

South Dakota Drought Update

24 June 2013

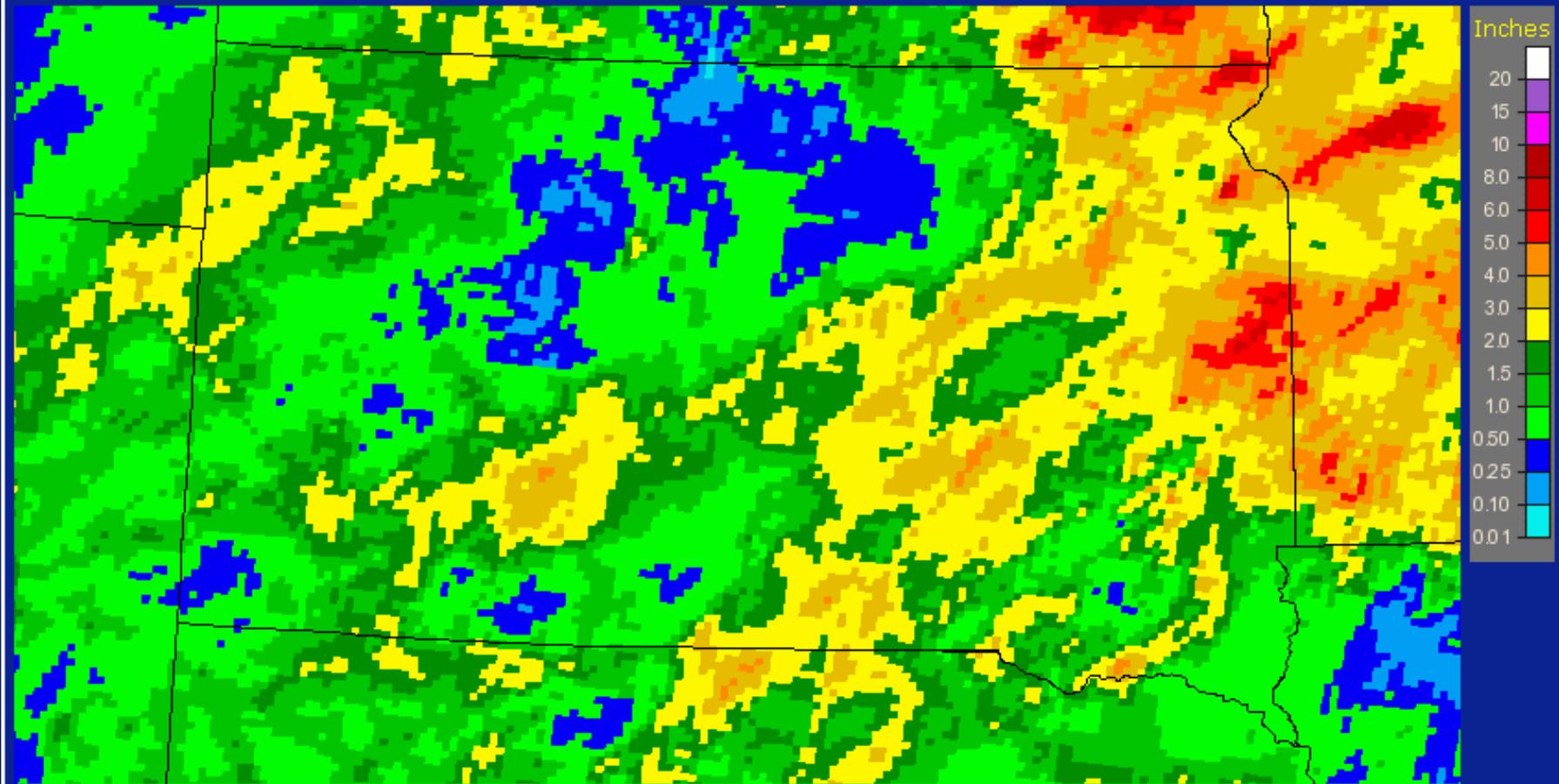
Dr. Dennis Todey

South Dakota State Climatologist

SDSU Extension/AES/ABE



South Dakota: Current 7-Day Observed Precipitation
Valid at 6/23/2013 1200 UTC - Created 6/24/13 0:35 UTC



- Topo
- Pcpn Amount
- Counties
- Rivers
- States
- Highway/City
- RFC Boundary

1. Timeframe

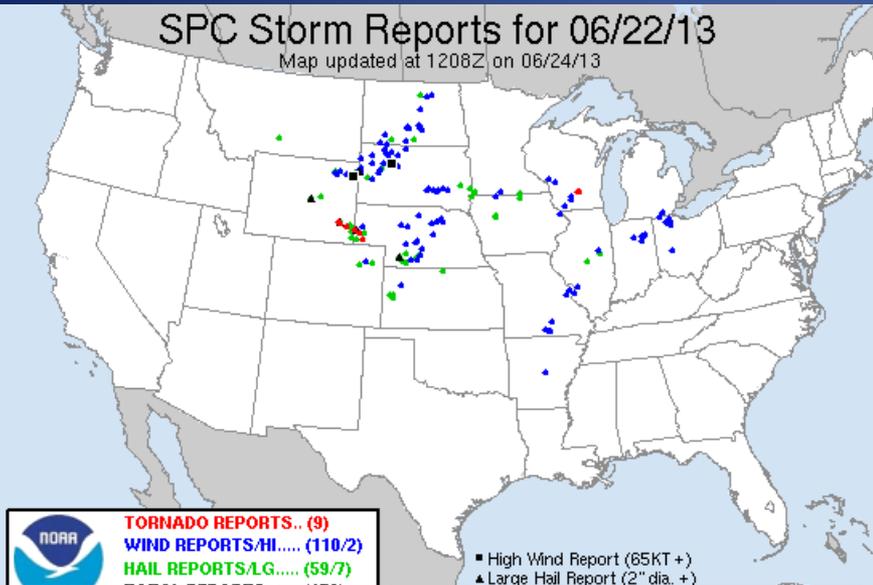
» 2. Product

» 3. Location

» 4. Units

SPC Storm Reports for 06/22/13

Map updated at 1208Z on 06/24/13

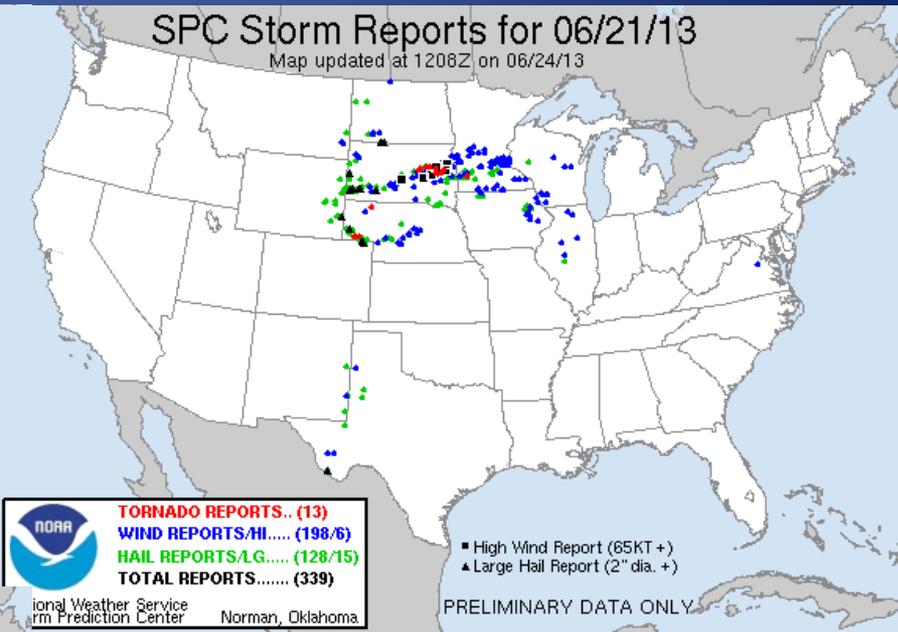


TORNADO REPORTS.. (9)
WIND REPORTS/HI..... (110/2)
HAIL REPORTS/LG..... (59/7)

■ High Wind Report (65KT +)
 ▲ Large Hail Report (2" dia. +)

SPC Storm Reports for 06/21/13

Map updated at 1208Z on 06/24/13



TORNADO REPORTS.. (13)
WIND REPORTS/HI..... (198/6)
HAIL REPORTS/LG..... (128/15)
TOTAL REPORTS..... (339)

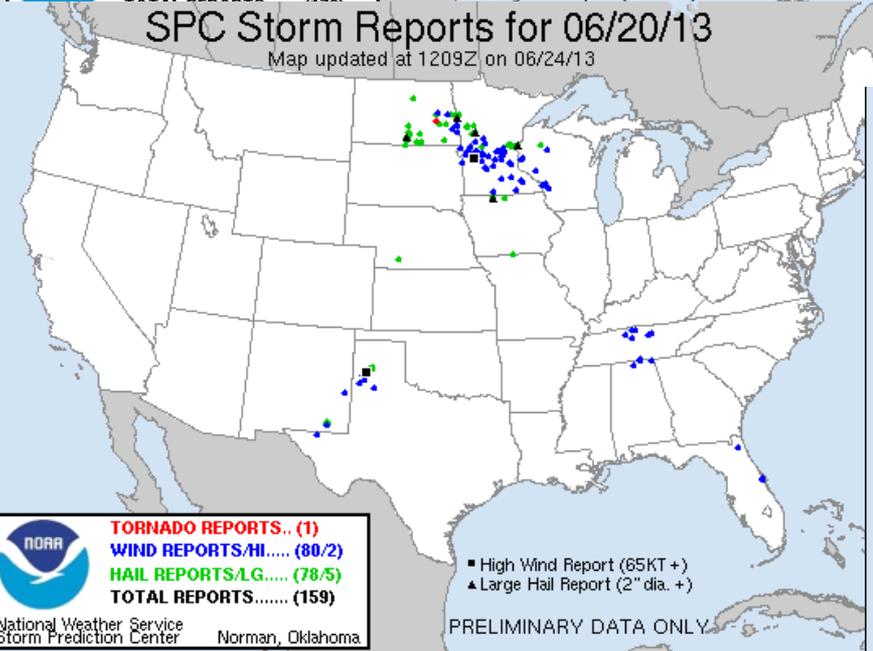
■ High Wind Report (65KT +)
 ▲ Large Hail Report (2" dia. +)

National Weather Service
 Storm Prediction Center
 Norman, Oklahoma

PRELIMINARY DATA ONLY

SPC Storm Reports for 06/20/13

Map updated at 1209Z on 06/24/13



TORNADO REPORTS.. (1)
WIND REPORTS/HI..... (80/2)
HAIL REPORTS/LG..... (78/5)
TOTAL REPORTS..... (159)

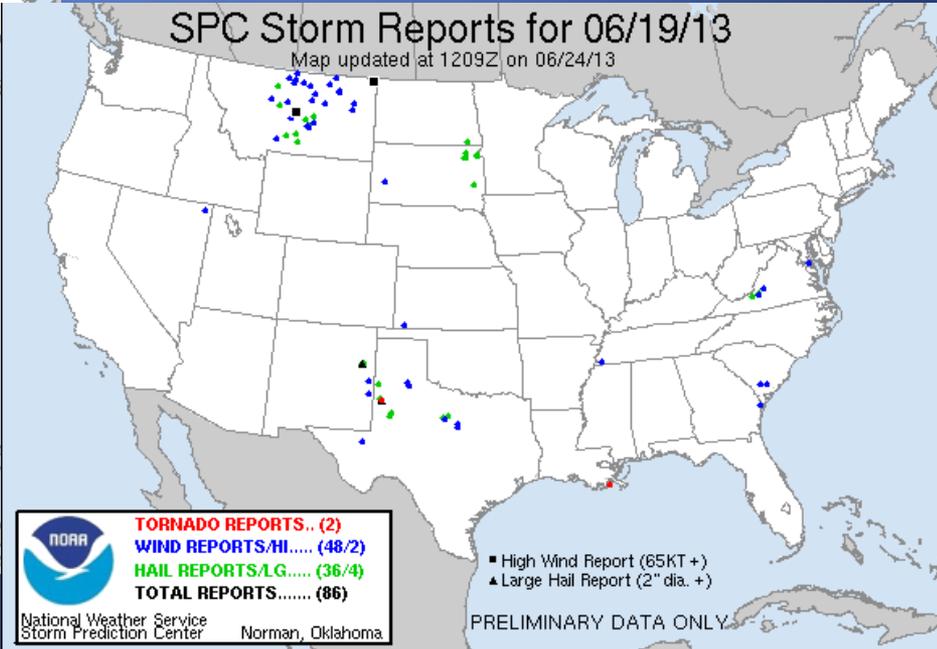
■ High Wind Report (65KT +)
 ▲ Large Hail Report (2" dia. +)

National Weather Service
 Storm Prediction Center
 Norman, Oklahoma

PRELIMINARY DATA ONLY

SPC Storm Reports for 06/19/13

Map updated at 1209Z on 06/24/13



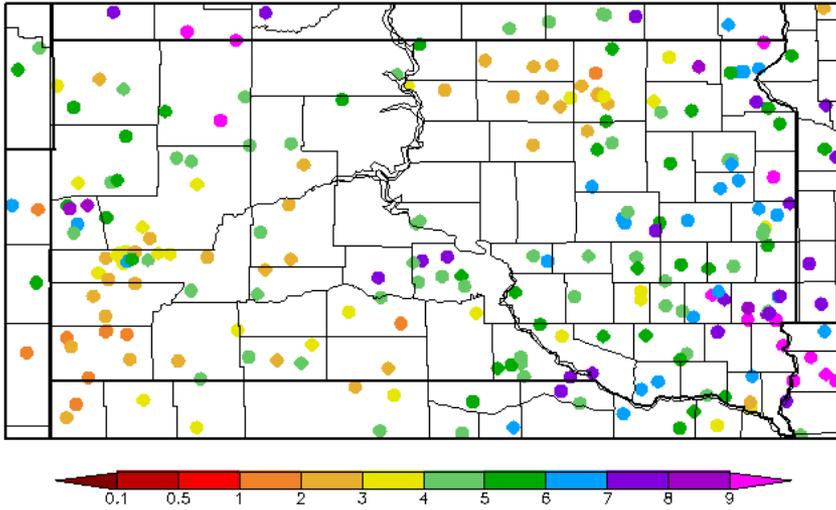
TORNADO REPORTS.. (2)
WIND REPORTS/HI..... (48/2)
HAIL REPORTS/LG..... (36/4)
TOTAL REPORTS..... (86)

■ High Wind Report (65KT +)
 ▲ Large Hail Report (2" dia. +)

National Weather Service
 Storm Prediction Center
 Norman, Oklahoma

PRELIMINARY DATA ONLY

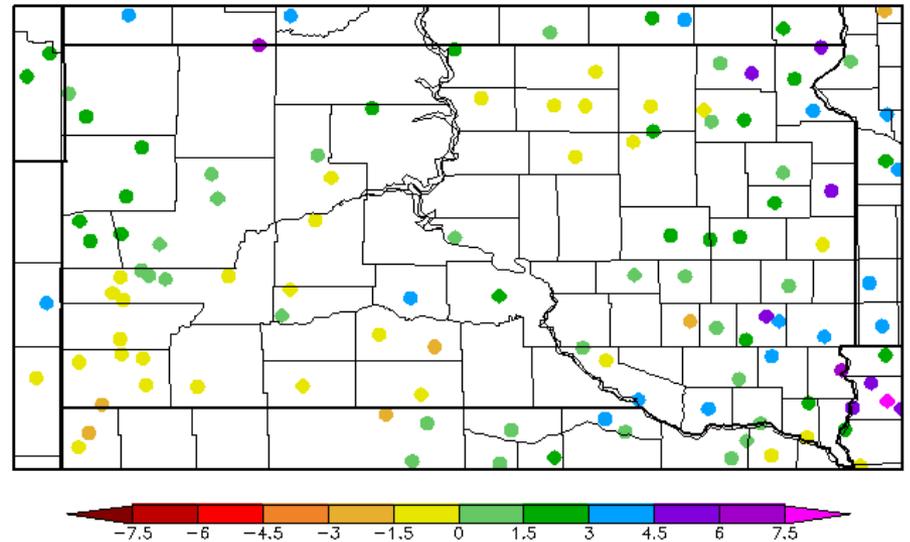
Precipitation (in)
5/25/2013 – 6/23/2013



Generated 6/24/2013 at HPRCC using provisional data.

Regional Climate Cent

Departure from Normal Precipitation (in)
5/25/2013 – 6/23/2013



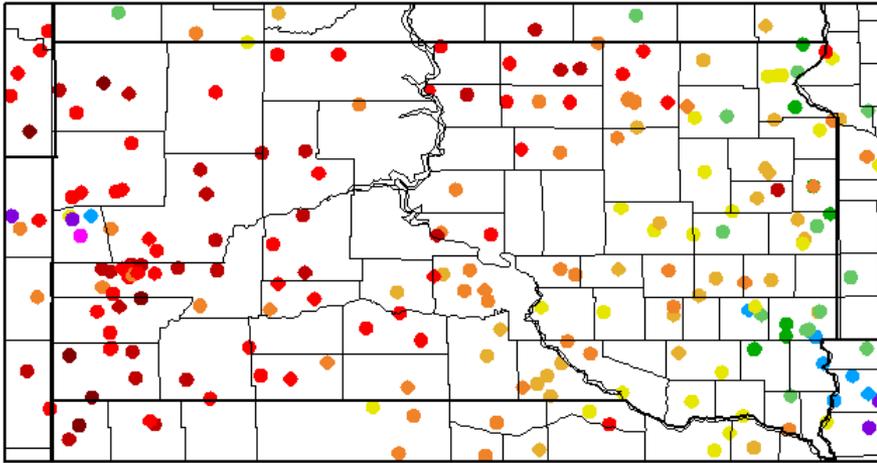
Generated 6/24/2013 at HPRCC using provisional data.

Regional Climate Centers

Good precipitation last 30 days –
some areas still below average



Precipitation (in) 10/1/2012 - 6/23/2013

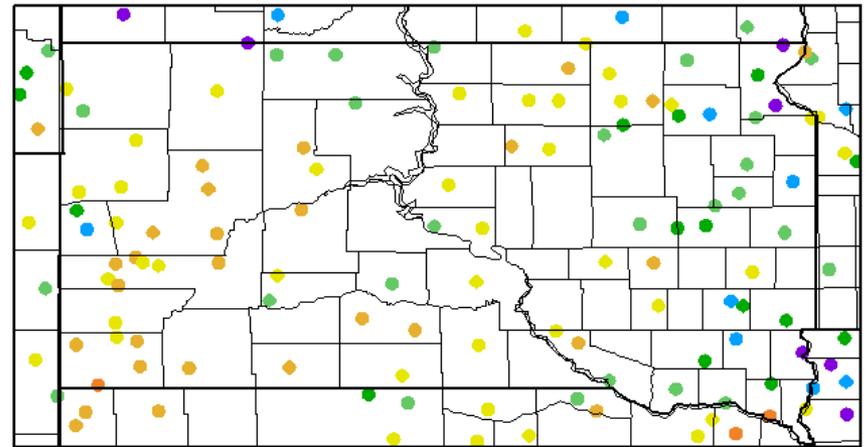


Generated 6/24/2013 at HPRCC using provisional data.

Regional Climate Centers

Large deficits since last fall

Departure from Normal Precipitation (in) 10/1/2012 - 6/23/2013



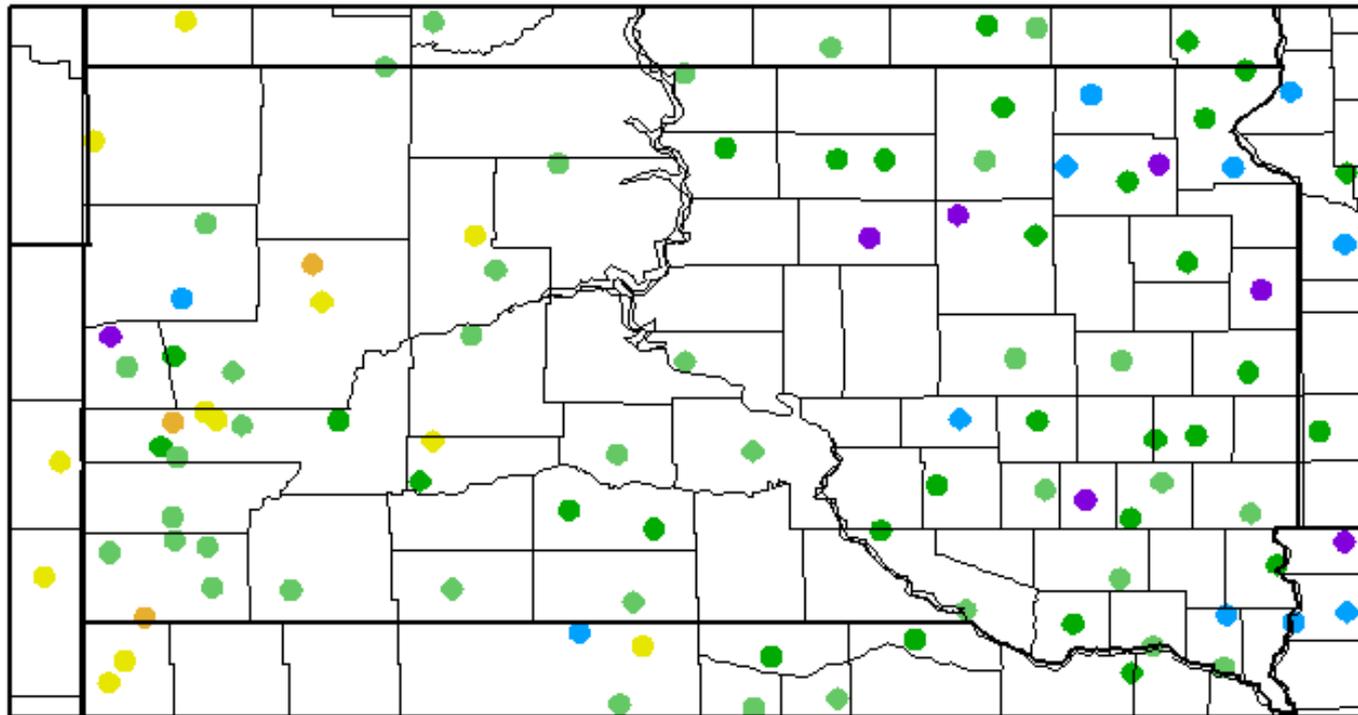
Generated 6/24/2013 at HPRCC using provisional data.

Regional Climate Centers



<http://www.hprcc.unl.edu/maps/current/>

Departure from Normal Temperature (F) 5/25/2013 - 6/23/2013



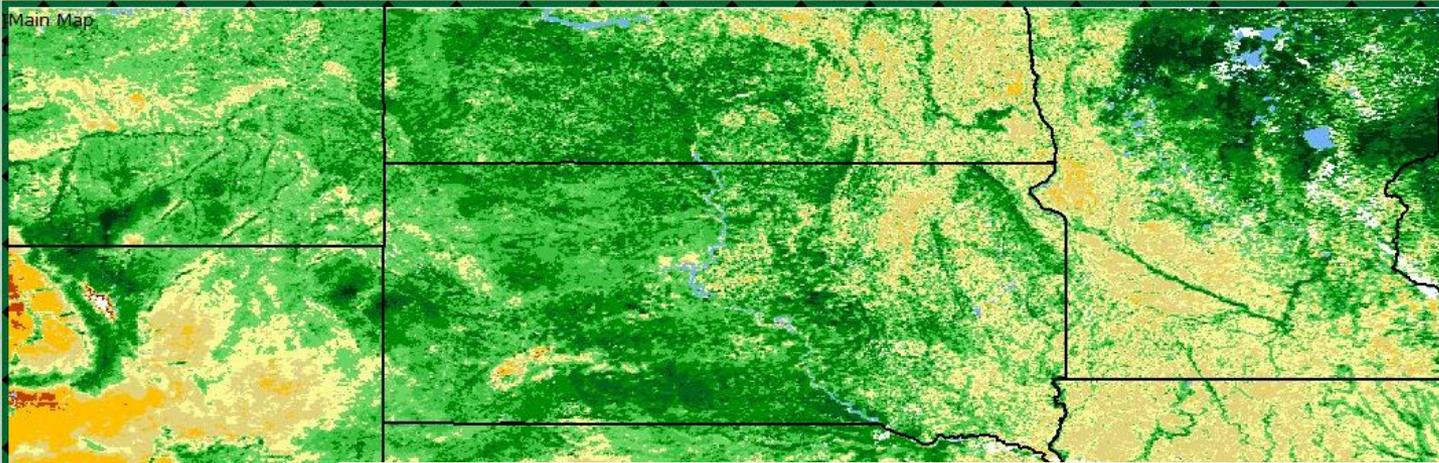
Generated 6/24/2013 at HPRCC using provisional data.

Regional Climate Centers

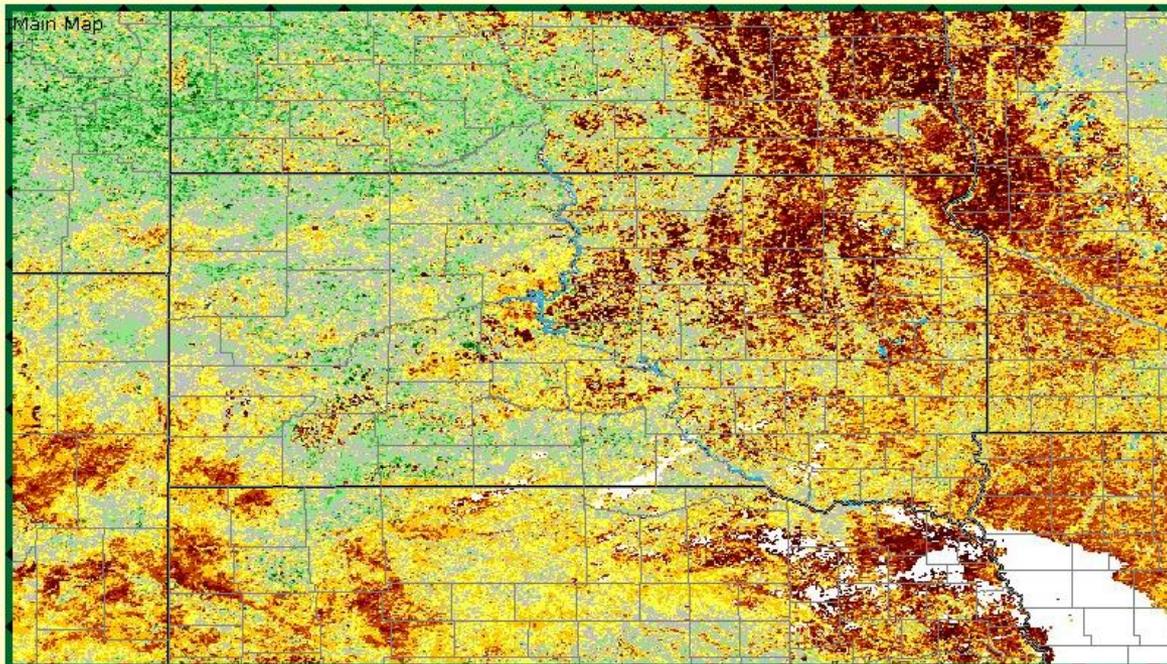


Overall very cold

ed Vegetation Mapping Viewer - Interactive Data Viewer



ed Vegetation Mapping Viewer - Interactive Data Viewer



Scale Information



Out

Scale ~ 1:5,841,553



In

View Legend for Selected Layer(s)

Display

Download

Places (Names)

Boundaries

- National Atlas Counties 2001
- National Atlas State Labels
- National Atlas States
- National Atlas Time Zones
- National Atlas Federal Lands
- National Atlas Indian Lands

Transportation

Hydrography

Fire Potential Index (FPI)

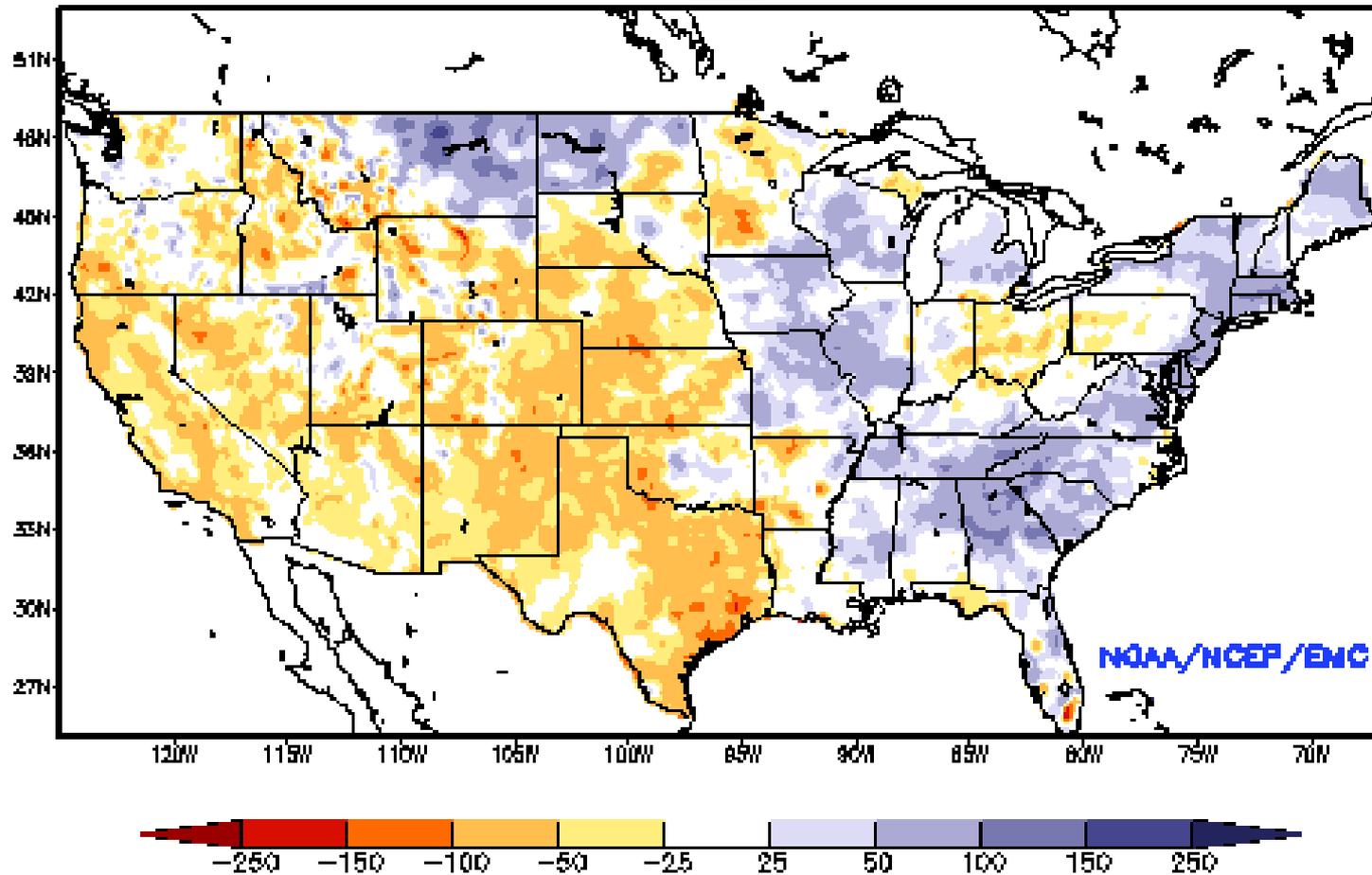
Large Fire Forecasts

NDVI/Greenness

- Departure From Average Weekly Greenness - 06/17/2013
- NDVI Greenness

You have a popup blocker enabled. This means some functionality of the viewer will be limited. This message area will be used where possible, but this is a very limited space for displaying results.

**Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products ___ Valid: JUN 19, 2013**

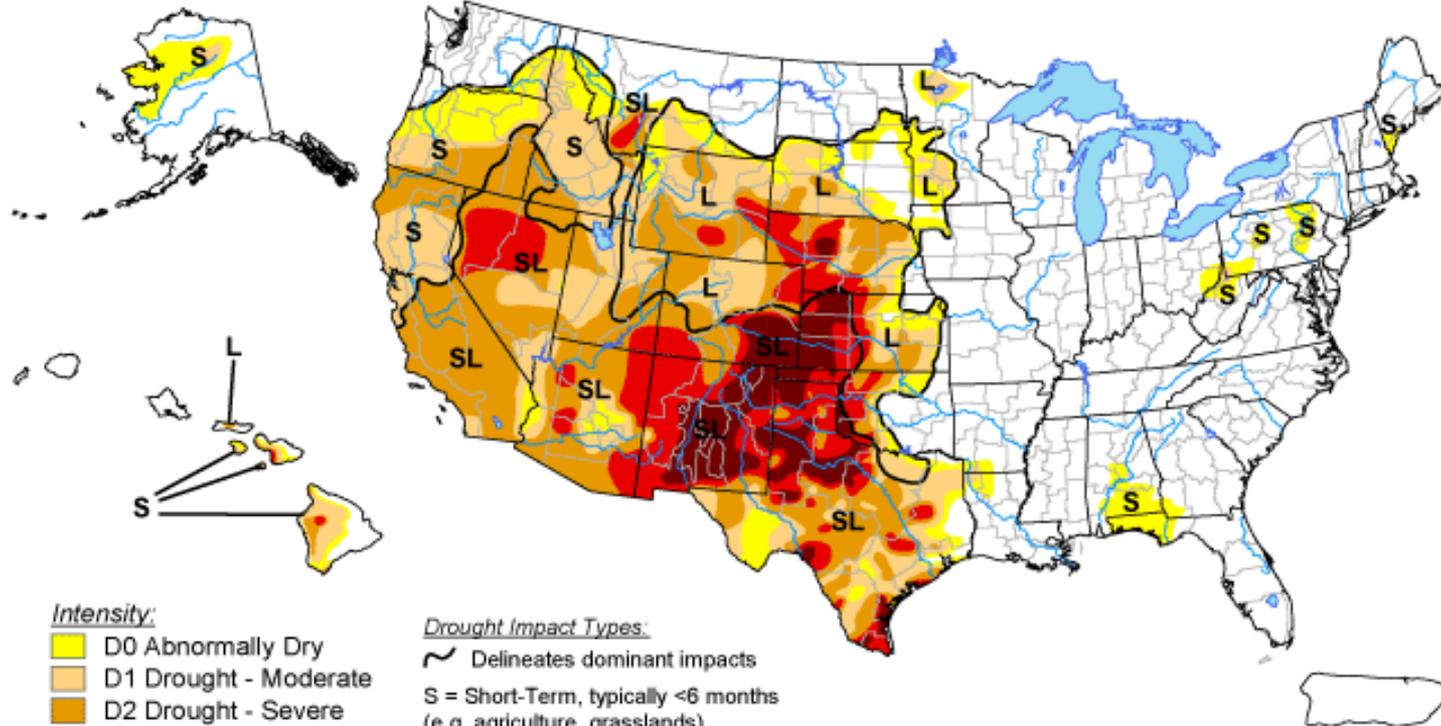


This model seems to be trailing a bit in the eastern part of the state. Southwest I still believe this is on the right track.

U.S. Drought Monitor

June 18, 2013

Valid 7 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
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

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

<http://droughtmonitor.unl.edu/>



Released Thursday, June 20, 2013

Author: Mark Svoboda, National Drought Mitigation Center



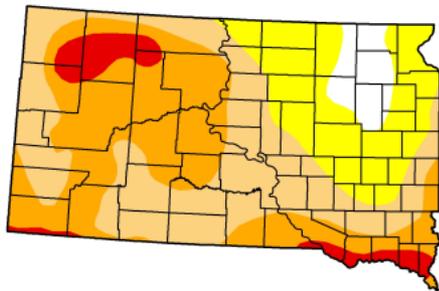
U.S. Drought Monitor

May 21, 2013
Valid 7 a.m. EST

South Dakota

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	5.38	94.62	73.90	39.00	5.86	0.00
Last Week (05/14/2013 map)	0.00	100.00	82.39	65.25	21.13	0.00
3 Months Ago (02/19/2013 map)	0.00	100.00	100.00	86.77	63.23	29.58
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	96.95	63.17	30.68
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	74.69	50.53	6.72
One Year Ago (05/15/2012 map)	75.13	24.87	2.16	0.00	0.00	0.00



Intensity:

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- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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



Released Thurs
Brad Rippey, U.S. Departm

<http://droughtmonitor.unl.edu>

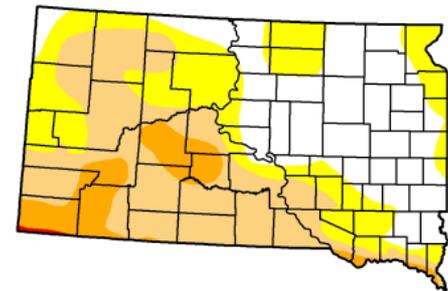
U.S. Drought Monitor

June 11, 2013
Valid 7 a.m. EST

South Dakota

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	32.28	67.72	41.39	9.10	0.22	0.00
Last Week (06/04/2013 map)	24.44	75.56	44.13	10.27	0.22	0.00
3 Months Ago (03/12/2013 map)	0.00	100.00	100.00	86.29	67.48	20.09
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	96.95	63.17	30.68
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	74.69	50.53	6.72
One Year Ago (05/15/2012 map)	63.13	36.87	0.41	0.00	0.00	0.00



Intensity:

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

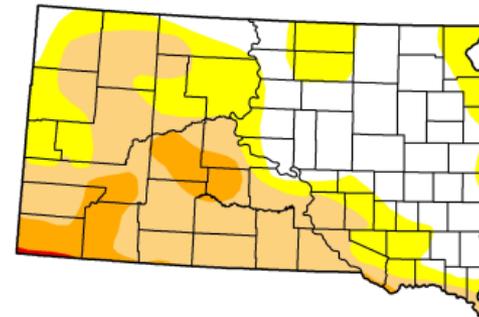
U.S. Drought Monitor

June 18, 2013
Valid 7 a.m. EST

South Dakota

Drought Conditions (Percent Area)

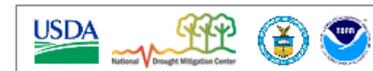
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	32.53	67.47	41.00	8.64	0.22	0.00
Last Week (06/11/2013 map)	32.28	67.72	41.39	9.10	0.22	0.00
3 Months Ago (03/19/2013 map)	0.00	100.00	100.00	86.29	67.48	20.09
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	96.95	63.17	30.68
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	74.69	50.53	6.72
One Year Ago (06/12/2012 map)	69.74	30.26	0.00	0.00	0.00	0.00



Intensity:

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

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

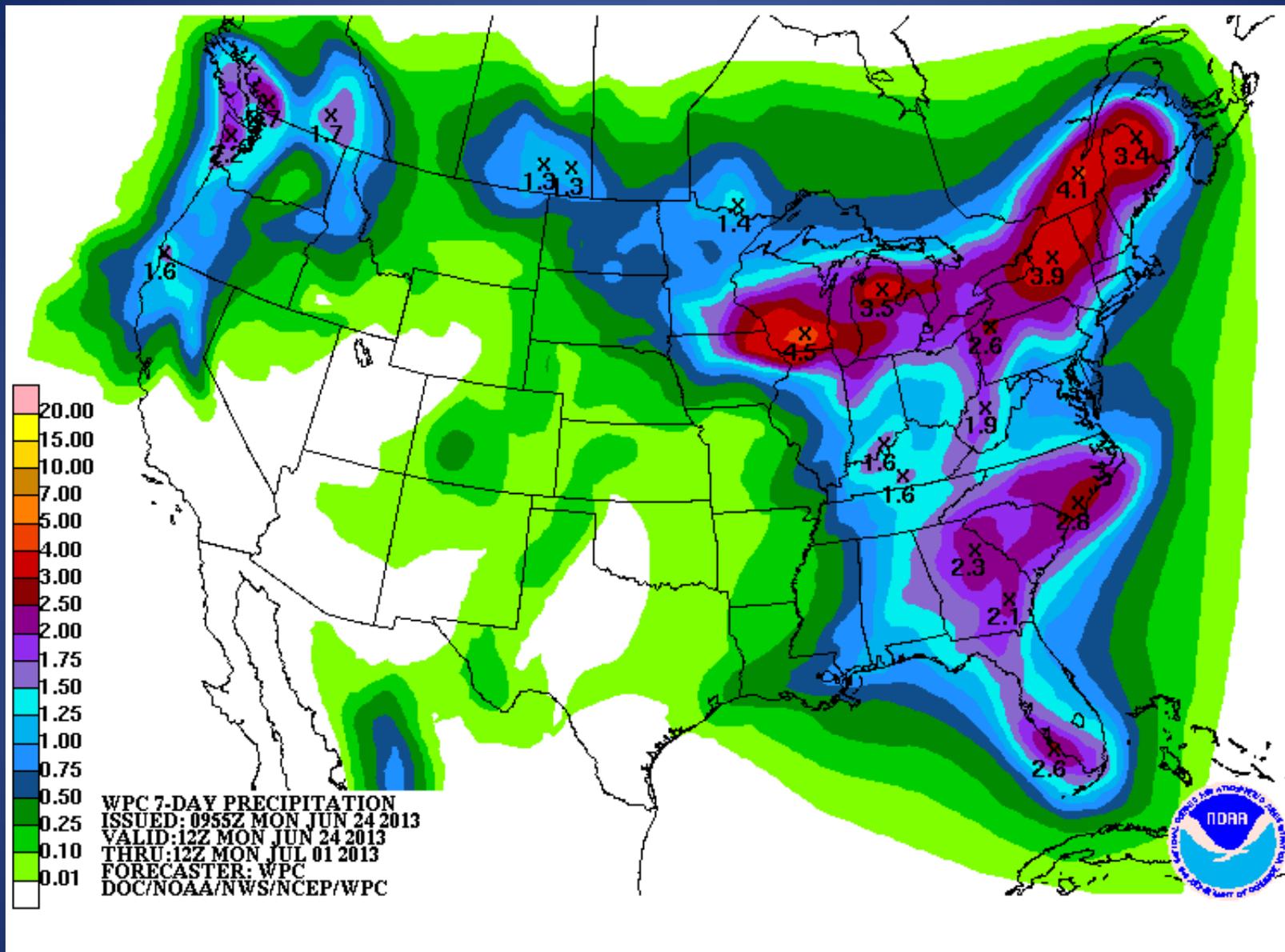


Released Thursday, June 20, 2013
National Drought Mitigation Center,

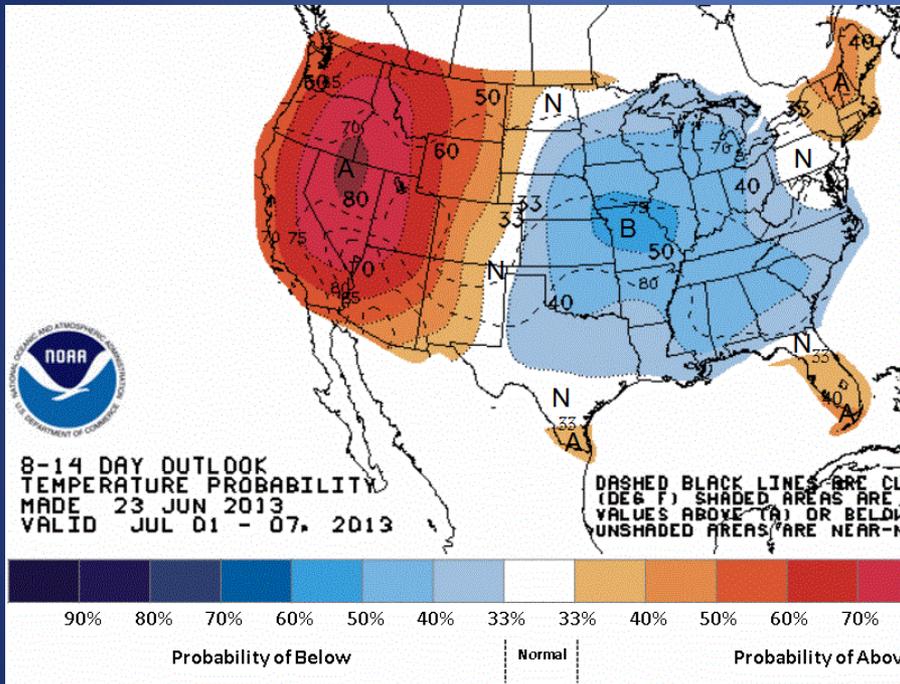
<http://droughtmonitor.unl.edu>



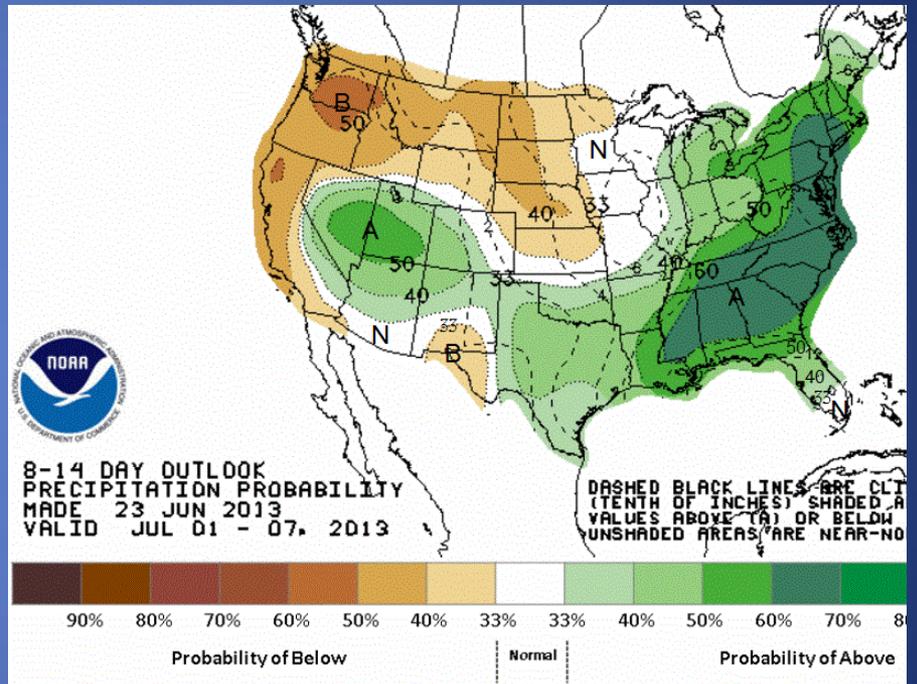
Small improvement in BH. Worsening in the northwest



8-14 Day Outlook

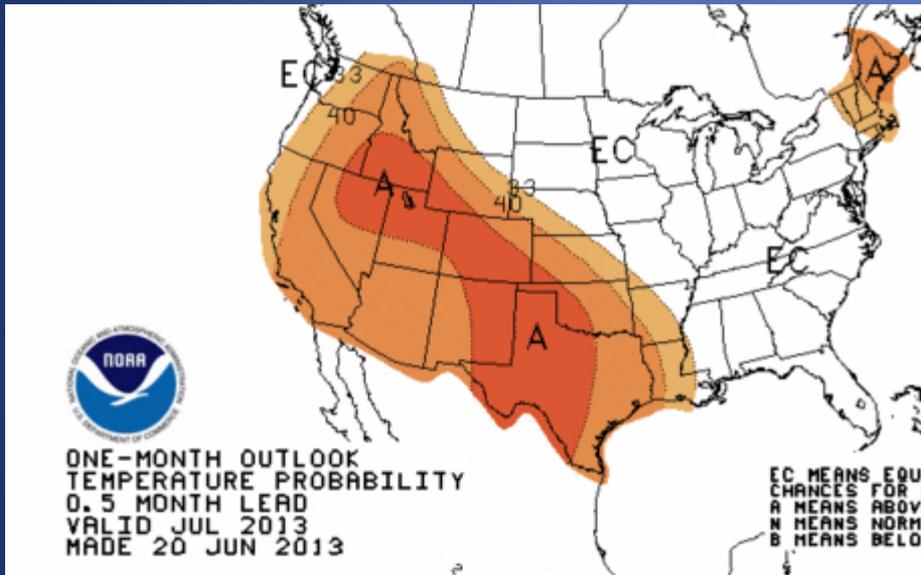


Temperature

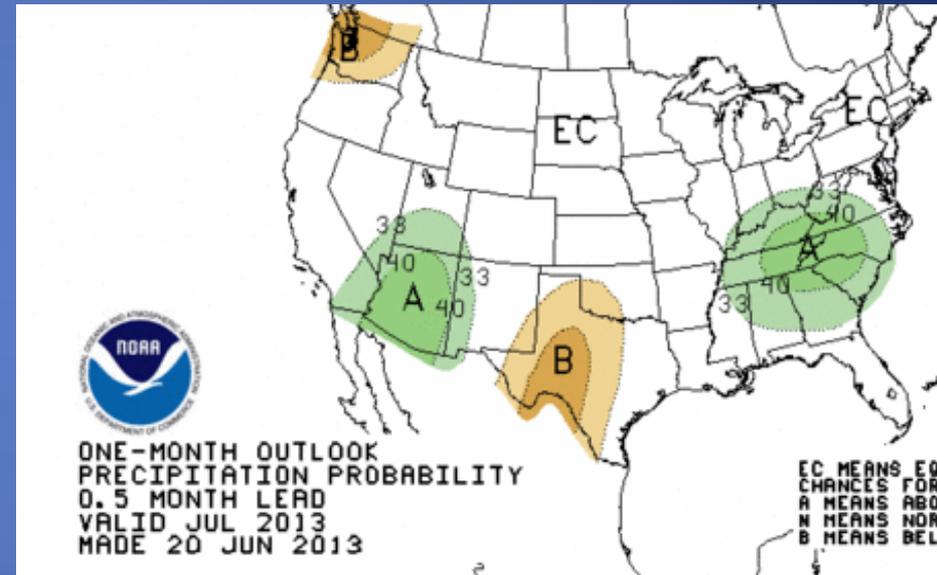


Precipitation

July Temperature and Precipitation Probabilities



Temperature

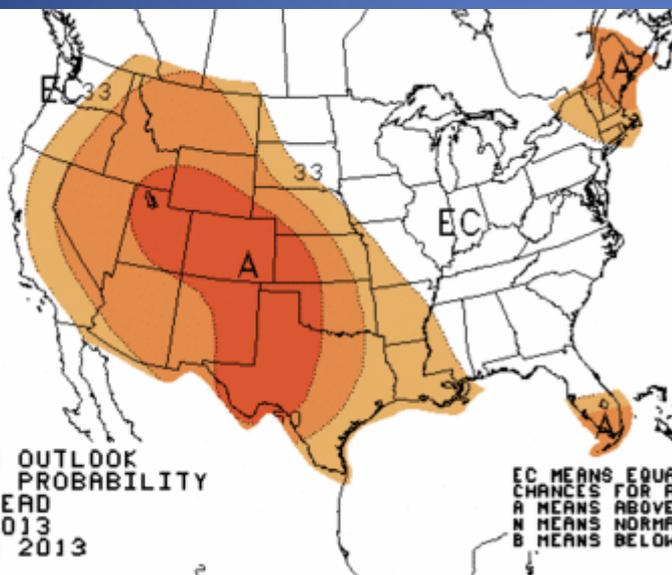


Precipitation

3 Month Temperature and Precipitation Probabilities (July - September)



THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID JAS 2013
MADE 20 JUN 2013

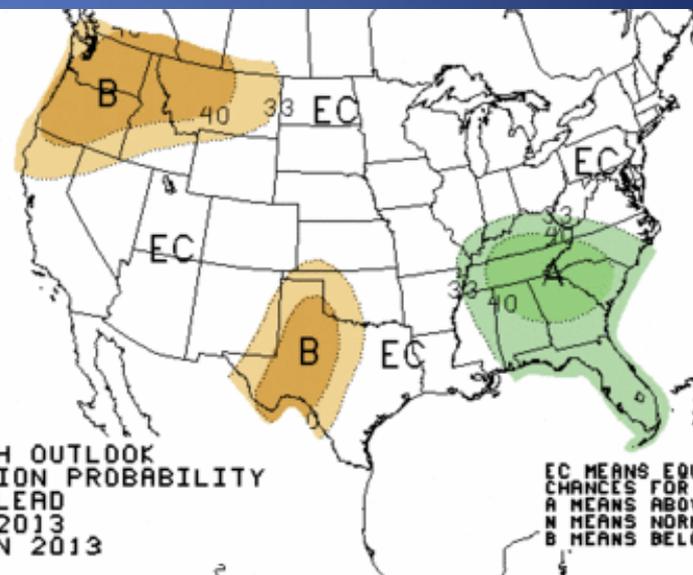


EC MEANS EQUAL
CHANCES FOR A
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

Temperature



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID JAS 2013
MADE 20 JUN 2013



EC MEANS EQUAL
CHANCES FOR A
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

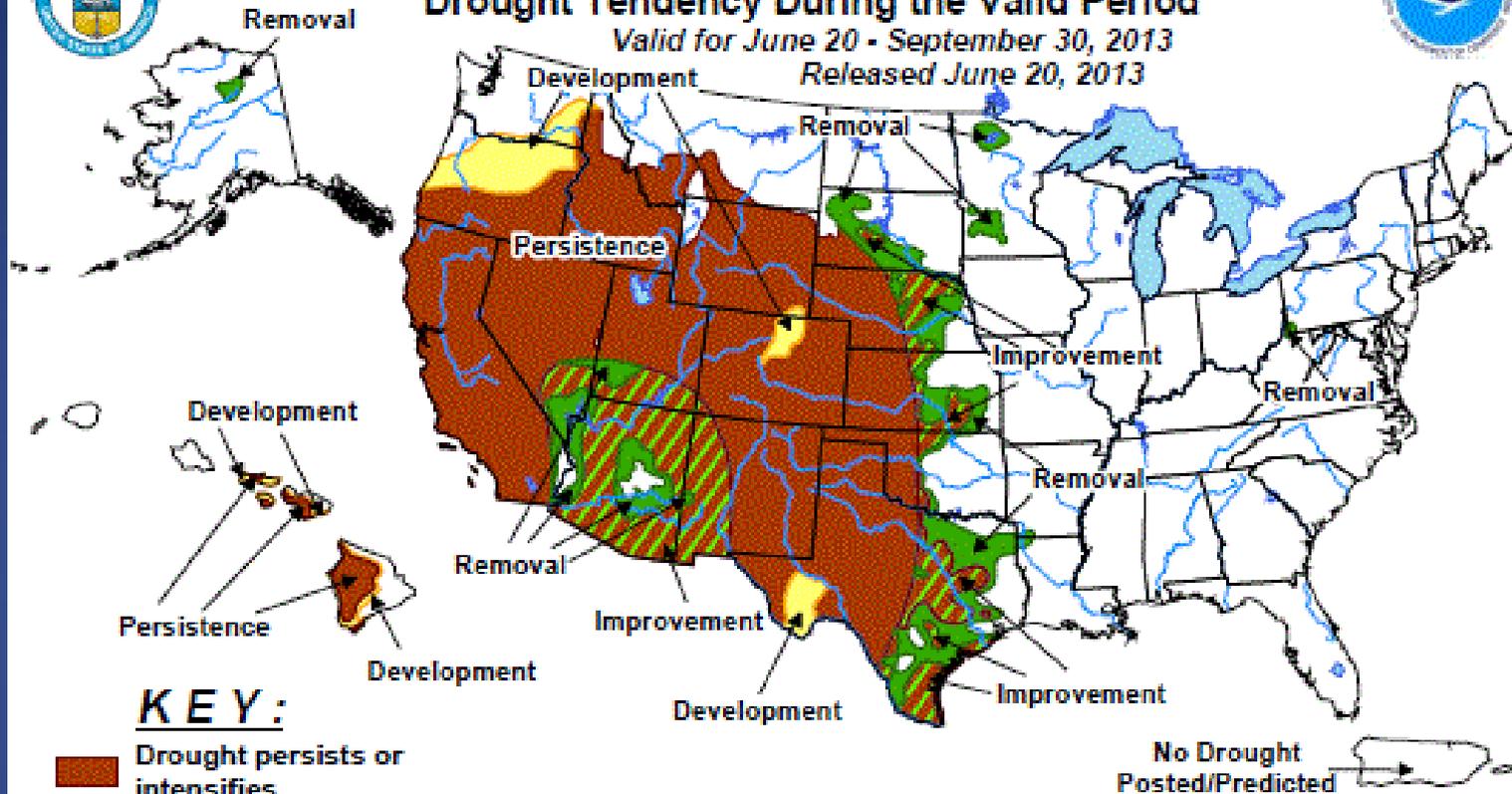
Precipitation



U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for June 20 - September 30, 2013

Released June 20, 2013



KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications – such as crops – that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The Green and Brown hatched areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The Green areas imply drought removal by the end of the period (D0 or none)

Drought Status

- East River – little resembling drought at all. Nearly all categories on USDM map will be removed this week.
- West River – conditions pretty good northwest. OK in the southwest.
- Largely little change except for along ND border.
- Southwest still running deficits this spring. Enough precip to hold the line now.
- Mixed messages going forward – not shutting off but likely starting to dry more – still not too warm