

Drought Response and Preparation for 2013

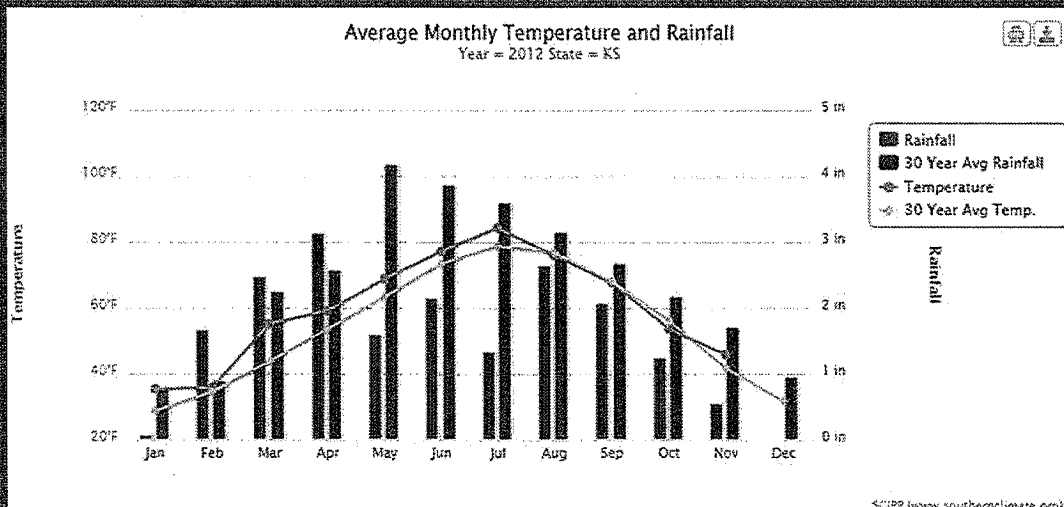
Presentation to the House Agriculture and Natural Resources Committee

January 17, 2013



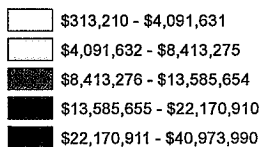
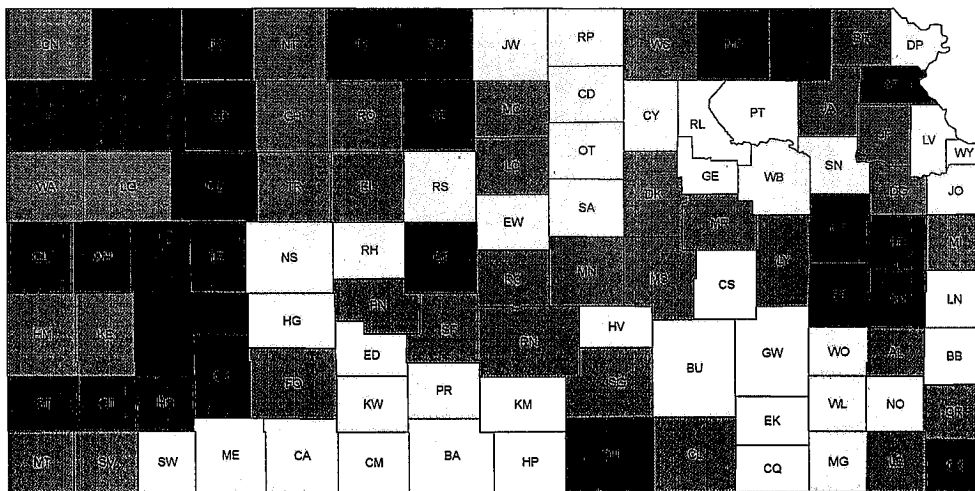
Summary of 2012 Conditions

- 2012 was the warmest and 7th driest in 119 years for the state as a whole



House Agriculture & Natural
Resources Committee
Date 1-17-2013
Attachment # 1

Kansas 2012 Crop Indemnities by County



USDA/Risk Management Agency
Topeka Regional Office
785-228-5512
January 2013



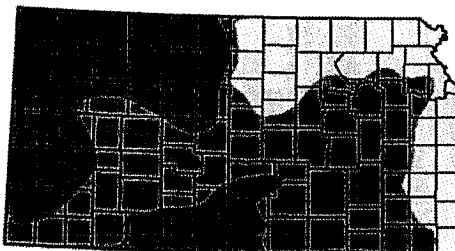
Present Conditions

U.S. Drought Monitor

January 15, 2013
Valid 7 a.m. EST

Kansas

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	78.34	34.87
Last Week (01/05/2013 map)	0.00	100.00	100.00	100.00	79.36	35.97
3 Months Ago (10/16/2012 map)	0.00	100.00	100.00	99.79	77.80	39.68
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	100.00	79.36	35.97
Start of Water Year (03/25/2012 map)	0.00	100.00	100.00	100.00	86.34	51.04
One Year Ago (01/15/2012 map)	42.30	57.70	47.15	23.20	12.79	0.22



Intensity:

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

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

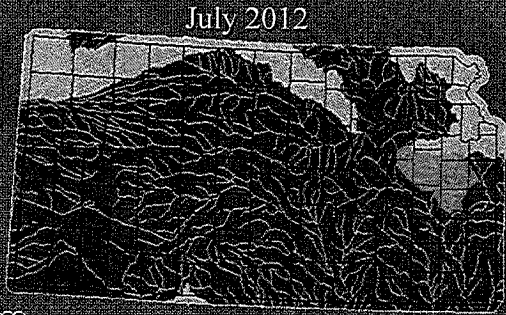
<http://droughtmonitor.unl.edu>



Released Thursday, January 17, 2013
David Simeral, Western Regional Climate Center

Some Improvement in Streamflow Since July

- Monthly flow comparison
- 7/12 vs 12/12
- Still not good.....

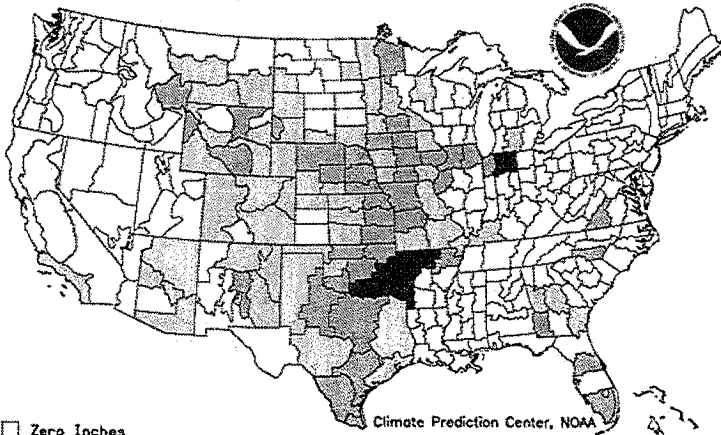


Explanation - Percentile classes

	<10	10-24	25-75	76-90	>90		
Low	Much below normal	Below normal	Normal	Above normal	Much above normal	High	No Data

Precipitation Needed

Additional Precip. Needed (in.) to Bring PDI to -0.5
 Weekly Value for Period Ending JAN 5, 2013
 Long Term Palmer Drought Severity Index (PDI)



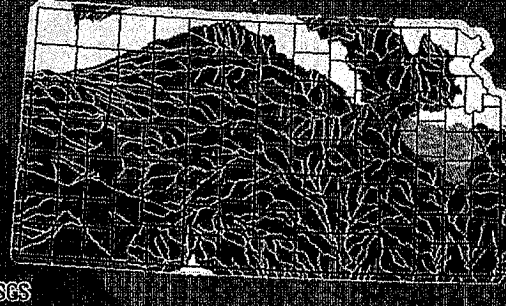
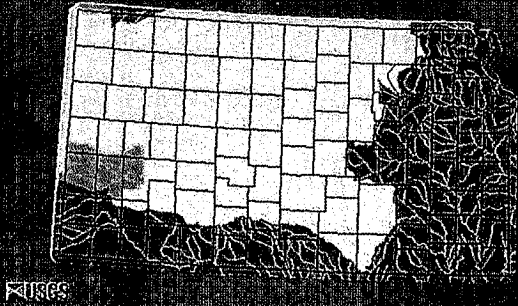
- Zero Inches
- Trace to 3 Inches
- 3 to 6 Inches
- 6 to 9 Inches
- 9 to 12 Inches
- 12 to 15 Inches
- Over 15 Inches

Climate Division	Precipitation needed to End Drought (inches) Week ending Jan. 5
Northwest	4.66
West Central	3.02
Southwest	1.97
North Central	3.86
Central	5.24
South Central	5.32
Northeast	7.67
East Central	8.37
Southeast	7.16

Stream Flow – Historical Perspective

July 1954

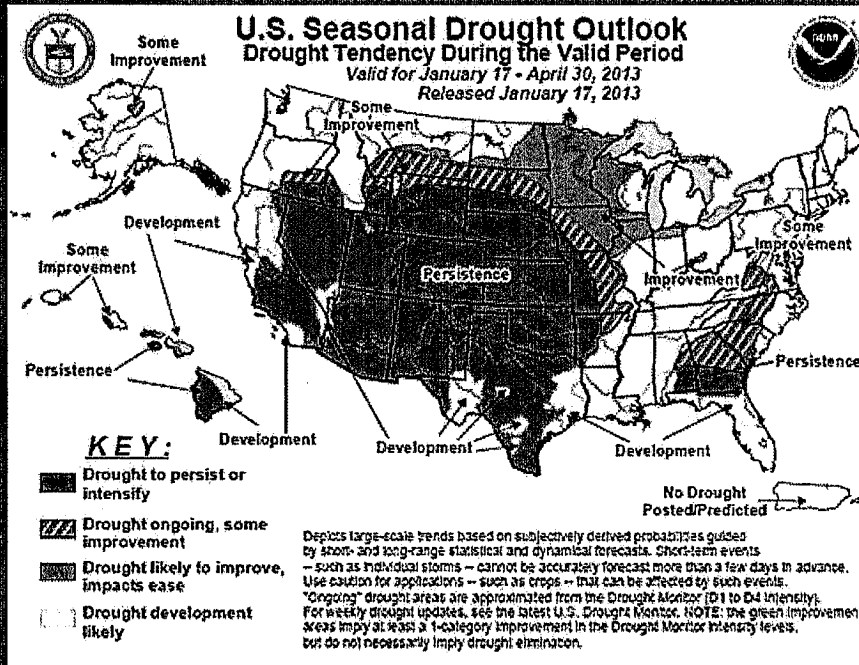
July 2012



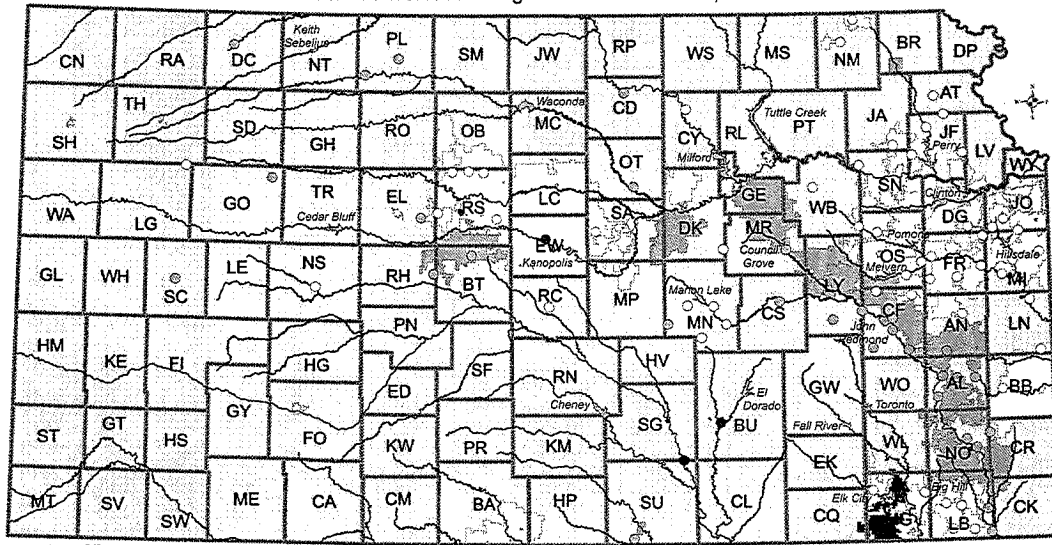
Explanation - Percentile classes							
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Drought Outlook

January – April: Drought Persistence for all of Kansas

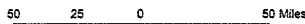


Public Water Suppliers
Water Conservation Stages as of December 3, 2012



Kansas Water Office

- Conservation Stage**
- Water Watch
 - ◐ Water Warning
 - ◑ Water Emergency



- Legend**
- ~ Stream
 - ◐ Federal Reservoir
 - County

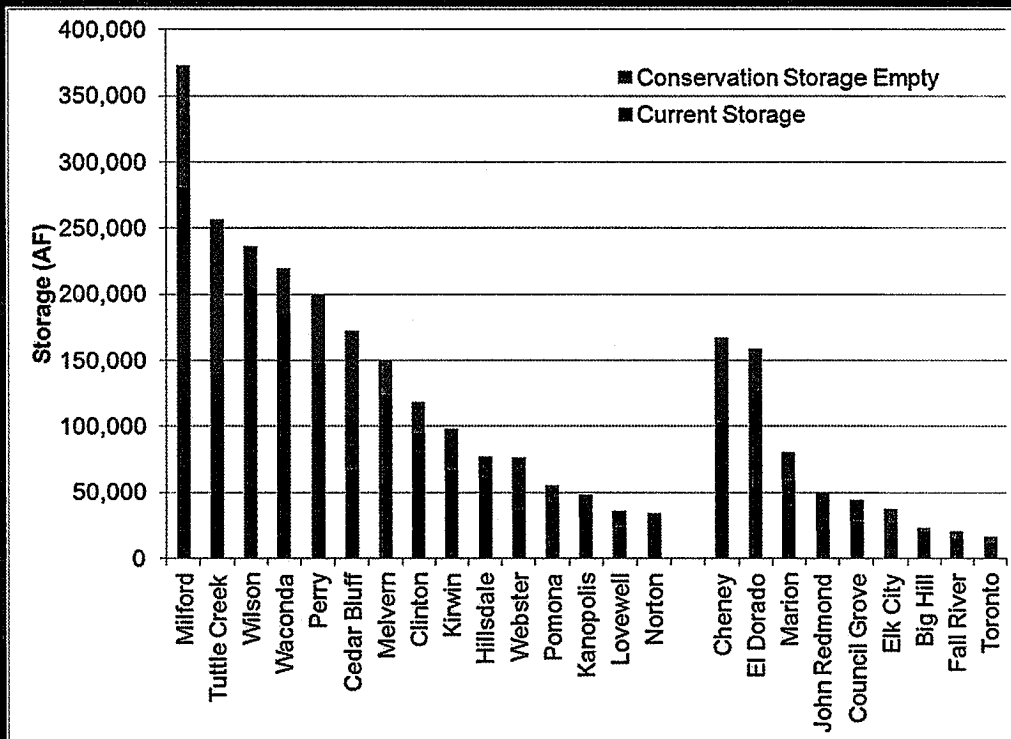
Water Resources Condition

- 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)

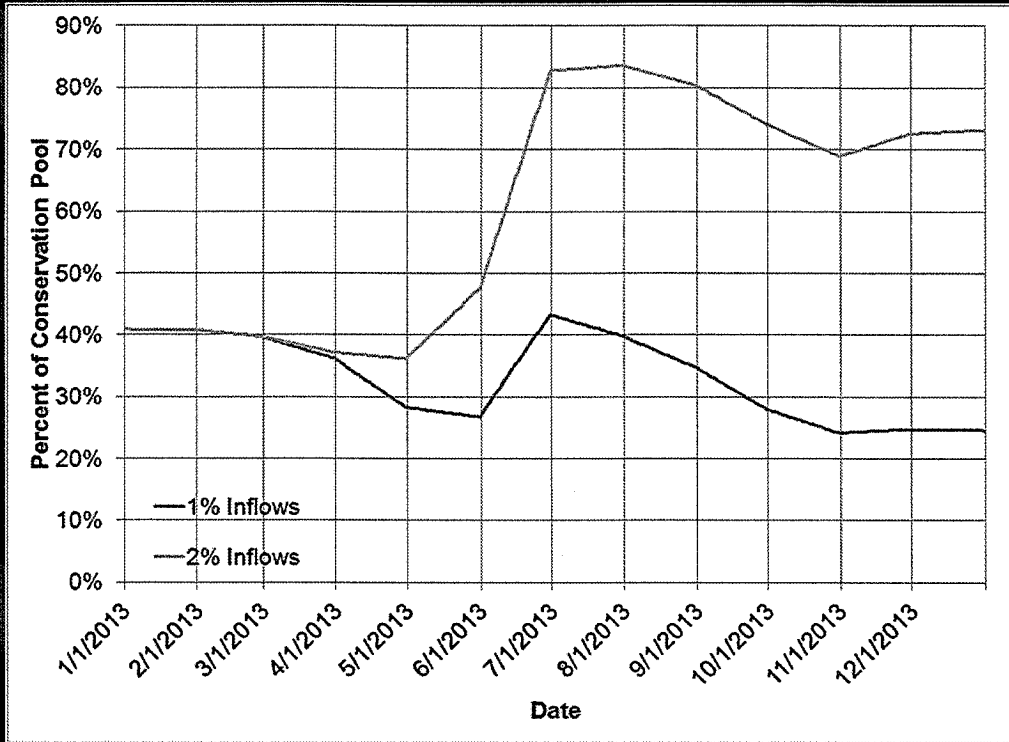
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Reservoir	Top of Multipurpose/ Conservation Pool (Feet MSL)	Multipurpose/ Conservation Pool Elevation (Feet MSL)	Change from Top of Pool (Feet)	Conservation Pool Percent Full
Kansas River Basin		1/16/2013		
Norton ¹	2304.3	2294.07	-10.23	48.1
Lovewell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

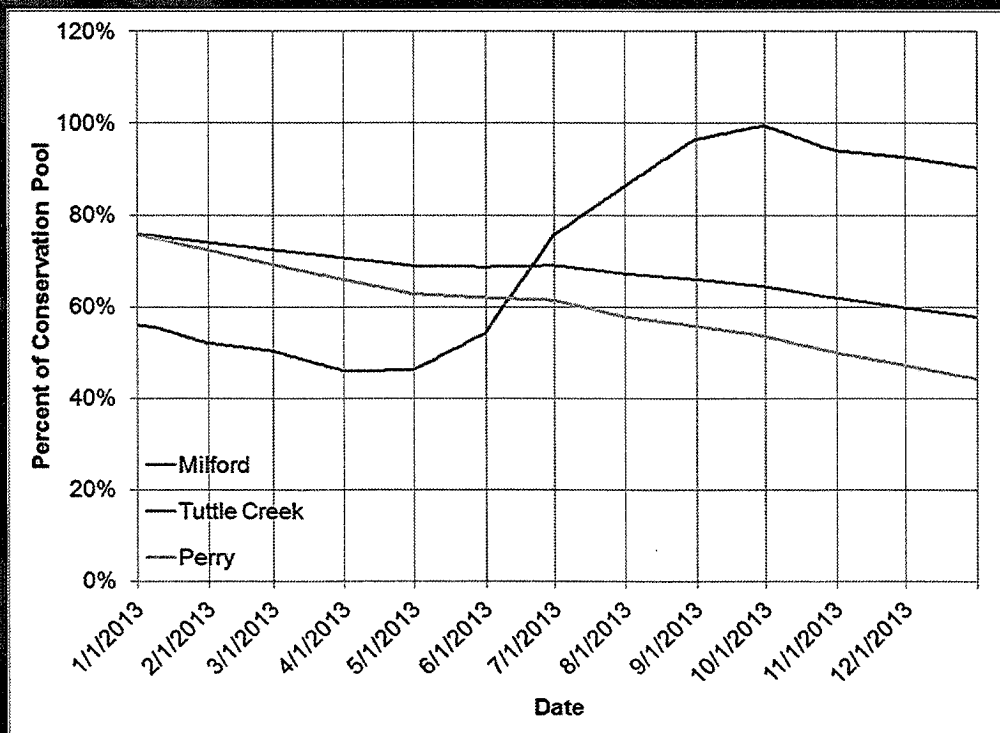
Current Reservoir Storage



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.ore

USGS Web Page

www.usgs.gov

Questions?

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