#### U.S. PRECIPITATION (PERCENT OF AVERAGE) - MARCH 2014

Aside from the Pacific Northwest and a few pockets in the east, March was a fairly dry month, not only Colorado, but across most of the country. There were a few wet pockets around the state, including the north-central and northwest mountains. What's cool about this map is you had a part in the analysis because CoCoRaHS data is used to create it each month!



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	March Dracin	Departure From
	Watch Teep	Average
Alamosa	0.40	-0.13
Aspen	0.91	-0.41
Co. Springs	0.42	-0.58
Denver	0.83	-0.09
Durango	1.00	-0.25
Grand Junction	0.10	-0.82
Lamar	0.26	-0.58
Pueblo	0.76	-0.17



### U.S. TEMPERATURES (PERCENT OF AVERAGE) - MARCH 2014

The trend we have seen over the past several months remained in place across the nation during March. Most locations east of the Rocky Mountains were colder than average. It was near average right along the Front Range of the Rockies, with warmer than average conditions to the





	March Avg	Departure From
	Temp	Average
Alamosa	36.5°	3.0
Aspen	32.6°	1.7
Co. Springs	39.5°	0.4
Denver	40.5°	0.5
Durango	38.5°	1.1
Grand Junction	43.8°	-0.1
Lamar	42.5°	0.0
Pueblo	43.1°	0.8



#### STATEWIDE SNOWPACK ON THE MOVE

April is when we typically see statewide snowpack reach peak accumulation and then begin the process of melting. But even though the snow starts to melt, additional storms can move through and cause it to temporarily start to climb. That is what happened between April 8<sup>th</sup> and 14<sup>th</sup> as seen in the graphs below.







#### SOME RIVERS HIGHER THAN NORMAL ACROSS NORTHERN COLORADO

It's hard to believe we're still seeing visual signs of last September's heavy rain and devastating flood. Many rivers, creeks and streams across north-central Colorado remain high, compared to where they would normally be this time of year. That has raised a lot of concern as to what might happen if the high snowpack melts too fast.





I



These two graphs show a historical flow of water on the Poudre River and Boulder Creek. The first red circle on each graph shows where water levels were in the spring of 2011 after high runoff from a winter of heavy snow. The second red circle shows where water levels were as of early April 2014; almost as high as they were during the peak flow in spring 2012. With a lot of melting to come, there are numerous factors that could contribute to potential flooding this spring in areas hardest hit by last year's floods, including...

• Excess debris that could be refloated, potentially causing new debris dams on waterways

• Some streams changed course during the flood and that may impact how they behave as water levels rise this spring

• Soils that could easily become saturated again with any significant spring storm systems



Because Every Drop Counts!

April 2014 Volume 2, Issue 4

## MARCH FUN FACTS FROM AROUND COLORADO

\*As of 11 am, 4/17/2014

- 1,053 stations filed at least one daily report
- 760 stations reported at least half of the month
- 358 stations filed a report every day
- Wettest station: CO-GN-18 (Crested Butte 6.2 N) with 4.82" of precipitation and 71" of snow
- Driest station that reported all 31 days: CO-BA-16 (Campo 11.3 ESE) with 0.02" of precipitation and 2.5" of snow
- 53 stations filed a multi-day accumulation report
- 757 stations reported snow greater than a Trace) with the most being 71" at station CO-GN-18 (Crested Butte 6.2 N)

	March 2014 Colorado CoCoRaHS			
	Top 10 Snow Totals			
CO-GN-18	Crested Butte 6.2 N	71		
CO-SU-6	Silverthorne 2.1 WSW	61.7		
CO-JK-23	Walden 16.3 WSW	39.3		
CO-SU-40	Breckenridge 3.3 SE	39		
CO-HF-3	La Veta 7.7 W	35		
CO-PU-76	Rye 1.1 WSW	34.4		
CO-GF-56	Glenwood Springs 7.8 ESE	30.8		
CO-CC-7	Idaho Springs 4.7 SSE	30.6		
CO-SU-52	Keystone 0.7 SW	30.6		
CO-SU-16	Dillon 2.3 SE	30		

Sept. 2013 - March 2014 Colorado CoCoRaHS			
	Top 10 Snow Totals		
CO-GN-18	Crested Butte 6.2 N	375	
CO-SU-6	Silverthorne 2.1 WSW	298.2	
CO-JK-23	Walden 16.3 WSW	280.3	
CO-RT-43	Steamboat Springs 1.9 E	237	
CO-GR-3	Kremmling 10.9 NW	202.6	
CO-SU-40	Breckenridge 3.3 SE	201.3	
CO-RT-25	Steamboat Springs 1 SE	196.8	
CO-RT-44	Oak Creek 1.7 WNW	195.2	
CO-GF-56	Glenwood Springs 7.8 ESE	188.4	
CO-EG-19	Vail 2.6 E	176.5	

### **CURRENT DROUGHT MONITOR**



	Dro	ught Co	ondition	s (Per	cent Ar	ea)
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	38.49	61.51	24.29	16.14	6.87	1.47
Last Week 4/8/2014	38.38	61.62	23.40	15.06	6.90	1.47
3 Month s Ago 1/14/2014	31.96	68.04	22.52	13.56	4.01	1.47
Start of Calendar Year 12/31/2013	32.04	67.96	22.33	13.56	4.01	1.47
Start of Water Year 10/1/2013	24.91	75.09	37.88	12.01	4.01	1.47
One Year Ago 4/16/2013	0.00	100.00	100.00	84.78	38.37	13.63
D0 Abnom D1 Moden D2 Severe The Drought Moi ocal conditions or forecast state	nally Dry ate Drou Drough nitor foc may var ments.	ght t uses on 'y. See a	D: D4 broad-s accompa	3 E xtrem I E xœpti cale con inying te	e Droug on al Dro nditions. ext sumi	ht ught mary
Author:						

http://droughtmonitor.unl.edu/

Because Every Drop Counts!

### **OBSERVER SPOTLIGHT**

This month's featured observer has one of the longest and most continuous CoCoRaHS records in the Denver area. He is Galen Crowder and operates station CO-DG-25 in Douglas County. Galen filed his first precipitation report on November 26, 2002, and hasn't missed a day since. He has measured over 243" of precipitation and over 1,186" of snow.



#### Why did you join CoCoRaHS?

I have been interested in the amount of precipitation in rain, snow and hail since my boyhood in Nebraska farm country. The conversations among farmers always seemed to revolve around weather and moisture. I bought my own small gauges so I could join in the discussions. After reading the article about CoCoRaHS in the Douglas County News in 2002, I was ready to become an observer. Now I realize how inaccurate my small gauges must have been.

## What have you learned from measuring precipitation?

The 4" gauge is an excellent container for an accurate measurement of rainfall and is helpful in the computation of the moisture content in snow. But even with the gauge and snow boards, the exactness of measurement is a challenge. Equally difficult is measuring snow depth in my yard. Our location and the wind produce interesting deviations, so I average the snow depth in various locations in the yard.

# Has being a CoCoRaHS observer made you more aware of climate?

CoCoRaHS has brought new insight into my observations of Colorado's weather and climate. I find myself comparing statistics from my first year and the present year, and looking forward to looking at the sky, checking my gauges, and getting my report in at 7 am.

Galen says his wife has said that since he became an observer, he's become very thorough in the need to produce the most accurate measurements possible!

If you're on social media, don't forget to "Like" CoCoRaHS on Facebook and "Follow us" on Twitter!

We also have a CoCoRaHS YouTube channel with all kinds of great videos.

The Colorado Climate Center is also on Facebook and Twitter! Don't forget to follow and like them too!