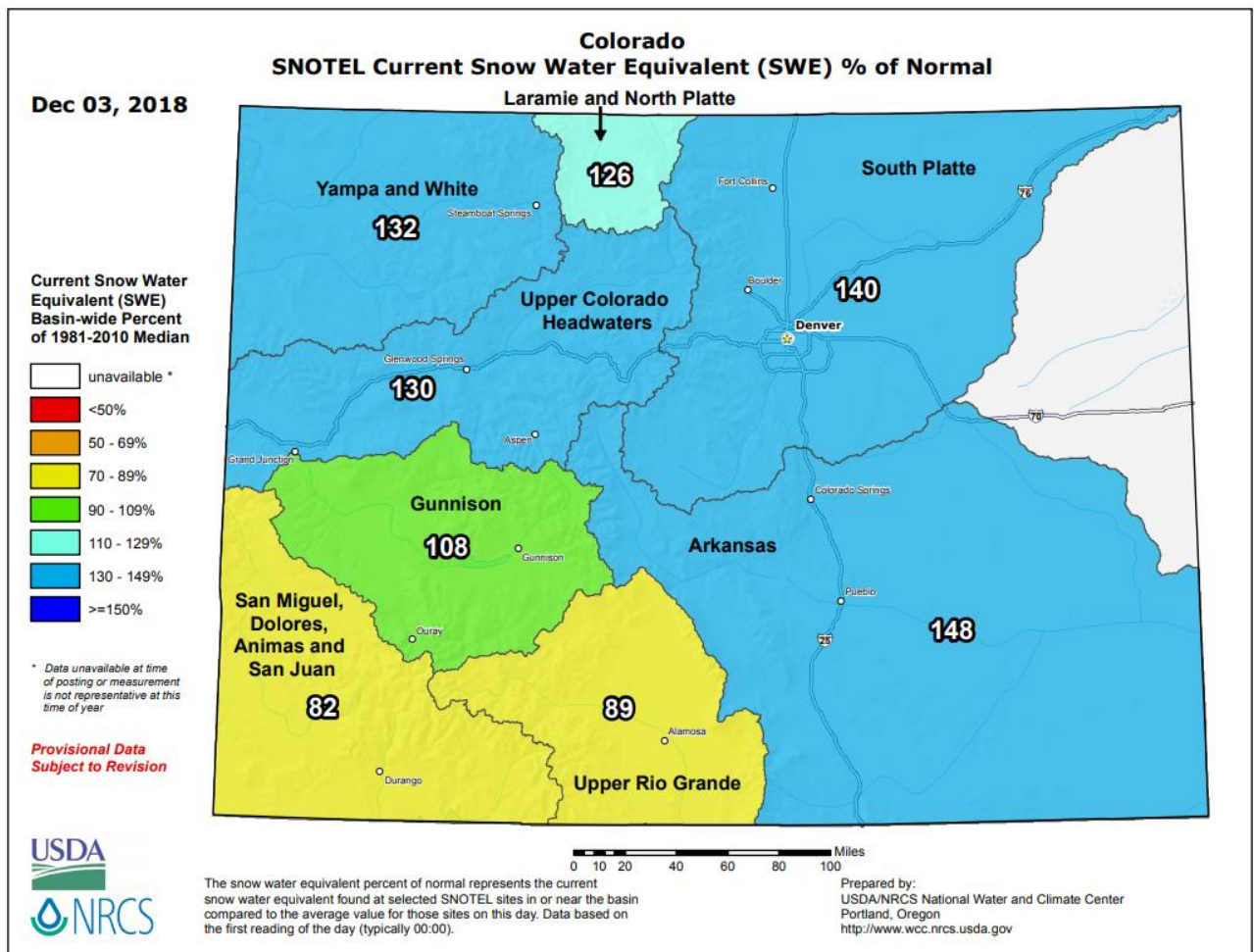


## Contents:

- Current Colorado Snowpack
- Drought Monitor
- November Summary/Statistics
- December Preview
- Snowfall Totals

## Current Colorado Snowpack



Although snowfall has been below normal up to this point for many areas of eastern Colorado the mountains are fairing much better with the exception of the San Juans of SW Colorado. The abundant snowfall has made for some great early season skiing for central and northern areas of the state. The Arkansas River drainage has the highest percent above normal snow water equivalent at 148% of normal followed by the South Platte River drainage at 140% of normal. Looking forward above normal precipitation is likely for SW portions of Colorado during the month of December which will more than likely help to bring the SW river basins closer to normal snow pack. Below is a table showing specific snotel sites with additional information:

STATE OF COLORADO	Network	Elevation (ft)	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg	Current (in)	Average (in)	% Average	Last Year (in)	Last Year % Avg
Apishapa	SNOTEL	10000	1.6	1.9	84%	0.9	47%	6.2	3.7	168%	2.1	57%
Arapaho Ridge	SNOTEL	10960	5.7	3.4	168%	2.4	71%	9.4	6.8	138%	5.8	85%
Bear Lake	SNOTEL	9500	4.7	3.1	152%	3.1	100%	8.4	5.5	153%	6.1	111%
Bear River	SNOTEL	9080	2.6	1.9	137%	2.3	121%	5	4.5	111%	5	111%
Beartown	SNOTEL	11600	2.2	4.3	51%	1.5	35%	7.6	8.3	92%	2.8	34%
Beaver Ck Village	SNOTEL	8500	2.9	2.3	126%	1.2	52%	5.9	4.4	134%	4	91%
Berthoud Summit	SNOTEL	11300	4.6	3.6	128%	2.5	69%	7.5	6.4	117%	5.6	88%
Bison Lake	SNOTEL	10880	4.7	4.4	107%	1.7	39%	10.5	7.7	136%	3.9	51%
Black Mesa	SNOTEL	11580	2.4			1		7.3			2.5	
Black Mountain	SNOTEL	8920	2.2			2.3		3.9			5.2	
Brumley	SNOTEL	10600	3	2.3	130%	1.8	78%	4.2	4.2	100%	3.6	86%
Buckskin Joe	SNOTEL	11150	3.2	1.9	168%	1.6	84%	6.5	4	163%	3.8	95%
Buffalo Park	SNOTEL	9240	2.9	2.8	104%	2.1	75%	4.5	4.9	92%	5.2	106%
Burro Mountain	SNOTEL	9400	2.6	3.6	72%	1.7	47%	6.3	6.5	97%	3.4	52%
Butte	SNOTEL	10160	2.7	2.7	100%	1.9	70%	5	4.8	104%	2.9	60%
Cascade	SNOTEL	8880	0.8	3.5	23%	0.4	11%	5.2	6.6	79%	1.4	21%
Cascade #2	SNOTEL	8920	0.6	3	20%	0	0%	4.5	6.1	74%	0.3	5%
Chapman Tunnel	SNOTEL	10110	4.2			1.6		7.3			4.7	
Cochetopa Pass	SNOTEL	10020	1.1	0.8	138%	0.6	75%	2.1	2.1	100%	1.3	62%
Columbine	SNOTEL	9160	5.8	4.2	138%	3.9	93%	9.1	7	130%	7.1	101%
Columbine Pass	SNOTEL	9400	1.2	3	40%	0.3	10%	6.3	5.7	111%	0.7	12%
Columbus Basin	SNOTEL	10785	2	3.8	53%	0.5	13%	10.8	8.3	130%	0.6	7%
Copeland Lake	SNOTEL	8600	3.1	2	155%	3	150%	7	3.9	179%	5.6	144%
Copper Mountain	SNOTEL	10550	3.9	2.8	139%	1.5	54%	5.7	4.7	121%	3.9	83%
Crosno	SNOTEL	9100	2.3	2.5	92%	1	40%	4.4	4.3	102%	3.1	72%
Culebra #2	SNOTEL	10500	1.6	2.1	76%	1.3	62%	4.9	4.1	120%	3.1	76%
Cumbres Trestle	SNOTEL	10040	2.3	4.4	52%	2.1	48%	9.1	7.6	120%	4.2	55%
Deadman Hill	SNOTEL	10220	4.1	2.8	146%	3.5	125%	6.4	5.3	121%	7	132%
Dry Lake	SNOTEL	8400	4.6	4.3	107%	2.3	53%	7.7	7.5	103%	4.5	60%
Echo Lake	SNOTEL	10600	1.3	1.3	100%	1	77%	3.1	3.5	89%	3.3	94%
El Diente Peak	SNOTEL	10000	1.5	3.1	48%	0.5	16%	5.3	5.8	91%	1.8	31%
Elk River	SNOTEL	8700	2.8	3.1	90%	2.3	74%	5.1	5.7	89%	5.1	89%
Elliot Ridge	SNOTEL	10520	3.7			1.9		8			5.2	
Fool Creek	SNOTEL	11150	4.1			2		7.3			4.3	

Fremont Pass	SNOTEL	11400	4.6	2.6	177%	2.1	81%	7.3	4.6	159%	4.8	104%
Glen Cove	SNOTEL	11460	1	1.4	71%	0.5	36%	2.5	4.8	52%	1.2	25%
Grayback	SNOTEL	11620	1	1.8	56%	2.5	139%	4.9	5.4	91%	3.1	57%
Grizzly Peak	SNOTEL	11100	4.9	2.7	181%	2.3	85%	7.1	4.8	148%	4.9	102%
Hayden Pass	SNOTEL	10720	1.3			0.3		5.2			2	
High Lonesome	SNOTEL	10620	4.7			2		8.1			4.4	
Hoosier Pass	SNOTEL	11400	3	2.5	120%	1.6	64%	6.3	4.8	131%	4.1	85%
Hourglass Lake	SNOTEL	9380	2.8			2.4		5.7			5.4	
Idarado	SNOTEL	9800	1.8	3.2	56%	1	31%	4.9	6.1	80%	2.2	36%
Independence Pass	SNOTEL	10600	3.5	3.1	113%	1.9	61%	5.8	5.5	105%	4.1	75%
Ivanhoe	SNOTEL	10400	4.5	3.1	145%	1.6	52%	7.4	5.8	128%	4.7	81%
Jackwhacker Gulch	SNOTEL	10960	4.3	2.3	187%	2.1	91%	8.5	4.7	181%	4.6	98%
Joe Wright	SNOTEL	10120	6.5	4.4	148%	4.8	109%	11.5	8.1	142%	9.4	116%
Jones Pass	SNOTEL	10400	4.6	3	153%	2.4	80%	7.9	5.8	136%	4.9	84%
Klin	SNOTEL	9600	3.3	2.5	132%	1	40%	5.1	4.4	116%	3	68%
Lake Eldora	SNOTEL	9700	3.3	2.4	138%	2.3	96%	5.8	4.4	132%	5	114%
Lake Irene	SNOTEL	10700	5.7	3.6	158%	3.3	92%	9.2	6.2	148%	6.5	105%
Lily Pond	SNOTEL	11000	1.9	3.5	54%	2.5	71%	4.9	6.3	78%	2.8	44%
Lizard Head Pass	SNOTEL	10200	1.1	2.8	39%	0.6	21%	4.4	5.5	80%	1.6	29%
Lone Cone	SNOTEL	9600	1.4	3.2	44%	0.6	19%	4.6	6.1	75%	1.9	31%
Long Draw Resv	SNOTEL	9980	4.2			3.5		7.6			6.7	
Lost Dog	SNOTEL	9320	5.5	3.4	162%	3.4	100%	9.2	6.7	137%	5.6	84%
Loveland Basin	SNOTEL	11400	4.8	2.8	171%	2.5	89%	8.2	5.3	155%	5.4	102%
Lynx Pass	SNOTEL	8880	2.6	2.3	113%	1.9	83%	5	4	125%	4	100%
Mancos	SNOTEL	10000	0.8	2.4	33%	0.5	21%	4.8	5.2	92%	0.8	15%
Mc Clure Pass	SNOTEL	9500	2.5	3.4	74%	0.6	18%	7.3	6.6	111%	2.3	35%
Mccoy Park	SNOTEL	9480	3.7	3	123%	1.4	47%	8	5.6	143%	4.5	80%
Medano Pass	SNOTEL	9649	1.5	1.5	100%	0.5	33%	4.5	3.7	122%	1.5	41%
Mesa Lakes	SNOTEL	10000	2.5	3.1	81%	0.6	19%	8.6	6.2	139%	1.6	26%
Michigan Creek	SNOTEL	10600	3.6	2.1	171%	1.2	57%	7.6	4.4	173%	3.3	75%
Middle Creek	SNOTEL	11250	0.8	4	20%	1.2	30%	6.1	8.4	73%	1.6	19%
Middle Fork Camp	SNOTEL	8940	2.8	2.2	127%	1.8	82%	5.4	4.6	117%	4.3	93%
Mineral Creek	SNOTEL	10040	1.9	3	63%	1	33%	5.6	5.8	97%	1.5	26%
Molas Lake	SNOTEL	10500	1.8	3	60%	1.2	40%	6.3	6	105%	2.1	35%
Moon Pass	SNOTEL	11140	1.2			0.4		2.7			1.1	
Nast Lake	SNOTEL	8700	2.7	2	135%	0.3	15%	4.6	3.6	128%	1.8	50%
Never Summer	SNOTEL	10280	3.8			2.5		7.8			5.8	
Niwot	SNOTEL	9910	3	2.4	125%	2	83%	5.6	4.3	130%	5	116%
North Lost Trail	SNOTEL	9200	2.5	3.6	69%	1.2	33%	6.8	6.5	105%	3.2	49%
Overland Res.	SNOTEL	9840	1.7	2.5	68%	0.7	28%	5.8	5.2	112%	1.7	33%
Park Cone	SNOTEL	9600	2	1.9	105%	1.7	89%	3.6	3.6	100%	3.2	89%
Park Reservoir	SNOTEL	9960	3.8	4.6	83%	1	22%	12.4	8.8	141%	2	23%
Phantom Valley	SNOTEL	9030	3.5	2.5	140%	2	80%	5.9	4.3	137%	4.3	100%
Porphyry Creek	SNOTEL	10760	2.2	2.1	105%	1.6	76%	4.3	4.1	105%	2.9	71%
Rabbit Ears	SNOTEL	9400	5.6	5.2	108%	3.6	69%	8.9	8.7	102%	7.2	83%
Rawah	SNOTEL	9020	2.8	2.4	117%	2.8	117%	5.9	4.9	120%	5.9	120%
Red Mountain Pass	SNOTEL	11200	2.9	4.4	66%	1.3	30%	7.3	8.1	90%	2.4	30%
Ripple Creek	SNOTEL	10340	3.9	4.1	95%	2.6	63%	6.7	7	96%	4.6	66%
Roach	SNOTEL	9700	4.1	3.1	132%	3	97%	6.7	5.7	118%	6.4	112%
Rough And Tumble	SNOTEL	10360	1	0.7	143%	0.9	129%	3.7	2.6	142%	2	77%
Saint Elmo	SNOTEL	10540	2.3			2.5		4.9			3.9	
Sargents Mesa	SNOTEL	11530	1.9			1.3		3.9			2.2	
Sawtooth	SNOTEL	9620	8.1			3.9		13.9			7.5	
Schofield Pass	SNOTEL	10700	4.1	5.3	77%	4	75%	9.7	9.2	105%	6.2	67%
Scotch Creek	SNOTEL	9100	1	2.7	37%	0.4	15%	5.5	5.2	106%	1.4	27%
Sharkstooth	SNOTEL	10720	1.6			0.8		7.1			1.2	
Slumgullion	SNOTEL	11440	1.8	2.3	78%	0.9	39%	4.5	4.7	96%	2.2	47%
South Colony	SNOTEL	10800	1.4	3	47%	0.9	30%	6.6	6.6	100%	2.2	33%
Spud Mountain	SNOTEL	10660	1.1	4.5	24%	0.2	4%	7.2	8.7	83%	0.4	5%
Stillwater Creek	SNOTEL	8720	2.6	1.5	173%	1.3	87%	4.7	2.8	168%	2.7	96%
Stump Lakes	SNOTEL	11200	1	3.3	30%	0.6	18%	5.1	6.5	78%	1.2	18%
Summit Ranch	SNOTEL	9400	2.5	2.4	104%	1.8	75%	4.3	4.2	102%	3.7	88%
Tower	SNOTEL	10500	9.5	6.9	138%	5.3	77%	13	11.5	113%	9.4	82%
Trapper Lake	SNOTEL	9700	2.6			1.9		5			3.9	
Trinchera	SNOTEL	10860	1.5	1.9	79%	0.6	32%	4.6	3.7	124%	1.5	41%
University Camp	SNOTEL	10300	4.8	3.3	145%	2.7	82%	7.6	5.7	133%	5.5	96%
Upper Rio Grande	SNOTEL	9400	-0.3	1.7	-18%	0.4	24%	2.7	4	68%	0.9	23%
Upper San Juan	SNOTEL	10200	1.9	5.7	33%	2.2	39%	8.4	10.7	79%	2.9	27%
Upper Taylor	SNOTEL	10640	3.4			2.7		7.3			4.9	
Ute Creek	SNOTEL	10650	1.2	2.3	52%	1	43%	5	5	100%	2.4	48%
Vail Mountain	SNOTEL	10300	4.2	3.8	111%	1.2	32%	7.1	6.6	108%	3.5	53%
Vallecito	SNOTEL	10880	0.7	2.9	24%	0.4	14%	4.7	5.8	81%	0.6	10%
Wager Gulch	SNOTEL	11100	1.7			1.2		5			2.3	
Weminuche Creek	SNOTEL	10740	1.2			1.1		6.9			1.9	
Whiskey Ck	SNOTEL	10220	2.2	2.5	88%	1.5	60%	6.3	4.8	131%	3.5	73%
Wild Basin	SNOTEL	9560	4			3.7		8.1			6.1	
Willow Creek Pass	SNOTEL	9540	3.5	2.4	146%	1.9	79%	6.8	4.5	151%	5	111%
Willow Park	SNOTEL	10700	4.9	3.5	140%	3.7	106%	8.6	6.2	139%	7.1	115%
Wolf Creek Summit	SNOTEL	11000	1.3	5	26%	2.1	42%	8.6	9.7	89%	2.1	22%
Zirkel	SNOTEL	9340	8.7	4.2	207%	5.3	126%	12.3	8.1	152%	8.6	106%
<b>Basin Index</b>					<b>98%</b>		<b>58%</b>			<b>114%</b>		<b>63%</b>
<b># of sites</b>					<b>94</b>		<b>94</b>			<b>94</b>		<b>94</b>

This information can be found on the web at:

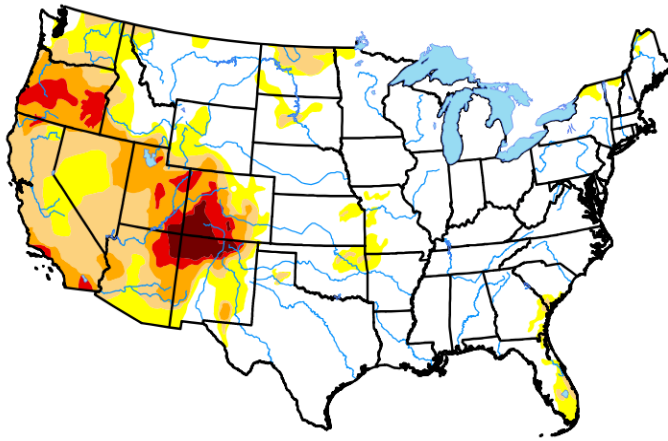
[https://www.wcc.nrcs.usda.gov/ftpref/support/water/SummaryReports/CO/BPrecip\\_12\\_2018.pdf?](https://www.wcc.nrcs.usda.gov/ftpref/support/water/SummaryReports/CO/BPrecip_12_2018.pdf?)

[https://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/co\\_swepctnormal\\_update.pdf](https://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/co_swepctnormal_update.pdf)

# Drought Update

Map released: Thurs. November 29, 2018

Data valid: November 27, 2018 at 7 a.m. EST



### Intensity:

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)

### Author(s):

Richard Heim, NOAA/NCEI

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

### Map Download

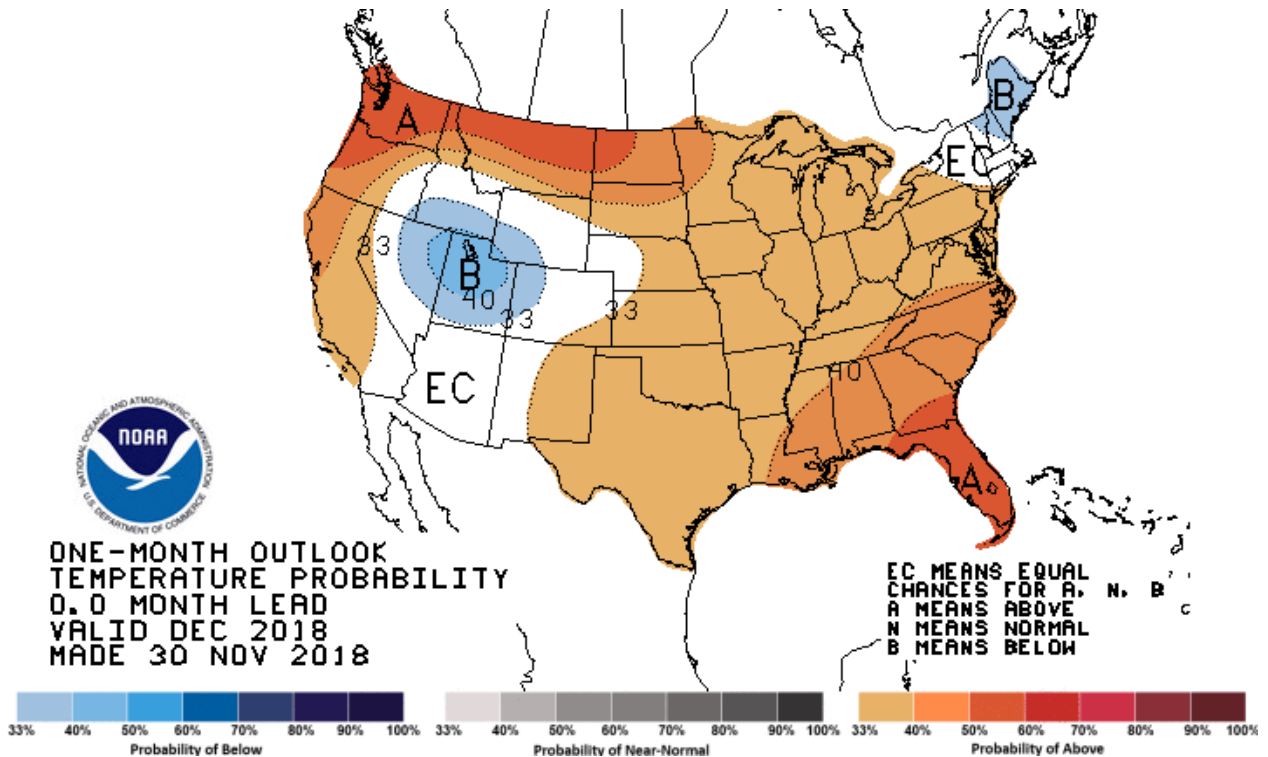
No text:

Legend:

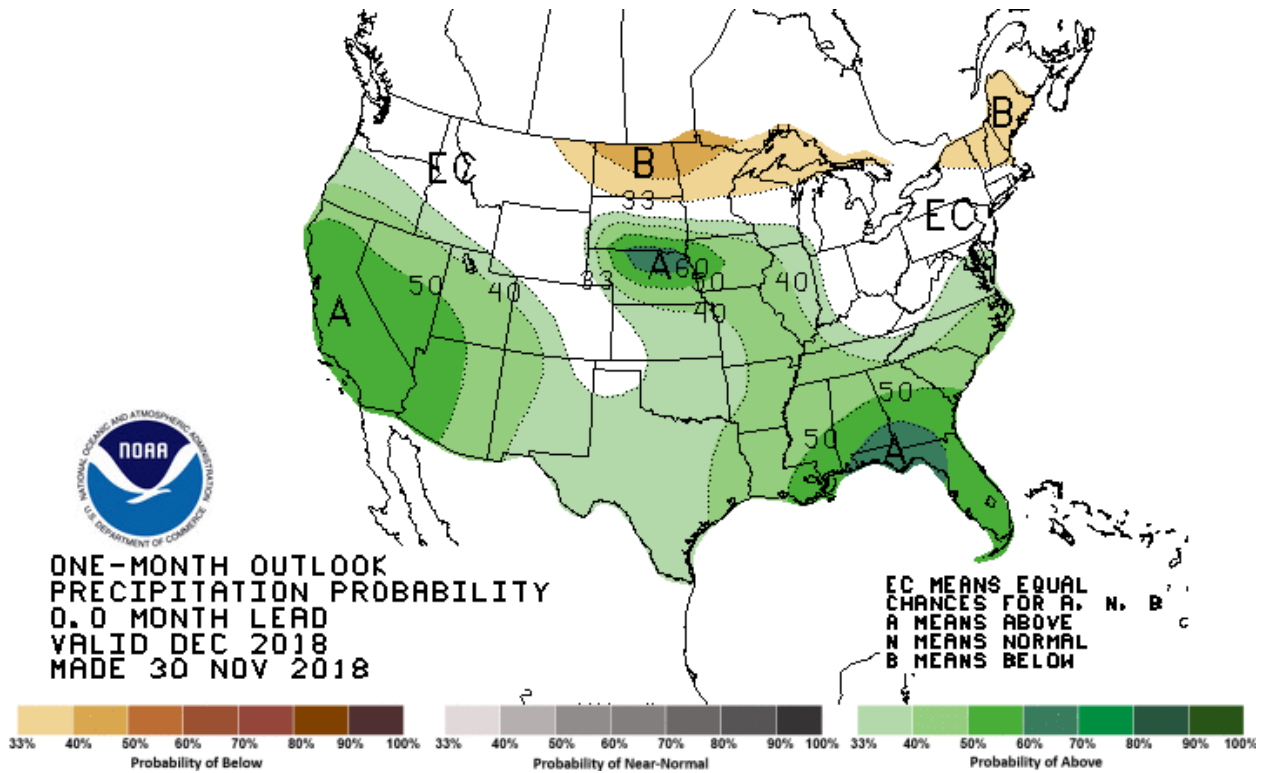
Legend and statistics table:



The map below shows forecasted temperature deviances for December 2018. There is a slight bias towards below normal temperatures over far NW Colorado and a slight bias towards above normal temperatures for far SE Colorado with most of the state with equal chances for above or below normal temperatures.



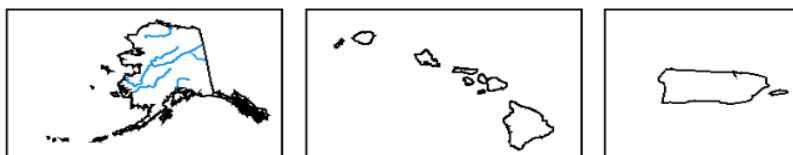
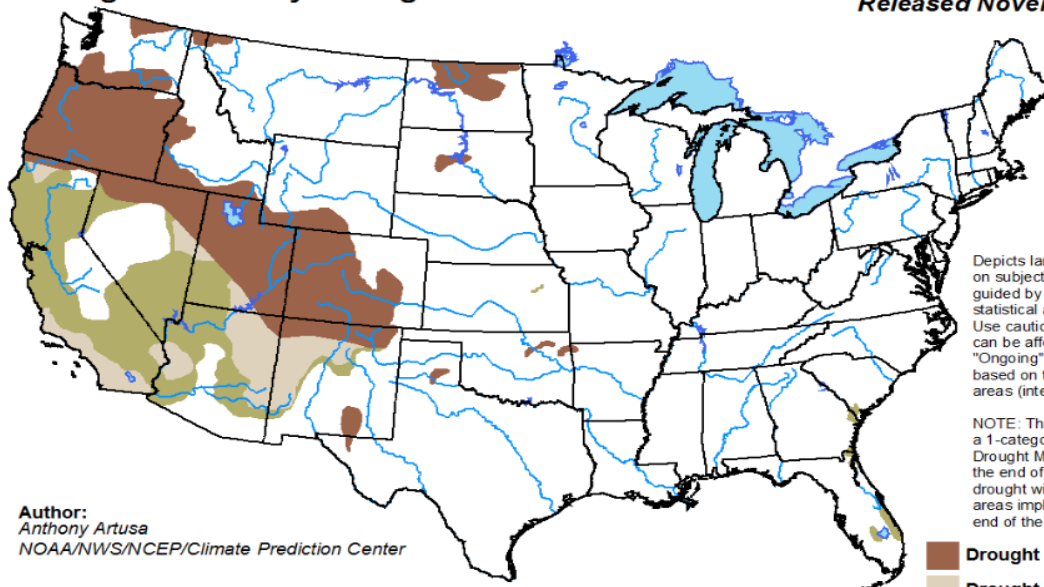
The map below shows forecasted precipitation deviances for December 2018. There is a bias toward above normal precipitation across W and SW Colorado with equal chances for above or below normal precipitation for eastern areas of the state.



Drought conditions are expected to persist across much of Colorado. Improving drought conditions are expected for the SW portion of the US.

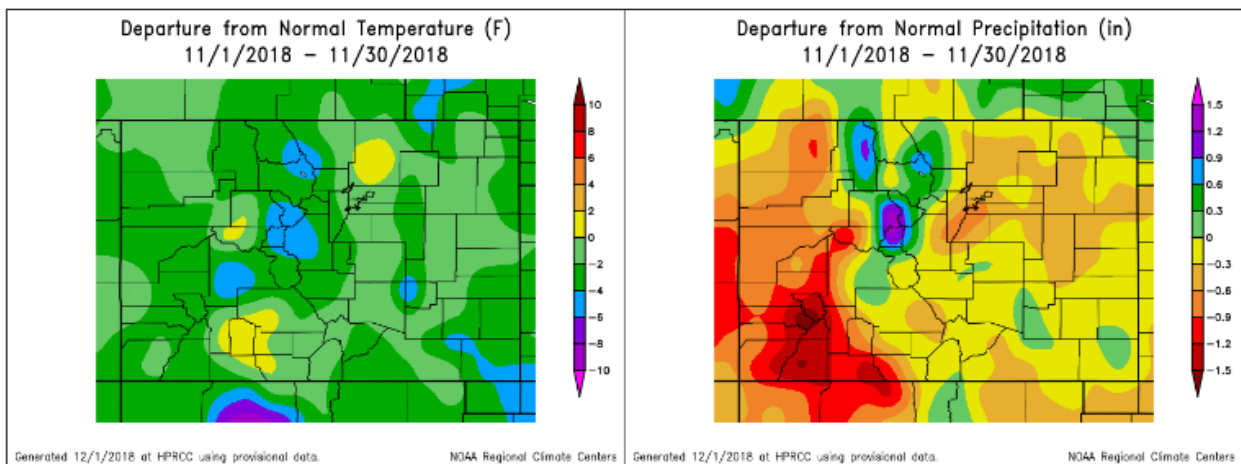
**U.S. Monthly Drought Outlook  
Drought Tendency During the Valid Period**

*Valid for December 2018  
Released November 30, 2018*



## November Summary

November of 2018 was below normal in temperature, precipitation and snowfall at DIA. The average high for the month was 50.6 degrees which was 1.5 degrees below normal. The average low for the month was 25.0 which was 0.5 degrees above normal. The combination of average highs and lows resulted in a monthly mean temperature of 37.8 which was 0.5 degrees below normal. The highest temperature during the month of November was 65 on the 2<sup>nd</sup> and the lowest temperature for the month was 10 on the 12<sup>th</sup>. There were 2 days during the month when the high temperature remained at or below freezing. Precipitation for the month was only 0.35", 0.26" below the normal of 0.61". The yearly precipitation total at DIA now stands at 8.5" which is 5.69" below the normal of 14.19". There were 6 calendar days with measureable precipitation with a maximum of 0.17" on the 11<sup>th</sup>. Snowfall at DIA was a meager 4.5" which was 4.2" below the normal of 8.7". For the snow season so far 7.7" has been tallied at DIA which is 6.3" below the normal of 14.0". There were 8 days considered sunny, 16 days considered partly cloudy and 6 days considered cloudy. Below is a map showing the departure from normal for both temperature and precipitation. As you can see most of the state was below normal in temperatures and below normal in precipitation.



## November Stats

### TEMPERATURE (IN DEGREES F)

AVERAGE MAX	50.6	NORMAL 52.1	DEPARTURE -1.5
AVERAGE MIN	25.0	NORMAL 24.5	DEPARTURE 0.5
MONTHLY MEAN	37.8	NORMAL 38.3	DEPARTURE -0.5
HIGHEST	65 on 11/2		
LOWEST	10 on 11/12		

DAYS WITH MAX 90 OR ABOVE	0	NORMAL	0.0
DAYS WITH MAX 32 OR BELOW	2	NORMAL	2.3
DAYS WITH MIN 32 OR BELOW	27	NORMAL	23.4
DAYS WITH MIN ZERO OR BELOW	0	NORMAL	0.6

### TEMPERATURE RECORDS

NA

### HEATING DEGREE DAYS

MONTHLY TOTAL	808	NORMAL 801	DEPARTURE	7
SEASONAL TOTAL	1373	NORMAL 1382	DEPARTURE	-9

### COOLING DEGREE DAYS

MONTHLY TOTAL	0	NORMAL 0	DEPARTURE	0
YEARLY TOTAL	1026	NORMAL 769	DEPARTURE	257

### PRECIPITATION (IN INCHES)

MONTHLY TOTAL	0.35	NORMAL 0.61	DEPARTURE	-0.26
YEARLY TOTAL	8.50	NORMAL 14.19	DEPARTURE	-5.69
GREATEST IN 24 HOURS	0.17" on 11/11			
DAYS WITH MEASURABLE PRECIP.	6			

### SNOWFALL (IN INCHES)

MONTHLY TOTAL	4.5	NORMAL 8.7	DEPARTURE	-4.2
SEASONAL TOTAL	7.7	NORMAL 14.0	DEPARTURE	-6.3
GREATEST IN 24 HOURS	1.8"			
GREATEST DEPTH	1.0"			

### WIND (IN MILES PER HOUR)

AVERAGE SPEED	9.8	mph
PEAK WIND GUST	62 mph from the NW on 11/24	

### MISCELLANEOUS WEATHER

NUMBER OF DAYS WITH THUNDERSTORM	0	NORMAL	0
NUMBER OF DAYS WITH HEAVY FOG	2	NORMAL	1
NUMBER OF DAYS WITH HAIL	0		
NUMBER OF SUNNY DAYS	8		
NUMBER OF PARTLY CLOUDY DAYS	16		
NUMBER OF CLOUDY DAYS	6		
AVERAGE RELATIVE HUMIDITY	56%		

## December Preview

December is the first month of meteorological winter and is the coldest month of the year on average in Denver, slightly colder on average than January. December is also the 3rd snowiest month of the year behind March and November at 8.5". Average highs for the month are 42.8 degrees with average lows of 17.1 degrees. The monthly mean temperature is 30.0 degrees. As we know living here in Colorado average only occurs on paper as temperatures are generally higher or lower on any given day. On average there are 6 days during the month with a high temperature at or below freezing. Typically there are 2 days during the month with lows below 0. The all time record low was set in December at -25 degrees which last occurred on 12/22/1990. The warmest average mean temperature for the month was 43.8 degrees back in 1933. The coldest average mean temperature was a chilly 17.5 degrees set back in 1983. The wettest December on record was 5.21" in 1913 which was also the snowiest December on record with an astounding 57.4" of snow reported for the month. The driest December on record was in 1881 when no precipitation at all was measured beyond a trace. The least snowiest year was 1995 when no snow at all was measured. For December 2018 near normal temperatures and precipitation (snowfall) is expected.

### DENVER'S NOVEMBER CLIMATOLOGICALLY NORMAL (NORMAL PERIOD 1981-2010 DIA Data)

#### TEMPERATURE

AVERAGE HIGH	42.8
AVERAGE LOW	17.1
MONTHLY MEAN	30.0
DAYS WITH HIGH 90 OR ABOVE	0
DAYS WITH HIGH 32 OR BELOW	6
DAYS WITH LOW 32 OR BELOW	29
DAYS WITH LOWS ZERO OR BELOW	2

#### PRECIPITATION

MONTHLY MEAN	0.35"
DAYS WITH MEASURABLE PRECIPITATION	4
AVERAGE SNOWFALL IN INCHES	8.5"
DAYS WITH TRACE OR MORE OF SNOW	3

#### MISCELLANEOUS AVERAGES

HEATING DEGREE DAYS	1086
COOLING DEGREE DAYS	0
WIND SPEED (MPH)	8.4mph
WIND DIRECTION	South
DAYS WITH THUNDERSTORMS	0
DAYS WITH DENSE FOG	1



PERCENT OF SUNSHINE POSSIBLE

67%

## EXTREMES

RECORD HIGH	79 on 12/5/1939
RECORD LOW	-25 on 12/24/1876, 12/22/1990
WARMEST	43.8 in 1933
COLDEST	17.5 in 1983
WETTEST	5.21" in 1913
DRIEST	0.00" in 1881
SNOWIEST	57.4" in 1913
LEAST SNOWIEST	0.0" in 1995

## Snowfall

### October 2018 to May 2018

City	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Aurora (Central)	2.5	4.6							7.1
Boulder	10.0	15.9							25.9
Brighton	3.4	4.6							8.0
Broomfield	5.1	8.3							13.4
Castle Rock	5.5	9.2							14.7
Colo Sprgs Airpor	5.3	2.8							8.1
Denver DIA	3.2	4.5							7.7
Denver Downtowr	2.5	6.0							8.5
Golden	7.0	7.0							14.0
Fort Collins	6.0	5.6							11.6
Highlands Ranch	6.5	7.0							13.5
Lakewood	3.4	6.6							10.0
Littleton	4.5	6.2							10.7
Parker	3.8	7.4							11.2
Sedalia - Hwy 67	5.2	6.6							11.8
Thornton	5.0	5.9							10.9
Westminster	3.2	6.8							10.0
Wheat Ridge	4.1	8.5							12.6

Skyview Weather®  
2350 N Rocky View Rd  
Castle Rock, CO 80108

Phone: (303) 688-9175  
Fax: (303) 380-3338

E-mail: [Tim@SkyviewWeather.com](mailto:Tim@SkyviewWeather.com)  
On the web at [www.SkyviewWeather.com](http://www.SkyviewWeather.com)

Copyright 2018 Skyview Weather®