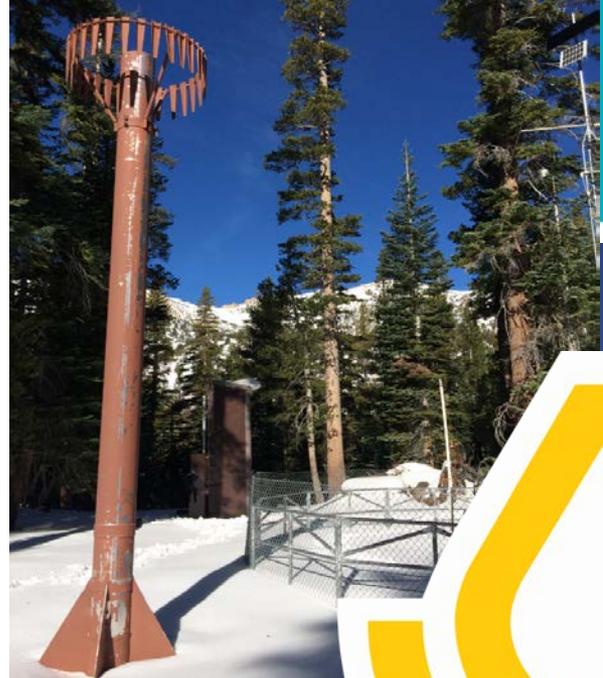




United States Department of Agriculture

# May 25, 2017 Snowpack Status and Streamflow Forecast Update for the Walker River Basin



*20ft of snow on Sonora Pass, 5/19/2017 from Facebook – Caltrans District 10*

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Natural  
Resources  
Conservation  
Service

[www.nv.nrcs.usda.gov/snow](http://www.nv.nrcs.usda.gov/snow)

# Key Points:

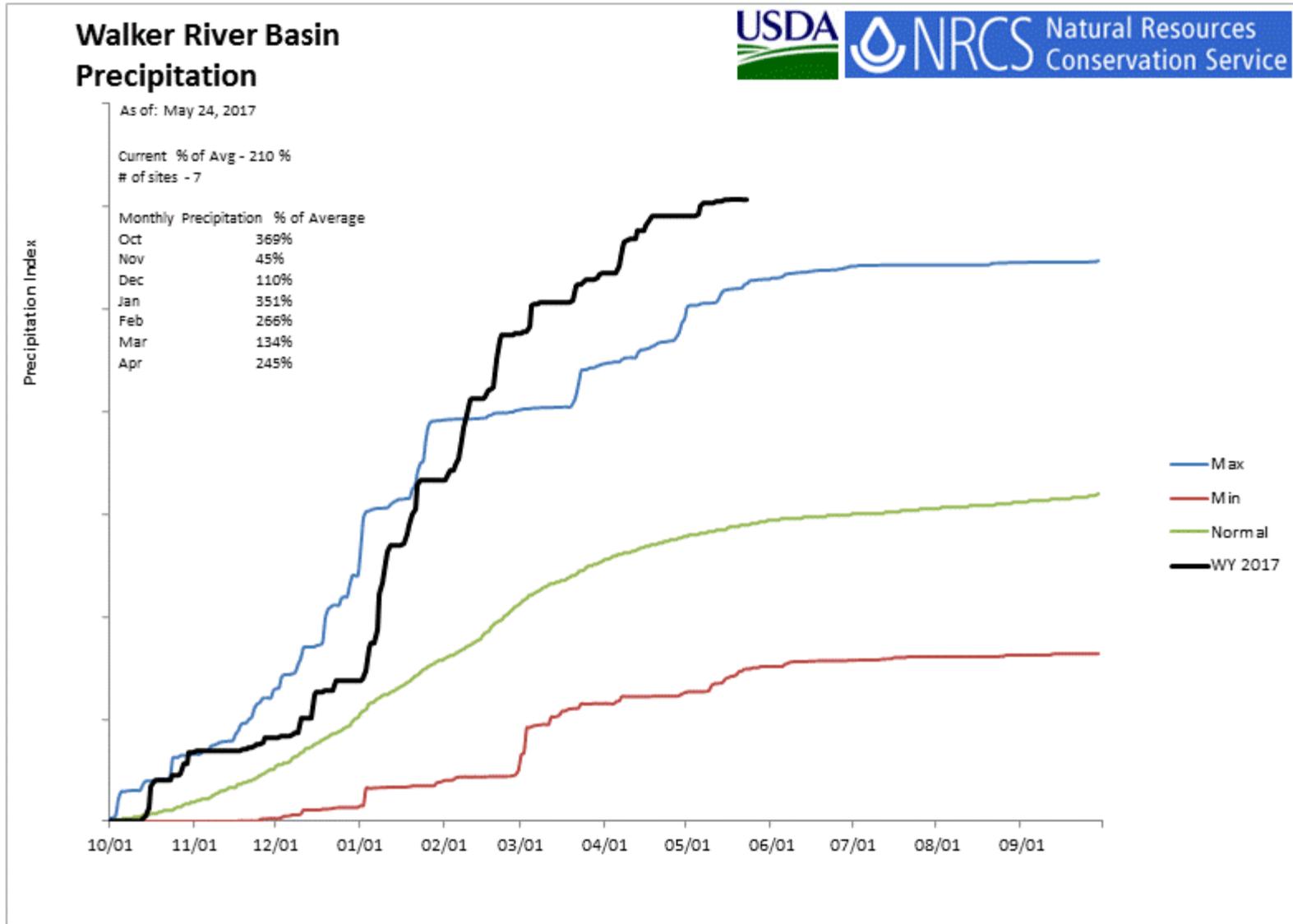
- 2017 is now the wettest water year on record based on SNOTEL data
- Basin average SWE indicates 60% of the 2017 peak remains to melt.
- May 25<sup>th</sup> snowpacks less than 1983 and 1995, but more than 2011.
- Recent melt-rates of ~1.5 to 2.5 inches/day at most SNOTELs. These could increase as days continue to lengthen and solar radiation continues to transmit more energy to the snow. Watch night time temperatures.
- There has been no significant freeze up to 9600ft in last 6 nights. Basin daily average temps have been at record levels (>50F) for last couple days.
- Soil moisture is at new maximum level based on 11 years of data, this indicates peak runoff conditions.
- As sites near melt out, the % of median peak update report may be more useful. Basin SWE is currently 136% of the 1981-2010 median peak amount.
- Today's streamflow forecasts predict larger volumes than May 1 forecasts.

## WALKER RIVER BASIN

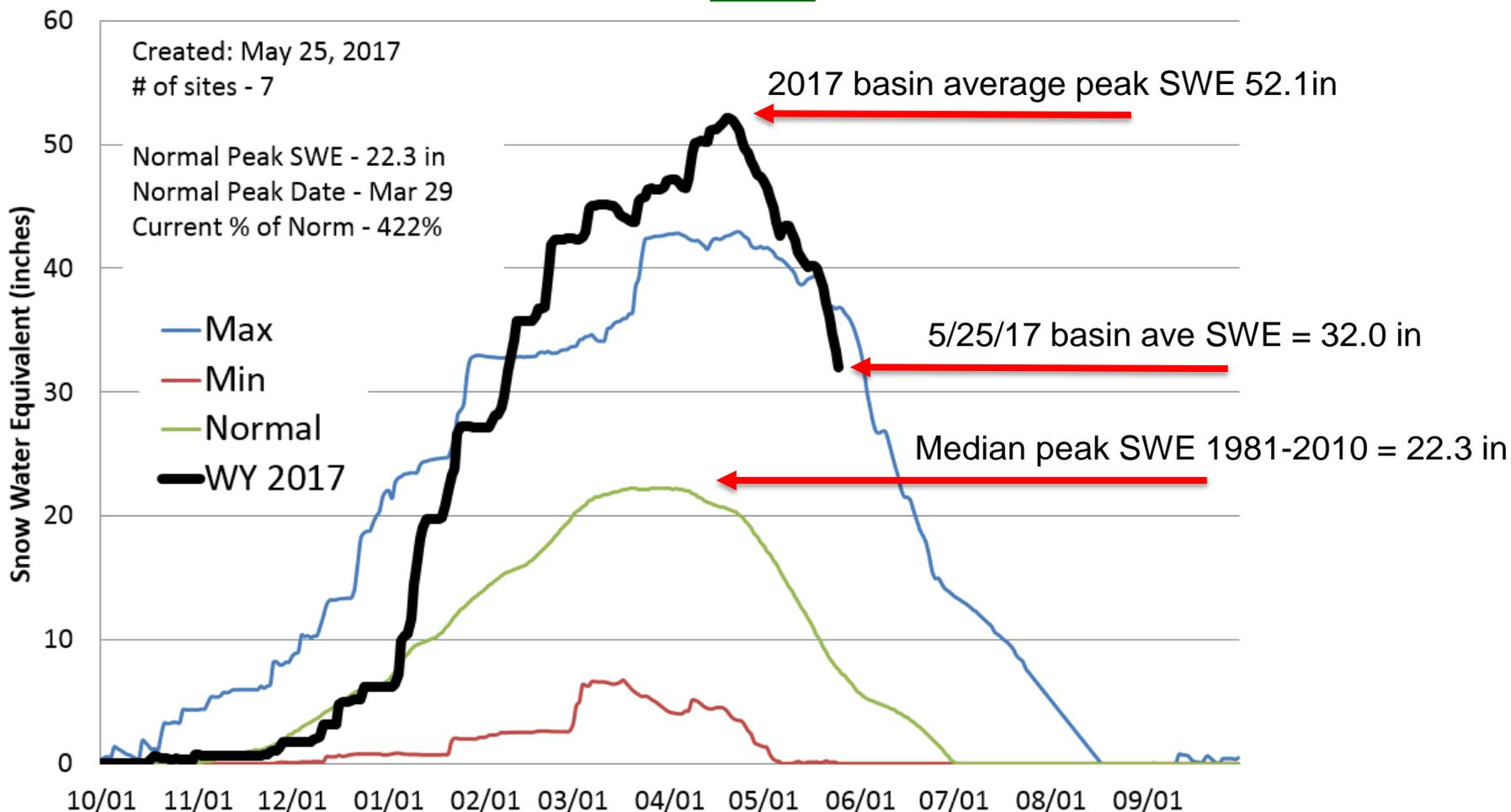
Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
E walker R nr Bridgeport	APR-AUG	205	301	220	211	199	190	68
	MAY-AUG	176	320	191	182	170	161	55
w walker R bl L walker R nr coleville	APR-JUL	400	247	439	416	384	360	162
	MAY-JUL	360	254	399	376	344	320	142



Water year precipitation is currently 210% of average.  
 2017 has set a record as the wettest water year on record based on SNOTEL data.



# Walker River Basin - SWE Index

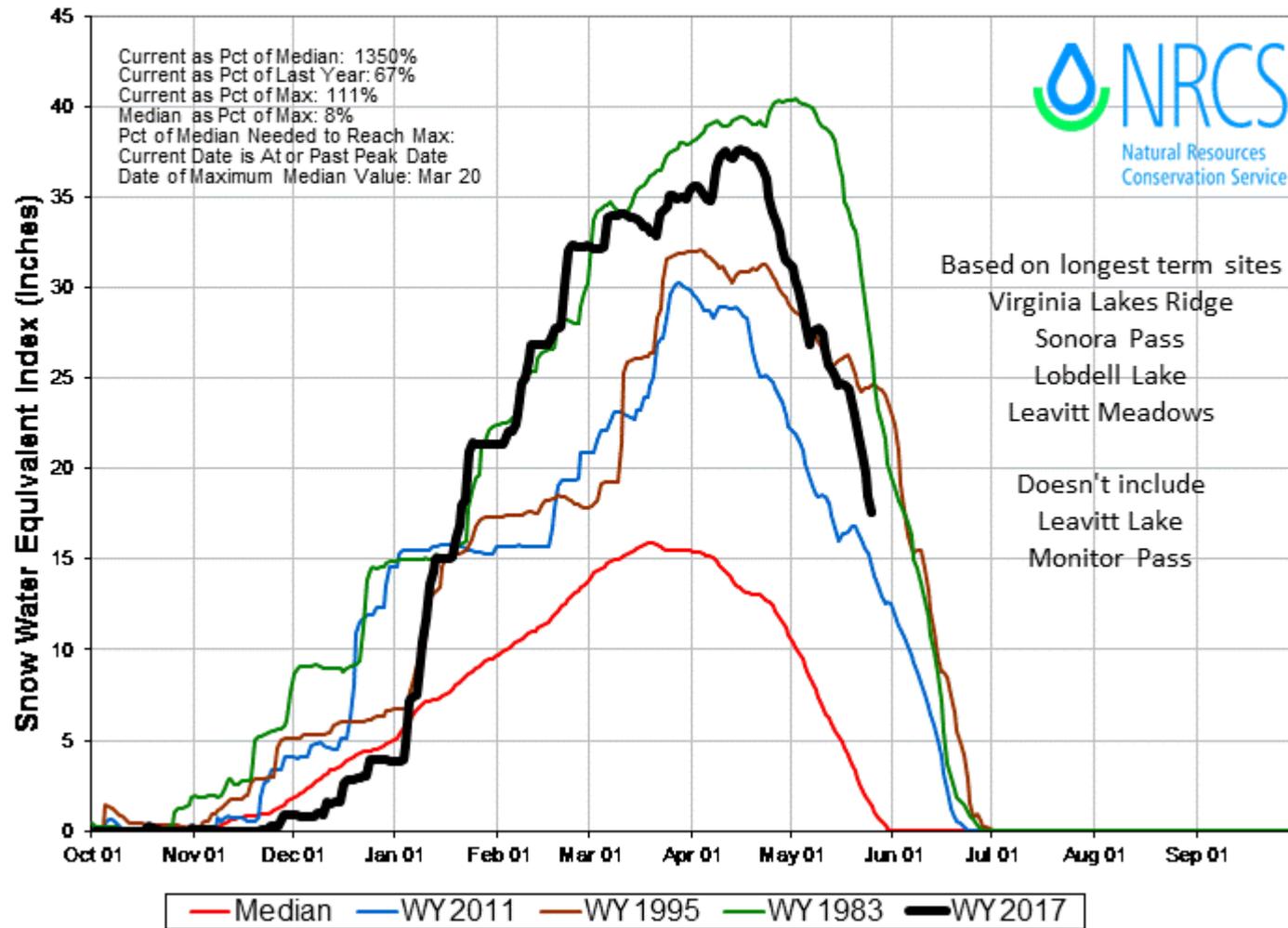


Based on data from all 7 SNOTEL sites in the Walker Basin  
60% of the average basin SWE remains as of 5/25/17

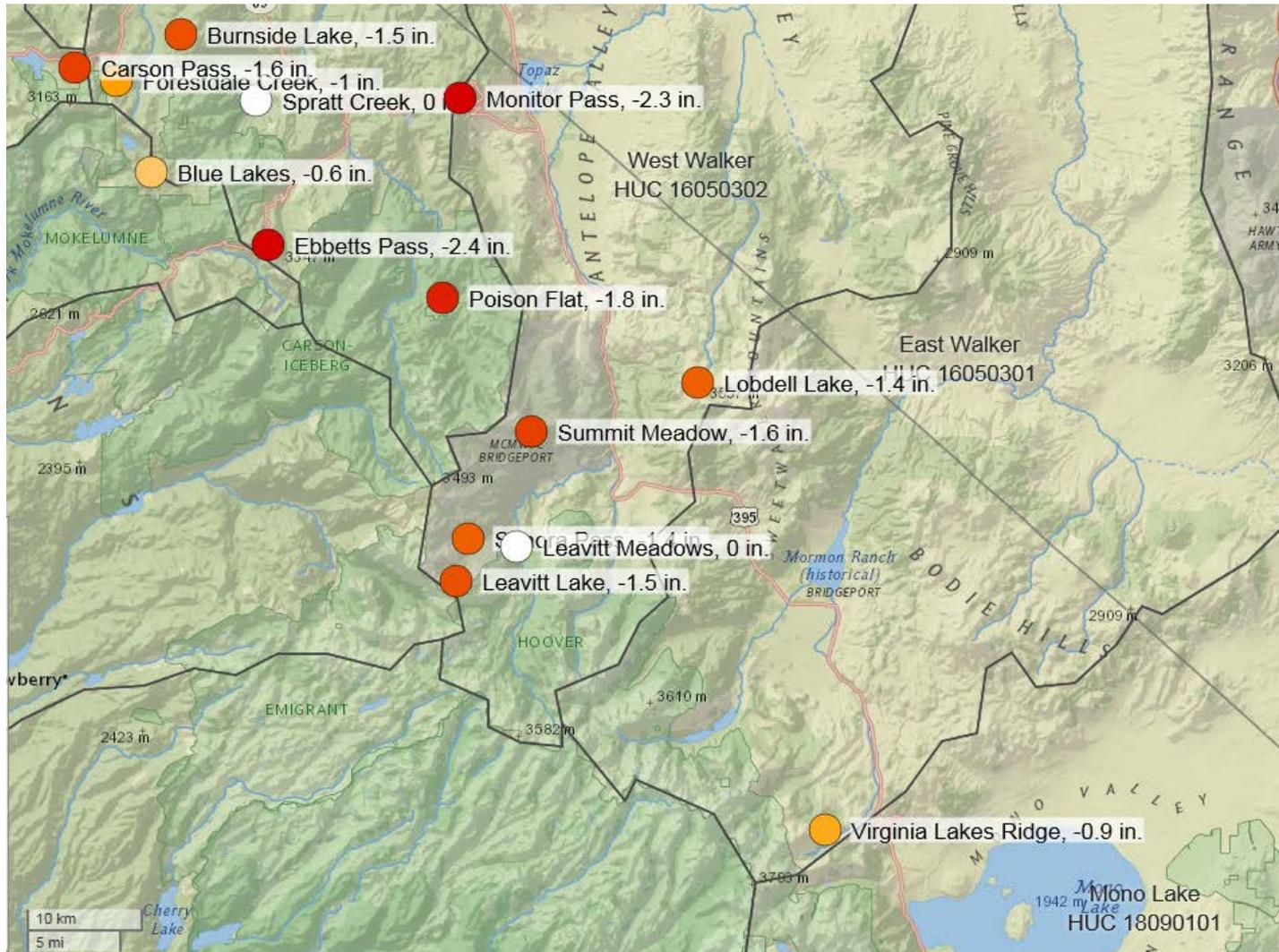


Using long term sites only snow water amounts are currently less than in 1983 and 1995, but still more than 2011 based on May 25<sup>th</sup> data.

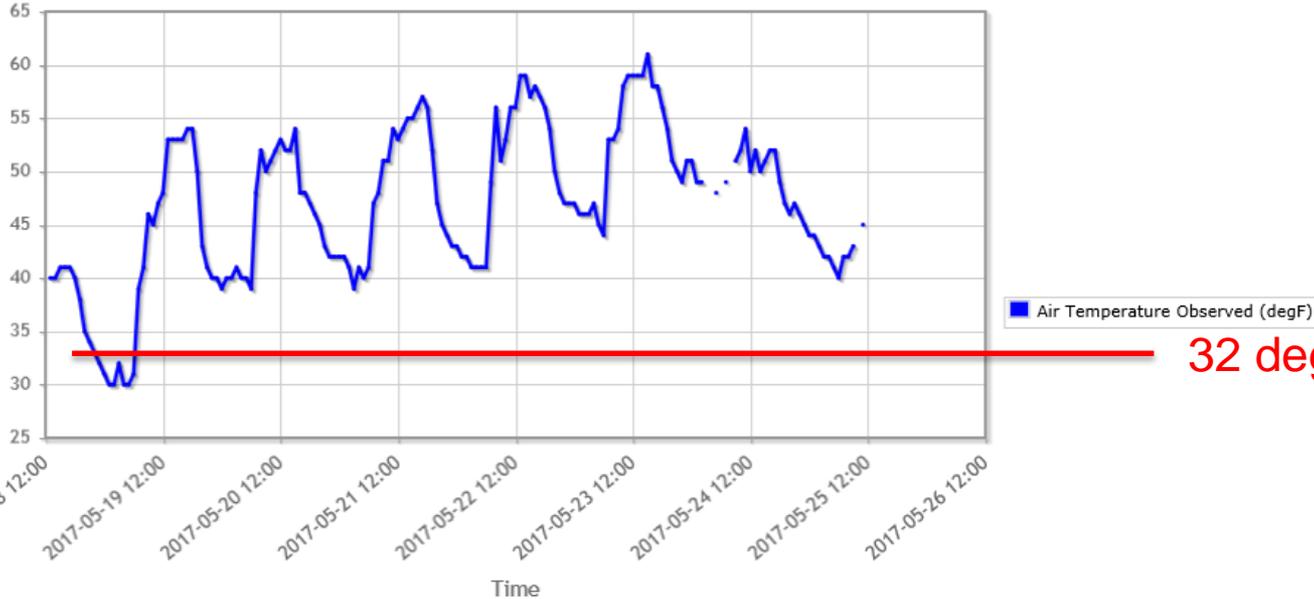
**WALKER RIVER BASIN Time Series Snowpack Summary**  
**Based on Provisional SNOTEL data as of May 25, 2017**



Melt-rates at most SNOTEL sites in or near the basin are ~1.5 to 2.5 inches/day including the highest elevation stations.



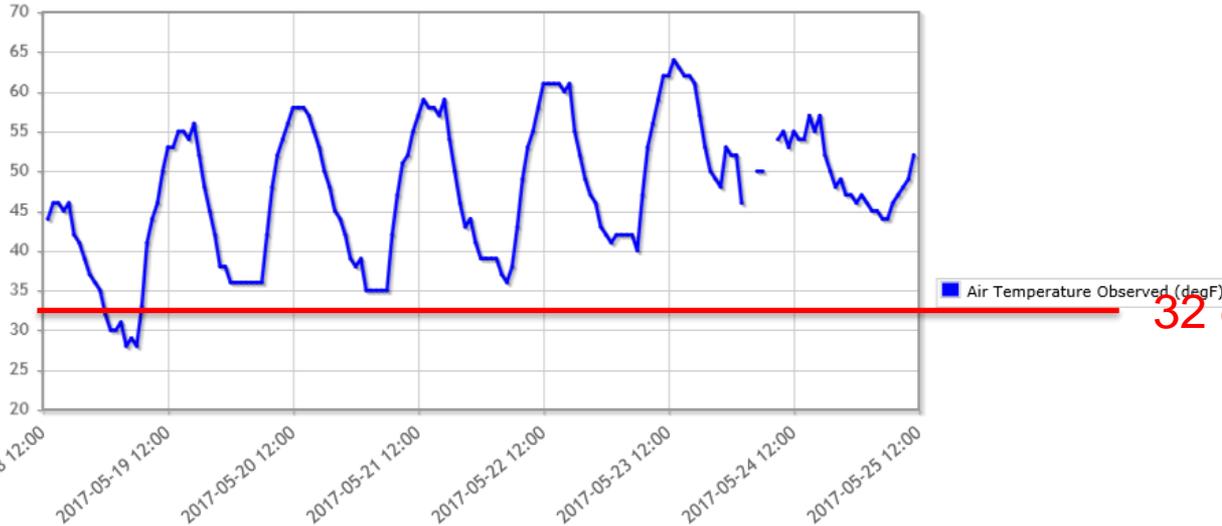
**Leavitt Lake (574) California SNOTEL Site - 9604 ft** Reporting Frequency: Hourly; Date Range: 2017-05-18 12:00 to 2017-11:00



32 degrees F

Temperatures have not dipped below freezing for 6 consecutive nights even up to 9,600 feet.

**Sonora Pass (771) California SNOTEL Site - 8770 ft** Reporting Frequency: Hourly; Date Range: 2017-05-18 12:00 to 2017-11:00

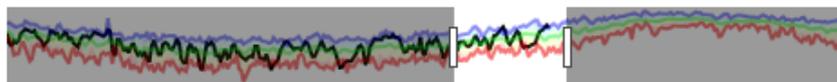
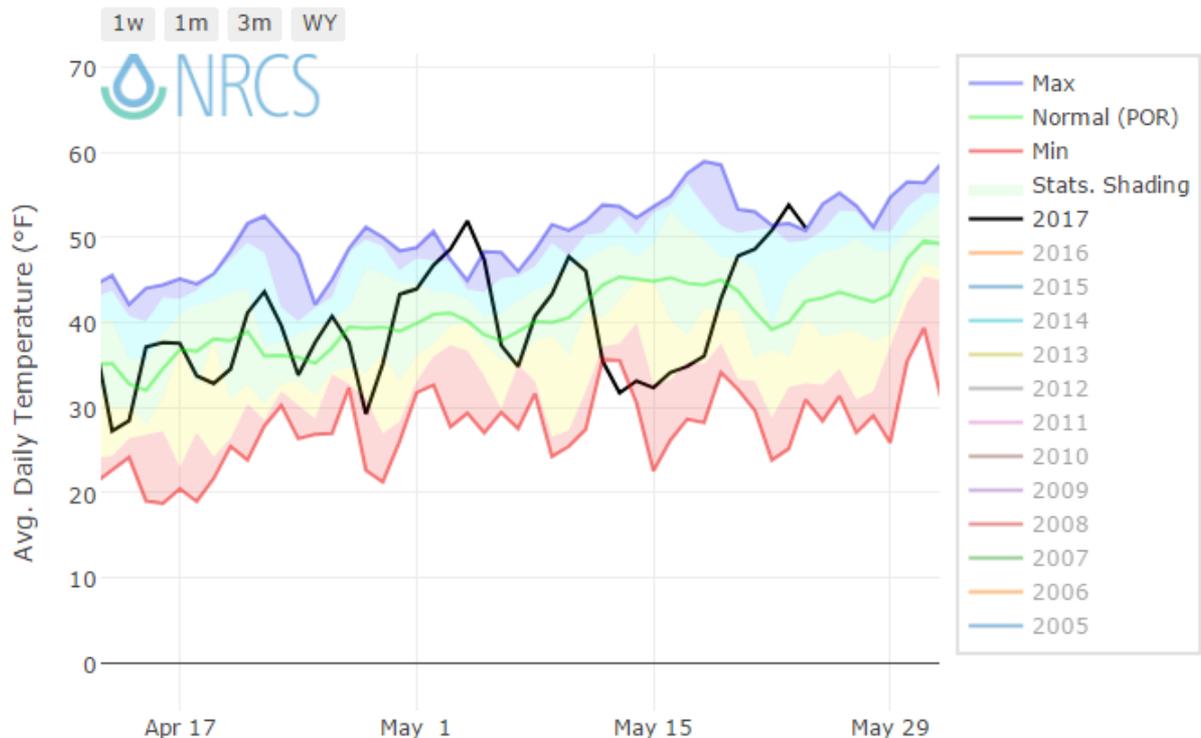


32 degrees F



# New Average Temperature Product – Average Daily Temps last two days have been >50F, setting new records for date.

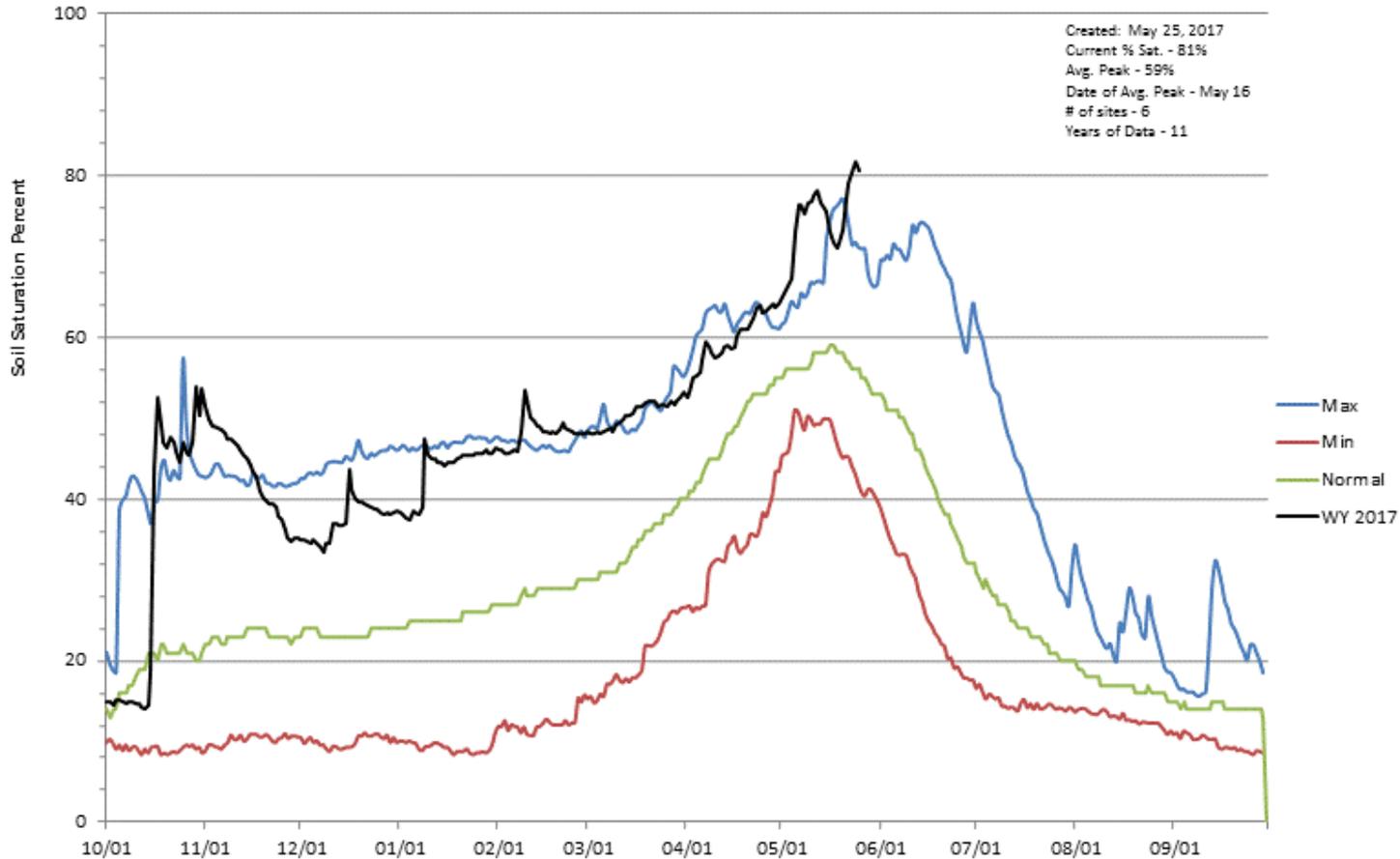
Average Daily Temperature in Walker River Basin



Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th Percentiles  
 Normal ('81-'10) - Official mean calculated from 1981 thru 2010 data  
 Normal (POR) - Unofficial mean calculated from Period of Record data  
 For more information visit: [30 year normals calculation description](#)

Soil moisture is at new maximum level based on 11 years of data, this indicates peak runoff conditions.

### Walker River Basin - Soil Saturation



Only Leavitt Lake normally still has significant snow at this time of year. Virginia Lakes, Summit Meadow and Sonora Pass are typically almost snow-free by May 25. This explains the very high % of today's median values in snow update reports.

Late in the season after a big winter, the % of median peak values become more meaningful. Compared to 1981-2010 median values, there is still 136% of a normal (median) winter's snow water left at SNOTEL sites in the Walker Basin.

California/Nevada SNOTEL Snowpack Update Report							
Based on Mountain Data from NRCS SNOTEL Sites							
**Provisional data, subject to revision**							
Data based on the first reading of the day (typically 00:00) for Thursday, May 25, 2017							
Basin Site Name	Elev (ft)	Snow Water Equivalent				Percent of	
		Current (in)	Today's Median (in)	Median Peak (in)	Median Peak Date	Today's Median	Median Peak
<b>WALKER RIVER</b>							
Leavitt Lake	9604	110.0	46.0	58.6	May 02	239	188
Virginia Lakes Ridge	9445	23.5	2.0	16.4	Apr 07	1175	143
Summit Meadow	9313	37.7	1.9 <sub>R</sub>	23.9 <sub>R</sub>	Apr 05	1984*	158*
Lobdell Lake	9249	11.2	0.0	15.9	Apr 07	*	70*
Sonora Pass	8770	35.5	3.2	24.5	Apr 05	1109	145
Monitor Pass	8306	6.2	0.0	15.2	Mar 07	*	41*
Leavitt Meadows	7198	0.0	0.0	9.9	Mar 16	*	0*
<b>Basin Index (%)</b>						<b>422*</b>	<b>136*</b>

## Streamflow Forecast Update

**East Walker** - seasonal volume forecasts have increased from May 1 forecasts. An remain the same as May 16 forecasts.

**West Walker** - seasonal volume forecasts continue to increase from May 1 and May 16 forecasts

### 5/25/17 Update

WALKER RIVER BASIN								
Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
E walker R nr Bridgeport	APR-AUG	205	301	220	211	199	190	68
	MAY-AUG	176	320	191	182	170	161	55
w walker R bl L walker R nr coleville	APR-JUL	400	247	439	416	384	360	162
	MAY-JUL	360	254	399	376	344	320	142

### 5/16/17 Update

WALKER RIVER BASIN								
Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
E walker R nr Bridgeport	APR-AUG	205	301	220	211	199	190	68
	MAY-AUG	176	320	191	182	170	161	55
w walker R bl L walker R nr coleville	APR-JUL	380	235	419	396	364	340	162
	MAY-JUL	340	239	379	356	324	300	142

### 5/1/17 Update

WALKER RIVER BASIN								
Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
E walker R nr Bridgeport	APR-AUG	190	279	240	210	170	140	68
	MAY-AUG	162	295	205	179	145	119	55
w walker R bl L walker R nr coleville	APR-JUL	360	222	390	372	348	330	162
	MAY-JUL	317	223	351	331	303	283	142