

Proposed Flex Account Changes

Division of Water Resources
Kansas Department of Agriculture



Proposed Flex Account Changes

Producers could choose from three options for a 5-year flex account providing multi-year flexibility without increasing long-term water use

1. Average Historic Water Use (2000 to 2009)
 - Current system without a 10% conservation factor
2. County Net Irrigation Requirement (NIR) for the maximum acres reported irrigated (2000 to 2009)
 - $\text{Max Reported Acres} \times \text{NIR} \times 110\%$
3. A system promulgated by the Groundwater Management Districts
 - Must be accepted by the chief engineer



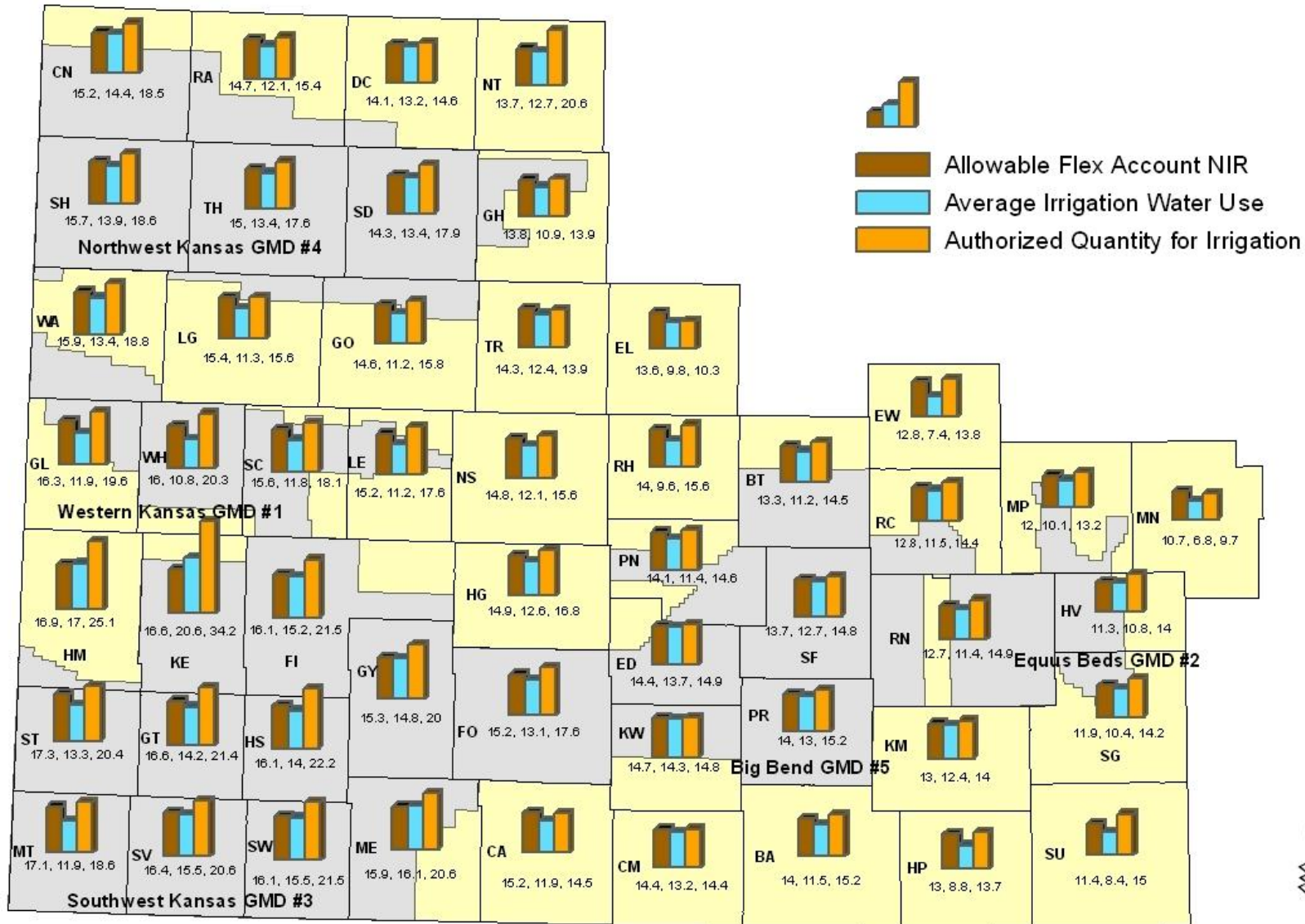
Typical MYFA based on 130 acres and County NIR

- Finney County: 872 acre-feet
 - (5 years x 130 acres x **16.1 inches** / 12 inches)
- Pratt County: 758 acre-feet
 - (5 years x 130 acres x **14.0 inches** / 12 inches)
- Thomas County: 812 acre-feet
 - (5 years x 130 acres x **15.0 inches** / 12 inches)

Drought Term → MYFA?

- Those with drought emergency term permits will be allowed to convert their drought emergency permit to a multi-year flex account if they also agree to reduce the 5-year flex account by the amount of the 2011 overuse
- Offers producers greater flexibility in compensating for their 2011 water use overage over the next 5 years

Comparison of Proposed Allowable Flex Account NIR to Authorized Quantity and 2000-2009 Average Irrigation Water Use per County



Values are in Acre-Inches per Acre
 Allowable Flex Account NIR = 50% Chance Rainfall NIR with 90% Efficiency Factor



Kansas Department of Agriculture
 Division of Water Resources
 Basin Management Team
 October 6, 2011

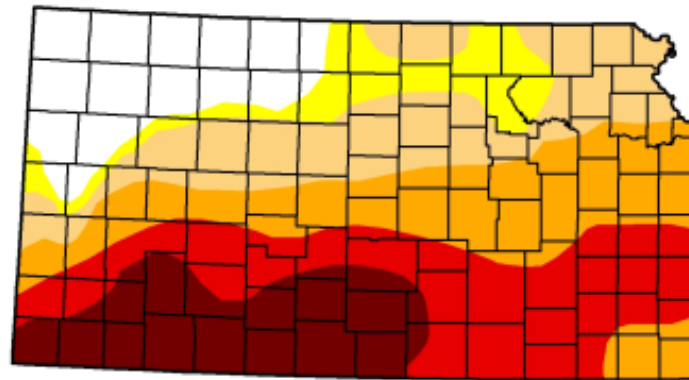
Severe Drought of 2011

U.S. Drought Monitor Kansas

November 1, 2011
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	14.39	85.61	77.39	58.19	36.82	15.16
Last Week (10/25/2011 map)	20.45	79.55	66.24	54.87	34.06	15.16
3 Months Ago (08/02/2011 map)	24.54	75.46	66.43	44.81	22.66	14.55
Start of Calendar Year (12/28/2010 map)	17.82	82.18	43.85	3.48	0.00	0.00
Start of Water Year (09/27/2011 map)	16.39	83.61	66.03	48.78	28.54	17.63
One Year Ago (10/26/2010 map)	73.28	26.72	0.00	0.00	0.00	0.00



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, November 3, 2011
Brian Fuchs, National Drought Mitigation Center

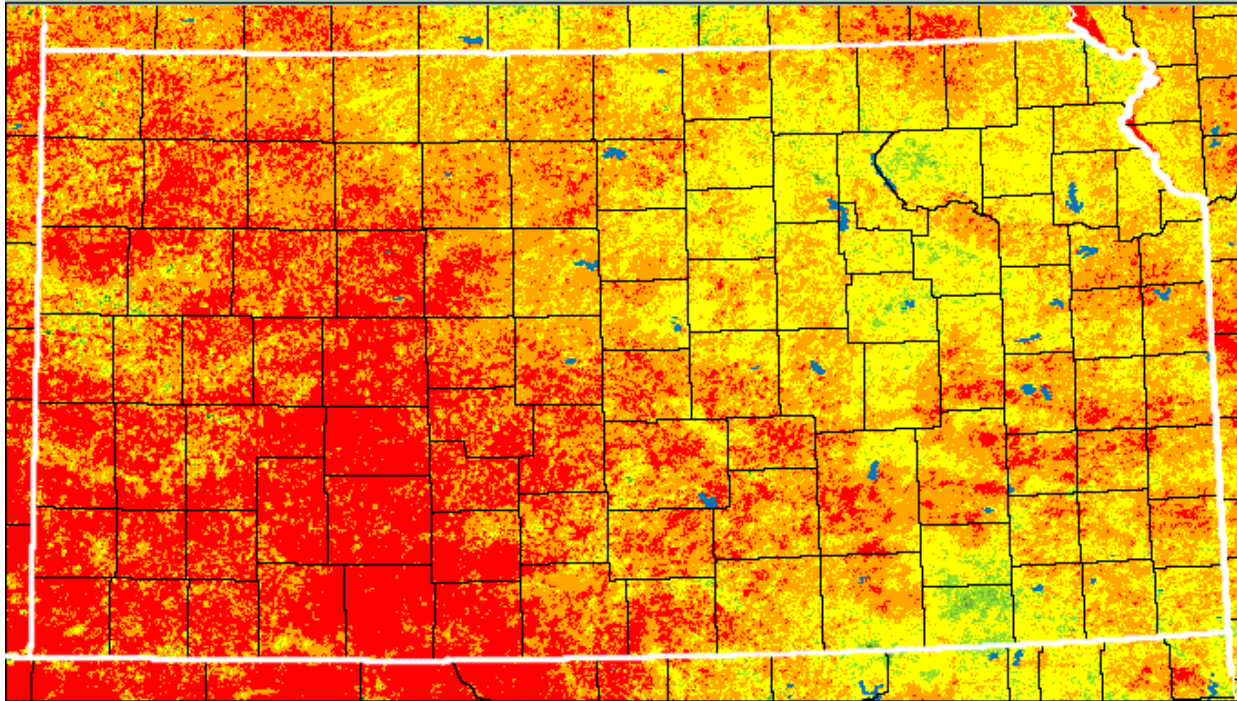


Severe Drought of 2011

The *GreenReport*®

Drought Watch

Kansas Vegetation Condition Map Period 41 September 27 - October 10, 2011



Emergency Warning Watch Fair Good Condition Water Snow/Clouds



KARS

Kansas Applied Remote Sensing Program



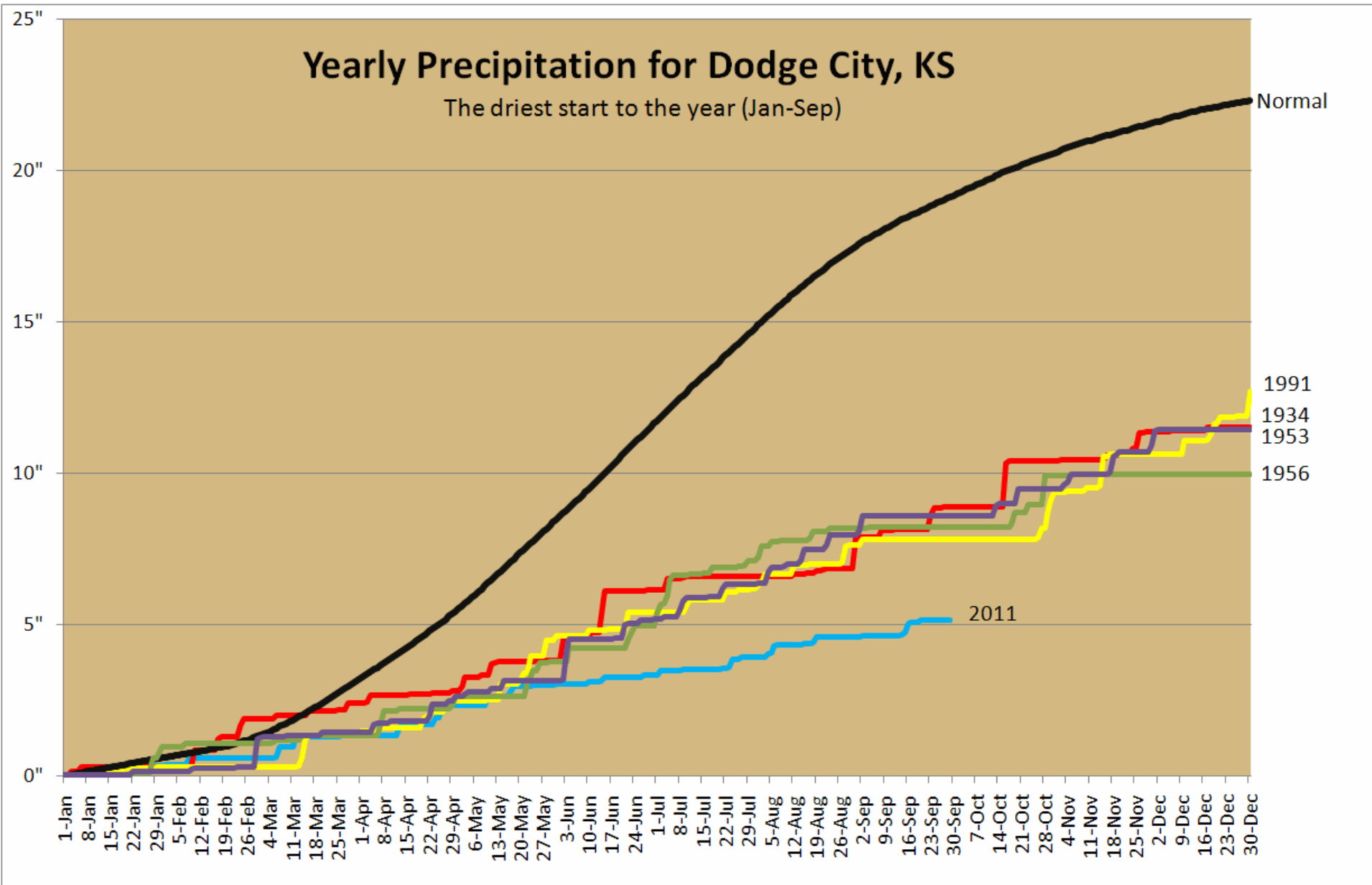
“This is the worst map I have ever seen.”

John Lomas
Research Analyst
Kansas Applied Remote Sensing Program

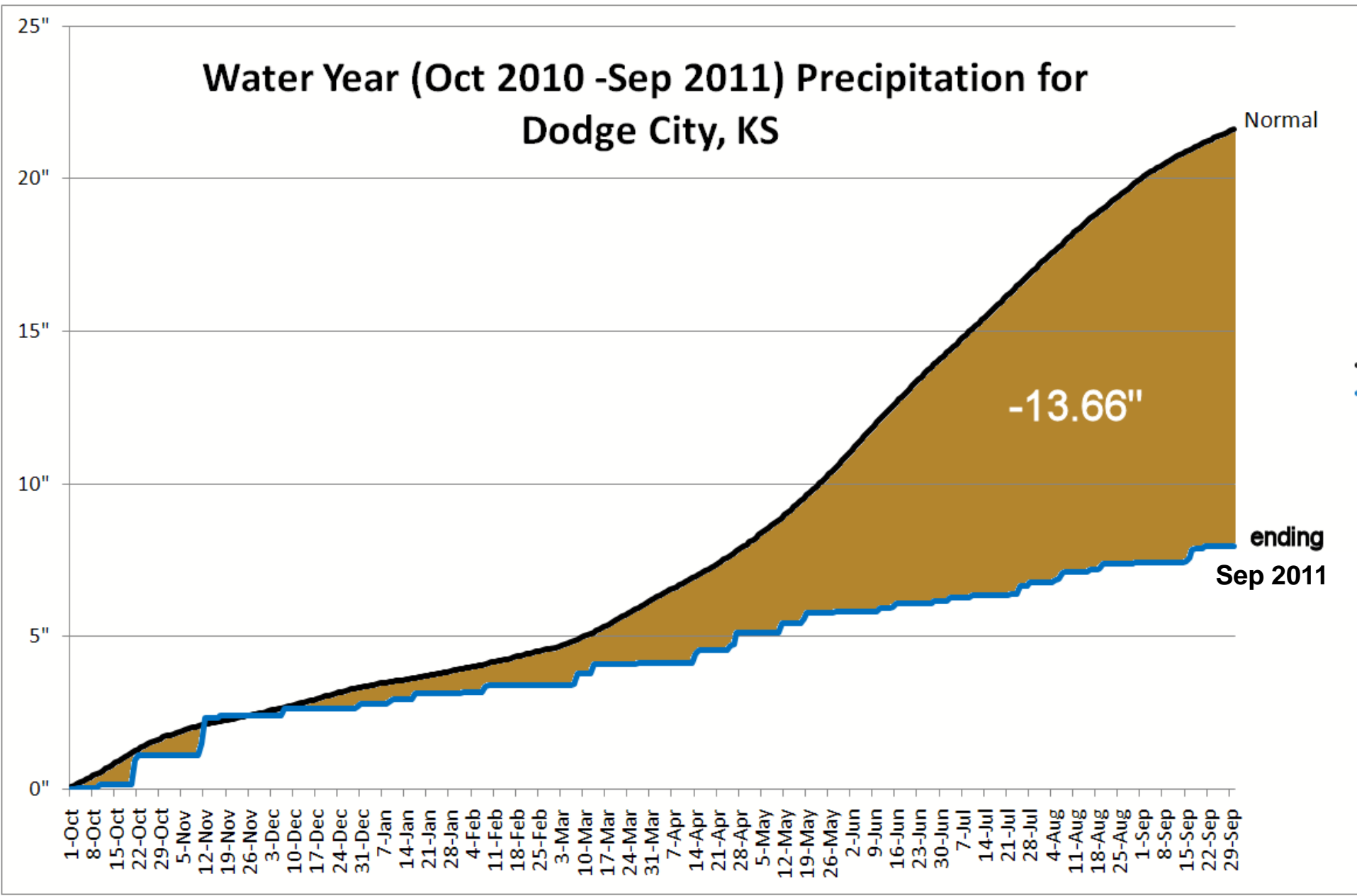


Yearly Precipitation for Dodge City, KS

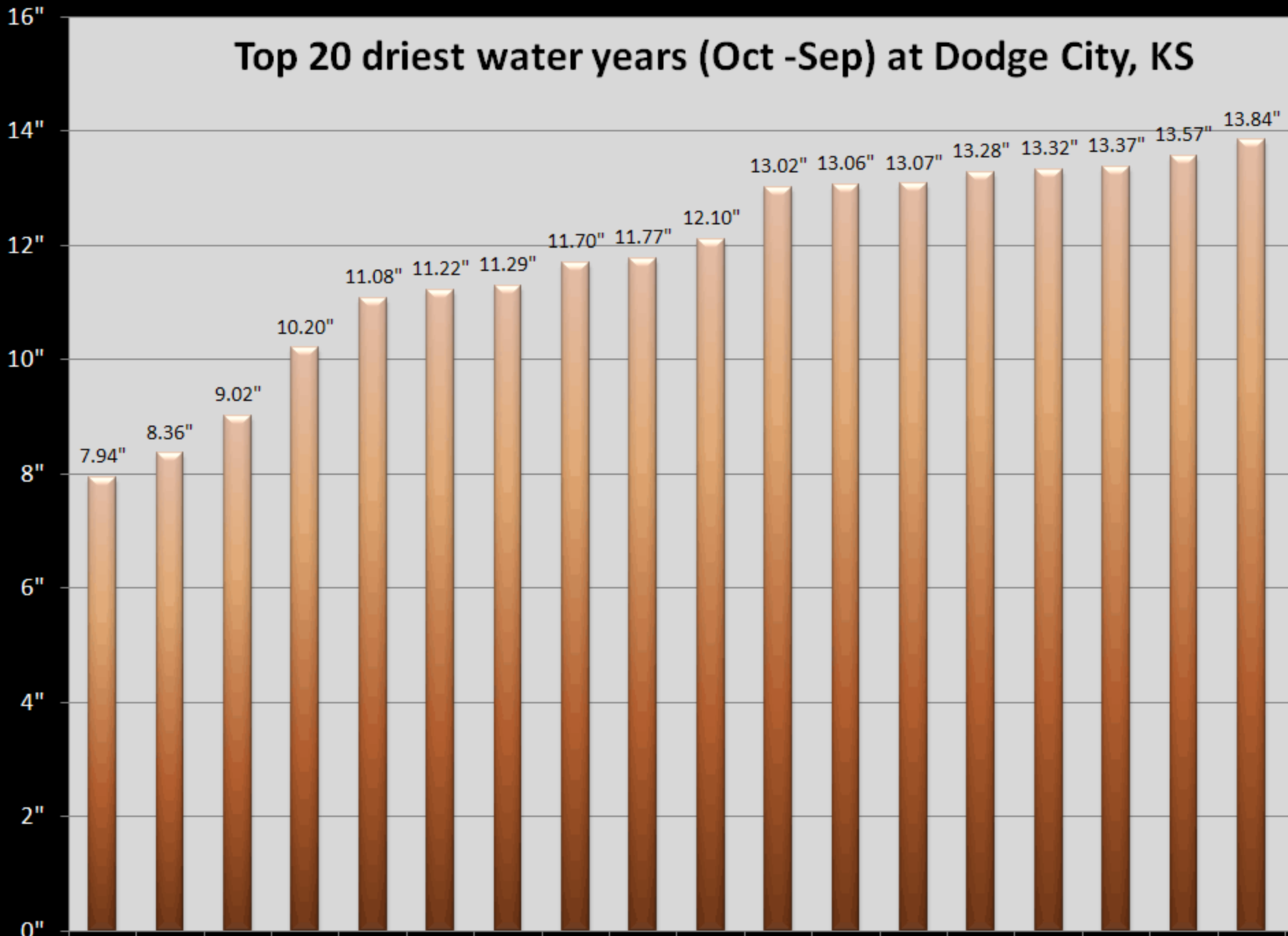
The driest start to the year (Jan-Sep)



Water Year (Oct 2010 -Sep 2011) Precipitation for Dodge City, KS



Top 20 driest water years (Oct -Sep) at Dodge City, KS



2011 1956 1991 1953 1875 2002 1934 1939 1893 1894 1937 1876 1963 1917 1954 1913 1970 1890

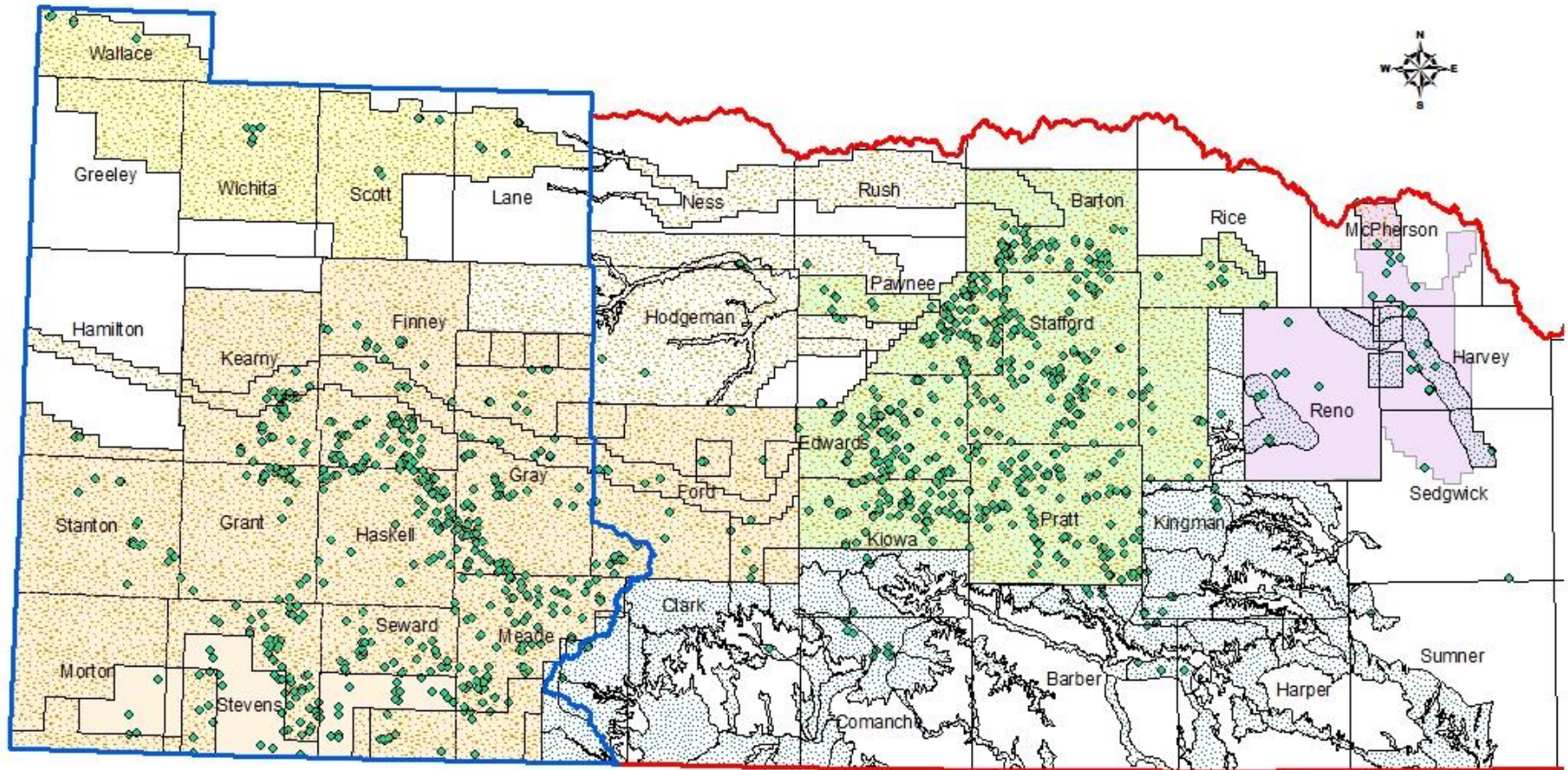
Drought Emergency Term Permits

The Chief Engineer offered a one-time sign up for Drought Emergency Term Permits.










- In short these emergency permits suspend your base water right and give a term permit equal to you base quantity x 2. IE 100 Af= 200Af
- For use in 2011 and 2012
- Base Right Is Suspended
- Applications must be filed by December 31, 2011



Drought Term Permits within Southwestern and South Central Kansas Closed and Restricted Areas as of November 9, 2011



542 Drought Terms in Garden City Field Office
598 Drought Terms in Stafford Field Office

-  Drought Term Permits
-  Garden City Field Office
-  Stafford Field Office
-  Closed
-  Restricted
-  GMD 1
-  GMD 2
-  GMD 3
-  GMD 5



Kansas Department of Agriculture
Division of Water Resources
Basin Management Team
November 9, 2011

U.S. Winter Outlook

PRECIPITATION



WETTER

>50%

>40%

>40%

>33%

>33%

>40%

DRIER

>40%

>33%

>40%

>50%

>50%

DRIER

EQUAL CHANCES

EQUAL CHANCES

>33%

DRIER

EQUAL CHANCES

EQUAL CHANCES

PRECIPITATION PROBABILITY
DEC 2011 — FEB 2012

“The return of La Niña elevates the chances for persistence across most of the exceptional drought areas of the southern Plains.”

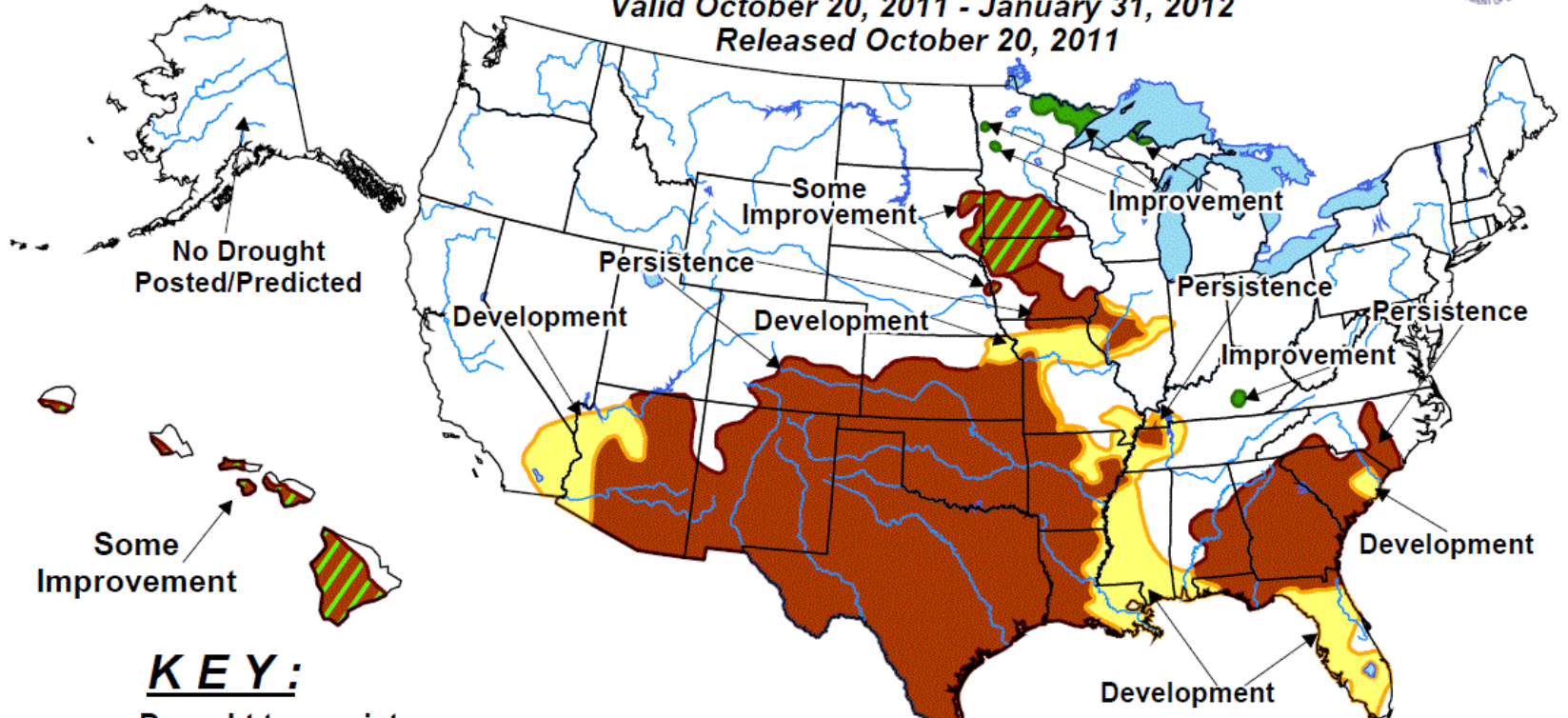


U.S. Seasonal Drought Outlook





Drought Tendency During the Valid Period

Valid October 20, 2011 - January 31, 2012

Released October 20, 2011



KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

Existing Multi-Year Flex Account

- Average Water Use From 2000 to 2009 x 5
- Requires 10% conservation factor
- Example:
 - Average Use 2000-2009 = 100 AF
 - $100 \times 5 = 500$ AF
 - $500 \text{ AF} \times 10\% \text{ conservation factor} = 50 \text{ AF}$
 - $500 \text{ AF} - 50 \text{ AF} = 450 \text{ AF}$
 - 5 year allocation = 450 AF
- If significant water conservation measures were implemented during the period from 2000 to 2009 we can consider years prior to implementation.
- Base water right is suspended