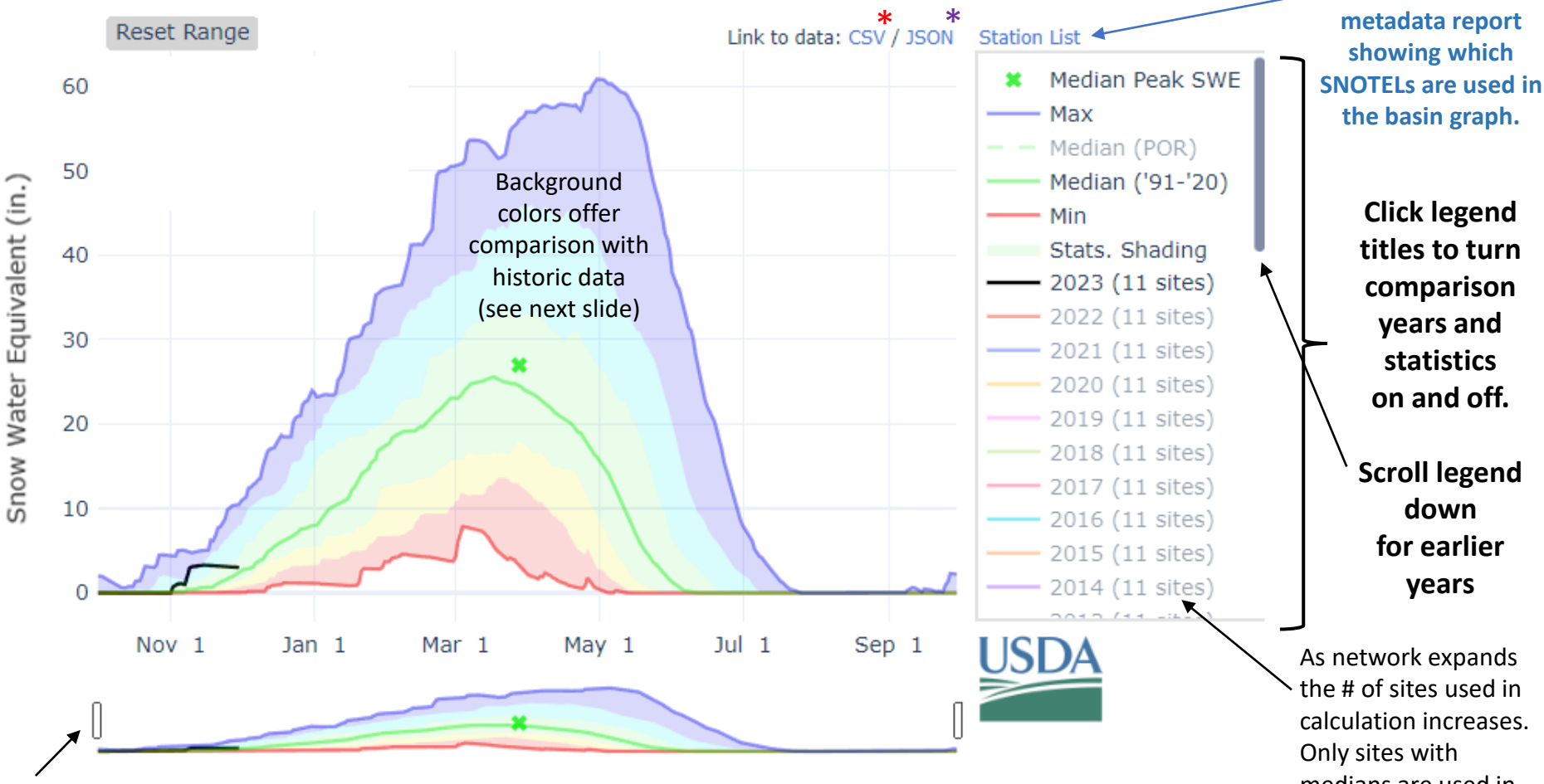
Interactive Air, Water, Snow SNOTEL Charts - Main Features

Basic concepts shown here apply to precipitation, temperature and soil moisture charts



Station List links to metadata report showing which SNOTELs are used in the basin graph.

Click legend titles to turn comparison years and statistics on and off.

Scroll legend down for earlier years

As network expands the # of sites used in calculation increases. Only sites with medians are used in calculation.

Use this slider bar control the date range display.

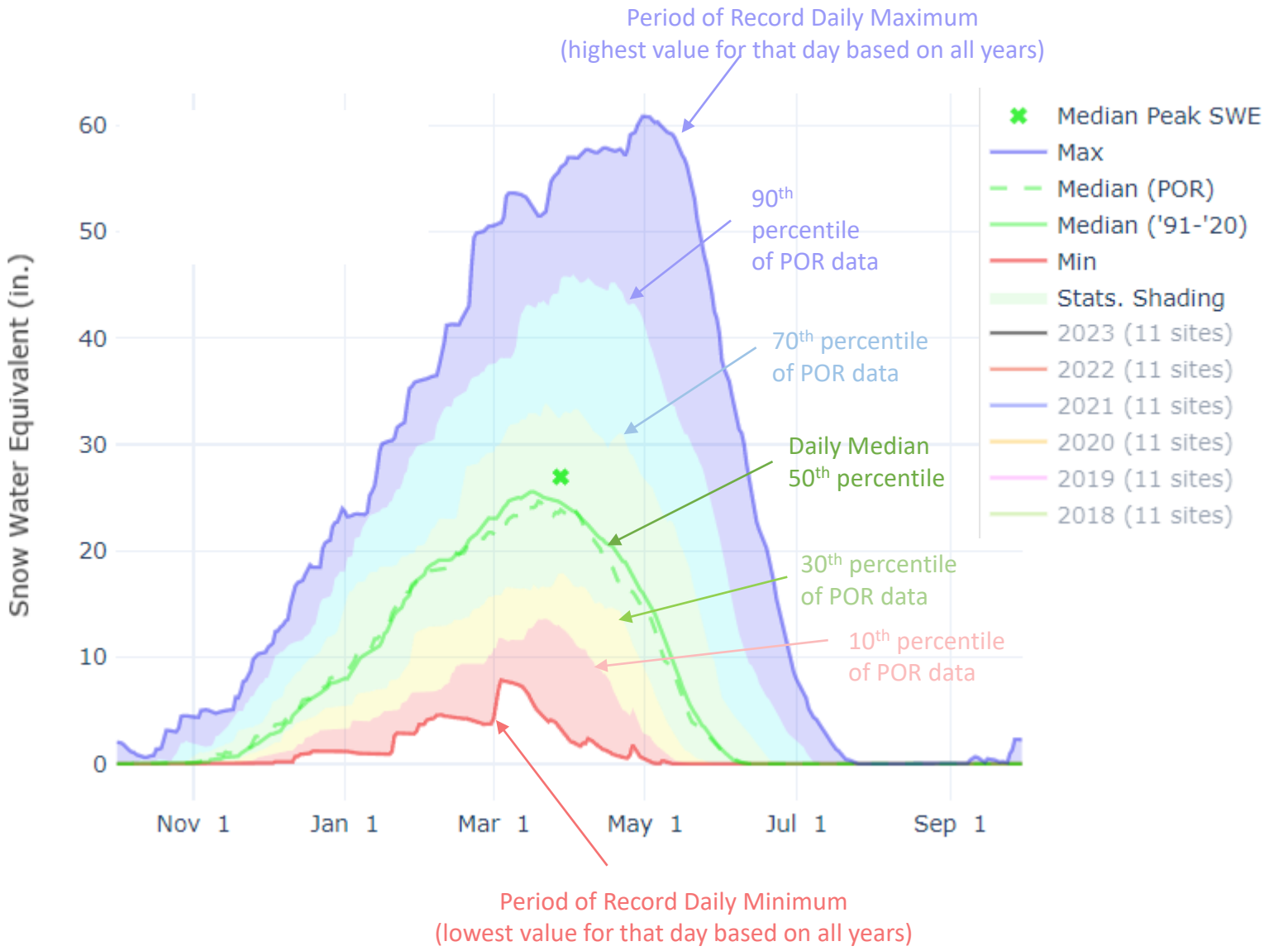
Use "Reset Range" above chart to reset display to full year

* CSV – Links to comma separated file containing period of record data.
In basin graphs the data represent basin averaged data.
Download works best with Chrome or Firefox.

* JSON – Links to JavaScript Object Notation data-interchange format.
This format is easy for humans to read and easy for machines to parse.

Statistical Shading and Min and Max Lines

The color change of background shows statistical shading breaks at 10th, 30th, 50th, 70th and 90th percentiles.



Medians available for Period of Record or 1991-2020

Click on legend titles to turn on/off statistics and shading

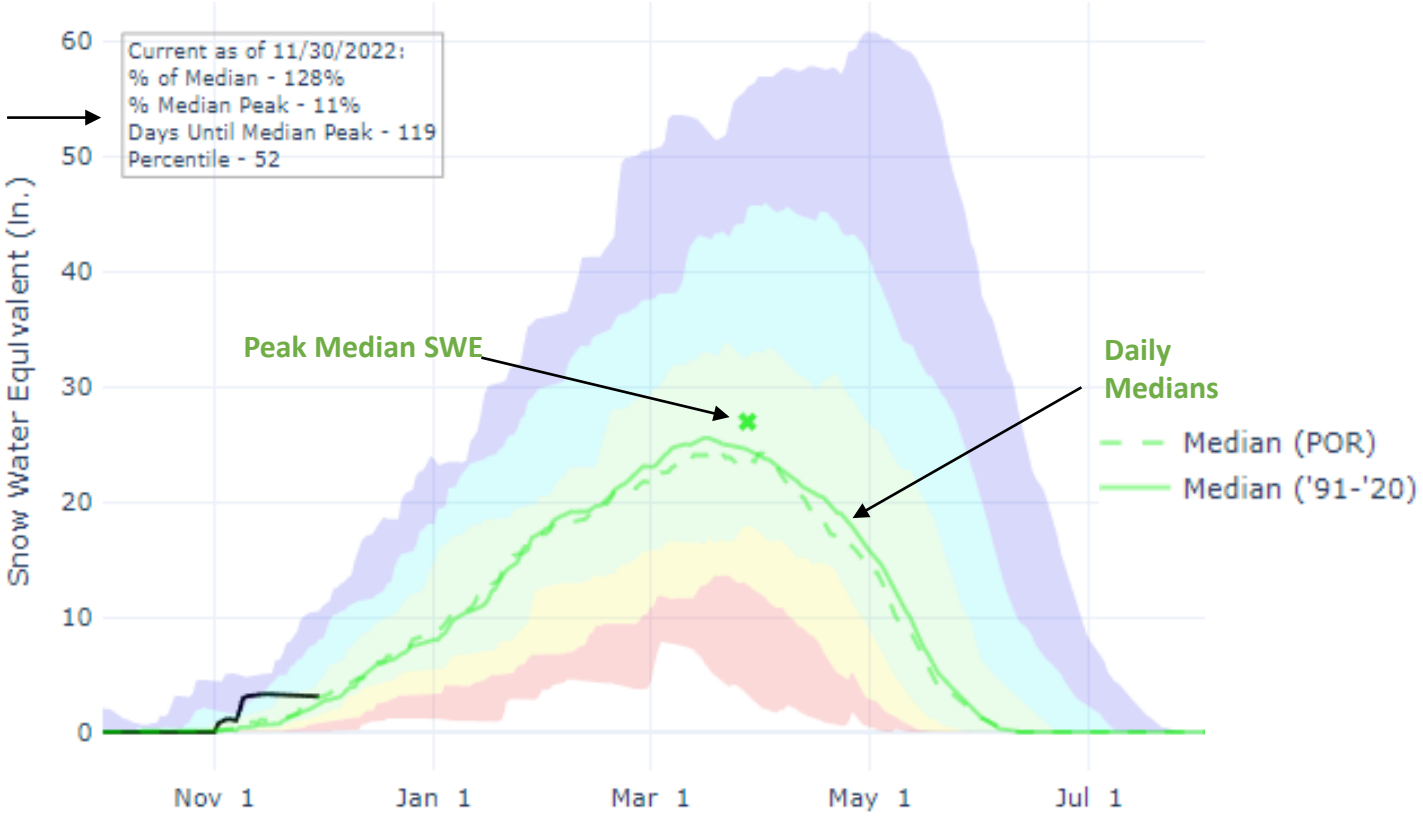
Daily Median vs Median Peak SWE

Percent of Median =
Today's SWE divided by the daily median for the date

Percent of Median Peak =
Today's SWE divided by peak median SWE

Days until Median Peak =
How many days current date is before or after median peak date

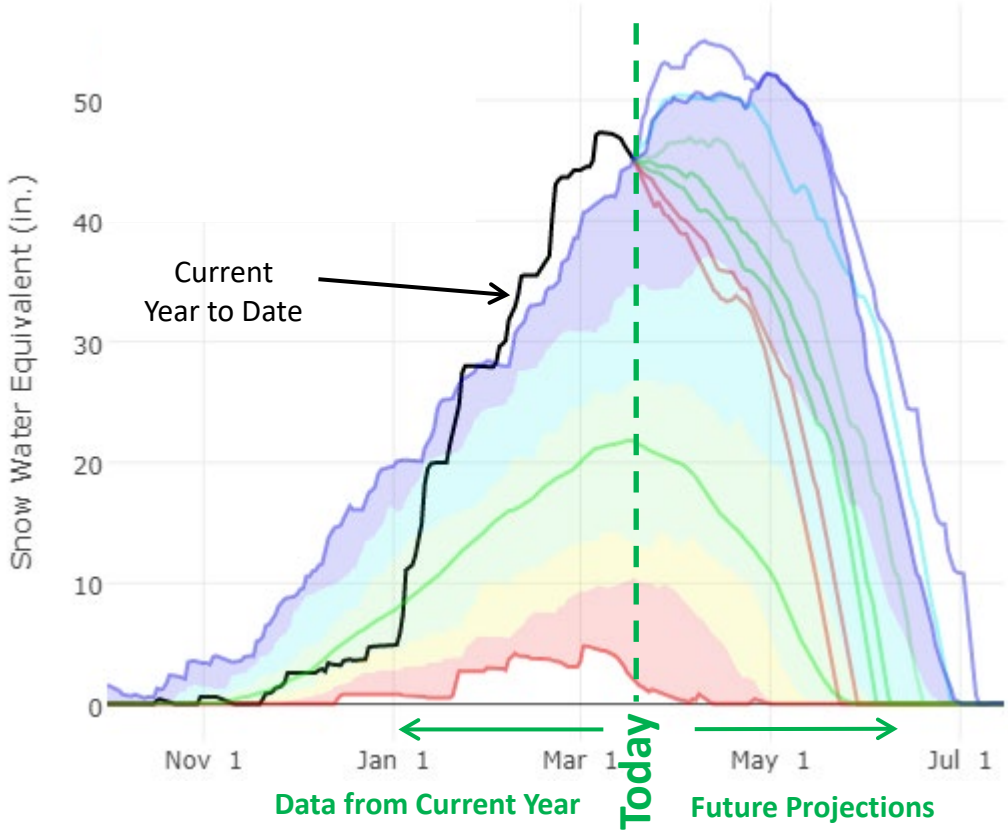
Percentile =
Based on today's value compared to historic data displayed in statistical background shading.



Daily median is the median (middle) value for each day of the water year. This statistic finds the middle SWE values for a specific date based on 1991-2020 normals period or period of record.

Median Peak SWE is the median of all years' peak snow water equivalent (SWE) amount. The timing of peak SWE varies year to year. For example, sometimes the peak snow water happens in March while other years if may occur in April or May. This statistic finds the median based on peaks from all years. The date of median peak SWE is the median of all peak SWE dates. Since the median peak SWE is based on the highest values from each year's data, it is generally a few inches above the highest part of daily median SWE line.

Projection Graphs

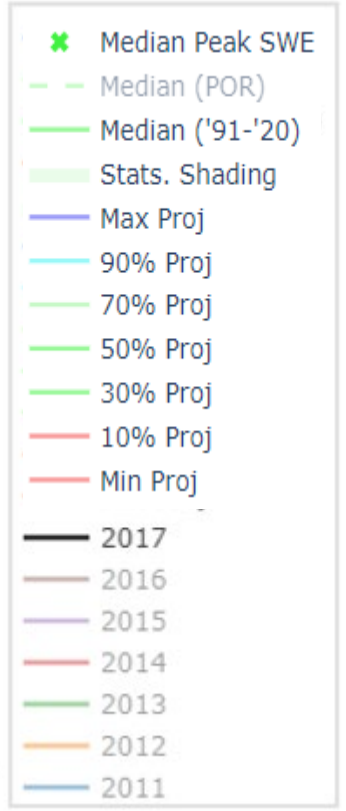


Projection Lines: Display a series of future snow water projections based on historic non-exceedance data for the basin.

Max and Min Projection Lines: Display projections based on historic daily maximum and minimum data.

Historic Projection: Clicking on past years projects future data based on data from the year selected

Click on legend titles to turn on/off components



Projection graphs display how likely various changes in the current snowpack (or precipitation) are to occur based on historic data. This can help users to determine how much improvement is possible or how much worse conditions could get based on past years.

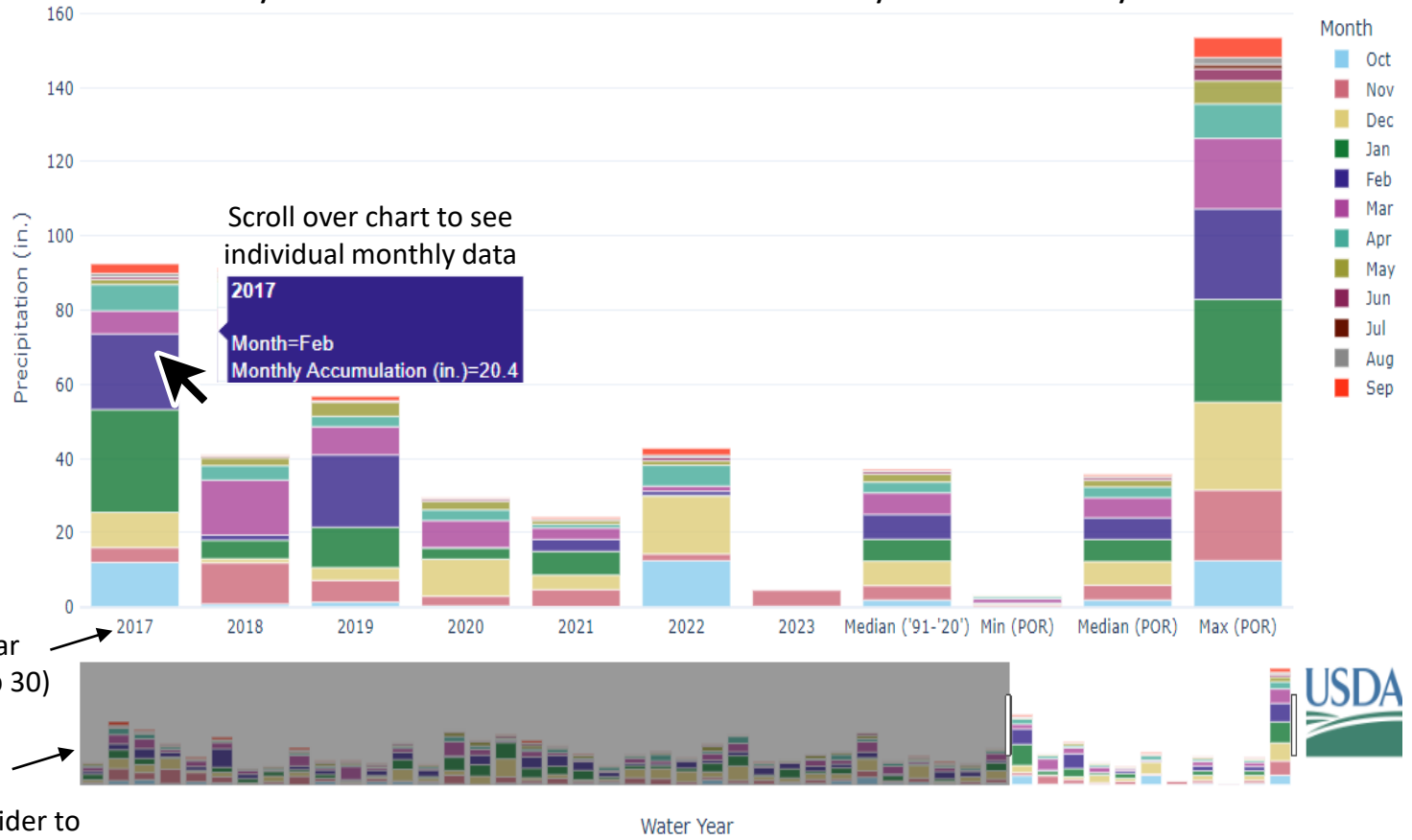
In general terms, projections can be divided as follows:

DRY Future (Min, 10%, 30% Projection) – Drier than normal future followed by rapid melt based on historic data
NORMAL Future (50% Projection) - Near normal future snow accumulation and melt based historic data
WET Future (70%, 90%, Max Projection) – Wetter than normal future followed by delayed melt based on historic data

To exceed the max projection, or go below the min projection, would take recording breaking wet or dry future weather.

Stacked Precipitation and SWE Accumulation Graphs

Monthly accumulation amounts are stacked to yield the water year total.



Max (POR) sums largest accumulation for each month based or range of years in the period of record. This is not a specific year, but the sum of the wettest January, February, March, etc… across all years.

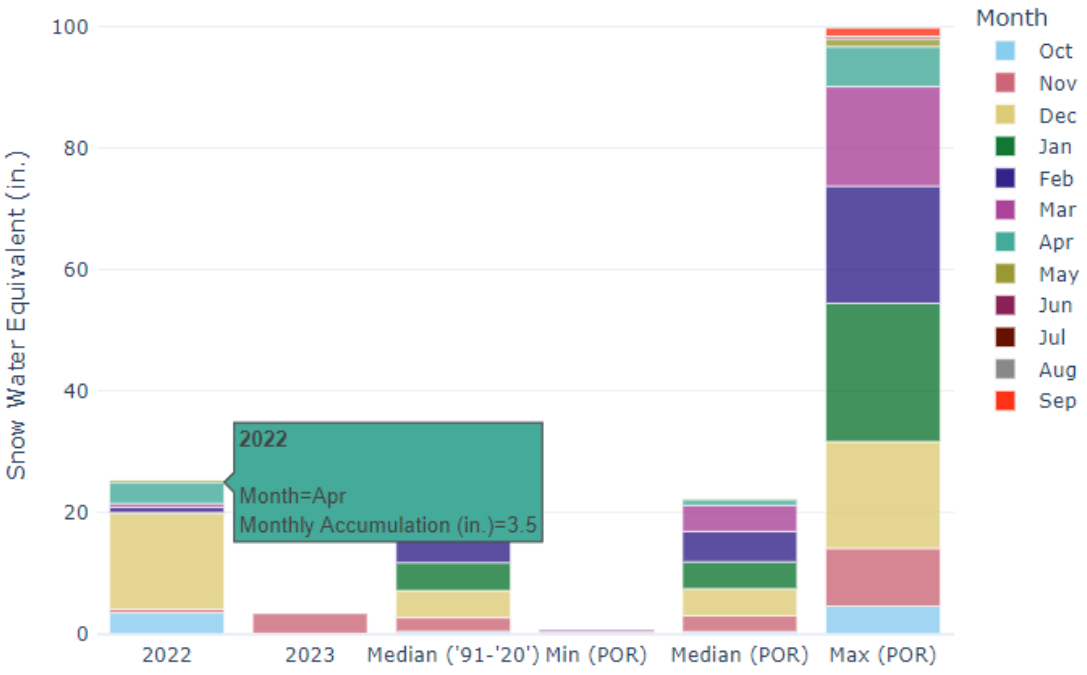
Medians available for Period of Record or 1991-2020 normals period. Medians are zero and are not displayed present for months where more than half the years have zero accumulation.

Min (POR) sums smallest monthly accumulation for each month based or range of years in the period of record. This is not a specific year, but the sum of the driest January, February, March, etc… across all years. Months with zero accumulation are not displayed.

More on SWE accumulation on the next page…

How is snow water accumulation calculated when melt occurs?

Monthly SWE accumulation is the sum of all daily increases in snow water for the month.
All melt that occurs is ignored in calculation.



Example: In April 2022 SWE accumulation for the month equals 3.5inches. The table at right shows that SWE melted over the month, decreasing from 12.6 to 8.7. During that time, there were storm events that added SWE between the melt periods. The difference column shows melt as negative and accumulation as positive. Summing the positive increases produces the monthly accumulation of 3.5inches.

Date	SWE	Difference	Increases	Monthly Accumulation
4/1/2022	12.6	-0.4	0	**3.5**
4/2/2022	12.2	-0.5	0	
4/3/2022	11.7	-0.3	0	
4/4/2022	11.4	-0.5	0	
4/5/2022	10.9	-0.4	0	
4/6/2022	10.5	-0.5	0	
4/7/2022	10	-0.7	0	
4/8/2022	9.3	-0.5	0	
4/9/2022	8.8	-0.4	0	
4/10/2022	8.4	-0.2	0	
4/11/2022	8.2	0.6	0.6	
4/12/2022	8.8	0	0	
4/13/2022	8.8	0	0	
4/14/2022	8.8	0.4	0.4	
4/15/2022	9.2	0.1	0.1	
4/16/2022	9.3	0.6	0.6	
4/17/2022	9.9	-0.2	0	
4/18/2022	9.7	-0.2	0	
4/19/2022	9.5	0.2	0.2	
4/20/2022	9.7	0.1	0.1	
4/21/2022	9.8	1.5	1.5	
4/22/2022	11.3	0	0	
4/23/2022	11.3	-0.2	0	
4/24/2022	11.1	-0.2	0	
4/25/2022	10.9	-0.4	0	
4/26/2022	10.5	-0.4	0	
4/27/2022	10.1	-0.3	0	
4/28/2022	9.8	-0.3	0	
4/29/2022	9.5	-0.3	0	
4/30/2022	9.2	-0.5	0	
5/1/2022	8.7	-8.7	0	