Missouri River Basin Water Management Monthly Update

Participating Agencies

State of South Dakota
National Weather Service
National Oceanic and Atmospheric Administration
U.S. Army Corps of Engineers

January 13, 2015

U.S.ARMY

US Army Corps of Engineers
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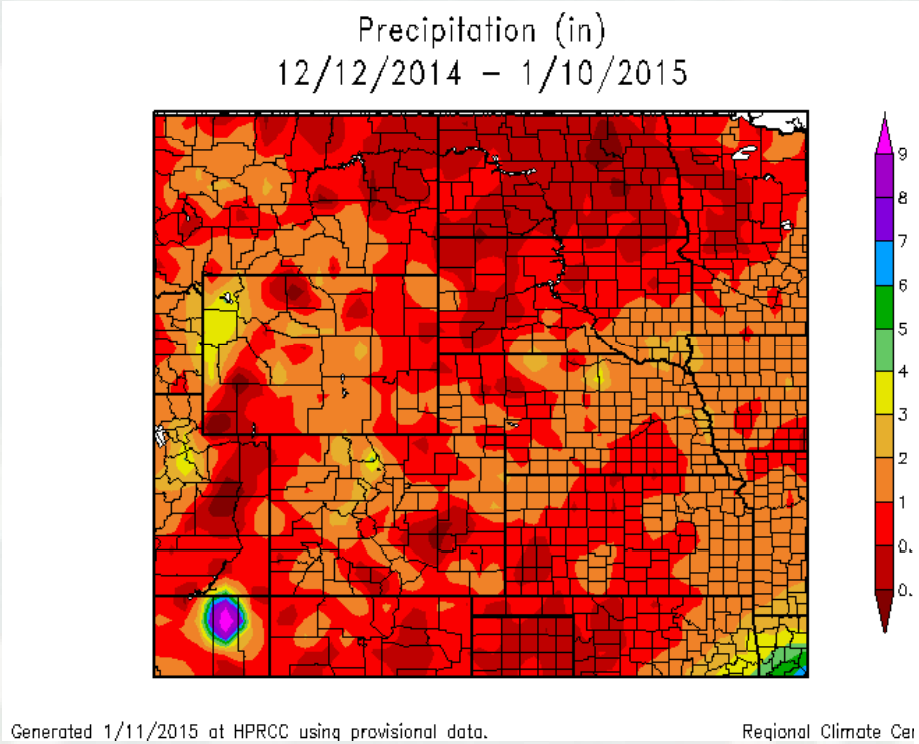
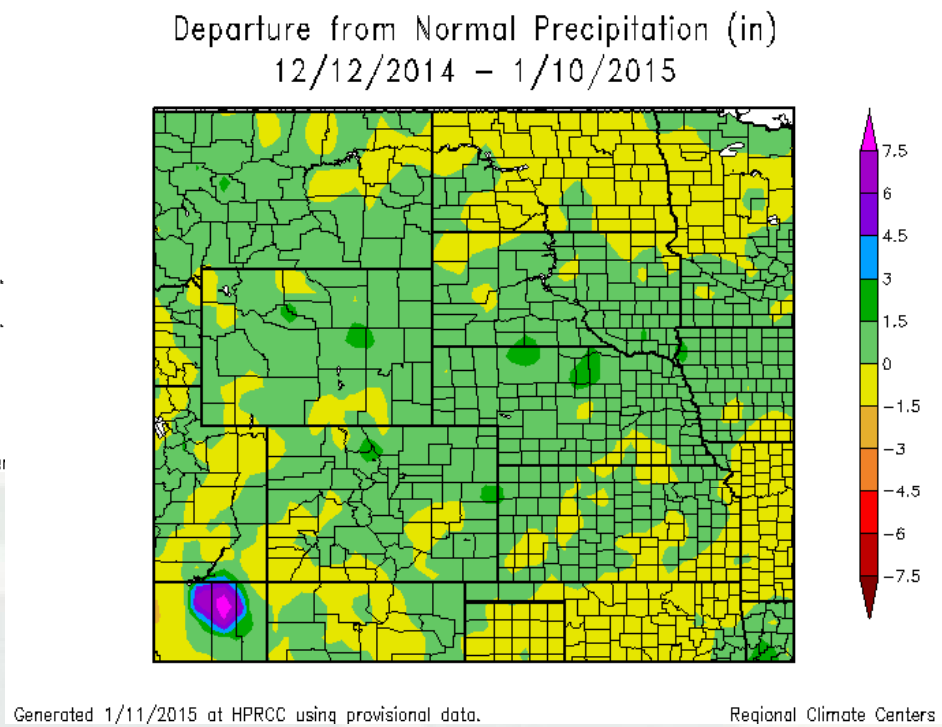
Weather / Climate

Dr. Dennis Todey
South Dakota State Climatologist

Recognized State Climate Office

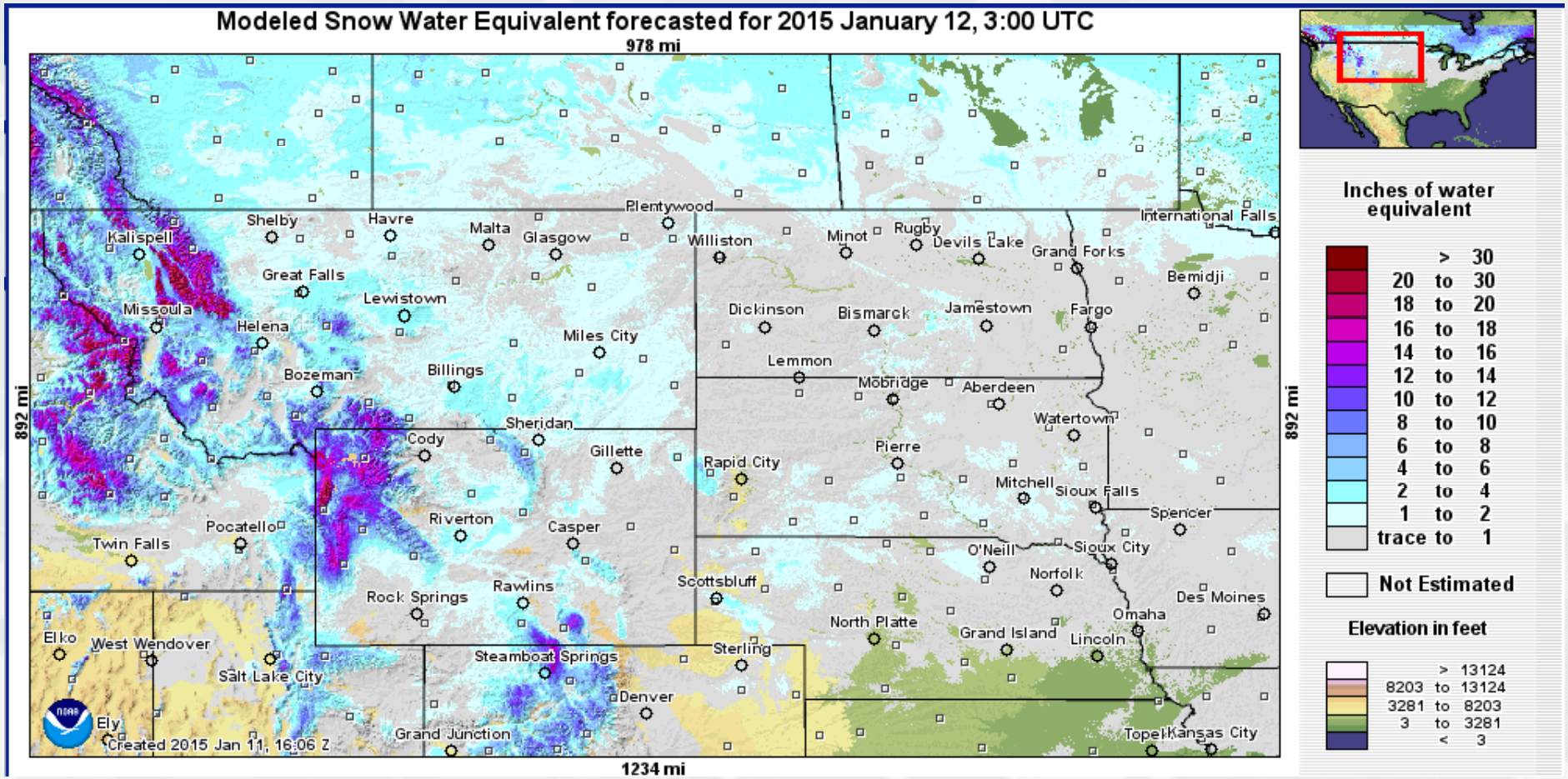
Conditions – Last 30 Days





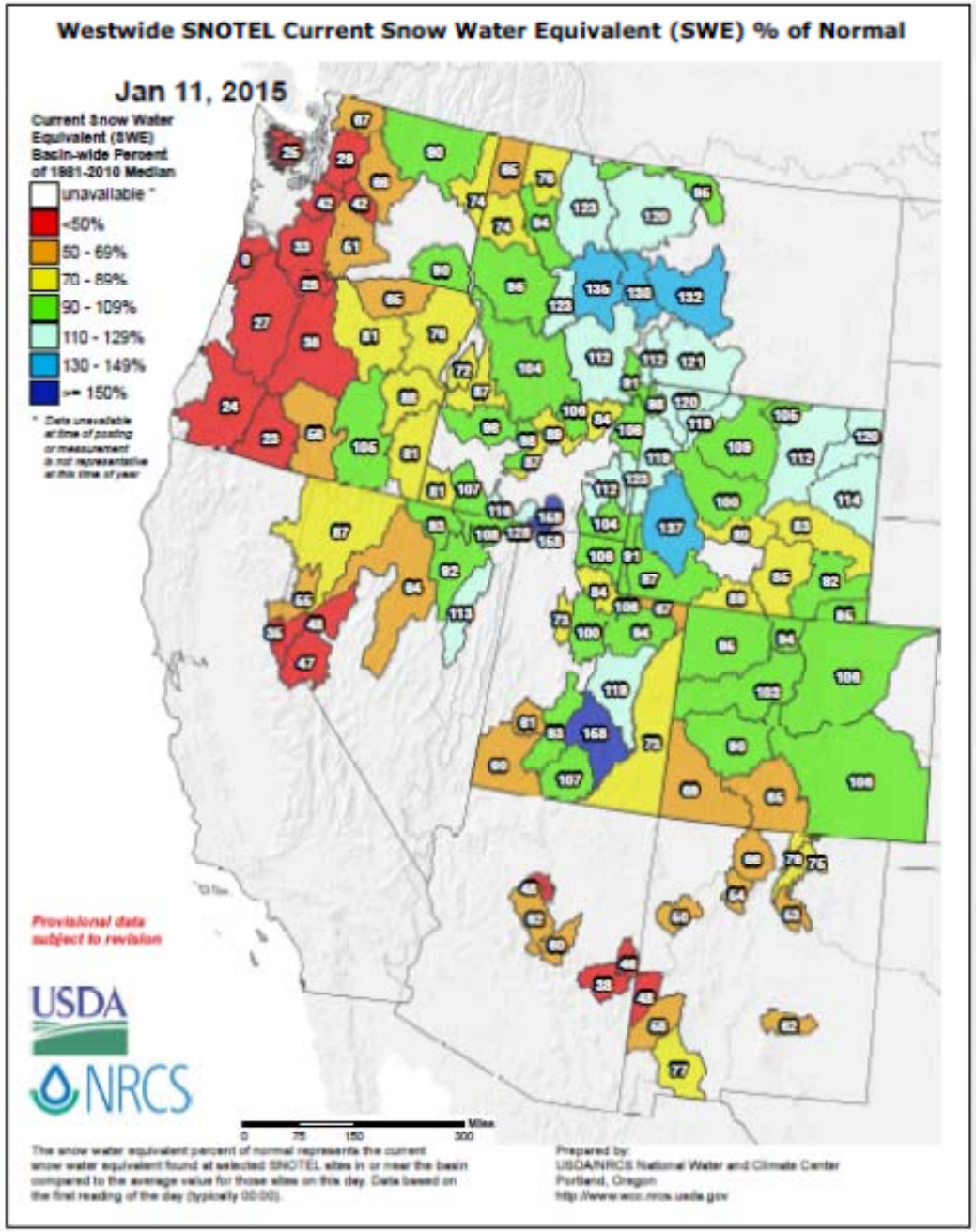
Source: http://www.hprcc.unl.edu/maps/current/index.php

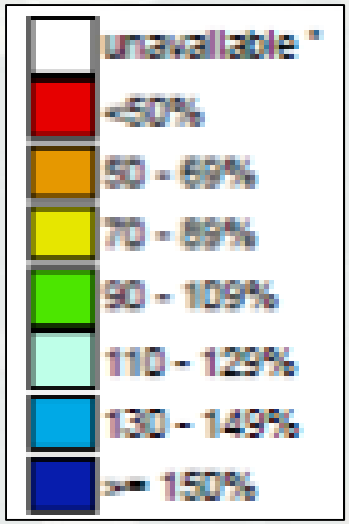
Plains Snowpack



Source: http://www.nohrsc.noaa.gov

Mountain Snowpack

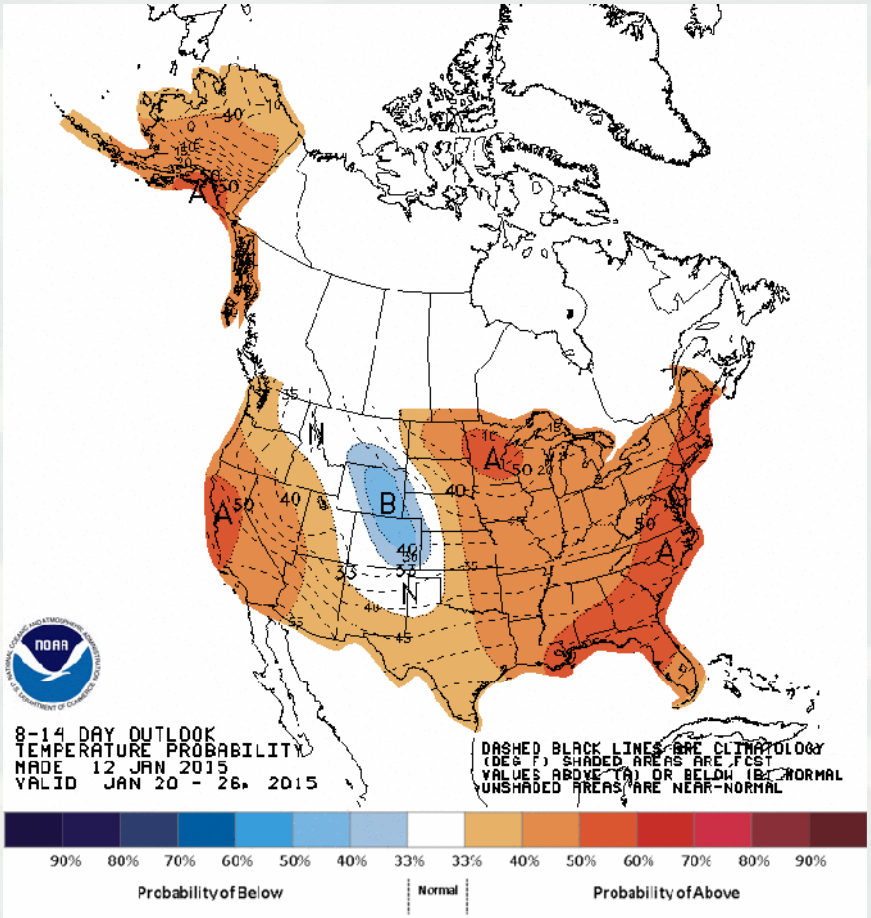




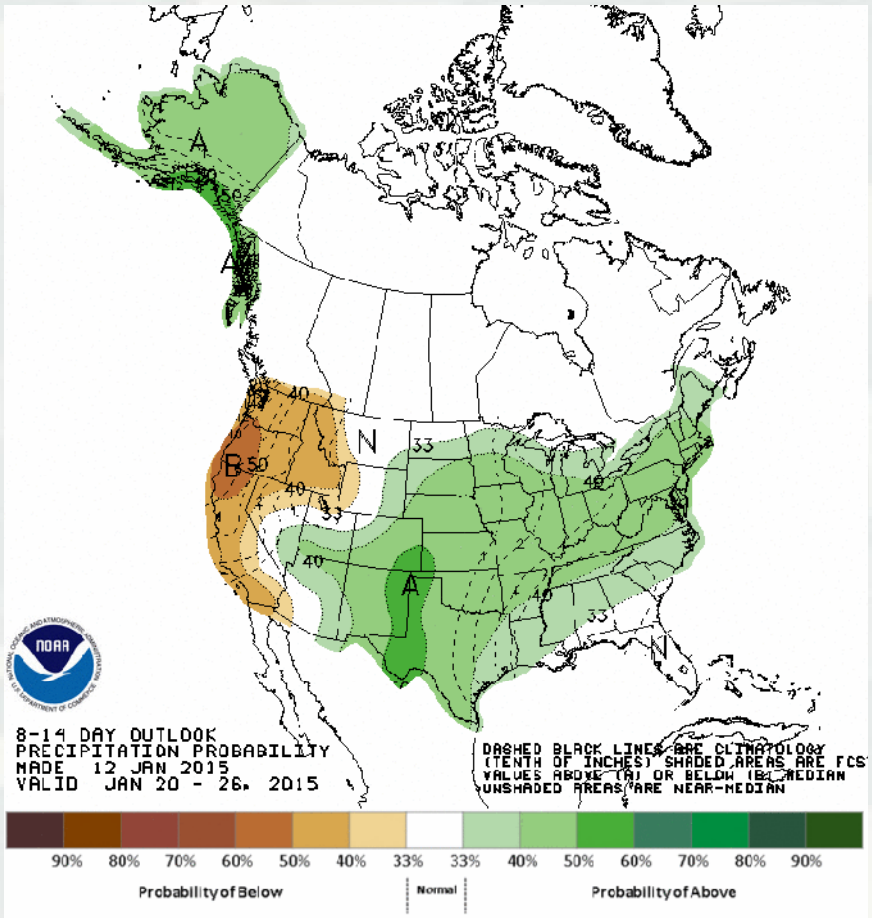
Source: http://www.wcc.nrcs.usda.gov/cgibin/water/drought/wdr.pl

Temperature and Precipitation Probabilities (1/19-1/25)

Temperature



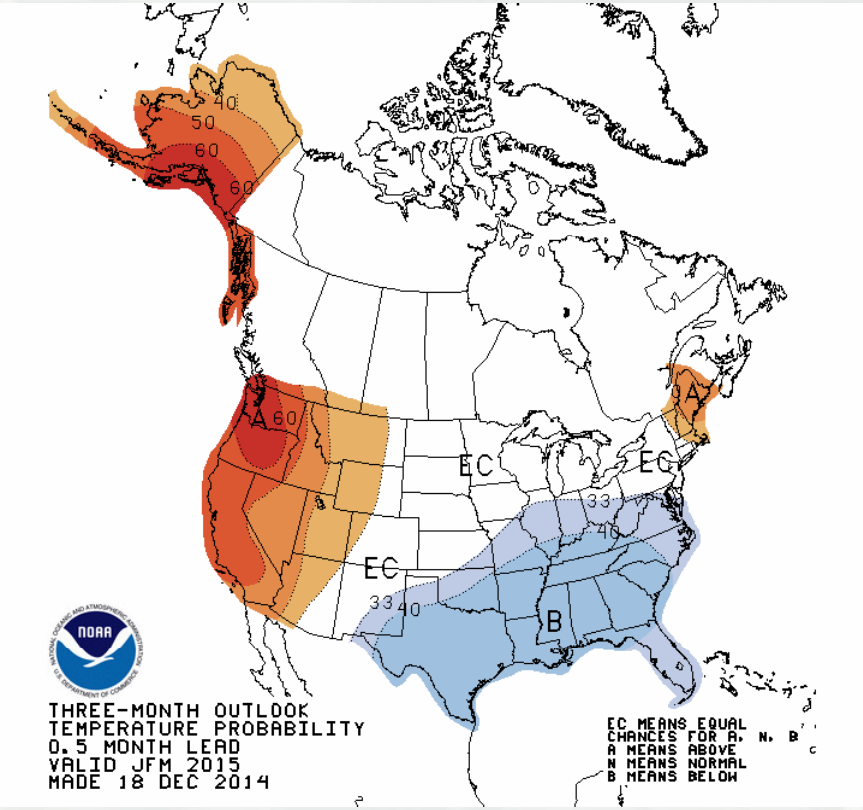
Precipitation



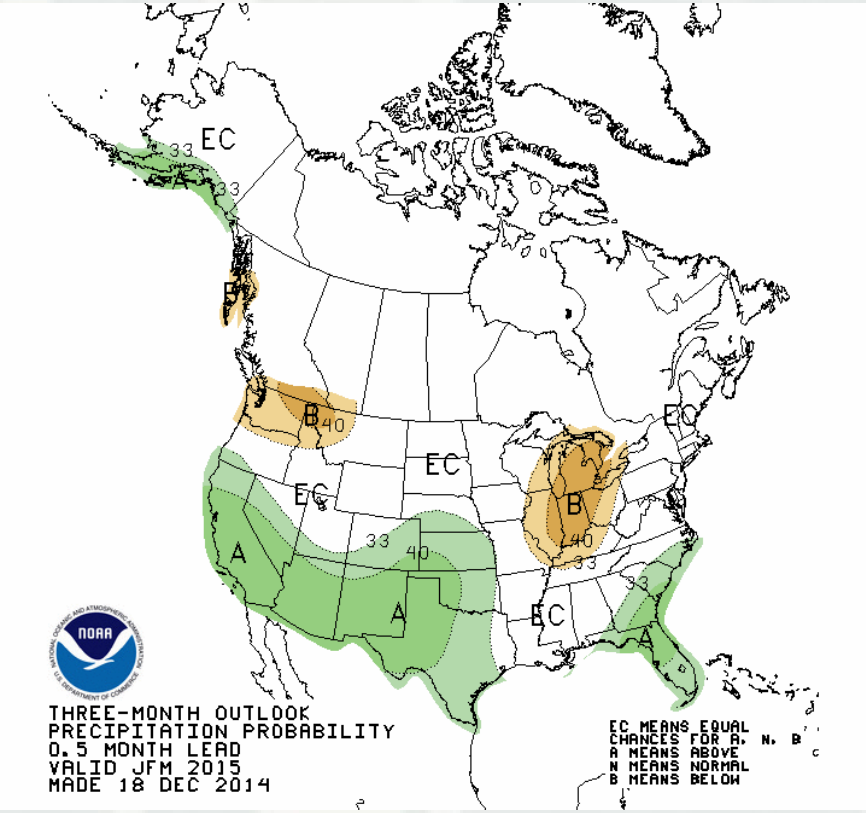
Source: http://www.cpc.ncep.noaa.gov/products/predictions/814day/

3-Month Temperature and Precipitation Probabilities

(January - February - March)



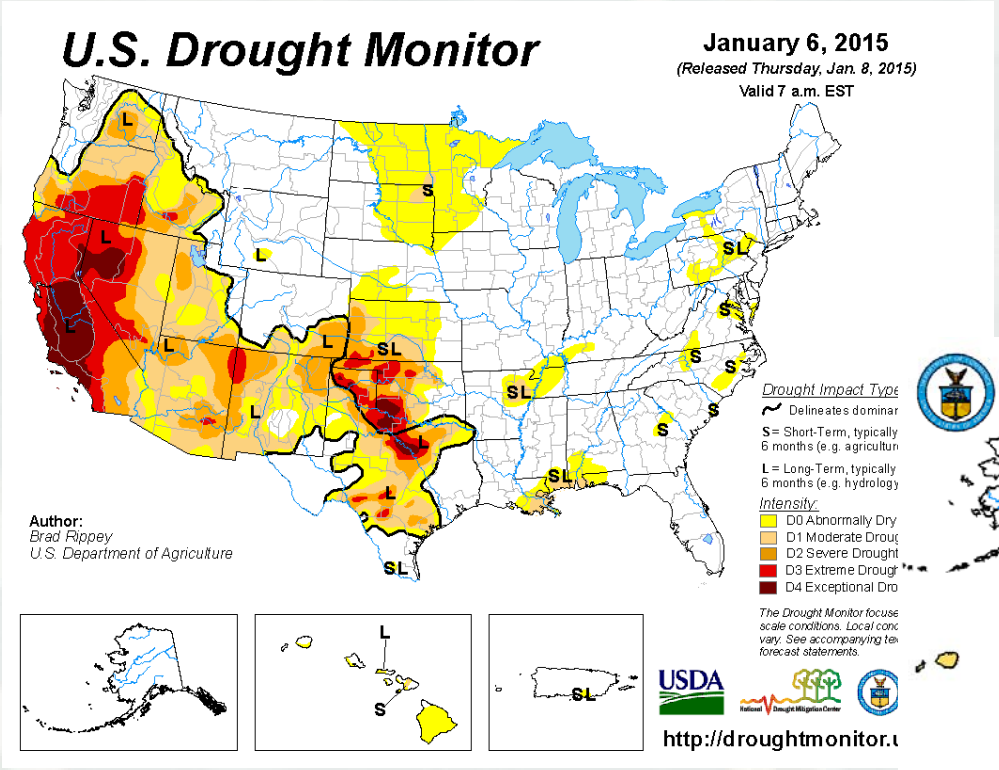
Temperature

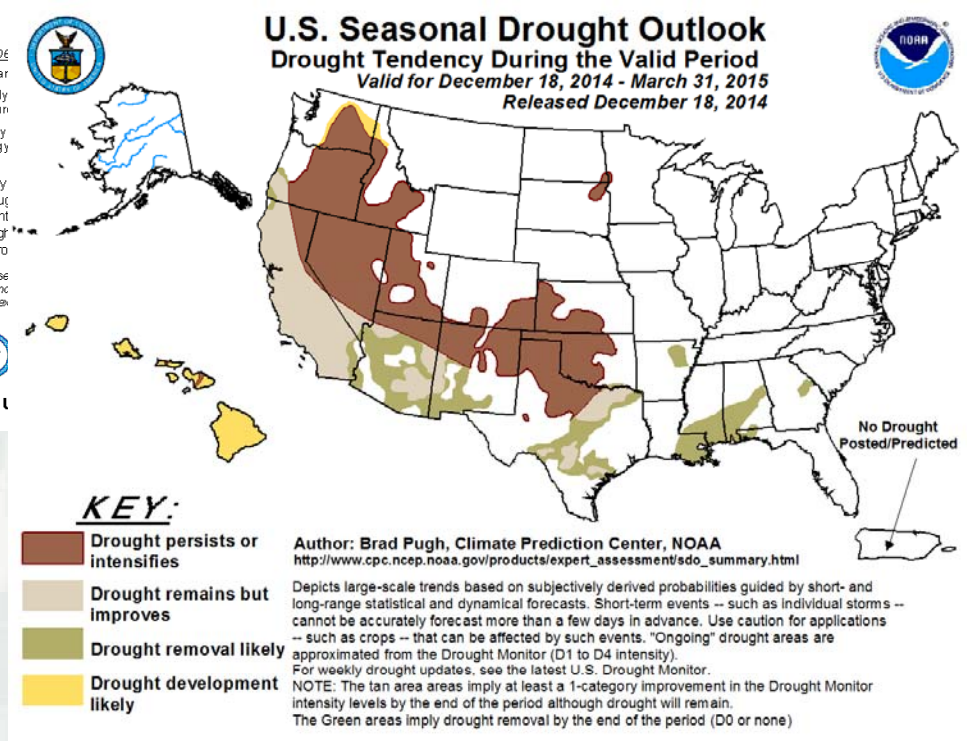


Precipitation

Source: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

Drought Update





Key Points

- **Current Conditions**
  - Current neutral El Niño Southern Oscillation (ENSO) condition – marginal El Niño
  - Plains snowpack – widespread but shallow
  - Mountain snowpack – slightly above average
  - Mixed temperatures

- **Predictions (new outlooks Thursday)**
  - Likely warmer next couple weeks
  - Likely warmer west through early spring
  - Precipitation – Equal Chances (EC)
  - El Niño chances becoming less

Source: http://www.cpc.ncep.noaa.gov/products/predictions/90day/

Thursday's regional outlook webinar: http://drought.gov/drought/content/regional-programs/regional-drought-webinars

Basin Conditions / Flood Outlook

Kevin Low, Hydrologist

National Weather Service, Missouri Basin River Forecast Center

Key Points

- Plains snowpack – widespread but shallow
- Mountain snowpack – slightly above average
- Ice jamming has already occurred, and will remain a concern
- NWS will issue first Spring Flood Outlook on Thursday, February 19

Upper Basin Runoff for 2015

Kevin Stamm, P.E.

U.S. Army Corps of Engineers, Missouri River Basin Water Management

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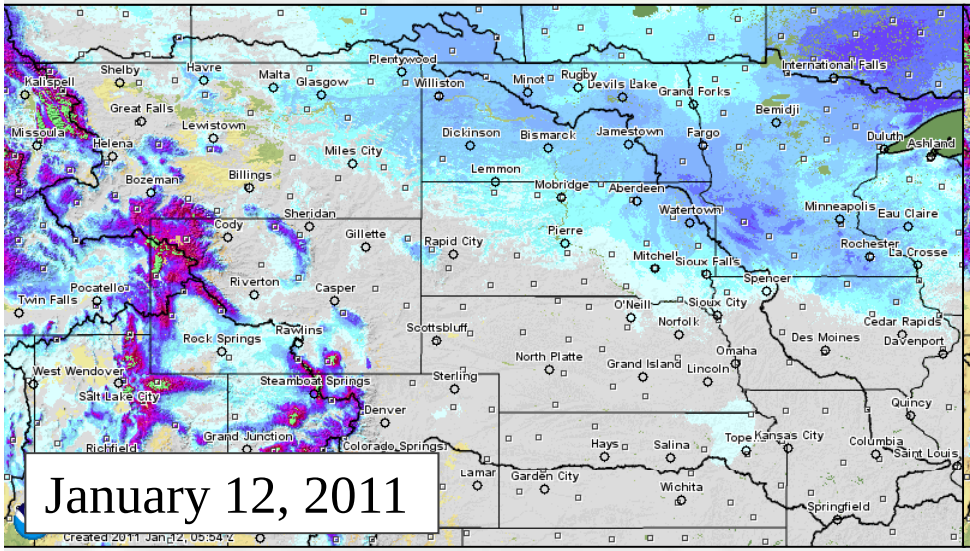
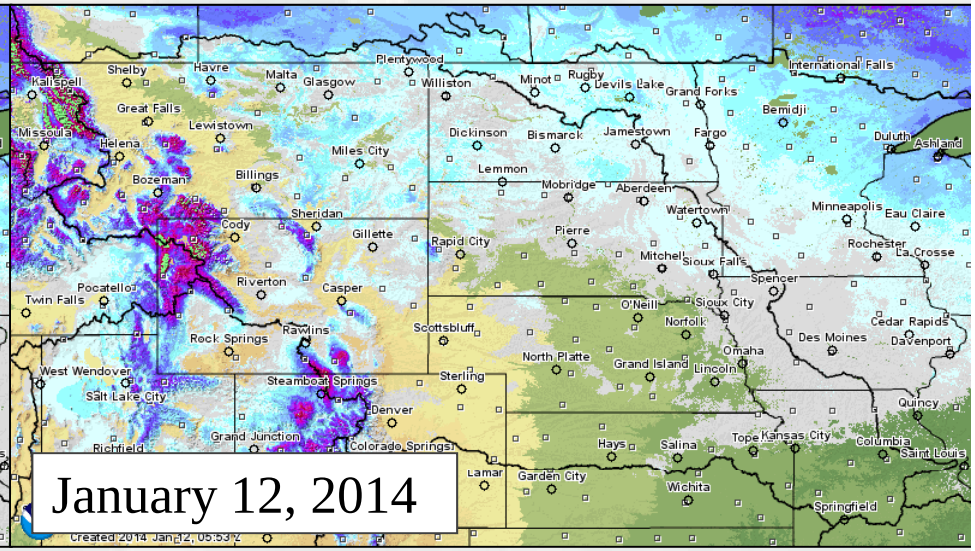
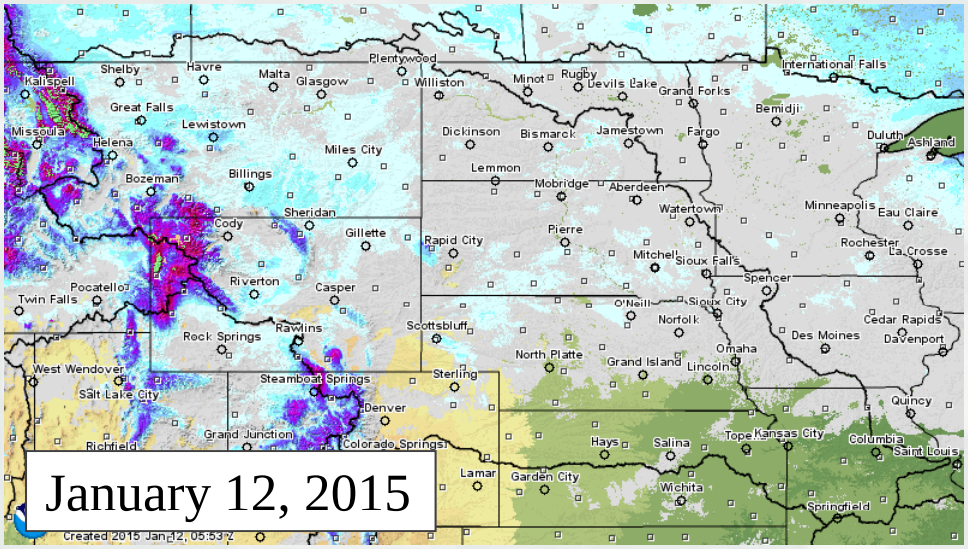
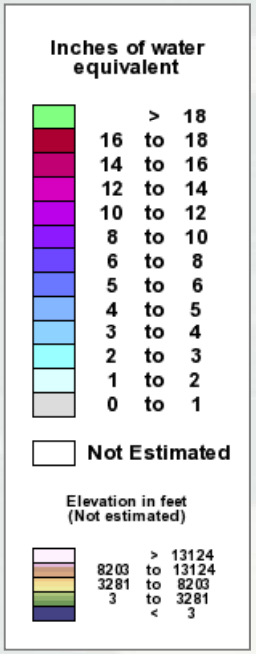
Plains Snowpack





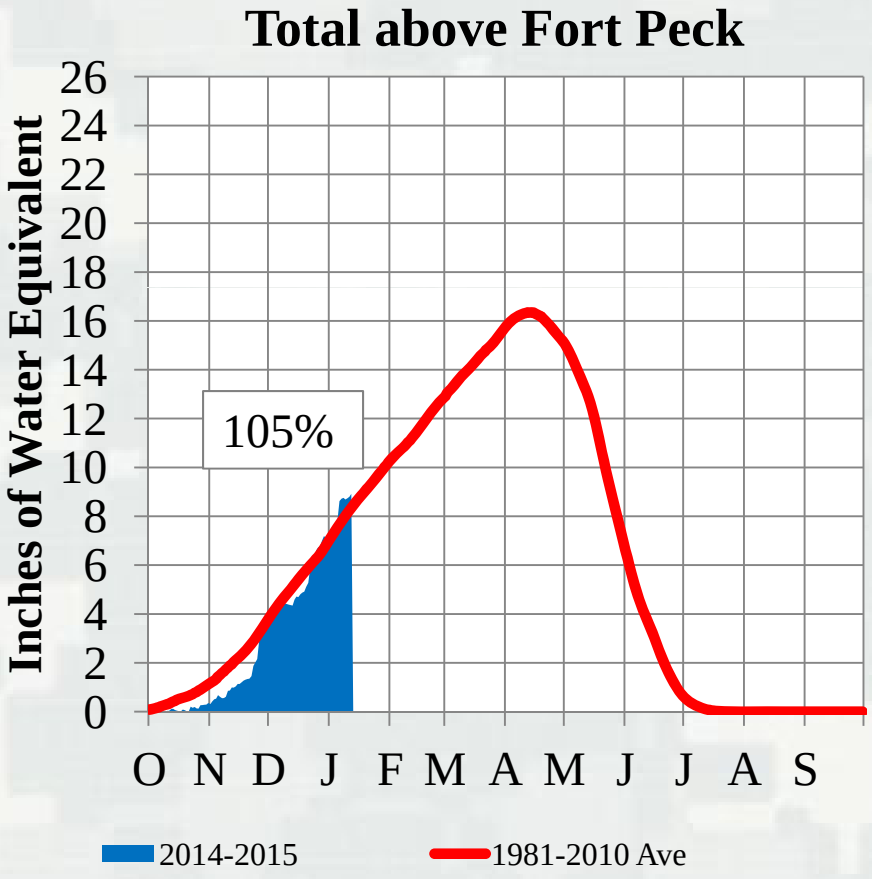


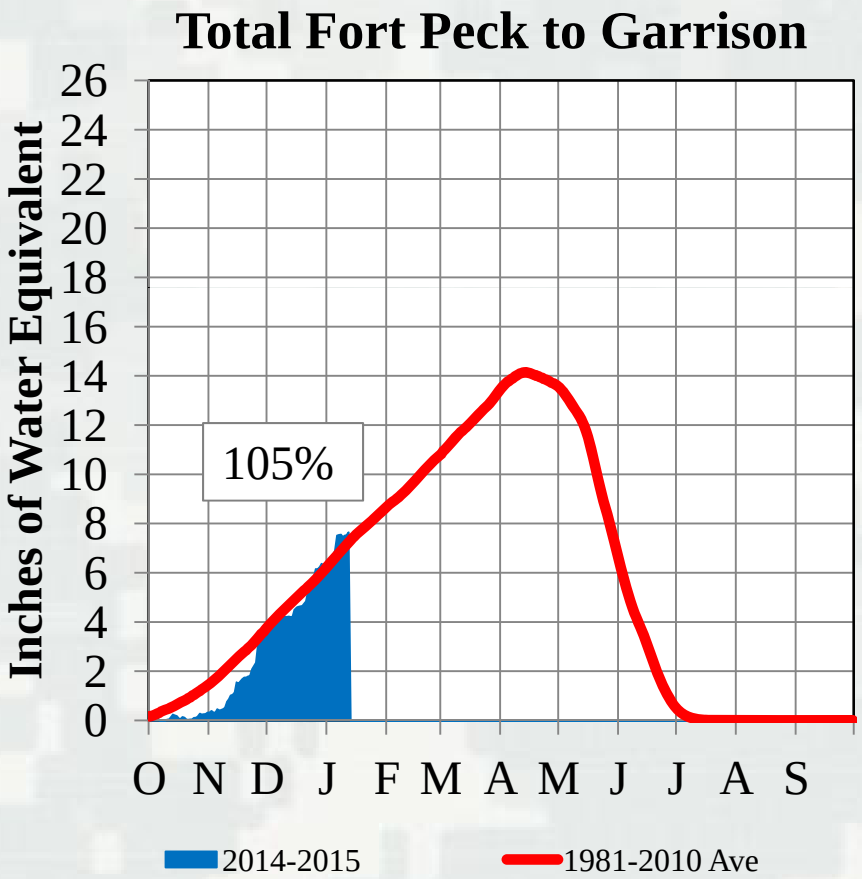


Source: NOAA National Operational Hydrologic Remote Sensing Center (NOHRSC)

Missouri River Basin
2014-15 Mountain Snowpack Water Content

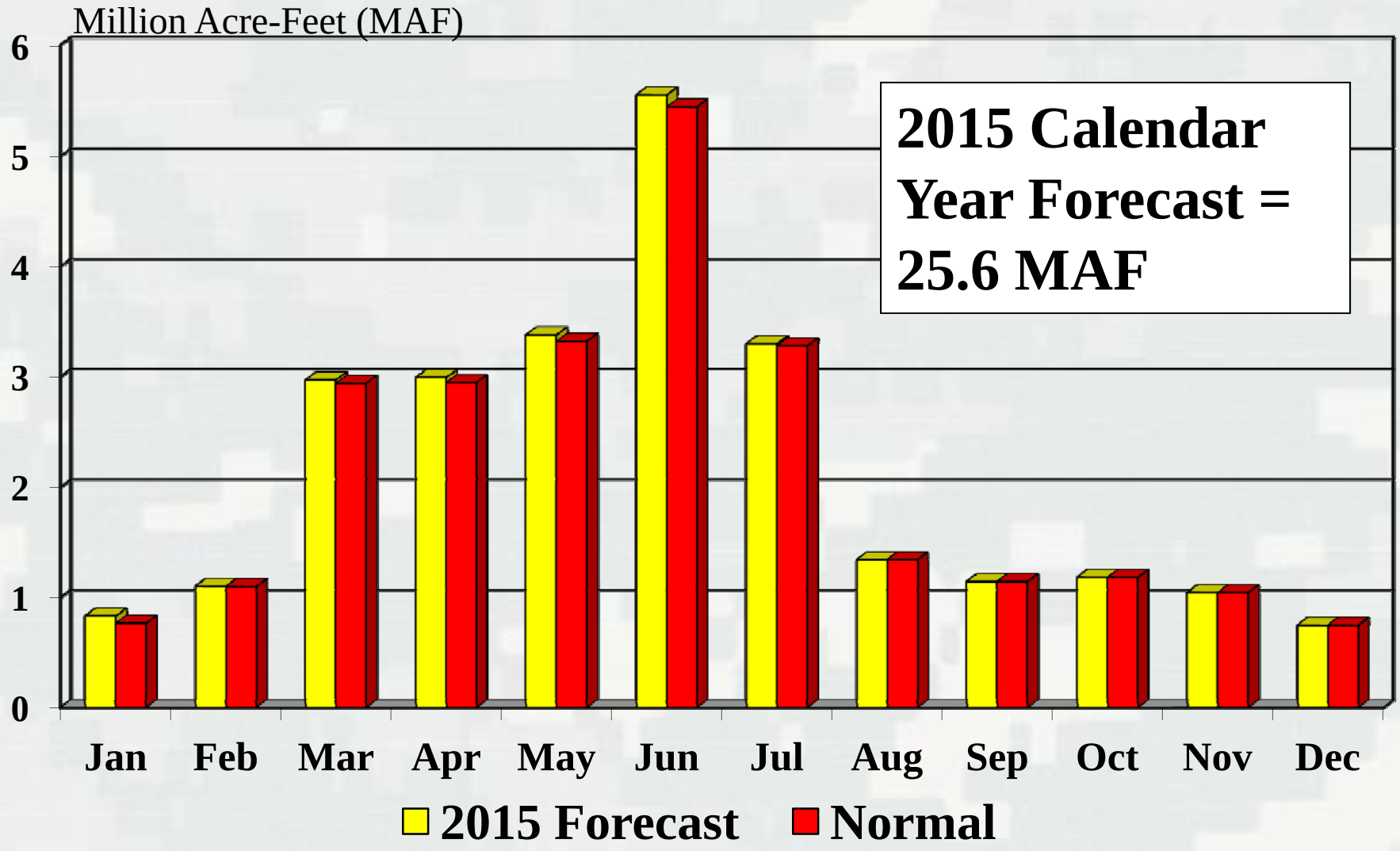
January 12, 2015





54% of normal peak accumulation has occurred by January 15

Missouri River Runoff above Sioux City, Iowa
2015 Forecast



Reservoir System Regulation

Joel Knofczynski, P.E.

U.S. Army Corps of Engineers, Missouri River Basin Water Management

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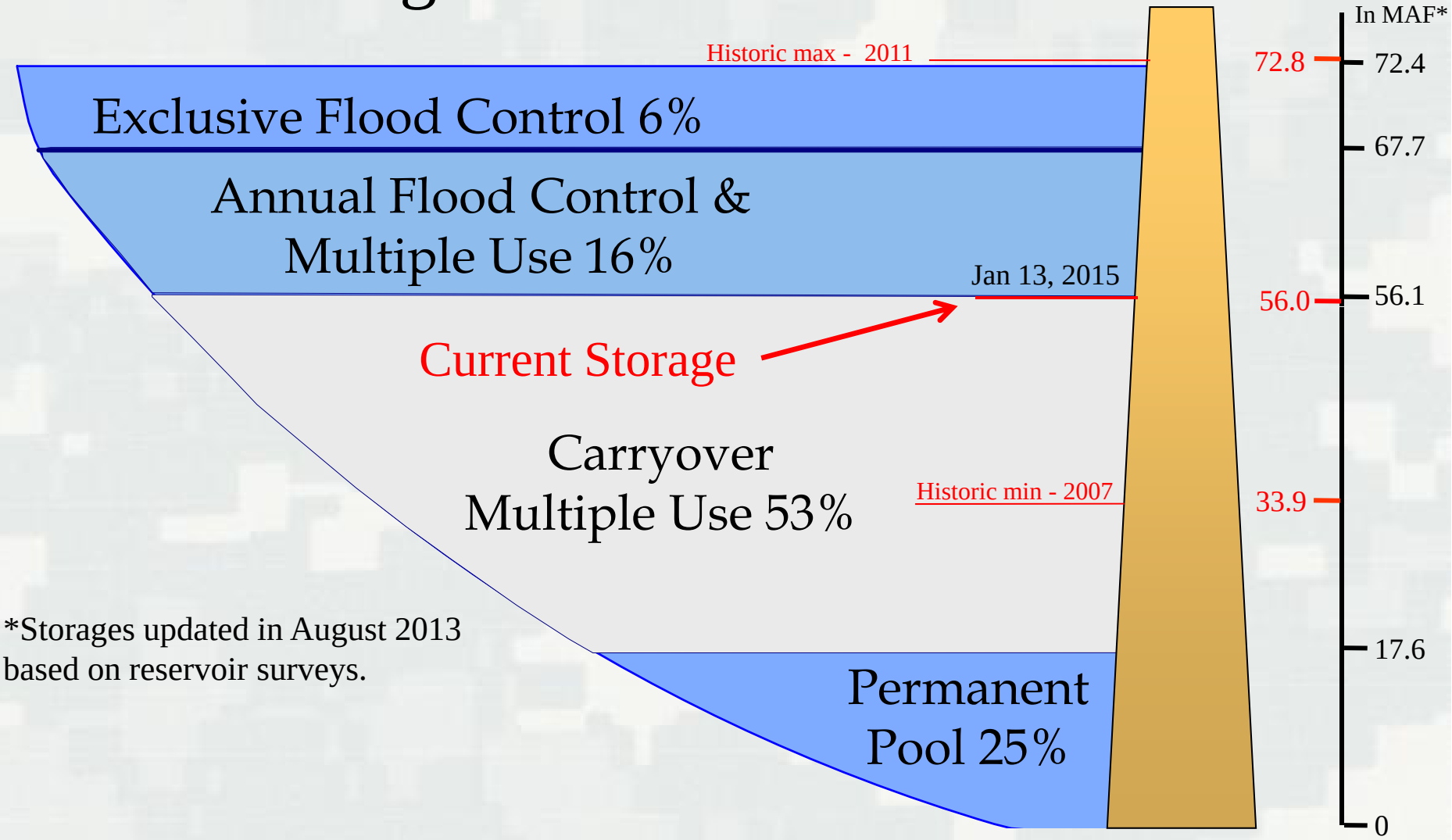
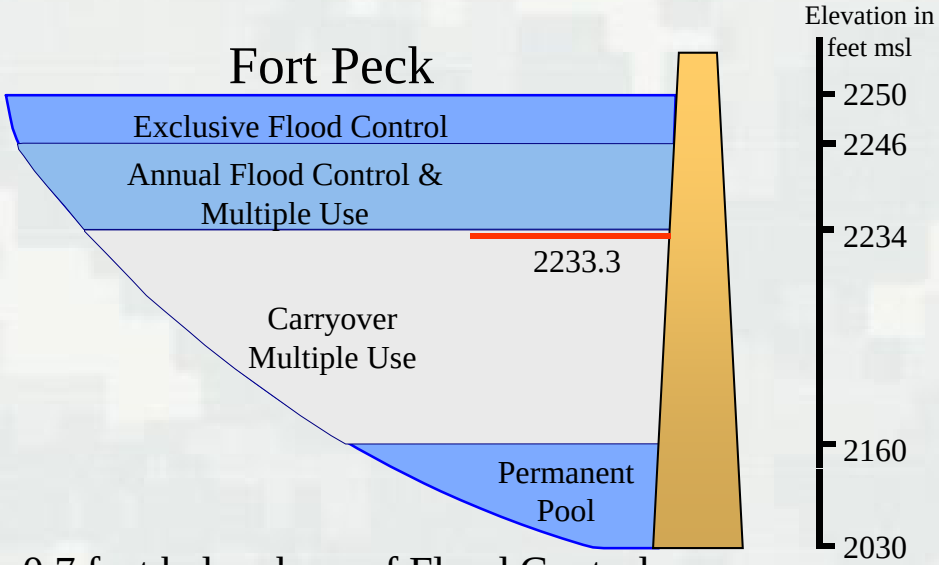
Missouri River Mainstem System Storage Zones and Allocations

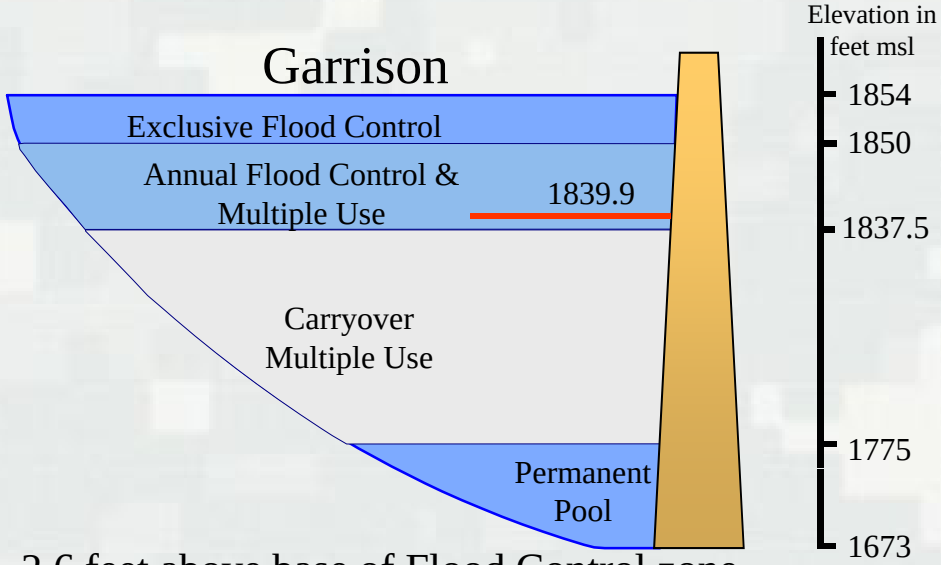


*Storages updated in August 2013 based on reservoir surveys.

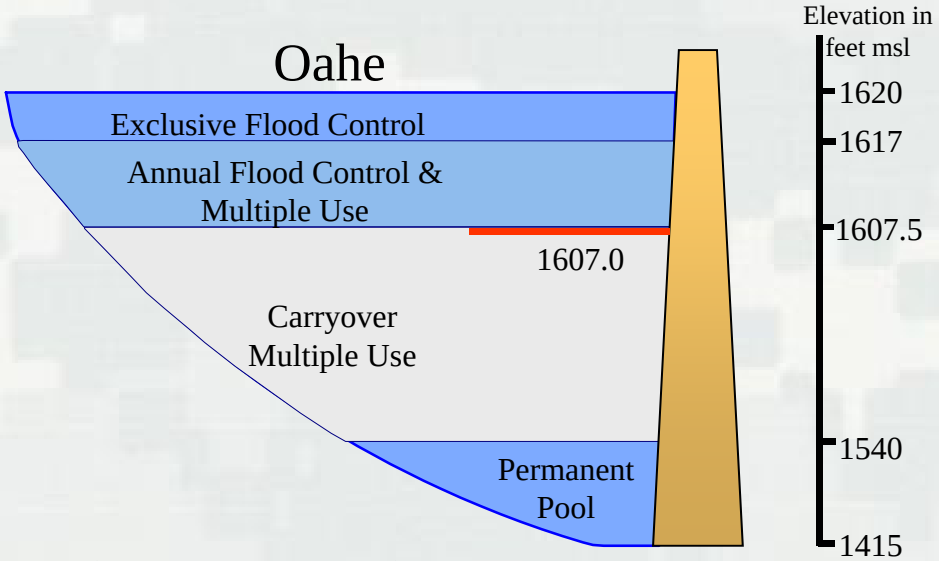
Current Reservoir Levels – January 13, 2015



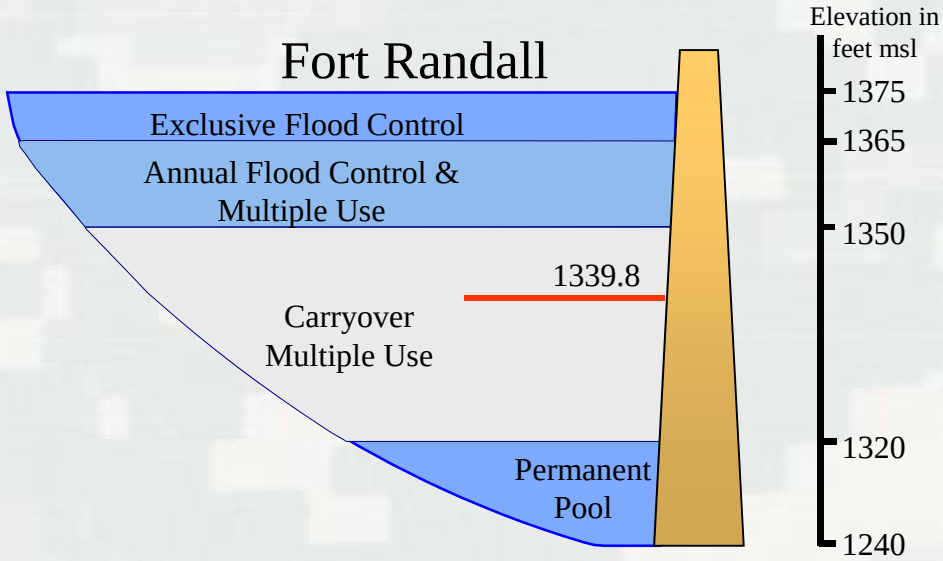
0.7 feet below base of Flood Control zone



2.6 feet above base of Flood Control zone



0.5 feet below base of Flood Control zone



10.2 feet below base of Flood Control zone

Key Points

- All flood storage space available to start 2015 runoff season (16.3 MAF)
- Full navigation season
- Full service flow support for season (Basic)
- No Spring Pulse
- Annual power production of 9.6 BKWhrs (10.0 BKWhrs Average)
- Good service to all authorized purposes

February's Update

Date: Friday, February 6

Time: 1:00 pm CST

Contact Information

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