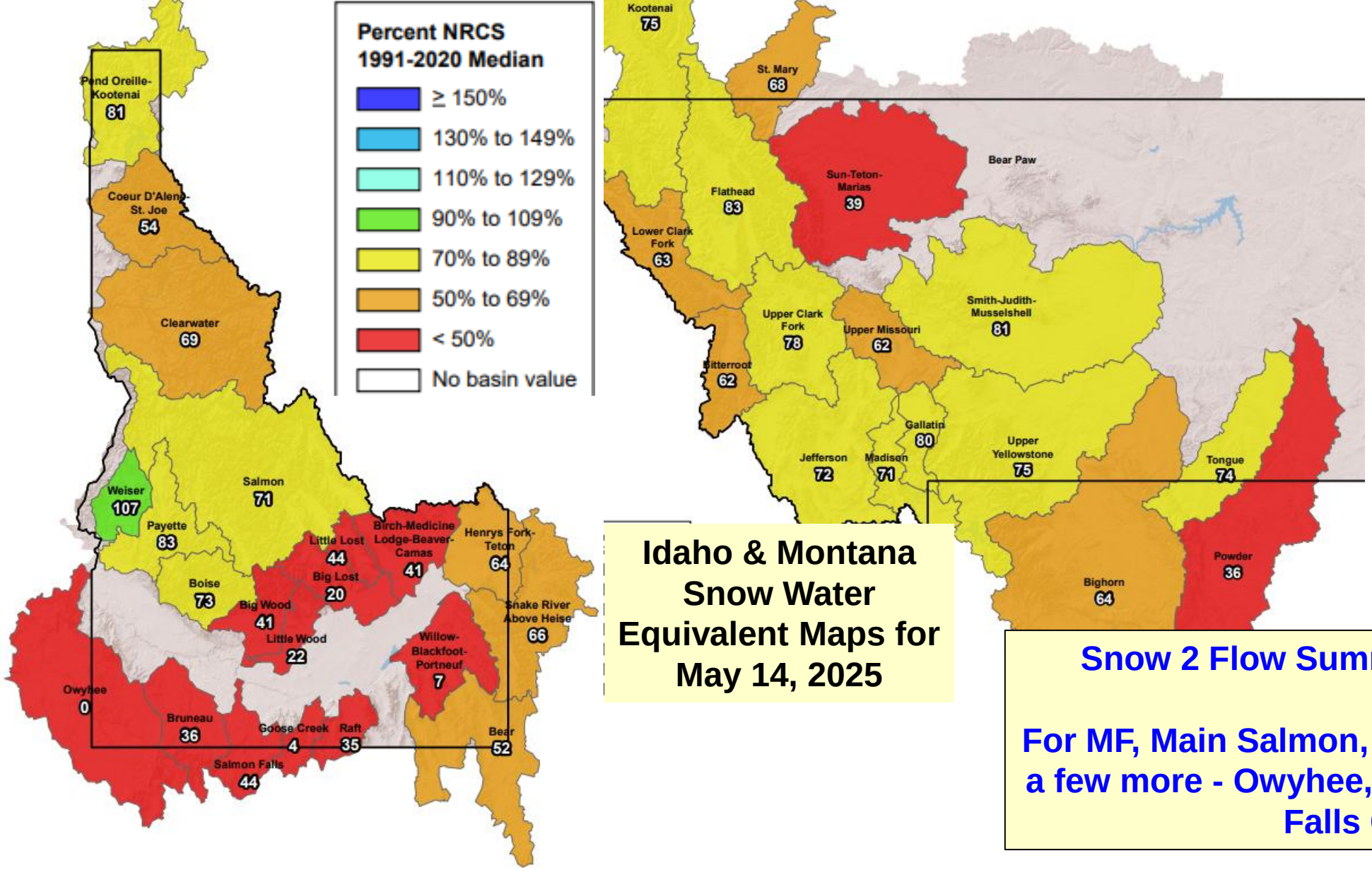
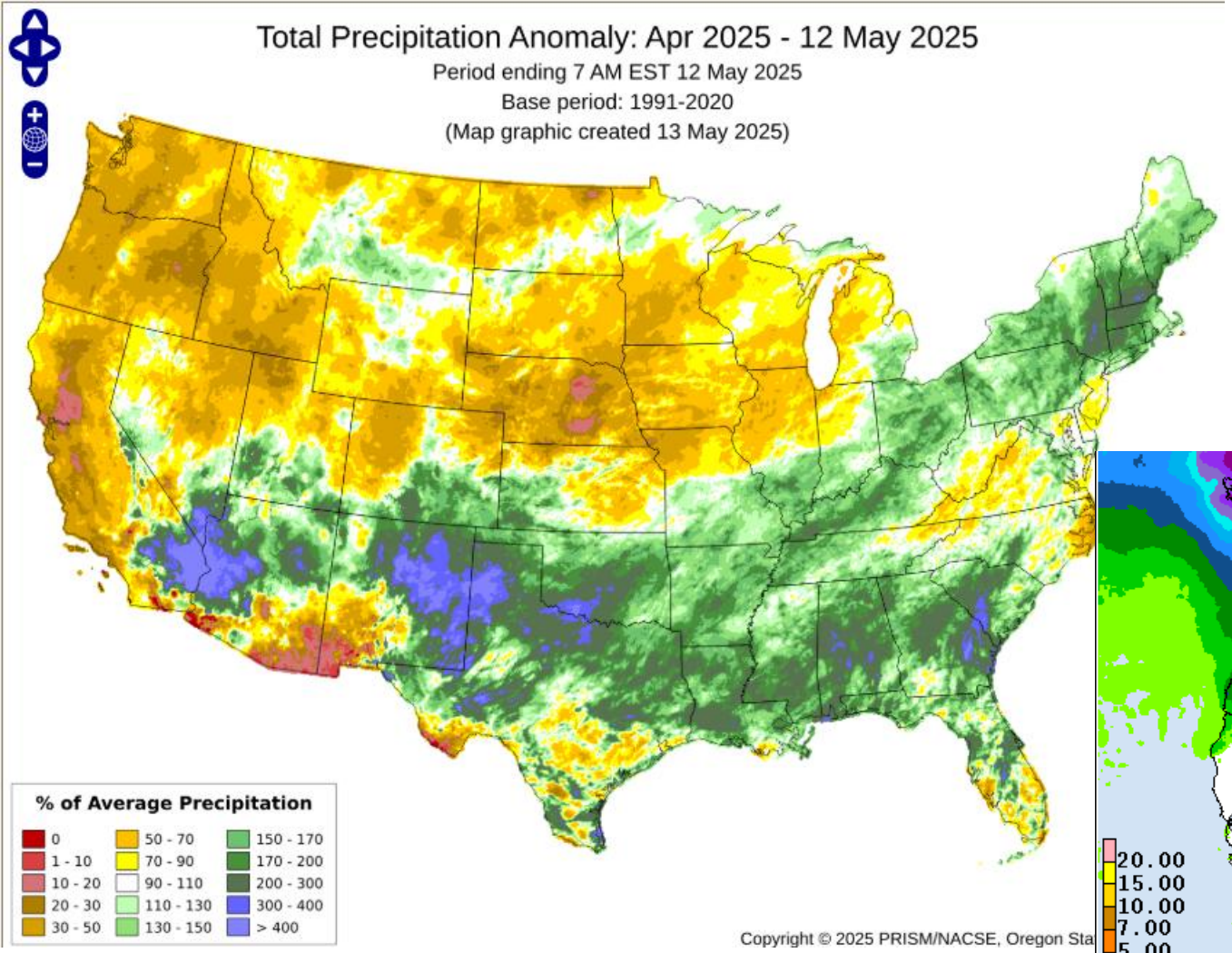


Idaho & Montana Snow Water Equivalent Maps for May 14, 2025

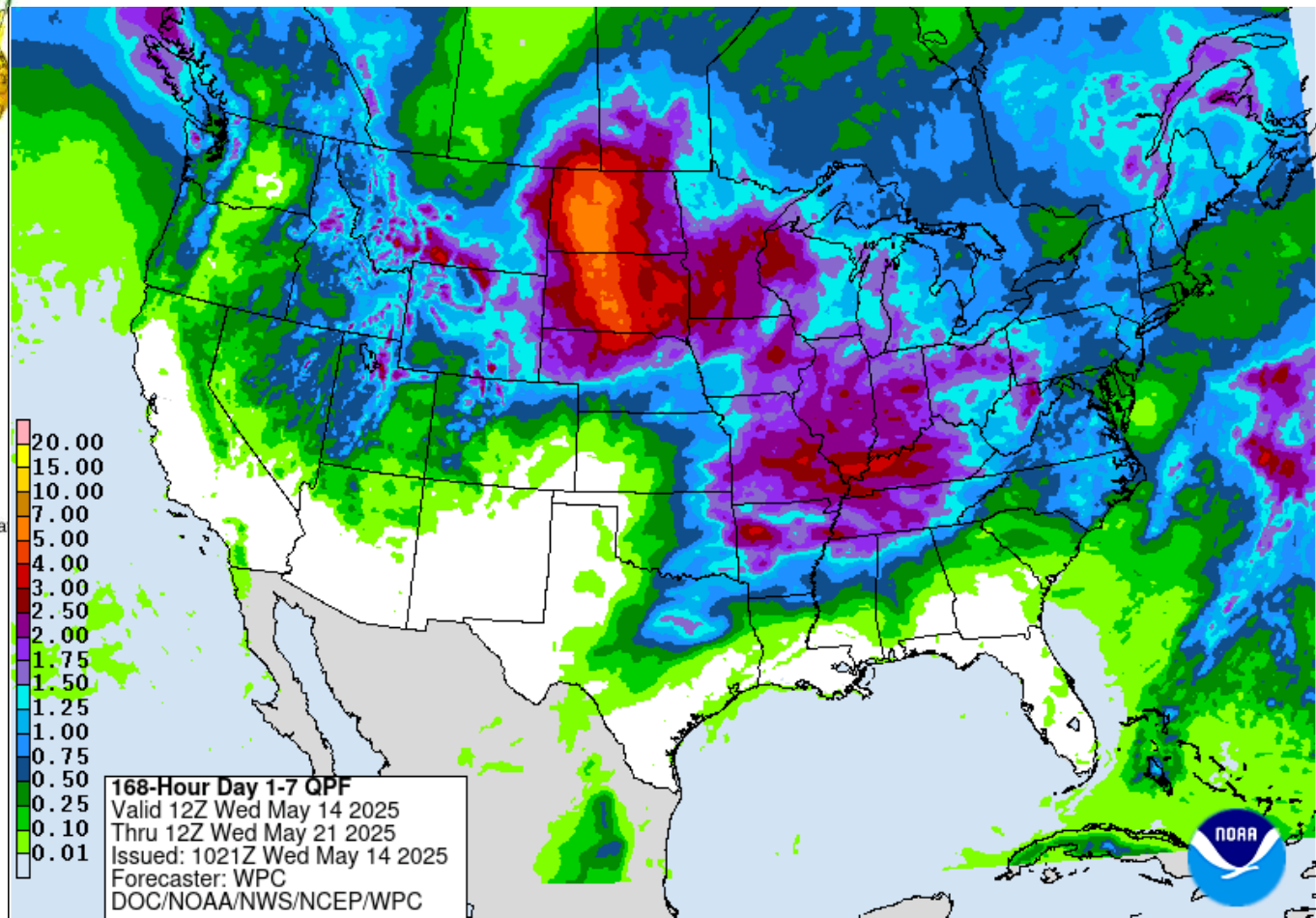
Snow 2 Flow Summary May 14, 2025

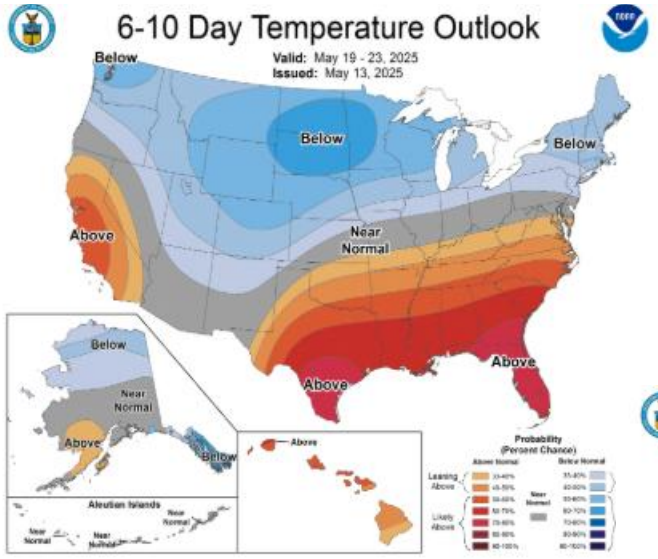
For MF, Main Salmon, Selway & Lochsa and a few more - Owyhee, Bruneau and Salmon Falls Creek

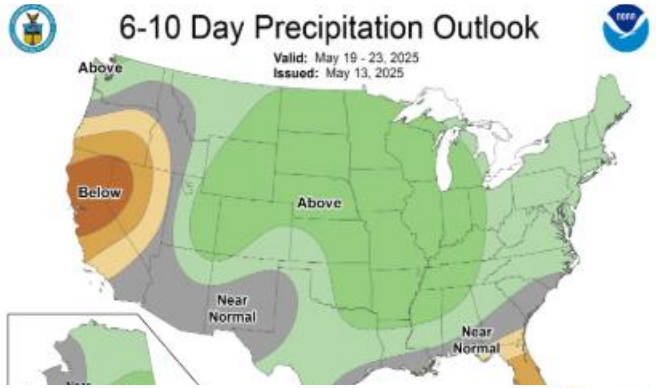


Weather:

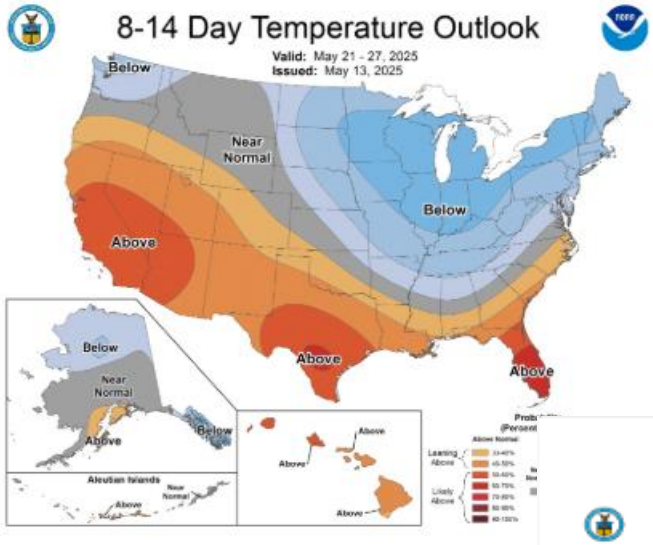
- **Past – Apr 1-May 12 dry 30-70% of normal for most of Idaho.**
- **This week: 7-day total rain forecast favors YNP / MT area and central / eastern Idaho.**

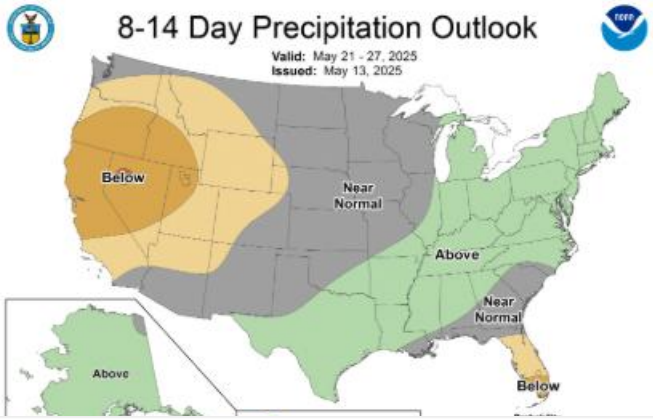




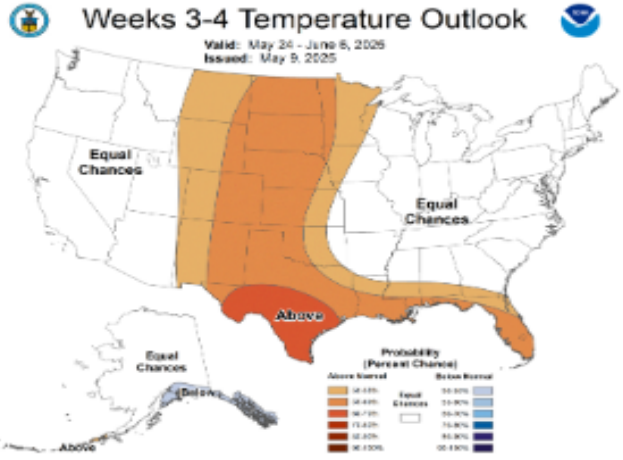


Short- and longer-term NWS Outlooks show current cool and wet weather moving east as near and below normal weather arrives for June.

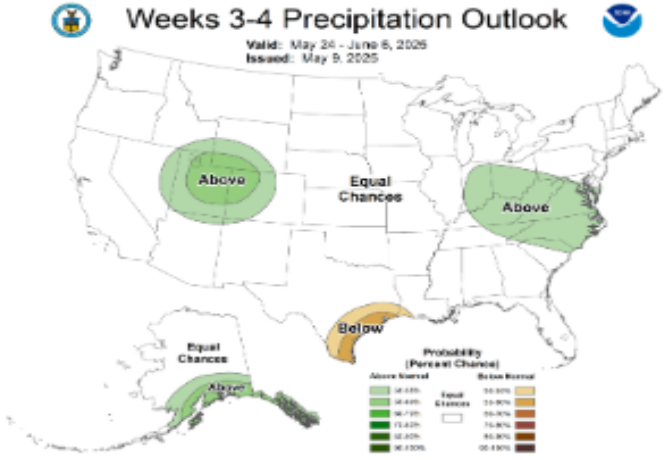




Temperature Probability



Precipitation Probability



Basically, what we see is what we get until the weather pattern changes… one forecast suggest a cool wet 2nd half of May for PNW and summer weather pattern arrives for June.

Keep an eye on the sky and changing flows.

[Experimental Week 3-4 500mb Outlook]

Tail of Time Zone Rapid
Salmon River
May 10, 2025 45,000 cfs

BANNER SUMMIT, ID (312) SNOW WATER EQUIVALENT

Reset Range

Current as of 05/13/2025:
% of Median - 29%
% Median Peak - 18%
Days Since Median Peak - 32
Percentile - 18

Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	Average percent melted at time of peak streamflow
Below average	<21	9	90
Average	20 – 31	16	61
Above average	>30	9	66

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

Using DISCHARGE ONLY years, on average, peak streamflow for the MF Salmon at MF Lodge near Yellow Pine Idaho occurs when Banner Summit SNOTEL is between **64 and 81%** melted.

Summary of DISCHARGE ONLY years categorized by max SWE magnitude.

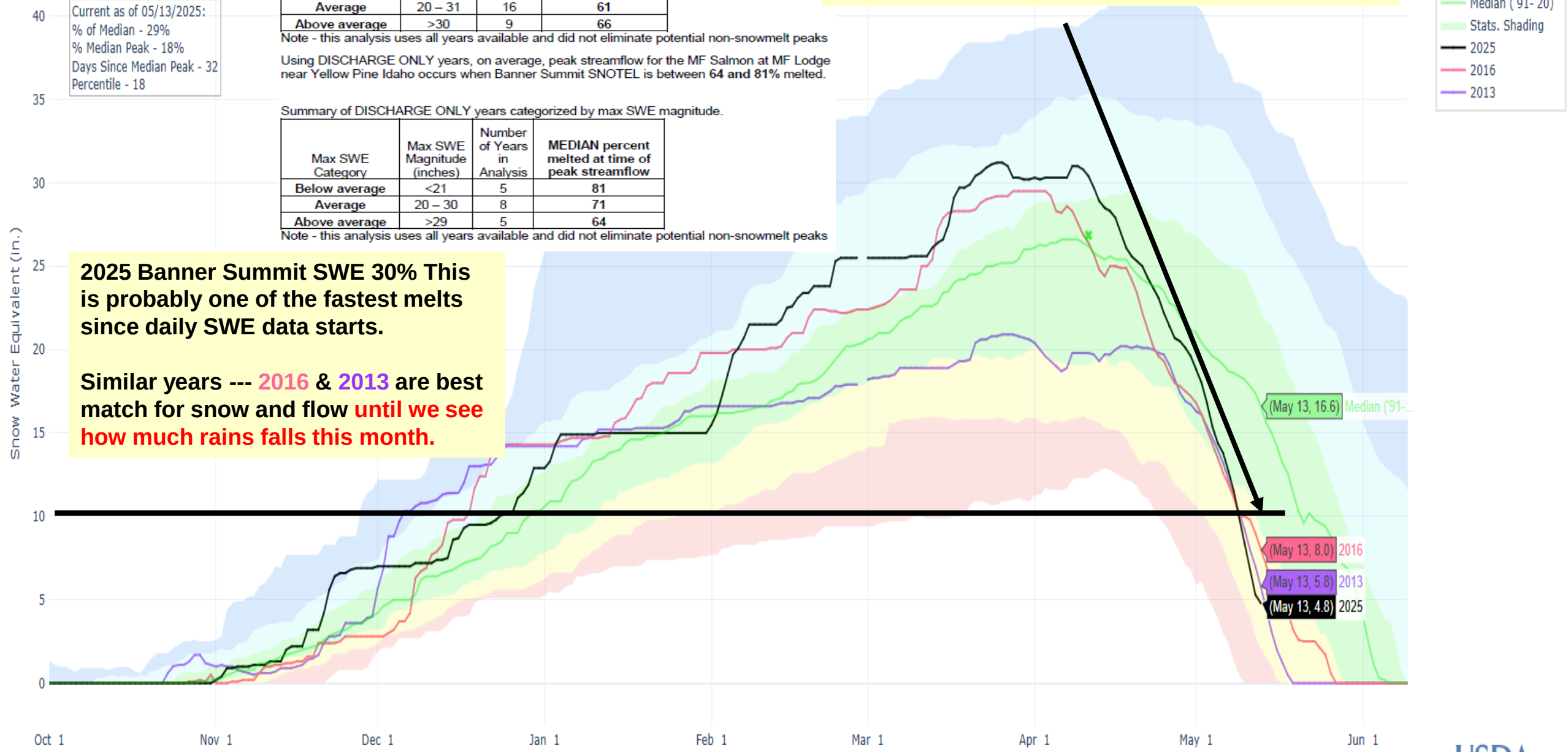
Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	MEDIAN percent melted at time of peak streamflow
Below average	<21	5	81
Average	20 – 30	8	71
Above average	>29	5	64

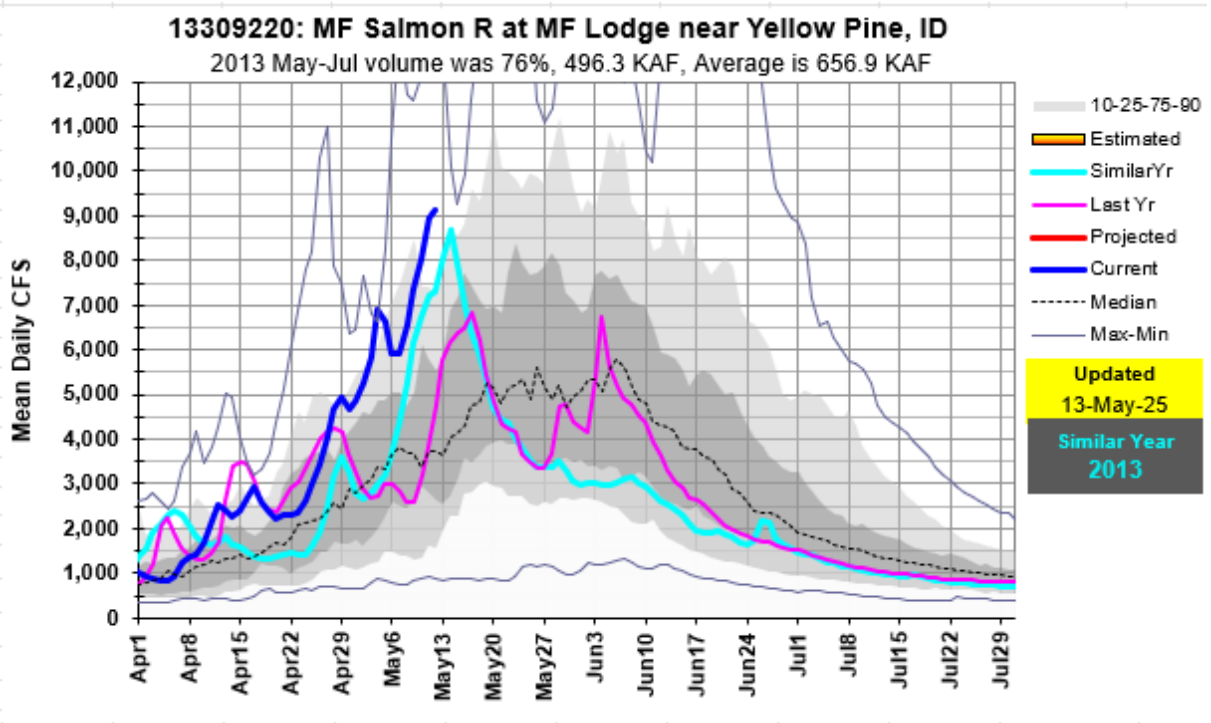
Note - this analysis uses all years available and did not eliminate potential non-snowmelt peaks

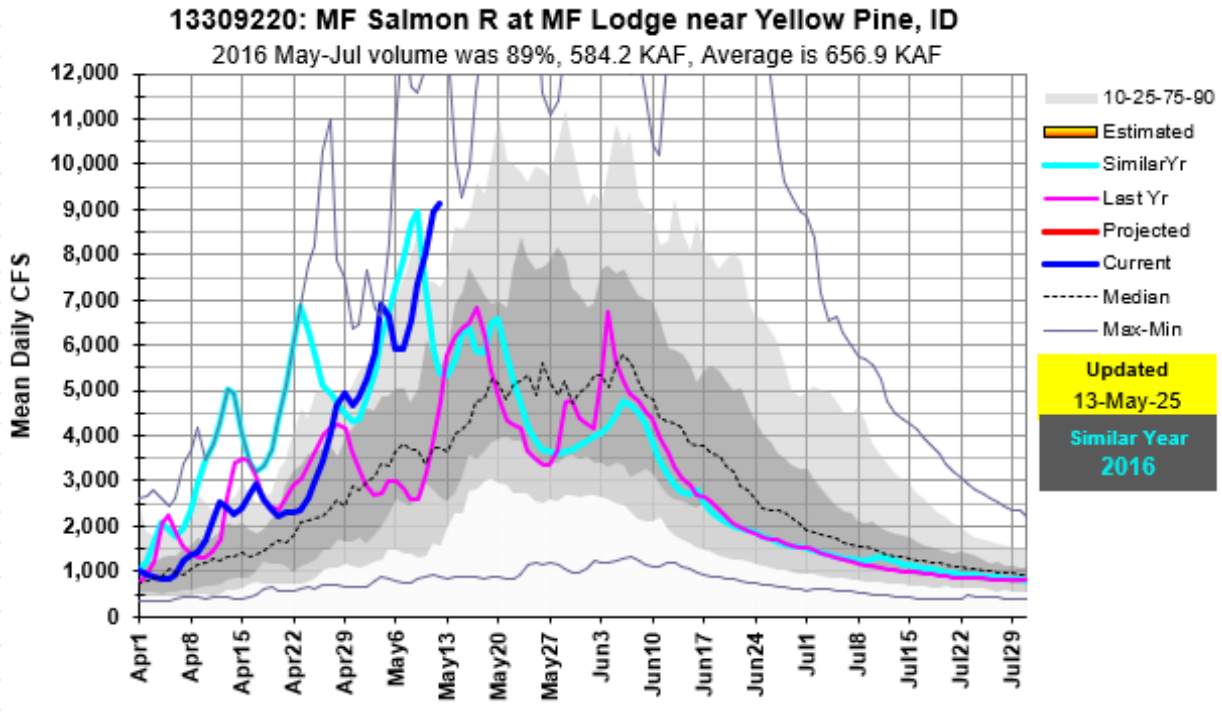
2025 Banner Summit peaked at 31.2” on Mar 26 and is at 4.8” May 13. On average, the snowmelt peak occurs when the site is 61 to 66% melted or when 9 to 11” of SWE remains which was May 10.

2025 Banner Summit SWE 30% This is probably one of the fastest melts since daily SWE data starts.

Similar years --- 2016 & 2013 are best match for snow and flow until we see how much rains falls this month.



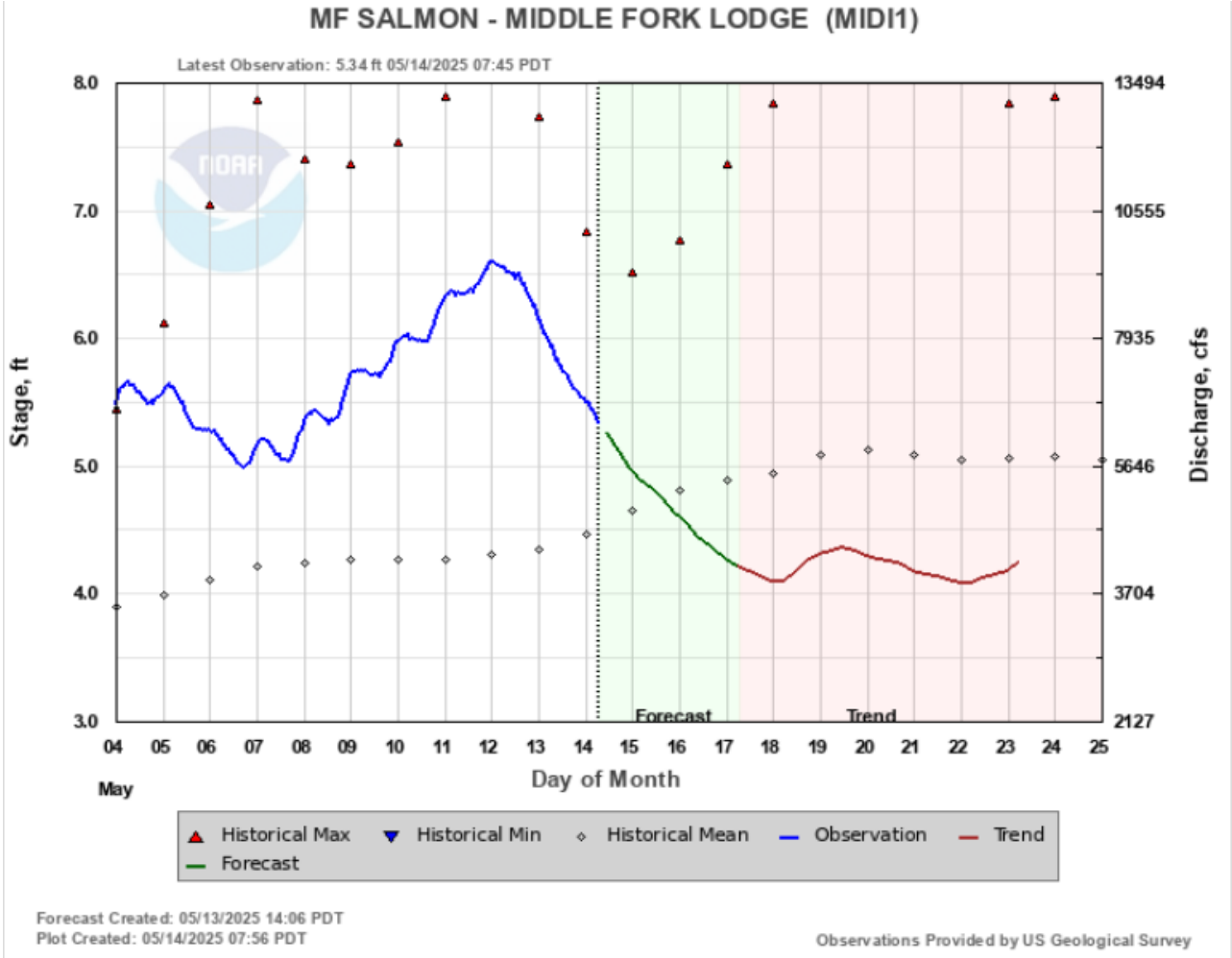


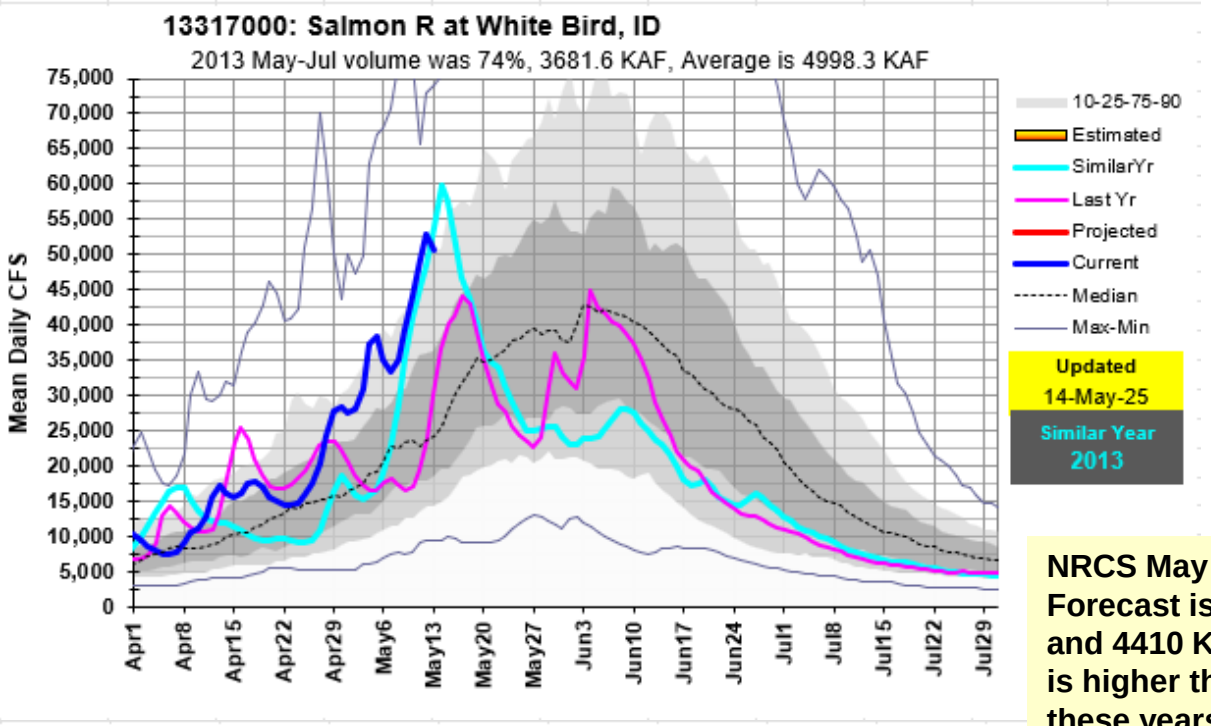


Flow for years that had a similar snow peak and melt.

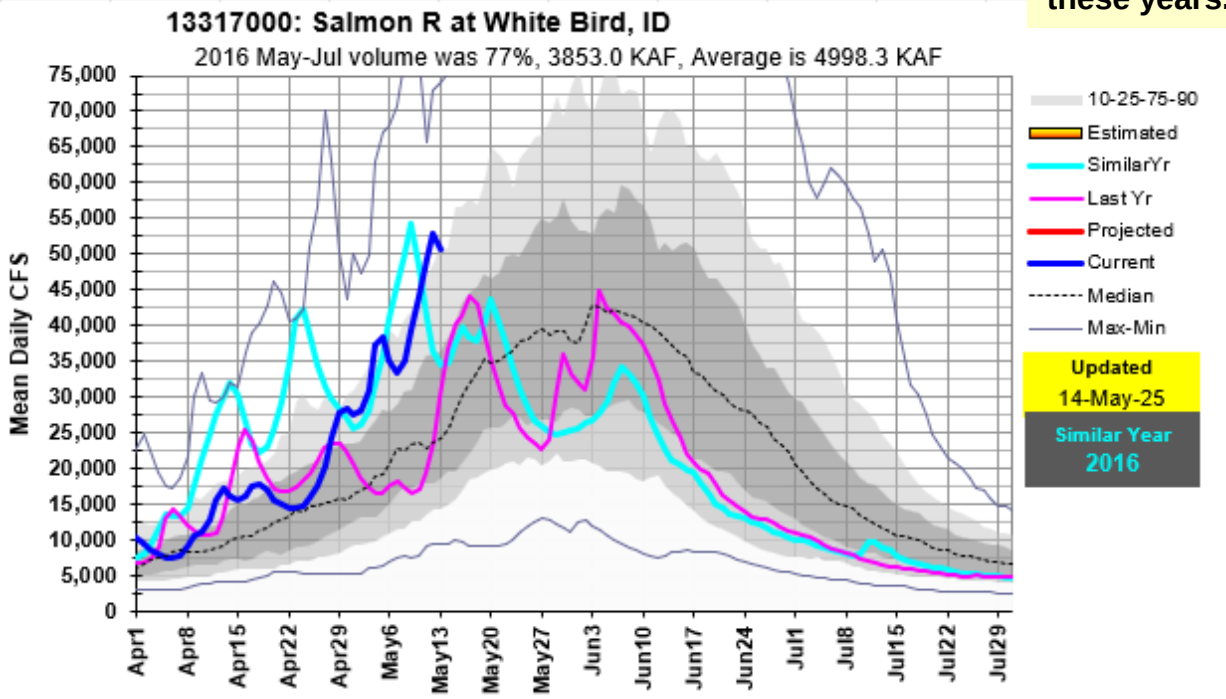
NRCS May 1 May-Jul Forecast is for 105% and 690 KAF which is higher than both these years.

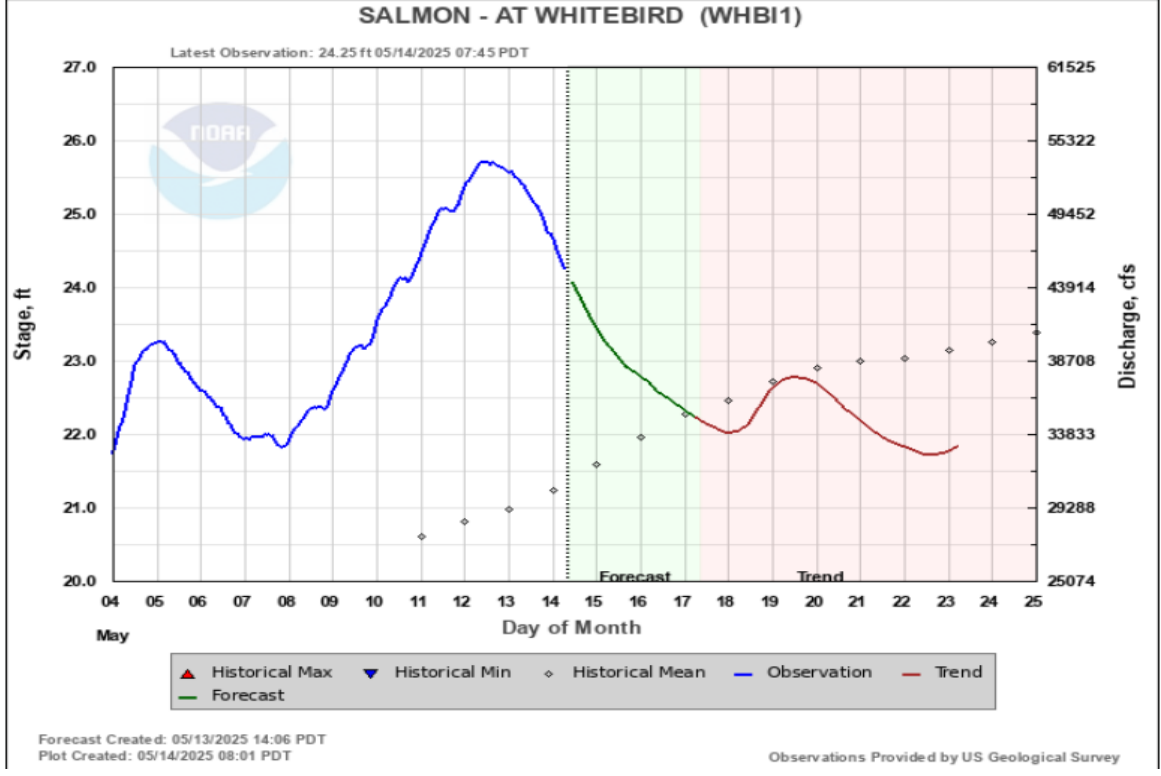
This cool wet weather will delay the melt and push flow out farther. We should see another increase when warm weather returns to melt reaming high elevations snow. Time will tell…

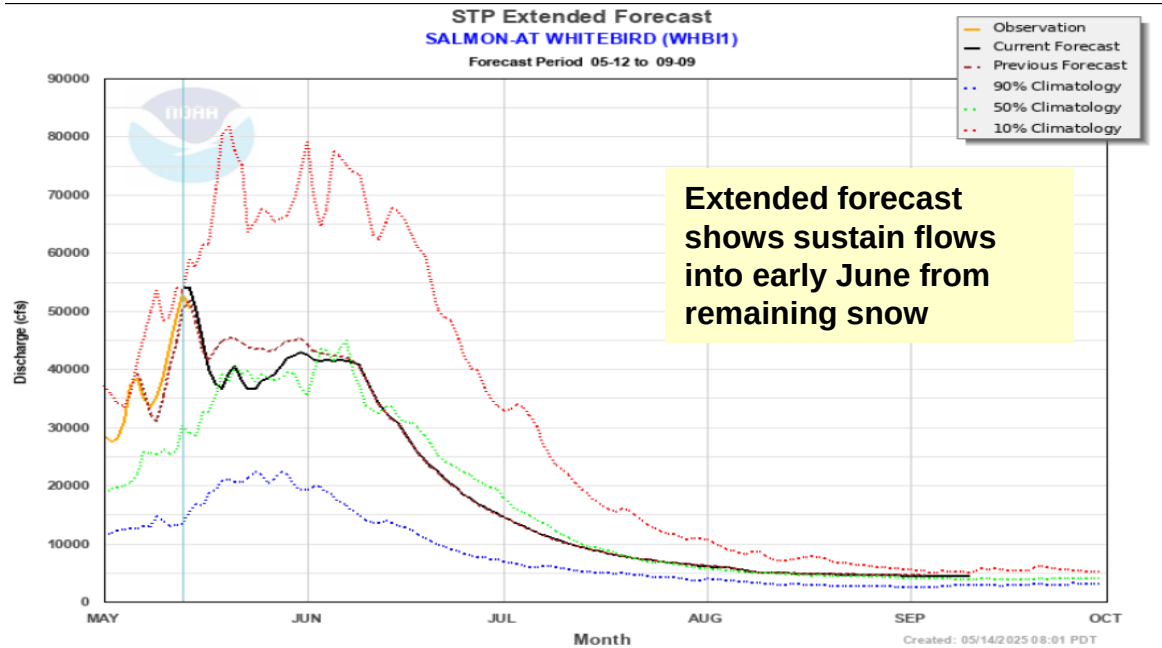




NRCS May 1 May-Jul Forecast is for 92% and 4410 KAF which is higher than both these years.

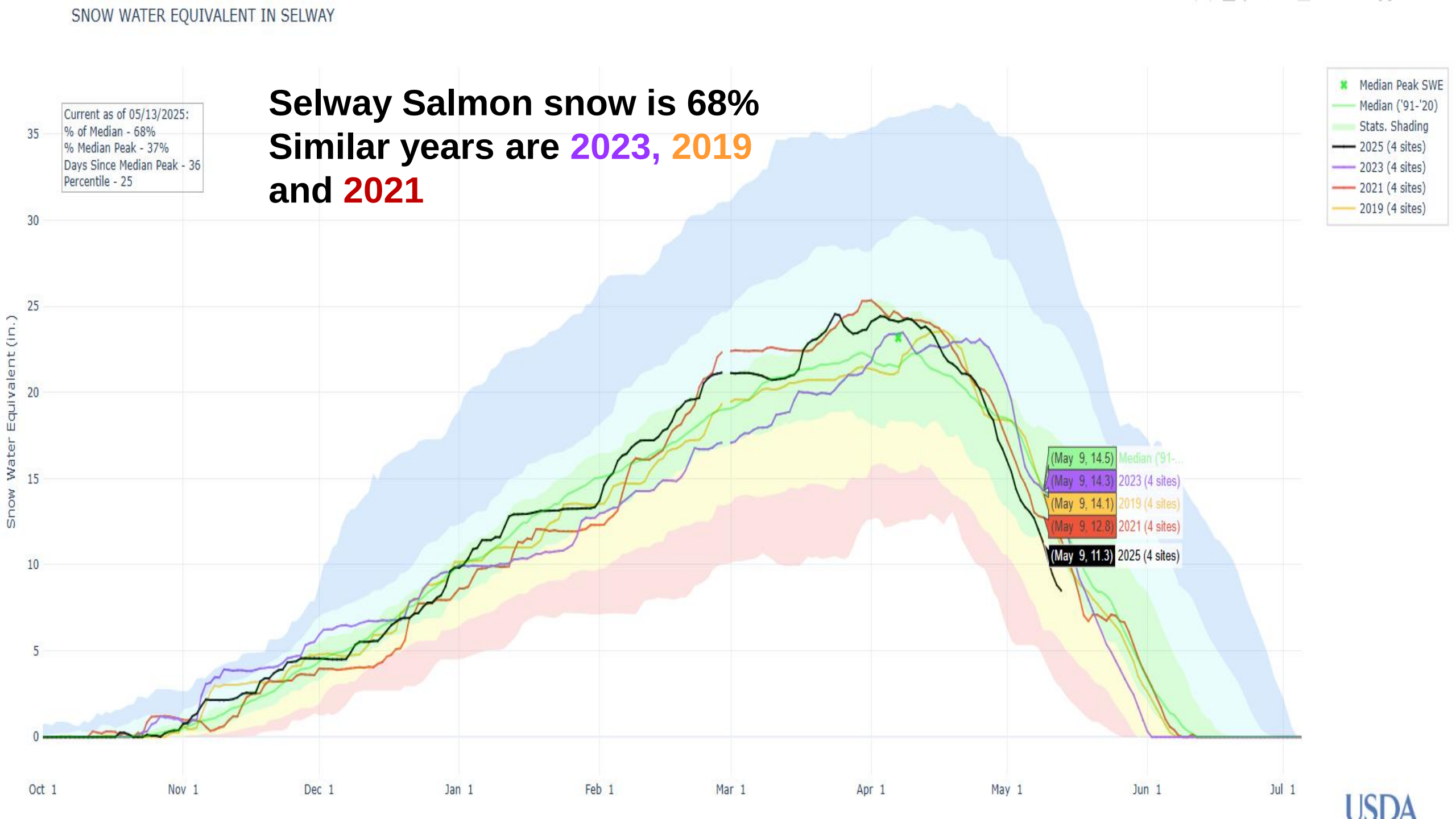






Extended forecast shows sustain flows into early June from remaining snow

Last rapid on Selway River
May 4, 2025 12,500 cfs


SNOW WATER EQUIVALENT IN SELWAY
Selway Salmon snow is 68%
Similar years are 2023, 2019
and 2021
Current as of 05/13/2025:
% of Median - 68%
% Median Peak - 37%
Days Since Median Peak - 36
Percentile - 25
Median Peak SWE
Median ('91-'20)
Stats. Shading
2025 (4 sites)
2023 (4 sites)
2021 (4 sites)
2019 (4 sites)
Snow Water Equivalent (in.)
35
30
25
20
15
10
5
0
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
(May 9, 14.5) Median ('91-...
(May 9, 14.3) 2023 (4 sites)
(May 9, 14.1) 2019 (4 sites)
(May 9, 12.8) 2021 (4 sites)
(May 9, 11.3) 2025 (4 sites)
USDA

TWIN LAKES, MT (836) SNOW WATER EQUIVALENT

SELWAY RIVER AND TWIN LAKES SNOTELSITE

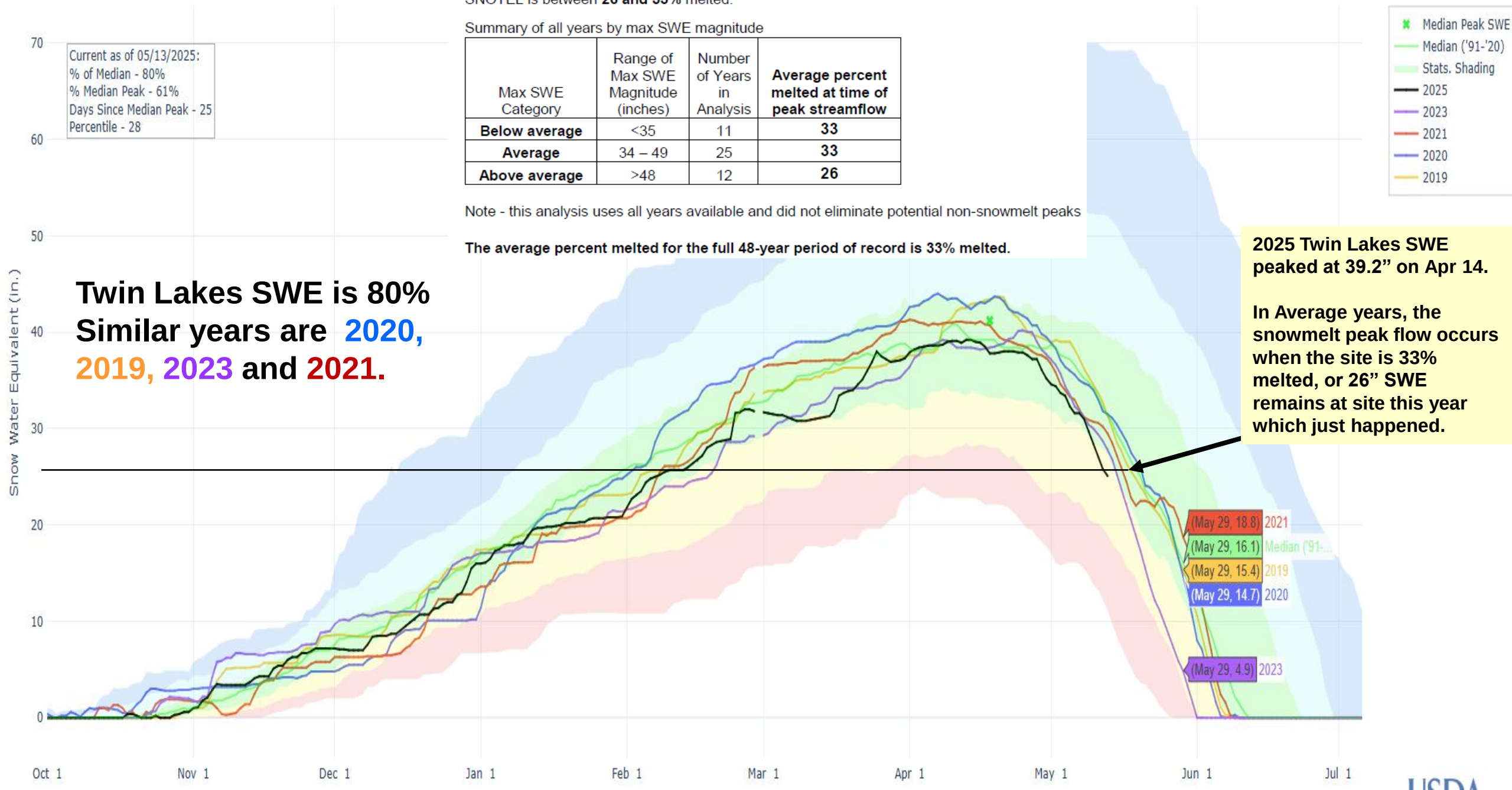
On average, peak streamflow for the Selway River near Lowell, Idaho occurs when Twin Lakes SNOTEL is between **26 and 33%** melted.

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

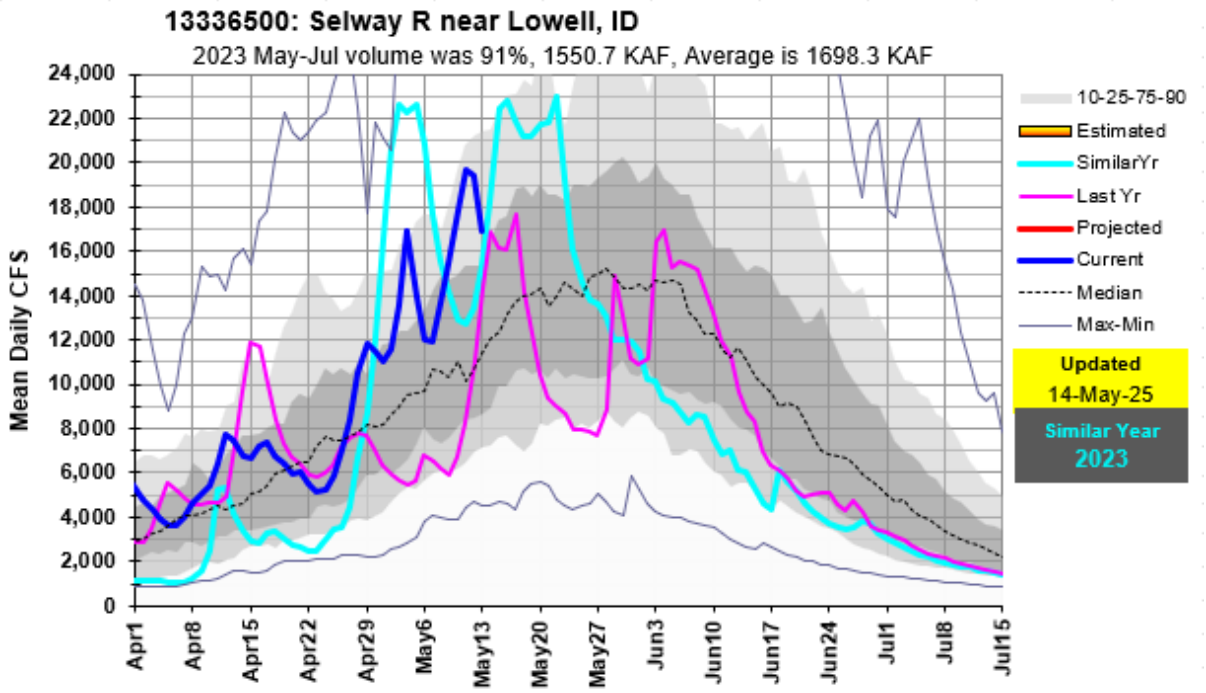
The average percent melted for the full 48-year period of record is 33% melted.



Twin Lakes SWE is 80%
Similar years are 2020, 2019, 2023 and 2021.

2025 Twin Lakes SWE peaked at 39.2” on Apr 14.

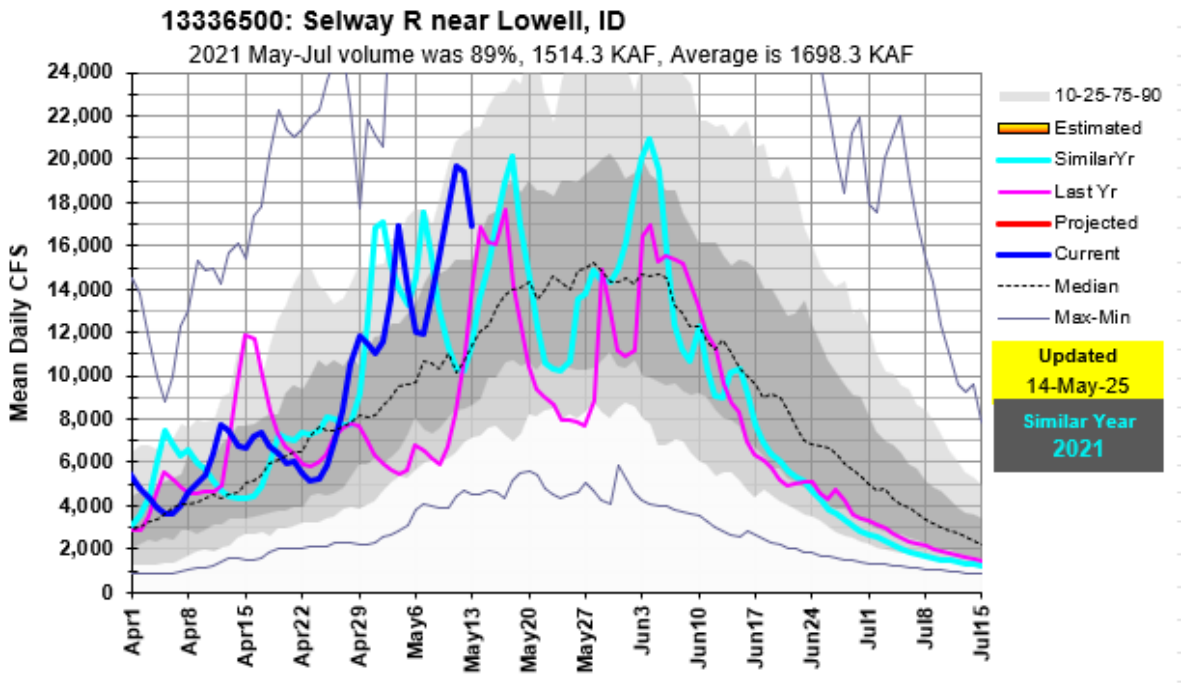
In Average years, the snowmelt peak flow occurs when the site is 33% melted, or 26” SWE remains at site this year which just happened.

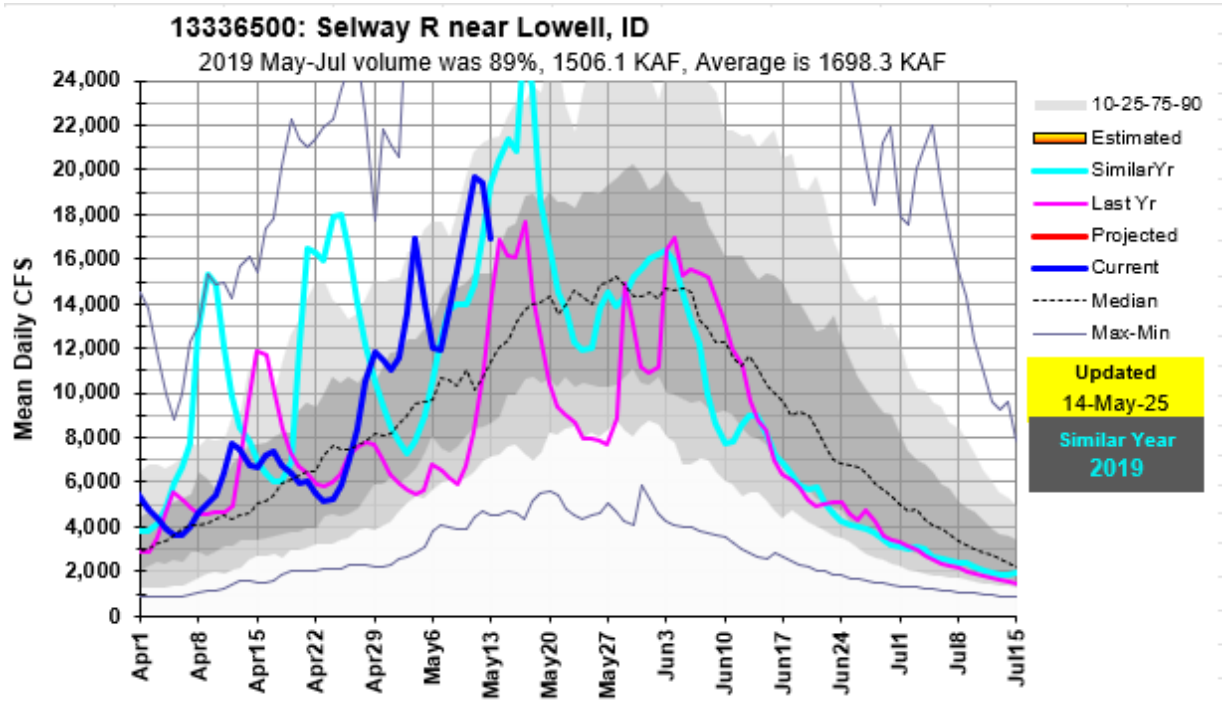


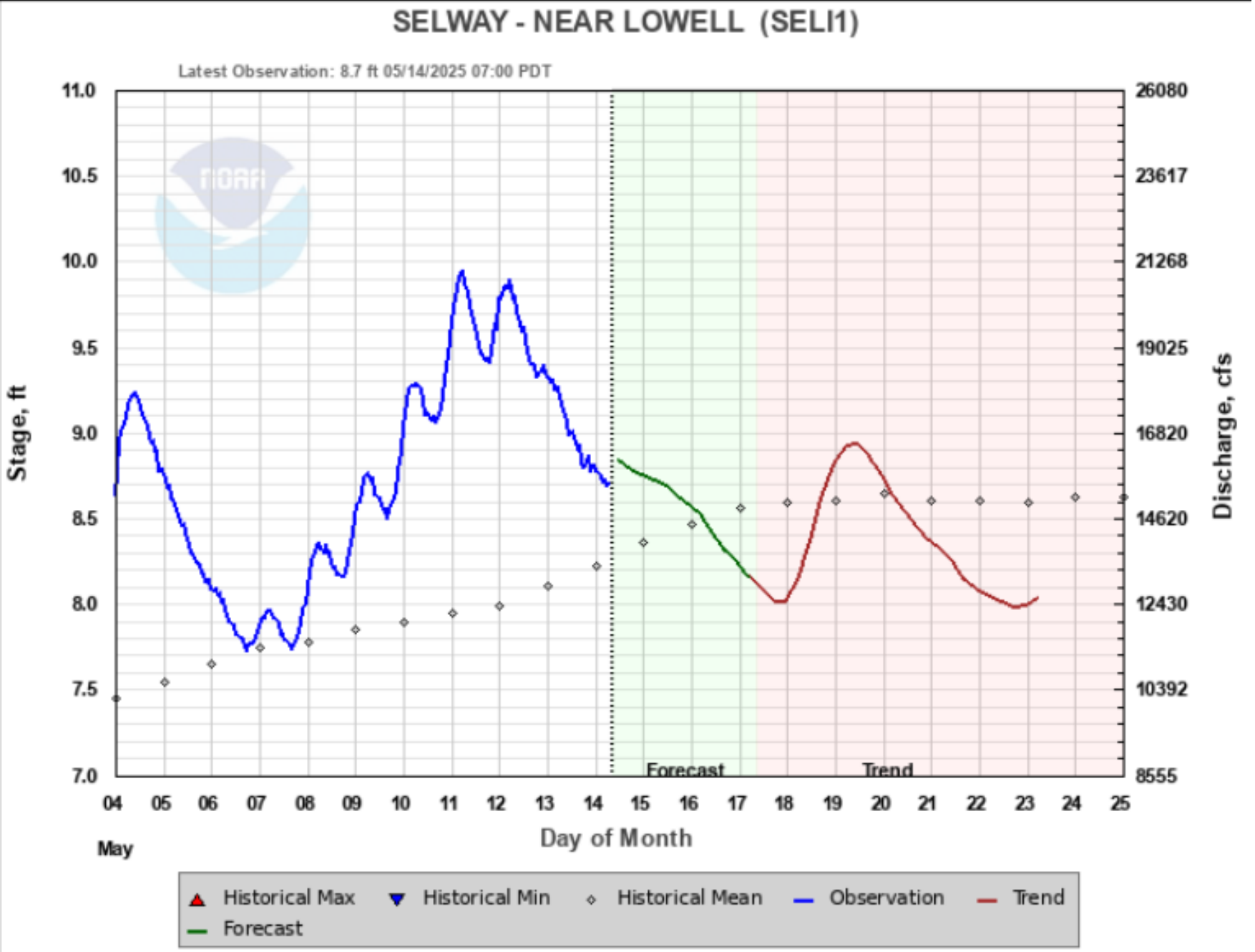
Flow for years that had a similar snow peak and melt.

NRCS May 1 May-Jul Forecast is for 90% and 1470 KAF which is lower than all these years.

With the arrival of cool wet weather when snowmelt was reaching peak, expect another peak when warm weather returns. Duals peaks often happen on the Selway as seen these Similar Years.





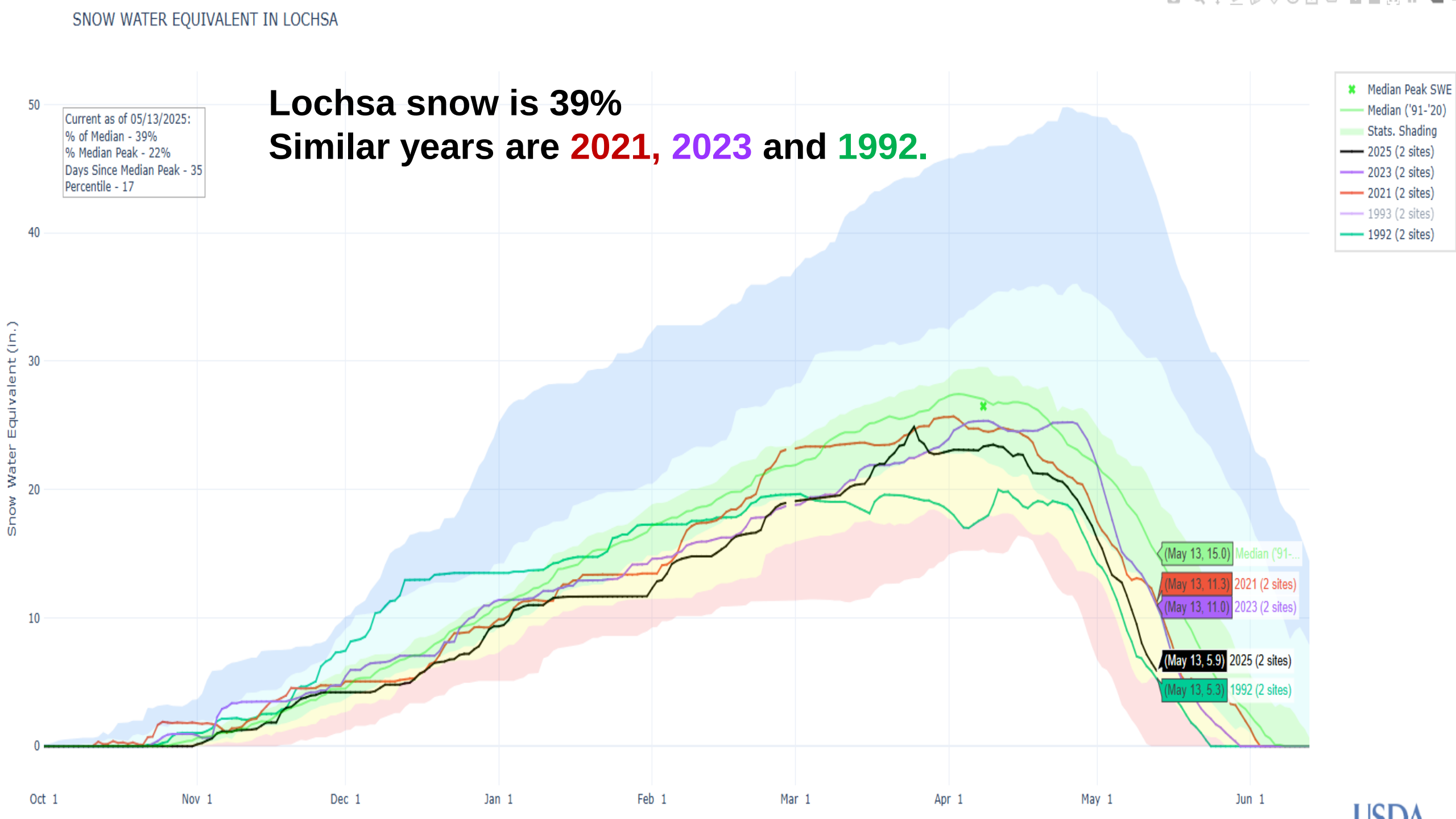


NWS graph shows previous peaks and Forecast /Trend decreasing with cool temps with another increase on the horizon.

Time will tell how high and when…

FYI – always interesting watching the diurnal change in flow from snowmelt. Lessons learned the Moose Juice section is lowest around the 3pm hour and diurnal peak flow occurs from yesterday's snowmelt occurs around 3-4 am.

Selway River & Falls
May 10, 2025 17,000 cfs


SNOW WATER EQUIVALENT IN LOCHSA
Lochsa snow is 39%
Similar years are 2021, 2023 and 1992.
Current as of 05/13/2025:
% of Median - 39%
% Median Peak - 22%
Days Since Median Peak - 35
Percentile - 17
Median Peak SWE
Median ('91-'20)
Stats. Shading
2025 (2 sites)
2023 (2 sites)
2021 (2 sites)
1993 (2 sites)
1992 (2 sites)
Snow Water Equivalent (in.)
50
40
30
20
10
0
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
(May 13, 15.0) Median ('91-...
(May 13, 11.3) 2021 (2 sites)
(May 13, 11.0) 2023 (2 sites)
(May 13, 5.9) 2025 (2 sites)
(May 13, 5.3) 1992 (2 sites)

LOLO PASS, ID (588) SNOW WATER EQUIVALENT

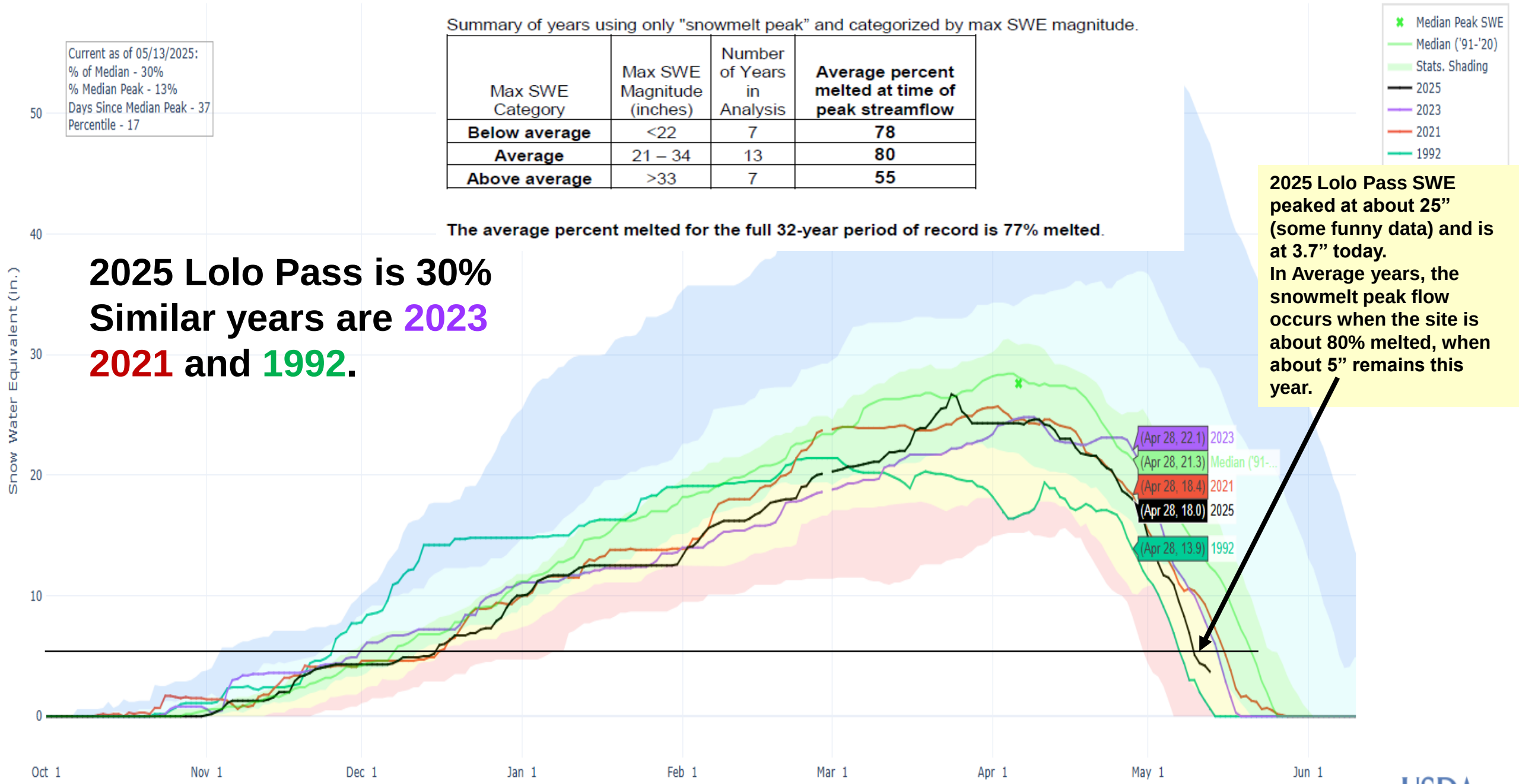
LOCSHA RIVER AND LOLO PASS SNOTEL

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.

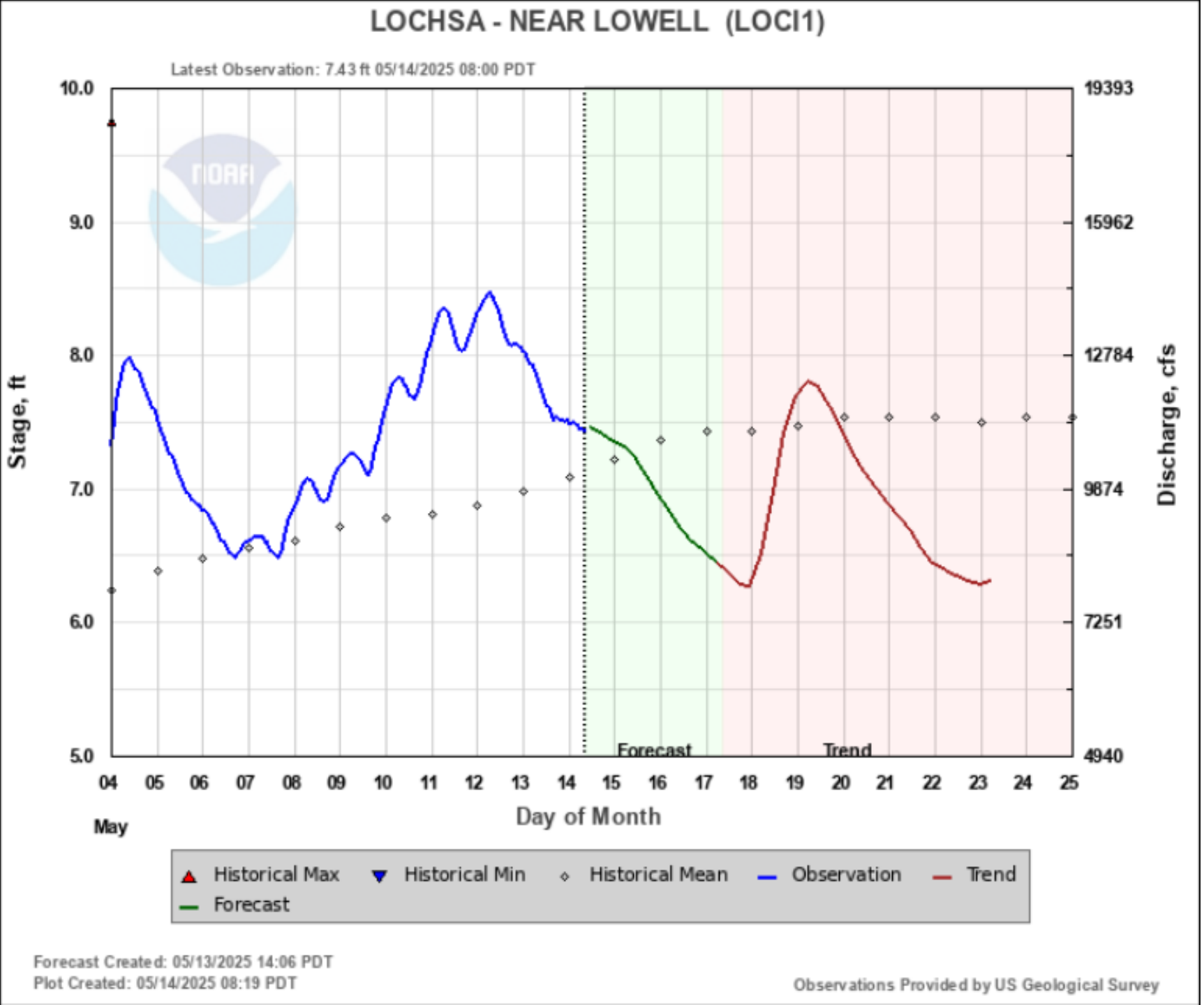
Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	**Average percent melted at time of peak streamflow**
Below average	<22	7	**78**
Average	21 – 34	13	**80**
Above average	>33	7	**55**

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



2025 Lolo Pass is 30%
Similar years are 2023 2021 and 1992.

2025 Lolo Pass SWE peaked at about 25" (some funny data) and is at 3.7" today.
In Average years, the snowmelt peak flow occurs when the site is about 80% melted, when about 5" remains this year.



NWS graph shows previous peaks and Forecast /Trend decreasing with cool temps and another increase around the corner.

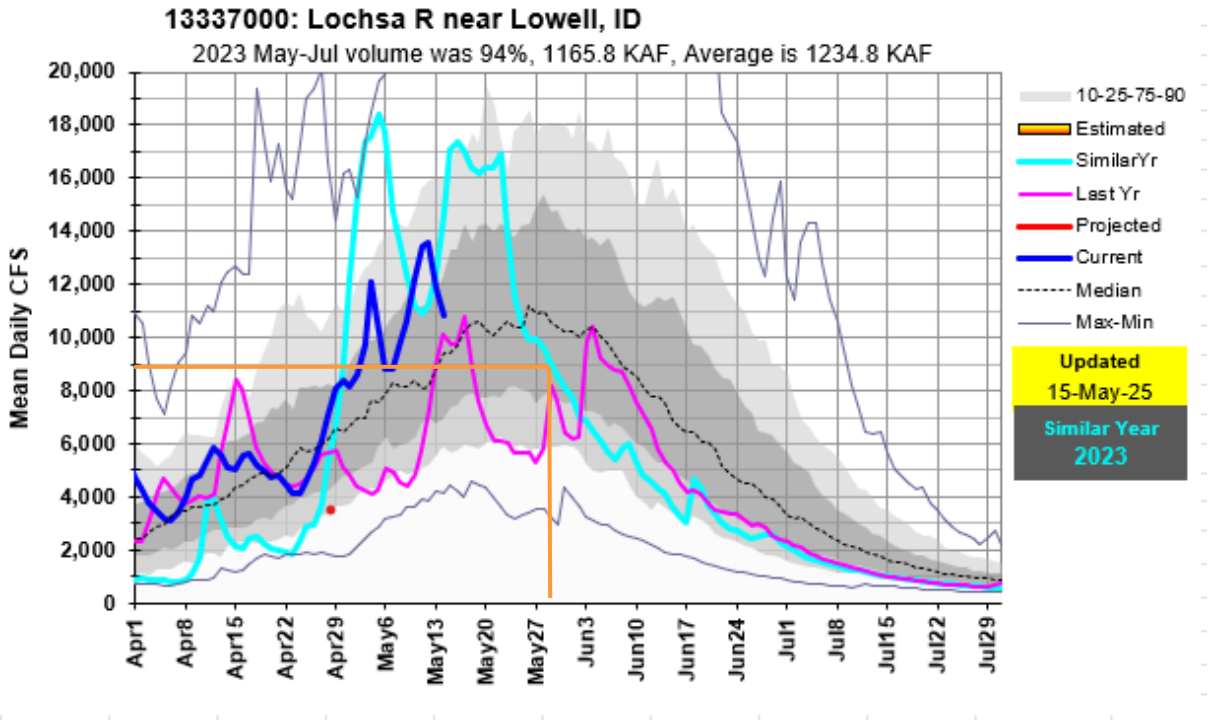
Time will tell how high and when…

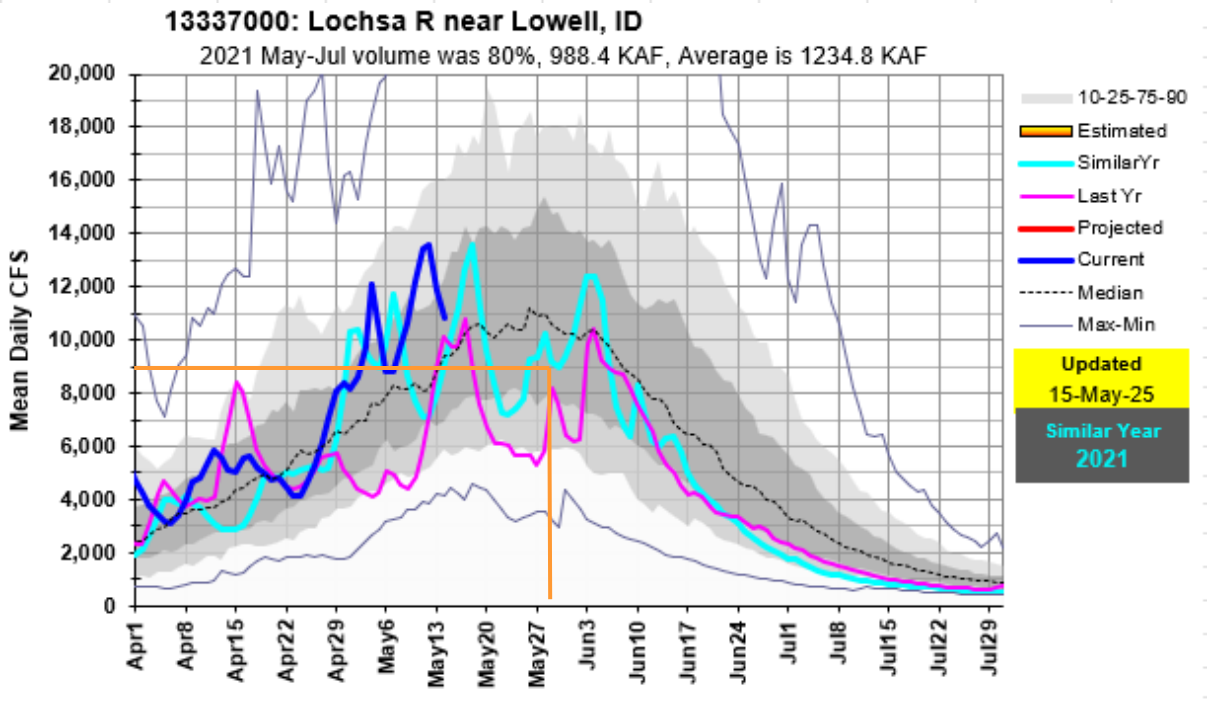
Another peak is likely as cooler weather arrived as snow melt was reaching snow to flow relationships thresholds and snow remains to melt .

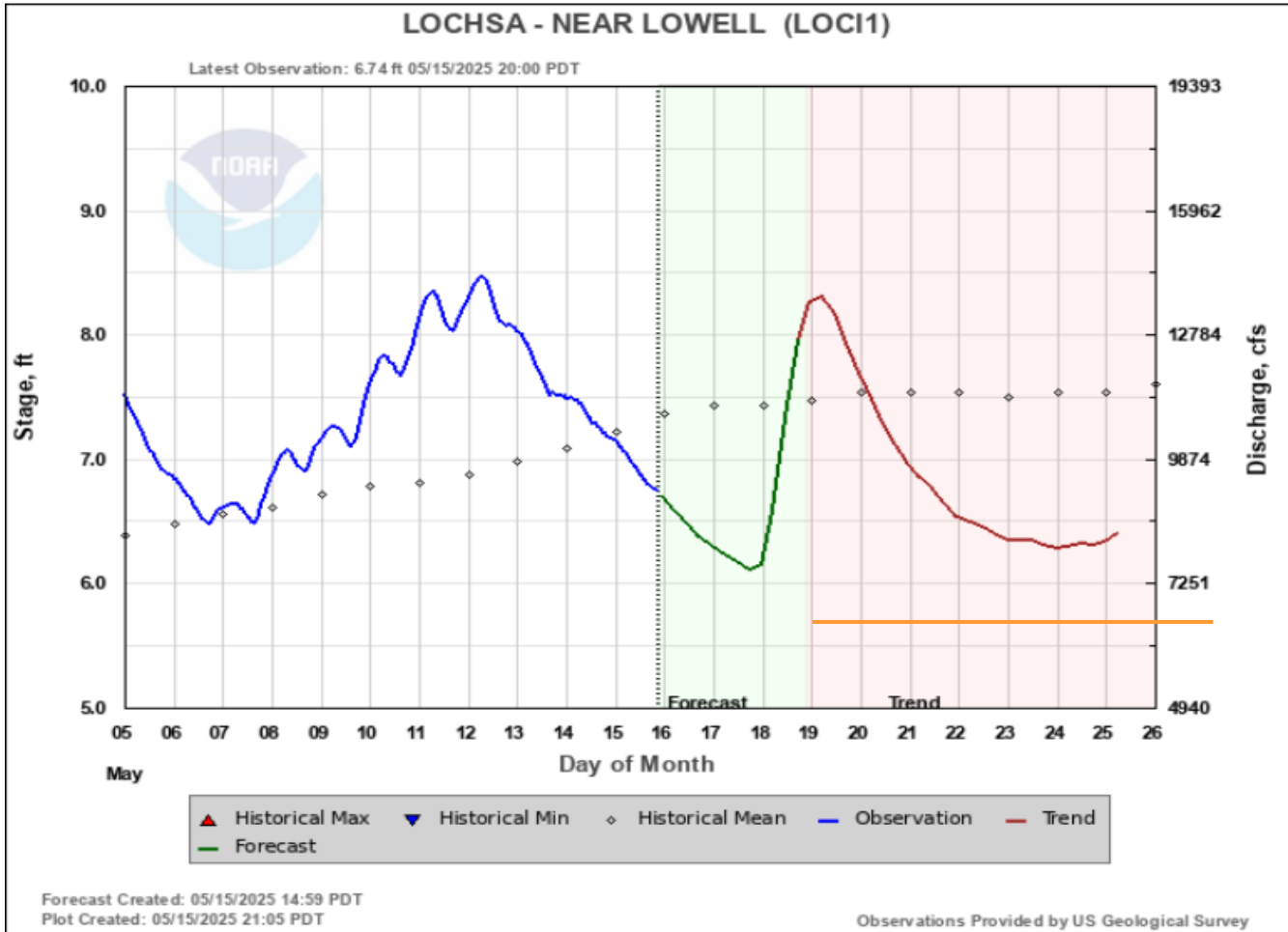
Flow for years that had a similar snow peak and melt.

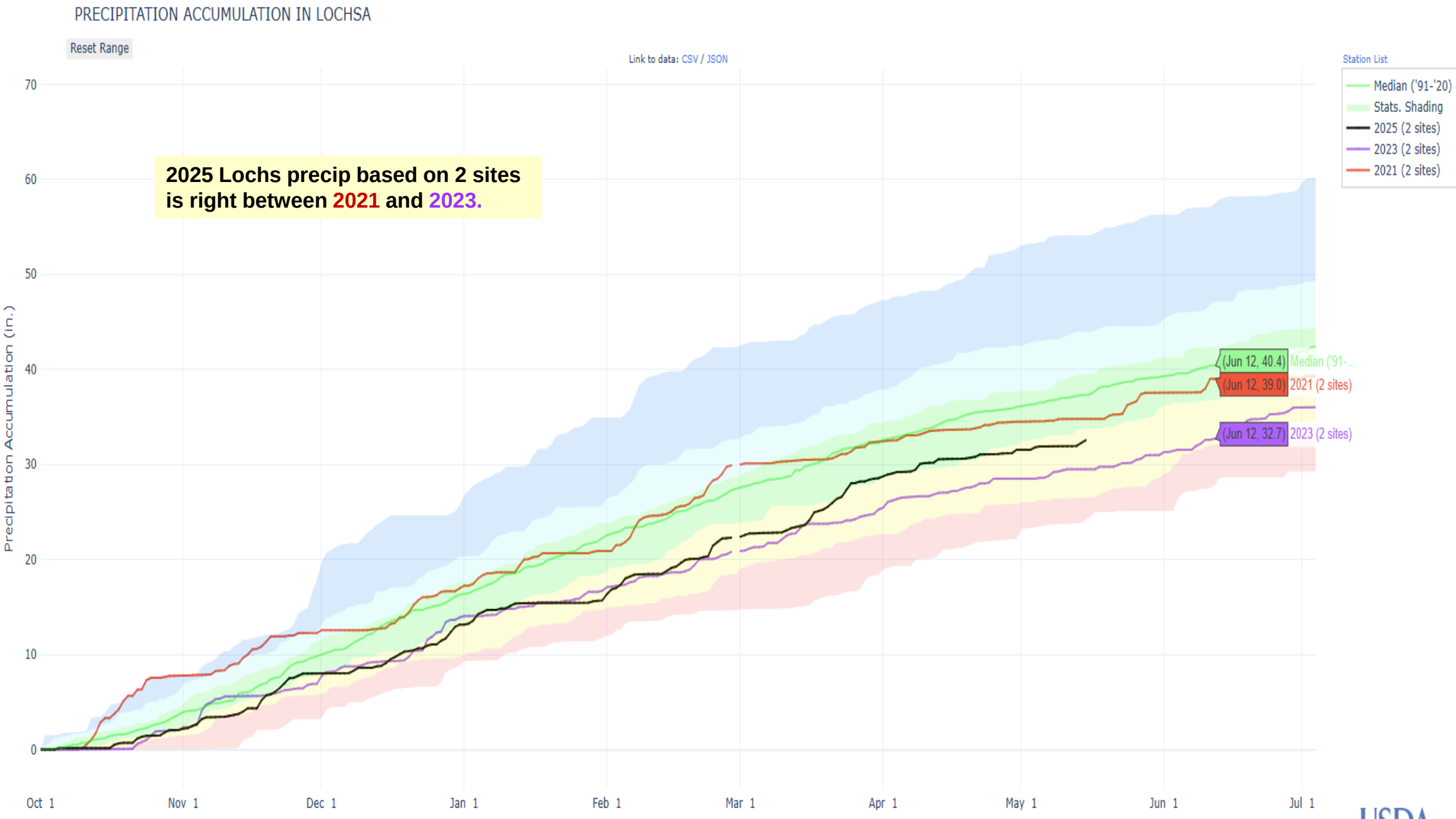
NRCS May 1 May-Jul Forecast is for 79% and 925 KAF which is lower than 2023 and 2021 and better 1992.

With another increase likely, and based on similar snow peak / melt patterns, and similar precip, looks like flow levels should stay above 6500 cfs till after end of May. Unless wild or strange weather happens…

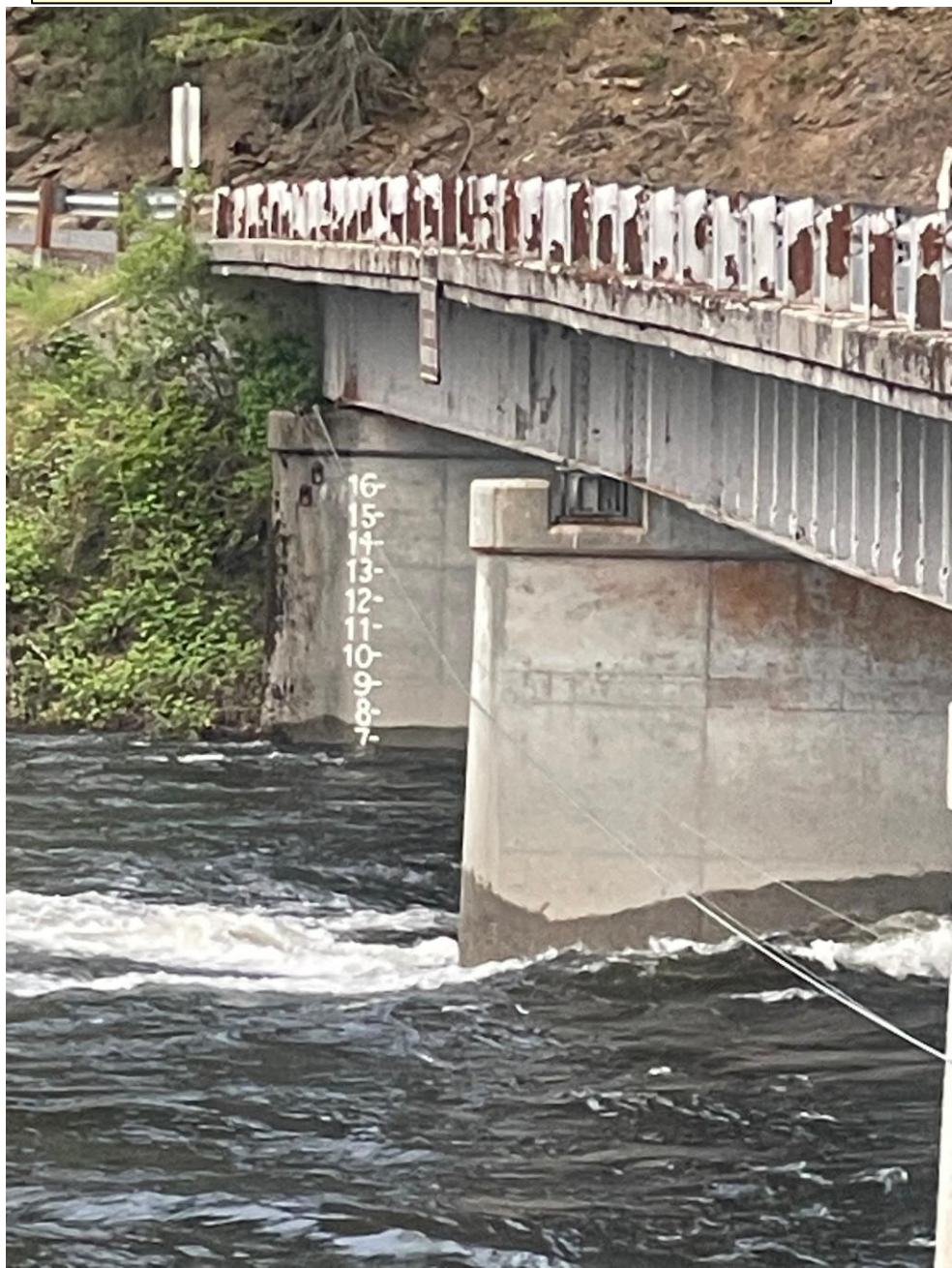







PRECIPITATION ACCUMULATION IN LOCHSA
Reset Range
Link to data: CSV / JSON
Station List
Median ('91-'20)
Stats. Shading
2025 (2 sites)
2023 (2 sites)
2021 (2 sites)
2025 Lochs precip based on 2 sites is right between 2021 and 2023.
Precipitation Accumulation (in.)
70
60
50
40
30
20
10
0
(Jun 12, 40.4) Median ('91-...
(Jun 12, 39.0) 2021 (2 sites)
(Jun 12, 32.7) 2023 (2 sites)
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1

Lochsa River
May 11, 2025 13,500 cfs



MAGIC MOUNTAIN, ID (610) SNOW WATER

Salmon Falls Creek and Magic Mountain SNOTEL SITE

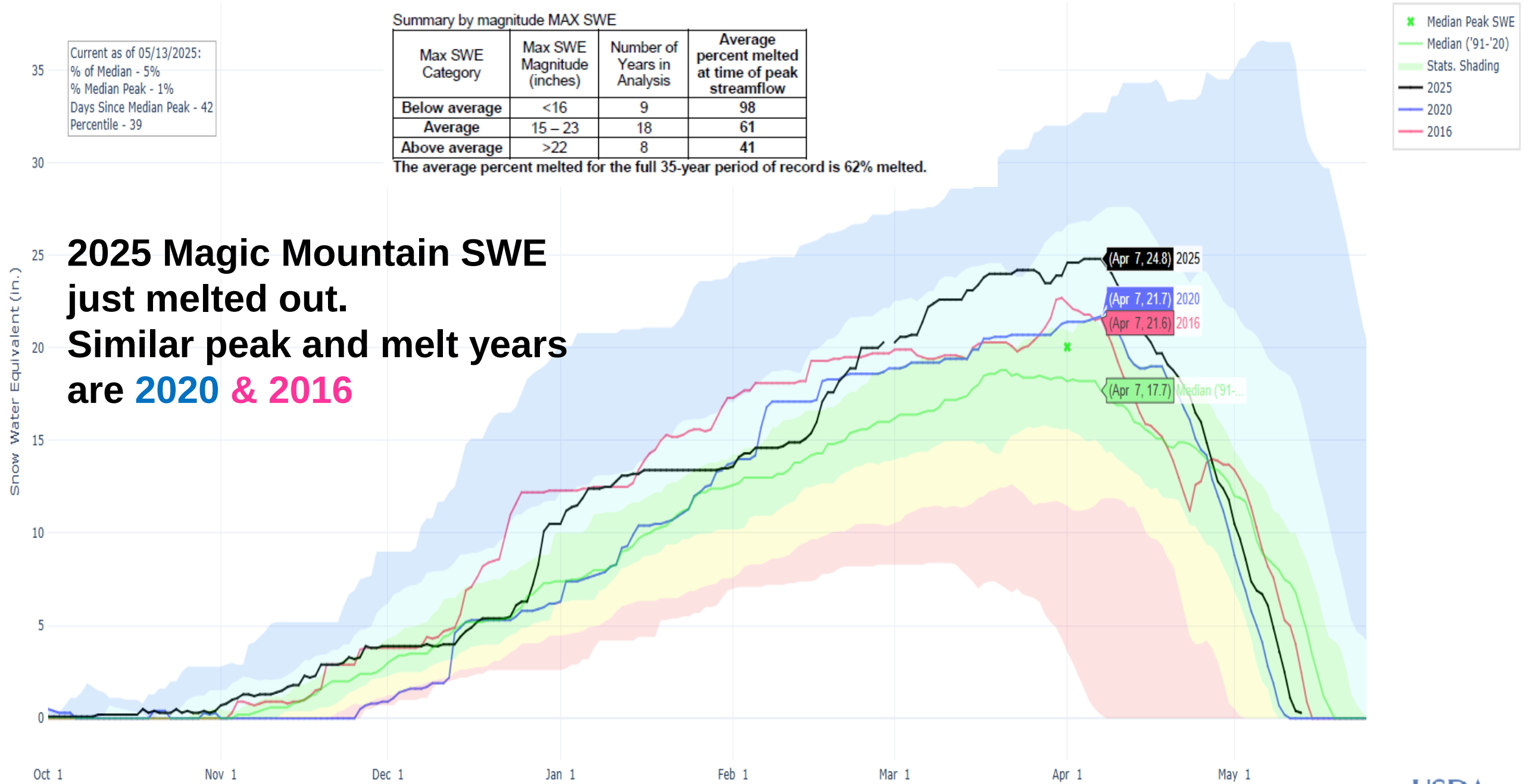
On average, the Salmon Falls Creek near San Jacinto, NV peak streamflow occurs when Magic Mountain SNOTEL is approximately 62% melted.

Summary by magnitude MAX SWE

Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	Average percent melted at time of peak streamflow
Below average	<16	9	98
Average	15 – 23	18	61
Above average	>22	8	41

The average percent melted for the full 35-year period of record is 62% melted.

Current as of 05/13/2025:
% of Median - 5%
% Median Peak - 1%
Days Since Median Peak - 42
Percentile - 39



2025 Magic Mountain SWE just melted out.
Similar peak and melt years are 2020 & 2016

Salmon Falls Creek and Pole Creek SNOTEL SITE

POLE CREEK R.S., NV (698) SNOW WATER EQUIVALENT

On average, the Salmon Falls Creek near San Jacinto, NV peak streamflow occurs when Pole Creek RS SNOTEL is approximately 20% melted.

Reset Range

Summary by magnitude MAX SWE

Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	Average percent melted at time of peak streamflow
Below average	<19	9	60
Average	18 - 26	18	42
Above average	>25	9	20

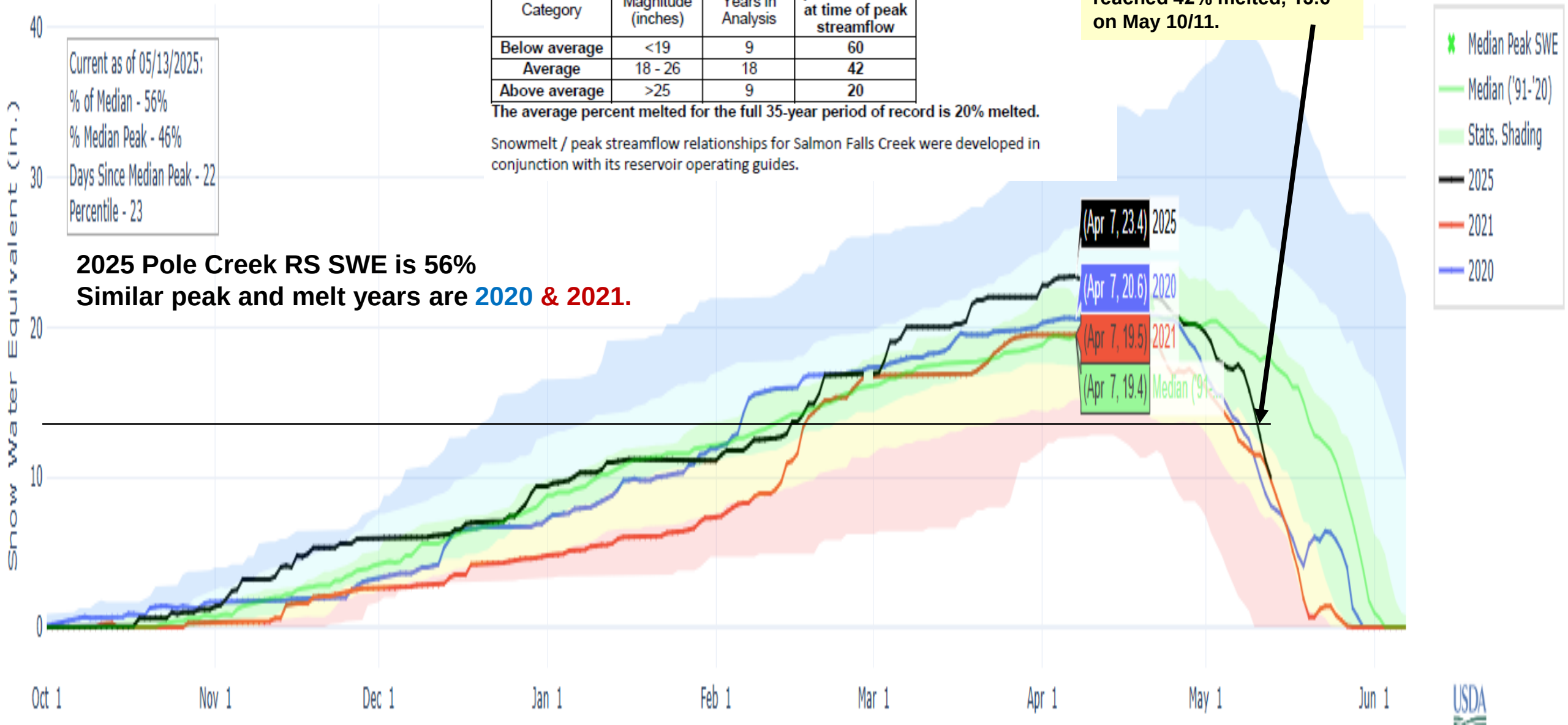
The average percent melted for the full 35-year period of record is 20% melted.

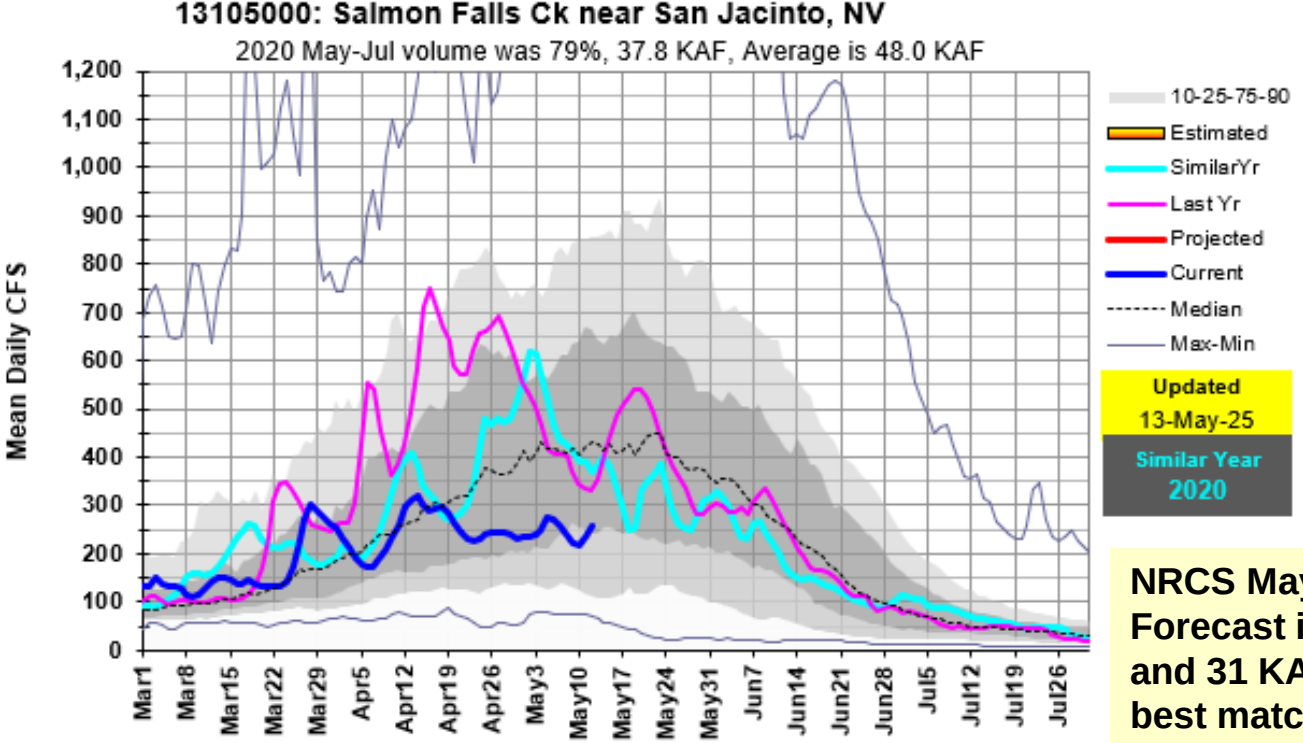
Snowmelt / peak streamflow relationships for Salmon Falls Creek were developed in conjunction with its reservoir operating guides.

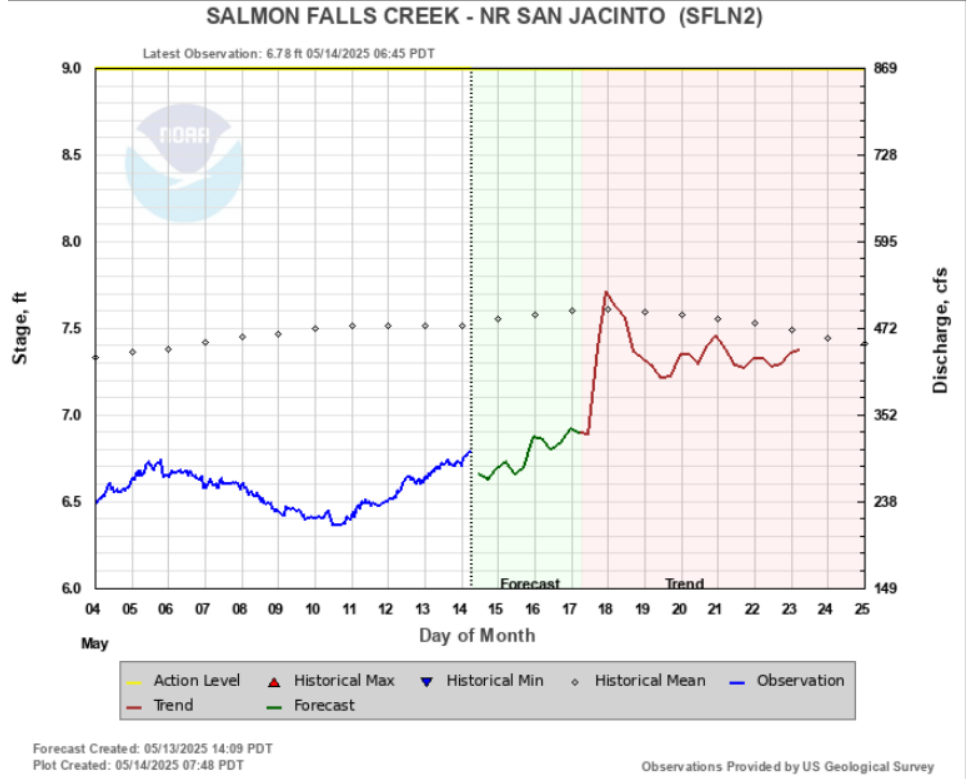
2025 Pole Creek RS SWE peaked at 23.4" and reached 42% melted, 13.6" on May 10/11.

Current as of 05/13/2025:
% of Median - 56%
% Median Peak - 46%
Days Since Median Peak - 22
Percentile - 23

2025 Pole Creek RS SWE is 56%
Similar peak and melt years are 2020 & 2021.

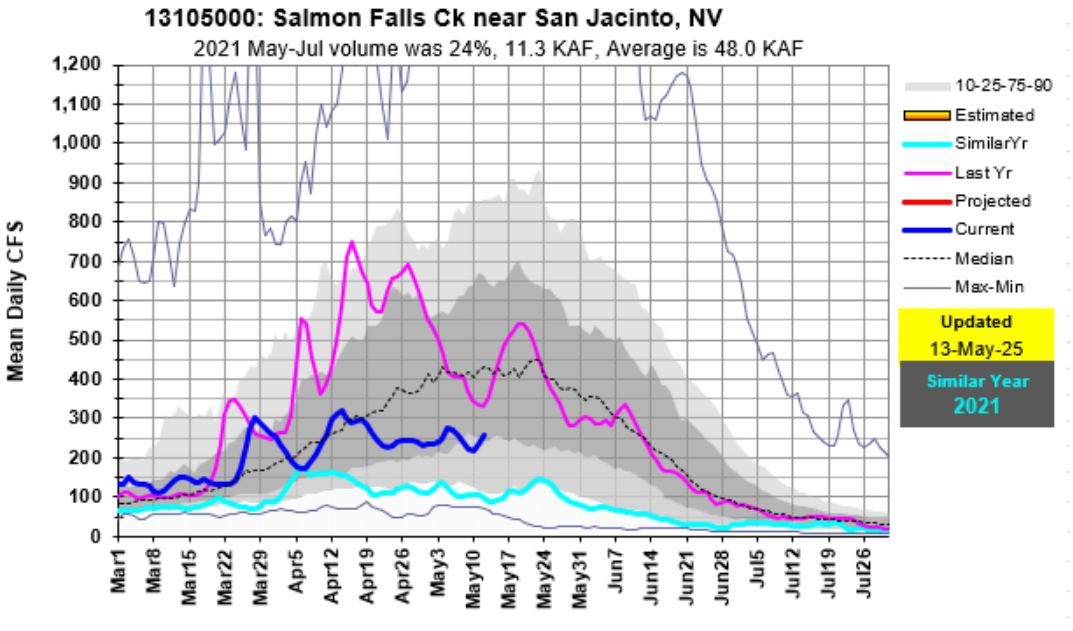


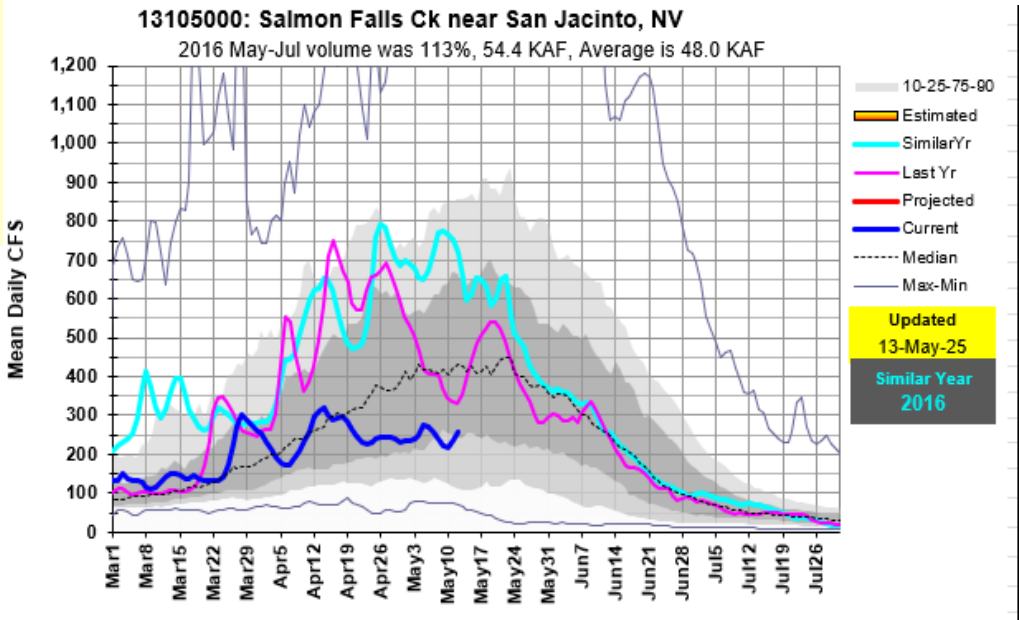




NRCS May 1 May-Jul Forecast is for 69% and 31 KAF which best matches up with 2020 when May-Jul volume was 37.8 KAF.

NWS Forecast & Trend shows a bump in flows from this week's rain (?).





BEAR CREEK, NV (321) SNOW WATER EQUIVALENT

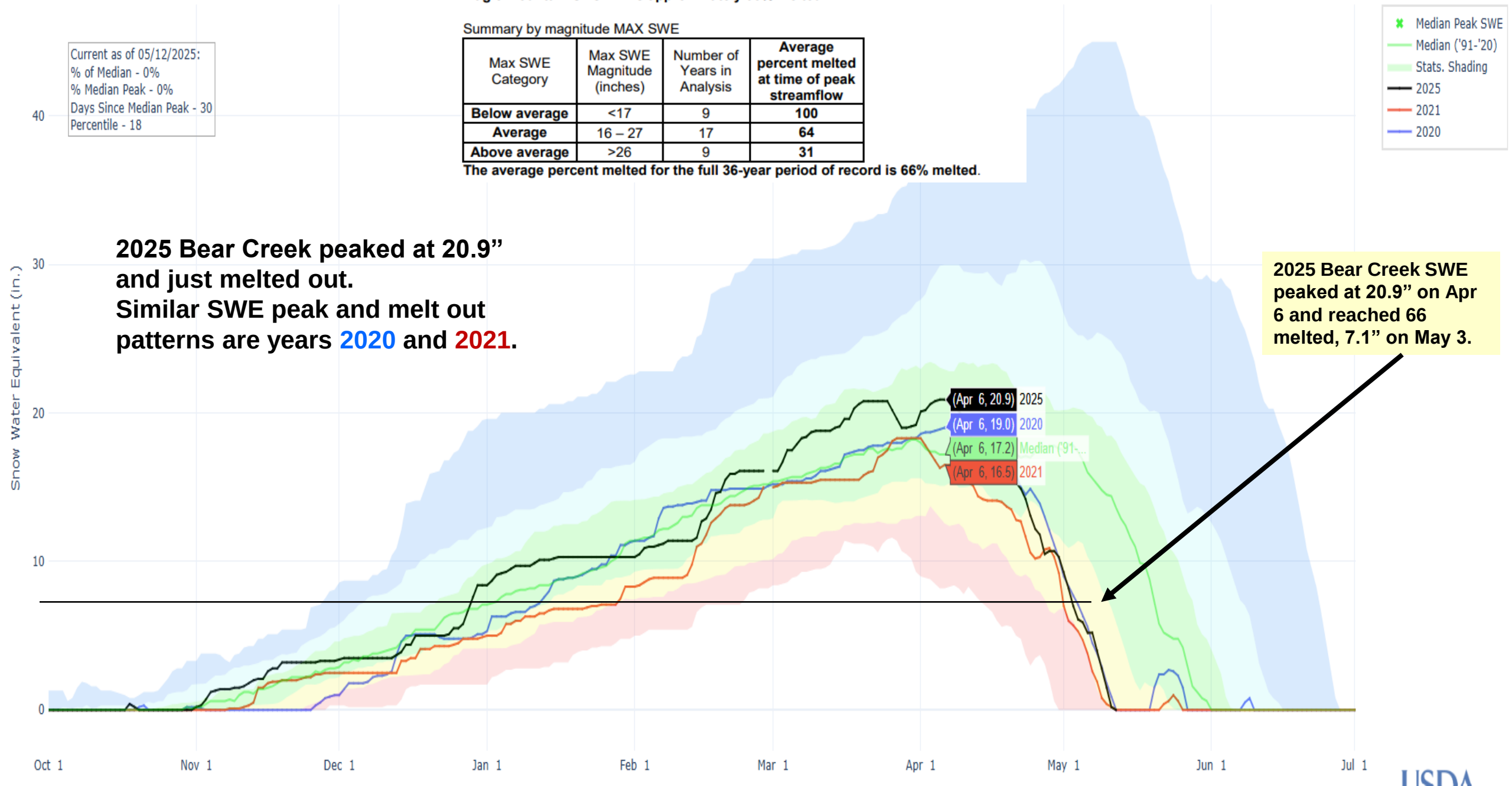
Bruneau River and Bear Creek SNOTEL Site

On average, the Bruneau River near Hot Springs, Idaho peak streamflow occurs when Magic Mountain SNOTEL is approximately 66% melted.

Summary by magnitude MAX SWE

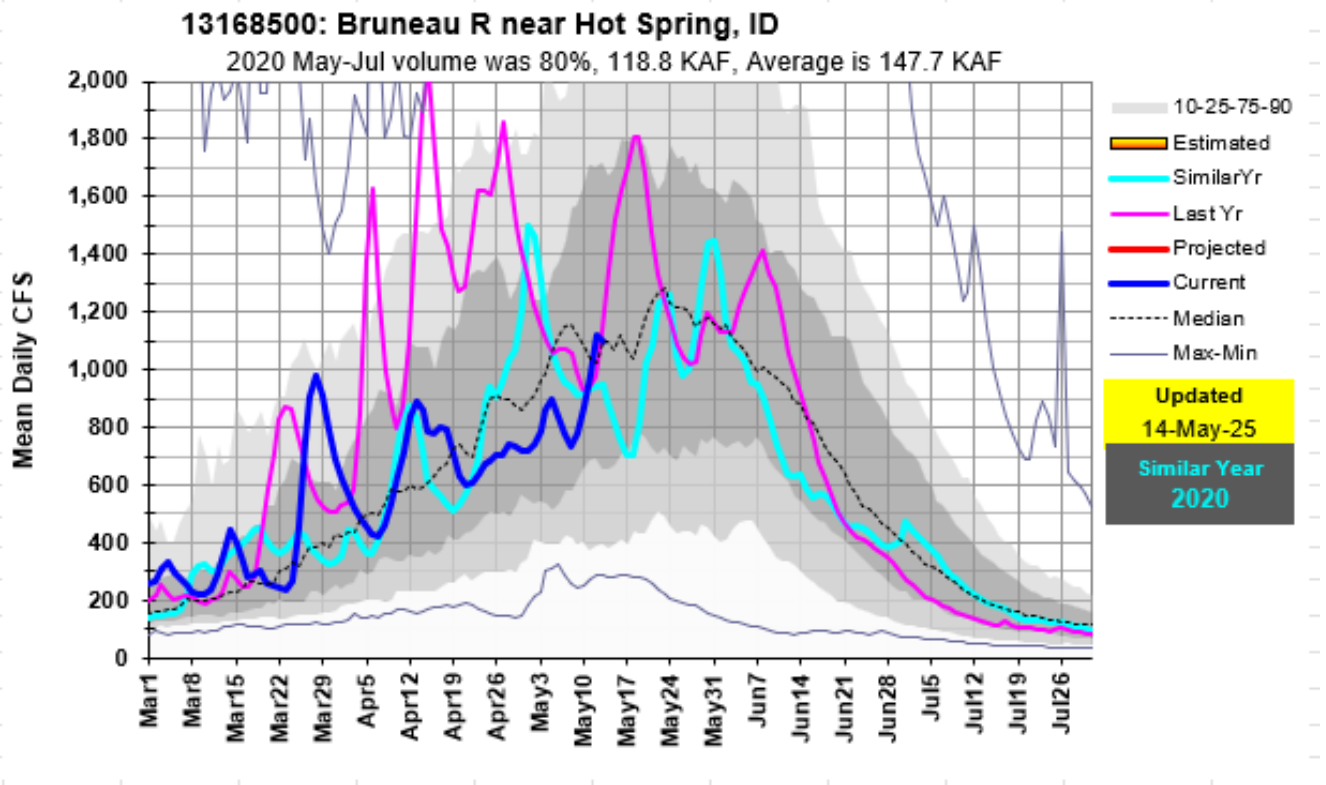
Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	Average percent melted at time of peak streamflow
Below average	<17	9	**100**
Average	16 – 27	17	**64**
Above average	>26	9	**31**

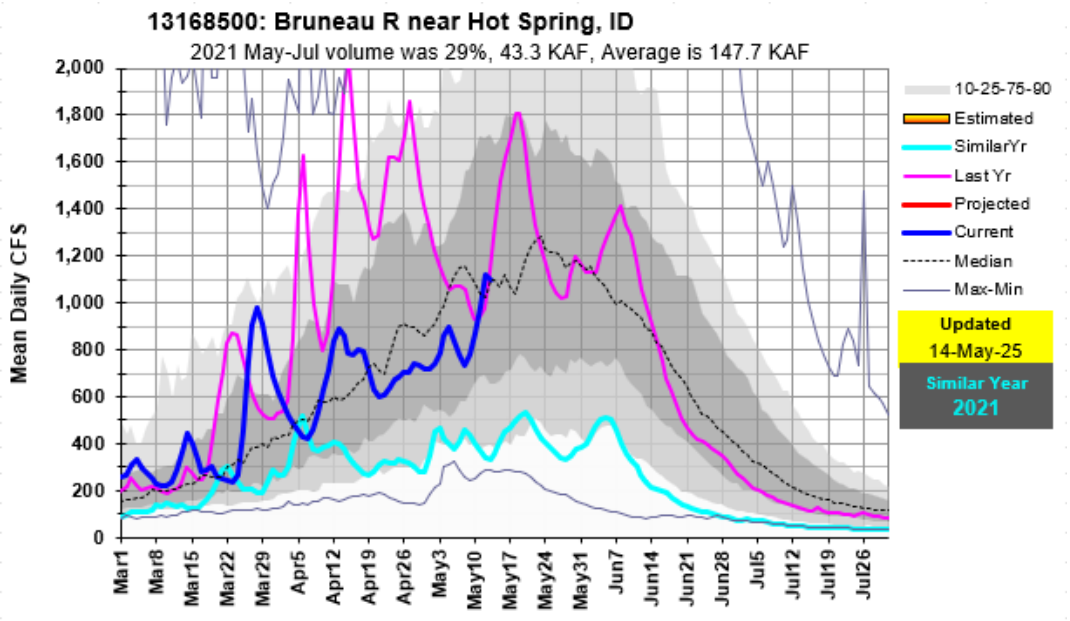
The average percent melted for the full 36-year period of record is 66% melted.



2025 Bear Creek peaked at 20.9" and just melted out.
Similar SWE peak and melt out patterns are years 2020 and 2021.

2025 Bear Creek SWE peaked at 20.9" on Apr 6 and reached 66 melted, 7.1" on May 3.





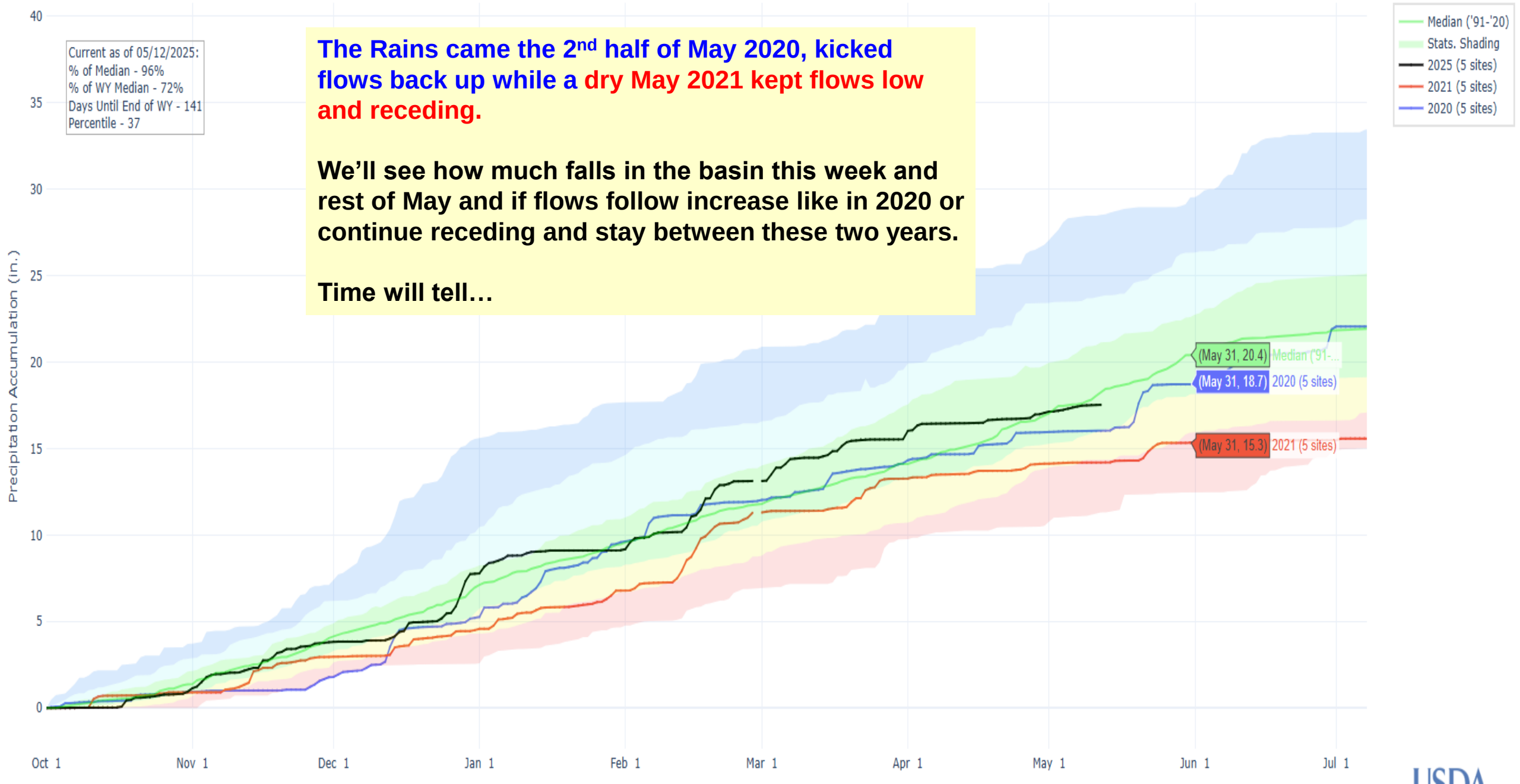
Similar snow peak and melt in 2020 and 2021 brought a wide range of flows in May and June for these two similar years.

What happened and caused the difference in runoff for these years?

NRCS May 1 May-Jul Forecast is for 73% and 98 KAF which best matches up with 2020 when May-Jul volume was 118.8 KAF.

Best guess – this year's flow will be between these years of 2020 and 2021.

PRECIPITATION ACCUMULATION IN BRUNEAU



The Rains came the 2nd half of May 2020, kicked flows back up while a dry May 2021 kept flows low and receding.

We'll see how much falls in the basin this week and rest of May and if flows follow increase like in 2020 or continue receding and stay between these two years.

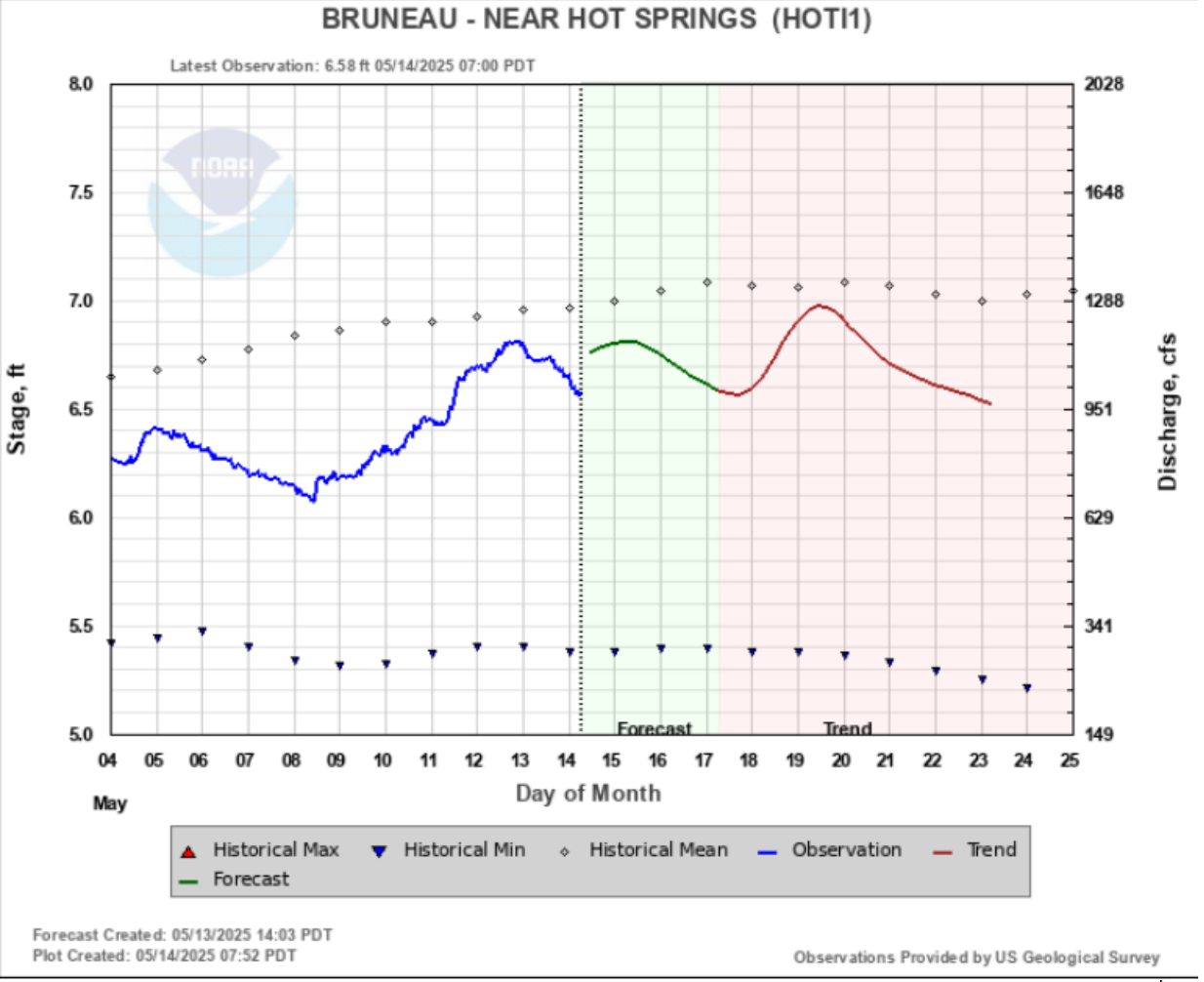
Time will tell…

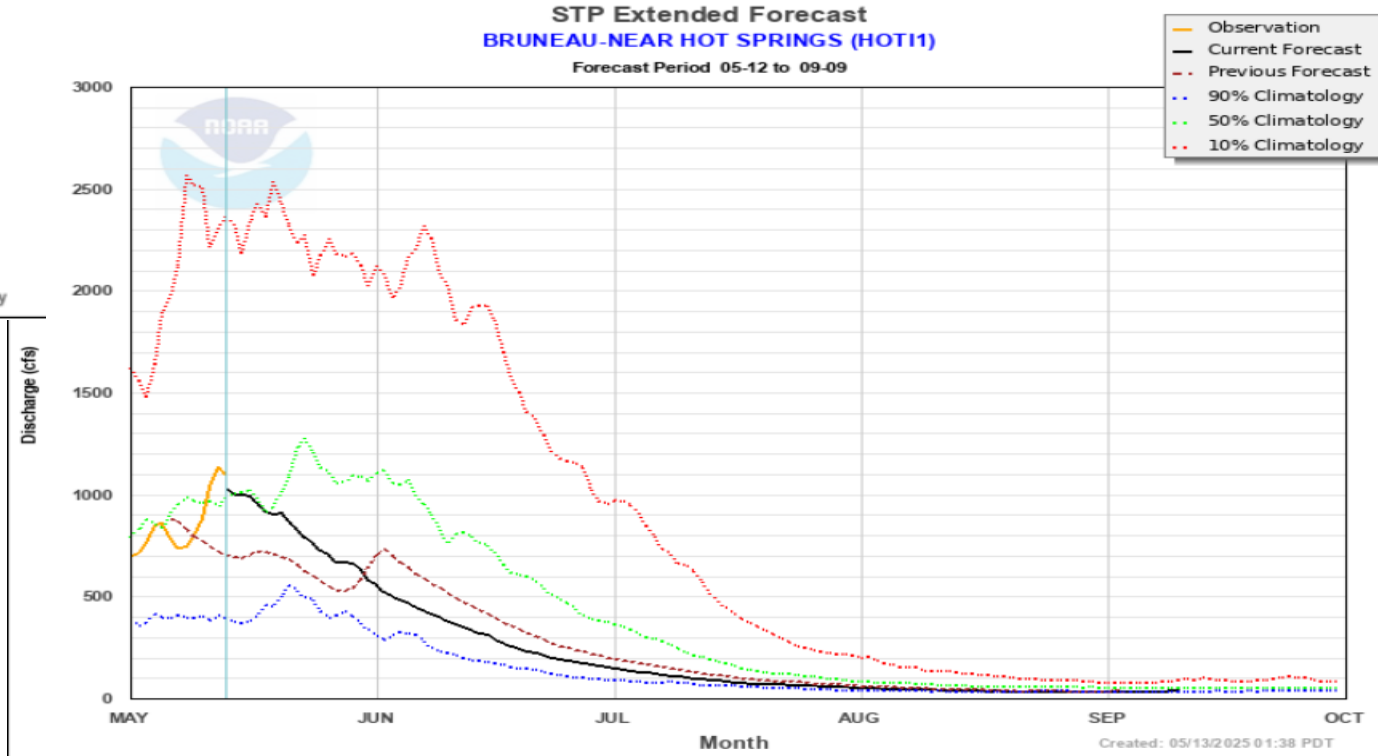
USDA

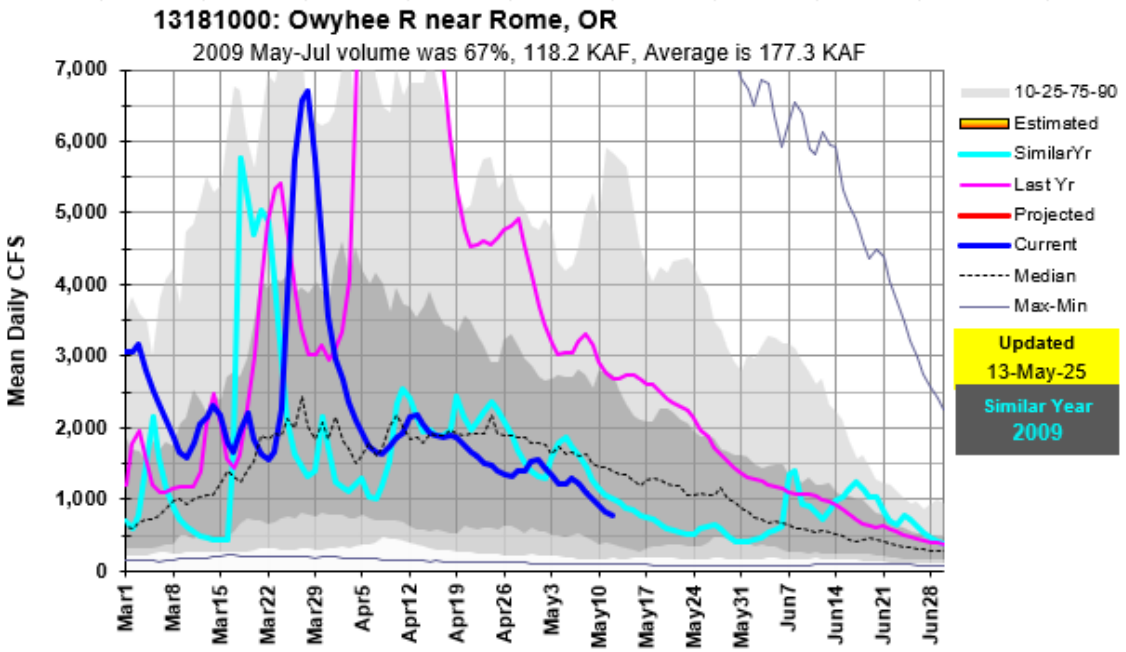
NWS Forecast & Trend shows also show another flow bump.

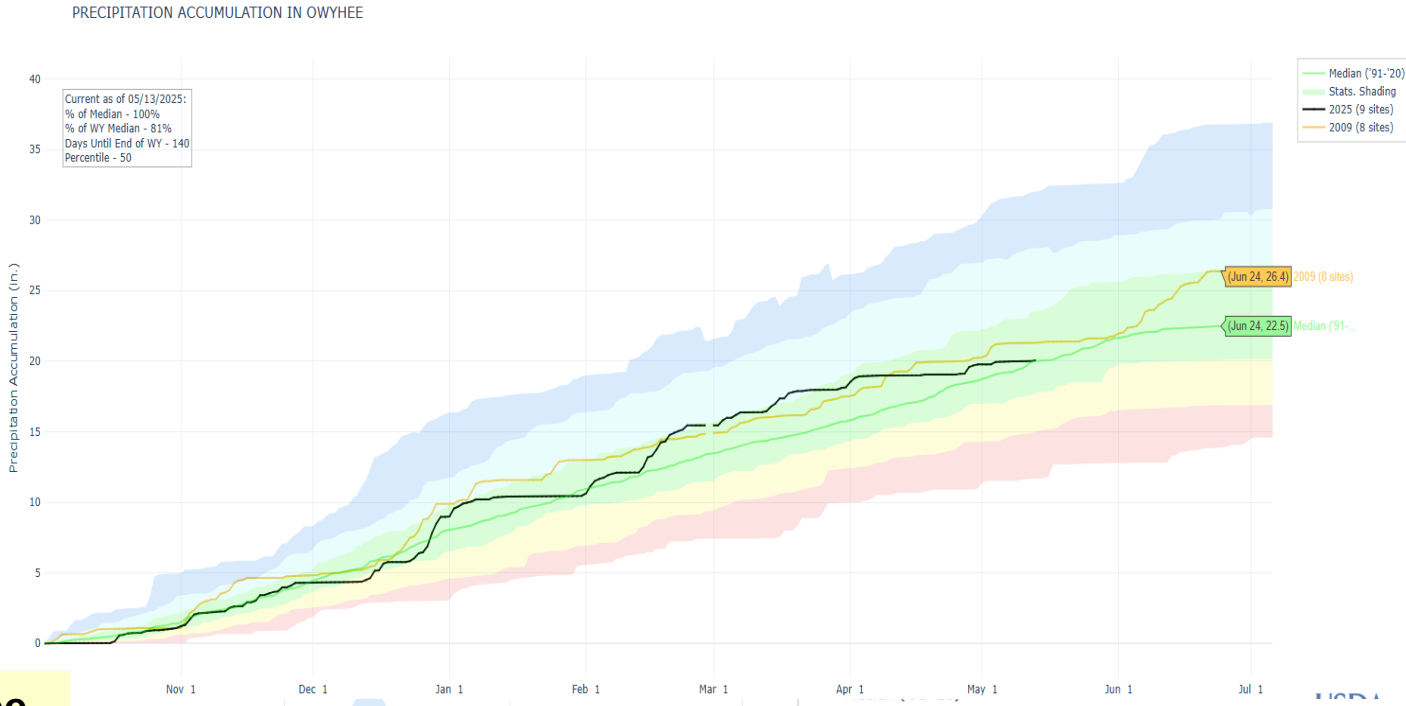
NWS STP Extended Forecast shows gradual decrease from current flow level.

Time and future weather will tell if May's rain in 2nd half of month will bring another flow increase or not.









Interesting flow decrease on the Owyhee even as temps were heating up in Boise.