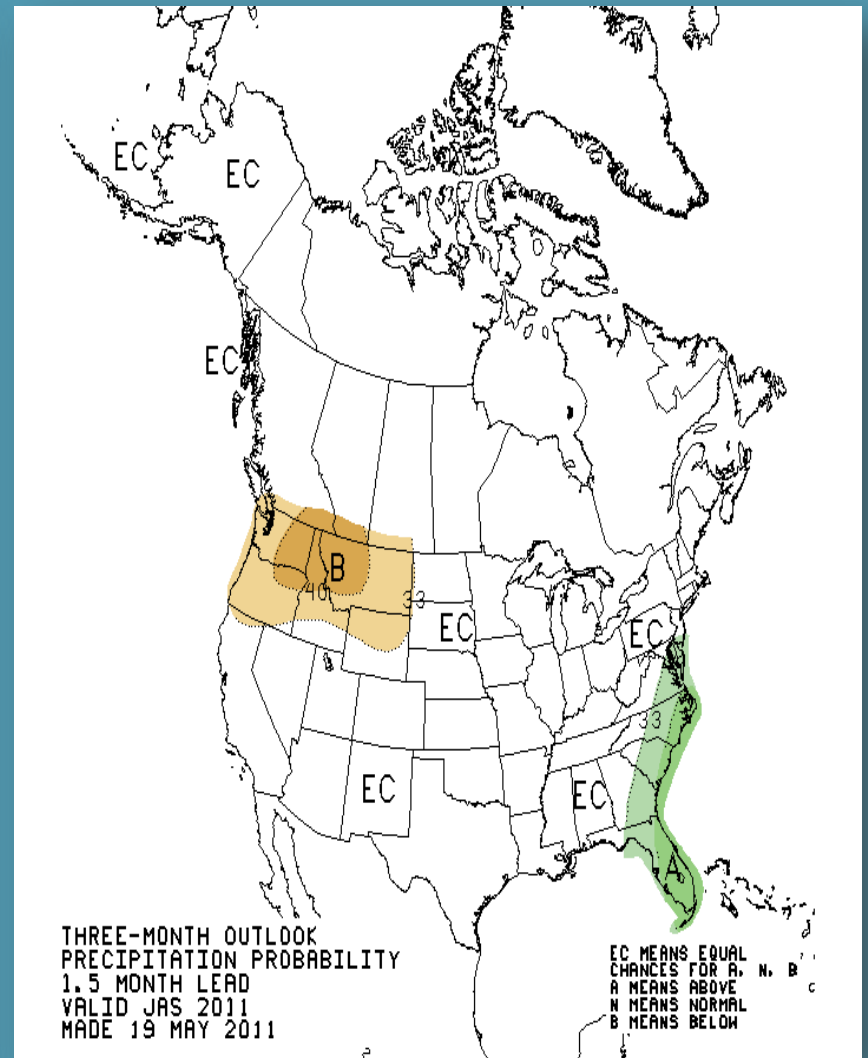
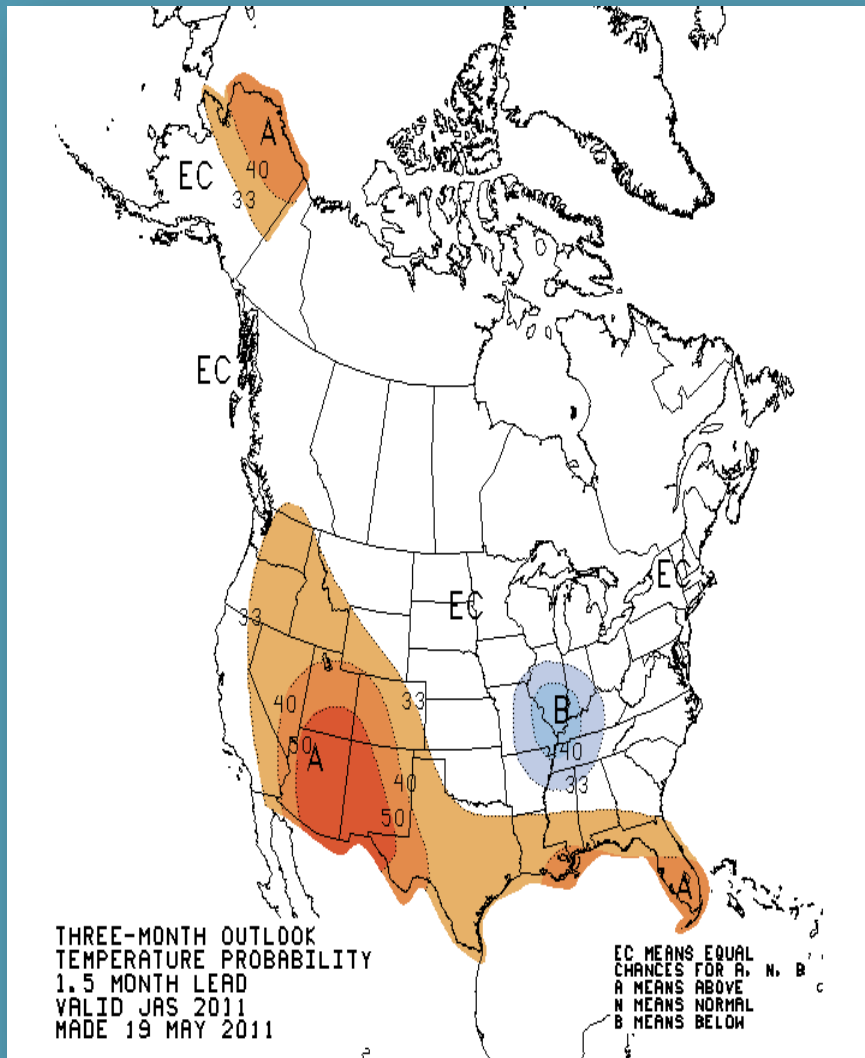
June 2011 Outlook





Rocky Mountain Area

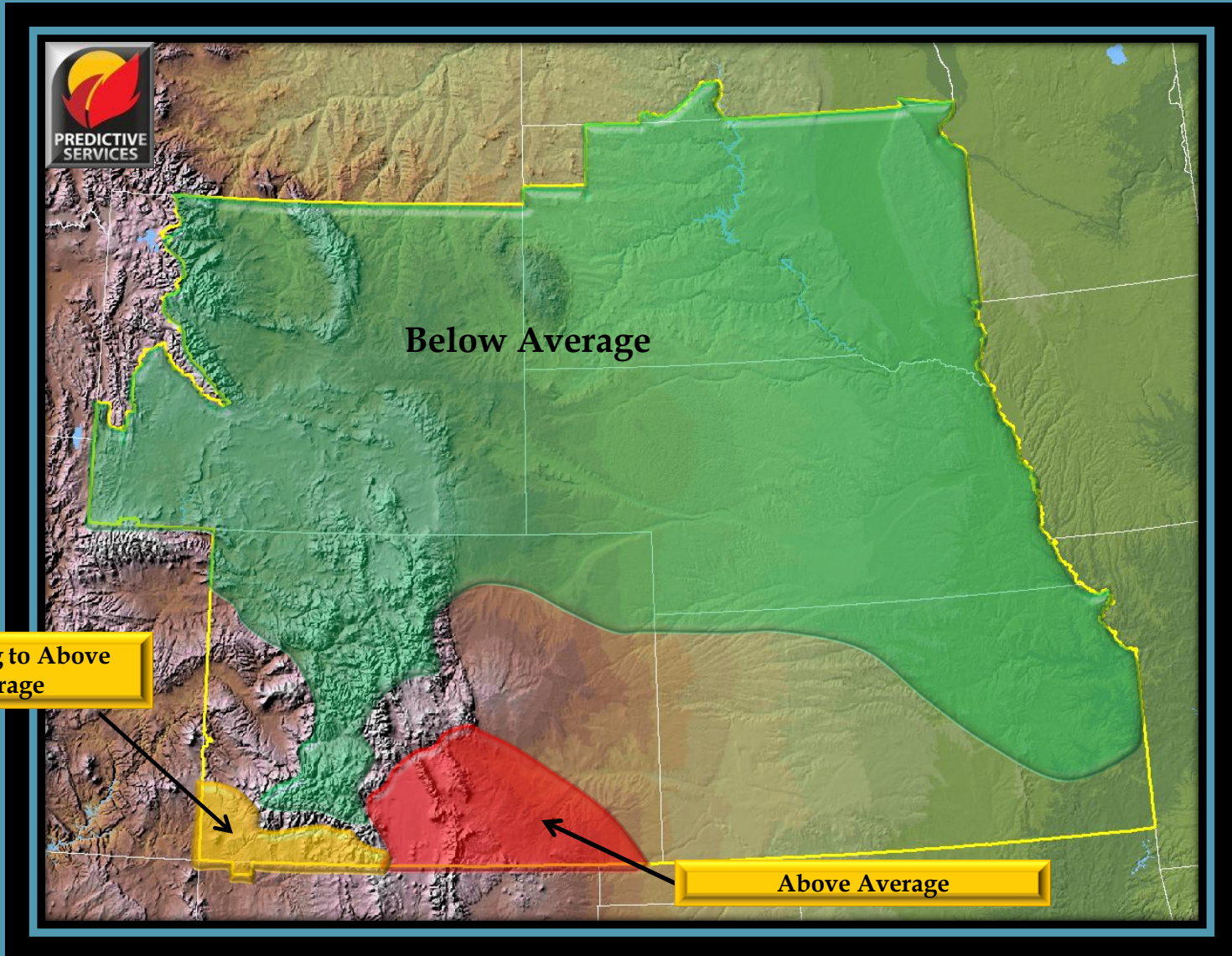
2011 JAS Outlook





Rocky Mountain Area

June 2011 Fire Potential Outlook



Below Average

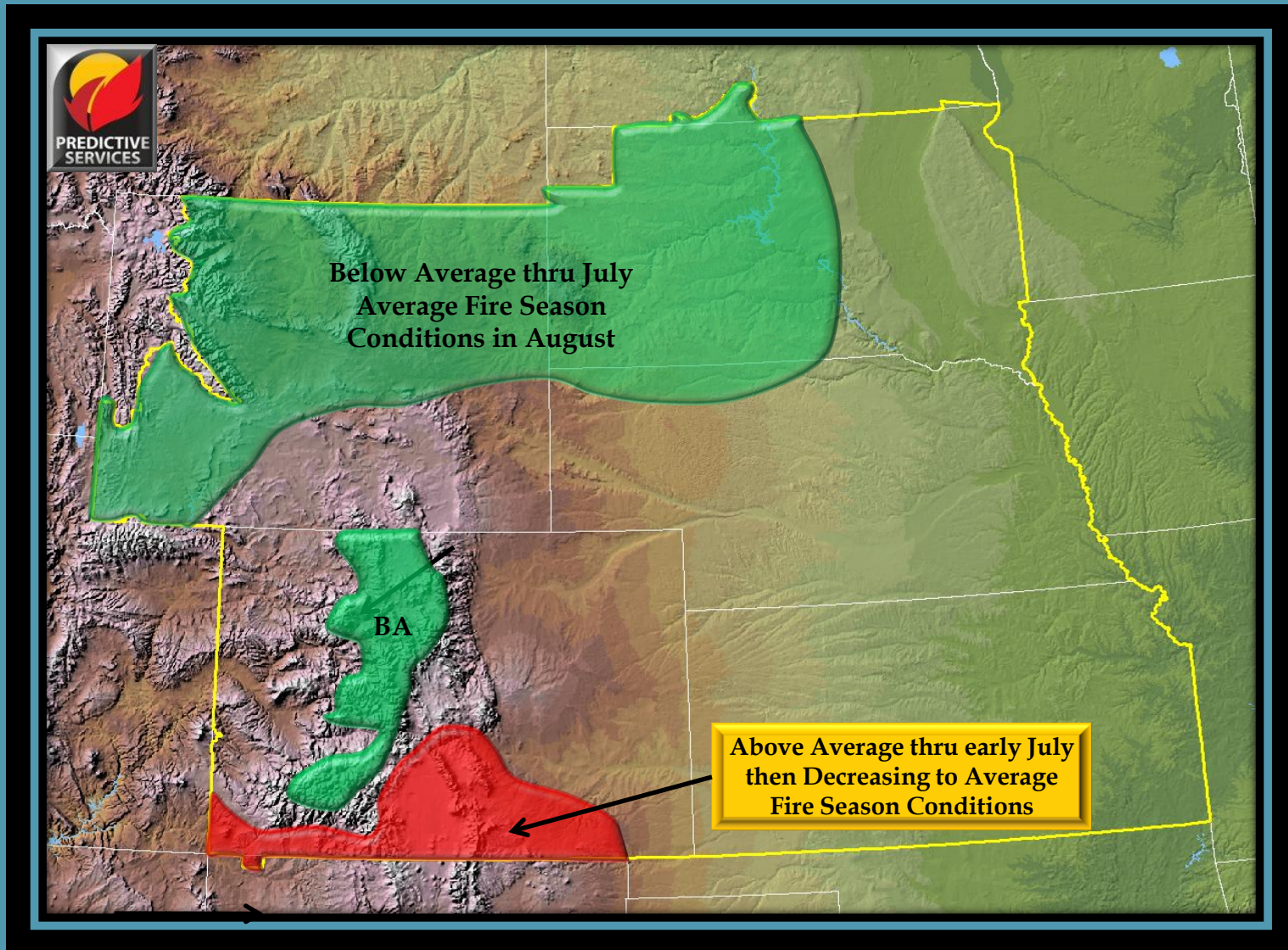
Increasing to Above Average

Above Average



Rocky Mountain Area

July thru September 2011 Fire Potential Outlook





Rocky Mountain Area

2011 Outlook Summary

- Above average fire potential across the plains of southeast Colorado and southwest Kansas has been slow to decrease this spring, with severe to exceptional drought conditions in place. Though a significant green-up is unlikely for this area, an increase in humidity should decrease the potential during the next couple of weeks. Just to the west, recent large fire activity (Bear, Purgatoire) in the southern Front Range foothills has verified expected above average fire activity that's been forecast for that area since early spring. Long-term precipitation deficits, severe drought conditions and occasional wind events may keep the southern Front Range region active until the onset of the Southwest Monsoon in early to mid July.

- Fire potential is forecast to increase to above average across the south central and southwest portion of Colorado, generally below 8000 feet. Though snowpack is currently above average in the San Juan mountains, expected drying and above average temperatures may increase the fire potential to above average prior to the onset of the monsoon at the lower elevations. Precipitation deficits were significant in this area during the winter and early spring months, however recent wet trends has decreased forecast confidence for this area.

- No significant change in the forecast over northern portions of the RMA. Below Average fire potential is forecast over much of northern sections, and higher elevations of the Colorado Mountains through July. Average fire season conditions will likely return to these areas late in the summer, except for below average conditions lingering over the high country of Colorado.

- **Bottom-line:** Lingering La Nina affects could keep fire potential above average over southern portions of Colorado through early July, or until monsoon moisture pushes northward this summer. Recent large fire activity over the southern Front Range region has verified conditions in that area. A late start to fire season appears to be in the cards this year across northern sections of the RMA with a significant late spring snowpack to contend with, flooding, and more precipitation during the month of June.