

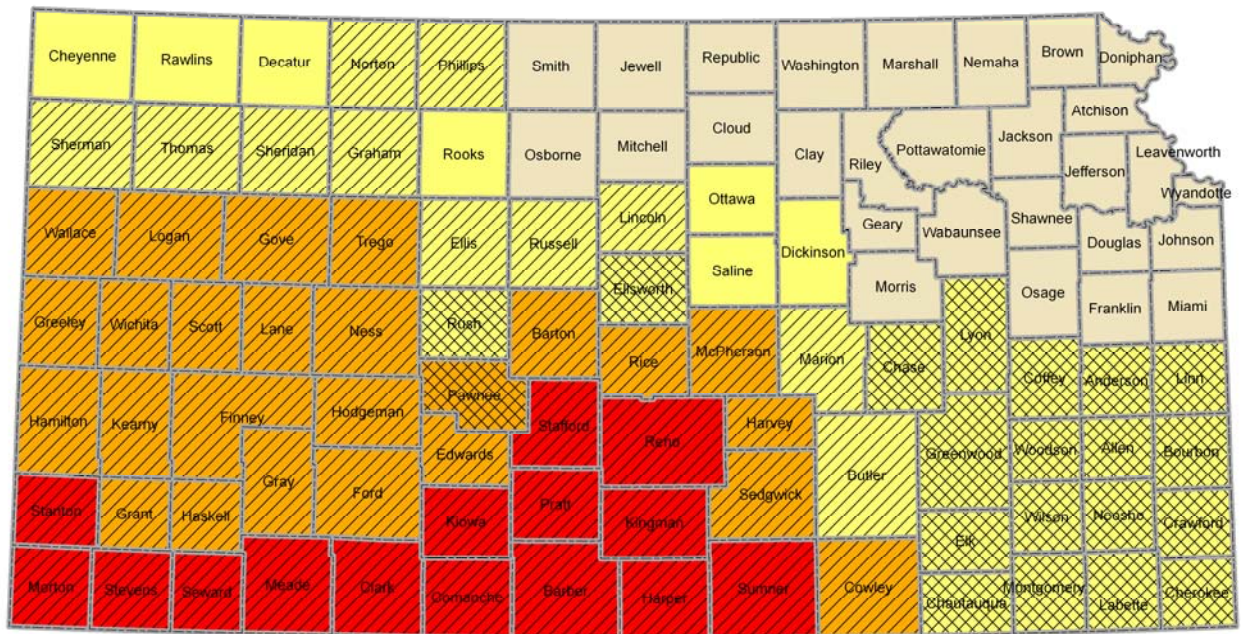
KANSAS WEEKLY DROUGHT UPDATE – AUGUST 29, 2011

Summary of Conditions and Changes:

- USDA designated four more counties for Federal Agriculture Disaster; Kiowa, Marion, McPherson and Pratt.
- Governor Brownback requested Federal Agriculture Disaster Designation for another 20 counties.
- The August 23, 2011 U.S. Drought Monitor indicates Severe Drought (D2) was expanded eastward across southeastern Kansas.
- Orders for the cessation of diversion due to minimum desirable streamflow (MDS) were lifted on the Chikaskia Creek above Corbin August 25, 2011.
- A blue green algae warning was added for River Pond at Tuttle Creek State Park (Pottawatomie & Riley counties) and Dillon Park Lake (Reno County). The advisory status was upgraded to a warning for Milford Lake (Geary and Dickinson Counties). The advisory was lifted for Big Hill and Hillsdale lakes.
- Large grass fire burned outbuildings and threatened homes in near Hesston on August 23, 2011.

Counties under Kansas drought stages and/or Federal Agriculture Disaster Declarations are shown on the map below.

Kansas Drought Conditions August 29, 2011



Kansas Water Office



County Drought Declarations:

A total of 77 counties are under state drought stages, with 15 counties in an emergency stage. State Emergency allows public water suppliers aid and opportunities to supplement their water supply, as well as provide opportunity for domestic and livestock water from emergency sources.

Drought Emergency: Barber, Clark, Comanche, Harper, Kingman, Kiowa, Meade, Morton, Pratt, Reno, Seward, Stafford, Stanton, Stevens, Sumner.

Drought Warning: Barton, Butler, Cowley, Edwards, Finney, Ford, Gove, Grant, Gray, Greeley, Hamilton, Harvey, Haskell, Hodgeman, Kearny, Lane, Logan, McPherson, Ness, Pawnee, Rice, Scott, Sedgwick, Trego, Wallace, Wichita.

Drought Watch: Allen, Anderson, Bourbon, Chase, Chautauqua, Cherokee, Cheyenne, Coffey, Crawford, Decatur, Dickinson, Elk, Ellis, Ellsworth, Graham, Greenwood, Labette, Lincoln, Linn, Lyon, Marion, Montgomery, Neosho, Norton, Ottawa, Phillips, Rawlins, Rooks, Rush, Russell, Saline, Sheridan, Sherman, Thomas, Wilson, Woodson.

A total of 50 counties are designated federal agricultural disasters (S3117, S3061 & S3156) due to drought, high winds and excessive temperatures and are now eligible for federal programs, along with contiguous counties. A request for the addition of 20 counties was sent to USDA on August 24. If these requests are approved, 70 counties designated as primary and 15 contiguous counties will be eligible for programs and opportunities. USDA agricultural disaster declarations are based on anticipated crop losses, while Kansas drought stages are based primarily on water resource conditions. Federal agricultural disasters have also been declared by the Secretary of USDA for areas of Colorado (S3125 & S3133) and Oklahoma (S3080 & S3139) that include Kansas counties as contiguous. These are all included in the Kansas declaration or as a contiguous county.

General Conditions

Some areas in the state received good rains in August, but in general the state is behind normal precipitation for the year and drought conditions continue to dominate. Most of the precipitation has been variable, for example Finney County had some nice rains near Garden City this week, but the county average was less than three-tenths of an inch.

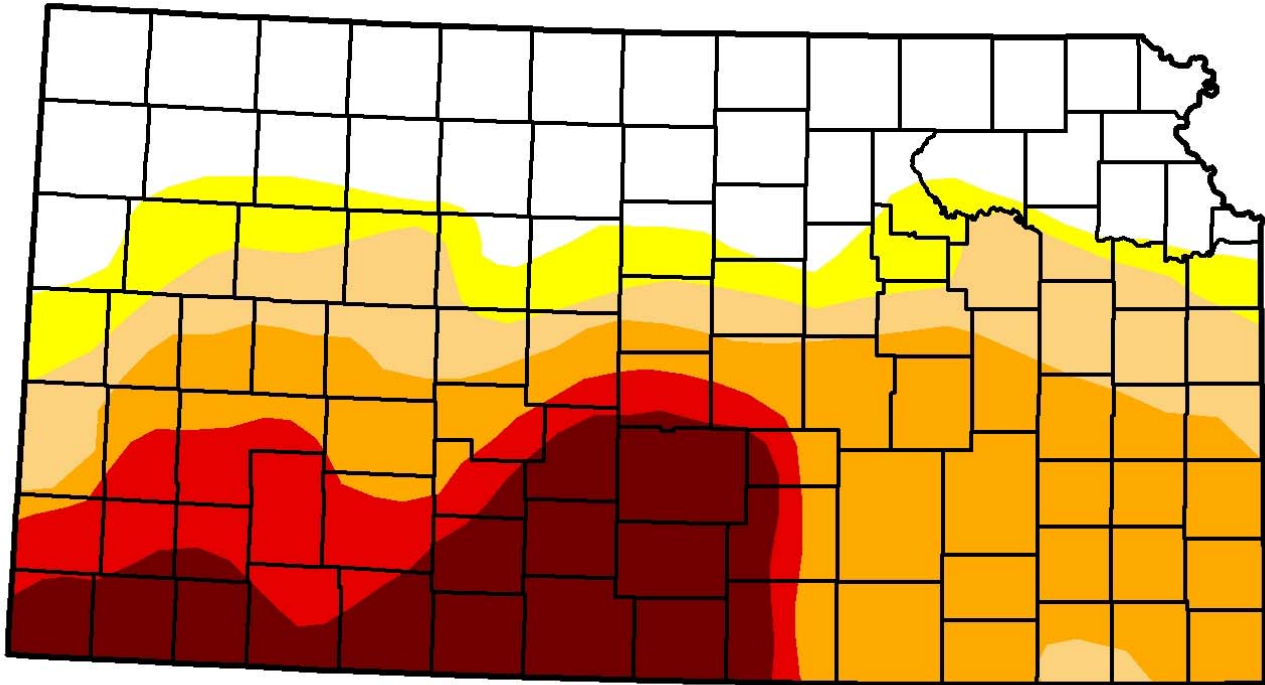
The latest Drought Monitor showed little change in the impacts of drought conditions statewide. Severe Drought (D2) was expanded eastward across southeastern Kansas to account for declining streamflow and soil moisture percentiles, as well as increasingly dry conditions out to 90 days (locally less than 50 percent of normal). As seen by the table at the right, the percentage of areas affected has changed slightly during the month of August. A description of the Drought Monitor process can be found in a separate document under useful links on the KWO drought page.

Week	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
August 2, 2011	24.54	75.46	66.43	44.81	22.66	14.55
August 9, 2011	26.90	73.10	64.14	44.81	22.66	14.55
August 16, 2011	26.90	73.10	64.14	44.28	23.60	14.55
August 23, 2011	28.77	71.23	62.24	49.07	23.54	14.55

Climate Division	Palmer Drought Index	CPC Soil Moisture Model (percentiles)	USGS Weekly Streamflow (percentiles)	Standardized Precipitation Index (SPI)	Objective Short and Long-Term Drought Indicator Blends (percentiles)
Northwest	0.69	70-80	25 - 75	+0.51 to + 0.79	80 to 90
North Central	2.14	30-70	76 - 90	+0.51 to + 0.79	80 to 90
Northeast	-0.71	30-70	25 - 75	-0.50 to + 0.50	30 to 70
West Central	-2.36	30-70	25 -75	-0.50 to + 0.50	30 to 70
Central	-1.57	20-30	11 - 20	-1.29 to - 0.80	30 to 70
East Central	-1.93	20-30	11 - 20	-0.79 to - 0.51	10 to 20
Southwest	-4.86	1-20	< 10	Less than -2.00	0 to 2
South Central	-3.74	1-20	< 10	Less than -2.00	2 to 5
Southeast	-2.21	6-10	11-20	-1.3 - 1.5	20 to 30

Note colors correspond to US Drought Monitor Categories, more information on the effects in the Document Drought Monitor Explanation.

US Drought Monitor – August 23, 2011



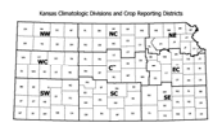
Intensity:

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



<http://drought.unl.edu/dm>

Kansas Climate Division Precipitation Summary (in) Percent of Normal (100%=Normal)												
Climate Division	22-Aug to 29-Aug			1-Jan to 29-Aug			1-Apr to 29-Aug			1-Sep to 29-Aug		
	Actual	Normal	%	Actual	Normal	%	Actual	Normal	%	Actual	Normal	%
Northwest	0.01	0.50	2	12.76	15.77	80	11.61	13.57	84	15.10	20.06	74
West Central	0.07	0.52	12	9.77	15.15	64	8.24	12.94	63	11.27	19.51	57
Southwest	0.04	0.51	8	5.95	14.82	40	5.03	12.69	40	7.68	19.13	40
North Central	0.53	0.72	74	18.91	19.32	97	16.77	16.10	103	23.89	26.22	90
Central	0.01	0.71	1	13.19	20.69	64	10.67	17.10	63	19.15	28.37	67
South Central	0.01	0.71	1	8.87	20.08	43	6.76	16.38	40	13.51	28.04	47
Northeast	0.10	0.92	11	19.93	24.33	82	16.46	20.28	81	28.25	34.76	81
East Central	0.01	0.88	1	15.70	25.18	63	11.74	20.55	57	24.66	36.38	68
Southeast	0.04	0.89	4	17.90	25.77	69	12.52	20.35	61	26.84	38.06	69
STATE	0.03	0.7	4	13.18	20.05	64	10.63	16.58	63	18.34	27.71	63



Public Water Supply Conditions

A Memorandum of Understanding (MOU) for emergency use of state fishing lake water under conditions of drought emergency declared by the Governor is in place. This will allow small communities and individuals within the emergency counties category to pump water from named state fishing lakes to provide some relief if they are in dire need of water. Individuals and communities need to contact the KWO for a water supply request and they will in turn be referred to the appropriate Kansas Department of Wildlife, Parks and Tourism office to obtain the necessary permit to withdraw the water. The MOU limits the types of water use and a fee may be set for use of the state fishing lakes' water supply. The priority order established for this MOU is domestic, municipal and then livestock uses, while also protecting the lake's fish population.

The State Fishing Lakes available for withdrawals for Emergency Declared counties include Atchison, Barber, Brown, Bourbon, Butler, Chase, Clark, Crawford, Goodman, Jewell, Kingman, Leavenworth, Lyon, Pott#1, Pott#2, McPherson, Miami, Mined Lands (Pits), Neosho, Osage, Ottawa, Saline, Scott, Shawnee, Sheridan, Washington, Wilson and Woodson Lakes.

Additional water supply may also be available for Drought Emergency counties from federal lakes. Water from U.S. Army Corps of Engineer lakes is available for domestic, industrial and livestock use but is prohibited for irrigation use. Requests from applicants have to go through the KWO or other appropriate State agency. Bureau of Reclamation lake water may be made available by temporary contract under drought conditions.

Local Public Water Supply Status

Butler County: Augusta has declared a water emergency due to drought. Water sources for Augusta Lake and Santa Fe Lake are at historic lows; the El Dorado Lake supply pipeline is running close to capacity. Lawn watering restrictions were in place for the cities of Augusta and Mulvane. Augusta supplies Mulvane, Butler RWD 4 and has an emergency connection to Butler RWD 6 and Sedgwick RWD 3. On August 2 it was estimated Augusta had 6 weeks of water supply left in the city lake. Butler RWD 4 has also requested conservation including outside watering restrictions. In addition, KDHE has issued a public health warning (no contact) for Santa Fe and Augusta City lakes due to blue-green algae.

Dickinson County: Dickinson RWD 2 has mandatory water restrictions in effect through October 31, 2011.

Gray County: The City of Cimarron has mandatory watering restrictions in place.

Greenwood County: The City of Eureka has gone to water watch, for voluntary water conservation.

Harper County: Bluff City has water use restrictions in place.

Harvey County: The City of Hesston has issued mandatory restrictions on residential yard use (lawn and car washing). Hesston is experiencing declines in the city's water wells which has lowered the ability to keep up with demand.

Haskell County: The City of Sublette has implemented water rationing due to problems with two of their four wells.

Johnson County: City of Gardner has requested voluntary conservation measures.

Kearny County: City of Lakin has initiated voluntary water conservation measures.

Labette County: The City of Oswego is in a stage 1 water watch, voluntary water conservation measures, due to low water and increased daily usage.

Marion County: The City of Burns has issued a request that citizens do not fill swimming pools and use water sparingly when watering lawns, gardens and flowers as the city wells are getting low due to the excessive heat and lack of rain.

Montgomery County: The City of Independence has requested voluntary water conservation practices.

Neosho County: The City of St. Paul is under a conserve order as the city's intake is unable to access the low flow in the Neosho River. Emergency measures to pump water to the intake are underway.

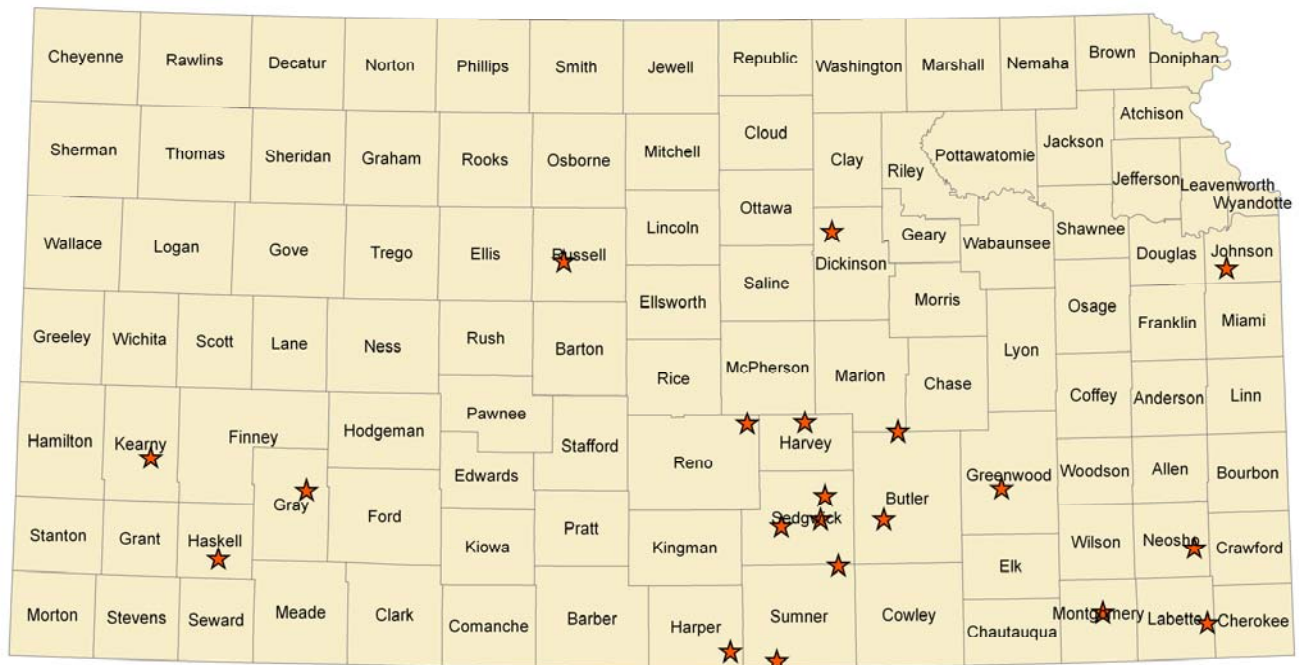
Reno County: The City of Buhler has implemented voluntary water restrictions to reduce usage due to concerns with exceeding water rights.

Russell County: The City of Russell has moved to the second stage of its water conservation plan due to lack of flow in Big Creek and the Smoky Hill River at Pfeiffer and the associated aquifer decline. Residents are asked not to perform any outside watering or washing of vehicles.

Sedgwick County: The City of Goddard has issued a water warning and asked residents to voluntarily conserve water. The Chisholm Creek Utility Authority which supplies water to Bel Aire and Park City also in Sedgwick County has issued a water watch. The City of Wichita has requested voluntary water conservation. A public health warning due to blue-green algae is in effect for Cheney Lake, which supplies drinking water to the City of Wichita.

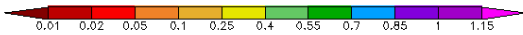
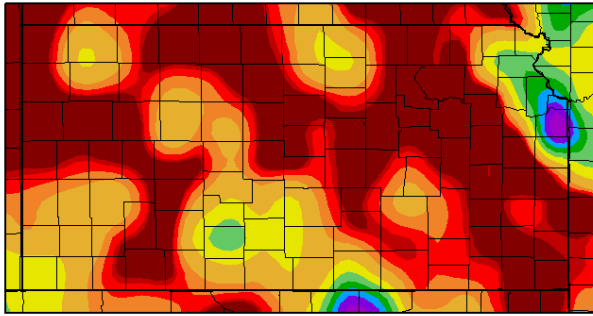
Sumner County: The City of Caldwell has put their emergency water plan (mandatory water conservation measures) into effect for all customers including Rural Water District No. 7. The primary source of water supply is the Chikaskia River.

Public Water Suppliers with Drought Based Conservation in Place



Climate (Precipitation and Temperature)

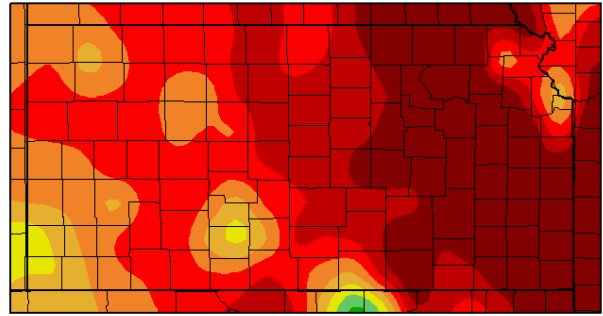
Precipitation (in)
8/22/2011 – 8/28/2011



Generated 8/29/2011 at HPRCC using provisional data.

Regional Climate Centers

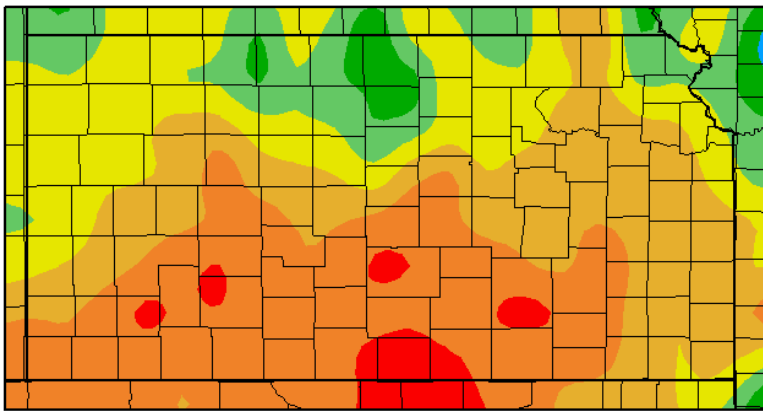
Departure from Normal Precipitation (in)
8/22/2011 – 8/28/2011



Generated 8/29/2011 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Precipitation (in)
8/29/2010 – 8/28/2011



Generated 8/29/2011 at HPRCC using provisional data.

Regional Climate Centers

The week of August 22- 28 saw very little precipitation state wide. The southern part of the state continues to be below normal in precipitation for the past year.

The table below provides a summary of the 2011 summer moisture and average values for the period by climatic division. The table also provides the average field capacity for soil moisture (water content).

Climate Division	August (inches)	June-August (inches)	Departure from Average (1981-2010)	Average Percent Field Capacity
Northwest	2.39	10.01	0.84	30.8
North Central	3.46	12.48	3.31	65.9
Northeast	3.63	12.43	3.26	74.5
West Central	1.39	7.94	-1.23	5.4
Central	2.53	7.39	-1.78	18.4
East Central	2.05	7.19	-1.98	22.5
Southwest	1.19	3.49	-5.68	1.0
South Central	1.94	4.67	-4.50	4.8
Southeast	2.57	6.67	-2.50	19.4
State Average	2.35	8.03	-1.14	

Water Supply Reservoir Conditions

In eastern Kansas, the primary source of water is surface water including: rivers, federal reservoirs, multipurpose small lakes and municipal lakes. Many federal reservoirs store water for public water supply and other uses. The lakes which have water supply through the Water Marketing and/or Water Assurance programs include Big Hill, Clinton, Council Grove, Elk City, Hillsdale, John Redmond, Kanopolis, Marion, Melvern, Milford, Pomona, Perry and Tuttle Creek. Cedar Bluff, Glen Elder and Keith Sebelius reservoirs also contain supply water for a community. As of Monday August 29, 2011:

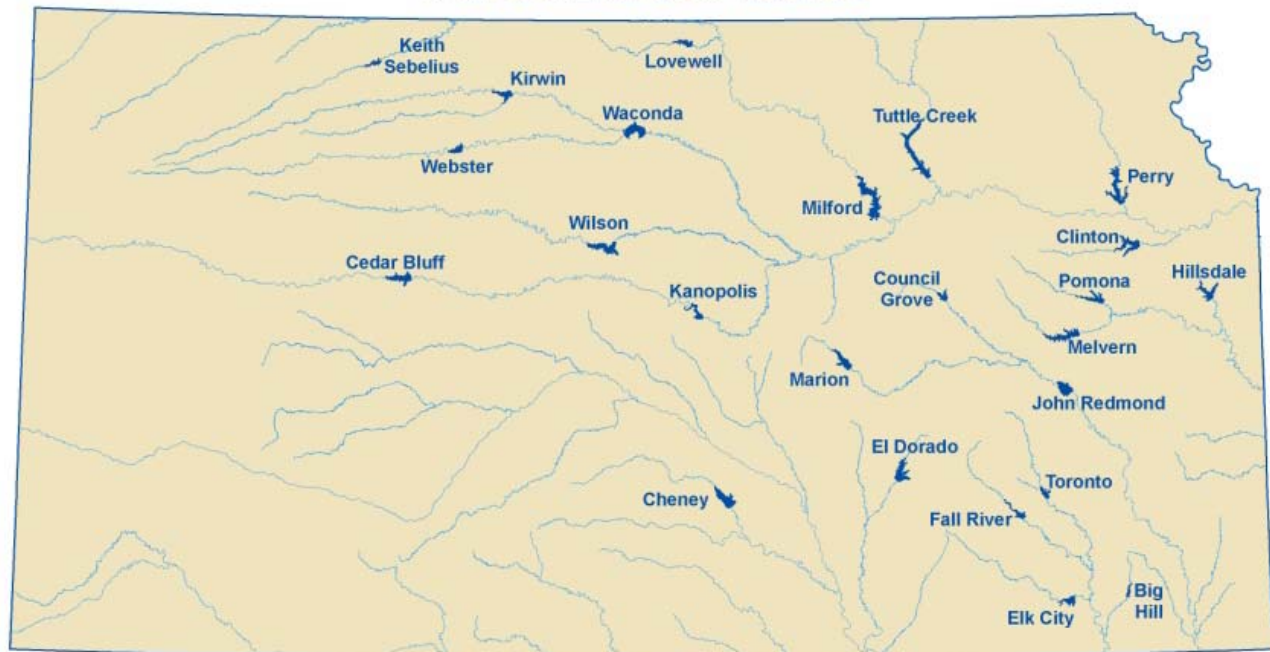
The reservoirs in the Marais de Cygnes basin (Hillsdale, Melvern and Pomona) are all below conservation pool but river flow is sufficient with minimum releases.

The Neosho basin (Marion, Council Grove and John Redmond reservoirs) has had no consistent natural flows in the upper Neosho. Releases are continuing from Marion and Council Grove reservoirs. The water supply release continues from Council Grove Reservoir for Emporia which began July 1. A release of about 120 cfs began August 9 from John Redmond to meet needs of the Wolf Creek Generating plant cooling reservoir. MDS orders remain in effect upstream of Parsons for the Neosho and Cottonwood rivers. Releases for water assurance began August 6 from John Redmond for water assurance district members with water rights junior to MDS.

The Smoky Hill basin conditions are varied. Kanopolis Reservoir which supplies Post Rock Rural Water District is above conservation pool. There is no flow from Cedar Bluff to Pfeiffer. The City of Russell has water supply in Cedar Bluff, which is released when specific criteria and the need arises.

In the Verdigris basin there is little to no natural flow. Water supply and quality releases continue from Elk City Reservoir. Toronto and Fall River reservoirs are into conservation pool and DWR is protecting water quality releases.

Federal Lakes in Kansas



General Reservoir Conditions

Kansas Federal Reservoirs			
Reservoir	Top of Multipurpose/Conservation Pool (Feet MSL)	Multipurpose/Conservation Pool Elevation (Feet MSL) 8/29/2011	Change from Top of Pool (Feet)
Kansas River Basin			
Norton ¹	2304.3	2296.87	-7.43
Harlan County, NE	1946	1944.81	-1.19
Lovewell ¹	1582.6	1582.07	-0.53
Milford ¹	1144.4	1158.23	13.83
Cedar Bluff	2144	2127.44	-16.56
Kanopolis ¹	1463	1464.56	1.56
Wilson ¹	1516	1516.51	0.51
Webster ¹	1892.5	1886.69	-5.81
Kirwin ¹	1729.3	1728.65	-0.65
Waconda ¹	1455.6	1455.37	-0.23
Tuttle Creek ¹	1075	1092.29	17.29
Perry ¹	891.5	898.25	6.75
Clinton ¹	875.5	874.51	-0.99
Melvorn ¹	1036	1035.02	-0.98
Pomona ¹	974	973.73	-0.27
Hillsdale ¹	917	916.33	-0.67
Arkansas River Basin			
Cheney	1421.6	1418.61	-2.99
El Dorado	1339	1336.44	-2.56
Toronto ¹	901.5	900.91	-0.59
Fall River ¹	948.5	947.91	-0.59
Elk City ¹	796	793.69	-2.31
Big Hill	858	856.72	-1.28
Council Grove ¹	1274	1272.41	-1.59
Marion ¹	1350.5	1347.8	-2.70
John Redmond ¹	1039	1036.79	-2.21
1. Lake level management plan in place Source: U.S. Army Corps of Engineers			

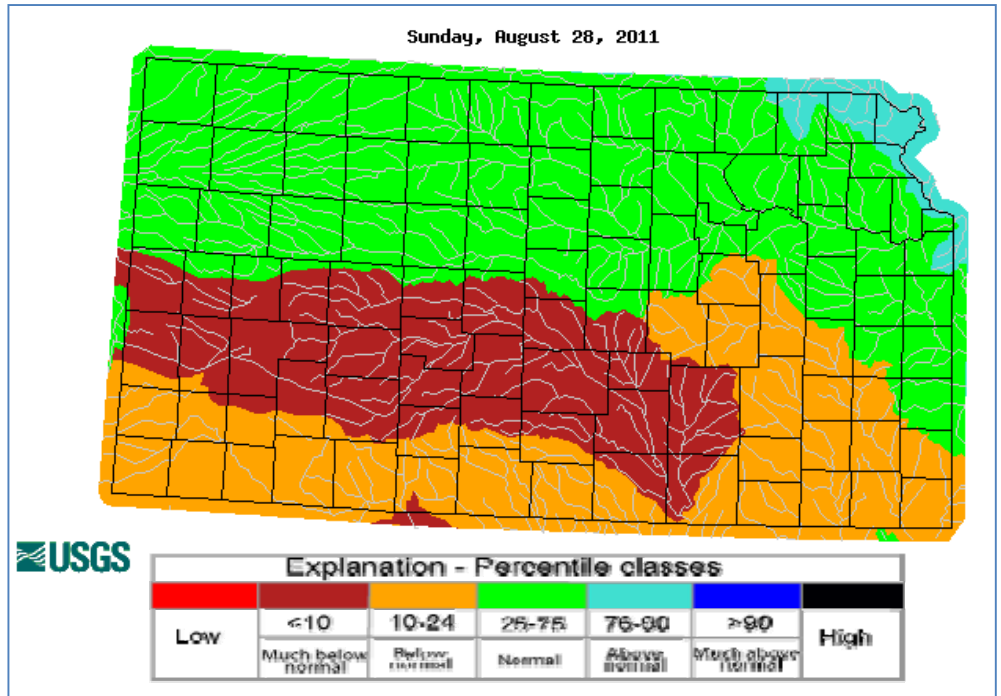
Lakes and Blue-green Algae

Kansas Department of Health and Environment (KDHE) has issued Public Health Advisory or Public Health Warning for some lakes in Kansas. These notification levels are determined by the concentration of a harmful toxin(s) or the concentration of cyanobacteria (commonly referred to as blue green algae) cell counts. High nutrient and light levels and warm water temperature contribute to algae blooms. Lakes affected as of August 29 include warnings for Santa Fe Lake and Augusta City Lake (Butler County), Memorial Park Lake (Barton County), Rigg's Park Lake (Sedgwick County), East Lake (Harvey County), Logan City Lake (Phillips County), Milford Lake (Clay, Geary and Dickinson Counties), Dillon Park Lake (Reno County), River Pond at Tuttle Creek (Pottawatomie and Riley Counties) and Warnock Lake (Atchison County); and advisories for Cheney Lake (Reno, Kingman and Sedgwick Counties), and Marion County Lake (Marion County). The advisory has been lifted at Hillsdale and Big Hill lakes.

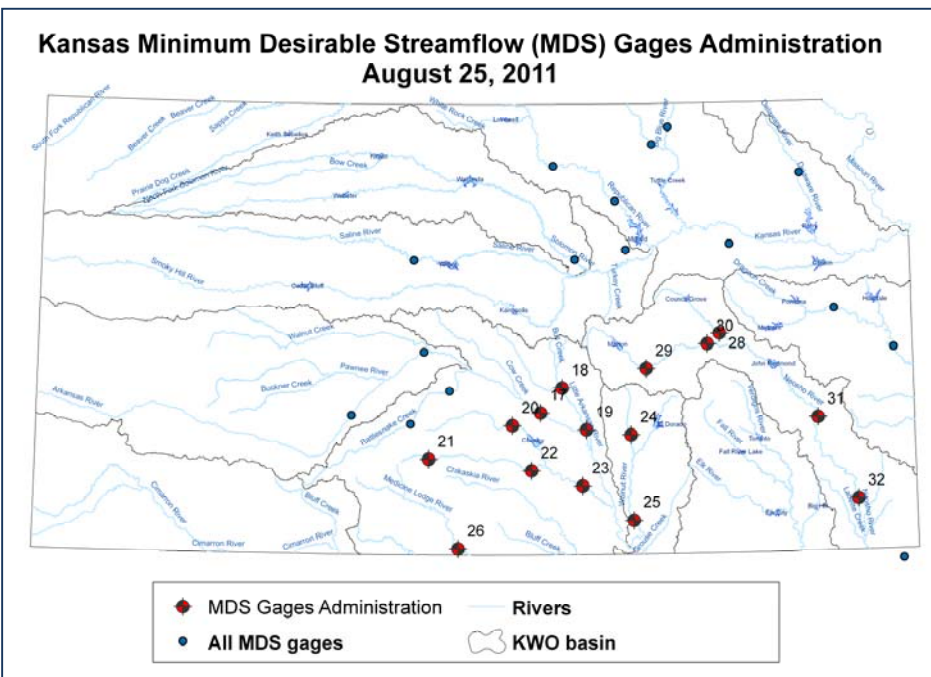
Streamflow Conditions

USGS seven day average stream flow compared to normal flow values recorded for the same day of the year during all years measurements have been collected. In general, a streamflow which is greater than the 75 percentile is considered *above normal*, a streamflow which is between 25 and 75 percentiles is considered *normal* and a streamflow which is less than the 25 percentile is considered *below normal*. Color codes are for basins with streamflow averages less than 25 percent of historic values.

The August 22 data shows improvement towards normal streamflow however it is important to remember this reflects the influence of storms throughout the week not constant streamflow.



Water Right Administration/Minimum Desirable Streamflow (MDS)



The map at the left shows the MDS gages related to Department of Agriculture, Division of Water Resources water right administration at this time. The table below shows the gage name for the location on the map where administration is occurring, as well as providing flows in cubic feet per second (cfs) at selected gaging stations as of August 25 for streams where MDS is of interest.

Streamflows as of August 25, 2011 in cfs

Gaging Station	Current Flow (CFS)	August MDS (CFS)	ADMIN	Map Location #
Republican River at Concordia	479	150		
Republican River at Clay Center	776	200		
Smoky Hill River at Ellsworth		15	lifted 8/19/11	
Mill Creek near Paxico	6	5		
Little Arkansas River at Alta Mills	1	8	5/12/11	18
Little Arkansas River at Valley Center	5	20	7/13/11	19
North Fork Ninnescah River above Cheney	10	5	7/21/11	20
South Fork Ninnescah River near Pratt	5	5	NA	
South Fork Ninnescah River near Murdock	57	30	7/21/11	22
Ninnescah River near Peck	32	30	7/21/11	23
Whitewater River near Towanda	2	5	05/13/11	24
Walnut River at Winfield	29	25	05/13/11	25
Medicine Lodge River near Kiowa	0	1	06/23/11	26
Chikaskia River near Corbin	9	5	Lifted 08/25/11	
Neosho River near Americus	18	5	08/06/11	28
Cottonwood River near Florence	18	10	08/06/11	29
Cottonwood River near Plymouth	26	20	08/06/11	30
Neosho River near Iola	28	40	08/06/11	31
Neosho River near Parsons	30	50	08/06/11	32

Arkansas River: The flow at Hutchinson has been below MDS since July 12. DWR has assessed water rights/permits for regulation. The Chief Engineer has determined administration of surface water rights in the basin would be futile.

Chikaskia River: Orders effective June 23 for seven water rights/permits were lifted August 25. Flows have been above MDS at Corbin since August 10 and are expected to remain above MDS.

Little Arkansas River: Orders were effective May 12 and July 13 requiring cessation of pumping on sections of the Little Arkansas River. These orders pertain to the basin which drains to the Little Arkansas River between Alta Mills and Valley Center respectively. These orders remain in effect for 25 water rights/permits under administration above the Alta Mills gage. A temporary stay was granted to the City of Wichita to allow for testing of a new intake structure.

Medicine Lodge River: The orders effective June 23 for two water rights/permits remain in effect.

Mill Creek (Wabaunsee County): Flow at the Paxico gage is approaching MDS levels.

Neosho/Cottonwood River: Orders effective August 6 are in place for the cessation of diversion under 160 water rights/permits in the Neosho and Cottonwood basins. Flows at Parsons have been above MDS since August 4. Flows at Iola have been fluctuating about MDS. Flows at the upper three gages have not been below MDS.

Ninnescah: The orders effective July 21, for 12 water rights/permits to cease diversion above the Cheney, Peck and Murdock gages remain in effect. Flows have improved but are not sufficient to cease MDS administration yet.

Smoky Hill River: The August 19 orders lifted administration of four water rights/permits under administration since July 8. These water rights are located above the Ellsworth gage and below the confluence of Big Creek with the Smoky Hill River.

Walnut/Whitewater: Flows at the Towanda gage are around MDS, however because the flow has been below MDS downstream at the Winfield gage for most of July, orders for water rights/permits above the Towanda gage remain in effect. There are currently 61 water rights/permits affected. There have been short periods where these orders were lifted temporarily, the most recent allowed diversions August 18 through August 22. Flows have been above MDS at Winfield since August 10, but not consistent enough to cease administration.

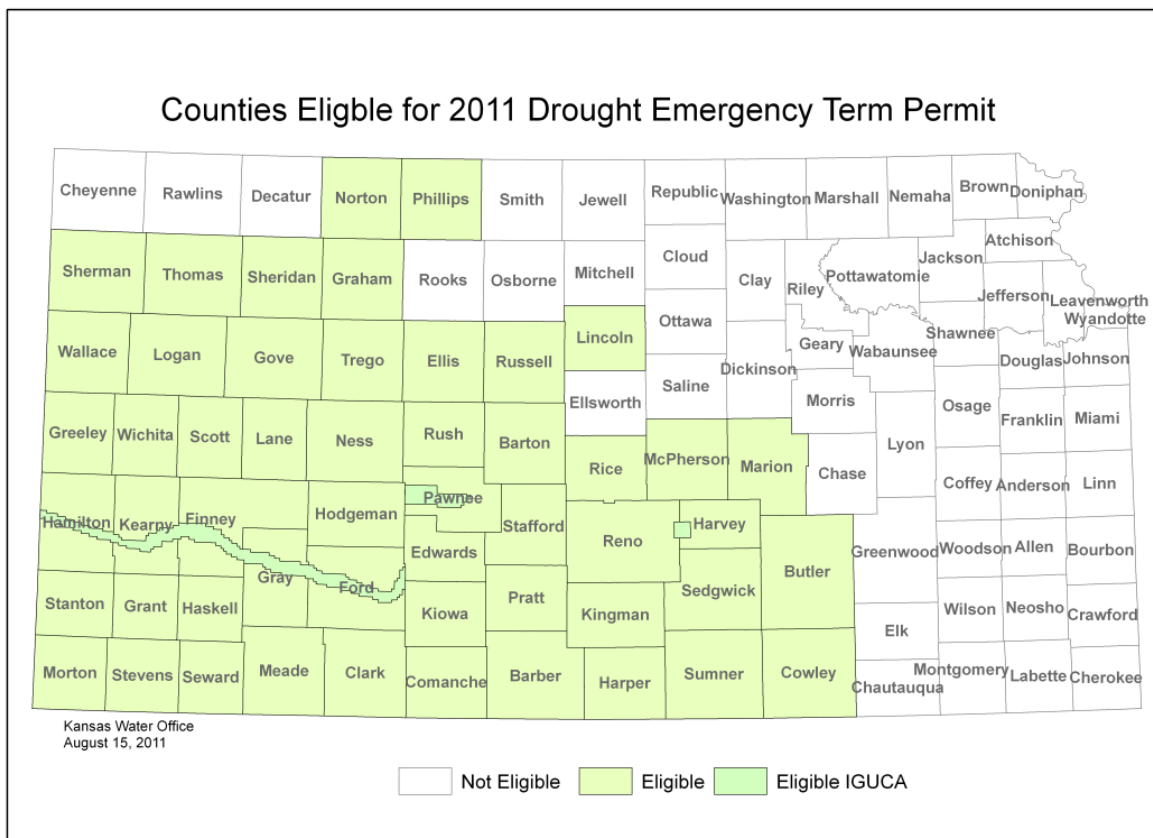
Other Water Right Administration

In addition to MDS needs, administration of water rights/permits occurs when there is not enough water to meet all appropriations. Senior water rights needs, water quality and the protection of releases may also trigger the need. Notices were issued by DWR July 20, 2011 on the Elk River below Elk City Reservoir (Verdigris basin). Orders are in place protecting releases from Council Grove Reservoir for Emporia.

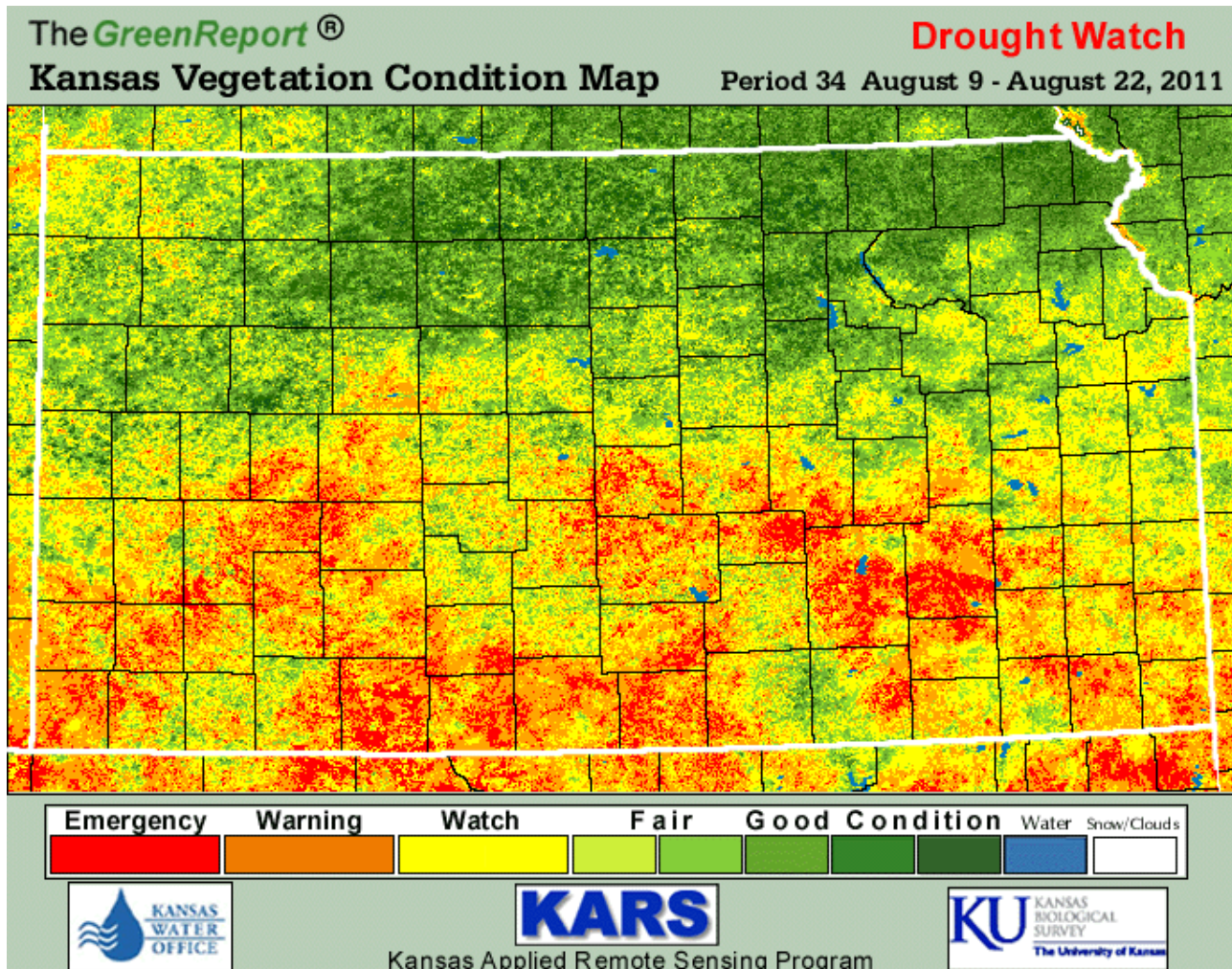
Effective August 11, 2011, the Chief Engineer also issued orders to 38 owners of 62 water rights on the Verdigris River and the Fall River to protect releases from conservation storage from three federal reservoirs. While the order is in effect, diversion of surface water from the Verdigris River and/or from the Fall River below Toronto Lake, Fall River Lake and Elk City Lake is prohibited without written permission of the Chief Engineer.

Water Right Term Permit Opportunity

A 2011 Drought Emergency Term Permit is available from Kansas Department of Agriculture, Division of Water Resources for the below counties in Kansas. The one-time, drought-focused term permit allows holders of existing water rights the flexibility to borrow a portion of next year’s authorized quantity in order to complete the 2011 growing season. This is available outside Intensive groundwater Use Control Areas (IGUCAs) in the counties shown below. The term permit allocation will be based on the sum of the quantity authorized for 2011 and 2012. Qualifying IGUCAs include Arkansas River IGUCA (Hamilton, Kearny, Finney, Gray and Ford Counties), Burrton IGUCA (Harvey County) and Pawnee Valley IGUCA (Pawnee County). Municipal water rights are also eligible.



Kansas Vegetative Conditions



Emergency Haying and Grazing

Emergency haying and grazing of CRP acreage may be authorized to provide relief to livestock producers in areas affected by a severe drought or similar natural disaster. Emergency authorization is provided by either national FSA office authorization or by a state FSA committee determination utilizing the U.S. Drought Monitor. The state FSA committee may approve emergency grazing on a county-by-county basis if the county is designated as level "D2 Drought-Severe" according to the U.S. Drought Monitor. It may approve emergency haying on a county-by-county basis if the county is designated as "D3 Drought- Extreme" or "D4-Exceptional" according to the U.S. Drought Monitor.

As of August 29, the counties approved for emergency haying and grazing by USDA's Farm Service Agency (FSA) under the Conservation Reserve Program (CRP). These counties are: Barber, Barton, Butler, Chase, Clark, Comanche, Cowley, Edwards, Elk, Ellsworth, Finney, Ford, Grant, Gray, Greenwood, Hamilton, Harper, Harvey, Haskell, Hodgeman, Kearny, Kingman, Kiowa, Lane, Lyon, Marion, McPherson, Meade, Morton, Ness, Pawnee, Pratt, Reno, Rice, Rush, Scott, Sedgwick, Seward, Stafford, Stanton, Stevens, Sumner, Trego, Wichita, Wilson and Woodson.

CRP emergency grazing is also approved in Chautauqua, Cherokee, Ellis, Gove, Graham, Greeley, Labette, Logan, Montgomery, Morris, Neosho and Wallace counties.

Emergency haying is allowed through August 31 and emergency grazing in approved counties is normally allowed through September 30, but has been extended to October 31, 2011 in five states including Kansas.

Emergency haying and grazing is not allowed on the same acreage. All livestock must be removed by the end of this grazing period. In addition FSA will allow producers nationwide to use harvested hay from expiring CRP acres rather than destroy the hay as normally required. There are nearly 230,000 expiring acres in Kansas.

CRP participants in approved counties shall contact the local FSA county office to request emergency haying or grazing on an individual contract basis prior to haying or grazing. Payments are reduced when these options are utilized. Producers should contact their local FSA office prior to haying or grazing. More information can be found on the USDA FSA web pages:

<http://www.apfo.usda.gov/FSA/webapp?area=home&subject=copr&topic=crp-eg>).

USDA's Farm Service Agency (FSA) in Kansas allows eligible ranchers and livestock producers to apply under the Livestock Forage Disaster Program (LFP) for losses incurred during the 2011 grazing season up to October 1, 2011. Pasture and small grain programs are available under LFP, eligibility will vary.

As of August 19, the following 43 Kansas counties were eligible for the pasture and hay LFP: Barber, Barton, Clark, Comanche, Edwards, Ellis, Ellsworth, Finney, Ford, Gove, Grant, Gray, Greeley, Hamilton, Harper, Harvey, Haskell, Hodgeman, Kearny, Kingman, Kiowa, Lane, Logan, McPherson, Marion, Meade, Morton, Ness, Pawnee, Pratt, Reno, Rice, Rush, Scott, Sedgwick, Seward, Stafford, Stanton, Stevens, Sumner, Trego, Wallace, and Wichita. Additional counties could become eligible later depending on the U.S. Drought Monitor rating.

As of August 19, ten counties were eligible for the LFP Long Season Small Grains program: Greeley, Hamilton, Kearny, Logan, Morton, Scott, Stanton, Stevens, Wallace and Wichita. The 30 LFP Forage Sorghum eligible counties include: Barber, Barton, Clark, Comanche, Edwards, Finney, Ford, Grant, Gray, Harper, Harvey, Hamilton, Haskell, Hodgeman, Kearny, Kingman, Kiowa, McPherson, Meade, Morton, Pawnee, Pratt, Reno, Rice, Sedgwick, Seward, Stafford, Stanton, Stevens and Sumner.

For more information on grazing and haying see the Kansas Farm Bureau <http://www.kfb.org/drought2011.htm> or FSA information at http://www.usda.gov/wps/portal/usda!/ut/p/c4/04_SB8K8xLLM9MSSzPy8xBz9CP0os_gAC9-wMJ8QY0MDpxBDA09nXw9DFxcXQ-cAA_2CbEdFAEUOjoEI/?navid=DISASTER_ASSISTANCE .

An executive order was signed by the Governor July 27 suspending certain motor carrier rules and regulations for people hauling hay to livestock. Those include rules on permits, load sizes and nighttime travel of oversized loads. The executive order will be in effect until it's rescinded or until drought emergency and disaster declarations are lifted.

USDA Risk Management Agency provides information on crop insurance and drought damaged crops can be found at http://www.rma.usda.gov/fields/ks_rso/2011/droughtfaq.pdf.

Burn Bans and Fires

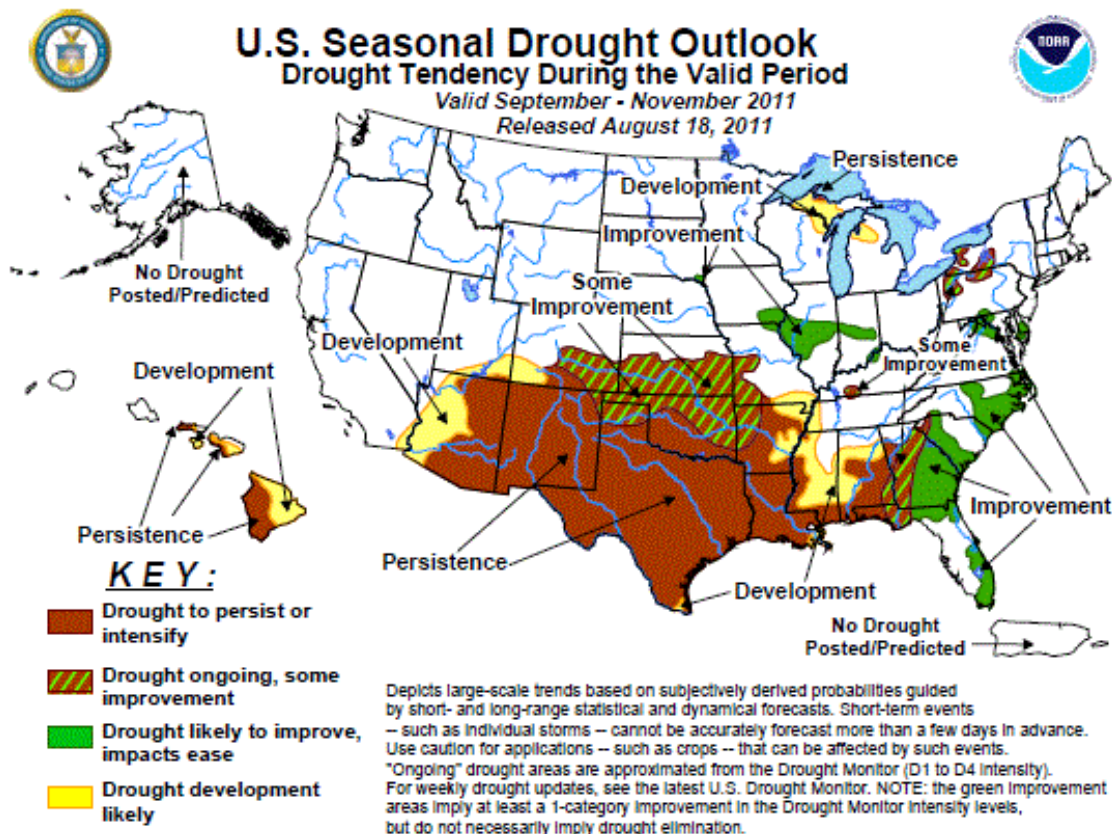
Most counties require permits prior to a burn and are controlling burns through that process. A county issues a ban as they deem necessary at any time, for a specific time period or until repealed. Dry conditions in much of Kansas allow fires to start or spread easily. Please contact your county officials before you burn.

August 23rd a grass fire over a 12 to 15 mile stretch of Hesston Road (Harvey County) threatened several building before being contained. Hot brakes or sparks from a passing train is being blamed for starting several fires in the area. Grass fires were also reported in Harper and Barber counties the same day.

Future Outlook

Parts of Kansas have been in a prolonged, severe drought. Where soils are extremely dry, wheat producers may wonder how much rain will be needed at this point to fill the profile – or at least provide enough moisture to make a wheat crop. It is unlikely the dry areas of Kansas will receive sufficient rains during the next 6 weeks to fill the soil profile with available water for this year's wheat crop. A full soil profile at planting time is not required for a decent wheat crop. However, increased available soil water at planting does improve greatly the odds of getting a good wheat crop. In-season precipitation and available soil water at planting are both important in determining the ultimate yield of a wheat crop. Defining the fall season as September through November, below is a chart developed by the State Climatologist showing the average precipitation values, and the number of times there has been at least 6 inches (estimated need) of precipitation in the fall -- based on 30-year, 1981-2010 data:

Climate Division	Average Sept-Nov precip. (inches)	Number of falls out of 30 with > 6"	Number of falls out of 30 with > 8"	Number of years when a dry summer = wet fall	Percent of years receiving 6" in the fall	Percent of times with 6" of precipitation in fall after dry summer
Northwest	3.92	4	0	1	13%	25%
North Central	5.75	11	4	3	37%	27%
Northeast	8.58	23	16	3	77%	13%
West Central	3.82	2	0	2	7%	100%
Central	6.04	14	7	2	47%	14%
East Central	9.36	26	17	5	87%	19%
Southwest	3.83	5	0	3	17%	60%
South Central	6.28	14	7	3	47%	21%
Southeast	10.56	27	22	0	90%	0%
State Average	6.46					



The Kansas Weekly Climate Summary and Drought Report is compiled each week when conditions warrant, by the Kansas Water Office (KWO). Information from various federal, state, local and academic sources is used. Some of the data is preliminary and subject to change once final data is available. The KWO web site, [KWO Drought](#), contains additional drought information including links to other agencies with drought information and past issues of the Kansas Climate Summary and Drought Report. Kansas State Climatologist, Mary Knapp, is the primary source of the narrative on weather. She works closely with meteorologists throughout the state and region. Details of current conditions at Evapotranspiration (ET) and Mesonet sites across Kansas are available at <http://www.ksre.k-state.edu/wdl/>.

RESOURCES and ACTIVITIES

1. The [U.S. Drought Monitor](#), from the national Drought Mitigation Center at the University of Nebraska-Lincoln, provides a “big picture” perspective of conditions across the nation. In the Kansas county drought stage scheme, a Drought Watch equates roughly to moderate drought in the U.S. Drought Monitor, while a Drought Warning is the equivalent of severe drought. A Drought Emergency is reserved for extreme or exceptional drought. Palmer Drought Severity Index - The Palmer Index (PDSI) is one indicator used in the U.S. Drought Monitor.
2. The National Weather Service (NWS) Cooperative Observer Program (COOP) is the Nation's weather and climate observing network made up of observers that send monthly reports of daily temperatures and precipitation to the NWS. <http://www.nws.noaa.gov/om/coop/wfo-rfcmap.htm>
3. CoCoRaHS is a community-based network of volunteers that measure and map precipitation (rain, hail and snow). Locations and daily precipitation observed through the CoCoRaHS system can be seen at: <http://www.cocorahs.org/state.aspx?state=ks>
4. The U.S. Geological Survey (USGS) [Drought Watch](#) provides information on 7-day average streamflow measured at long-term gaging stations and compares them to normal flows.
5. The Kansas Department of Agriculture-Division of Water Resources monitors stream flow using the USGS gages for determination of administrative needs. Administration may be needed due to Minimum Desirable Streamflow (MDS) requirements, impairments, and reservoir release protection.
6. The water levels of the federal lakes fluctuate during a year according to the management plan. [Lake level management](#) plans are posted on the Kansas Water Office web site www.kwo.org.
7. Water supply needs for community and rural water systems are monitored through various state agencies and organizations. State Emergency Drought stage opens opportunities for suppliers with supply difficulties to obtain water and receive assistance to obtain water from additional sources.
8. The Kansas Applied Remote Sensing Program (KARS) at the University of Kansas produces a [Kansas Green Report](#) each week during the growing season. For a full set of national and regional **GreenReport**® maps, go to: <http://www.kars.ku.edu/products/greenreport/greenreport.shtml>. This Kansas Vegetation Drought Response Index map is developed weekly by the Kansas Biological Survey using state drought triggers as its key. In addition the Vegetation Drought Response Index, by the National Drought Mitigation Center provides another a national perspective on vegetation conditions. VegDRI maps may be found at <http://veg dri.unl.edu/>
9. The National Weather Service (NWS) provides fire weather products and services for Kansas that include the Rangeland Fire Danger Index, Fire Weather Forecasts, Red Flag Watches/Warnings, and Spot Forecasts. The five NWS offices that serve Kansas websites may be accessed from the [NWS Offices' page](#).
10. The [Seasonal Drought Outlook](#), developed by the NOAA Climate Prediction Center (NOAA CPC), assesses the likelihood for improvement, persistence or deterioration in drought conditions for areas currently experiencing drought as identified by the U.S. Drought Monitor.
11. [Responding to Drought: A Guide for City, County and Water System Officials](#) provides an overview of Kansas county drought stage declarations, local planning and coordination, disaster declarations, and available state and federal assistance. [The 2007 Municipal Water Conservation Plan Guidelines](#) and the Drought Vulnerability Assessment Report, both by Kansas Water Office, provide guidance regarding drought preparedness and response.

Please contact Diane Coe at the Kansas Water Office (785) 296-3185 or diane.coe@kwo.ks.gov should you have any questions or suggestions.