

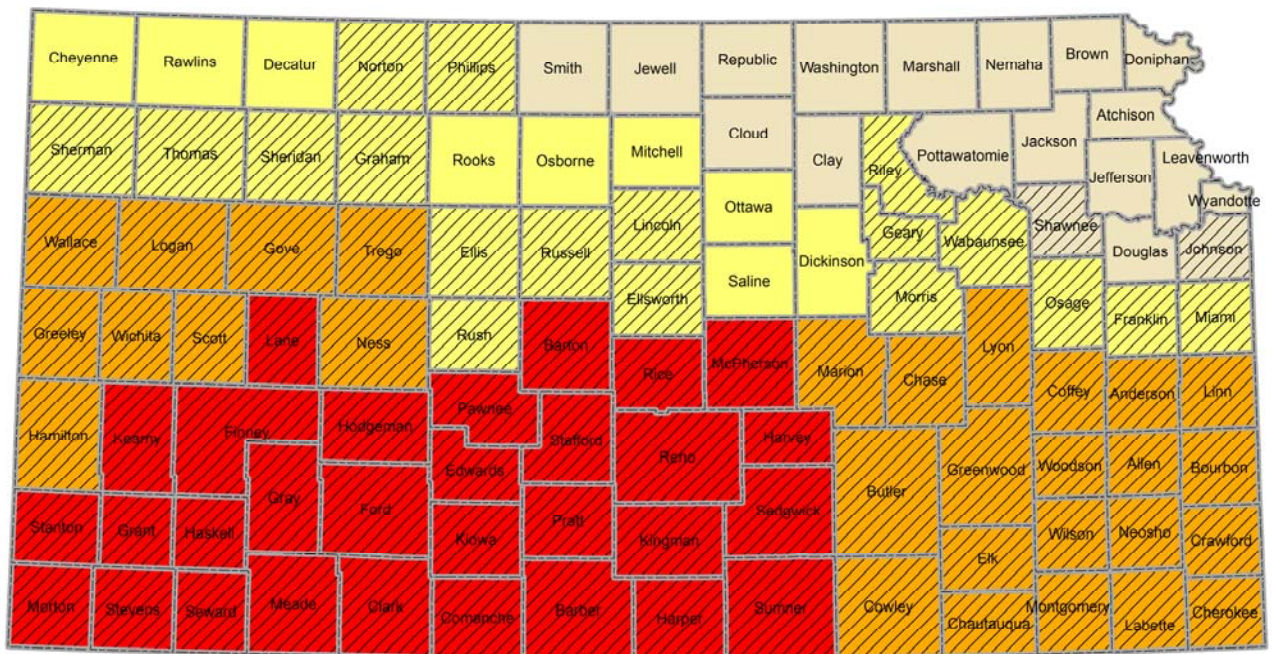
KANSAS WEEKLY DROUGHT UPDATE –November 2, 2011

Summary of Conditions and Changes October 24 –November 1:

- Drought conditions continue to expand east and northeast in Kansas. Some rains and light snow in western Kansas helped the wheat germination, but the region is still far below normal in soil moisture. Temperatures have been averaging above normal for south central and southeast Kansas.
- USDA has declared nine additional counties disasters due to drought, heat and high winds: Franklin, Geary, Johnson, Miami, Morris, Osage, Riley, Shawnee and Wabaunsee.
- For the week ending October 30th, the Kansas Ag Statistics rated the stock water supplies at 31 percent very short, 21 percent short, 47 percent adequate, and 1 percent surplus.
- The October 25, 2011 U.S. Drought Monitor indicates drought conditions impacting 80 percent of the State.
- Blue-green algae health warning: Memorial Park Lake, Great Bend (Barton County), Logan City Lake (Phillips County).
- Administration of junior water rights to meet Minimum Desirable Stream flows remain in effect on the Smoky Hill, Saline, Mill Creek (Wabaunsee County), Little Arkansas, Ninnescah, Walnut/Whitewater, Medicine Lodge and Neosho/Cottonwood Rivers. Orders were lifted for the Ninnescah on October 25.

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

Kansas Drought Conditions November 1, 2011



Kansas Water Office

- Kansas Drought Emergency
- Kansas Drought Warning
- Kansas Drought Watch
- Federal Designated Agricultural Disaster Due to Drought

County Drought Declarations: A total of 86 counties are under state drought stages, with 30 counties in an emergency stage, 29 in Warning and 27 in Watch. 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.

Kansas Drought Emergency: Barber, Barton, Clark, Comanche, Edwards, Finney, Ford, Grant, Gray, Harper, Harvey, Haskell, Hodgeman, Kearny, Kingman, Kiowa, Lane, McPherson, Meade, Morton, Pawnee, Pratt, Reno, Rice, Sedgwick, Seward, Stafford, Stanton, Stevens, Sumner.

Kansas Drought Warning: Allen, Anderson, Bourbon, Butler, Chase, Chautauqua, Cherokee, Coffey, Cowley, Crawford, Elk, Gove, Greeley, Greenwood, Hamilton, Labette, Linn, Logan, Lyon, Marion, Montgomery, Neosho, Ness, Scott, Trego, Wallace, Wichita, Wilson, Woodson.

Kansas Drought Watch: Cheyenne, Decatur, Dickinson, Ellis, Ellsworth, Franklin, Geary, Graham, Lincoln, Miami, Mitchell, Morris, Norton, Osage, Osborne, Ottawa, Phillips, Rawlins, Riley, Rooks, Rush, Russell, Saline, Sheridan, Sherman, Thomas, Wabaunsee

A total of 79 counties are designated federal agricultural disasters during 2011 (S3117, S3061, S3156, S3167 & S3189) due to drought, high winds and excessive temperatures and are now eligible for federal programs, along with the contiguous counties. USDA agricultural disaster declarations are based on anticipated crop losses, while Kansas drought stages are based primarily on water resource conditions.

In addition numerous presidential (FEMA) and secretarial (USDA) disaster declarations at the federal level are in effect as a result of flooding and storms. Up-to-date information regarding designated counties and assistance available due to these declarations is available here: <http://www.fema.gov/dhsusda/index.jsp>.

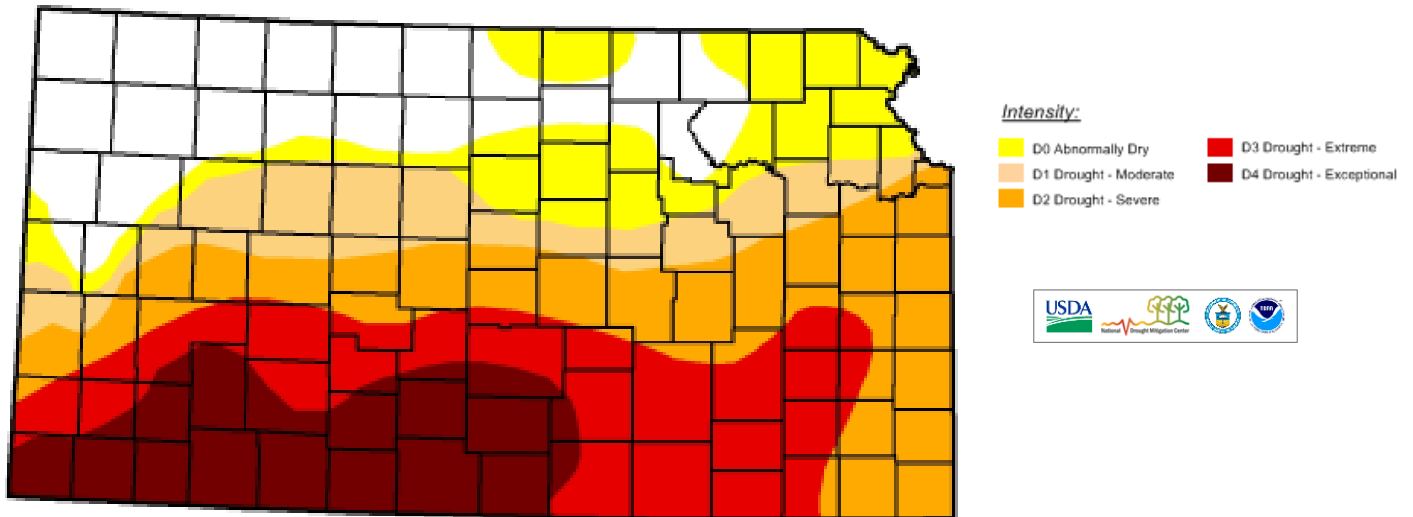
General Conditions

The October 25, U.S. Drought Monitor showed a slight increase in the area of all drought categories. The exceptional drought stands at 15.16 percent of the state. Currently, just under 80% of the state is reported as abnormally dry to exceptional drought. The October 25th map indicates the only area of near normal conditions is along the northwest and west central portions of the State. The November forecast is for warmer and drier than normal conditions for the southern tier counties. La Niña is expected to influence the precipitation patterns through the winter, with drier than normal conditions expected across the Southern Plains.

Palmer Drought Severity Index - The Palmer Index (PDSI) is an indicator used in the U.S. Drought Monitor. The statewide average PDSI for the week ending October 29th was -1.87 (near normal). Divisional PDSI values ranged from -4.07, which translates to extreme drought, in the Southwestern division to 1.28 in the Northwestern division, which corresponds to near normal. In the Southwest division 5.59 inches of precipitation would be needed to bring the conditions back to near normal, while the South Central Division would need 8.75 inches. In the Southeastern division, 9.79 inches would be needed to end the drought. The long-term average during November for the Southwestern division is 0.76 inches; South Central averages 2.15 inches, while the Southeast averages 3.16 inches.

A description of the Drought Monitor process can be found in a separate document under useful links on the KWO drought page.

US Drought Monitor – October 25, 2011



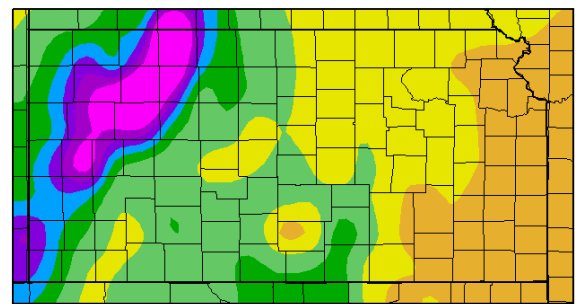
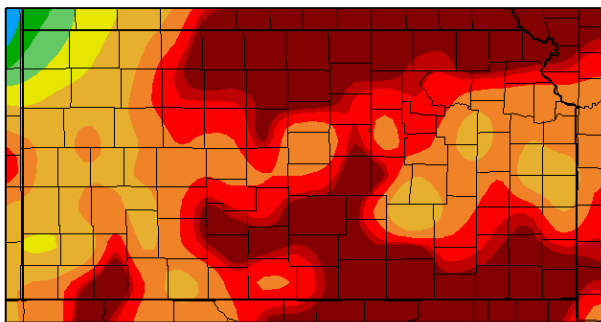
Climate (Precipitation and Temperature)

October was warmer than average, and, dry except in the western third of the state. October ranks as the 19th driest on record (1895-2010) in Kansas with a statewide average total precipitation of 1.16 inches. This is 56 percent of normal. Based on preliminary reports, the greatest total precipitation received in October from the National Weather Service COOP network stations was 7.31 inches at Lenora, Norton County. Greatest for the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) in October was 6.02 inches at Norton 0.4 N, Norton County. On the low end of the NWS reporting stations was Hiawatha (Brown County) with just 0.02 inches. For the CoCoRaHS network, the lowest was recorded at Neodesha 7.4 W, in Wilson County, with 0.04 inches of precipitation.

Recent week’s precipitation:

Precipitation (in)
10/25/2011 – 10/31/2011

Departure from Normal Precipitation (in)
10/3/2011 – 10/9/2011



Generated 11/1/2011 at HPRCC using provisional data.

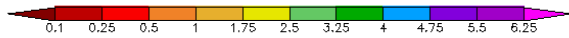
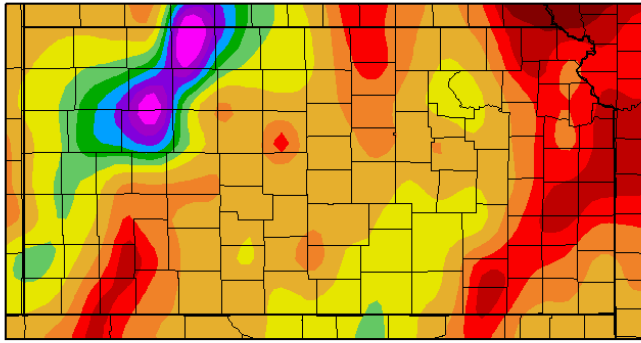
Regional Climate Centers

Generated 10/10/2011 at HPRCC using provisional data.

Regional Climate Centers

October Precipitation: Preliminary statewide average precipitation was 1.16 inches, which was 56% of normal. This makes it the 19th driest October since 1895. The Northwest division was the wettest at an average of 2.62 inches or 218 % of normal. The East Central division averaged 0.63 inches, or 19% of normal, making it the driest of the division. Fourteen days saw no reports of precipitation, and on six days the state-wide average was zero, with only isolated reports of moisture. Heavy rains occurred on October 8th, mainly in the West Central and Northwest divisions, but runoff was limited, and stream flows returned to the low levels quickly. Drought conditions in parts of Northwest and West Central Kansas saw marked improvement.

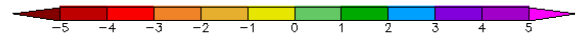
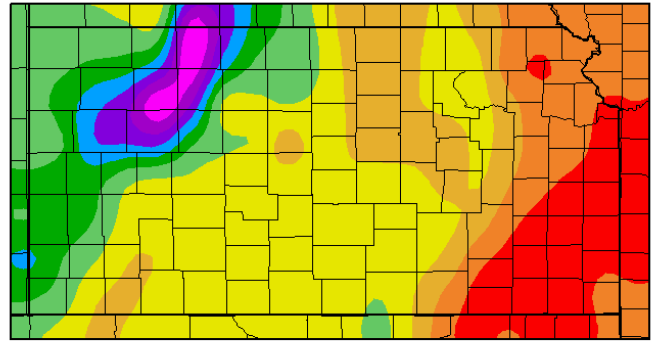
Precipitation (in)
10/1/2011 - 10/31/2011



Generated 11/1/2011 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Precipitation (in)
10/1/2011 - 10/31/2011



Generated 11/1/2011 at HPRCC using provisional data.

Regional Climate Centers

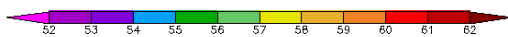
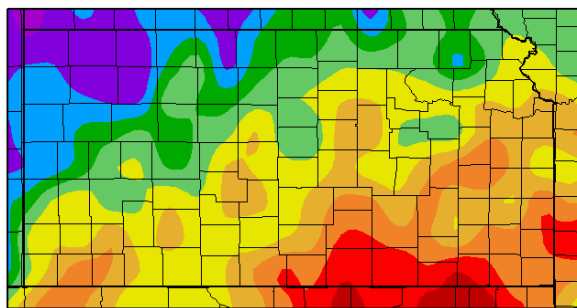
October Temperatures: The state-wide average temperature of 57.2 °F was 0.4 degrees warmer than normal. This marked it as the 53rd warmest October on record for the state, placing it well in the middle range. The Southwestern division was the warmest of the divisions, at 58.0 °F which is 1.0 degree warmer than normal. The Central division, with an average of 57.2 °F was the coolest at -0.1 degrees below normal. The record warmest October average temperature is 65.8 °F set in 1963, while the coolest October was set in 1925 with 46.9 °F. Temperatures exceeded 90 degrees in all divisions except the Southeast. Most of those high temperatures occurred at the beginning of the month. The highest reading was 97 °F, recorded at Ashland (Clark County) on the 4th. Daily record highs were set at 37 locations, and tied at 15 others. On the low temperature side, 17 locations had record high minimums, while 8 locations tied records. The coldest reading for the month was 21 °F at Herington (Dickinson County) on the 20th. Four daily low minimum records were set and 9 records were tied.

The statewide average temperature of 57.2 °F was 0.4 degrees above normal. This was the 53rd warmest October of record (1895-2010) for Kansas. October 1963 was the warmest with a statewide average temperature of 65.8 °F. October 1925 was the coolest with a statewide average temperature of 46.9 °F.

Average monthly temperatures at individual reporting locations ranged from 62.6 °F at Fort Scott (Bourbon County) to 53.2 °F at Oberlin 1E (Decatur County). The highest temperature recorded in Kansas during October was 97 °F at Ashland (Clark County) on the 4th. The coolest reading observed in the state during October was 21 °F at Herington (Dickinson County) on the 20th.

The following maps show average monthly temperature and the departure from normal across Kansas during October.

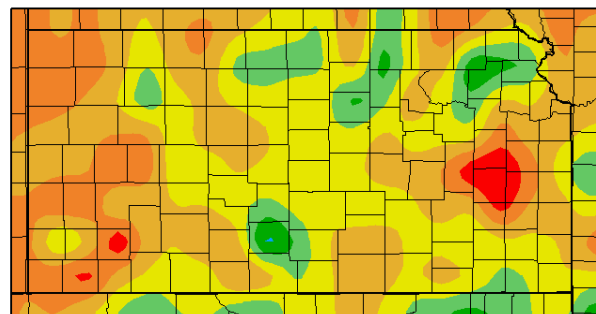
Temperature (F)
10/1/2011 - 10/31/2011



Generated 11/1/2011 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Temperature (F)
10/1/2011 - 10/31/2011



Generated 11/1/2011 at HPRCC using provisional data.

Regional Climate Centers

The table below summarizes the past month's conditions by climate division. Appendix A provides the October summary for principal reporting locations within and adjacent to Kansas. Please note that the data used in compiling is preliminary and comes from different sources. This may result in slight differences in the average or extreme values presented.

Kansas Climate Division Summary October 2011 (inches)										
Climate Division	Precipitation October 1-31			Precipitation January 1 to October 31, 2011			Temperature (°F)		Temperature Monthly Extremes	
	Total	Departure from Normal ¹	% Normal	Total	Departure from Normal ¹	% Normal	Average	Departure from Normal ¹	Maximum	Minimum
Northwest	2.62	1.42	218	16.07	-2.91	85	53.7	0.4	94	22
West Central	2.13	0.98	185	12.95	-5.47	70	55.7	0.8	96	22
Southwest	1.10	-0.03	97	7.88	-10.17	44	58.0	1.0	97	25
North Central	0.97	-0.97	50	20.92	-4.11	84	56.7	0.6	93	22
Central	0.85	-1.43	37	15.31	-11.04	58	57.2	-0.1	93	21
South Central	1.07	-1.17	48	10.82	-14.93	42	58.8	0.0	93	24
Northeast	0.62	-2.36	21	21.81	-10.28	68	56.8	-0.1	93	24
East Central	0.63	-2.64	19	17.68	-15.49	53	58.0	0.5	90	22
Southeast	0.72	-2.84	20	20.49	-13.63	60	59.6	0.3	87	25
STATE	0.92	-1.00	56	15.48	-9.78	60	57.2	0.4	97	21

1. Departure from 1981-2010 normal value
Source: KSU Weather Data Library

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 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 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 must go through the KWO. It may also be possible to obtain water under surplus contracts from State owned storage in certain Corps lakes with water available for purchase. Bureau of Reclamation lake water may also be made available by temporary contract under drought conditions

Local Public Water Supply Status

Barton County: The community of Susank issued notice the week of September 21 for voluntary water conservation. Susank purchases water from the City of Otis (Russell County).

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. Mandatory restrictions are 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.

Douglas County: The City of Lawrence suspended use of Kansas River water on September 9 while investigating blue-green algae in the river water.

Elk County: The City of Howard has initiated voluntary water conservation measures.

Ellsworth County: City of Ellsworth is in phase 1 of the city's water conservation plan which calls for voluntary conservation including limited outdoor watering. City well pumping is limited due to senior water rights (MDS) on the Smoky Hill River at Ellsworth.

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. The City of Madison has also initiated voluntary water conservation measures. The City of Severy has received permission to pump water to the city lake.

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. The Johnson County RWD No. 1 suspended use of Kansas River water while investigating blue-green algae in the river water.

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. The City of Florence is under a voluntary water restriction; the City utilizes a spring and drought has caused them to be cautious.

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

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.

Ottawa County: The City of Tescott is on mandatory water restriction due to declining water levels in their wells.

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

Rice County: City of Lyons implemented a stage 1 water watch which includes voluntary water conservation measures.

Rush County: City of Otis has implemented conservation measures due to declining water levels in their supply wells. Otis also supplies Russell RWD No. 3 and the community of Susank.

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. Russell RWD No. 3 has implemented voluntary water conservation measures.

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. City of Wellington has initiated a water watch for voluntary water conservation due to low flows in the Ninnescah and declines in lake level.

Other Water Supply 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.

In lakes where all state owned water is not under contract, it may be possible to negotiate for an emergency water supply.

As of November 1, 2011:

The reservoirs in the Marais des Cygnes basin (Hillsdale, Melvern and Pomona) are all below conservation pool. Inflows are minimal and releases from conservation storage water quality pools are ongoing. Releases from assurance district storage are not necessary at this time.

The Neosho basin (Marion, Council Grove and John Redmond reservoirs) has had no consistent natural flows in the upper Neosho. Marion has 75%, Council Grove 80% and John Redmond 44% of storage remaining in the conservation pool. Conservation storage releases from all three reservoirs is on-going. The water supply release continues from Council Grove Reservoir for Emporia. Releases continue from John Redmond to meet the needs of the water assurance district members and Wolf Creek power plant. MDS orders remain in effect upstream of Parsons for the Neosho and Cottonwood rivers.

The Smoky Hill basin is experiencing low flow conditions. Kanopolis Reservoir was above conservation pool prior to releases to draw levels down to allow for periodic inspection and is now about one foot below normal pool with a steady decline in elevation. 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.

The Verdigris basin continues to be supported by releases from Elk City, Toronto, and Fall River reservoirs. Conservation storage is necessary to provide flows adequate to meet municipal and industrial demands from the Fall and Verdigris Rivers. There is very little natural flow on the main stem and no inflow to any the reservoirs. The remaining conservation pool storage is as follows: Elk City 68.4%, Toronto 62.5%, Fall River 70%, and Big Hill 90%.



General Reservoir Conditions

Kansas Federal Reservoirs

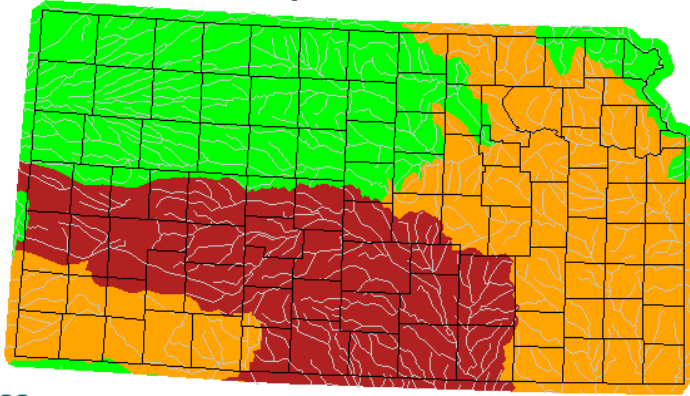
Reservoir	Top of Multipurpose/Conservation Pool (Feet MSL)	Multipurpose/Conservation Pool Elevation (Feet MSL)	Change from Top of Pool (Feet)
Kansas River Basin		10/31/2011	
Norton ¹	2304.3	2298.07	-6.23
Harlan County, NE	1946	1946.14	0.14
Lovewell ¹	1582.6	1580.65	-1.95
Milford ¹	1144.4	1144.58	0.18
Cedar Bluff	2144	2126.55	-17.45
Kanopolis ¹	1463	1462.07	-0.93
Wilson ¹	1516	1515.41	-0.59
Webster ¹	1892.5	1886.55	-5.95
Kirwin ¹	1729.3	1729.11	-0.19
Waconda ¹	1455.6	1454.57	-1.03
Tuttle Creek ¹	1075	1080.28	5.28
Perry ¹	891.5	893.27	1.77
Clinton ¹	875.5	872.99	-2.51
Melvern ¹	1036	1033.69	-2.31
Pomona ¹	974	972.49	-1.51
Hillsdale ¹	917	914.81	-2.19
Arkansas River Basin			
Cheney	1421.6	1416.9	-4.70
El Dorado	1339	1335.18	-3.82
Toronto ¹	901.5	899.77	-1.73
Fall River ¹	948.5	946.42	-2.08
Elk City ¹	796	792.29	-3.71
Big Hill	858	855.68	-2.32
Council Grove ¹	1274	1270.86	-3.14
Marion ¹	1350.5	1347.18	-3.32
John Redmond ¹	1039	1035.39	-3.61
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) issues a [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 November 1st are warnings for Logan City Lake (Phillips County), and Memorial Park Lake, Great Bend (Barton County). Warnock Lake (Atchison County) has been removed for any warning or advisory.

Streamflow Conditions

Monday, October 31, 2011



Historical Stream Flow Compared to Year

Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	



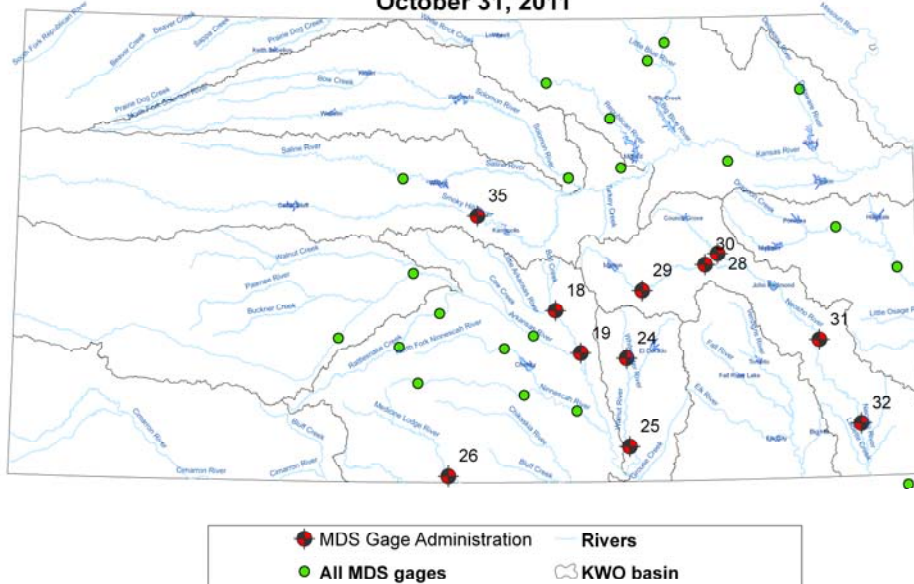
USGS seven day average stream flow compared to normal flow values recorded for the all days of the year during all years measurements have been collected. In general, a streamflow which is greater than the 75 percentile is considered *above normal*, a streamflow which is between 25 and 75 percentiles 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 comparison of steam flow for the October 31 to historical flows for all days of the year is shown on the map above. Below normal flows are indicated in much more of the state.

Water Right Administration/Minimum Desirable Streamflow (MDS)

The map below shows the MDS gages related to Department of Agriculture, Divison of Water Resouces water right administration at this time. The table below shows the gage name for the location on the map where administration is occuring, as well as providing flows in cubic feet per second (cfs) at selected gaging stations as of October 27 for streams where MDS is of interest.

Kansas Minimum Desirable Streamflow (MDS) Gages Administration
October 31, 2011



Streamflows on October 27, 2011 in cfs

Gaging Station	Current Flow (CFS)	October MDS (CFS)	November MDS (CFS)	ADMIN	Map Location #
Republican River at Concordia	195	65	80		
Republican River at Clay Center	227	90	100		
Smoky Hill River at Ellsworth	11	15	20	9/14/11	35
Saline River near Russell	24	5	5		
Mill Creek near Paxico	7	2	5		
Little Arkansas River at Alta Mills	Dry	8	8	5/12/11	18
Little Arkansas River at Valley Center	7	20	20	7/13/11	19
North Fork Ninescah River above Cheney	25	10	40		20
South Fork Ninescah River near Pratt	5	5	10	NA	
South Fork Ninescah River near Murdock	91	50	80		22
Ninescah River near Peck	66	50	100	lifted	23
Whitewater River near Towanda	5.2	5	6	05/13/11	24
Walnut River at Winfield	22	20	20	05/13/11	25
Medicine Lodge River near Kiowa	13	4	40	06/23/11	26
Neosho River near Americus	30	10	10	08/06/11	28
Cottonwood River near Florence	31	10		08/06/11	29
Cottonwood River near Plymouth	29	20	20	08/06/11	30
Neosho River near Iola	20	40	40	08/06/11	31
Neosho River near Parsons	9.5	50	50	08/06/11	32

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 affect for 26 water rights/permits.

Medicine Lodge River: The orders for two water rights/permits remain in effect. The flow has been above MDS since October 17 and is rising slightly. It appears likely that the flow will remain above MDS through October 31, but the MDS value for November is significantly higher than the value for October and the flow will likely be below the November MDS value on November 1.

Mill Creek (Wabaunsee County): Flow has generally been holding between 6 and 7 cfs for the week.

Neosho/Cottonwood River: Orders remain in effect for 160 water rights/permits in both the Neosho and Cottonwood basins.

Ninescah River: MDS orders under 12 water rights/permits were lifted on Tuesday, October 25, ceasing MDS administration. MDS values for November are higher and unless flow conditions improve, it may be necessary to initiate MDS administration again.

Saline River: Orders were issued under seven water rights/permits on Tuesday, October 11, with an effective date to cease diversion of Thursday, October 13. Flow has been above MDS since October 14 and it appears the MDS orders will be lifted early next week.

Smoky Hill River: Orders remain in effect requiring cessation of diversion under 3 water rights.

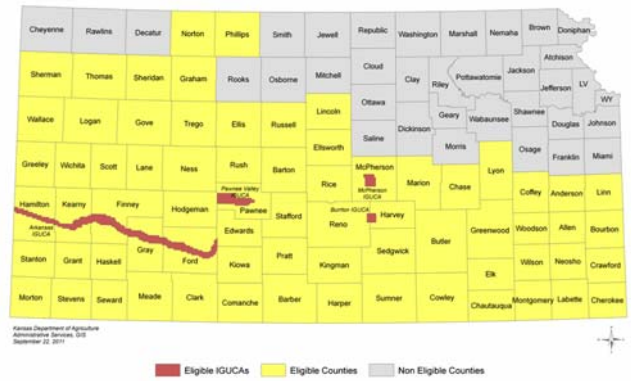
Walnut/Whitewater: Orders remain in effect for 61 water rights/permits above the Towanda gage. Flow at Winfield is currently hovering just at or slightly above MDS.

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.

Water Right Term Permit Opportunity

A 2011 Drought Emergency Term Permit is available from Kansas Department of Agriculture, Division of Water Resources (KDA-DWR) 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 for irrigation in order to complete the 2011 growing season. In general, 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. Three qualifying IGUCAs are 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.

Areas Eligible for 2011 Drought Emergency Term Permit

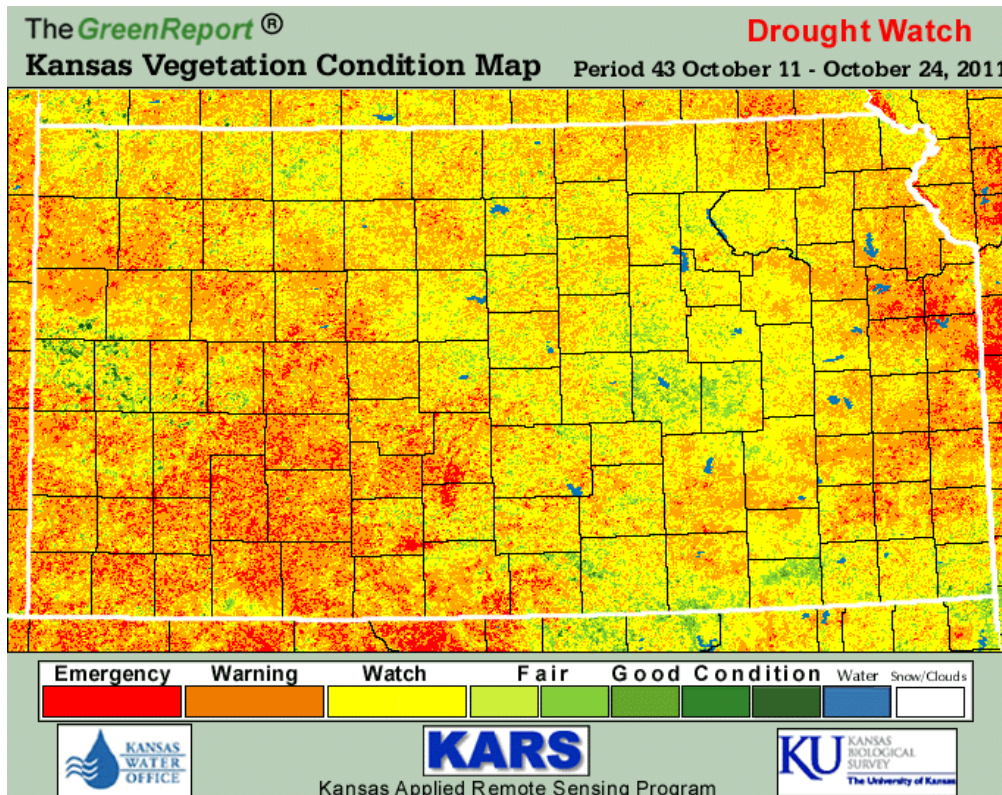


Burn Bans and Fires

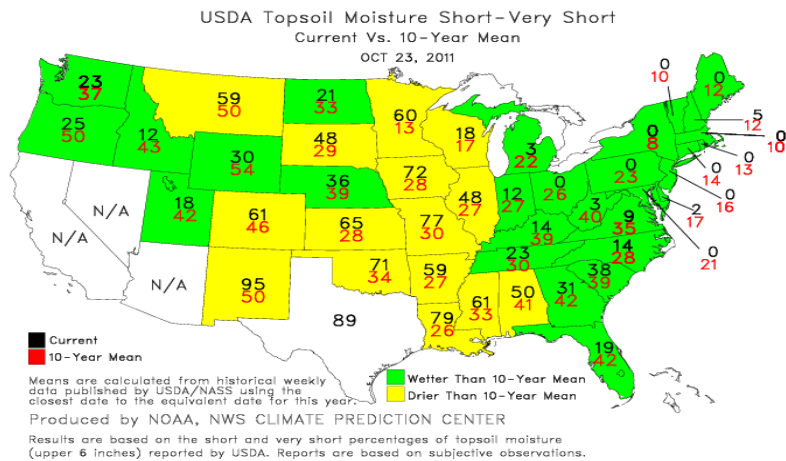
Most counties require permits prior to a burn and are controlling burns through that process. A county issues a ban as they deem necessary at any time, for a specific time period or until repealed. Dry conditions in much of Kansas allow fires to start or spread easily. Please contact your county officials before you burn. Conditions continue that allow fires to start easily. The National Weather Service has issued Fire Weather/Red Flag Warnings for many Kansas areas each day due to critical fire weather conditions. Outlooks change daily. See <http://www.spc.noaa.gov/fire/> for current information.

Most recently Douglas and Johnson counties and the cities of Overland Park and Olathe have imposed outdoor burning restrictions.

Kansas Vegetative Conditions



Crops, Feed and Livestock



For the week ending October 31st, USDA reports topsoil moisture supplies declined for another week to 35 percent very short, 35 percent short, 29 percent adequate, and 1 percent surplus. Subsoil moisture supplies were rated 43 percent very short, 32 percent short, and 25 percent adequate.

The range and pasture condition was reported at 37 percent very poor, 27 percent poor, 22 percent fair, 13 percent good, and 1 percent excellent. Feed grain supplies in Kansas were rated at 11 percent very short, 19 percent short, 66 percent adequate, and 4 percent surplus. Hay and forage supplies were rated at 28 percent very short, 31 percent short, 38 percent adequate, and

3 percent surplus. The stock water supplies were 31 percent very short, 21 percent short, 47 percent adequate, and 1 percent surplus. Some producers reported increased concerns about the low stock water supplies as the historically dry months of winter draw near.

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 Farm Services Agency (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.

The following counties are approved for emergency haying by FSA: 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 Counties.

Counties approved for emergency grazing include: Barber, Barton, Butler, Chase, Chautauqua, Cherokee, Clark, Comanche, Cowley, Edwards, Elk, Ellis, Ellsworth, Finney, Ford, Gove, Graham, Grant, Gray, Greeley, Greenwood, Hamilton, Harper, Harvey, Haskell, Hodgeman, Kearny, Kingman, Kiowa, Labette, Lane, Logan, Lyon, Marion, McPherson, Meade, Montgomery, Morris, Morton, Neosho, Ness, Pawnee, Pratt, Reno, Rice, Scott, Sedgwick, Seward, Stafford, Stanton, Stevens, Sumner, Trego, Wallace, Wichita, Wilson and Woodson.

Emergency haying was allowed to September 30. Emergency grazing in approved counties, normally allowed through September 30, was extended to October 31, 2011. 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. Forage sorghum, pasture and small grain programs are available under LFP, eligibility varies.

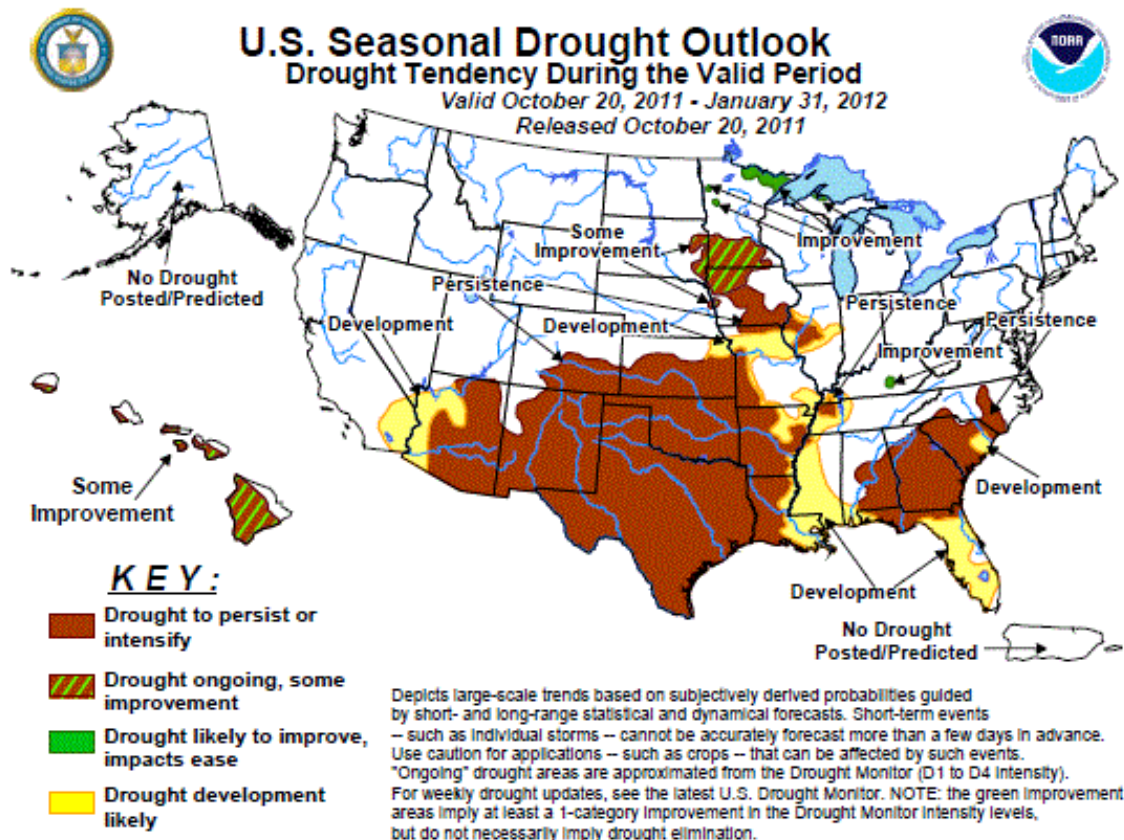
As of October 4, 52 Kansas counties were eligible for the forage sorghum LFP; 58 Kansas counties were eligible for the pasture and hay LFP; and ten counties were eligible for the LFP Long Season Small Grains program. Current maps of program eligibility can be found at: <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=diap&topic=lfp>

An executive order was signed by the Governor July 27 suspending certain motor carrier rules and regulations for people hauling hay to livestock. Additional measures were added by an executive order on October 6, 2011. 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.

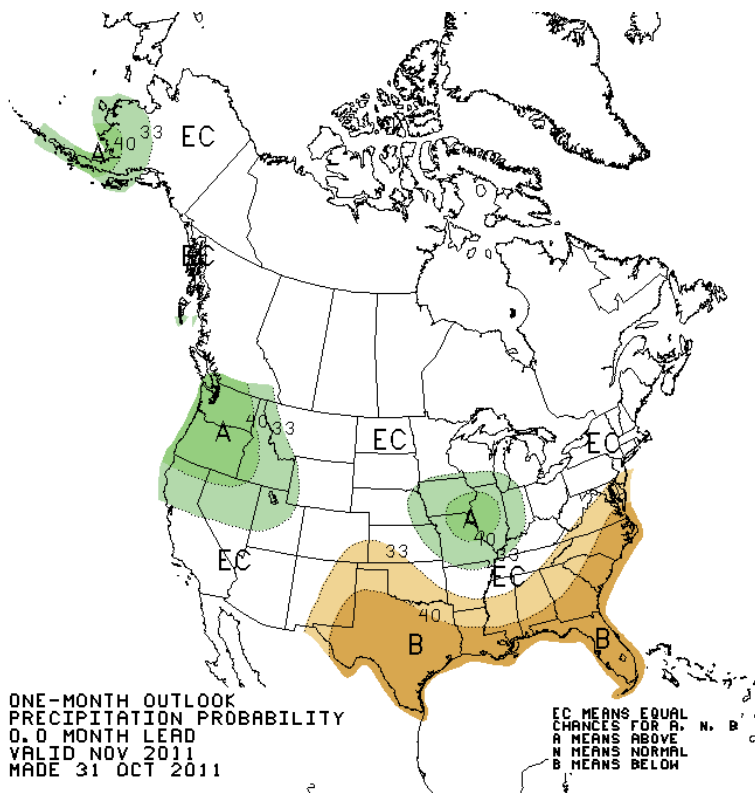
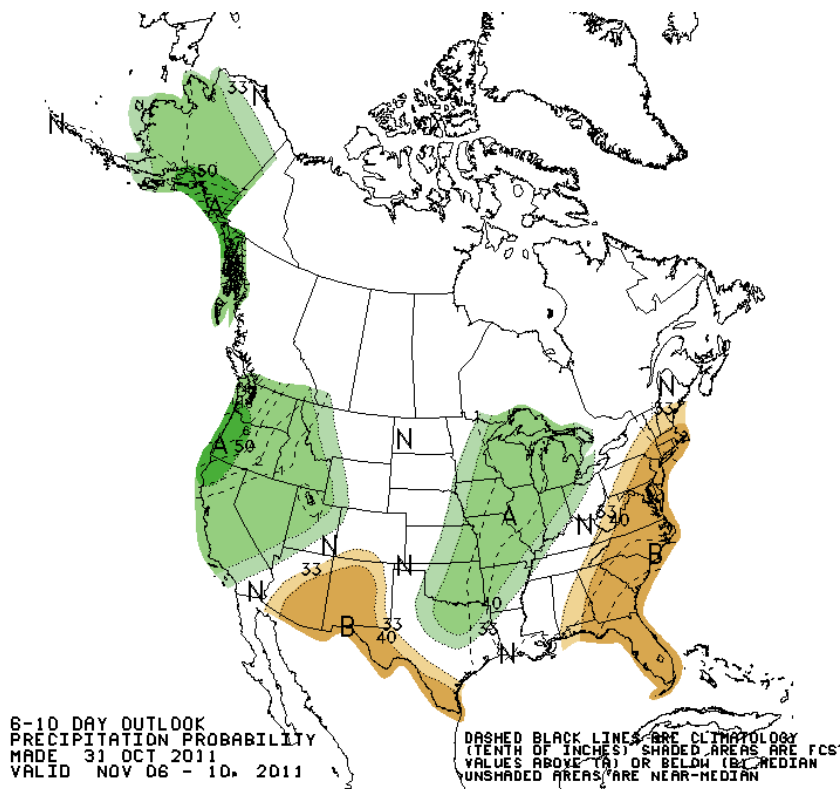
USDA Risk Management Agency provides information on crop insurance and drought damaged crops can be found at http://www.rma.usda.gov/fields/ks_rso/2011/droughtfaq.pdf.

Future Outlook

The National Weather Service drought outlook for October 20, 2011 through January 2012 reflects forecasts and outlooks for periods ranging from the next few days to the next few months, La Nina composites for that time periods and related events. Across the southern tier of states and in the central Plains, drought is expected to persist and expand into adjacent areas. There is a high confidence forecast for far normal than drier conditions, with the exception of a 6-10 day period of wetness in Colorado and northern New Mexico.



NOAA precipitation outlook for the next 10 days and month:



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](http://www.kwo.org), 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

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.

The [High Plains Regional Climate Center](#) provides precipitation and temperature summary maps.

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.

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.

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.

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://vegdiri.unl.edu/>

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](#).

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. Also see:

<http://www.ncdc.noaa.gov/oa/climate/research/dm/weekly-dm-animations.html>

[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.

[USDA has programs for agricultural](#) producers and businesses for drought affected areas. In some cases a eligibility is dependent on a federal disaster declaration but other programs are triggered by specific conditions.

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.

Appendix A

October Climate Summary							
Station ¹	Precipitation (inches)			Temperature °F			
	Total	Departure	Percent Normal			Extreme (Date)	
				Mean	Departure	Highest	Lowest
West							
Burlington, CO	0.78	-0.34	70%	52.1	1.0	89 (3)	15 (27)
Dodge City	1.13	-0.57	66%	58.2	1.4	95 (3)	30 (27)
Garden City	0.47	-0.78	38%	57.6	1.9	94 (3)	28 (28)
Goodland	2.16	0.82	161%	54.2	2.2	90 (3)	22 (27)
Guymon, OK	0.64	-0.91	41%	59.8	2.3	93 (3,2)	31 (28)
Hill City	2.26	0.77	152%	56.5	2.2	96 (3)	26 (28)
Lamar, CO	0.20	-0.58	26%	54.2	1.1	93 (3,2)	20 (28)
McCook, NE	1.37	-0.37	79%	54.3	2.8	93(4,3)	22 (29)
Springfield, CO	0.39	-0.95	29%	55.3	1.2	91 (2)	21 (27)
Central							
Concordia	0.39	-1.48	21%	58.0	2.3	90 (4)	22 (20)
Hebron, NE	0.39	-1.77	18%	56.9	3.4	91 (4)	22 (20)
Medicine Lodge	2.15	-0.61	78%	59.9	1.0	91 (3)	27 (28)
Ponca City, OK	1.32	-1.97	40%	61.2	0.9	87 (4)	26 (20)
Salina	0.82	-1.4	37%	58.6	0.8	90 (4)	25 (28)
Wichita (ICT)	1.83	-0.88	68%	60.4	1.9	90 (4,3)	28 (20)
East							
Bartlesville, OK	0.75	-2.61	22%	60.5	0.9	90 (16)	24 (20)
Chanute	0.31	-3.26	9%	59.8	1.4	87 (25)	25 (20)
Fall City, NE	0.12	-2.45	5%	56.7	1.9	89 (4)	25 (28,21)
Johnson Co. Exec. Apt	0.09	-3.27	3%	58.7	1.6	85 (4)	30 (20)
Joplin, MO	0.67	-3.23	17%	60.2	0.2	87 (16)	28 (20)
Kansas City (MCI), MO	0.22	-2.86	7%	58.6	2.1	87 (4)	28 (21)
St. Joseph, MO	0.12	-2.62	4%	57.0	2.1	87 (4)	26 (29,21)
Topeka (TOP)	0.43	-2.52	15%	58.8	2.0	90 (4)	26 (28)

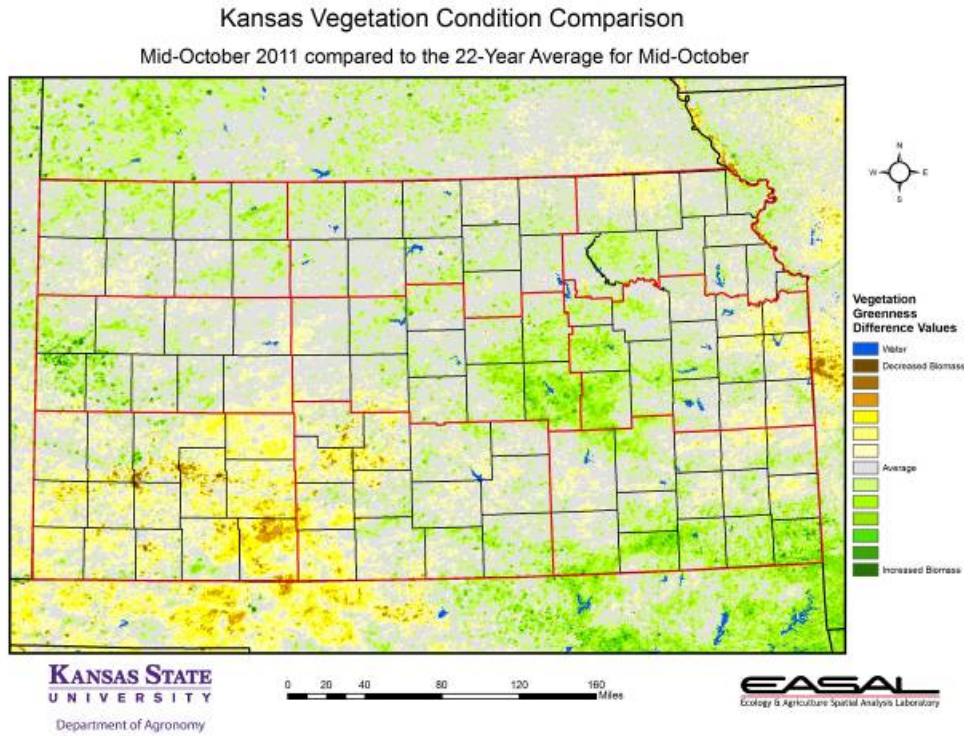
1. Airport Automated Observation Stations (NWS/FAA)

2. Departure from 1981-2010 normal value

T - Trace; M - Missing; --- no normal value from which to calculate departure or percent of normal

Source: National Weather Service F-6 Climate Summaries

Appendix B



Map: Compared to the 22-year average at this time for Kansas, this year's Vegetation Condition Report for October 11 – 24 from K-State's Ecology and Agriculture Spatial Analysis Laboratory shows that there was a quick response to the available moisture in Central and West Central KS. There was also some continuing biomass production in extreme Southeastern KS, where early October rainfall heaviest.