

®

US Army Corps of Engineers  
**BUILDING STRONG**  
Northwestern Division



# **Missouri River Basin Water Management Monthly Conference Calls Press Kit**



**US Army Corps  
of Engineers**®  
Northwestern Division

## **Brigadier General John S. Kem** Commander and Division Engineer



Brigadier General John S. Kem assumed command of the Northwestern Division, U.S. Army Corps of Engineers, on July 15, 2013. In this position, he oversees an annual program of more than \$3 billion in civil works, environmental restoration, and military construction in more than a dozen states, primarily within the Columbia and Missouri river basins.

As Division Commander, he is responsible for providing guidance and direction to five operating district commands located in Portland, OR, Seattle, WA, Walla Walla, WA, Kansas City, MO, and Omaha, NE, with a combined professional workforce of nearly 4,800. Key missions include managing the nation's water resources infrastructure for economic growth and environmental sustainability, timely response to natural disasters, support to military installations and civilian communities throughout the

region, and strengthening national security.

BG Kem was born in Chicago and commissioned in the Corps of Engineers after graduating in 1985 as a distinguished cadet from the US Military Academy with a BS in civil engineering. As a junior officer, he served in the 16<sup>th</sup> Engineer BN, 1<sup>st</sup> Armored Division and in the 1st Squadron, 1<sup>st</sup> US Cavalry as the Patrol Leader for the VII Corps team that won the 1988 Boeselager NATO Cavalry Cup. From 1989-1993 he served in the 307<sup>th</sup> En BN, 82<sup>nd</sup> Airborne Division, including service during Operation Desert Shield/Desert Storm.

From 1993-1995, BG Kem attended the Kellogg Business School, Northwestern University with follow-on duty as an assistant professor of economics in the Department of Social Sciences at West Point. From 1998-2000, he served as the S3, 10<sup>th</sup> Engineer Battalion at Fort Stewart, GA and later as the Engineer Brigade S3. In 2001, he was selected for a Congressional Fellowship and served for one year as a staff fellow on the US Senate Appropriations Committee, Subcommittees on Defense and Military Construction, followed by service as a Congressional Budget Liaison in the Office of the Assistant Secretary of the Army (Financial Management and Comptroller).

From June 2003-June 2005, he commanded the 16<sup>th</sup> Armored Engineer BN, 1<sup>st</sup> Armored Division, and led the battalion for 13 months during combat operations in Baghdad and Karbala, Iraq. After command, he served as a military assistant and speech writer for the Secretary of the Army and later as the XO to the Director, Joint IED Defeat Organization.

From 2008-2011, BG Kem commanded the Europe District of the Army Corps of Engineers, responsible for construction and engineering support for EUCOM and AFRICOM. From 2011 to 2012, he was deployed to Afghanistan as the Director of Engineering, NATO Training Mission-Afghanistan, and responsible for a \$10.5 billion program to build facilities for the Afghan Army and Police.

BG Kem holds an MBA from Kellogg Business School and a MS in Environmental Engineering from Northwestern University. His awards and decorations include the Defense Superior Service Medal, Legion of Merit, Bronze Star with Oak Leaf Cluster, Senior Parachutist Wings, Pathfinder Badge, Combat Action Badge and Ranger Tab. He is a registered Professional Engineer (VA) and a Chartered Financial Analyst.

BG Kem is married and has three children.



**US Army Corps  
of Engineers**®

Omaha District

## Col. Joel R. Cross Commander, Omaha District

---



Col. Joel R. Cross became the Commander of the Omaha District, U.S. Army Corps of Engineers, July 31, 2012.

He oversees a more than \$1 billion program spread over 1,200 military construction projects in eight states, civil works projects in nine states, and environmental restoration projects in 41 states. The Omaha District workforce of about 1,300 civilian men and women contribute to the operation of six mainstem dams on the Missouri River, as well as 21 tributary dams for congressionally-authorized purposes. The district also provides regulatory and real estate services that benefit the Nation. Within the 700,000- square-mile boundary of the Omaha District, Cross also oversees the design and construction of facilities for the Army and Air Force, the cleanup of hazardous, toxic and radioactive waste sites for the Department of Defense and the Environmental Protection Agency.

He previously served in the Omaha District from May 2005 to June 2007 as Deputy Commander and Chief of Staff, assisting the then Commander in executing a \$550 million budget.

Cross comes to the district from a tour of duty in Iraq where he served as the lead engineer for the Office of Security Cooperation in Baghdad. He oversaw an \$800 million construction program focused on building necessary infrastructure for Iraq's Ministries of Interior and Defense.

Cross received his commission as a 2<sup>nd</sup> Lieutenant from the University of Vermont in 1990. He entered federal service in Fort Campbell, Ky., later that year where he served in the 326<sup>th</sup> Engineer Battalion, 101<sup>st</sup> Airborne Division, Air Assault. His numerous military assignments include tours of duty in Germany, Missouri, Texas, Washington, D.C., Rhode Island, Virginia, Nebraska and three tours in Iraq. During his career he has served in various command and staff roles from platoon leader through battalion commander.

Born in Danvers, Mass., in 1966, Cross grew up in rural Vermont. He graduated from Lamoille Union High School in 1984 and went on to earn a bachelor's degree in Electrical Engineering from the University of Vermont in 1990. In 2001, he received a masters of arts degree in National Security and Strategic Studies from the Naval War College, in 2003, he received a master's of science degree in Engineering Management and Industrial Engineering from the University of Alabama and in 2011 he received a master's of science degree in National Security and Strategic Resourcing from the National Defense University.

He is an active member in the Society of American Military Engineers and is a registered Project Management Professional since 2007.



**US Army Corps  
of Engineers** ®  
Kansas City District

## Biography

# Colonel Andrew D. Sexton

*Commander and District Engineer*

**Colonel Andrew Sexton** enlisted into the Army on active duty as a 12B, Combat Engineer in 1984. During his enlisted service he held a variety of positions from demolitions specialist to squad leader while serving with the 23d, 8th, 113th, and 391st Engineer Battalions.

He was commissioned into the Army Corps of Engineers from Wofford College ROTC in 1990 and subsequently earned his bachelor's degree in Business Administration from the University of South Carolina in 1991.

Colonel Sexton has served in a variety of command and staff positions. After attending the Engineer Officer's Basic Course, he served as a platoon leader, task force engineer, and brigade engineer with the 307th Engineer Battalion, 82d Airborne Division.

After graduating from the Engineer Officer's Advanced Course in 1995, he commanded D Co, 58th Transportation Battalion. He was then afforded the opportunity to command his second company, HHC, 577th Engineer Battalion and the Regiment's Sapper Leader Course. Beginning in 1999 Colonel Sexton served as the principal Engineer trainer and advisor to the 278th Armored Cavalry Regiment, TN ARNG. He then served as the Operations Officer for the Eighth US Army Engineers in South Korea. He served as the Assistant Division Engineer, 82d Airborne Division during Operation Iraqi Freedom and then as the Battalion Executive Officer, 307th Engineer Battalion. Colonel Sexton was then selected to serve in the Army's Personnel Exchange Program with the United Kingdom. He was a Senior Instructor in the Royal School of Military Engineering, Brompton Barracks, England. Colonel Sexton served as the Commander of the 35th Engineer Battalion, Fort Leonard Wood, Mo., and was responsible for the initial military training of over 15,000 enlisted Combat Engineers and Combat Bridge Crewmembers. In 2010 he returned to the 82d Airborne Division at Fort Bragg to serve as the Division Engineer. During this assignment he deployed to Afghanistan to serve as the Regional Command South Engineer and as the Chief of the Regional Command's Counter IED staff. Colonel Sexton's most recent assignment was to the U.S. Marine Corps University where he attended the Marine Corps War College and earned a master's degree in Strategic Studies.

Colonel Sexton's military education also includes the Combined Arms Services Staff School, the Combined Services Staff College, the Sapper Leader Course, Ranger School, and Jumpmaster School. His awards and decorations include the Bronze Star with oak leaf cluster, Meritorious Service Medal with five oak leaf clusters, Army Commendation Medal with one oak leaf cluster, Army Achievement Medal with one oak leaf cluster, and the Bronze Order of the DeFleury Medal.

Colonel Sexton is a native of South Bend, Ind., where he married his wife of 25 years, Jennifer. Together they have two daughters.





**US Army Corps  
of Engineers**®  
Northwestern Division



## **Jody Farhat** **Chief, Water Management Division**

Jody Farhat has served as the Chief of the Missouri River Basin Water Management office since May 2009. Her office, which is part of the Corps of Engineers' Northwestern Division, is located in Omaha, Nebraska. She and her staff regulate the six Corps' dams on the main stem of the Missouri River to serve the Congressionally authorized project purposes. Jody has spent the past 22 years of her career working in all aspects of Missouri River Water Management. Prior to coming to the Northwestern Division, she worked in the Hydrologic Engineering Branch of the Corps' Omaha District.

Jody is native of Iowa, and has a bachelor's degree in Civil Engineering from the University of Iowa. She is a Registered Professional Engineer in the State of Nebraska.



**US Army Corps  
of Engineers.**

## **Kevin D. Stamm**

*Senior Hydraulic Engineer*

---

Since October 2009, Kevin Stamm has served as a senior hydraulic engineer on the Reservoir Regulation Team for the Missouri River Basin Water Management office in the Northwestern Division, U.S. Army Corps of Engineers. As a senior hydraulic engineer, Kevin is involved in the development of daily and monthly Missouri River forecasts, and is responsible for the development of technical guidance for the regulation of the Missouri River Main Stem Reservoir System.

Prior to joining the Missouri River Basin Water Management office, Kevin worked as a hydraulic engineer for eight years in the Hydrologic Engineering Branch of the Corps' Omaha District.

Kevin is a native of Kansas. He holds a bachelor's degree in agricultural engineering from Kansas State and a master's degree in agricultural engineering from Iowa State University. He is a licensed professional civil engineer in the State of Nebraska.



**US Army Corps  
of Engineers.**

## **Joel D. Knofczynski**

*Hydraulic Engineer*

---

Joel Knofczynski has served as senior Hydraulic Engineer on the Power Production Team of the Missouri River Basin Water Management office since May 2009. He is a member of the team that regulates the six mainstem dams along the Missouri River to serve the eight Congressionally authorized project purposes.

Joel previously worked in the Hydrologic Engineering Branch of the Corps' Omaha District for 20 years.

He is native of Minnesota, and has a bachelor's degree in Civil Engineering from South Dakota State University. He is a Registered Professional Engineer in the State of Nebraska.

## **Dr. Dennis Todey**

**South Dakota State University**  
**State and Extension Climatologist**

Dr. Dennis Todey is the state and extension climatologist for South Dakota. He has a background in climatology, meteorology and agricultural meteorology. He has been at SDSU since 2003.

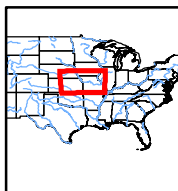
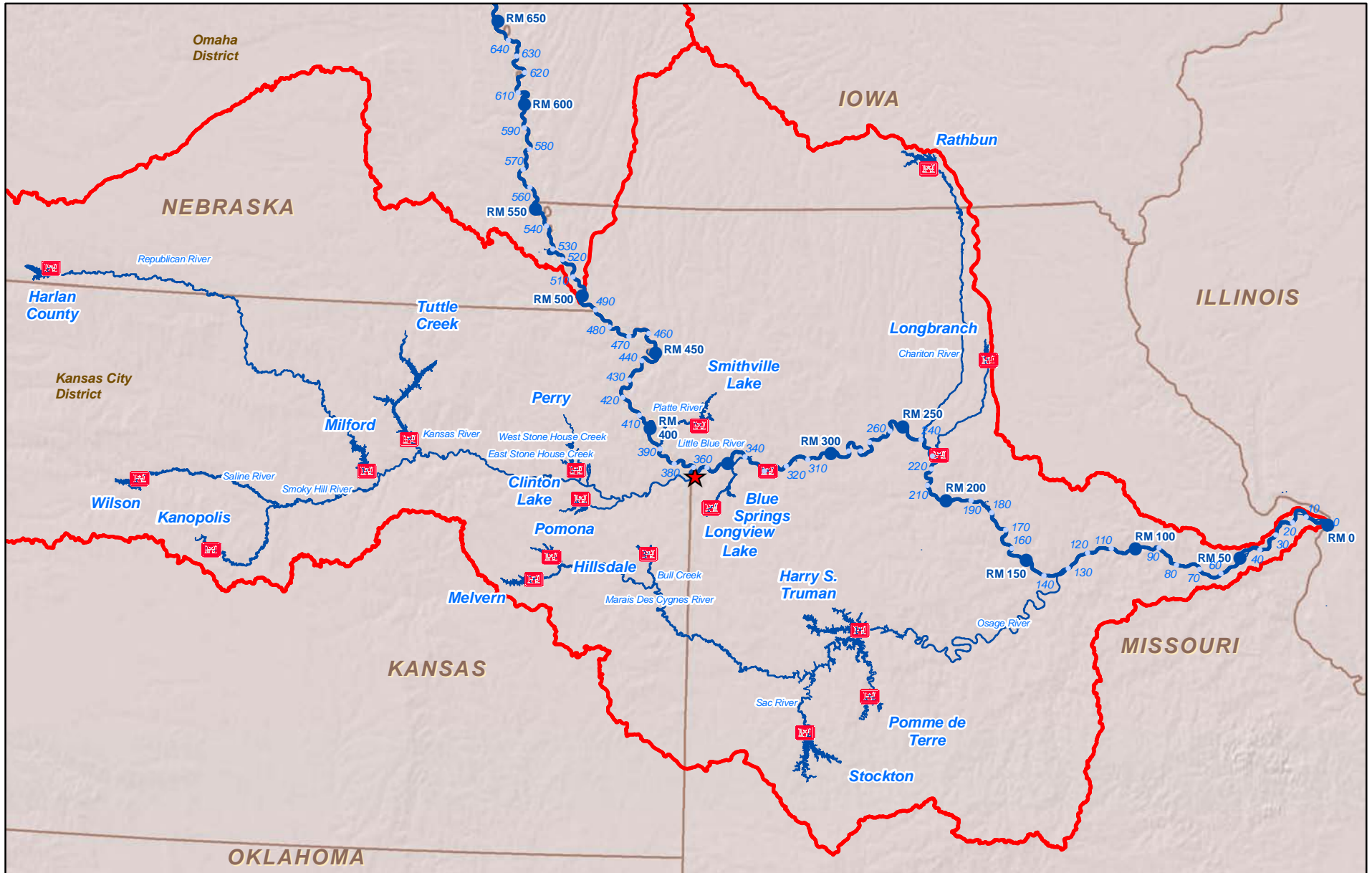
# Missouri River Main Stem System

## Missouri River Watershed





# USACE-NWK Projects



USACE Office Locations



HQ



Lake Office; Project Office

NWK, NWO District Boundaries

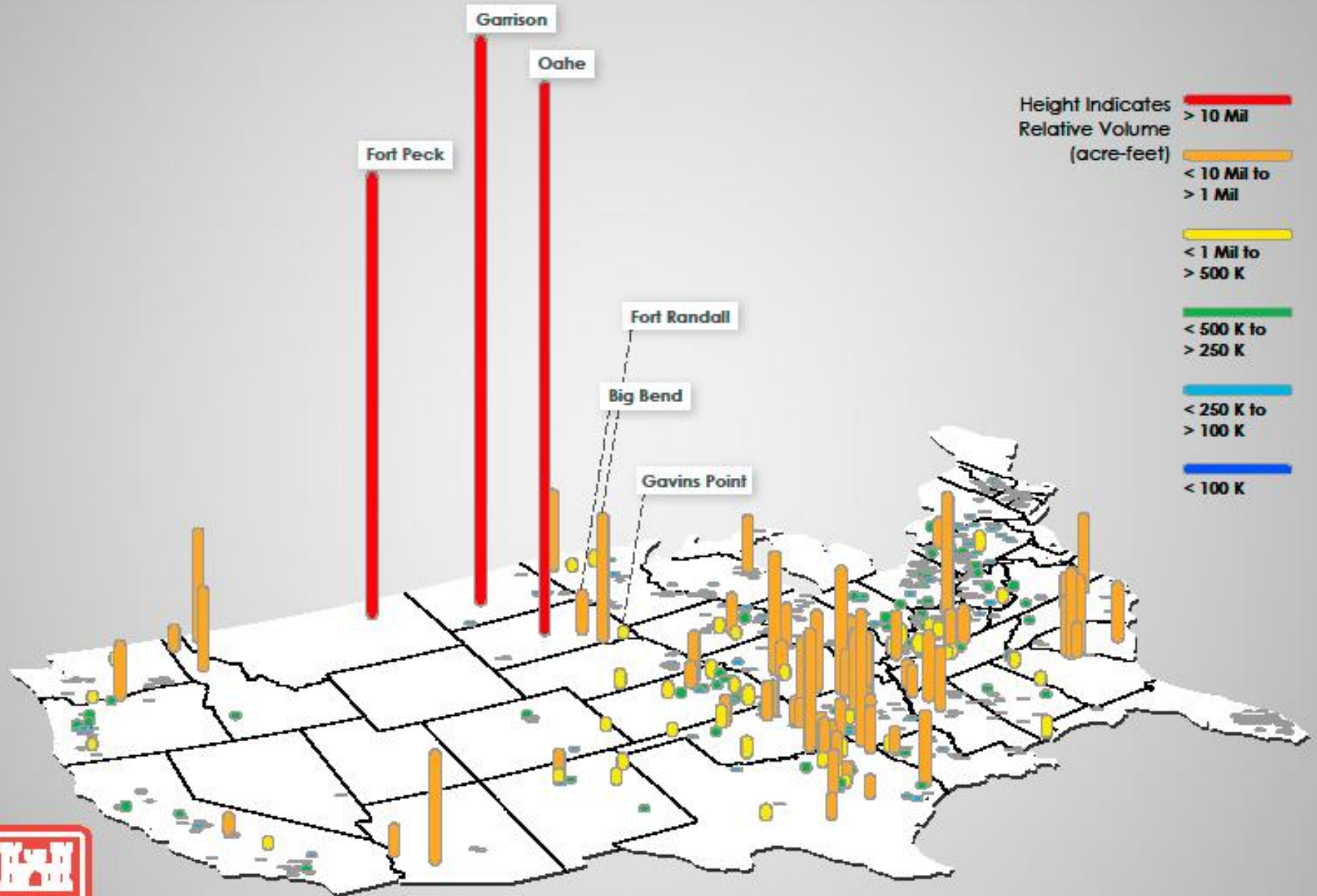


River Miles



DISCLAIMER: While the United States Army Corps of Engineers, hereinafter referred to as USACE, has made a reasonable effort to ensure the accuracy of the map and associated data, it should be explicitly noted that USACE makes no warranty, representation or guarantee, either express or implied, as to the content, accuracy, timeliness or completeness of any of the data provided herein. The USACE, its officers, agents, employees, or servants shall assume no liability for any mistakes or omissions, or inaccuracies in the information provided regardless of how caused. The USACE, its officers, agents, employees or servants shall assume no liability for any decisions made or actions taken or not taken by the user of the maps and associated data in reliance upon any information or data furnished here. By using these maps and associated data the user does so without of their own risk and explicitly acknowledges that neither is present or implied or demand of any nature against the USACE, its officers, agents, employees or servants in any form whatsoever for any damages of any nature whatsoever that may result from or may be caused in any way by the use of the maps and associated data.

# Storage Capacity of Corps Reservoirs

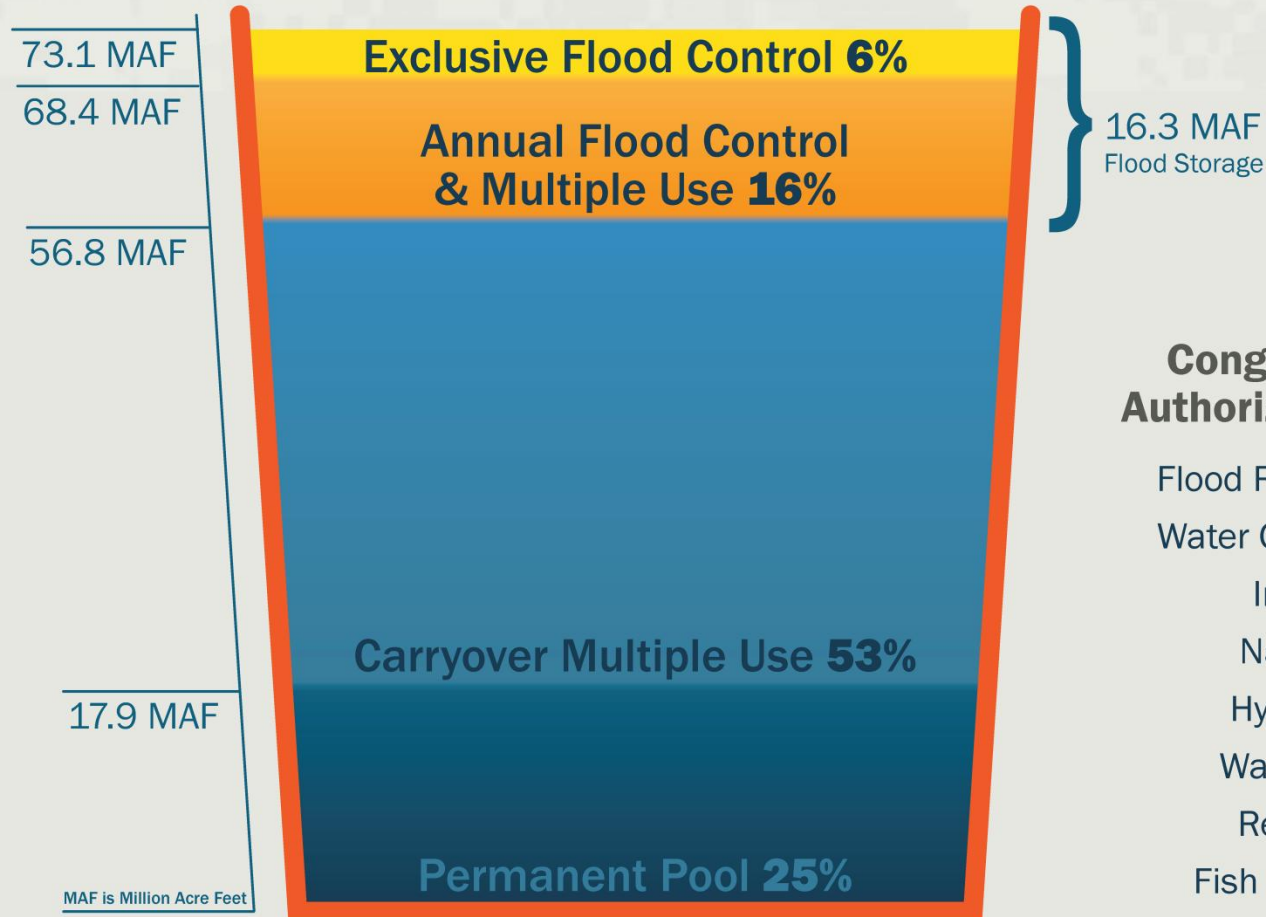




US Army Corps of Engineers  
**BUILDING STRONG**

# Missouri River Main Stem Reservoir System

## Zones & Allocations of the Total Storage Capacity

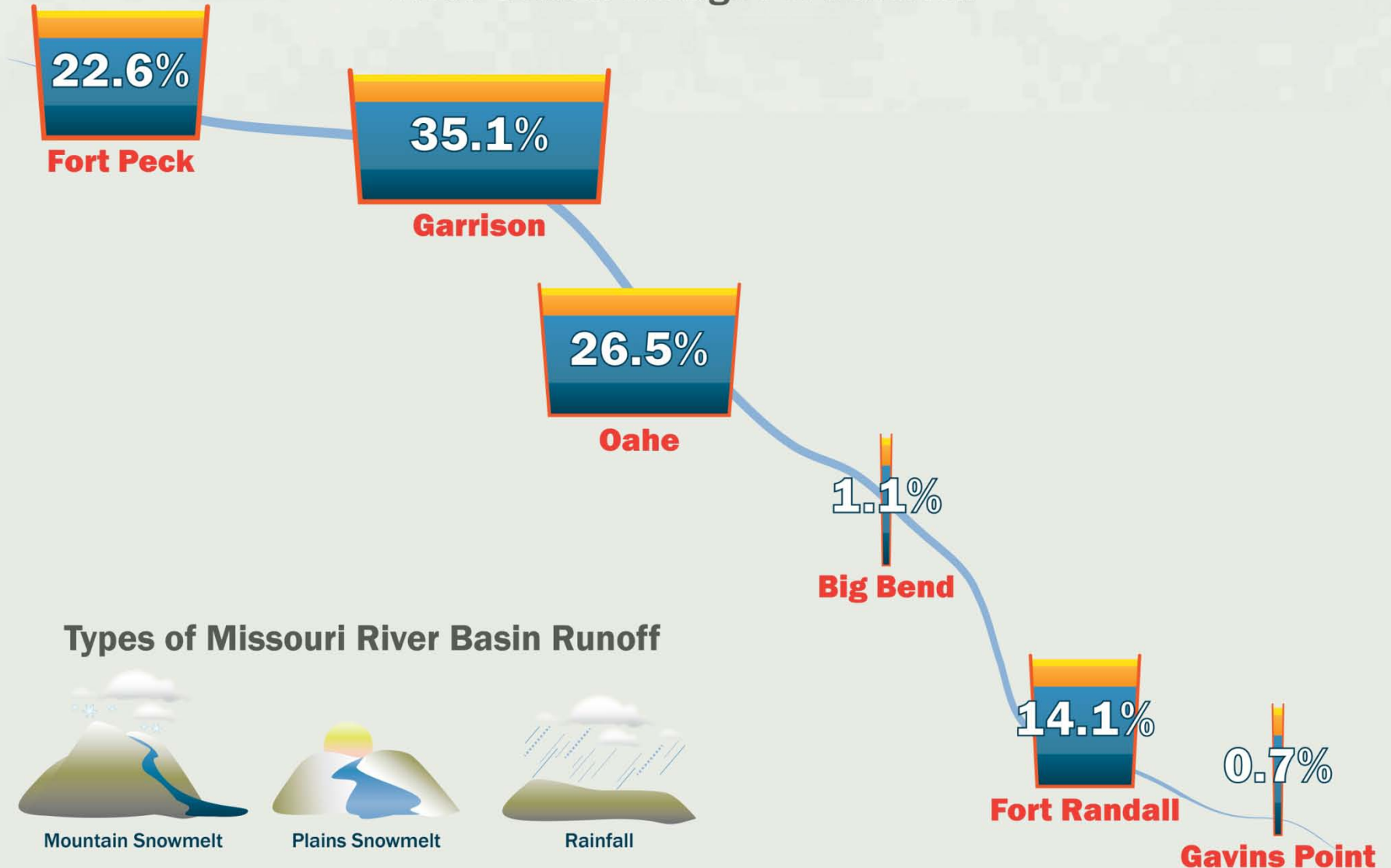




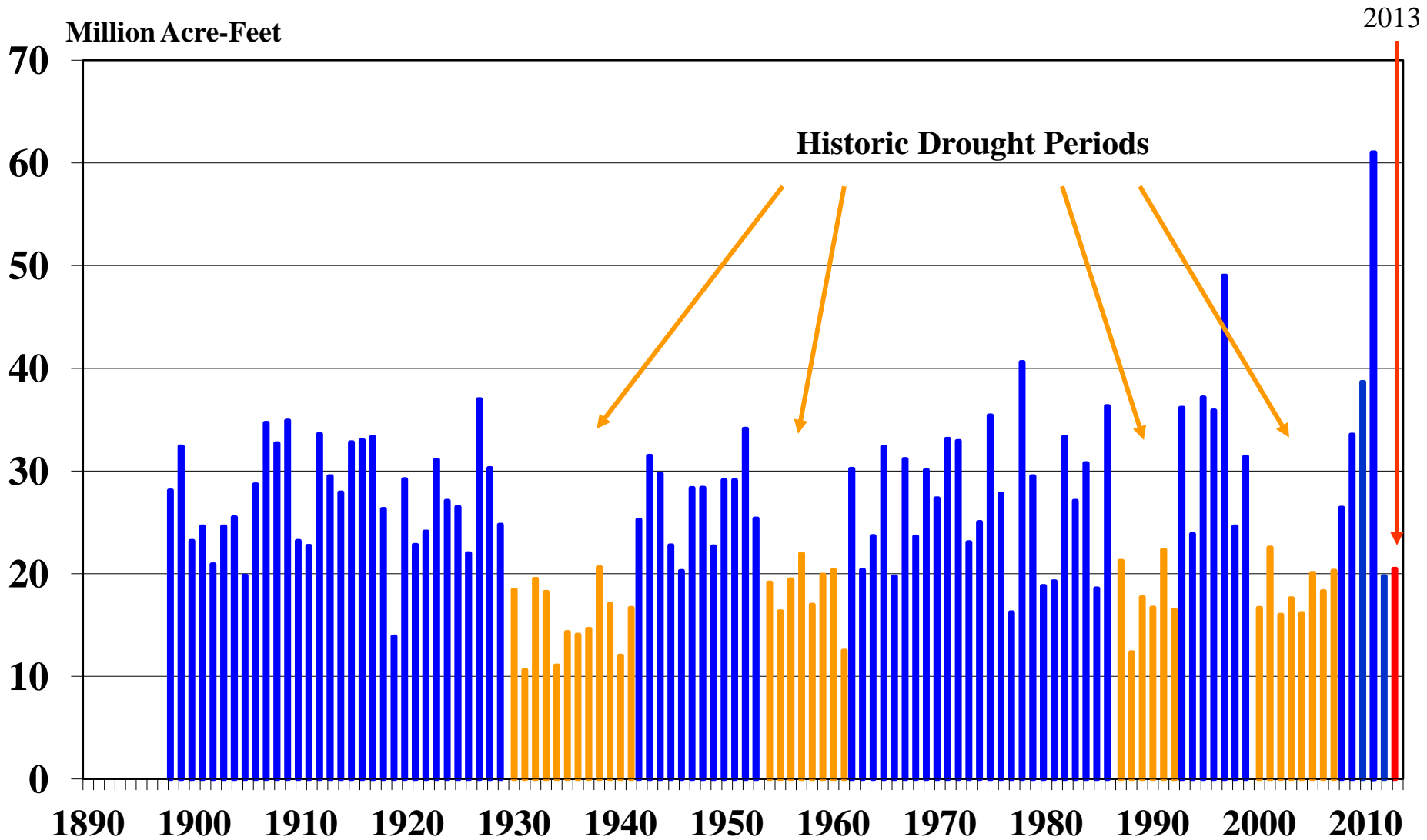
US Army Corps of Engineers  
BUILDING STRONG

# Missouri River Mainstem Reservoir System

Total Percent of System  
Flood Control Storage Per Reservoir



# Missouri River Mainstem System Annual Runoff above Sioux City, IA



# Key Points

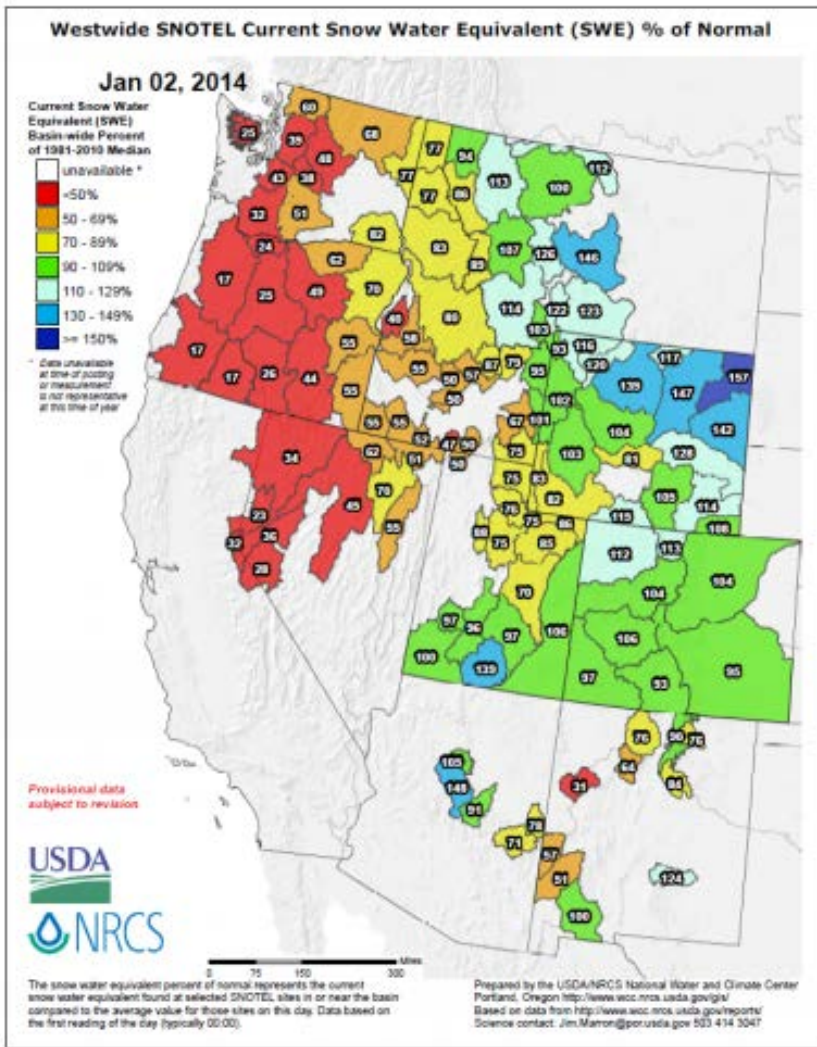
## \* **Current Conditions**

- \* Wet fall across much of the plains produced wet soils
- \* Current mountain snow pack above average
- \* Neutral ENSO conditions continue
- \* Few current drought issues

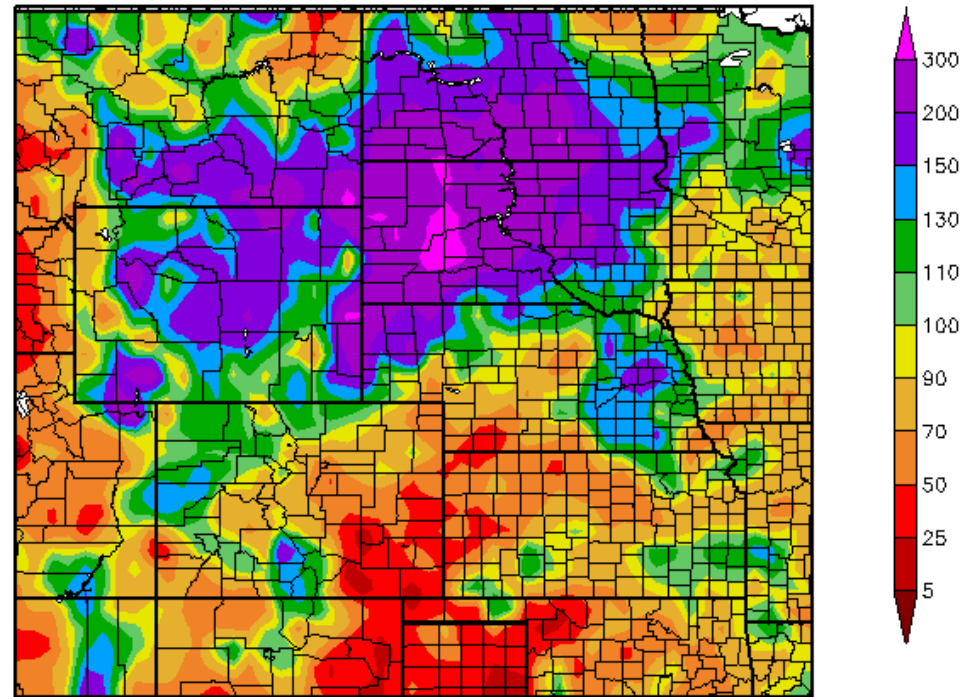
## \* **Predictions**

- \* Colder than average conditions likely in upper basin
- \* Precipitation possibly above average lower in basin
- \* Neutral ENSO with increasing El Nino chance by summer

# Current Mountain Snow and Water Year Precipitation



Percent of Normal Precipitation (%)  
10/1/2013 - 1/7/2014



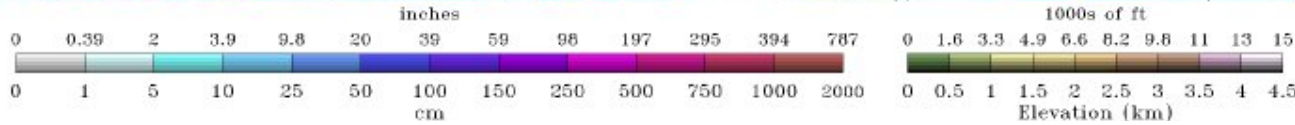
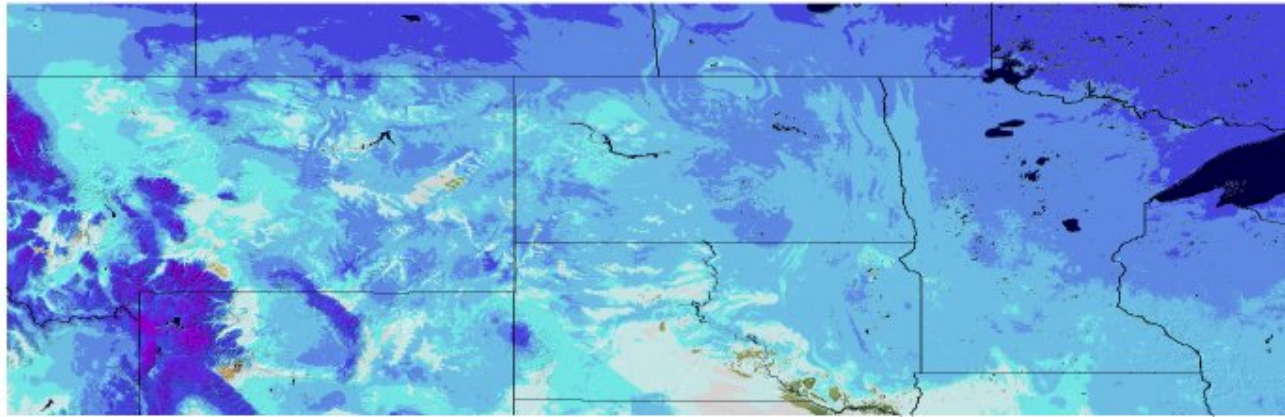
1/8/2014 at HPRCC using provisional data.

Regional Climate Centers

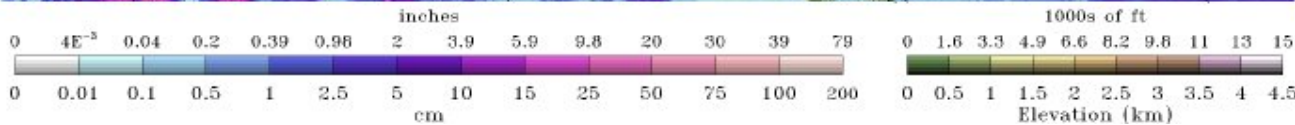
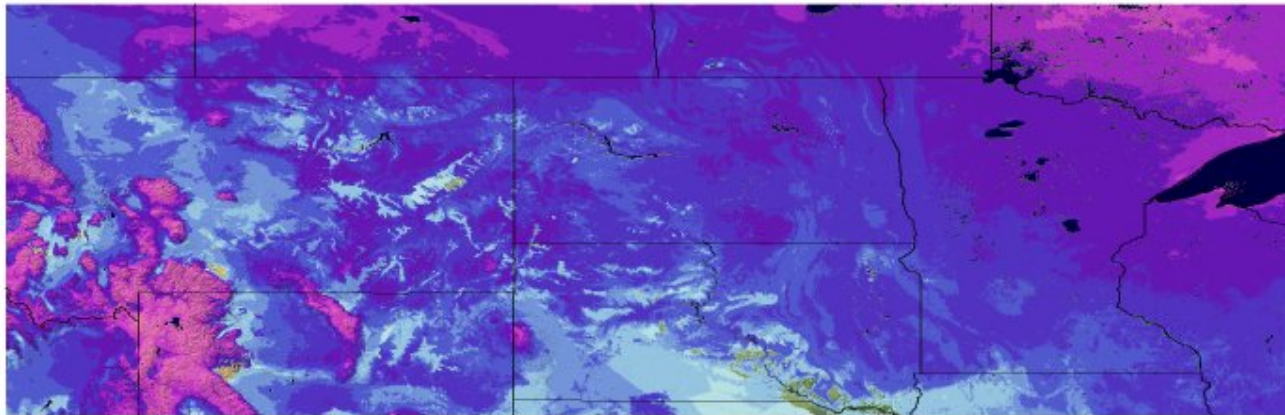
<http://www.hprcc.unl.edu/maps/current/index.php?>

<http://www.wcc.nrcs.usda.gov/cgi-bin/water/drought/wdr.pl>

Snow Depth  
2014-01-08 06 UTC



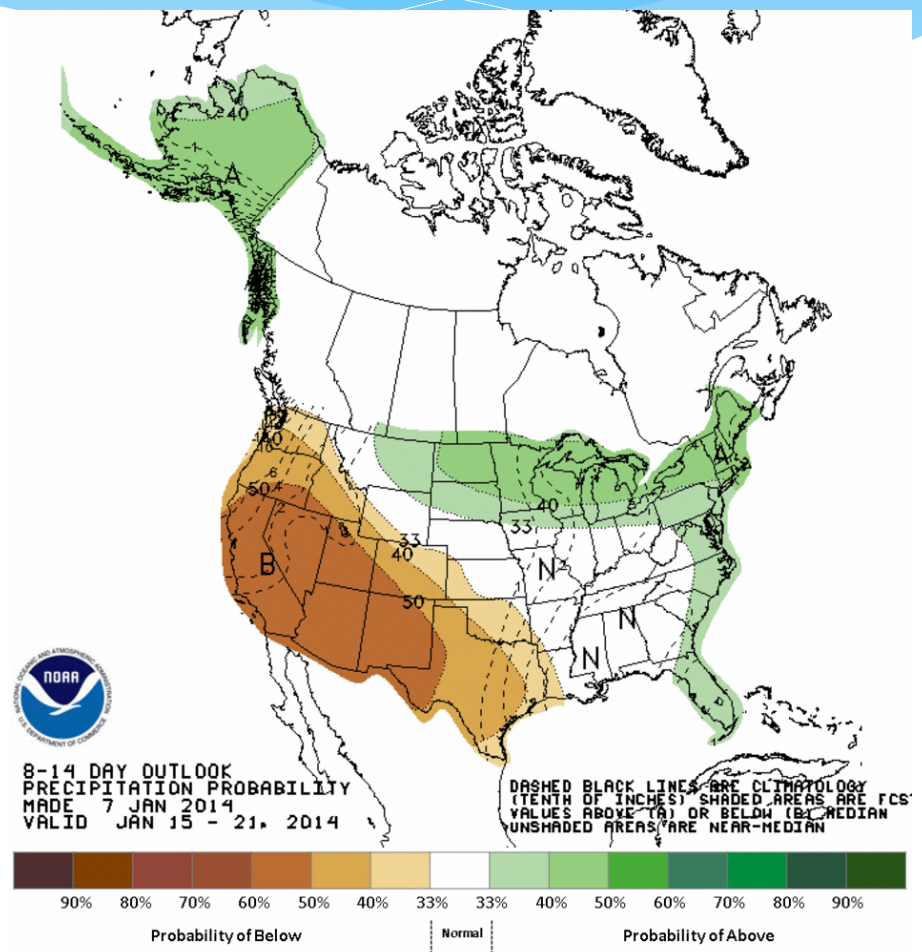
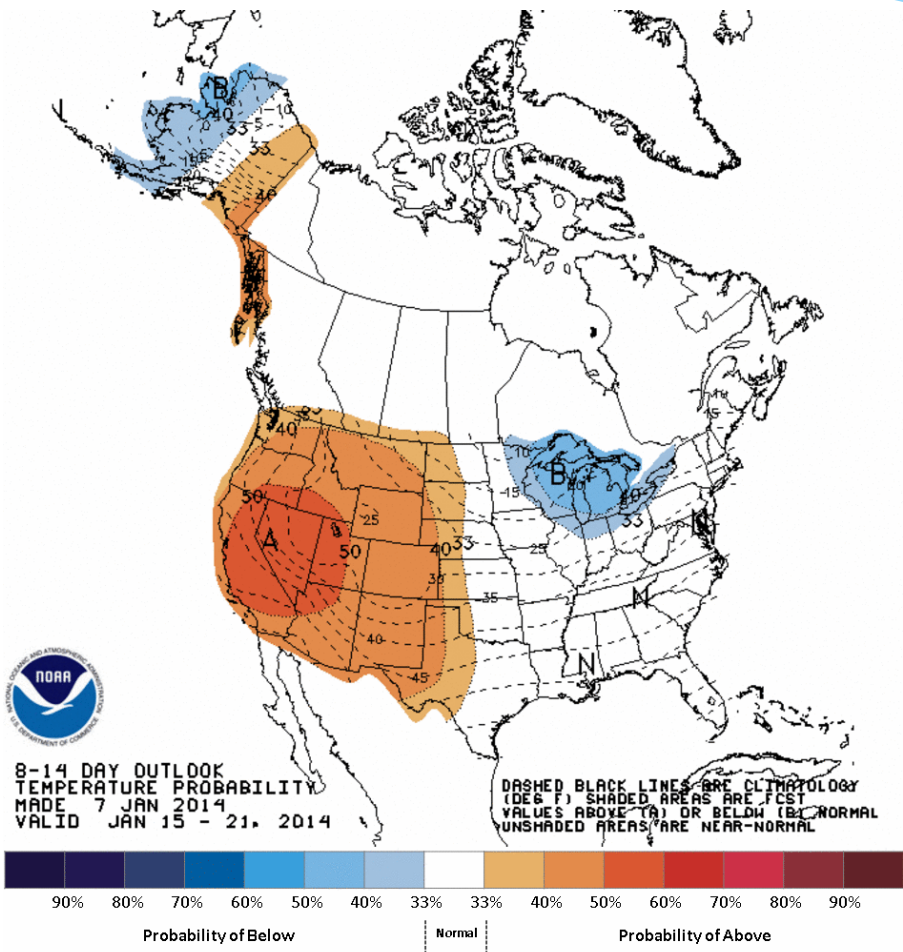
Snow Water Equivalent  
2014-01-08 06 UTC



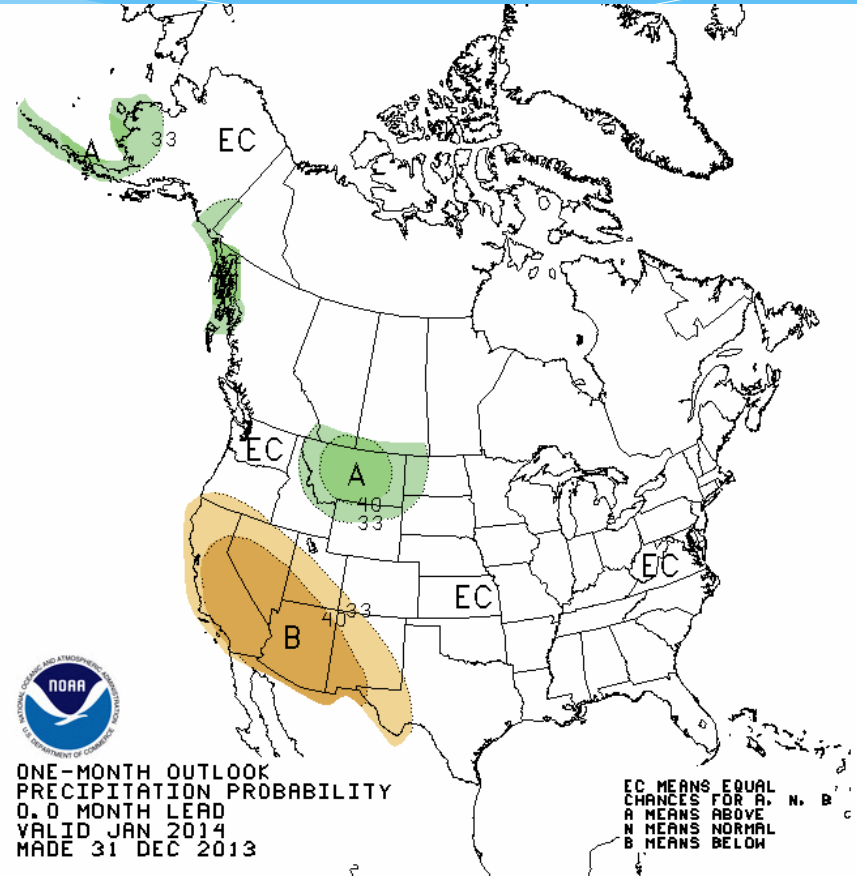
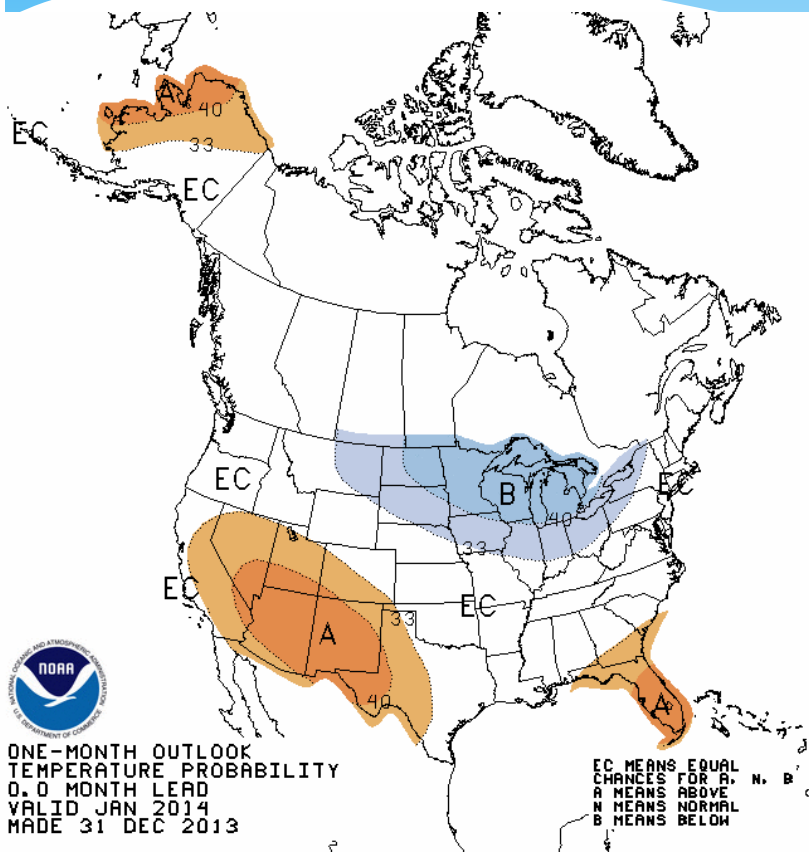
# Snow Cover



# Temperature and Precipitation Probabilities (1/15-1/21)

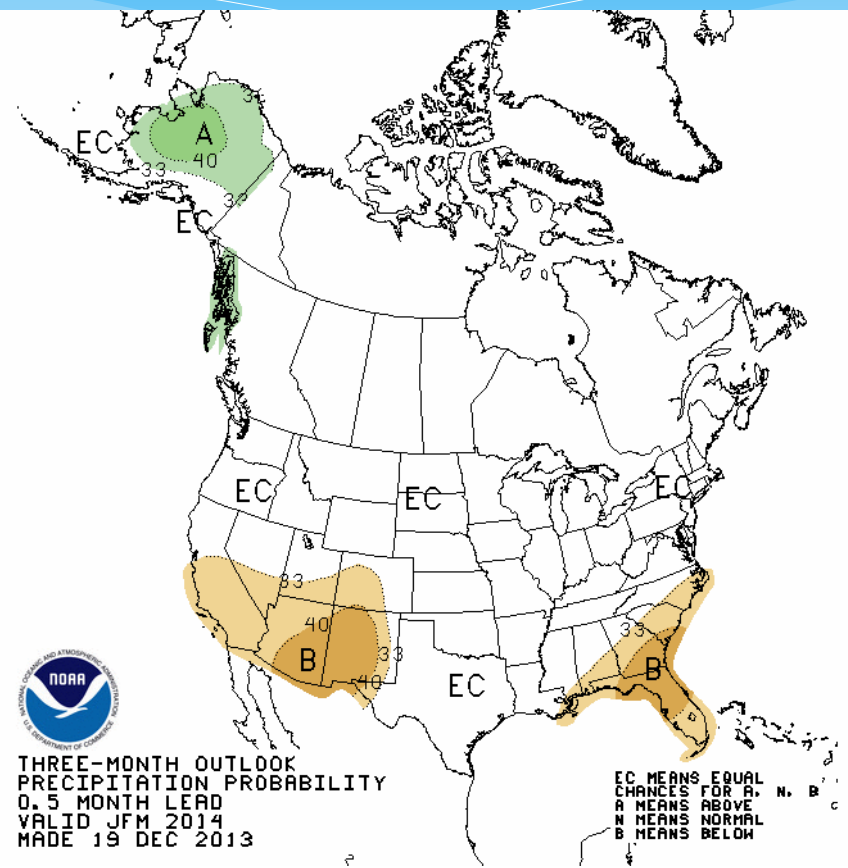
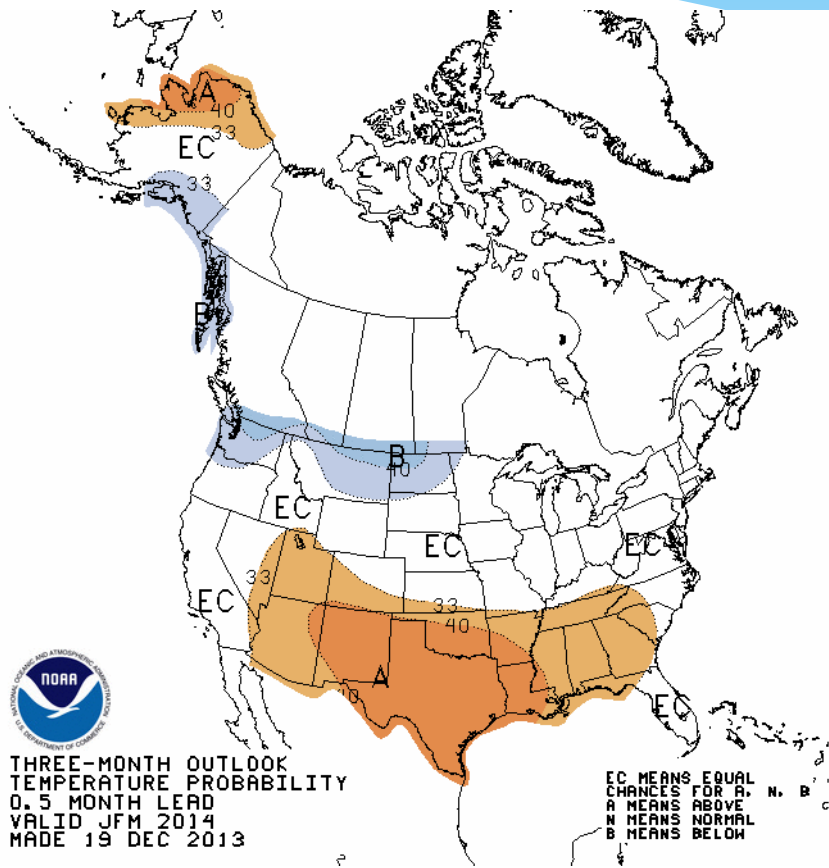


# January Temperature and Precipitation Probabilities

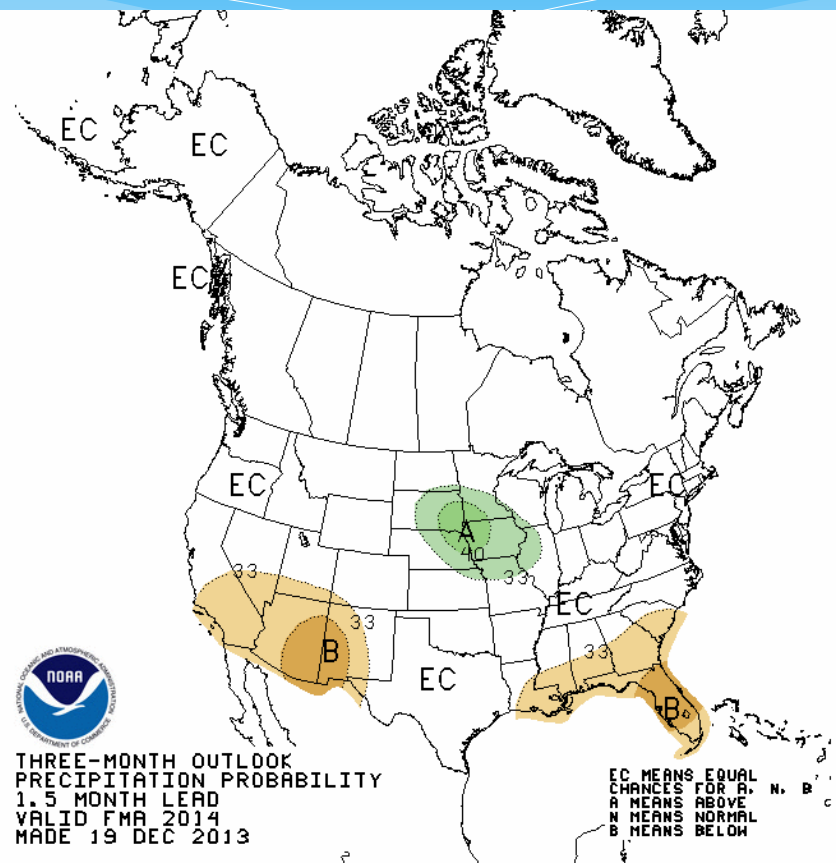
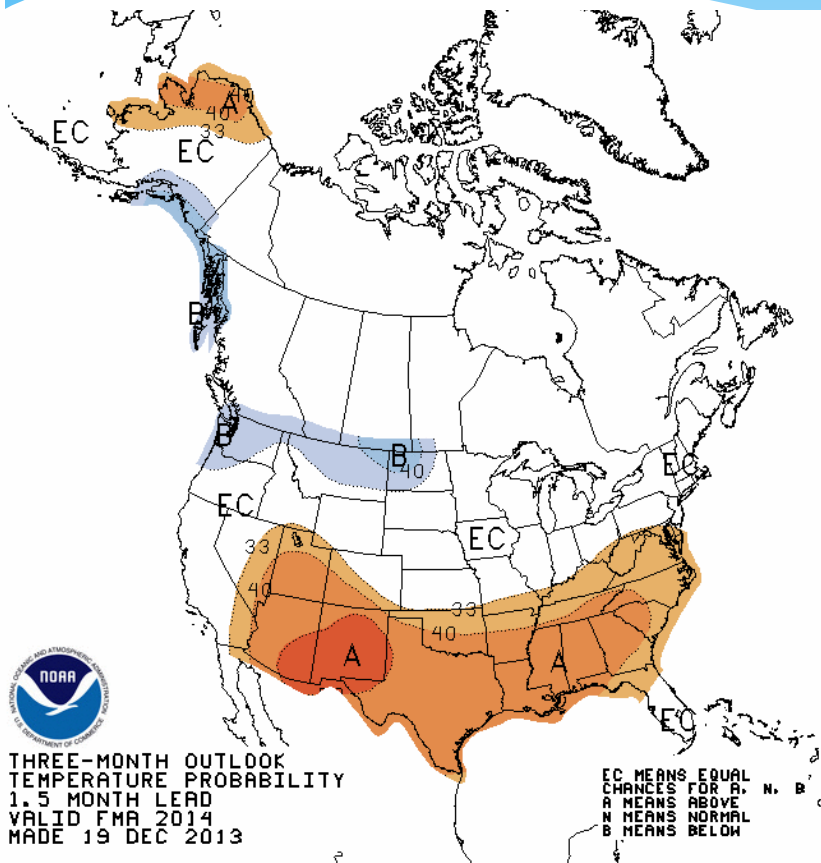


<http://www.cpc.ncep.noaa.gov/products/predictions/30day/>

# 3 Month Temperature and Precipitation Probabilities (January – February - March)



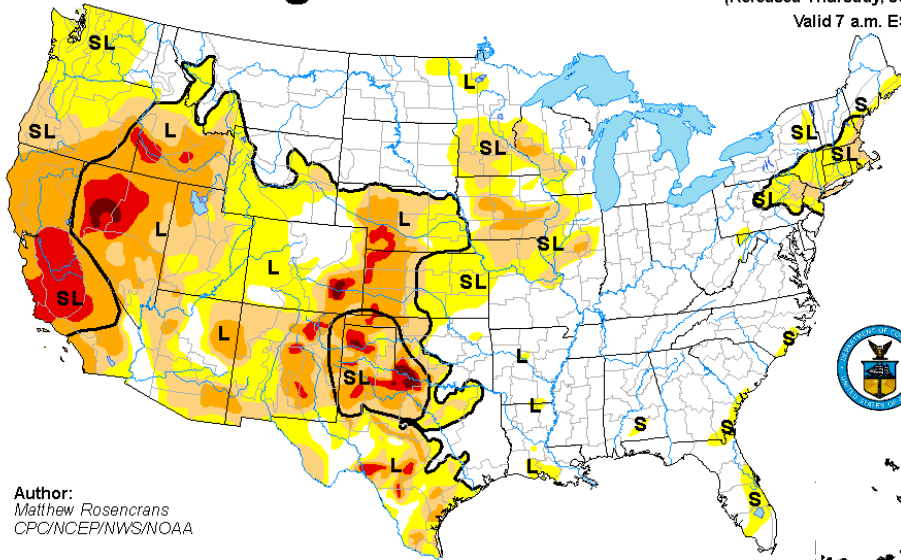
# 3 Month Temperature and Precipitation Probabilities (February – March - April)



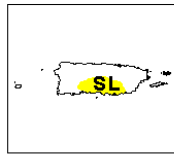
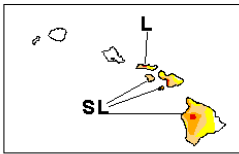
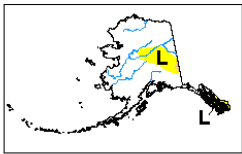
# Drought Update

## U.S. Drought Monitor

December 31, 2013  
(Released Thursday, Jan. 2, 2014)  
Valid 7 a.m. EST



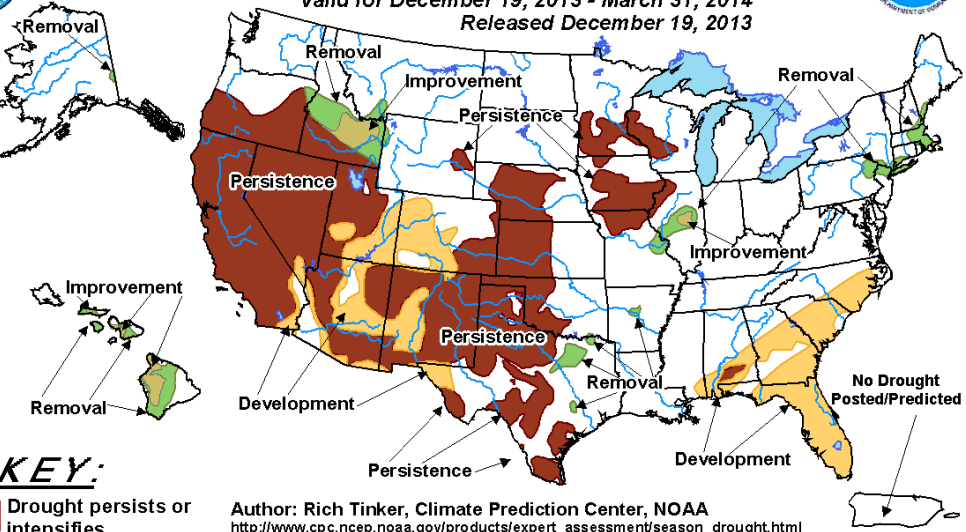
Author:  
Matthew Rosenkrans  
CPC/NCEP/NWS/NOAA



USDA  
http://dro

## U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period  
Valid for December 19, 2013 - March 31, 2014  
Released December 19, 2013



### KEY:

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

Author: Rich Tinker, Climate Prediction Center, NOAA  
[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/season\\_drought.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html)

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 tan area 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)