Missouri River Basin Water Management Monthly Update

Participating Agencies

U.S. Army Corps of Engineers
State of South Dakota
National Weather Service

May 5, 2016

US Army Corps of Engineers
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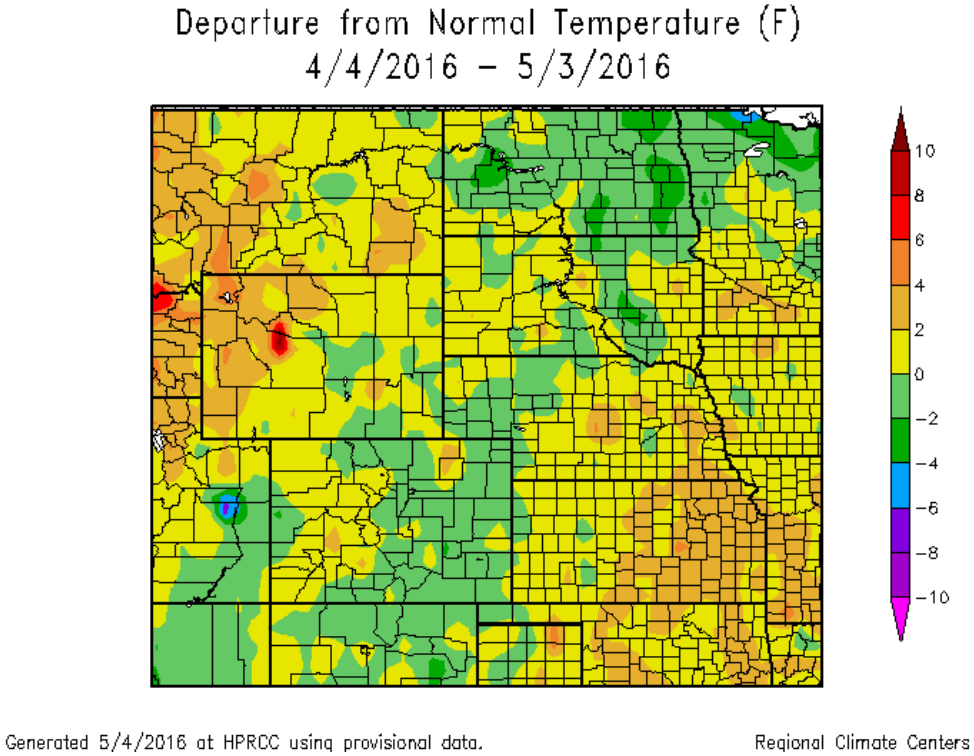
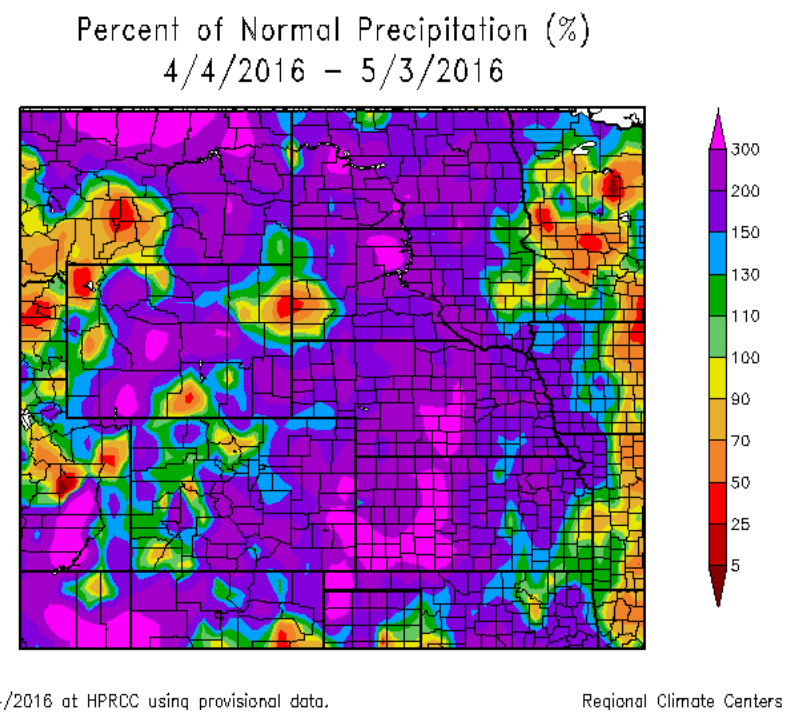
Weather / Climate

Dr. Dennis Todey
South Dakota State Climatologist

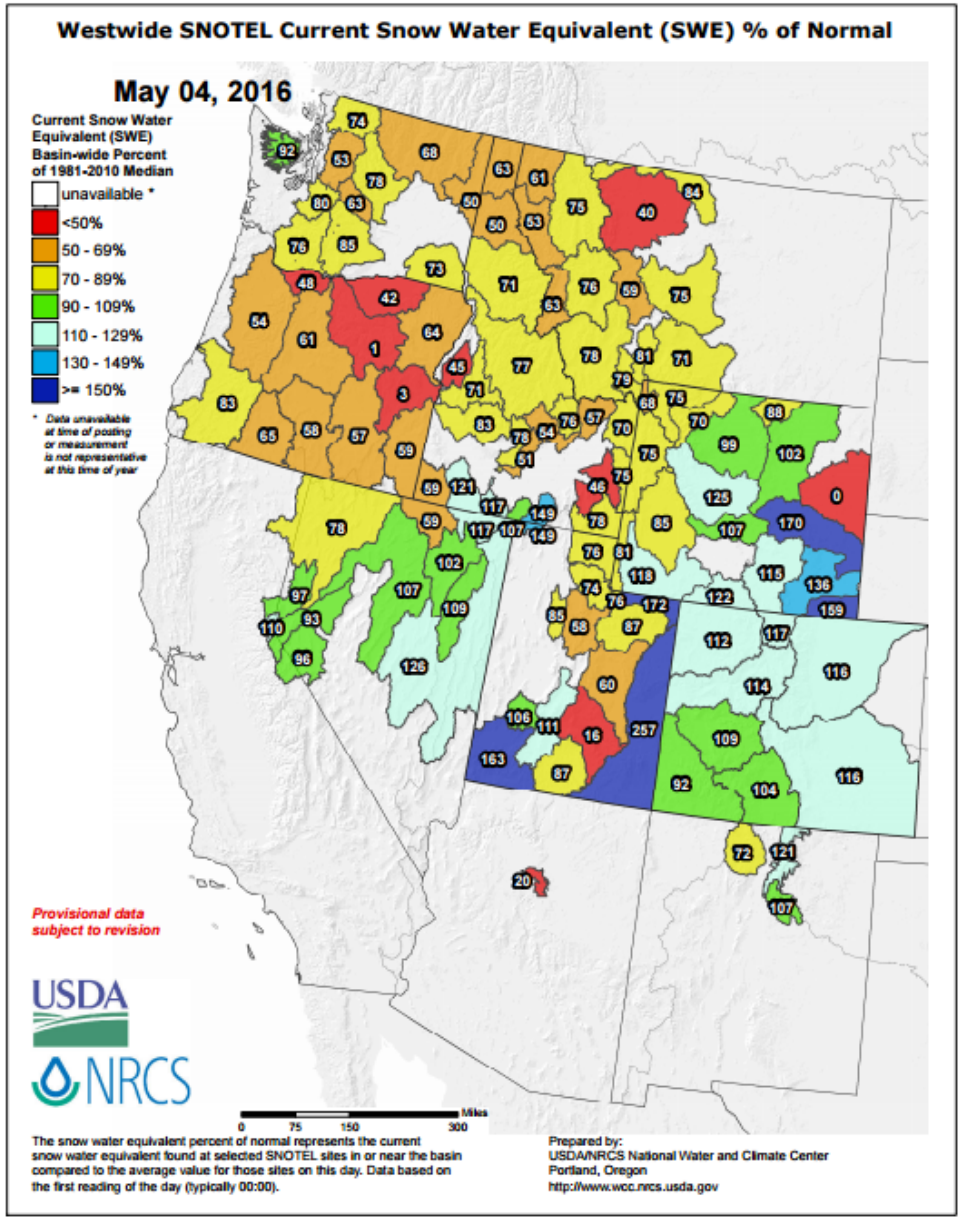
Conditions – Last 30 days





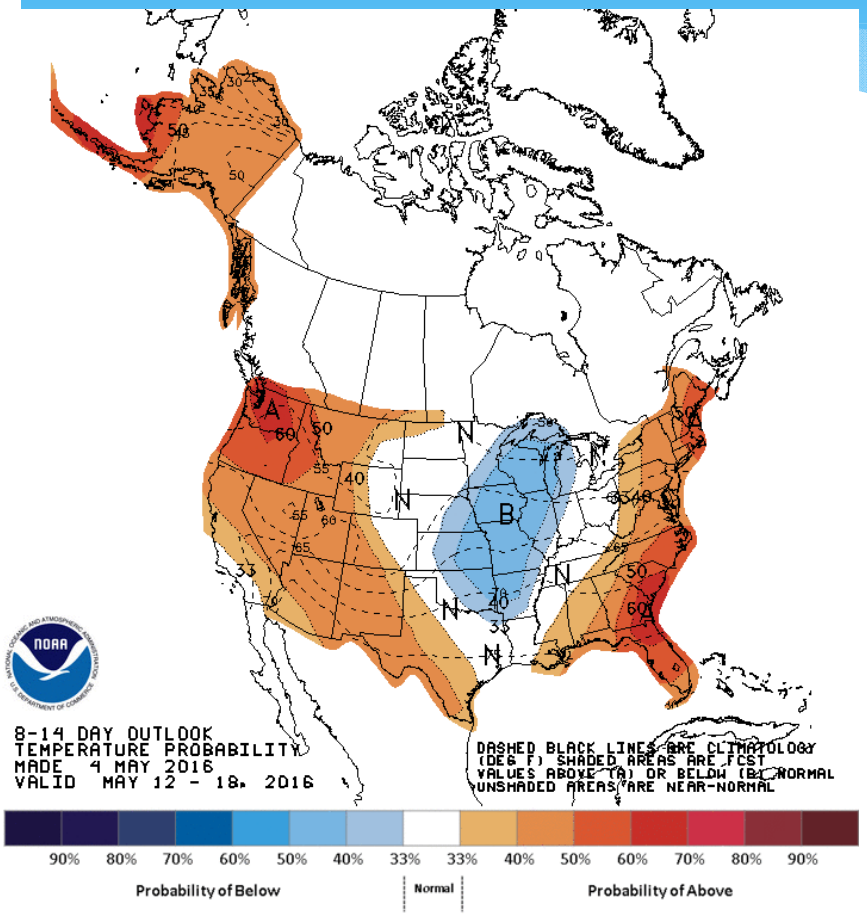
http://hprcc.unl.edu/maps.php?map=ACISClimateMaps

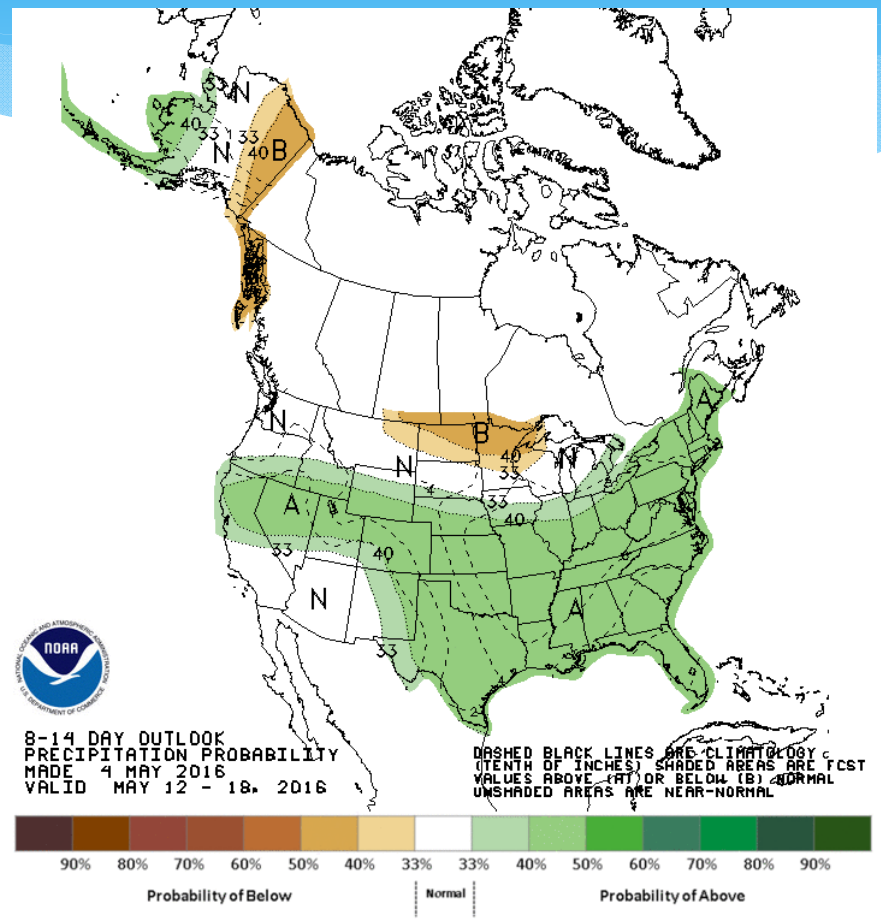
Mountain Snowpack



http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/west_swepctnormal_update.pdf

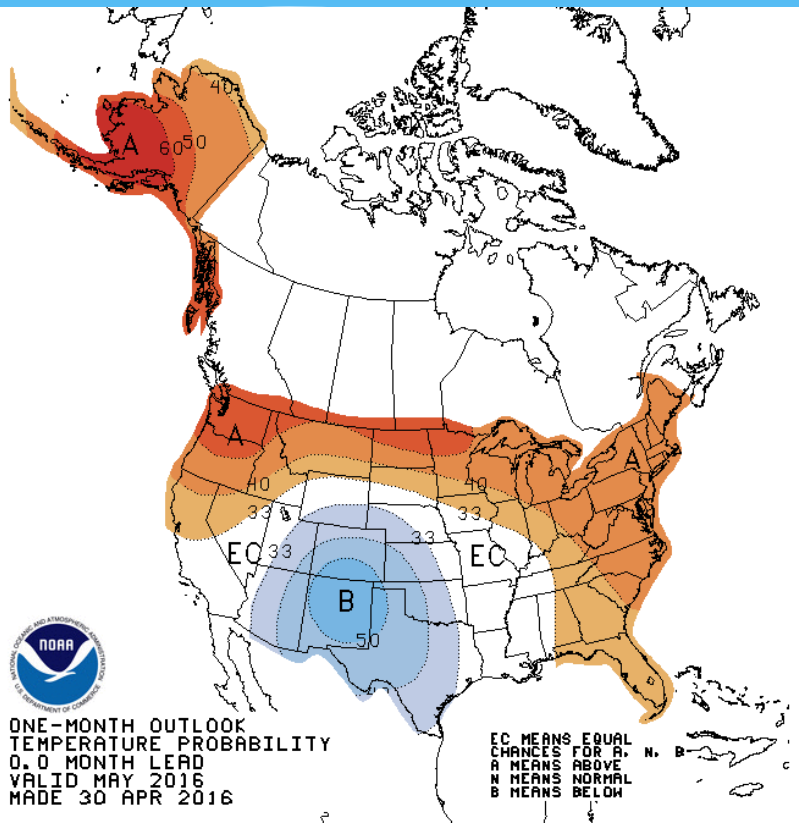
Temperature and Precipitation Probabilities (5/12-5/18)



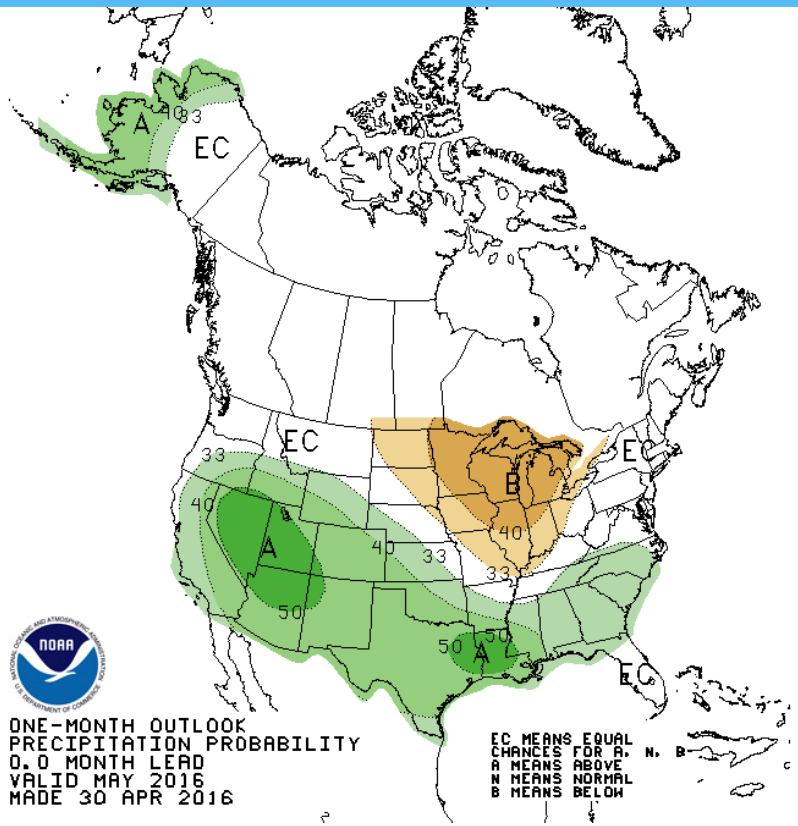


http://www.cpc.ncep.noaa.gov

May Temperature and Precipitation Probabilities



Temperature

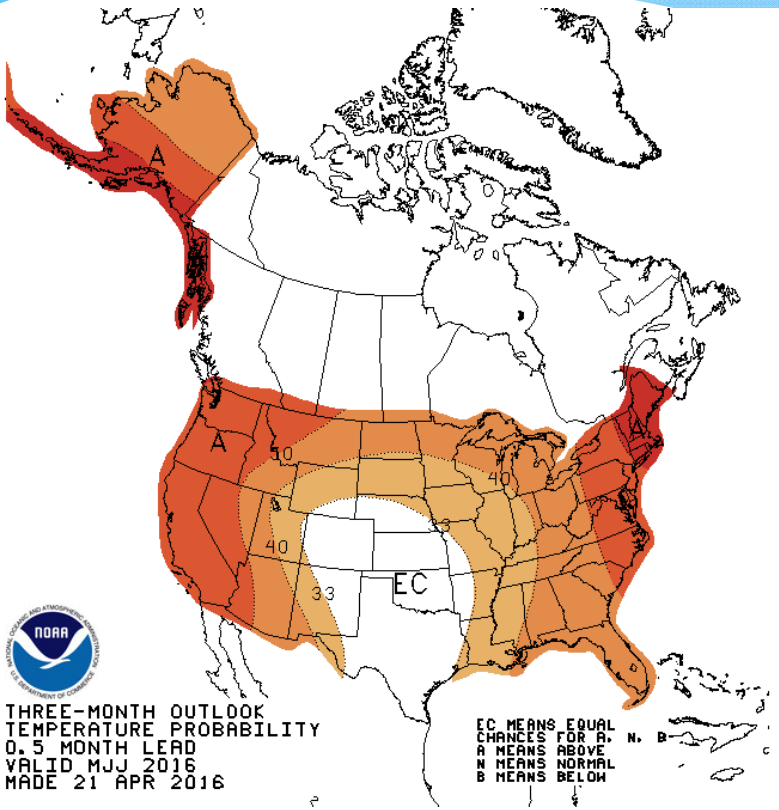


Precipitation

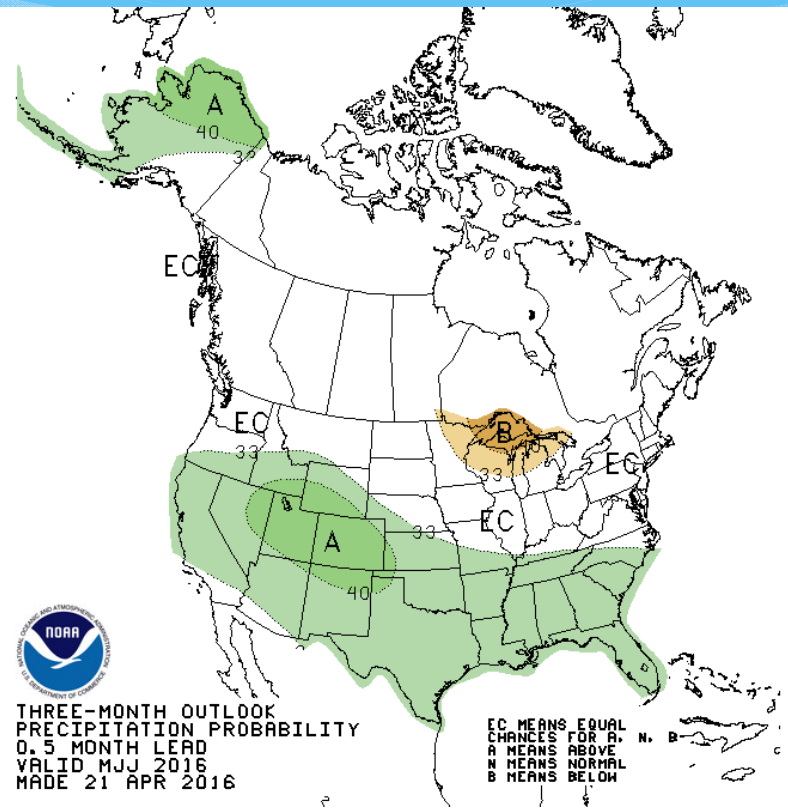
http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

3 Month Temperature and Precipitation Probabilities

(May - July)



Temperature



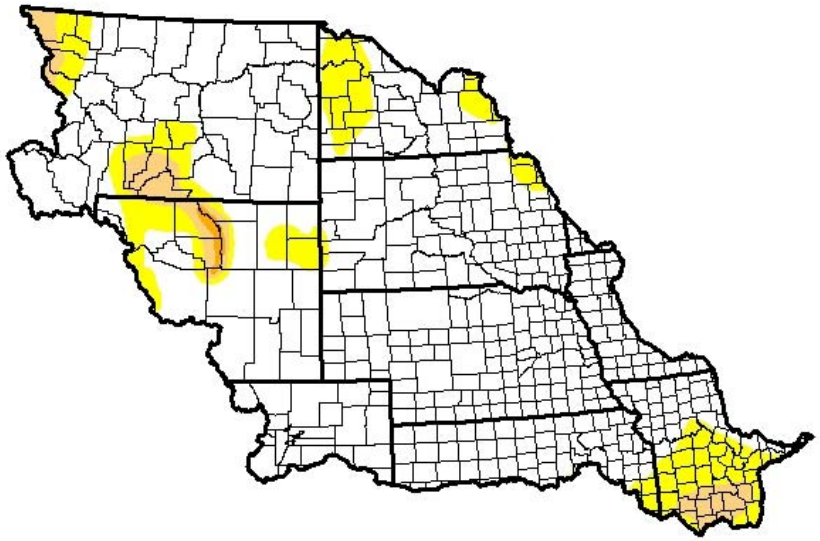
Precipitation

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

Drought Update

U.S. Drought Monitor

Missouri Watershed



May 3, 2016

(Released Thursday, May. 5, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	83.94	16.06	3.96	0.33	0.00	0.00
Last Week 4/26/2016	77.78	22.22	5.05	0.33	0.00	0.00
3 Months Ago 2/2/2016	73.03	26.97	6.63	0.16	0.00	0.00
Start of Calendar Year 12/29/2015	76.44	23.56	5.55	1.28	0.00	0.00
Start of Water Year 9/29/2015	65.65	34.35	6.75	3.42	0.66	0.00
One Year Ago 5/5/2015	52.56	47.44	21.49	4.43	0.00	0.00

Intensity:

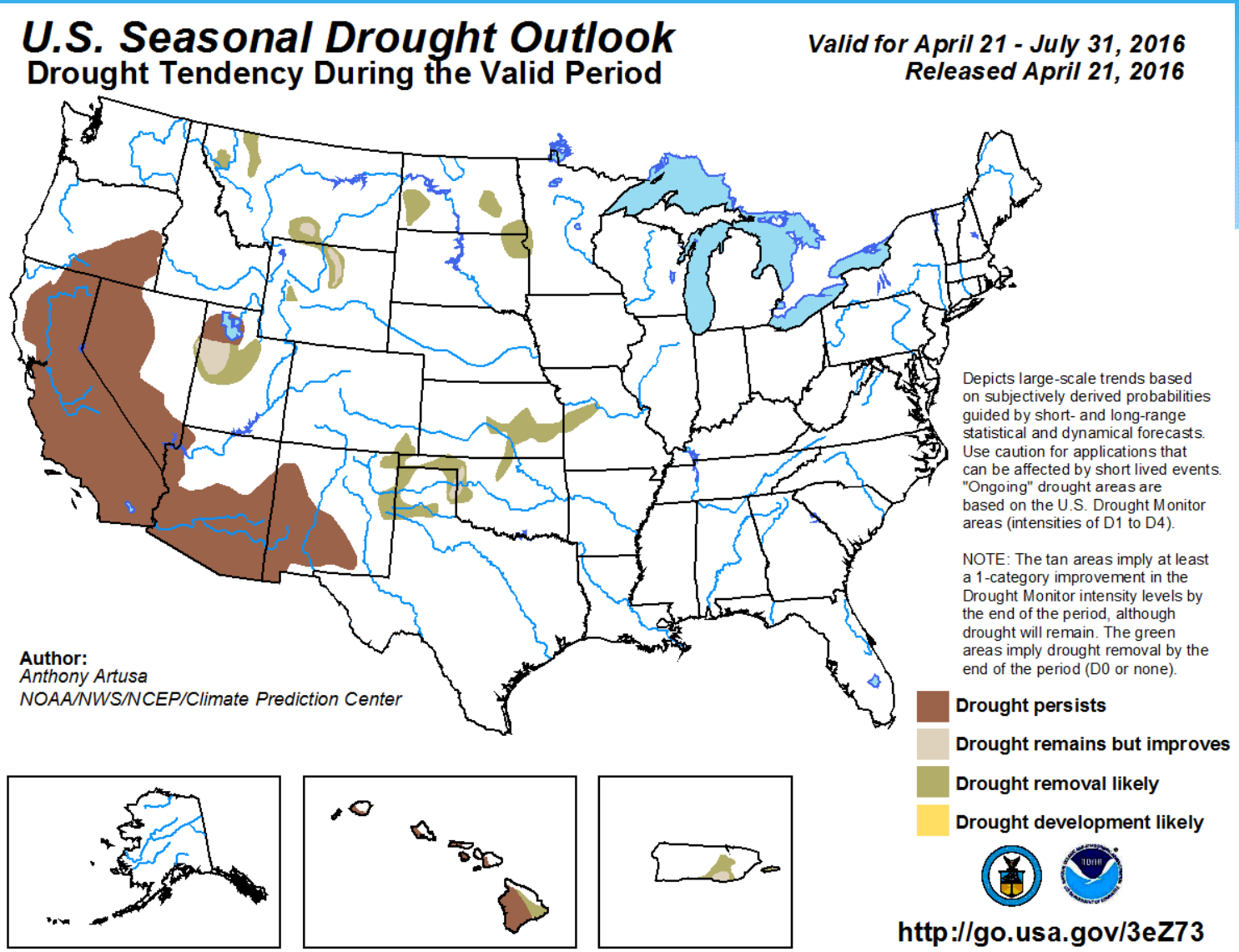
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

Author:
Brian Fuchs
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

Drought Update



Key Points

* **Current Conditions**
  * El Niño (weakening quickly) – La Niña watch
  * Snow - Missouri main stem (below) – Platte (above) – Plains (none)
  * Recently wetter/temperature mixed
  * Areas moderate/severe drought (MT/WY)
* **Predictions**
  * El Niño dissipating - La Niña likely into fall
  * Likely warmer spring into summer except south
  * Precipitation – May drier likely east/wetter south. Wetter area dissipates into summer.

Basin Conditions / Flood Outlook

Kevin Low, Hydrologist

National Weather Service, Missouri Basin River Forecast Center

SUMMARY POINTS

- **Cautiously optimistic regarding this weekend's system in northern Rockies....no significant flooding expected.**

- **Platte River system has above average mountain snowpack....expecting primarily minor (some moderate) flooding along North Platte and Platte Rivers.**

- **Typical on-again-off-again thunderstorm-driven flooding expected in southeastern third of the basin. (remember the last couple of weeks).**

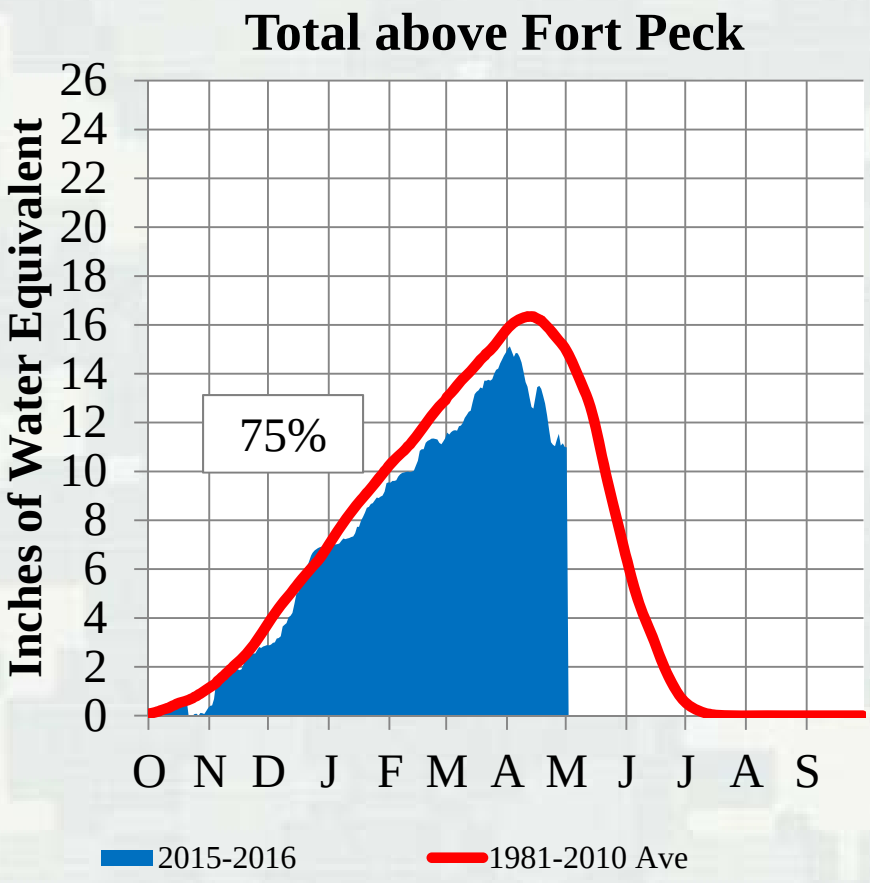
Upper Basin Runoff for 2016

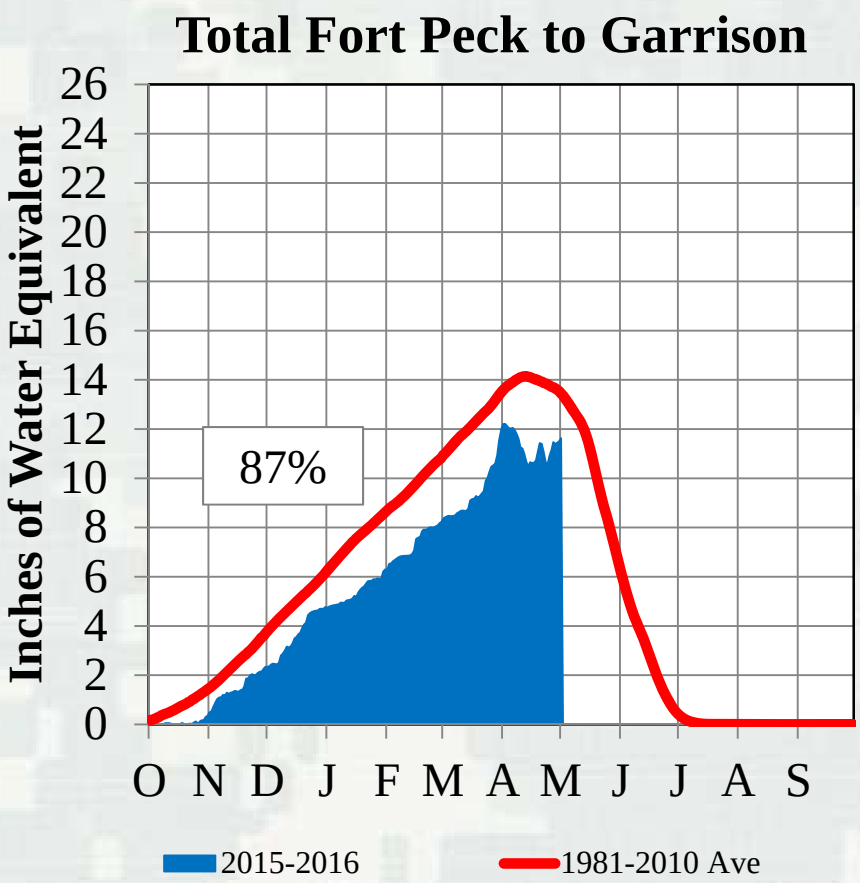
Roger Kay, P.E.

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

Missouri River Basin
2015-16 Mountain Snowpack Water Content

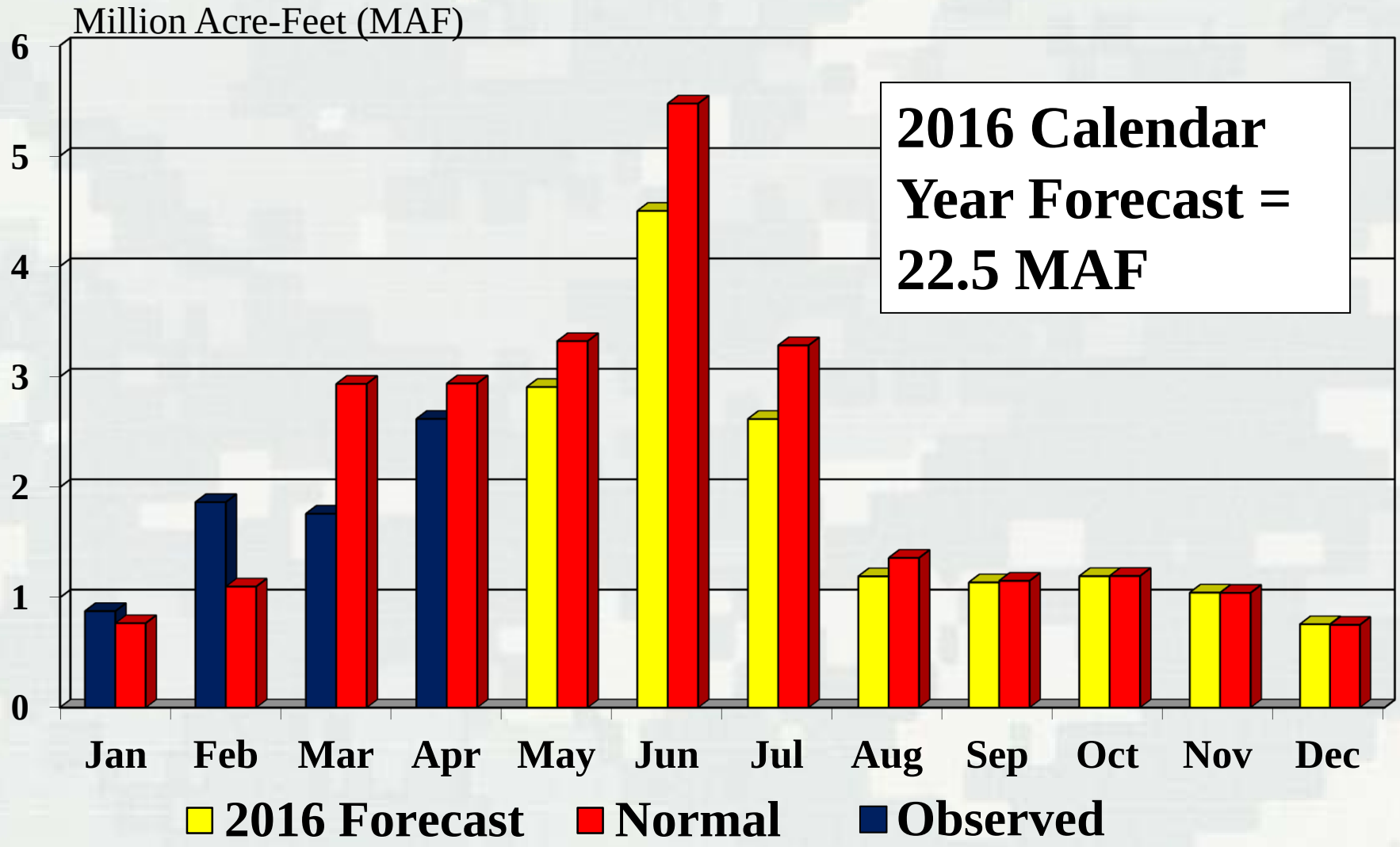
May 1, 2016





About 90% of peak accumulation normally remains by May 1.

Missouri River Runoff above Sioux City, Iowa
2016 Forecast

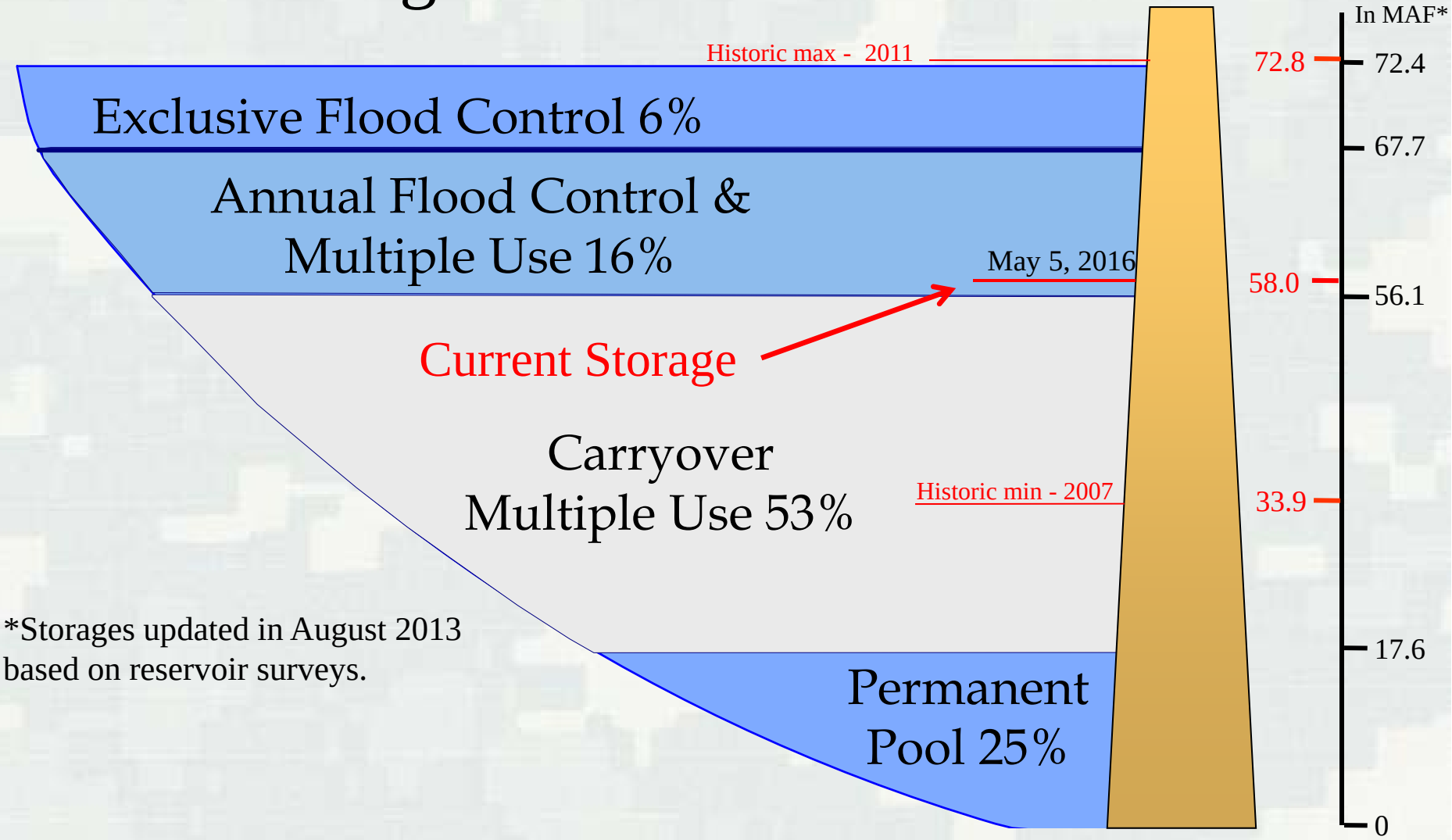


Reservoir System Regulation

Mike Swenson, P.E.

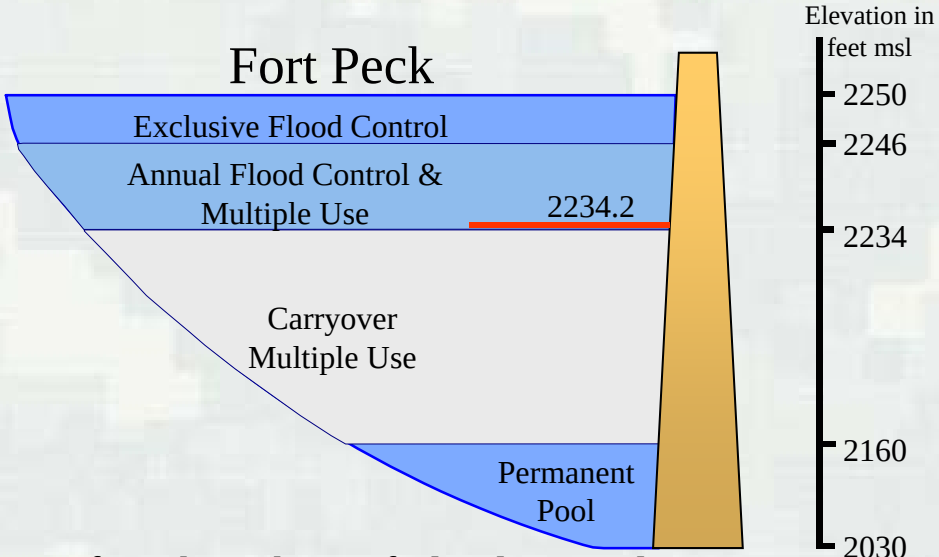
U.S. Army Corps of Engineers, Missouri River Basin Water Management

Missouri River Mainstem System Storage Zones and Allocations

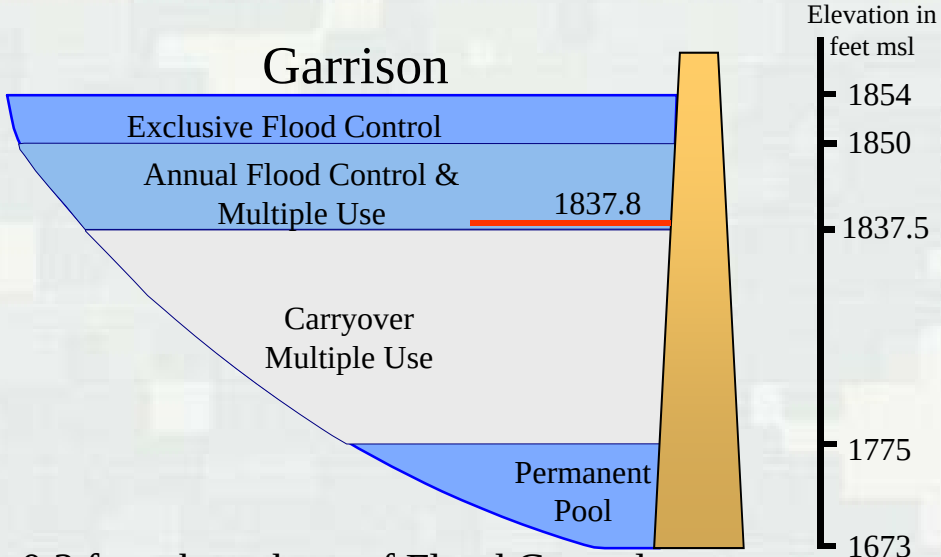


*Storages updated in August 2013 based on reservoir surveys.

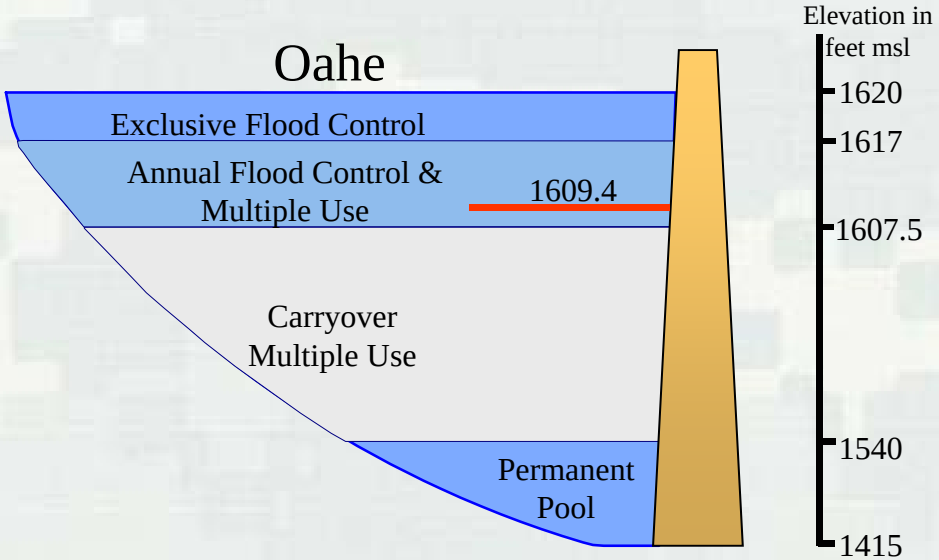
Current Reservoir Levels – May 4, 2016



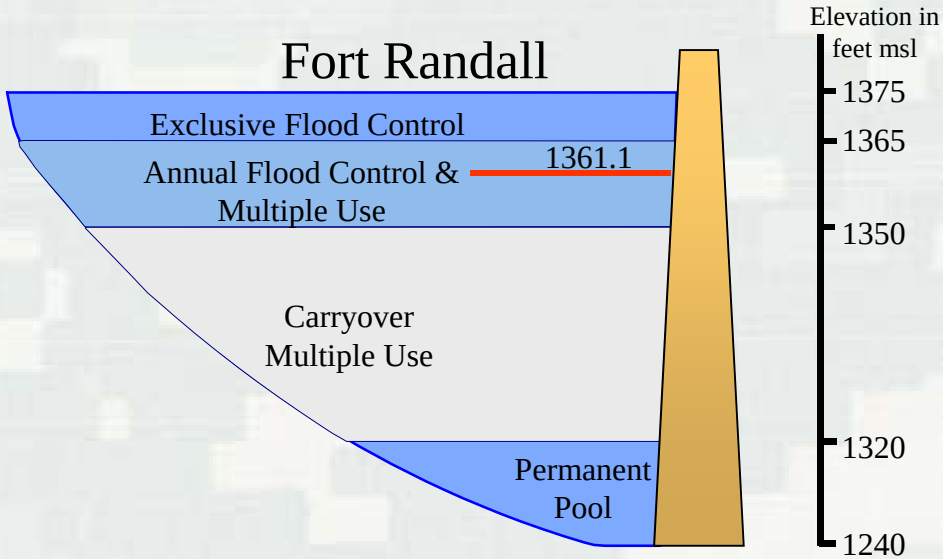
0.2 feet above base of Flood Control zone



0.3 feet above base of Flood Control zone



1.9 feet above base of Flood Control zone



11.1 feet above base of Flood Control zone

Key Points

- Currently, 14.4 MAF of 16.3 MAF of flood storage space is available.
- Full navigation season (Basic)
- Full service flow support for season (Basic)
- Annual power production of 8.4 BKWhrs (average is 10.0 BKWhrs)
- Good service to all authorized purposes

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Contact Information

Name	Office	Email Address	Phone Number
Jody Farhat	USACE, Chief, Missouri River Basin Water Management	Jody.S.Farhat@usace.army.mil	402-996-3840
Dr. Dennis Todey	South Dakota State University, State Climatologist	Dennis.Todey@sdstate.edu	605-688-5678
Kevin Low	National Weather Service, Hydrologist	Kevin.Low@noaa.gov	
Roger Kay	USACE, MRBWM, Hydraulic Engineer	Roger.L.Kay@usace.army.mil	402-996-3875
Mike Swenson	USACE, MRBWM, Power Production Team Lead	Michael.A.Swenson@usace.army.mil	402-996-3860
Ms. Michael Coffey	USACE, NWD Public Affairs Office	Michael.A.Coffey@usace.army.mil	503-808-3722
Doug Kluck	NOAA, Kansas City, Climatologist	Doug.Kluck@noaa.gov	816-994-3008