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

February 6, 2015

U.S.ARMY

US Army Corps of Engineers
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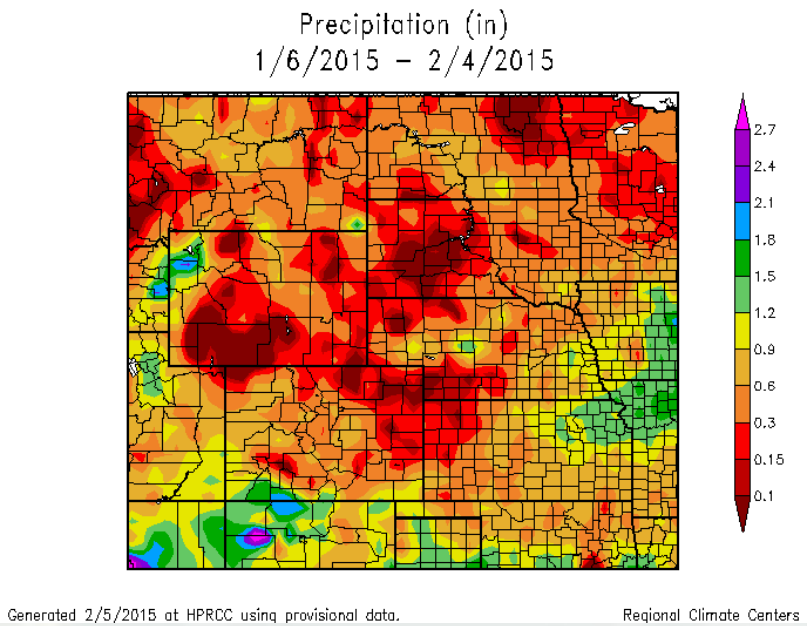
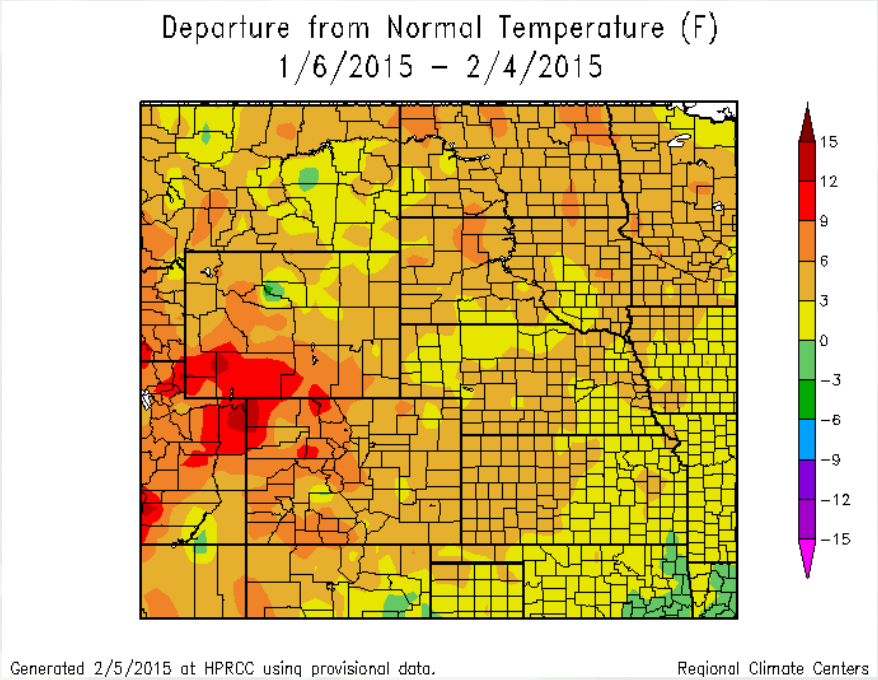
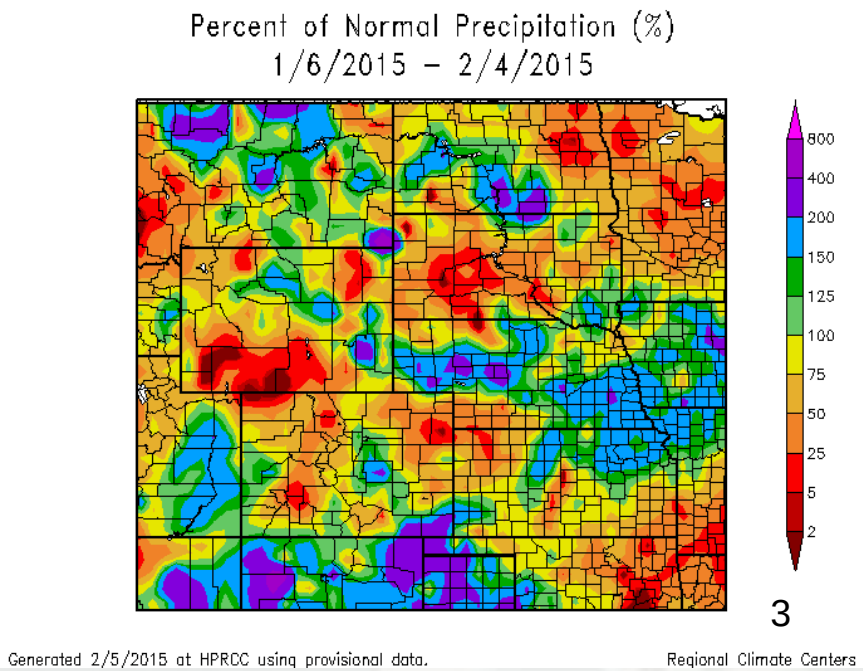
Weather / Climate

Dr. Dennis Todey
South Dakota State Climatologist

Conditions – Last 30 Days



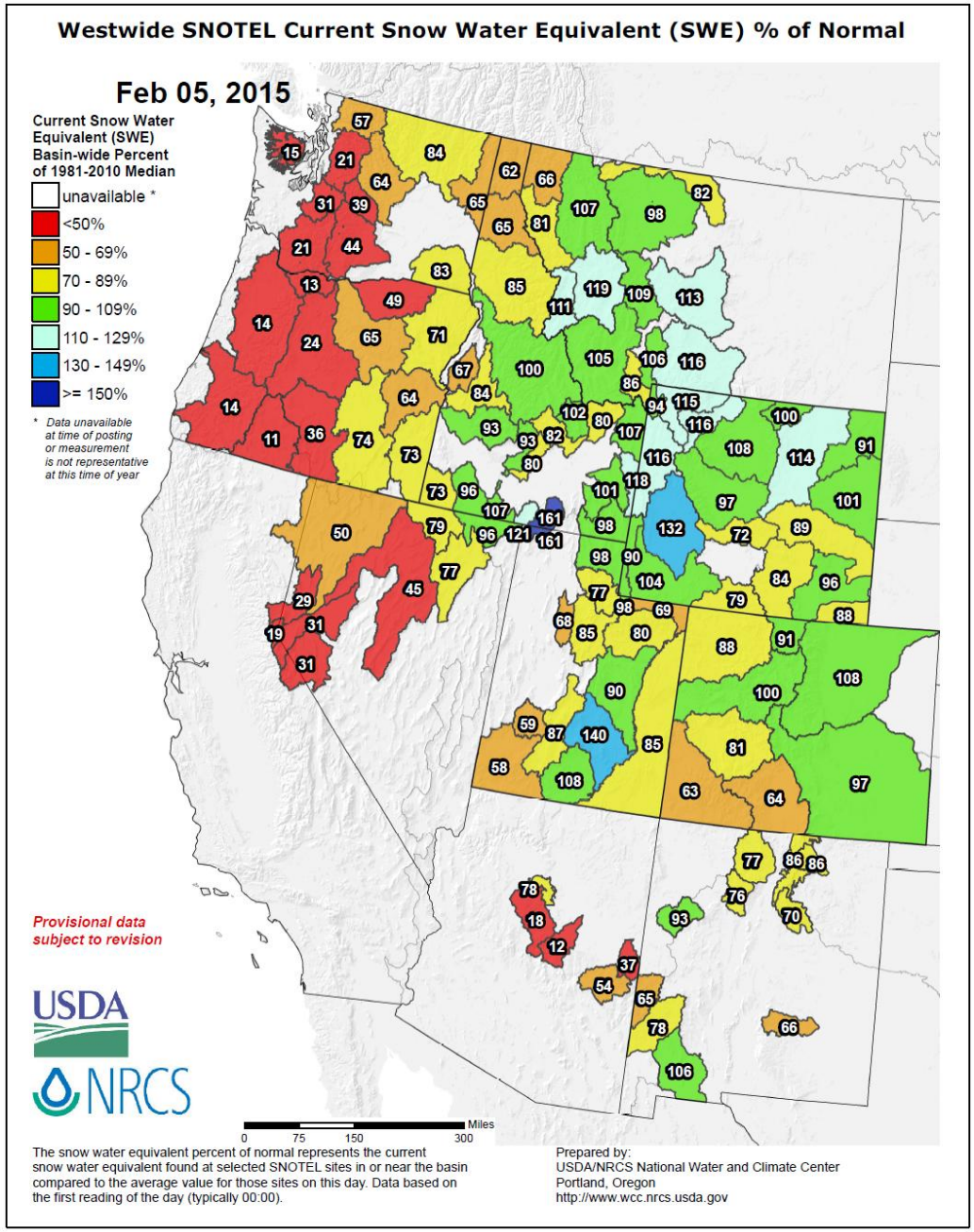


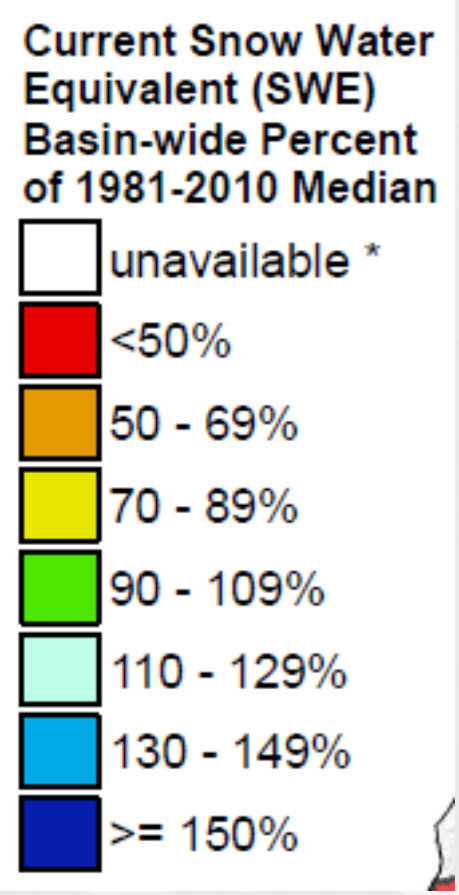


- Precipitation – widely varying
- Temperature – above average

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

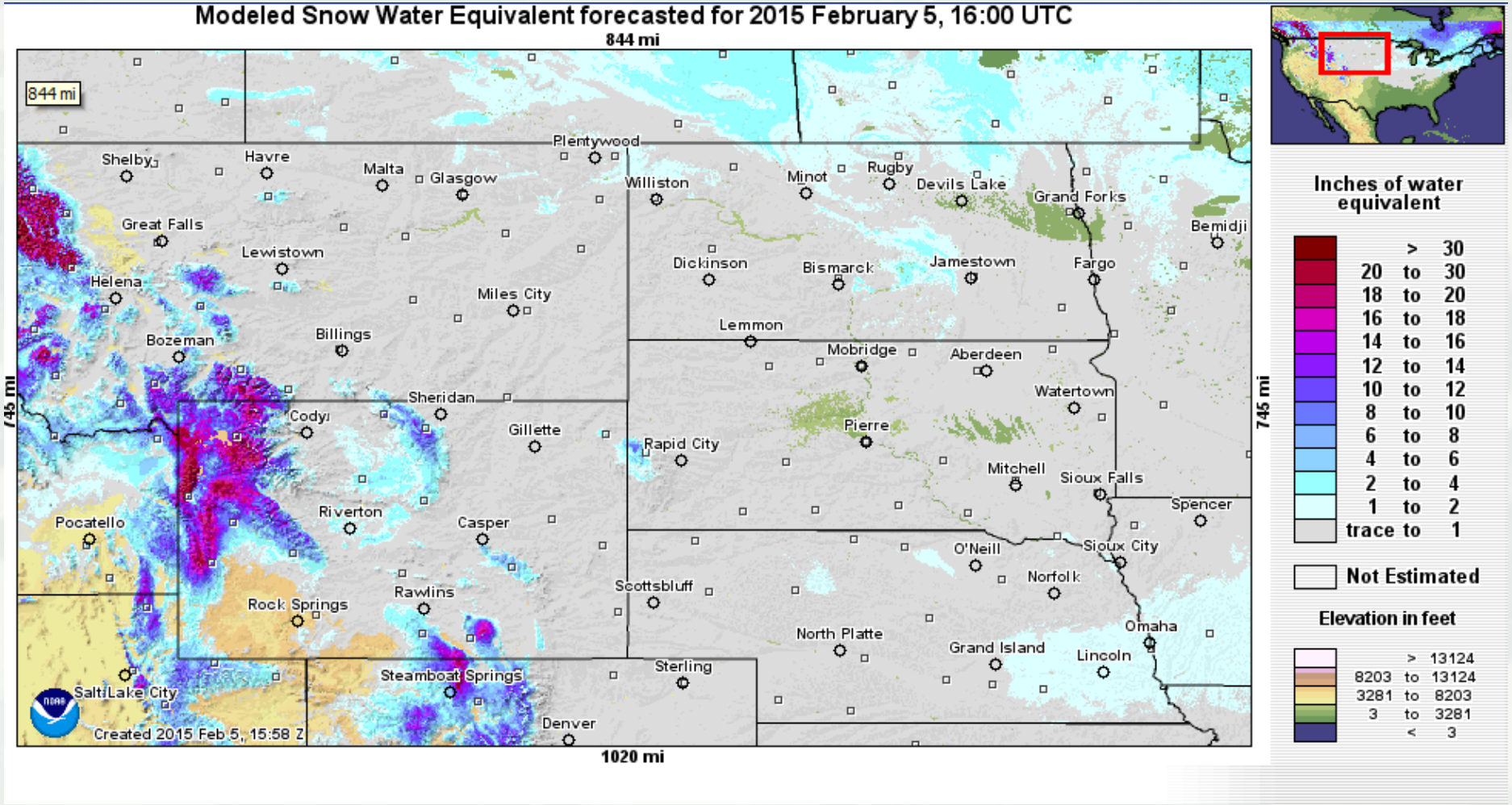
Mountain Snowpack





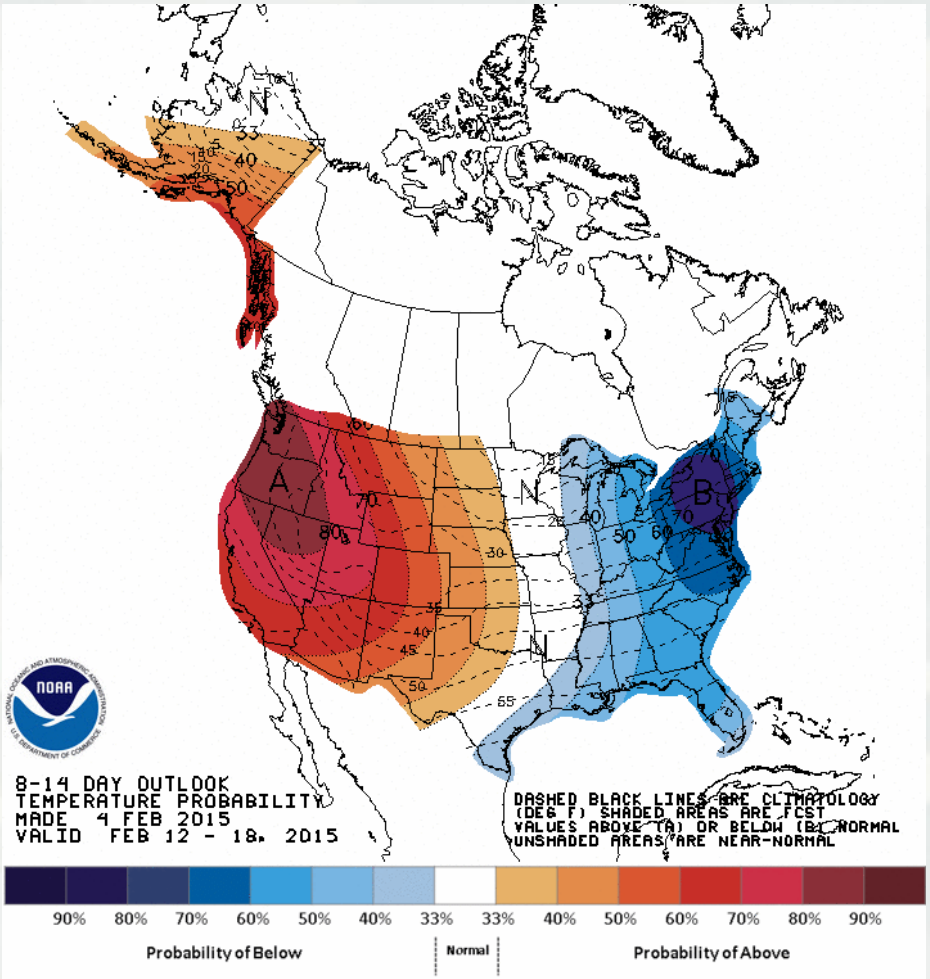
http://www.wcc.nrcs.usda.gov/gis/snow.html

Plains Snowpack – Snow Water Equivalent

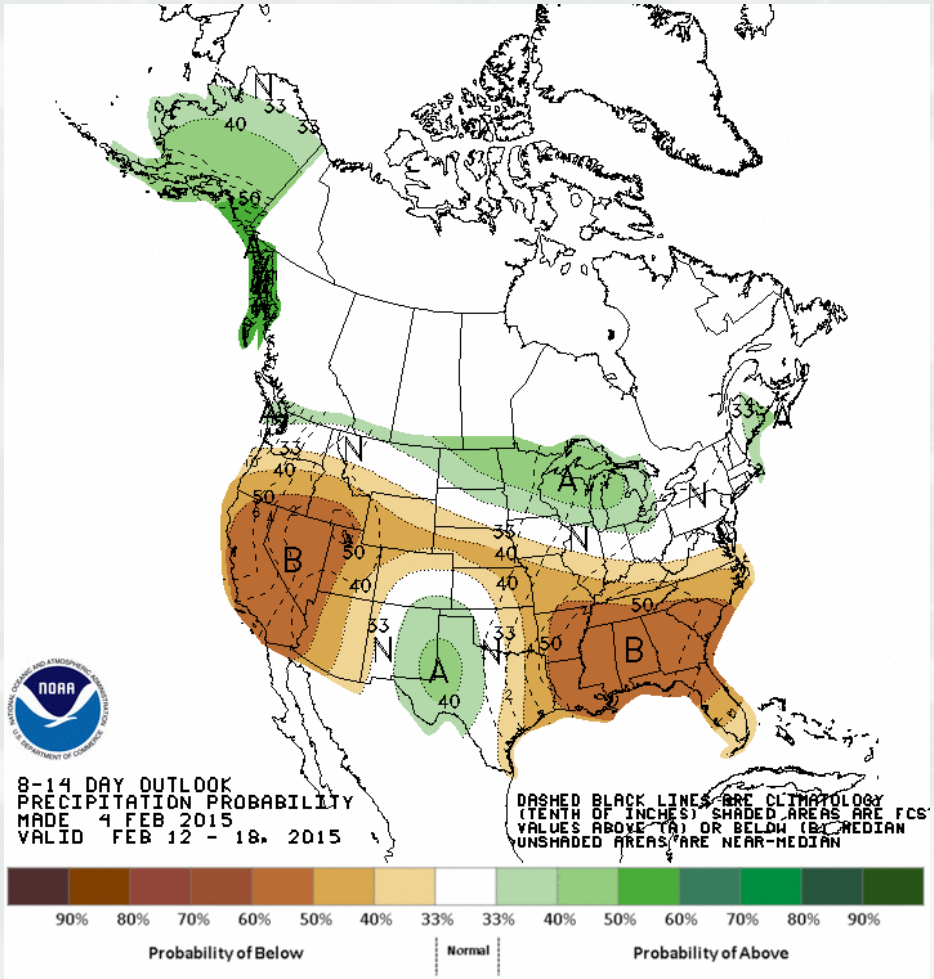


http://www.nohrsc.noaa.gov

Temperature and Precipitation Probabilities (2/12-2/18)



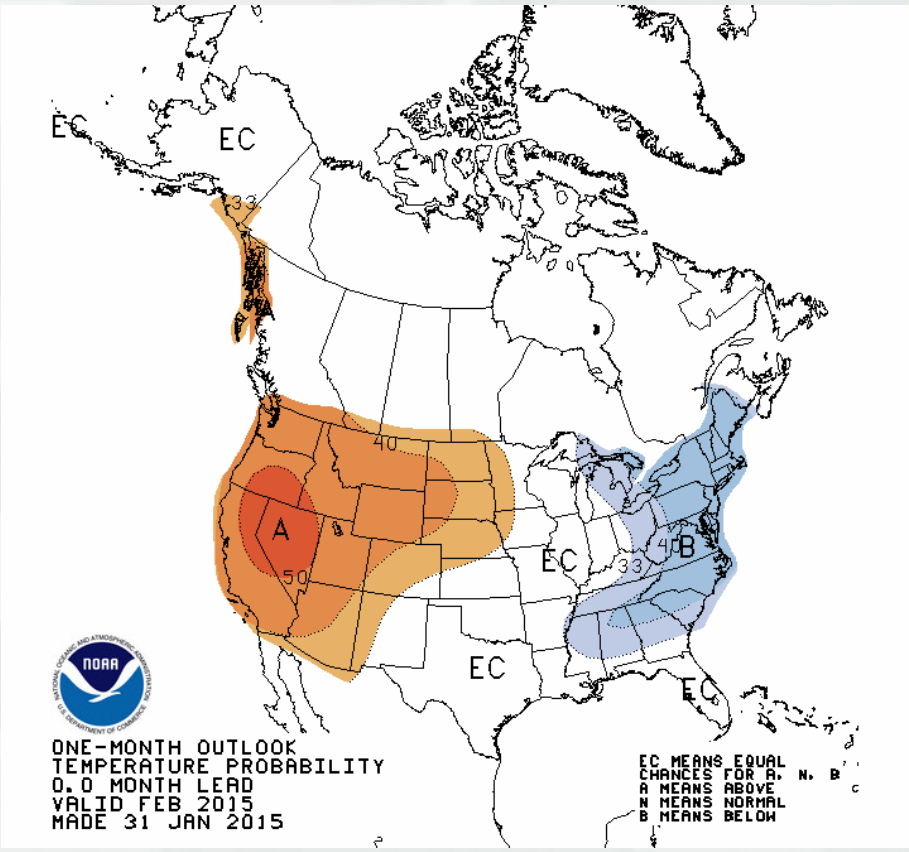
Temperature



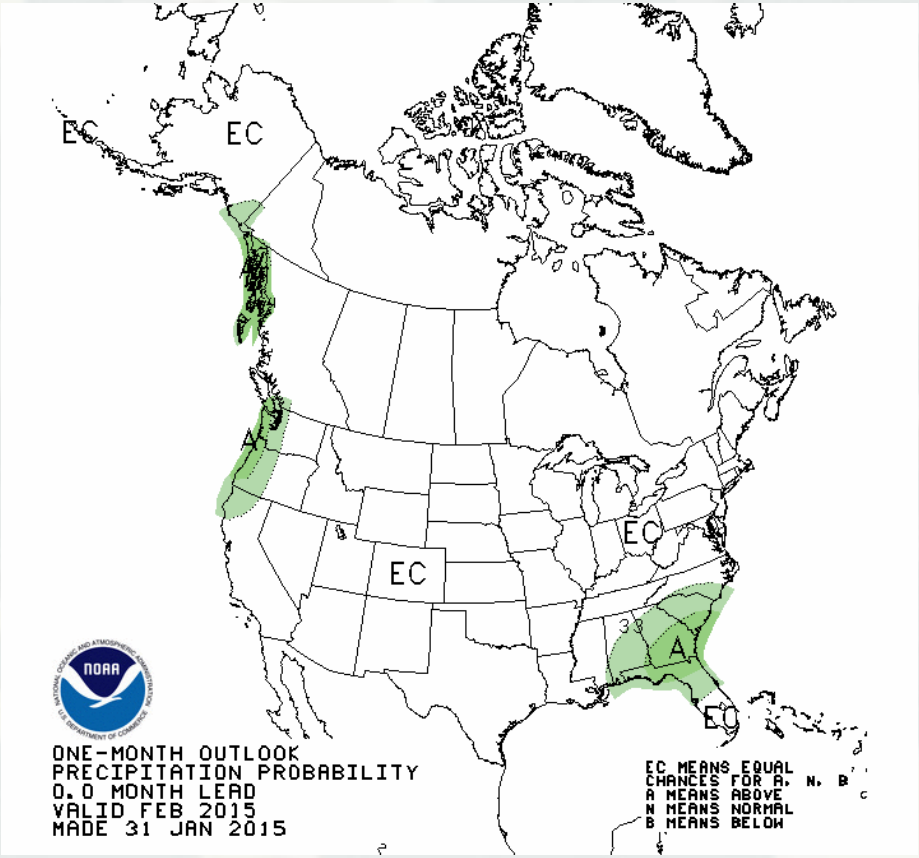
Precipitation

One Month Temperature and Precipitation Probabilities

(February)



Temperature

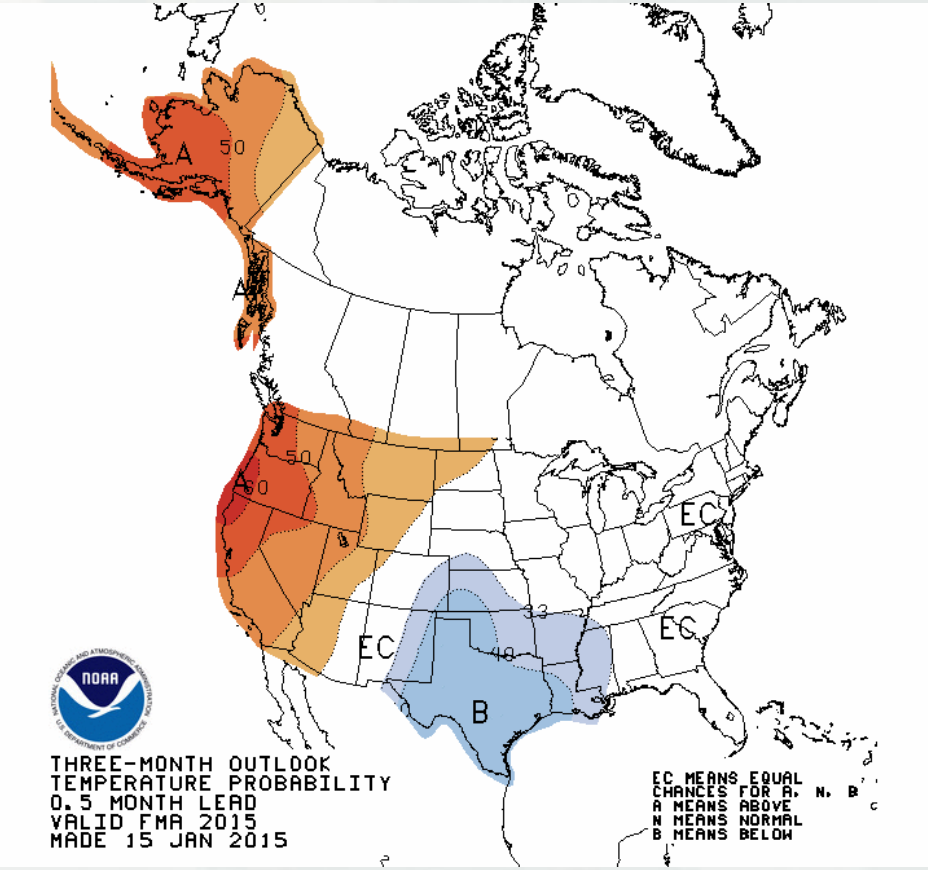


Precipitation

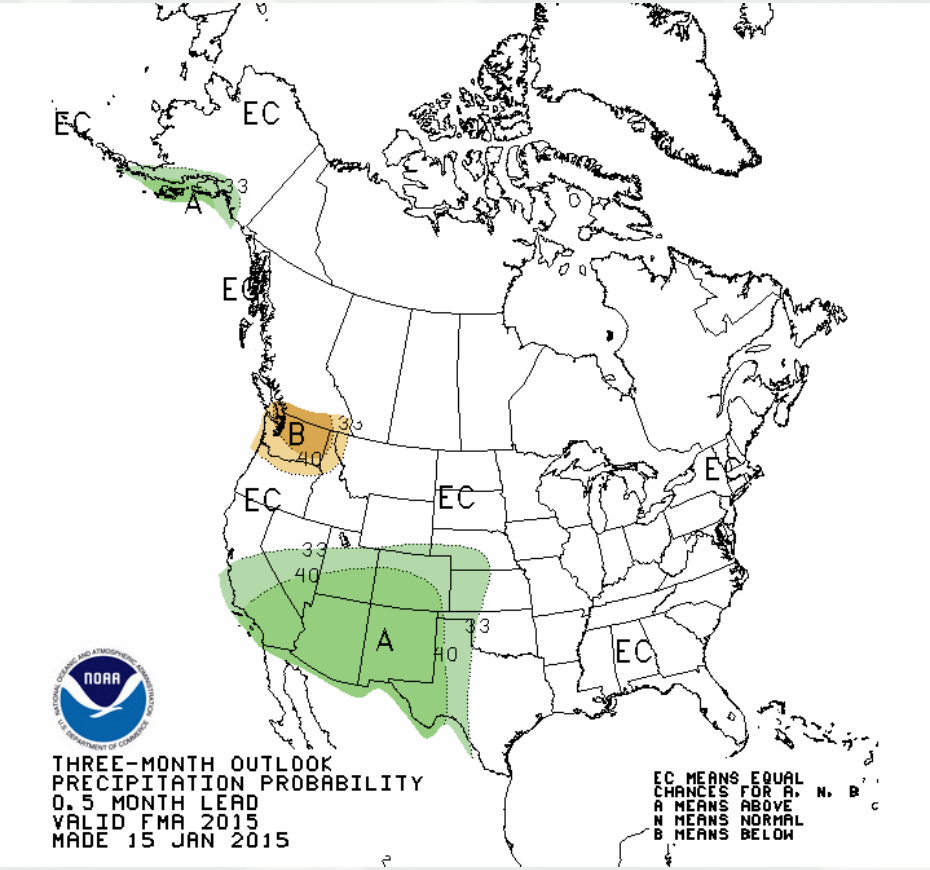
http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

Three Month Temperature and Precipitation Probabilities

(February - March - April)



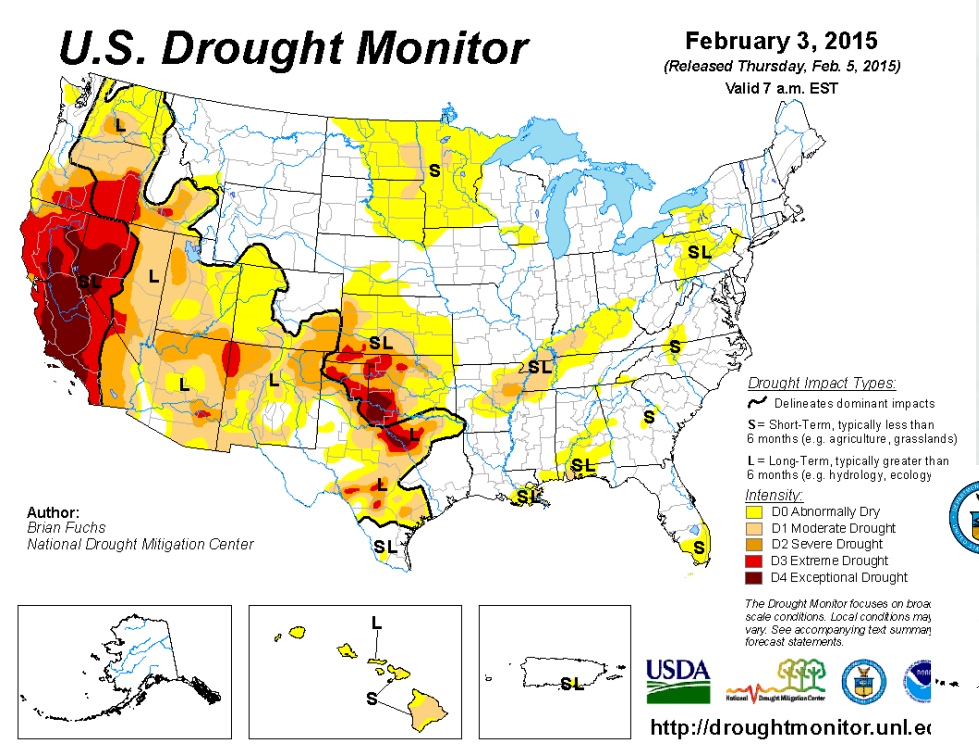
Temperature

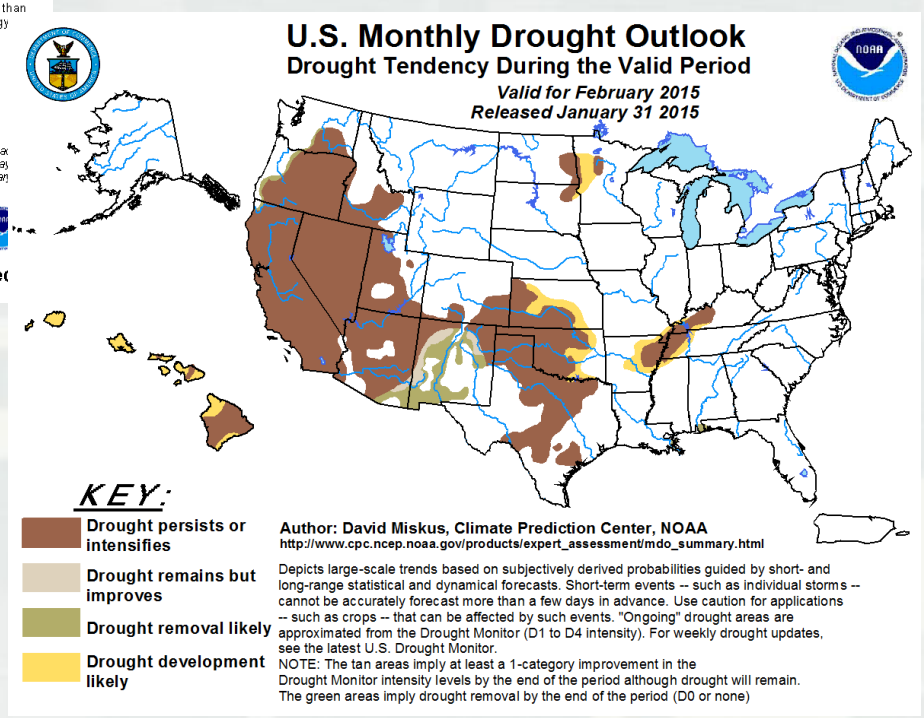


Precipitation

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 snow widespread – little water
  - Precipitation – mixed last 30 days
  - Temperatures – above average last 30 days
- **Predictions**
  - February – likely warmer than average basin wide
  - Likely warmer west into spring (WY – MT – ND)
  - Precipitation – mostly equal chances
  - El Niño chances becoming less

Basin Conditions / Flood Outlook

Kevin Low, Hydrologist

National Weather Service, Missouri Basin River Forecast Center

Key Points

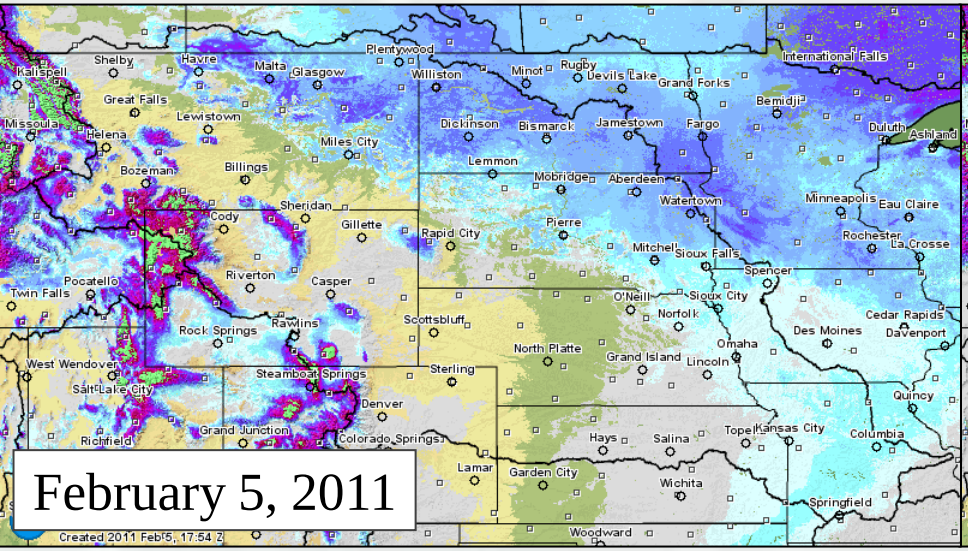
- Mountain snowpack is near normal
- Plains snowpack widespread, but shallow
- Ice jamming has already occurred, and will remain a concern
- Spring flood potential appears to be generally normal across most of the basin
- NWS will issue first Spring Flood Outlook on Thursday, February 19

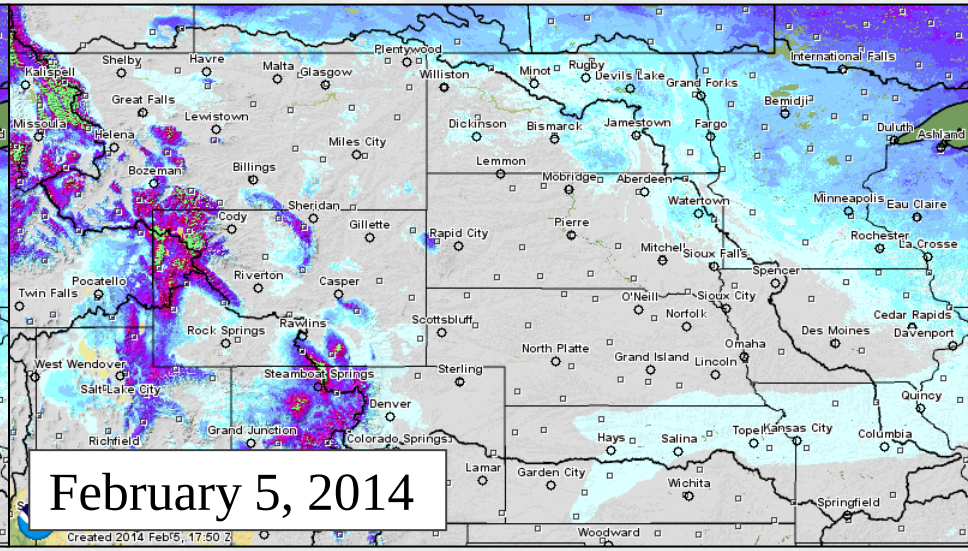
Upper Basin Runoff for 2015

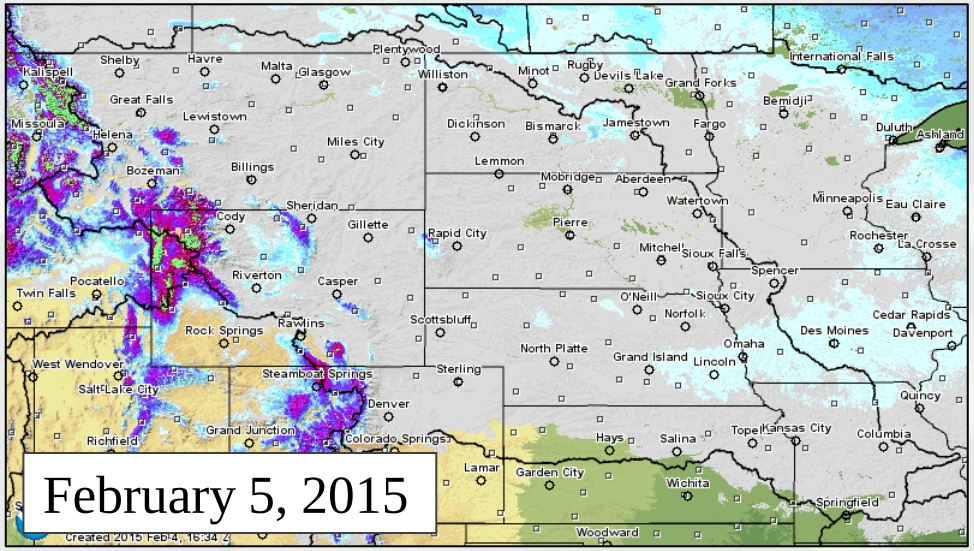
Kevin Stamm, P.E.

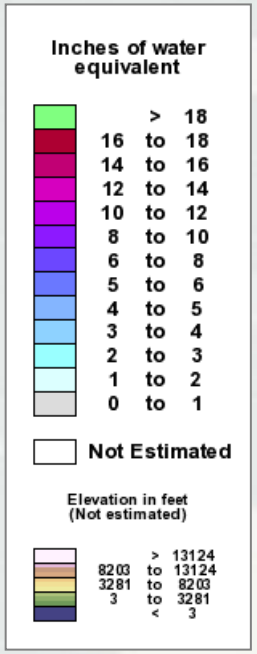
U.S. Army Corps of Engineers, Missouri River Basin Water Management

Plains Snowpack





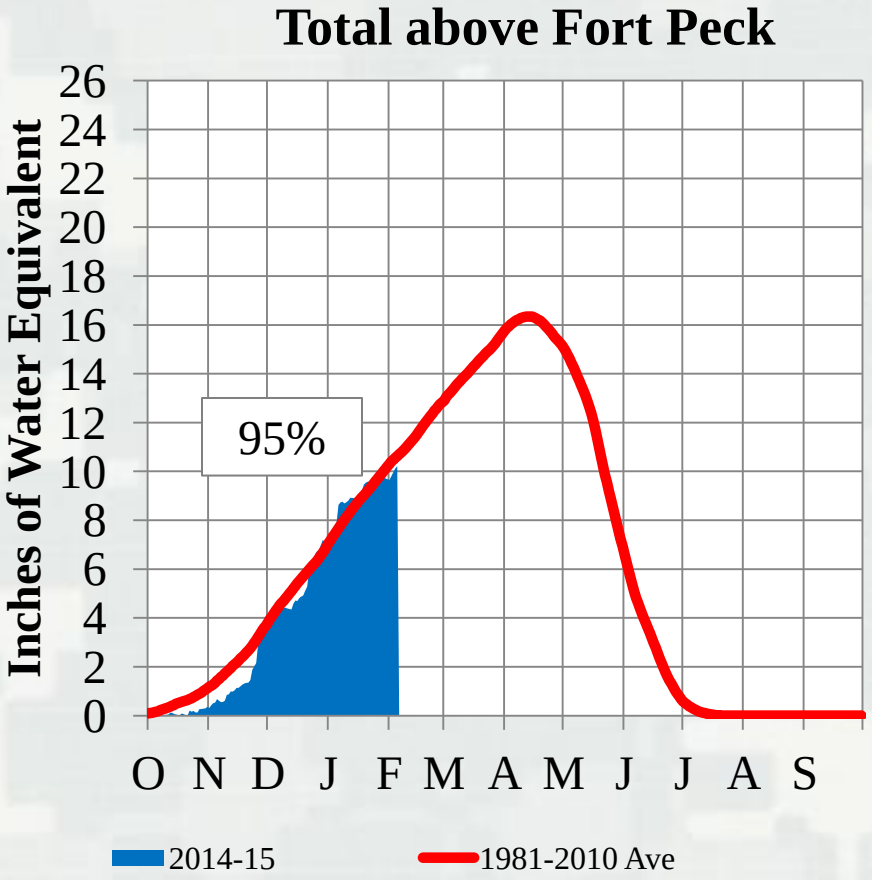


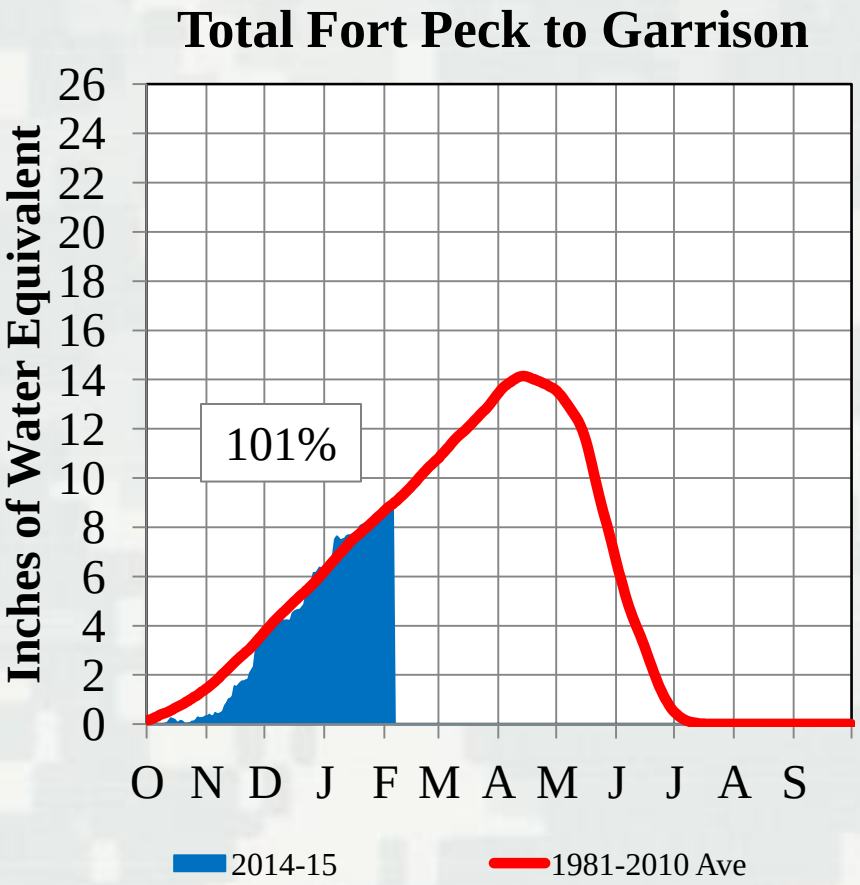


Source: NOAA National Operational Hydrologic Remote Sensing Center (NOHRSC)

Missouri River Basin
2014-15 Mountain Snowpack Water Content

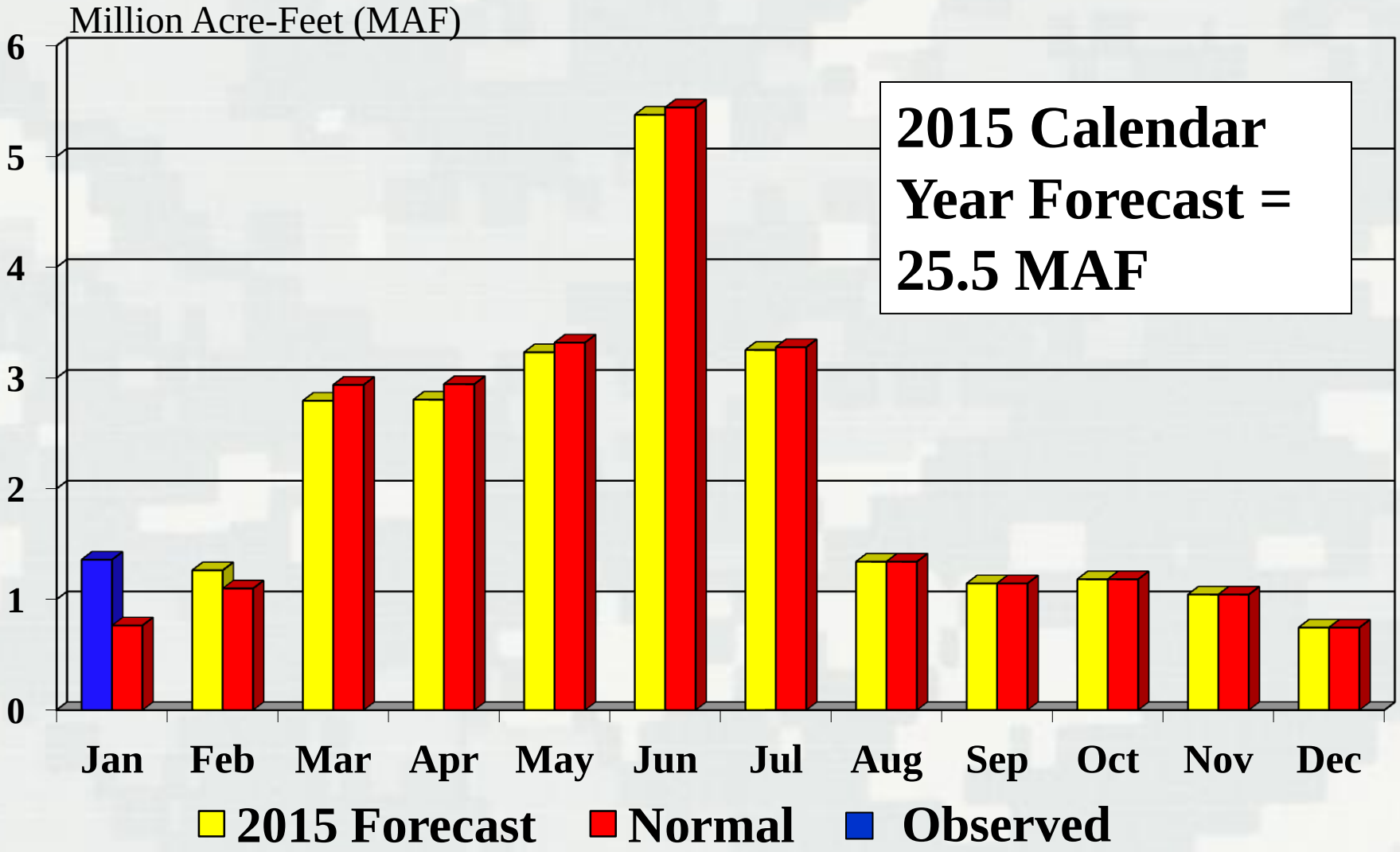
February 5, 2015





64% of normal peak accumulation has occurred by February 1.

Missouri River Runoff above Sioux City, Iowa 2015 Forecast

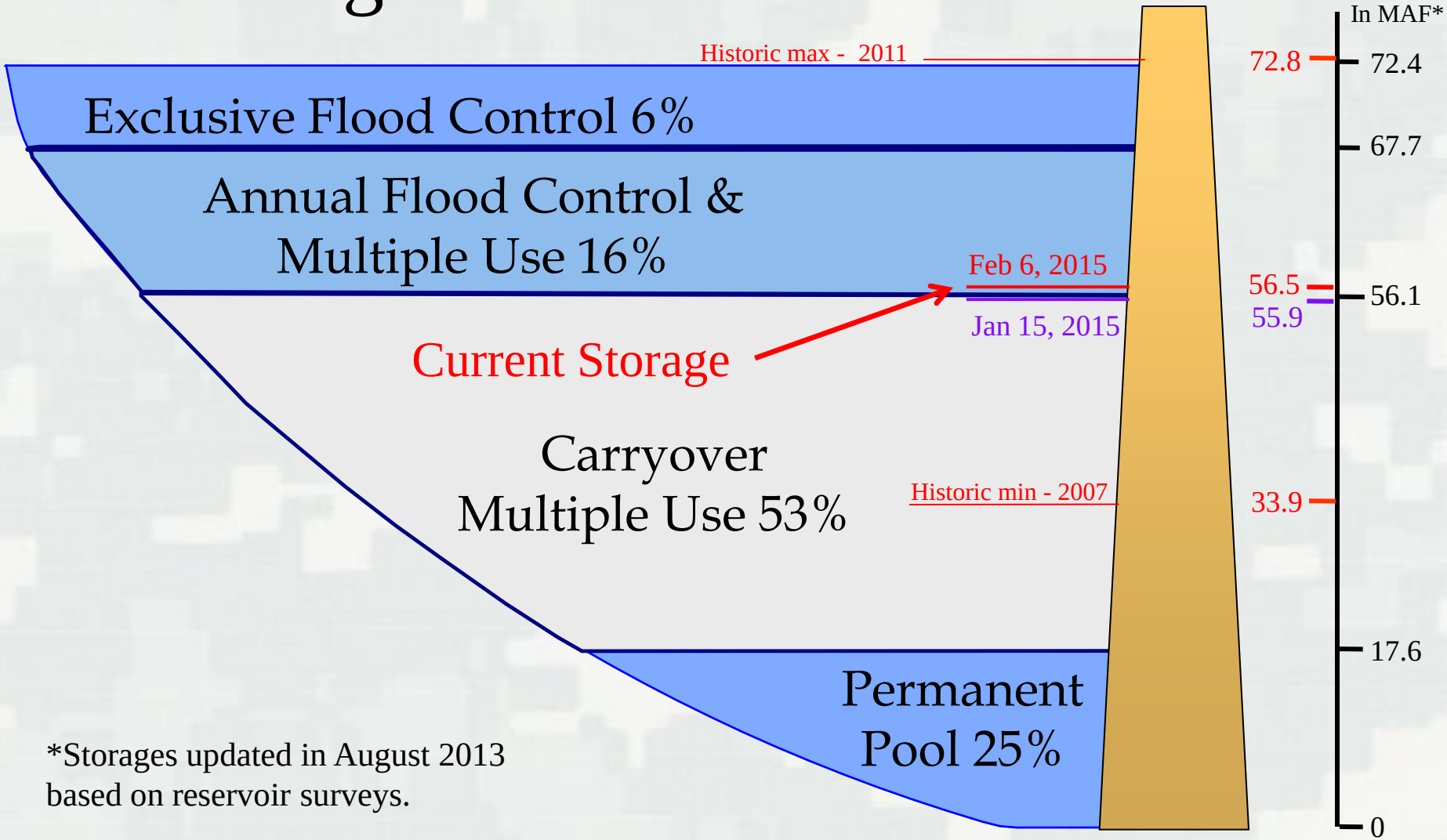


Reservoir System Regulation

Joel Knofczynski, P.E.

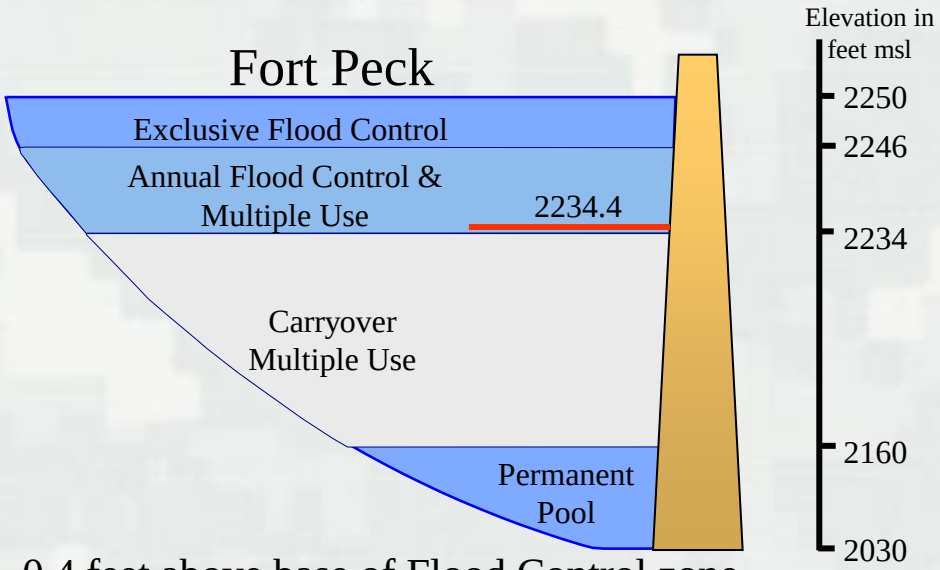
U.S. Army Corps of Engineers, Missouri River Basin Water Management

Missouri River Mainstem System Storage Zones and Allocations

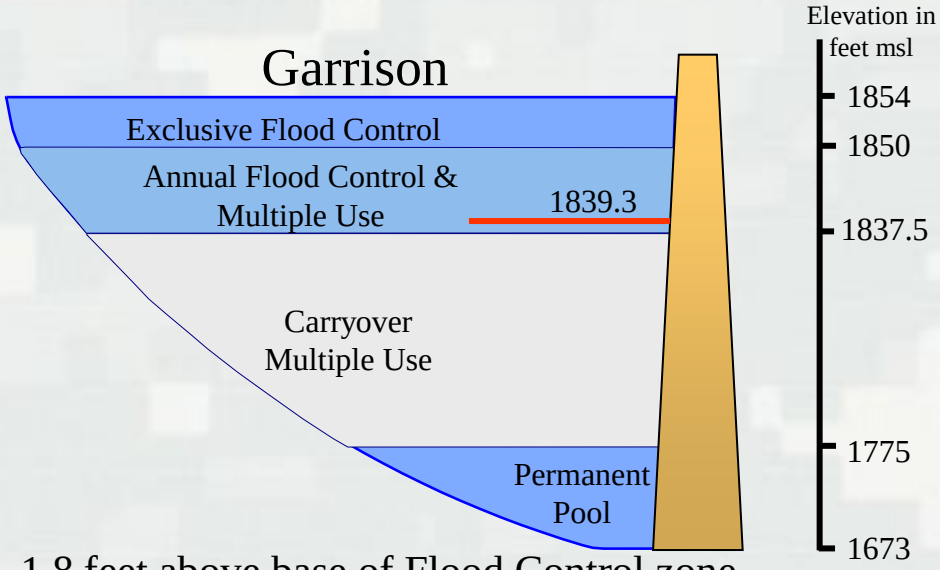


*Storages updated in August 2013 based on reservoir surveys.

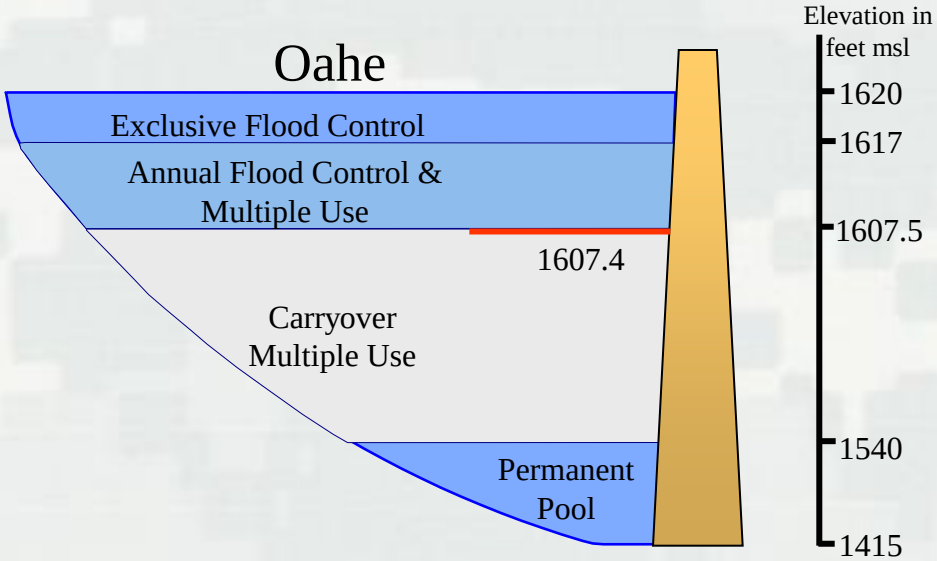
Current Reservoir Levels – February 6, 2015



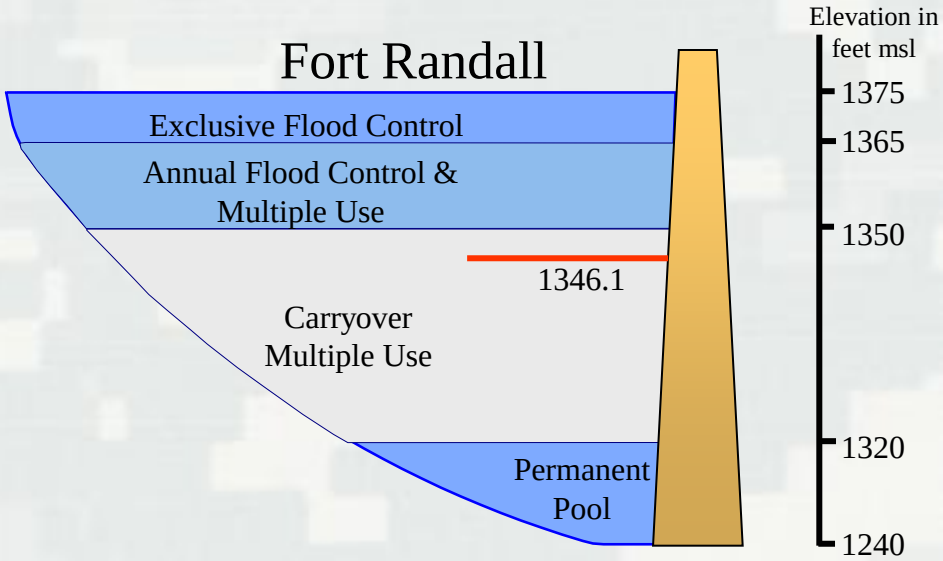
0.4 feet above base of Flood Control zone



1.8 feet above base of Flood Control zone



0.1 feet below base of Flood Control zone



3.9 feet below base of Flood Control zone

Key Points

- All stored 2014 flood waters have been evacuated
- Currently, 15.9 MAF of 16.3 MAF of flood storage space is available
- Full navigation season length
- Full service flow support for season (Basic)
- No Spring Pulse
- Annual power production of 9.6 billion kilowatt hours (BkWhrs)(10.0 BkWhrs Average)
- Good service to all authorized purposes

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March's Update

Date: Friday, March 6

Time: 1:00 pm CST

Contact Information

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