



# *The Weather Wire*

**September 2011**

**Volume 18 Number 9**

## **Contents:**

- **Fall/Winter Preview**
- **Drought Monitor**
- **August Summary/Statistics**
- **September Preview**
- **Sunrise/Sunset**
- **Precipitation Totals**

## **Fall/Winter Preview**

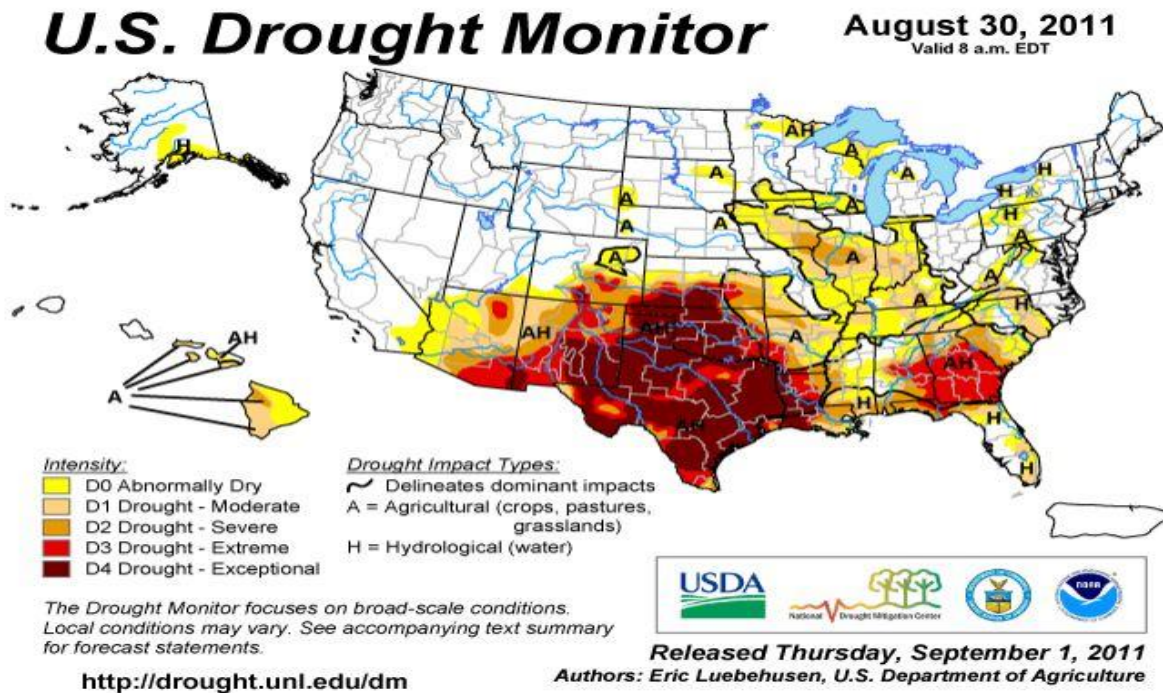
After last winter and the lack of snow for the eastern parts of Colorado many people are already asking about what to expect this snow season... and they should be as the first snow could be later this month for some areas of the state. We all hear about how La Nina and El Nino play a role in our winter weather pattern and as of right now we are El Nino/La Nina neutral. Signs are pointing to a weak La Nina developing this winter compared to one of the stronger La Nina's in recent years last winter season. This near neutral or weak La Nina snow season will likely bring normal to slightly above normal snowfall to the central and northern mountains of the state with near normal to below normal snow to the Sangre de Cristos and San Juan mountains. In eastern Colorado including Denver from the Palmer Divide northward near normal snowfall or slightly below normal snowfall is expected with below normal snow once again for areas of the state from Colorado Springs southward to the New Mexico border.

A moderate to strong northern jet stream will likely result in frequent cold fronts originating from Canada bringing upslope flow to the Front Range. Without rich gulf moisture being brought up from the south storms will generally produce light 1-3" and moderate 3-6" storms. There will always be a chance for early and late season snow storms which typically bring some of the heaviest snowfall totals of the year. Unlike last year when many Front Range cities waited until the last week of November for their first significant snow we will likely see some snow in October and maybe in the foothills later this month as cold fronts become more frequent. The strong northern branch of the jet stream will carry down air from Canada resulting in arctic outbreaks that could last 3-5 days or more before temperatures become more normal. The early part of the snow season including September and October will likely be above normal in temperatures and below normal in precipitation. By the time November, December and January comes around temperatures will likely be near normal to slightly below normal with near normal precipitation northern areas and below normal precipitation continuing southern parts of the state. In a nutshell we will have much more snow than last winter but not a

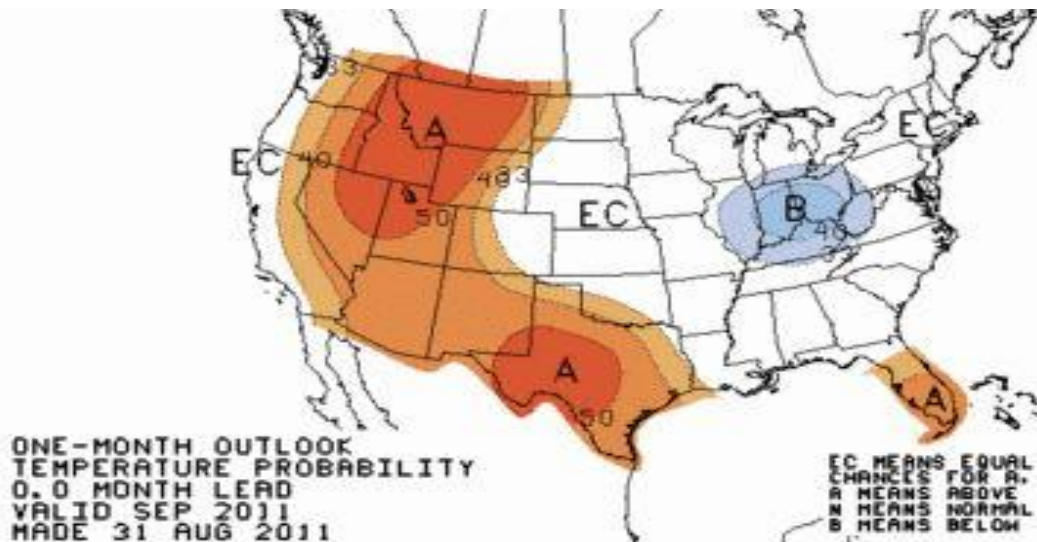
record breaker by any means with most areas in and around Denver through Fort Collins experiencing near normal snowfall through April.

## Drought Update

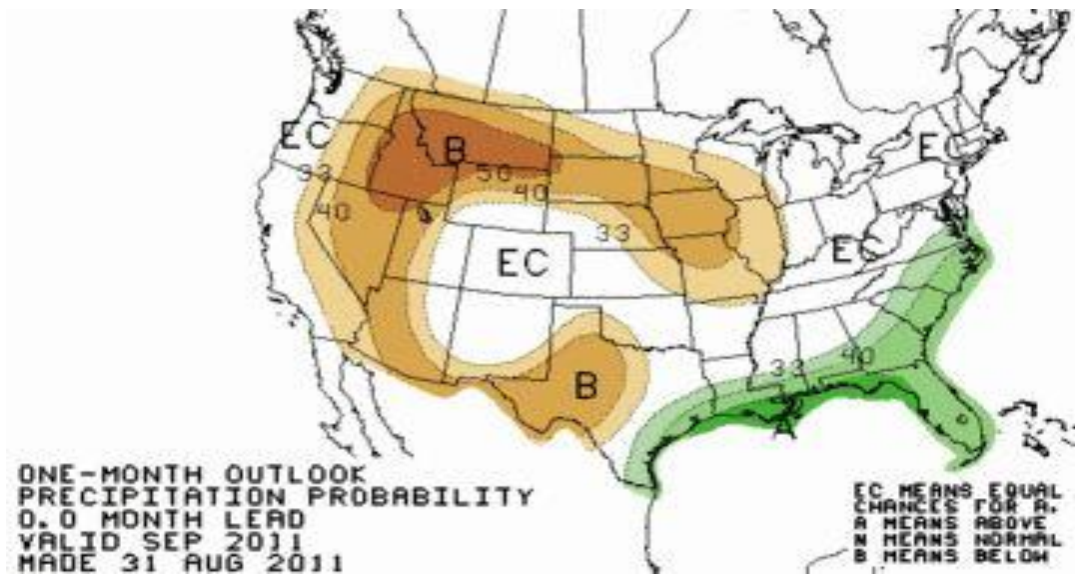
After a wet July, August produced below normal precipitation for much of Colorado with drought re-developing over the northeastern plains. The San Luis Valley in southern Colorado and southeastern parts of the state from Colorado Springs through Trinidad extending eastward continue to have severe to extreme drought.



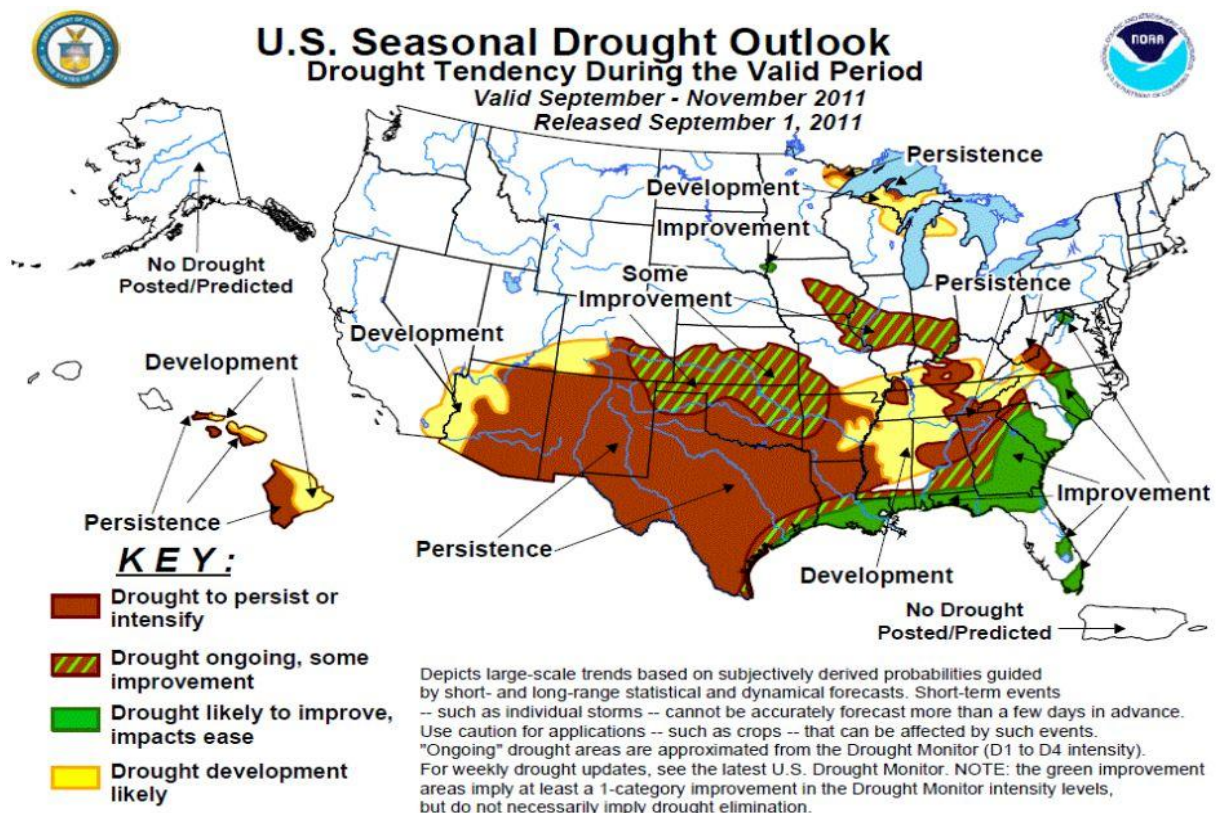
The map below shows forecasted temperature deviances for September 2011. Above normal temperatures are expected over western and southern parts of the state with near normal temperatures over the northeastern plains according to the Drought Monitor. However, Skyview Weather suspects that the above normal temperatures will continue over the northeastern plains as well.



The map below shows forecasted precipitation deviances for September 2011. Near normal precipitation amounts are expected across most of Colorado by the drought monitor but Skyview Weather believes below normal precipitation will be common for many areas of the state this month.



Drought conditions are likely to develop over southwestern parts of the state such as the San Juan Mountains with persistent and intensifying drought over southern and southeastern Colorado. Northern areas of the state have fared better this summer with precipitation but areas of drought may start develop over the northeastern plains as below normal precipitation is expected over much of the state this month.



## August Summary

August of 2011 was hot and dry. There were 22 days during the month with a high temperature of 90 degrees or greater with 8 new temperature records tied or broken. This summer Denver did not record a 100 degree day including August but this was the warmest August on record with a mean temperatures of 77 degrees compared to 72.5 on average. There were multiple 99 degree days. After a very wet July, August was quite dry with only 0.30" reported at DIA. Even though there were 12 thunderstorm days only a few produced precipitation greater than a trace.

## August Stats

### TEMPERATURE (IN DEGREES F)

AVERAGE MAX	92.7	NORMAL 87.2	DEPARTURE 5.5
AVERAGE MIN	61.3	NORMAL 57.9	DEPARTURE 3.4
MONTHLY MEAN	77.0	NORMAL 72.5	DEPARTURE 4.5
HIGHEST	99 on the 25 <sup>th</sup>		
LOWEST	55 on the 20 <sup>th</sup>		
DAYS WITH MAX 90 OR ABOVE	22	NORMAL	11.5
DAYS WITH MAX 32 OR BELOW	0	NORMAL	0.0
DAYS WITH MIN 32 OR BELOW	0	NORMAL	0.0
DAYS WITH MIN ZERO OR BELOW	0	NORMAL	0.0

### TEMPERATURE RECORDS

There were 8 records set during August

Record highs were tied or broken on the 18, 23, 24, 25, 28 and 31<sup>st</sup> 2 records were broken on the 28<sup>th</sup> (Record High and Record High Min Temp)

### HEATING DEGREE DAYS

MONTHLY TOTAL	0	NORMAL 5	DEPARTURE -5
SEASONAL TOTAL	0	NORMAL 11	DEPARTURE -11

### COOLING DEGREE DAYS

MONTHLY TOTAL	382	NORMAL 244	DEPARTURE 138
YEARLY TOTAL	863	NORMAL 688	DEPARTURE 175

### PRECIPITATION (IN INCHES)

MONTHLY TOTAL	0.30	NORMAL	1.57	DEPARTURE	-1.27
YEARLY TOTAL	13.25	NORMAL	11.82	DEPARTURE	1.43
GREATEST IN 24 HOURS	0.27" on the 3rd				
DAYS WITH MEASURABLE PRECIP.					3

### SNOWFALL (IN INCHES)

MONTHLY TOTAL	0.0	NORMAL	0.0	DEPARTURE	0.0
SEASONAL TOTAL	0.0	NORMAL	0.0	DEPARTURE	0.0
GREATEST IN 24 HOURS	0.0"				
GREATEST DEPTH	0.0"				

### WIND (IN MILES PER HOUR)

AVERAGE SPEED	8.8mph
PEAK WIND GUST	48mph from the SSW

### MISCELLANEOUS WEATHER

NUMBER OF DAYS WITH THUNDERSTORM	12	NORMAL	8
NUMBER OF DAYS WITH HEAVY FOG	1	NORMAL	1
NUMBER OF DAYS WITH HAIL	0		
NUMBER OF SUNNY DAYS	4		
NUMBER OF PARTLY CLOUDY DAYS	26		
NUMBER OF CLOUDY DAYS	1		
AVERAGE RELATIVE HUMIDITY	41%		

## September Preview

Summer draws to a close in September and temperatures really begin to cool off and on many years the first frost/freeze occurs as cold fronts begin to draw cooler air in from Canada. September is generally a quiet weather month with warm days in the 70's and 80's and cool nights with more sunshine than any other month during the year. The best chances for thunderstorms and precipitation are typically during the first half of the month and there is even the first snow possible towards the end of the month. Denver actually averages around 2" of snow during September but on many occasions the first snow holds off until October. Average precipitation for September is 1.14" with 4 thunderstorm days. Conditions this September are expected to be drier than normal and warmer than normal.

### ENVER'S NOVEMBER CLIMATOLOGICALLY NORMAL (NORMAL PERIOD 1971-2000)

#### TEMPERATURE

AVERAGE HIGH	78.5
AVERAGE LOW	48.3
MONTHLY MEAN	63.4
DAYS WITH HIGH 90 OR ABOVE	3
DAYS WITH HIGH 32 OR BELOW	0
DAYS WITH LOW 32 OR BELOW	1
DAYS WITH LOWS ZERO OR BELOW	0

#### PRECIPITATION

MONTHLY MEAN	1.14"
DAYS WITH MEASURABLE PRECIPITATION	6
AVERAGE SNOWFALL IN INCHES	2.1"
DAYS WITH 1.0 INCH OF SNOW OR MORE	<1

#### MISCELLANEOUS AVERAGES

HEATING DEGREE DAYS	125
COOLING DEGREE DAYS	75
WIND SPEED (MPH)	7.9mph
WIND DIRECTION	South
DAYS WITH THUNDERSTORMS	4
DAYS WITH DENSE FOG	1
PERCENT OF SUNSHINE POSSIBLE	74%

#### EXTREMES

RECORD HIGH	97 on multiple years
RECORD LOW	17 on 9/29/1985
WARMEST	68.3 in 1948
COLDEST	54.8 in 1912

WETTEST  
 DRIEST  
 SNOWIEST  
 LEAST SNOWIEST

4.67"  
 Trace in 1944, 1892  
 17.2" in 1971  
 0.0"

## Sunrise/Sunset (July - December Denver area)

	JUL	AUG	SEP	OCT	NOV	DEC	
	sr - ss	sr - ss	sr - ss	sr - ss	sr - ss	sr - ss	
01	0535-0831	0558-0814	0627-0732	0655-0644	0728-0558	0701-0436	01
02	0536-0831	0559-0813	0628-0731	0656-0642	0729-0557	0702-0435	02
03	0536-0831	0600-0812	0629-0729	0657-0641	0730-0556	0703-0435	03
04	0537-0831	0601-0811	0630-0728	0658-0639	0731-0554	0704-0435	04
05	0537-0831	0602-0809	0631-0726	0659-0637	0733-0553	0705-0435	05
06	0538-0831	0603-0808	0632-0725	0700-0636	0634-0452	0706-0435	06
07	0538-0830	0604-0807	0633-0723	0701-0634	0635-0451	0707-0435	07
08	0539-0830	0605-0806	0634-0721	0702-0633	0636-0450	0708-0435	08
09	0540-0830	0606-0805	0635-0720	0703-0631	0637-0449	0709-0435	09
10	0540-0829	0607-0804	0636-0718	0704-0630	0638-0448	0709-0435	10
11	0541-0829	0608-0802	0637-0717	0705-0628	0639-0447	0710-0435	11
12	0542-0829	0608-0801	0637-0715	0706-0627	0641-0447	0711-0435	12
13	0542-0828	0609-0800	0638-0713	0707-0625	0642-0446	0712-0436	13
14	0543-0828	0610-0758	0639-0712	0709-0624	0643-0445	0713-0436	14
15	0544-0827	0611-0757	0640-0710	0710-0622	0644-0444	0713-0436	15
16	0545-0827	0612-0756	0641-0708	0711-0621	0645-0443	0714-0436	16
17	0545-0826	0613-0754	0642-0707	0712-0619	0646-0443	0715-0437	17
18	0546-0825	0614-0753	0643-0705	0713-0618	0647-0442	0715-0437	18
19	0547-0825	0615-0752	0644-0703	0714-0616	0648-0441	0716-0437	19
20	0548-0824	0616-0750	0645-0702	0715-0615	0650-0441	0716-0438	20
21	0549-0823	0617-0749	0646-0700	0716-0613	0651-0440	0717-0438	21
22	0549-0823	0618-0747	0647-0659	0717-0612	0652-0439	0717-0439	22
23	0550-0822	0619-0746	0648-0657	0718-0611	0653-0439	0718-0439	23
24	0551-0821	0620-0745	0649-0655	0719-0609	0654-0438	0718-0440	24

25 0552-0820 | 0621-0743 | 0650-0654 | 0720-0608 | 0655-0438 | 0719-0440 25  
 26 0553-0819 | 0622-0742 | 0651-0652 | 0721-0607 | 0656-0437 | 0719-0441 26  
 27 0554-0818 | 0623-0740 | 0652-0650 | 0722-0605 | 0657-0437 | 0719-0442 27  
 28 0555-0818 | 0624-0739 | 0653-0649 | 0724-0604 | 0658-0437 | 0720-0442 28

29 0556-0817 | 0624-0737 | 0654-0647 | 0725-0603 | 0659-0436 | 0720-0443 29  
 30 0556-0816 | 0625-0736 | 0655-0645 | 0726-0601 | 0700-0436 | 0720-0444 30  
 31 0557-0815 | 0626-0734 | | 0727-0559 | | 0720-0445 31

## Rainfall

### June 2011 to Sept 2011

City	June	July	Aug	Sept	Total
Aurora (Central)	2.09	4.88	0.67		7.64
Brighton	0.79	6.10	0.35		7.24
Broomfield	1.14	4.09	0.28		5.51
Castle Rock	1.38	2.76	1.57		5.71
Colo Sprgs Airport	0.26	4.90	1.49		6.65
Denver DIA	2.43	3.41	0.30		6.14
Denver Downtown	1.42	3.86	0.04		5.32
Golden	2.26	3.12	0.44		5.82
Fort Collins	2.20	2.12	0.19		4.51
Highlands Ranch	1.22	3.62	0.63		5.47
Lakewood	2.36	5.00	1.26		8.62
Littleton	1.46	2.32	0.28		3.78
Parker	2.76	4.65	0.51		7.92
Sedalia - Hwy 67	1.81	2.13	2.09		6.03
Thornton	0.94	4.69	0.04		5.67
Westminster	1.29	4.00	0.06		5.35
Wheatridge	1.42	4.49	0.16		6.07

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