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April 1, 2023

Snowpack Remains High in Middle Park

The USDA Natural Resources Conservation Service (NRCS) Kremmling Field Office snow surveyors Kara Vigneau and Mark Volt took the April 1 snow survey measurements during the last days of March. (Mark snuck out of retirement to help Kara.) The monthly snowpack for Middle Park increased to 128% of average. This is a very similar to 2011. Low elevation snowpack also remains high.

Snowpack in the mountains above Middle Park now ranges from 105% to 173% of the 30-year average. Snow density is averaging ~30%, which means that for a foot of snow there are 3.6 inches of water. A new record high was measured at Gore Pass, with a depth of 59"with a snow water equivalent of 17.3" (This beats the old record high of 50" depth and 16.6"water which was set back in 2011 and 1965.)

The highest snowpack in Colorado is in the San Miguel, Dolores, Animas, and San Juan River Basins 180%; Reported average readings for the other major river basins in Colorado are as follows: the Colorado River Basin averages 132%; Gunnison River Basin, 162%; South Platte River Basin, 106%; Yampa and White River Basins, 146%; Arkansas River Basin, 94%; Upper Rio Grande Basin, 136%; and Laramie and North Platte River Basins, 129%.

Most of the snow courses around Middle Park have been read since the 1940s. Snow course readings are taken at the end of each month, beginning in January and continuing through April. March is historically the snowiest month, and the April 1 readings are the most critical for predicting runoff and summer water supplies, as most of our high country snowpack peaks around that time. From this point on, spring runoff and summer water flows will be highly dependent on melting conditions (i.e., temperature and wind), as well as spring snow accumulation and/or rainfall.

For further information, including real-time snow and precipitation data for SNOTEL (automated Snow Telemetry) sites, visit http://www.co.nrcs.usda.gov/snow/index.html.





NRCS Kremmling Field Office snow survey for April 1, 2023 compared to long-term average.

Snow course or SNOTEL	Last year		This year		30-year median (1991 – 2020)		Percent of average	
(SC or ST)	Snow depth	Moisture content	Snow depth	Moisture content	Snow depth	Moisture content	Snow depth	Moisture content
		(inches)					(%)	
Arapaho Ridge ST				25.5		21.8		117%
Berthoud Summit ST				18.6		18.7		99%
Buffalo Park ST				18.3		14.4		127%
Columbine ST				32.0		21.8		147%
Copper Mountain ST				15.0		14.9		101%
Corral Creek SC			Not	Measured		14.6		
Elliot Ridge ST				26.0		19.1		139%
Gore Pass SC								
(NEW RECORD HIGH)				17.3		10.0		173%
Granby SC				13.6		8.2		166%
Grizzly Peak ST				17.2		17.2		100%
Jones Pass ST				14.9		14.4		103%
Lake Irene ST				26.4		23.4		117%
Lynx Pass ST				13.4		10.9		117%
Middle Fork Camp SC				12.9		10.4		124%
Phantom Valley ST				12.6		9.2		137%
Stillwater Creek ST				10.8				
Summit Ranch ST				13.3		11.0		121%
Willow Creek Pass SC				18.2		11.6		157%
Average								128%



NRCS Kremmling Field Office snow survey April 1 moisture content records.

Snow course or SNOTEL (SC or ST)	Highest Apr. 1 moisture content			Lowest Apr. 1 moisture content		
	(inches)	(%)	(year)	(inches)	(%)	(year)
Arapaho Ridge ST (read since 2003)	26.9	117%	2008	14.8	65%	2010
Arrow ST	21.9	154%	1996	7.4	52%	1966
Berthoud Summit ST	25.3	138%	1996	10.9	59%	2002
Buffalo Park ST (read since 1996)	17.7	123%	1996	8.0	56%	2002
Columbine ST	37.9	152%	1984	12.0	48%	1981
Copper Mountain ST	18.1	129%	2008	7.9	56%	1981
Corral Creek SC (read since 1995)	16.9	116%	1996	8.0	55%	2002
Gore Pass SC	16.0	151%	1965	4.3	41%	1966
New record high	16.6	157%	2011			
_	17.3	173	2023			
Granby SC	12.3	171%	1965	0.0	0%	2004
Grizzly Peak ST	27.7	151%	1996	8.7	47%	1981
Jones Pass ST (read since 2000)	19.2	119%	2006	9.7	60%	2002
Lake Irene ST	37.6	146%	1962	11.8	46%	1977
Lynx Pass ST	20.8	163%	1962	6.0	47%	1977
Middle Fork Campground SC	17.0	168%	1996	5.8	57%	1981
Phantom Valley ST	14.9	160%	1996	1.1	12%	2004
Stillwater Creek ST (read since 1986)	12.8	164%	1965	1.5	19%	2004
Summit Ranch ST	17.0	153%	1996	7.4	67%	1981
Willow Creek Pass SC	20.5	164%	1952	7.2	58%	1977





Kara Vigneau (NRCS) measuring snow on Gore Pass...on a snowy last day of March!

