# **Drought Response** and Preparation for 2013

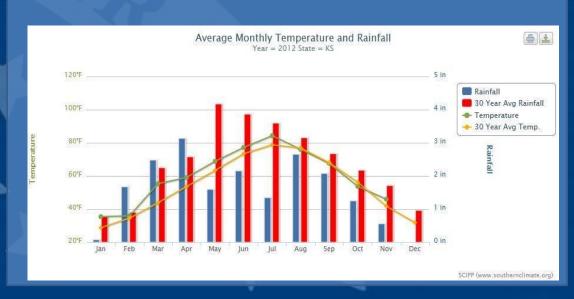
Presentation to the House Agriculture and Natural Resources Committee

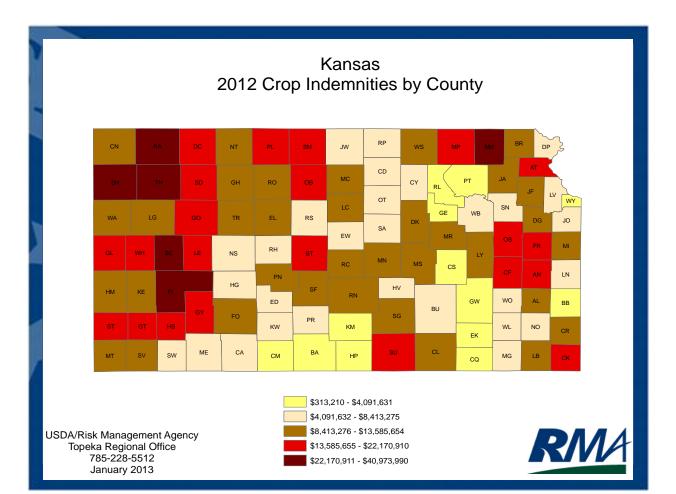
**January 17, 2013** 

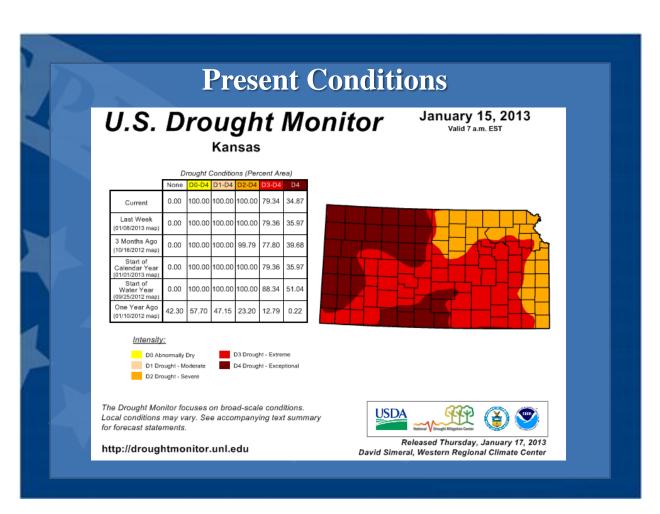


## **Summary of 2012 Conditions**

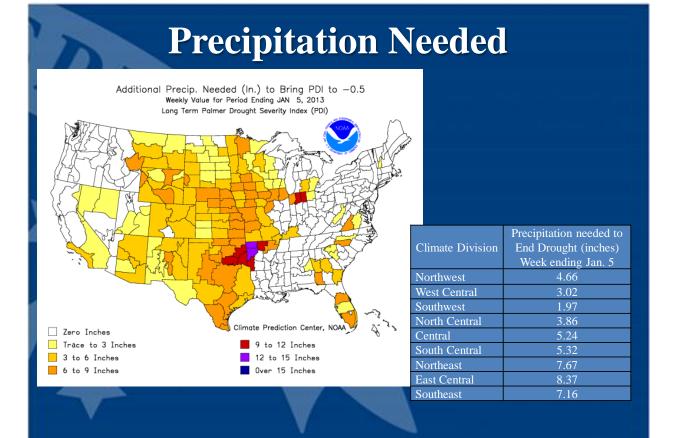
• 2012 was the warmest and 7<sup>th</sup> driest in 119 years for the state as a whole





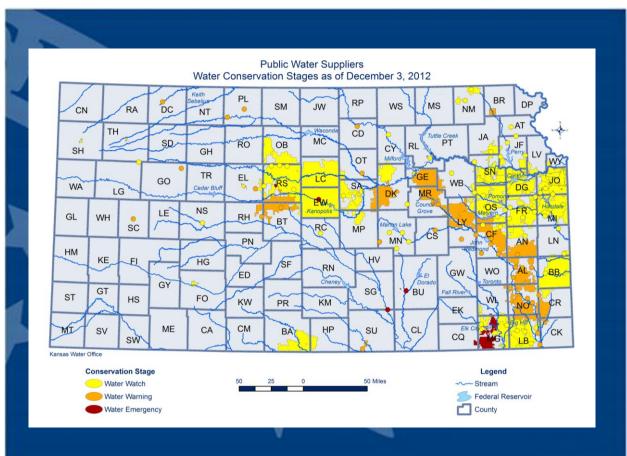


### **Some Improvement in Streamflow Since July** Monthly flow comparison Still not good..... 7/12 vs 12/12 December 2012 July 2012 **ZUSGS ⊠USGS** Explanation - Percentile classes <10 10-24 25-75 76-90 >90 No Data Below normal Above normal Much above Much below normal



### Stream Flow – Historical Perspective July 1954 July 2012 **⊠USGS ⊠USGS** Explanation - Percentile classes <10 10-24 25-75 76-90 >90 Low High No Data Much abov normal Above normal Much below Normal

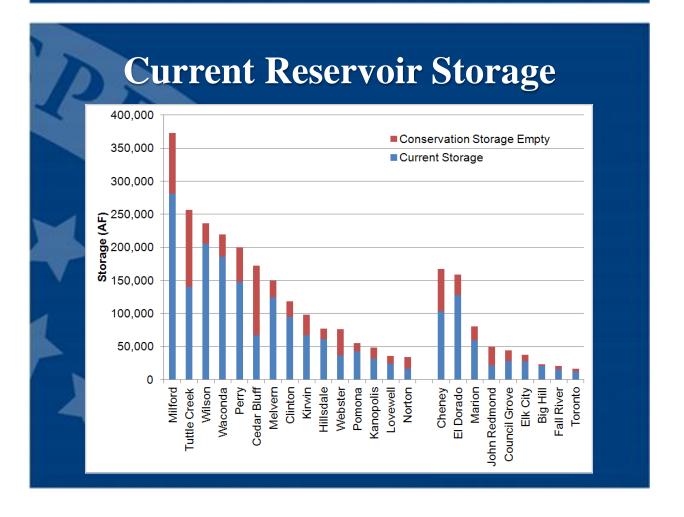
# Drought Outlook January – April: Drought Persistence for all of Kansas Some Improvement Development Drought Tendency During the Valid Period Valid for January 17 - April 30, 2013 Some Released January 17, 2013 Improvement Drought to persist or intensify Drought ongoing, some improvement Drought development Drough



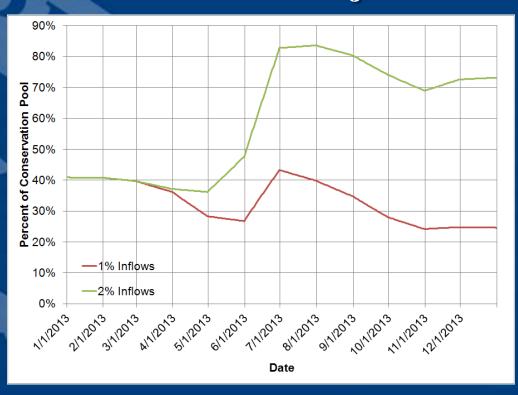
### **Water Resources Condition**

- All reservoirs that provide municipal and industrial water supply below conservation pool –presently at 71% of conservation pool
- Greatest impact seen at John Redmond which got as low as 40%
  - Tuttle and Cheney at about 55%
- Streams and river flows down
  - Administration of MDS peaked at 20 gages affecting 541 water rights (summer and fall)
  - New record low flows at 9 USGS gages with long term records (30 years or more)
  - 34 tied previous record
  - 60 no flow sometime during 2012
- Ground water declines seen in most aquifers affecting wells (no recharge)

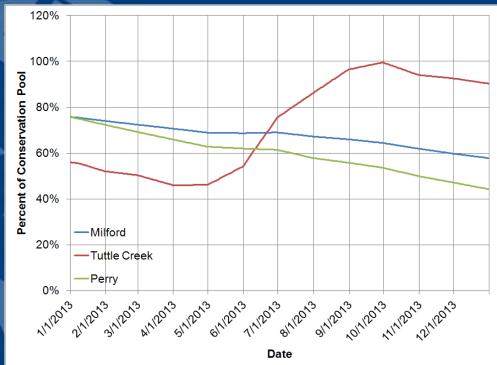
Reservoir Kansas F	Top of Multipurpose/ Conservation Pool (Feet MSL)	Multipurpose/ Conservation Pool Elevation (Feet MSL)	Change from Top of Pool (Feet)	Conservation Pool Percent Full
Norton <sup>1</sup>	2304.3	2294.07	-10.23	48.1
Lovewell <sup>1</sup>	1582.6	1578.20	-4.40	67.3
Milford <sup>1</sup>	1144.4	1137.72	-6.68	75.3
Cedar Bluff	2144.0	2122.70	-21.30	38.7
Kanopolis <sup>1</sup>	1463.0	1456.88	-6.12	65.1
Wilson <sup>1</sup>	1516.0	1512.31	-3.69	87
Webster <sup>1</sup>	1892.5	1879.50	-13.00	47.7
Kirwin <sup>1</sup>	1729.3	1722.33	-6.97	68.1
Waconda <sup>1</sup>	1455.6	1452.83	-2.77	84.9
Tuttle Creek <sup>1</sup>	1075.0	1062.29	-12.71	54.5
Perry <sup>1</sup>	891.5	885.97	-5.53	73.9
Clinton <sup>1</sup>	875.5	871.92	-3.58	79.4
Melvern <sup>1</sup>	1036.0	1031.94	-4.06	83.1
Pomona <sup>1</sup>	974.0	970.30	-3.70	76.4
Hillsdale <sup>1</sup>	917.0	913.27	-3.73	79.3
Arkansas River Basin		1/16/2013		
Cheney	1421.6	1413.76	-7.84	58
El Dorado	1339.0	1334.69	-4.31	80
Toronto <sup>1</sup>	901.5	899.19	-2.31	53
Fall River <sup>1</sup>	948.5	945.74	-2.76	62
Elk City <sup>1</sup>	796.0	792.84	-3.16	73
Big Hill	858.0	855.06	-2.94	87
Council Grove <sup>1</sup>	1274.0	1268.11	-5.89	65
Marion <sup>1</sup>	1350.5	1346.98	-3.52	74
John Redmond <sup>1</sup>	1039.0	1035.19	-3.81	43



# **John Redmond Projections**



# Kansas River Water Assurance Dist. #1 Reservoirs – 2% Inflows



# **Status of Public Water Supplies**

- Nearly 200 PWS in some stage of water conservation in 2012
- 9 enacted stage 3 conservation (some mandatory restrictions)
- 1 PWS needed assistance to address an insufficient supply due to lack of alluvial water for its one well
- Recently the Governor requested all PWS report water supply status 1,020 were contacted
- Presently evaluating supplies and ability of every PWS to meet needs throughout 2013
- KWO providing technical assistance to suppliers

# **Drought Links**

Governor Brownback's Web Page

www.governor.ks.gov

Kansas Water Office Web Page

www.kwo.org

USGS Web Page

www.usgs.gov

