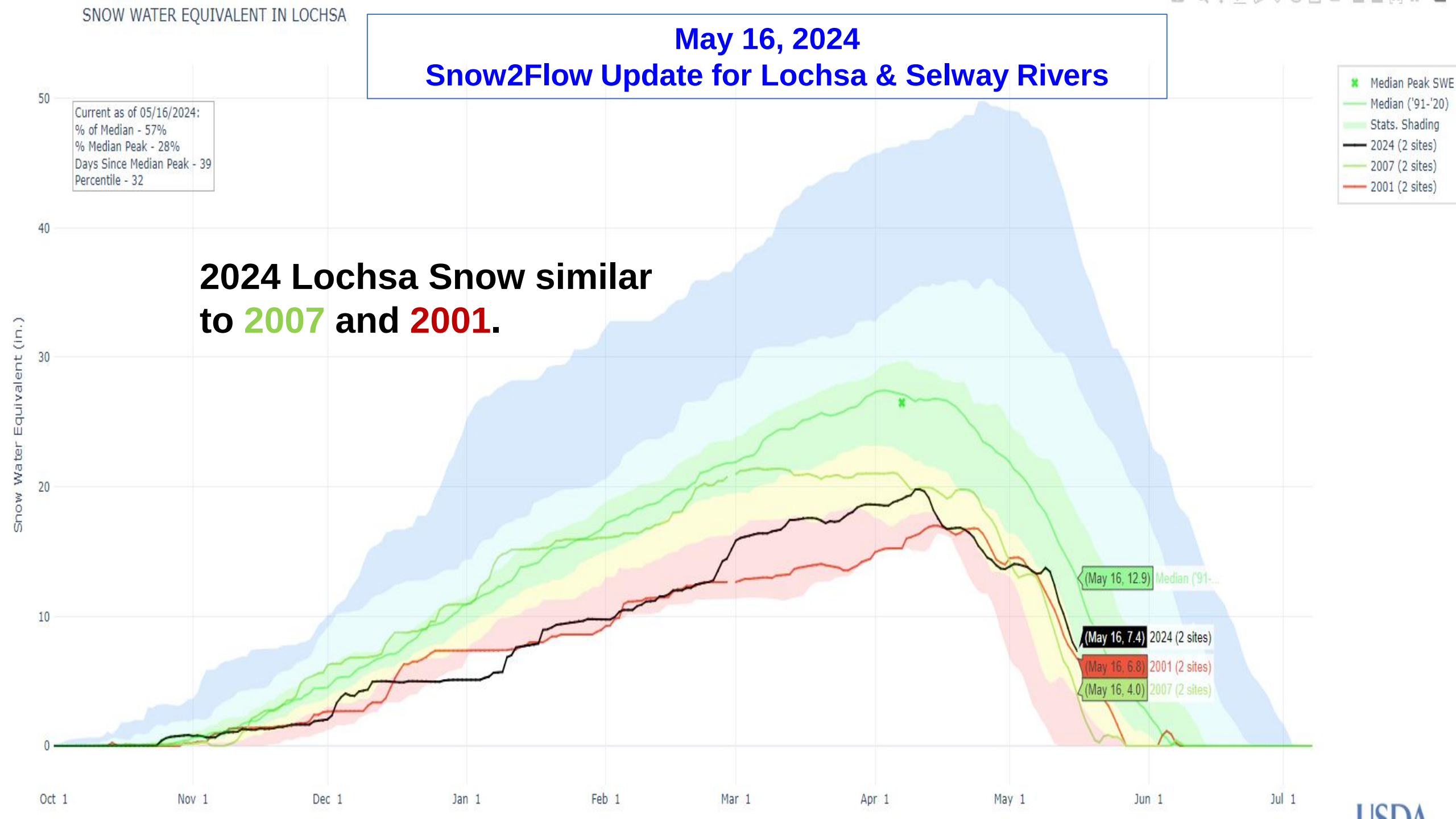
May 16, 2024
Snow2Flow Update for Lochsa & Selway Rivers



LOLO PASS, ID (588) SNOW WATER EQUIVALENT

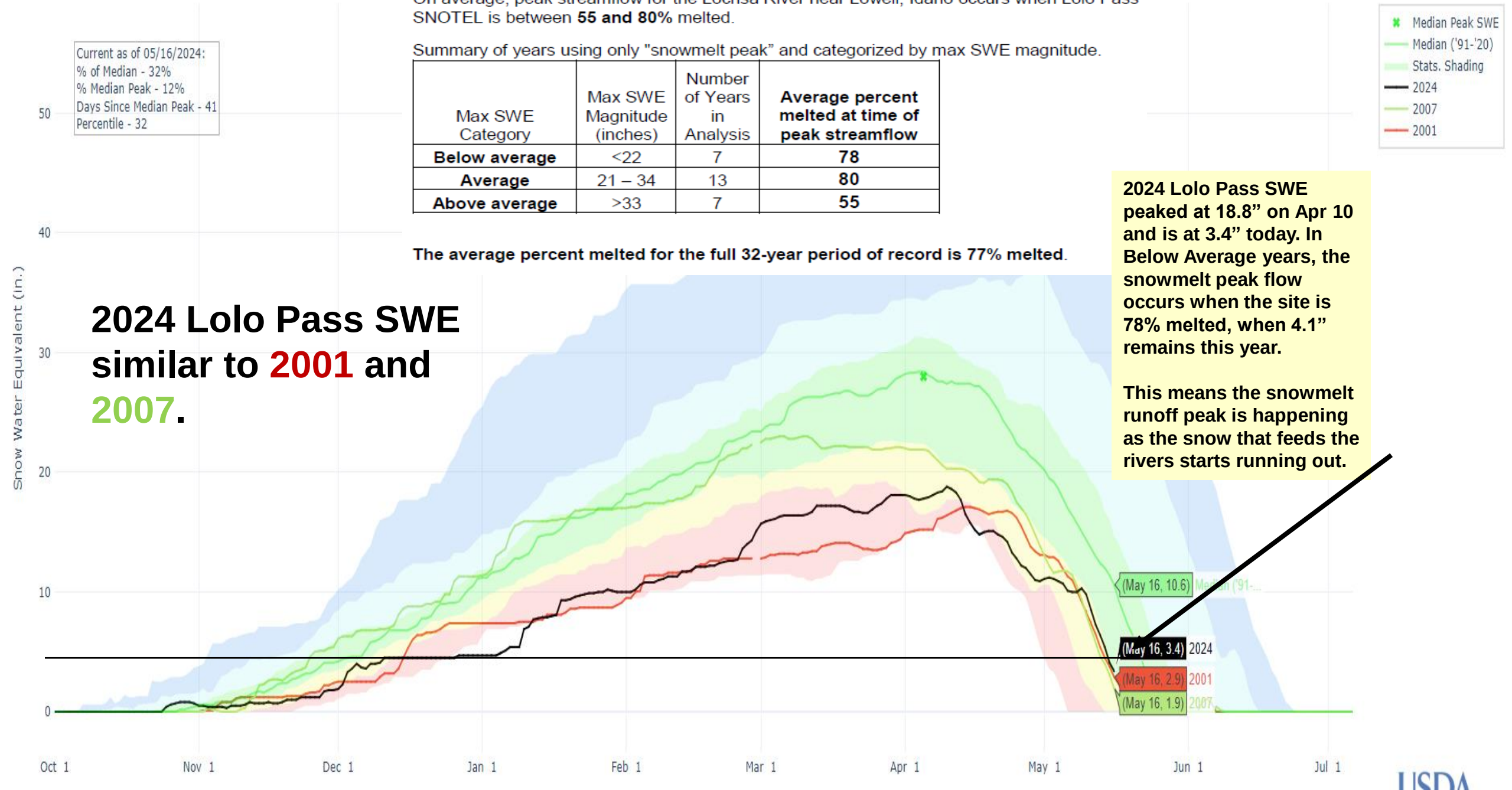
LOCSHA RIVER AND LOLO PASS SNOTEL

On average, peak streamflow for the Lochsa River near Lowell, Idaho occurs when Lolo Pass SNOTEL is between **55 and 80%** melted.

Summary of years using only "snowmelt peak" and categorized by max SWE magnitude.

Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	**Average percent melted at time of peak streamflow**
Below average	<22	7	**78**
Average	21 – 34	13	**80**
Above average	>33	7	**55**

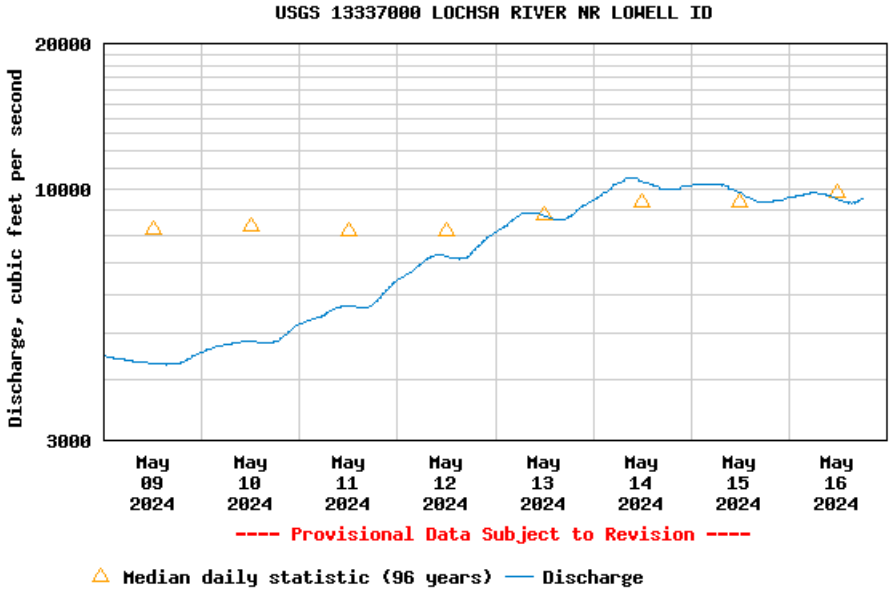
The average percent melted for the full 32-year period of record is 77% melted.



2024 Lolo Pass SWE similar to 2001 and 2007.

2024 Lolo Pass SWE peaked at 18.8” on Apr 10 and is at 3.4” today. In Below Average years, the snowmelt peak flow occurs when the site is 78% melted, when 4.1” remains this year.

This means the snowmelt runoff peak is happening as the snow that feeds the rivers starts running out.



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Daily discharge, cubic feet per second -- statistics for May 16 based on 96 water years of record more

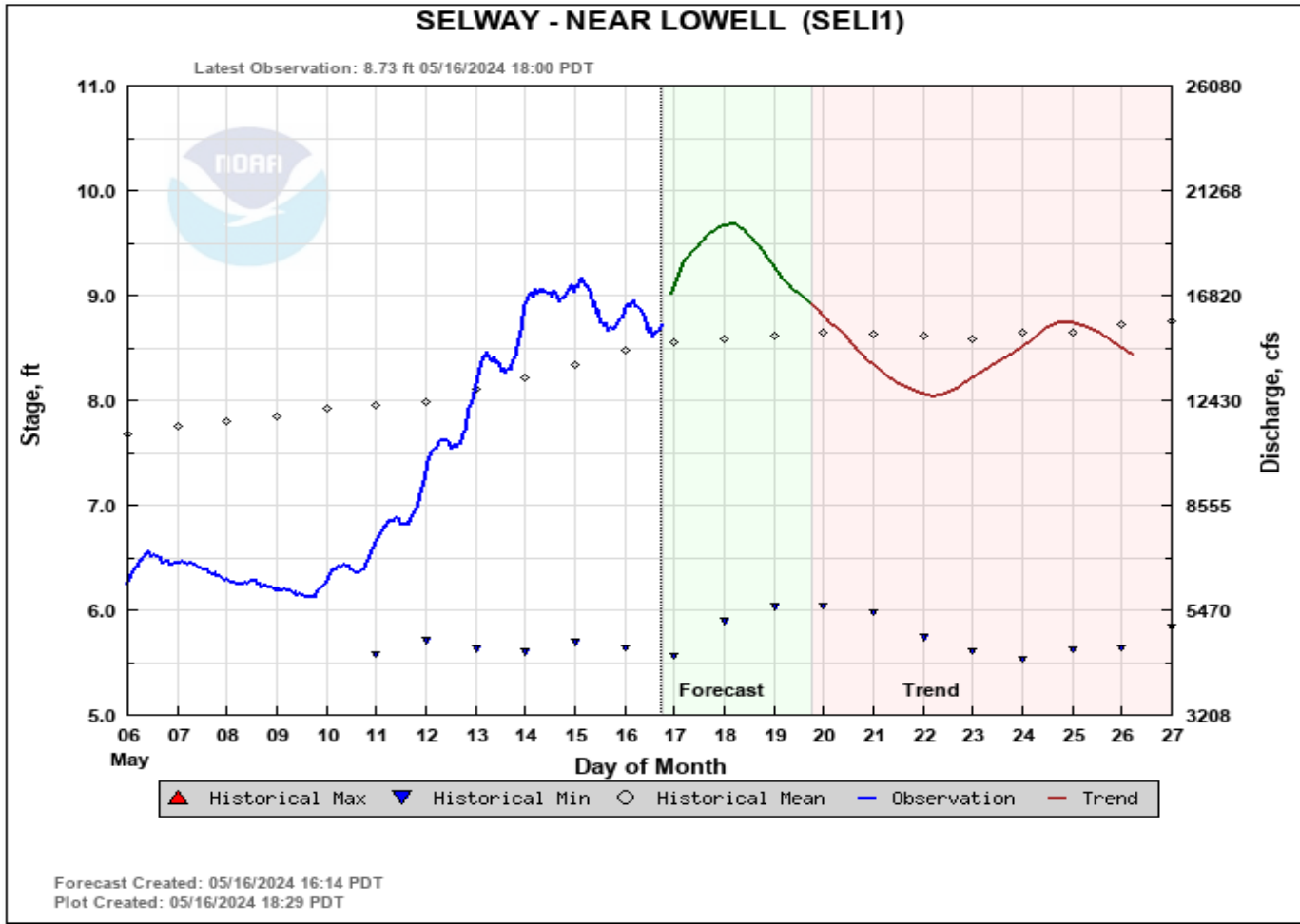
Min (1983)	25th percen-tile	Most Recent Instantaneous Value May 16	Median	Mean	75th percen-tile	Max (1997)
4220	7380	9540	9840	10900	13300	27900

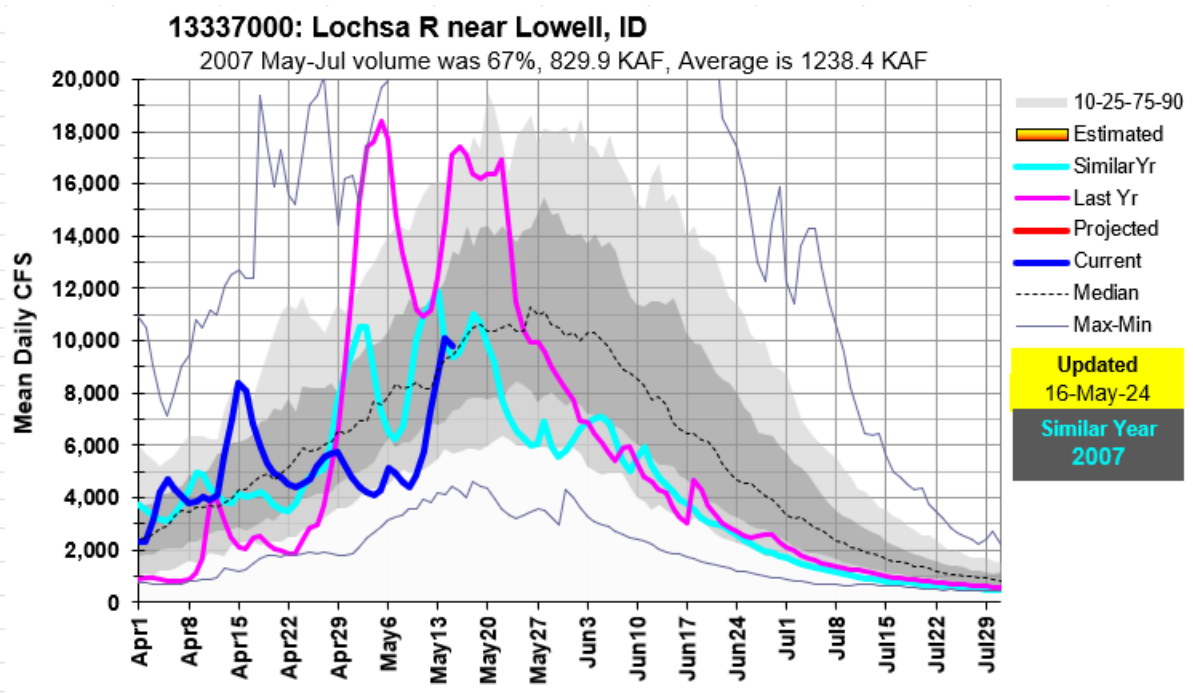
Keep in mind the Snow2Flow Relationship is based on snow and snowmelt relationship with peak flows.

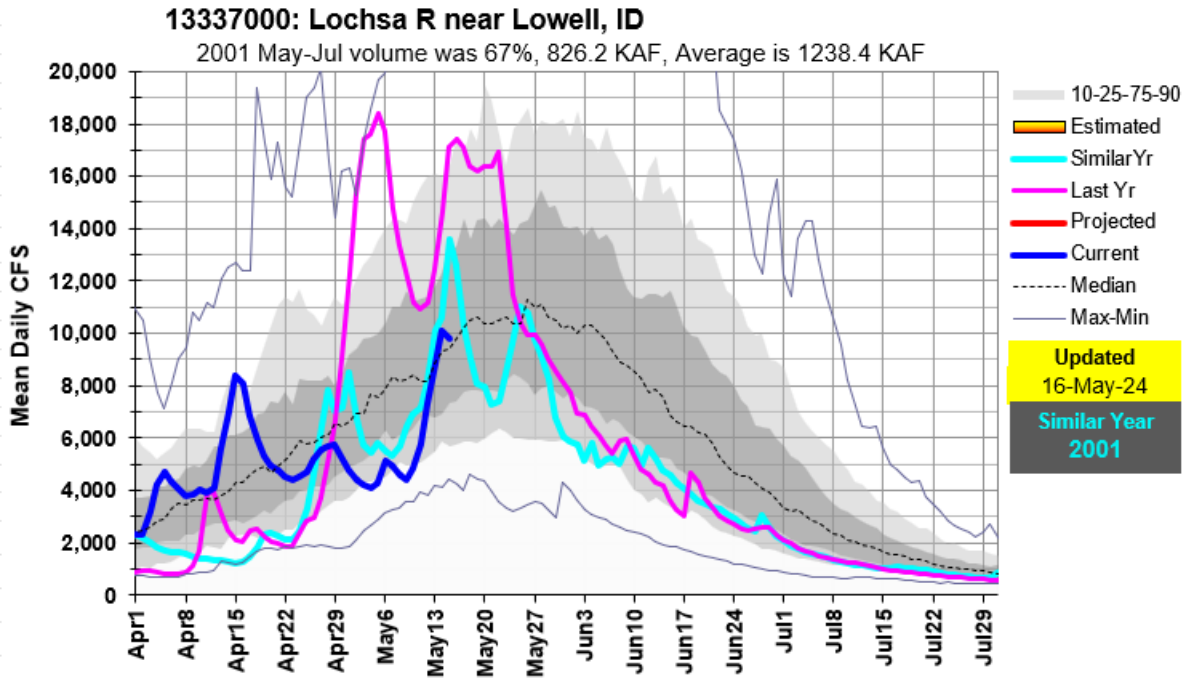
Any given day with rain can generate additional peaks or a higher peak for the season.

Based on daily USGS flow data shows the flow is leveling off as the snow continues to drain out of the basin and less snow covered area remains to feed the streams that feed the Lochsa.

NWS Forecast & Trend shows a peak happening in the next day or two, but the next model run will probably be adjusted to show decreasing flows with the return of cooler temps on Friday and maybe rest of month.





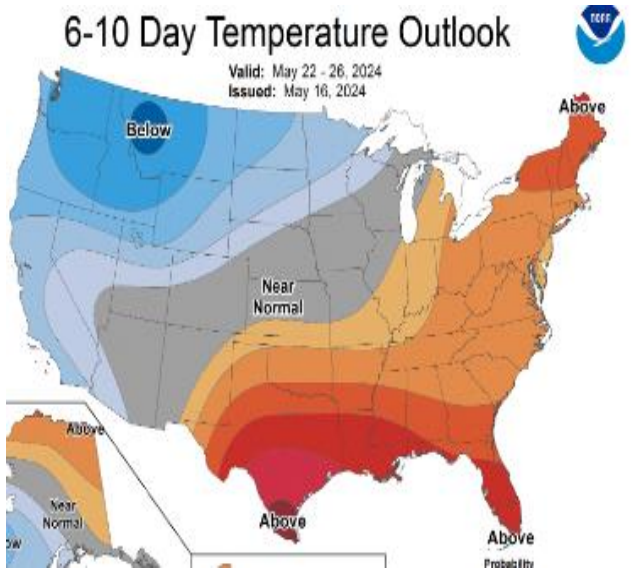


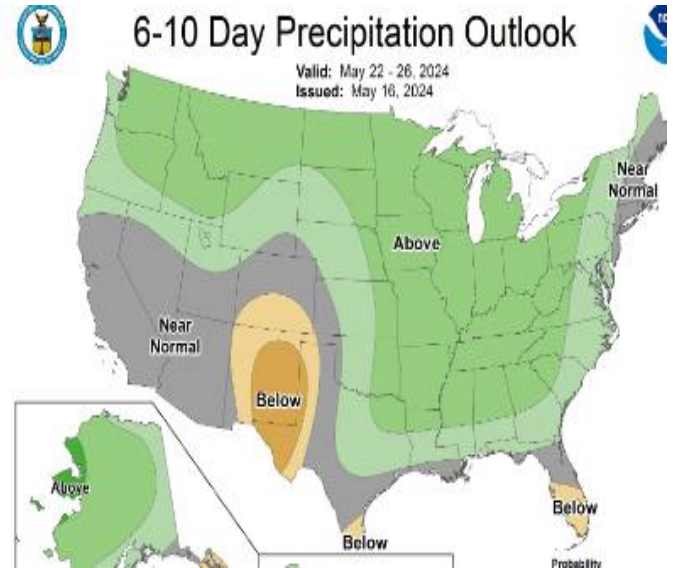
Runoff for similar snow years:
2024 May-Jul forecast is for 790 KAF which is in the ballpark with these two years:

2007 May-Jul volume was 829 KAF

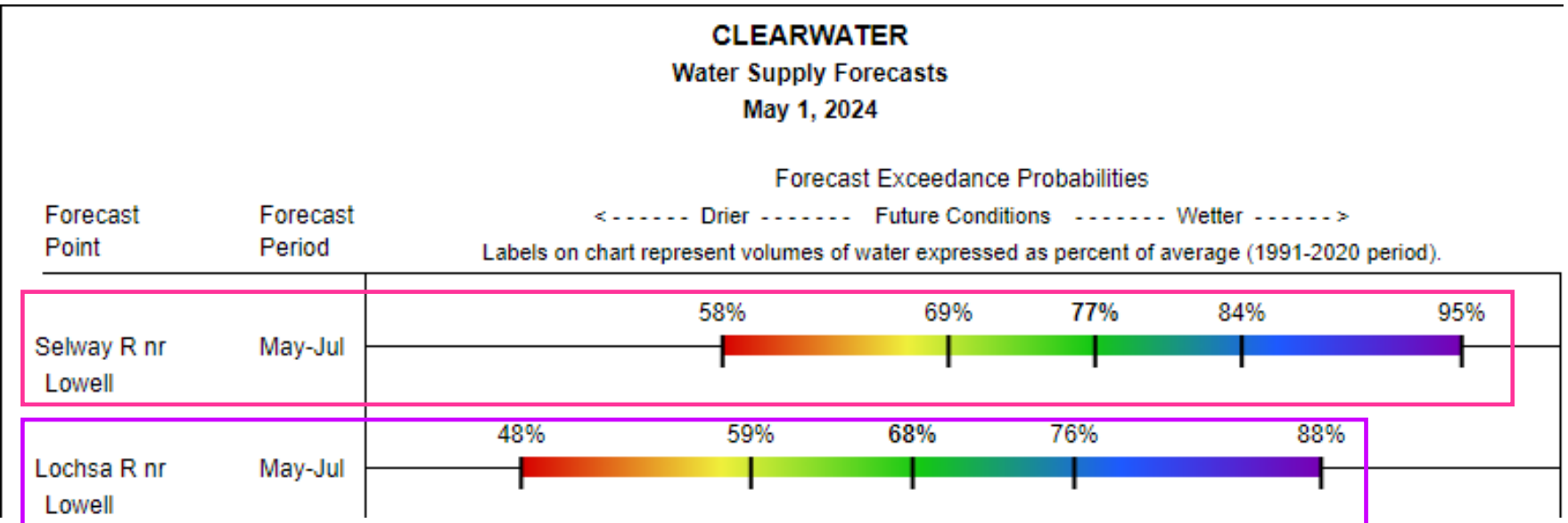
2001 May-Jul volume was 826 KAF

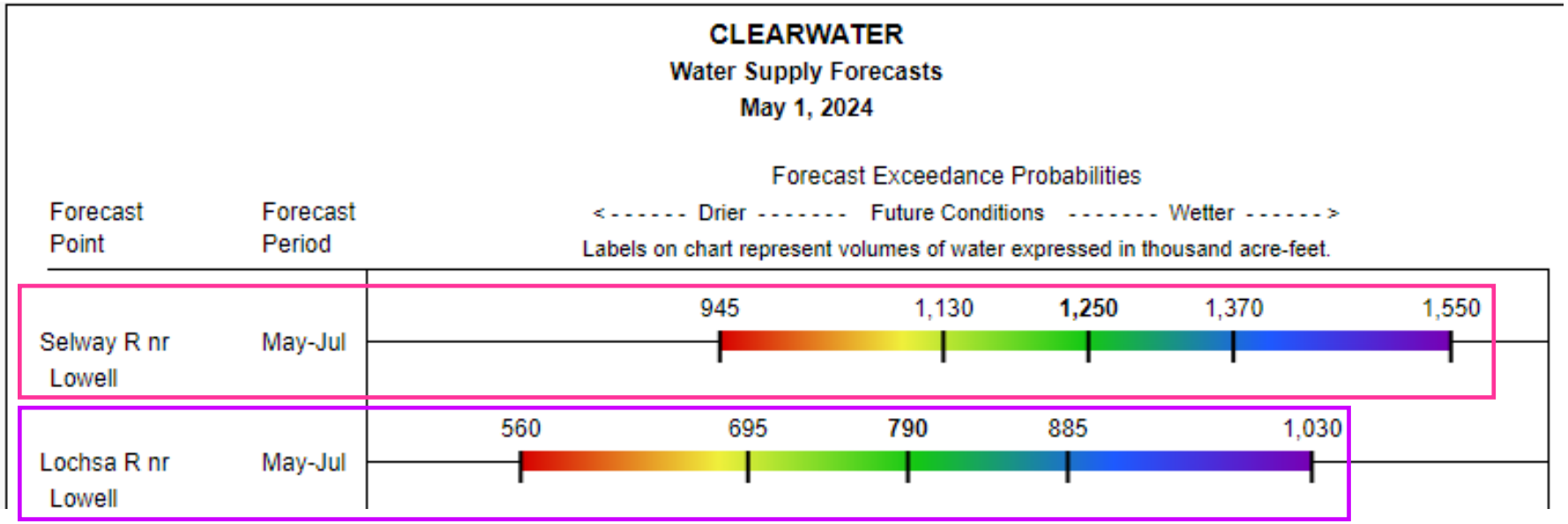
Hopefully, the cooler and wetter weather expected in the 2nd half of May will delay remaining snowmelt and push the recession flows out beyond the May & June 2007 and 2001 levels.





May 1, 2004
Lochsa & Selway Rivers Streamflow Forecasts



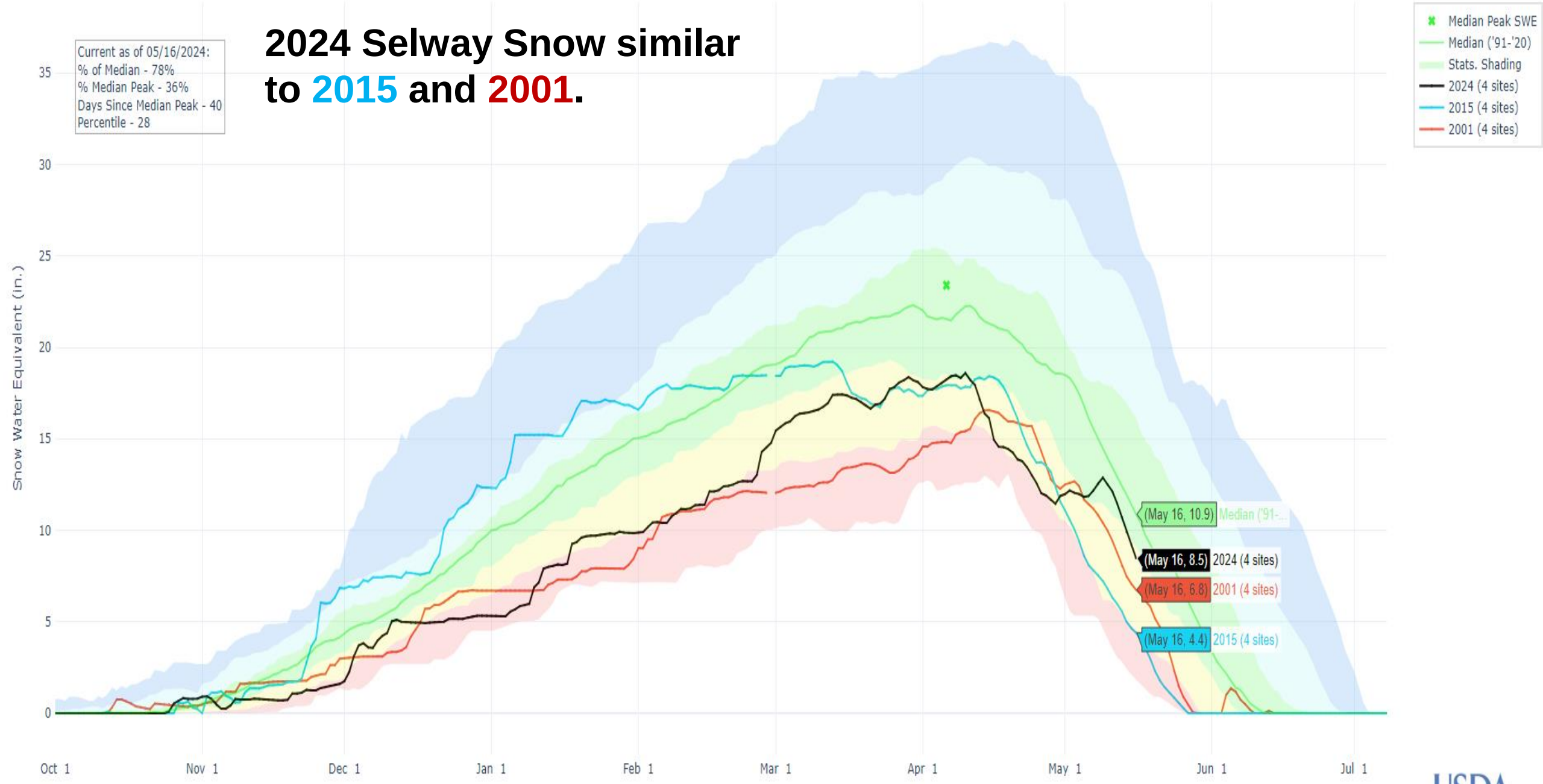


Lochsa River May-Jul Volume Streamflow Forecast 76% of avg, 790 KAF
with a range of 560 to 1030 KAF

Selway River May-Jul Volume Streamflow Forecast 77% of avg, 1250 KAF
with a range of 945 to 1550 KAF

SNOW WATER EQUIVALENT IN SELWAY

2024 Selway Snow similar to 2015 and 2001.



USDA

TWIN LAKES, MT (836) SNOW WATER EQUIV.

SELWAY RIVER AND TWIN LAKES SNOTELSITE

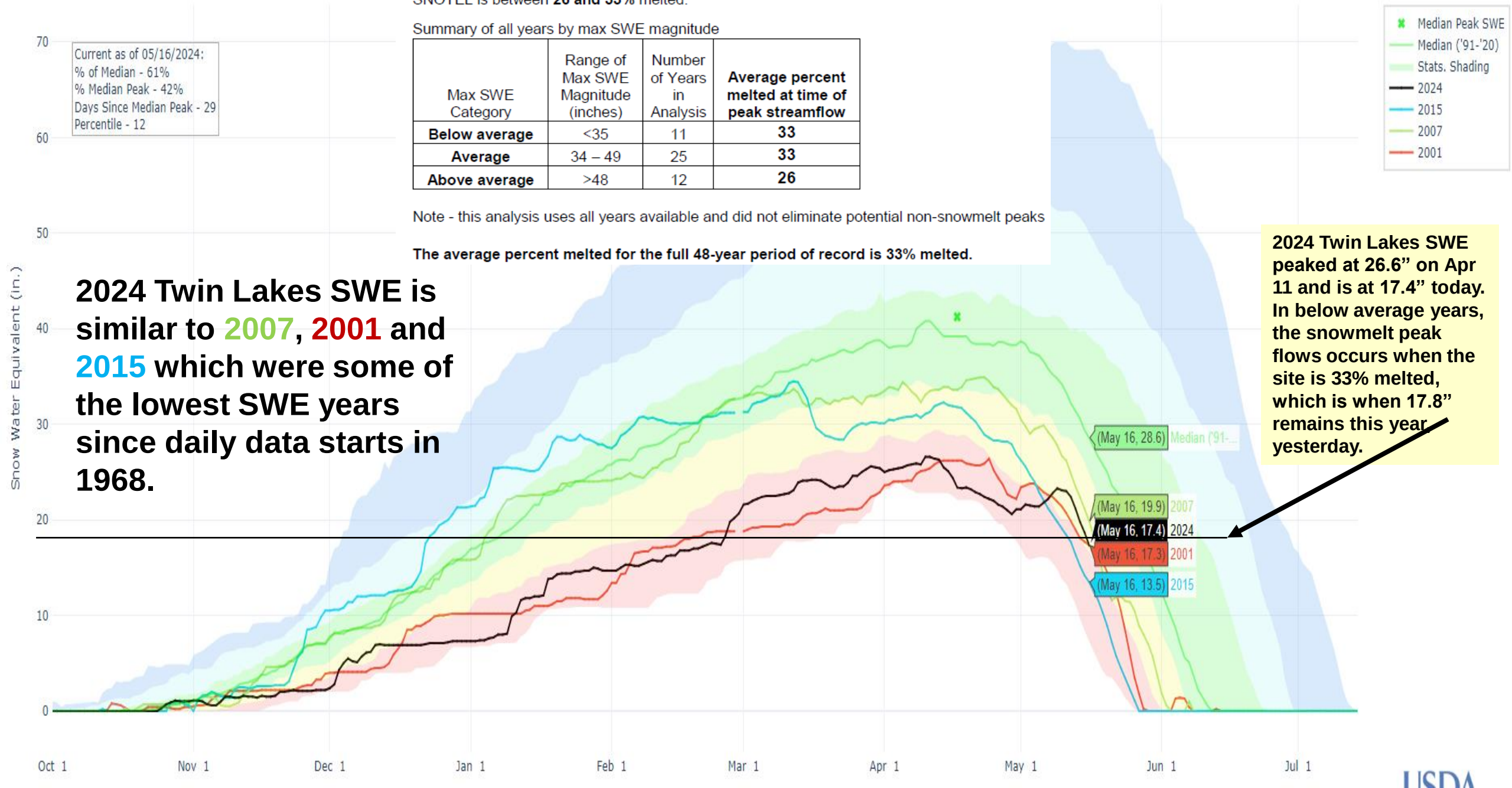
On average, peak streamflow for the Selway River near Lowell, Idaho occurs when Twin Lakes SNOTEL is between **26 and 33%** melted.

Summary of all years by max SWE magnitude

Max SWE Category	Range of Max SWE Magnitude (inches)	Number of Years in Analysis	**Average percent melted at time of peak streamflow**
Below average	<35	11	**33**
Average	34 – 49	25	**33**
Above average	>48	12	**26**

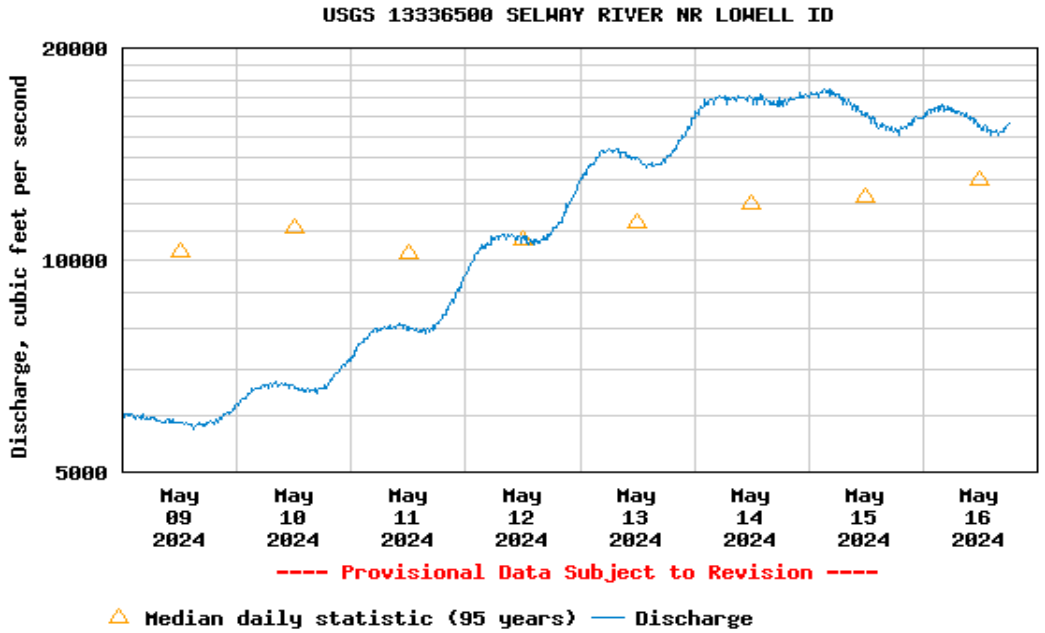
Note - this analysis uses all years available and did not eliminate potential non-snowmelt peaks

The average percent melted for the full 48-year period of record is 33% melted.



2024 Twin Lakes SWE is similar to 2007, 2001 and 2015 which were some of the lowest SWE years since daily data starts in 1968.

2024 Twin Lakes SWE peaked at 26.6" on Apr 11 and is at 17.4" today. In below average years, the snowmelt peak flows occurs when the site is 33% melted, which is when 17.8" remains this year yesterday.



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Daily discharge, cubic feet per second -- statistics for May 16 based on 95 water years of record more

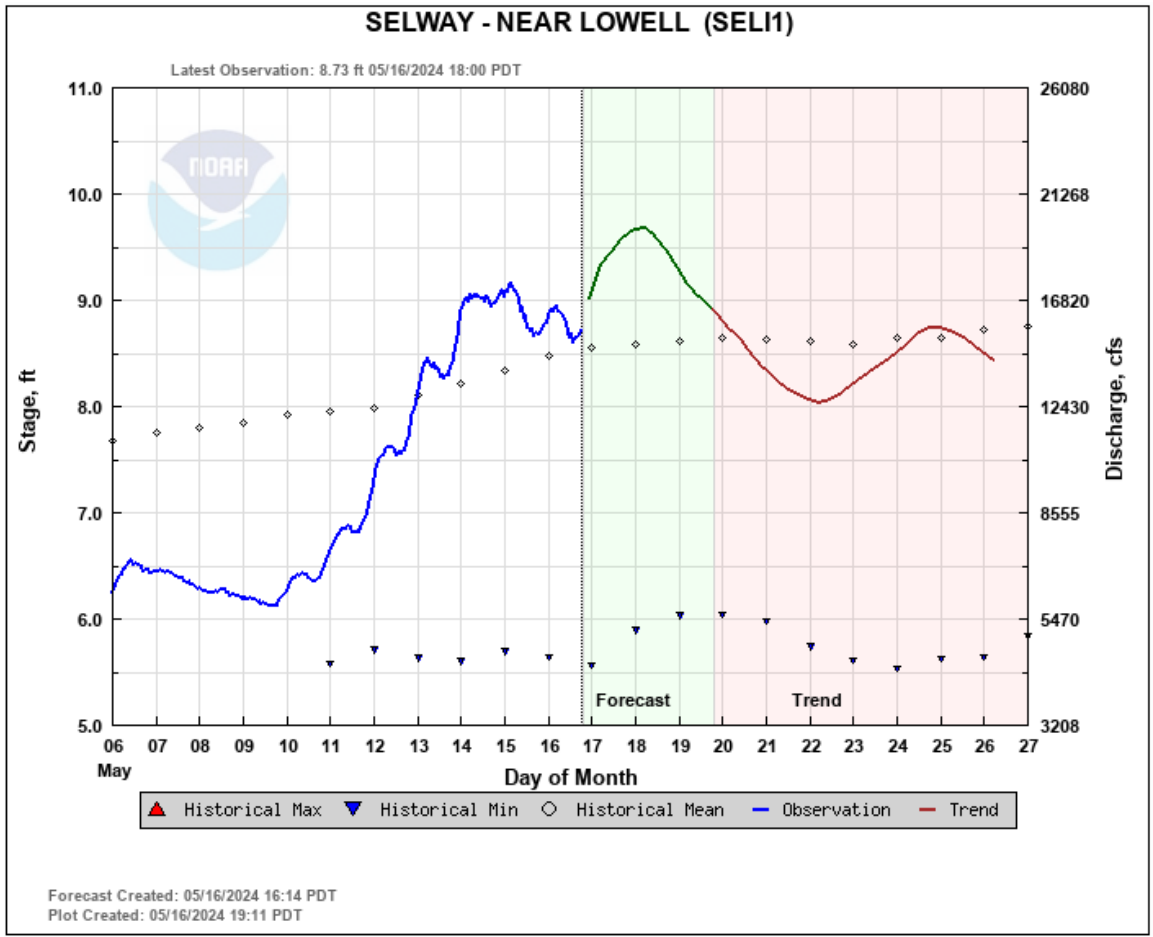
Min (1983)	25th percen-tile	Median	Mean	Most Recent Instantaneous Value May 16	75th percen-tile	Max (1949)
4580	9940	13000	14500	15700	17600	36800

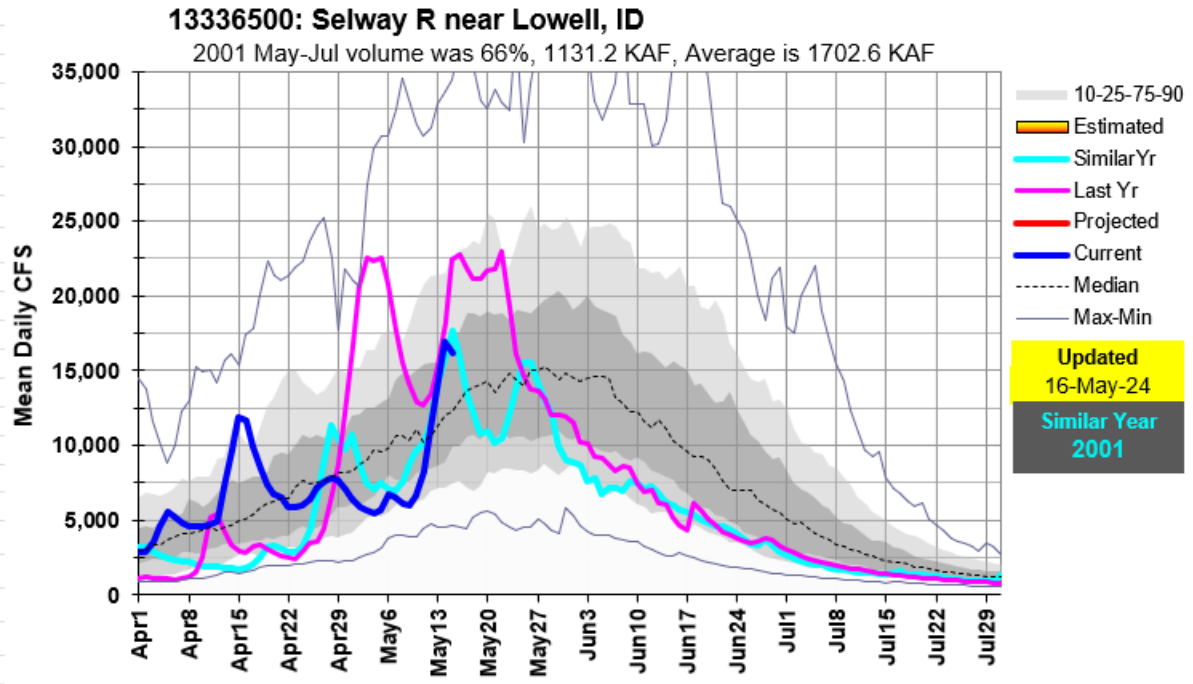
Keep in mind the Snow2Flow Relationship is based on snow and snowmelt relationship with peak flows.

Any given day with rain can generate additional peaks or a higher peak for the season.

Nailed it ! Based on daily USGS flow data shows flow peaked yesterday as snow starts to run out. With cooler temps moving in, this is likely the peak for this year unless usually wet conditions occur later in May/early June.

NWS Forecast & Trend shows a peak happening in the next day or two, but the next model run will probably be adjusted to show decreasing flows with return of cooler temps.





Runoff for similar snow years:
2024 May-Jul forecast is for 1250 KAF:

2001 May-Jul volume was 1131 KAF
This looks like the best recession year/pattern to watch now especially if May's 2nd half brings cooler temps and another peak when summer's warmer temps return to stay.

2007 May-Jul volume was 1150 KAF

2015 May-Jul volume was 916 KAF