

**Town of Star Valley Ranch  
Water Status Report  
March 2007**

2007 No. 4

April 2, 2007

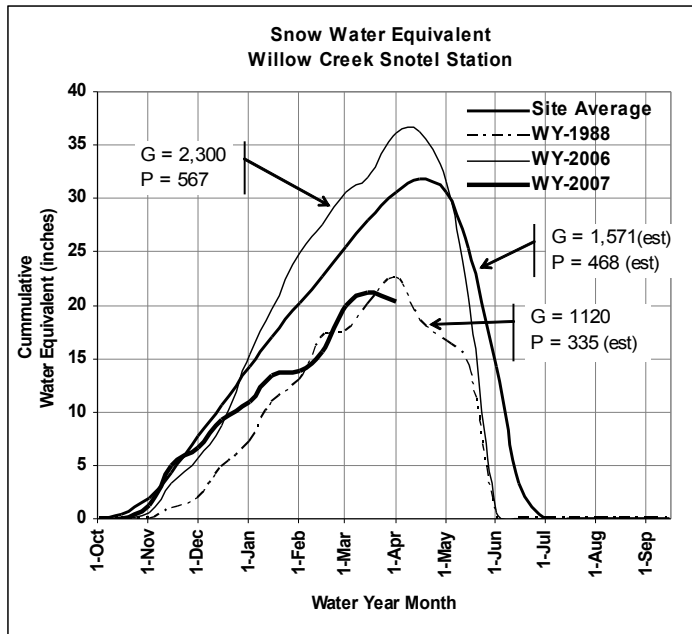


Figure 1. Accumulation of snow water equivalent for this water year (2007) compared to selected other water years.

**Water Status Reports**

A water status report is distributed each winter month to inform the Town about the availability of irrigation and culinary water during following summer. It is based on snow moisture data from the automated Willow Creek Snotel station at an elevation of 8380 feet in the Salt River Range. Snow depth, air temperature, water stored in snow (snow water equivalent - SWE), and precipitation are measured hourly and reported here for the 1<sup>st</sup> and 15<sup>th</sup> of each month. Special Report No. 1 (December, 2006) describes methods to interpret the SWE data presented here.

**March**

The snow last week did not prevent the SWE from decreasing from its March 15<sup>th</sup> high. Historically, the April peak is about six percent higher than the late March SWE; unless an unusually large and wet-snow storm occurs soon, the summer spring flows are set. Assuming the unusual occurs, the predicted peak SWE is 21.6 inches.

As shown in the adjacent table, the observed April SWE was 36 inches in 2007 and 32 inches for the site average. The predicted April SWE is 60% of last year and 67% of average. The predicted July discharges for Prater and Green Canyon Springs are 314 and 964 gpm, respectively, or 55% and 42%, respectively, of their observed July discharge in 2007. A dry summer awaits us!

**About the Graph**

The graph shows the monthly snow water equivalent for various water years (WY). A WY begins in October (the month with the lowest stream flow) of one calendar and continues to September of the following calendar year; it is named for the second calendar year. The **Site Average** line shows the average monthly SWE for the site since 1982. The **heavy black line** is the measured SWE for the current water year (WY-2007). The **WY-1988** and **WY-2006** lines show the data for two of the six water years for which spring discharges were measured. The **callouts** present the July discharge in gallons per minute (gpm) as measured at Green (G) and Prater (P) springs during 1988 and 2006 and estimated for the site average and Prater Spring in 1988 using the relationships in Special Report No 1.

Date	Water Year Snow Water Equivalent (inches)			Reference Water Year (Percent)	
	Site Av.	2005-06	2006-07	Site Av.	2005-06
1-Oct	0	0	0	0%	0%
15-Oct	0.4	0.1	0	0%	0%
1-Nov	1.9	0.5	1.2	63%	240%
15-Nov	4.3	3.3	5	116%	152%
1-Dec	7.7	5.7	6.7	87%	118%
15-Dec	10.7	8.7	9.3	87%	107%
1-Jan	14.3	15.3	10.9	76%	71%
15-Jan	17	19.7	13.4	79%	68%
1-Feb	20.2	24.9	13.8	68%	55%
15-Feb	22.7	27.6	15.7	69%	57%
1-Mar	25.4	30.6	19.9	78%	65%
15-Mar	28	32	21.2	76%	66%
1-Apr	30.6	36.1	20.4	67%	57%
15-Apr	31.9	36.3	0	0%	0%
1-May	30.6	31.6	0	0%	0%
15-May	25.3	20.7	0	0%	0%
1-Jun	14.3	0.5	0	0%	0%
15-Jun	3.3	0	0	0%	0%
1-Jul	0	0	0	0%	0%