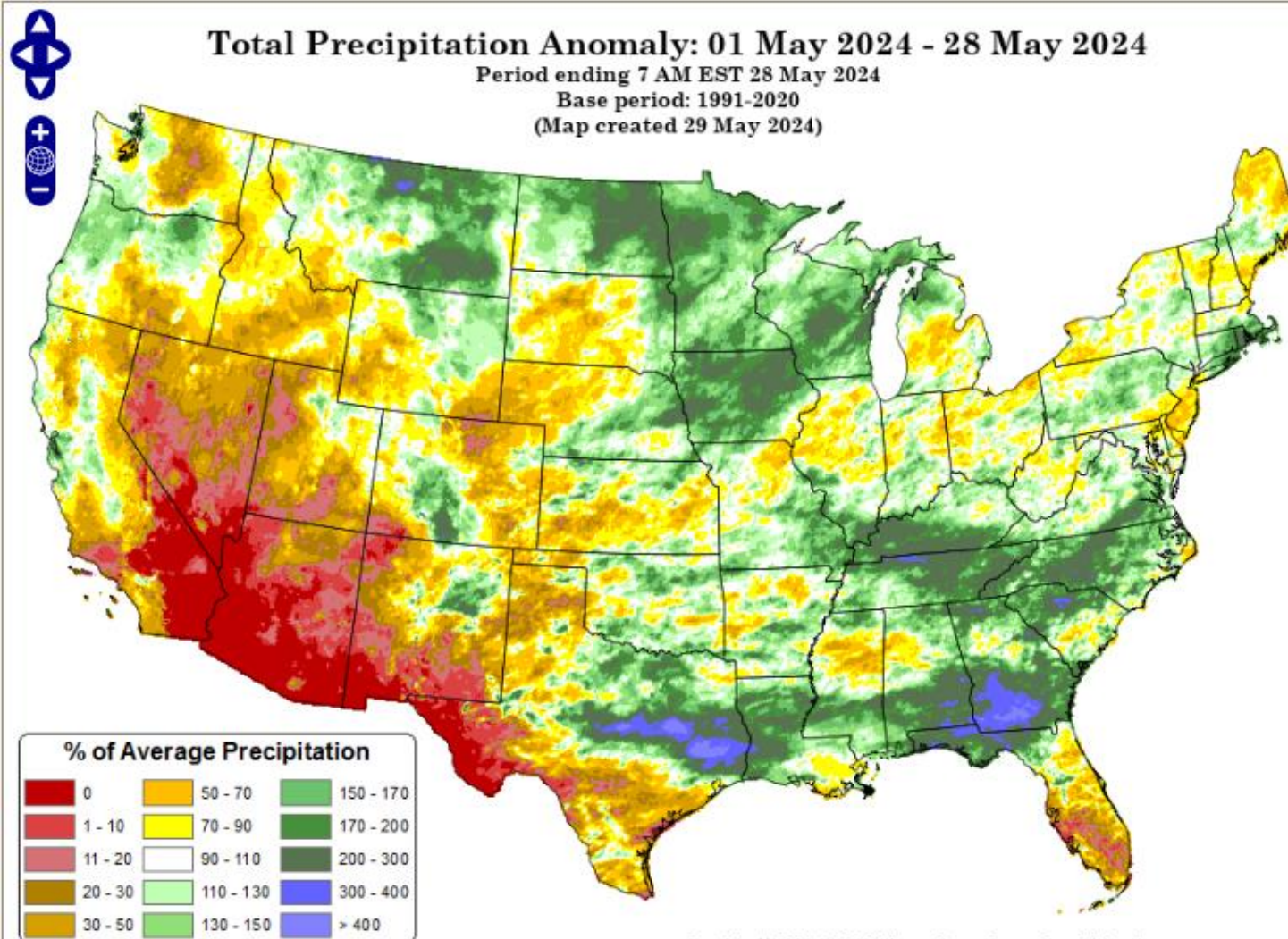
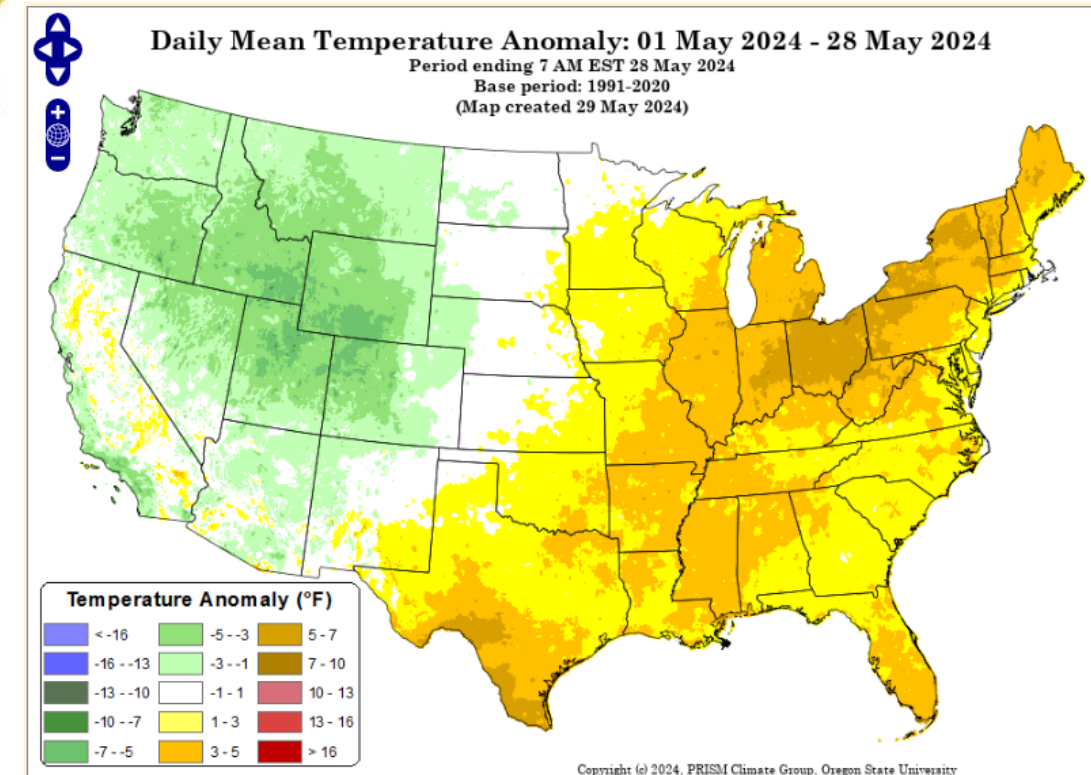


May 30, 2024 Snow2Flow Update for MF & Main Salmon Rivers

May 1-28 Total Precipitation ranges from 50-100% of normal across the state.



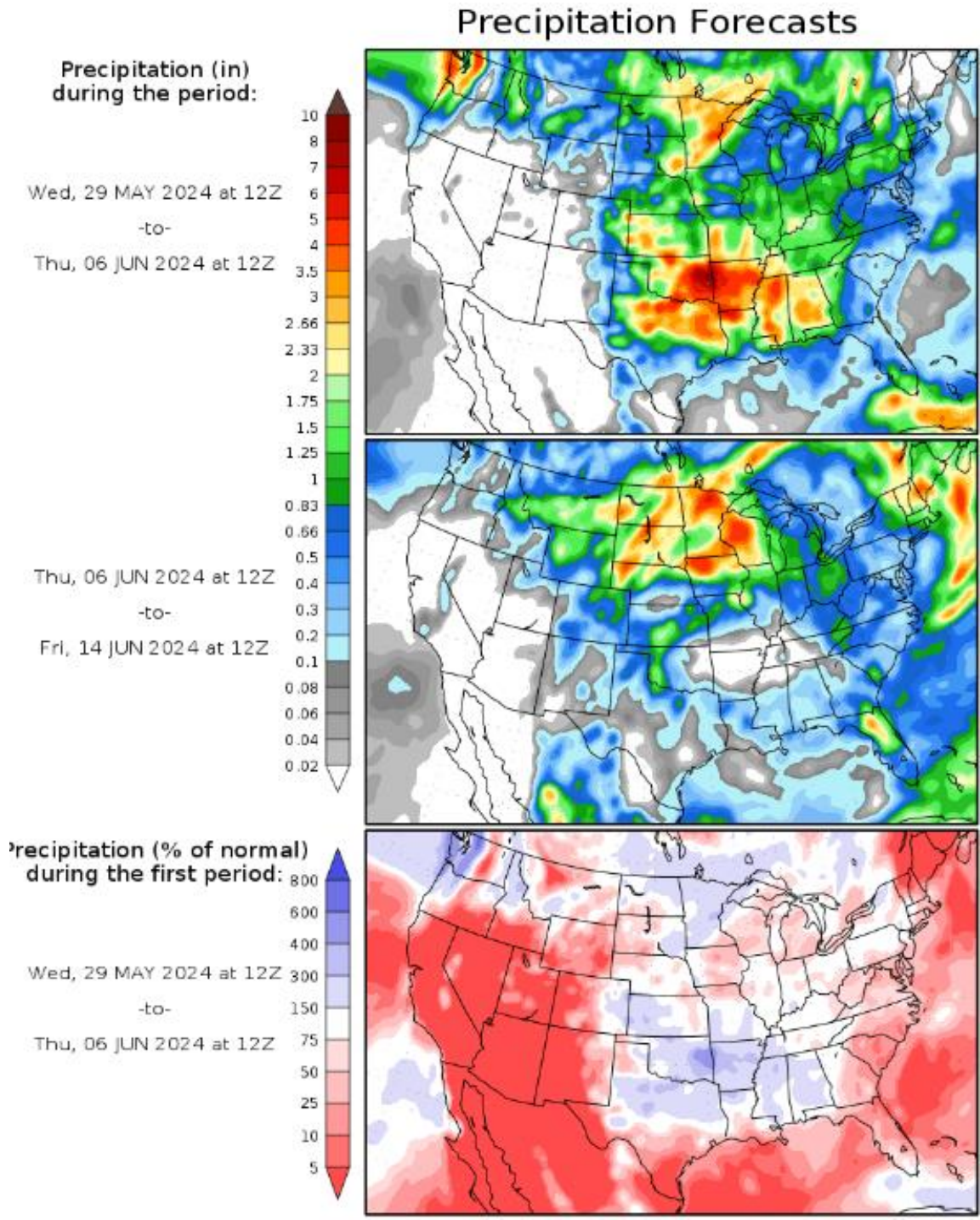
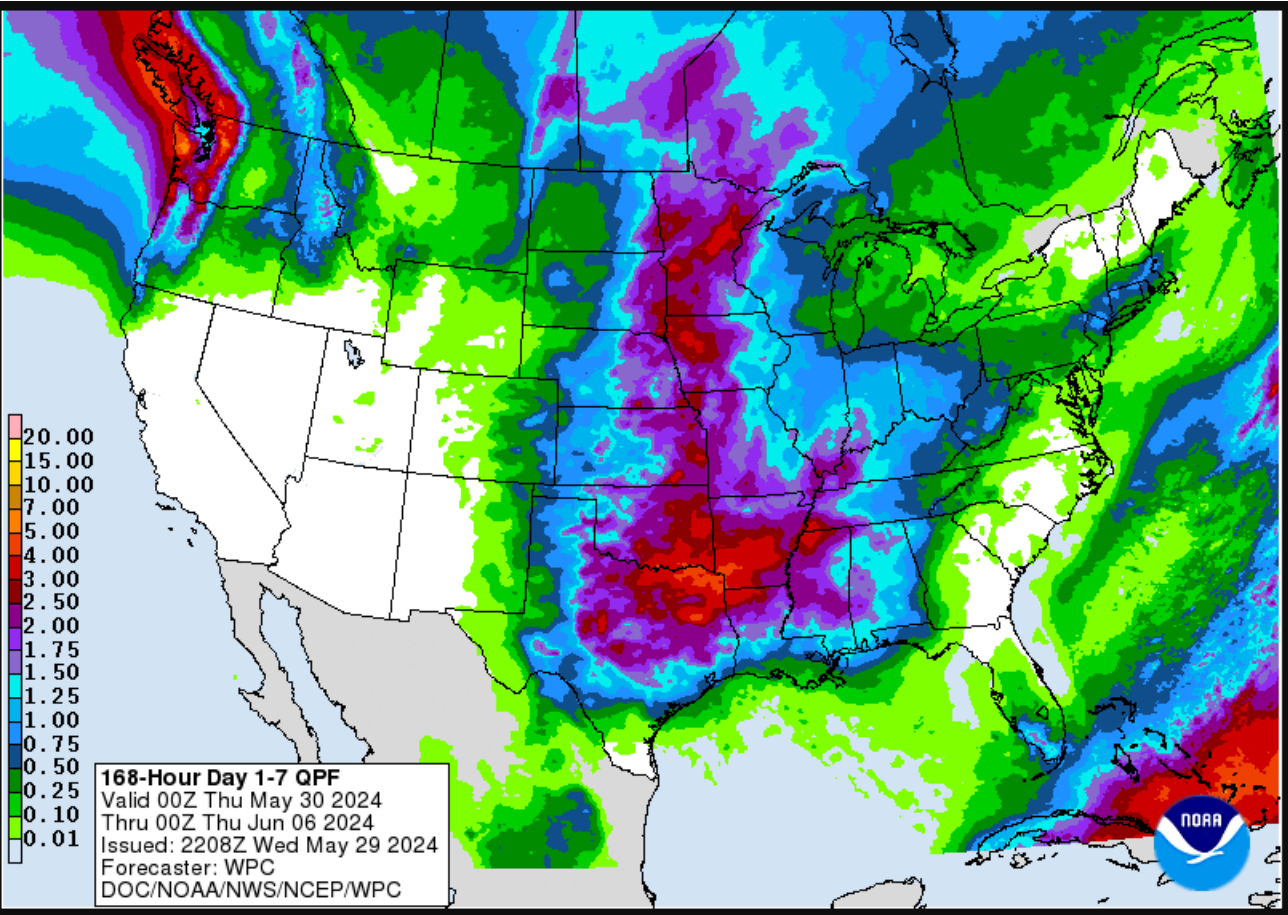
May 1-28 Daily Mean Temperatures remained below normal for month



Current / Future Weather to see what's happening.

7-Day Total Precipitation Forecast for May 30-Jun 6 shows some moisture in central & northern Idaho.

1st & 2nd 7-Day Precipitation Outlook shows more of the same for both periods.



Current conditions at
Stanley, Stanley Ranger Station (KSNT)
Lat: 44.20881°N Lon: 114.93444°W Elev: 6496.0ft.

NA
45°F
7°C

Humidity 43%

Wind Speed N 4 MPH

Barometer 30.22 in (1023.37 mb)

Dewpoint 24°F (-4°C)

Visibility NA

Wind Chill 43°F (6°C)

Last update 30 May 09:51 AM MDT

More Information:









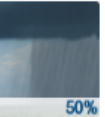
[Local Forecast Office](#)

[More Local Wx](#)

[3 Day History](#)

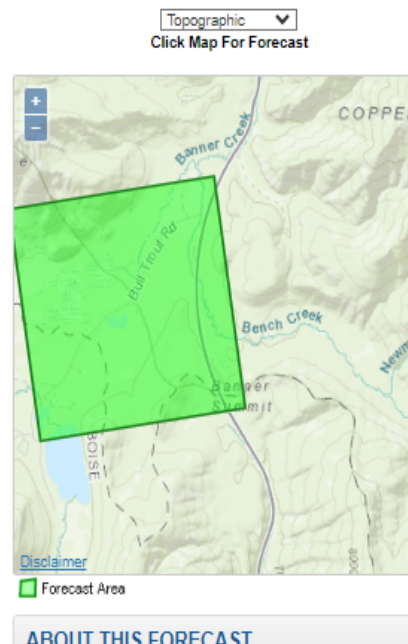
[Hourly Weather Forecast](#)

Extended Forecast for
16 Miles WNW Stanley ID

Today	Tonight	Friday	Friday Night	Saturday	Saturday Night	Sunday	Sunday Night	Monday
								
High: 53 °F	Low: 27 °F	High: 61 °F	Low: 32 °F	High: 64 °F	Low: 36 °F	High: 60 °F	Low: 40 °F	High: 59 °F
Sunny	Mostly Clear	Sunny	Mostly Clear	Partly Sunny	Mostly Cloudy	Mostly Sunny	Mostly Cloudy	Chance Showers

Detailed Forecast

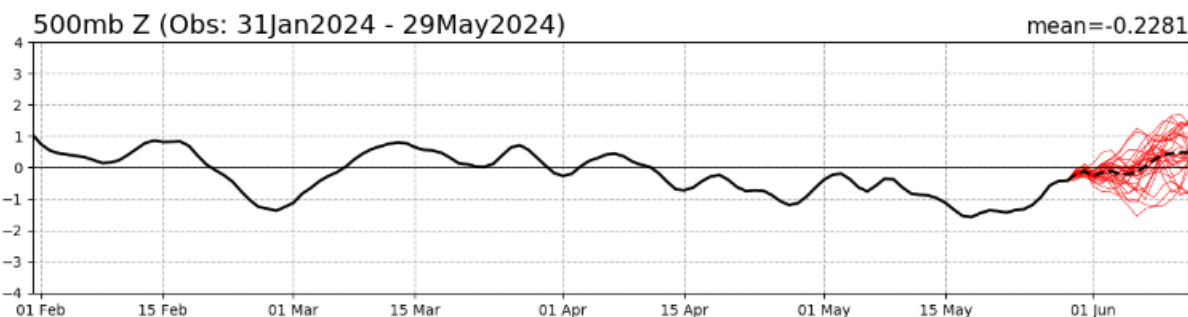
Today	Sunny, with a high near 53. West wind 5 to 9 mph.
Tonight	Mostly clear, with a low around 27. West northwest wind 5 to 8 mph becoming calm in the evening.
Friday	Sunny, with a high near 61. Calm wind becoming west southwest 5 to 7 mph in the afternoon.
Friday Night	Mostly clear, with a low around 32. West southwest wind around 6 mph becoming calm in the evening.
Saturday	Partly sunny, with a high near 64. Light and variable wind becoming west southwest 5 to 9 mph in the afternoon. Winds could gust as high as 18 mph.
Saturday Night	Mostly cloudy, with a low around 36.
Sunday	Mostly sunny, with a high near 60.
Sunday Night	Mostly cloudy, with a low around 40.
Monday	A chance of showers, with thunderstorms also possible after noon. Mostly cloudy, with a high near 59. Chance of precipitation is 50%.
Monday Night	A chance of showers and thunderstorms before midnight, then a slight chance of showers. Snow level 11300 feet lowering to 9500 feet after midnight. Mostly cloudy, with a low around 36. Chance of precipitation is 50%.
Tuesday	Partly sunny, with a high near 60.
Tuesday Night	Mostly clear, with a low around 37.
Wednesday	Sunny, with a high near 69.



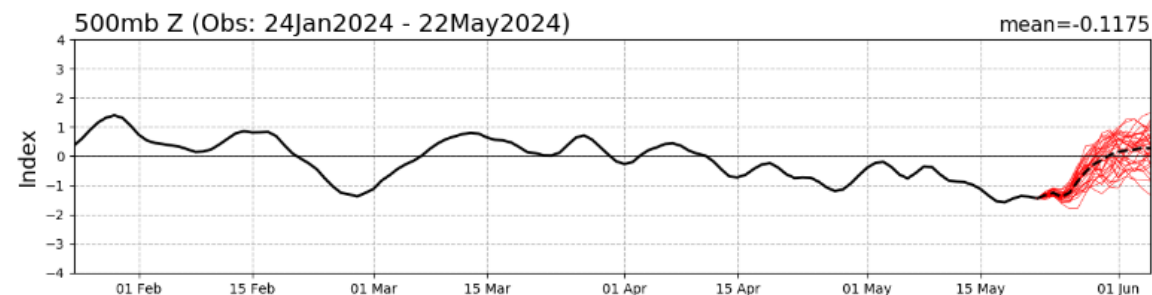
May 30 Banner Summit - NWS Forecast shows temps pushing 60F and above freezing night temps with a chance of rain next week.

PNA tracking near zero line but not as positive in early June as pervious run was trending.

PNA Index: Observed & GEFS Forecasts



PNA Index: Observed & GEFS Forecasts



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.

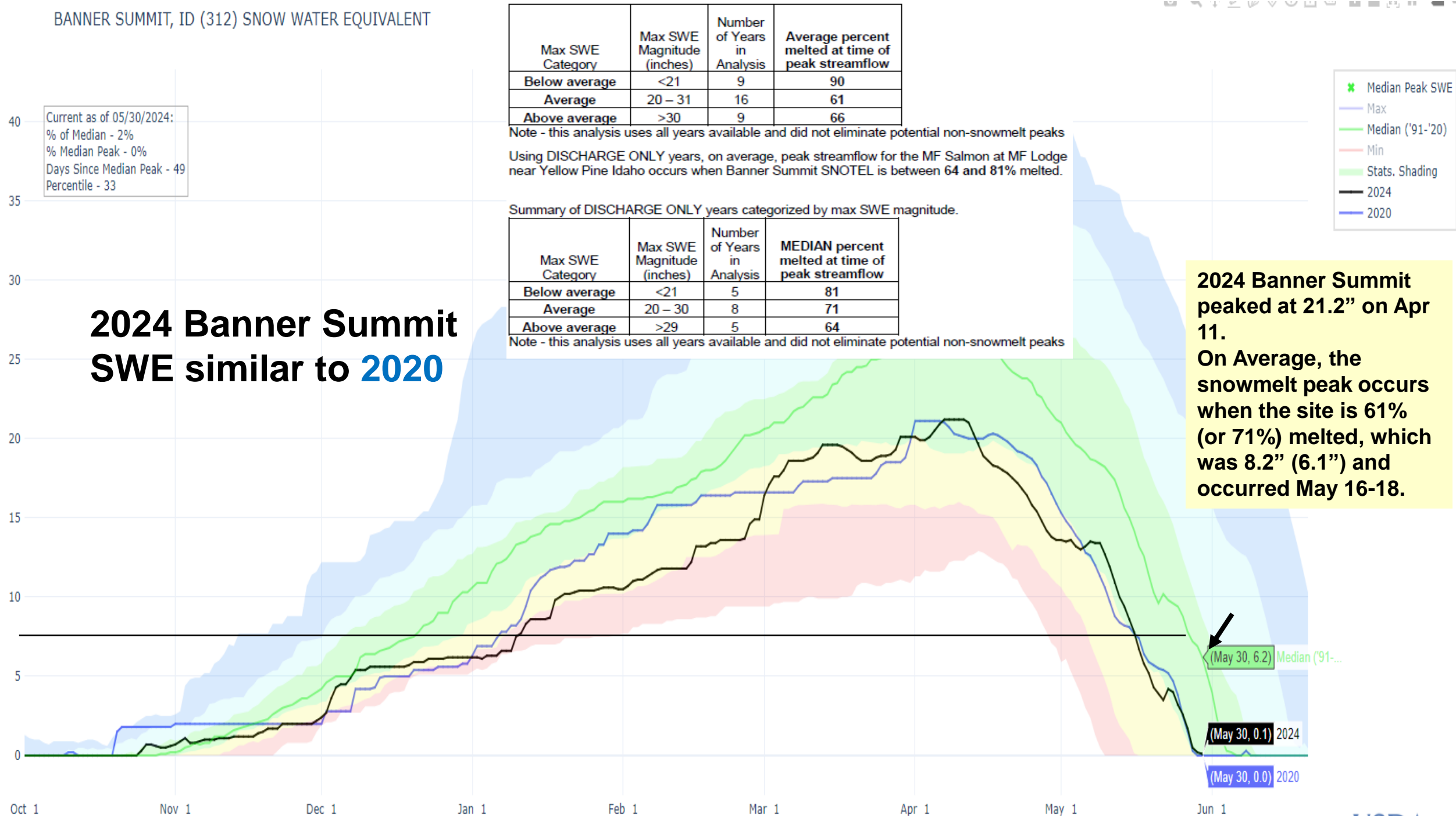
Max SWE Category	Max SWE Magnitude (inches)	Number of Years in Analysis	MEDIAN percent melted at time of peak streamflow
Below average	<21	5	81
Average	20 – 30	8	71
Above average	>29	5	64

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

Current as of 05/30/2024:
% of Median - 2%
% Median Peak - 0%
Days Since Median Peak - 49
Percentile - 33

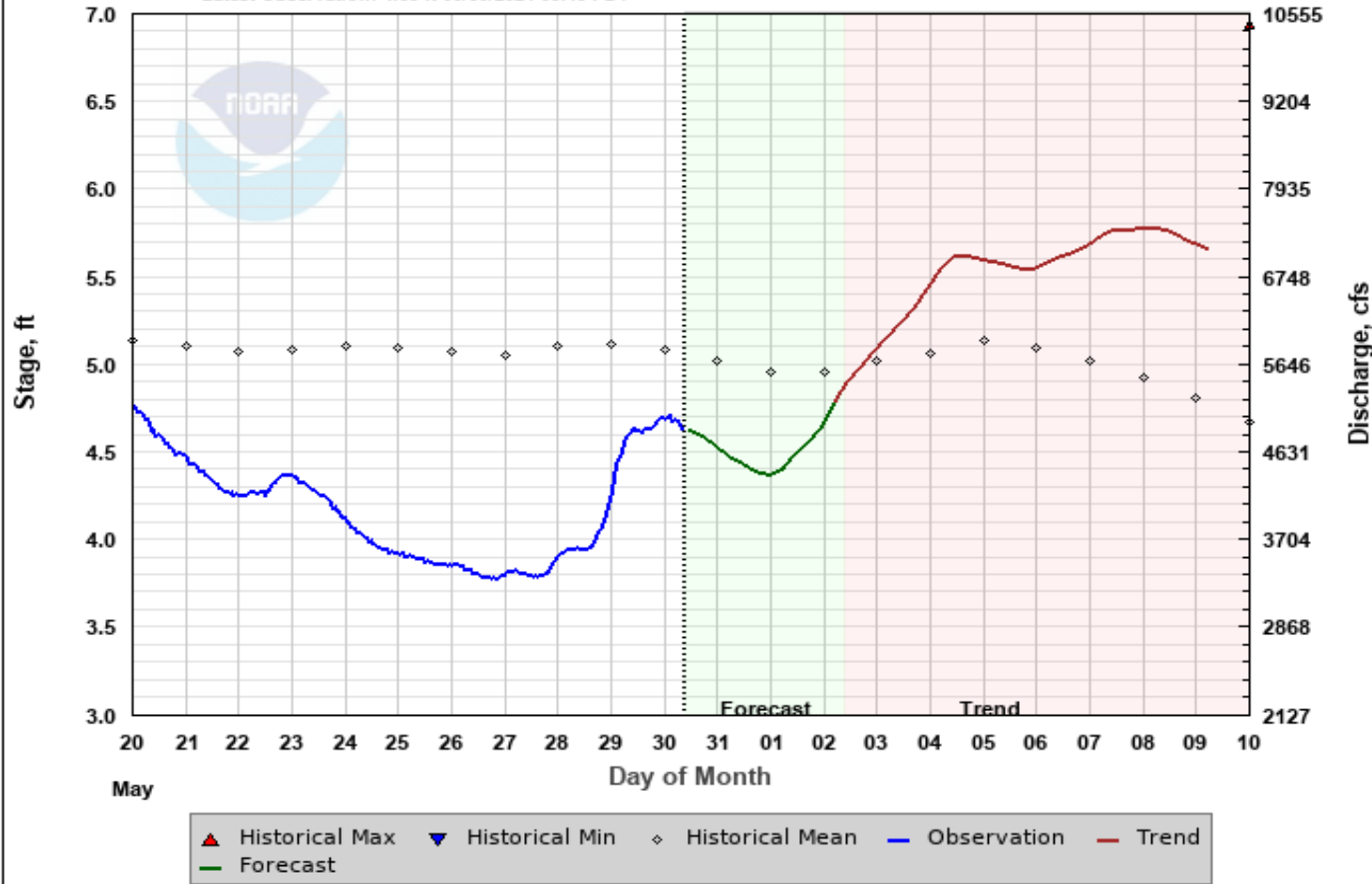
2024 Banner Summit SWE similar to 2020

Snow Water Equivalent (in.)



MF SALMON - MIDDLE FORK LODGE (MIDI1)

Latest Observation: 4.63 ft 05/30/2024 08:45 PDT



Forecast Created: 05/30/2024 09:11 PDT

Plot Created: 05/30/2024 09:16 PDT

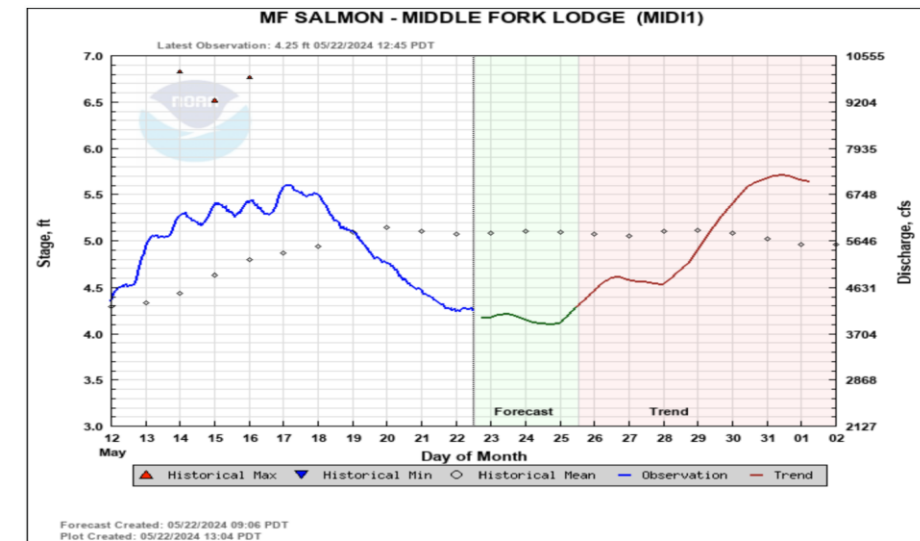
Keep in mind the Snow2Flow Relationship is based on snowmelt relationship with snowmelt peak flows.

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

May 30 NWS Forecast & Trend shows another increase with return of warm temps.

There is enough remaining snow to generate another peak. The question remains – will next increase be less, equal or greater than the previous high peak on May 17 of 6820 mean daily CFS.

Previous run below from May22 to show changes.

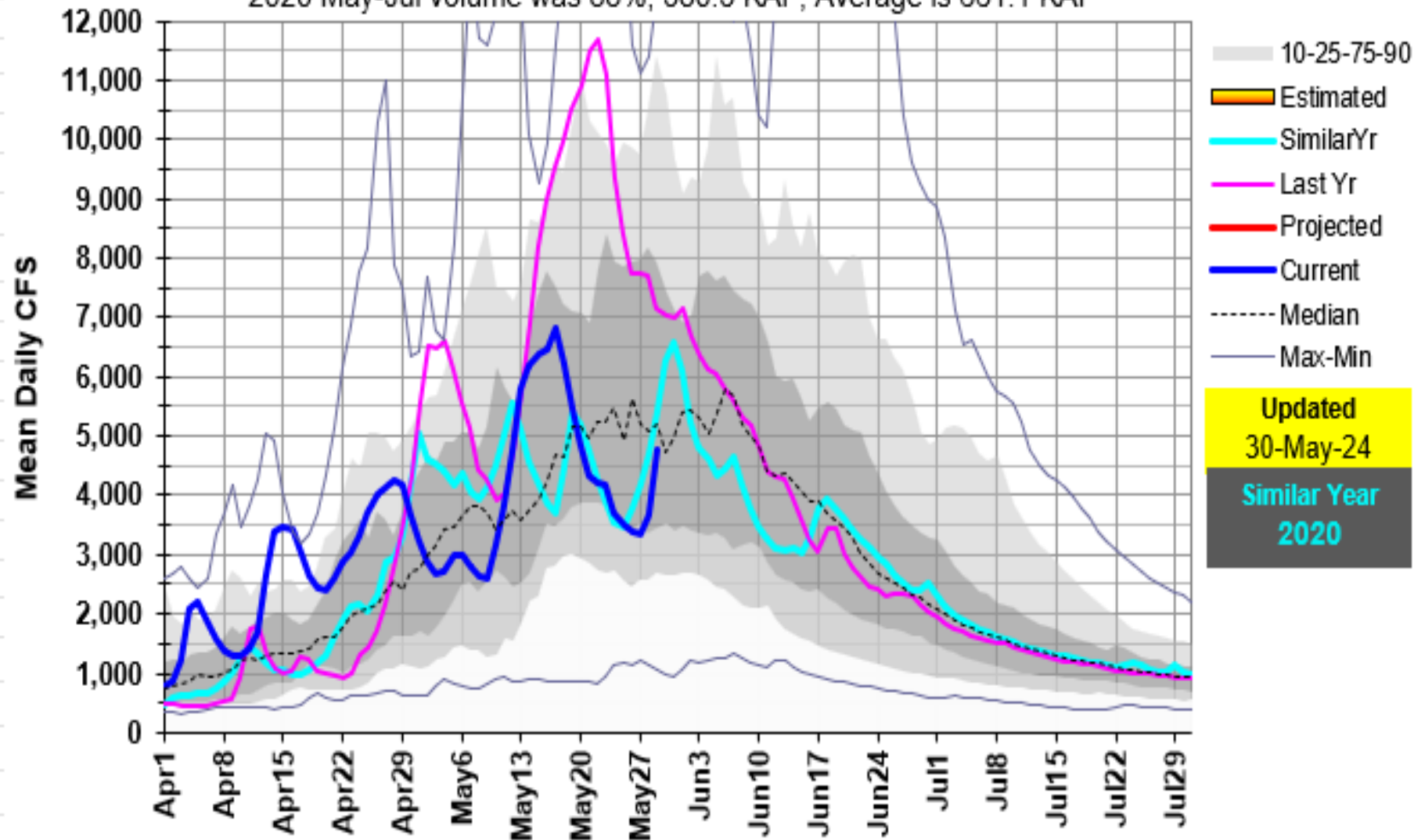


Forecast Created: 05/22/2024 09:06 PDT

Plot Created: 05/22/2024 13:04 PDT

13309220: MF Salmon R at MF Lodge near Yellow Pine, ID

2020 May-Jul volume was 88%, 580.5 KAF, Average is 661.1 KAF



MF Salmon River Runoff for 2020, a similar snow year.
2024 May-Jul Volume Runoff Forecast is for 495 KAF.

2020 – Runoff Volume was 580 KAF

2024 flow pattern is similar to 2020. Combined with similar snow year, this should be a good flow pattern to watch until more is learned after full recession flows occur.

2024 Deadwood Summit SWE is similar to 2020 and 2021.

Always nice to look at another snow site that still has snow when streamflow increases are still possible.

Current as of 05/30/2024:
% of Median - 87%
% Median Peak - 38%
Days Since Median Peak - 41
Percentile - 41

* Median Peak SWE
— Median ('91-'20)
— Stats. Shading
— 2024
— 2023
— 2021
— 2020

Snow Water Equivalent (in.)

80

70

60

50

40

30

20

10

0

Oct 1

Nov 1

Dec 1

Jan 1

Feb 1

Mar 1

Apr 1

May 1

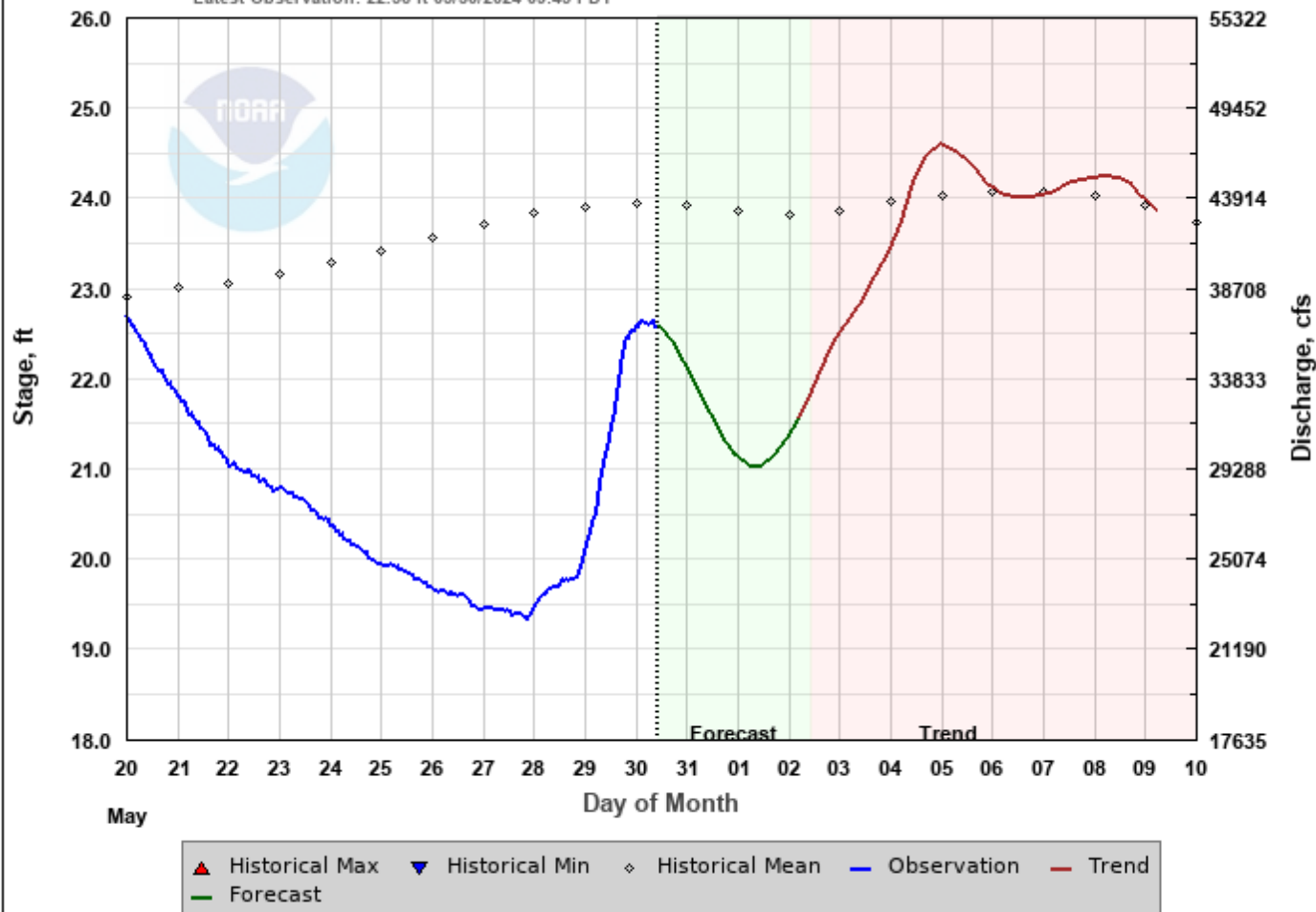
Jun 1

Jul 1

(May 30, 18.8) Median ('91-'20)
(May 30, 18.4) 2023
(May 30, 16.4) 2024
(May 30, 13.5) 2020
(May 30, 10.1) 2021

SALMON - AT WHITEBIRD (WHBI1)

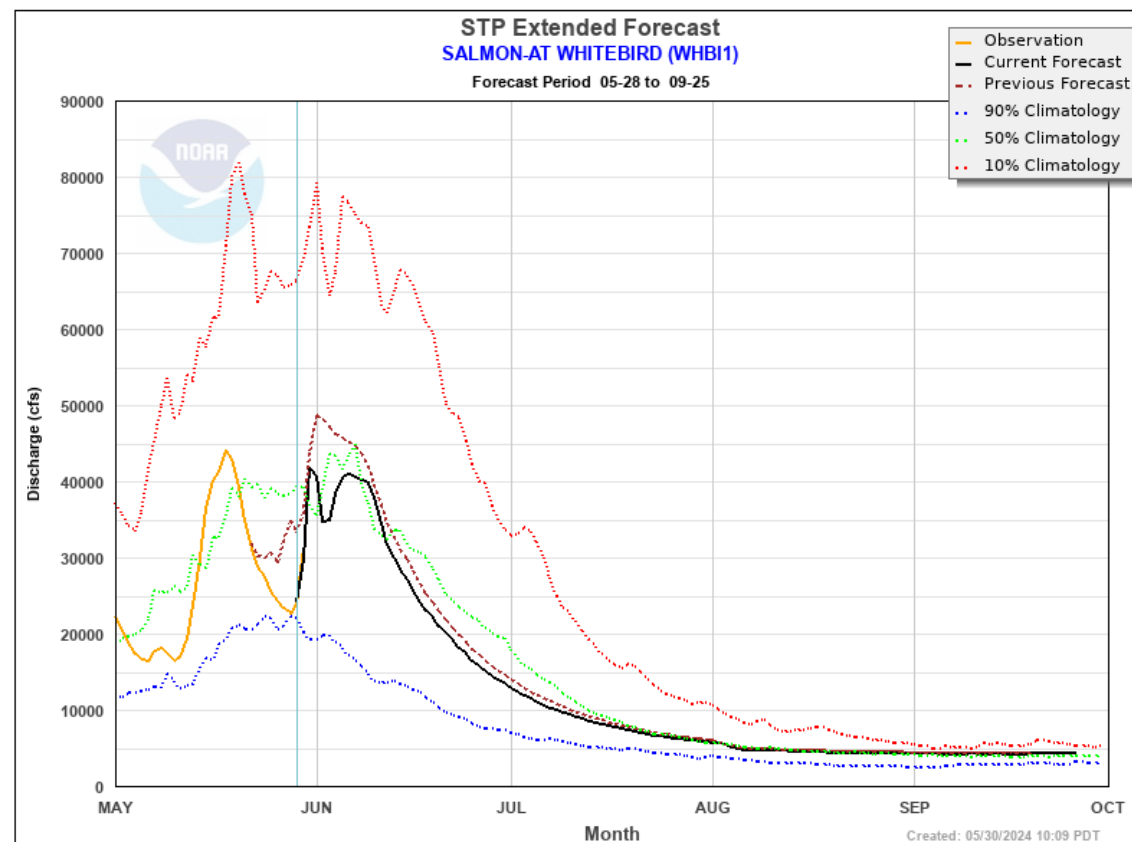
Latest Observation: 22.56 ft 05/30/2024 09:45 PDT



Forecast Created: 05/30/2024 09:11 PDT
Plot Created: 05/30/2024 10:08 PDT

May 30 NWS Whitebird Forecast & Trend shows another dip and peak as flows responds to changes in snowmelt rates that are driven by day & night air temps.

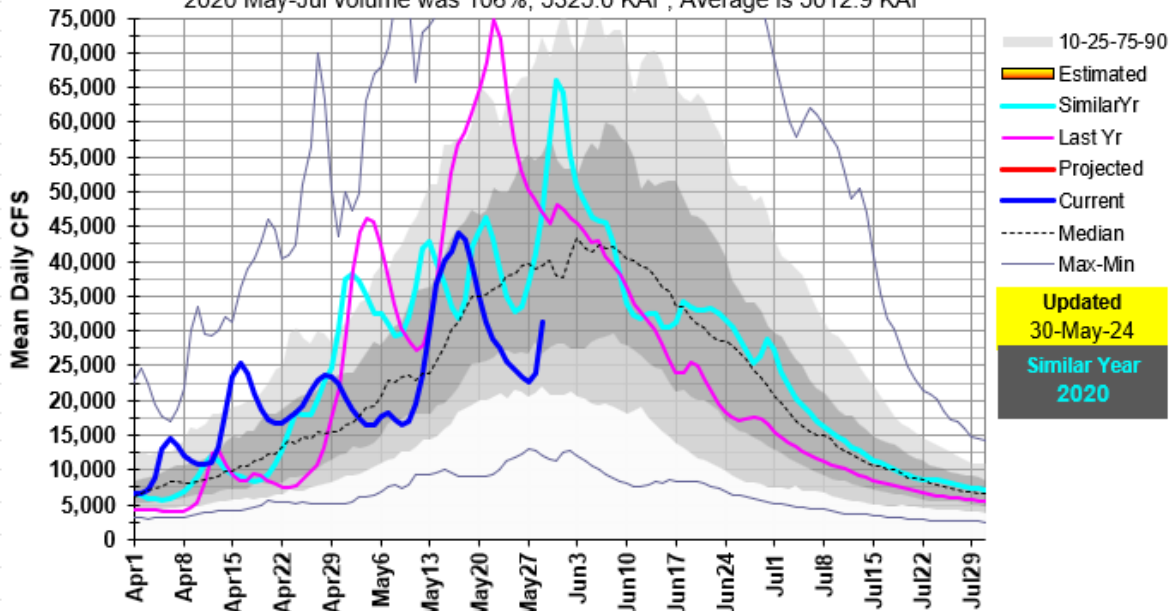
Nice to look at the big picture, full season, and the STP Extended Forecast shows full recession flows starting soon.



Created: 05/30/2024 10:09 PDT

13317000: Salmon R at White Bird, ID

2020 May-Jul volume was 106%, 5325.0 KAF, Average is 5012.9 KAF



Salmon River at White Bird Runoff for similar snow years.
2024 May-Jul Runoff Volume Forecast is 3750 KAF.

2020 May-Jul Runoff Volume was 5325 KAF.

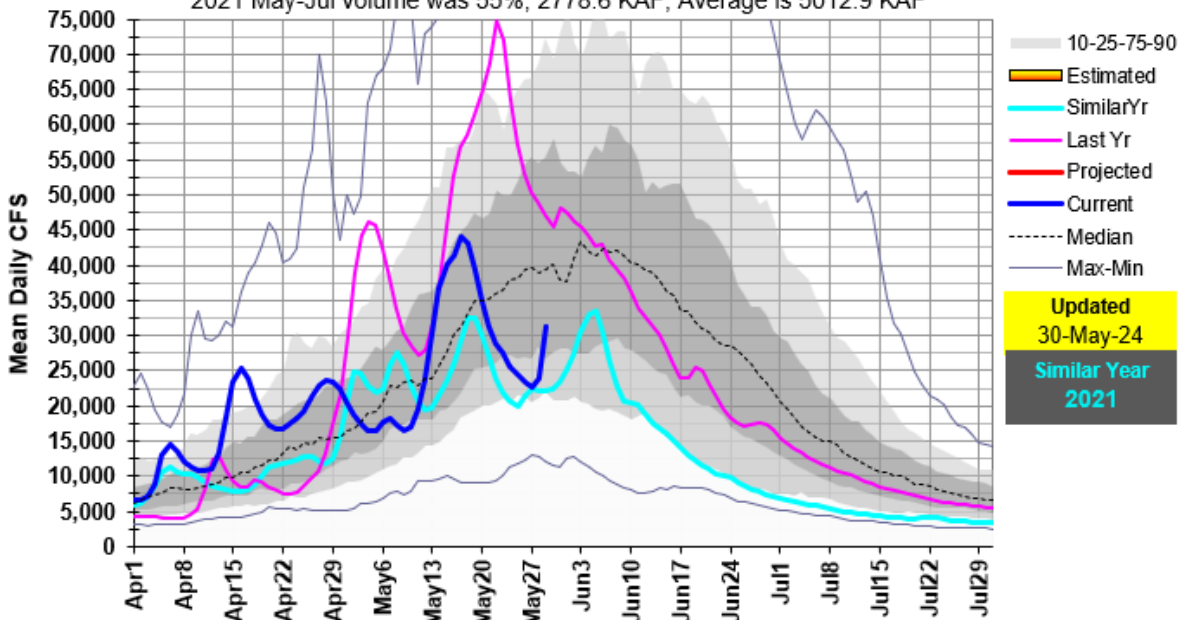
2021 May-Jul Runoff Volume was 2778 KAF.

Interesting comparison of these two similar snow years and resulting streamflow/peaks.

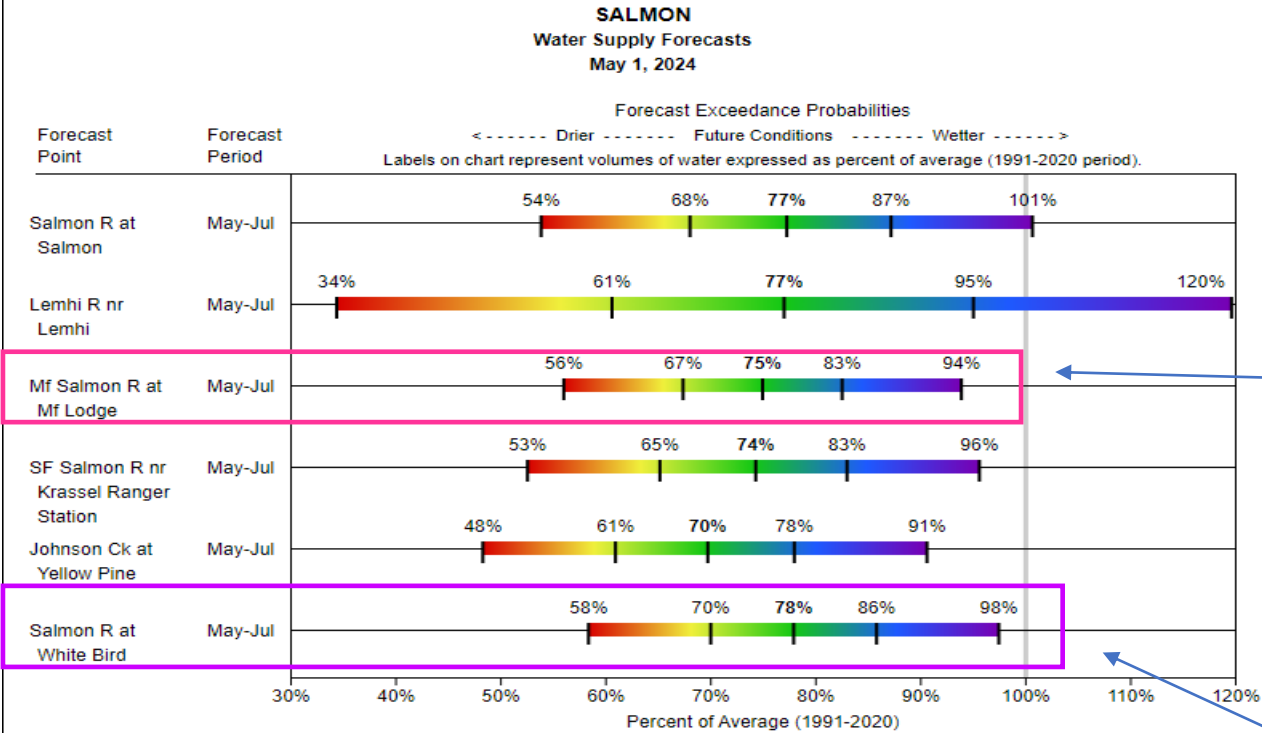
With this year's May-July Runoff Volume forecast in between these two years, it probably a safe bet this year's flows will be between these years.

13317000: Salmon R at White Bird, ID

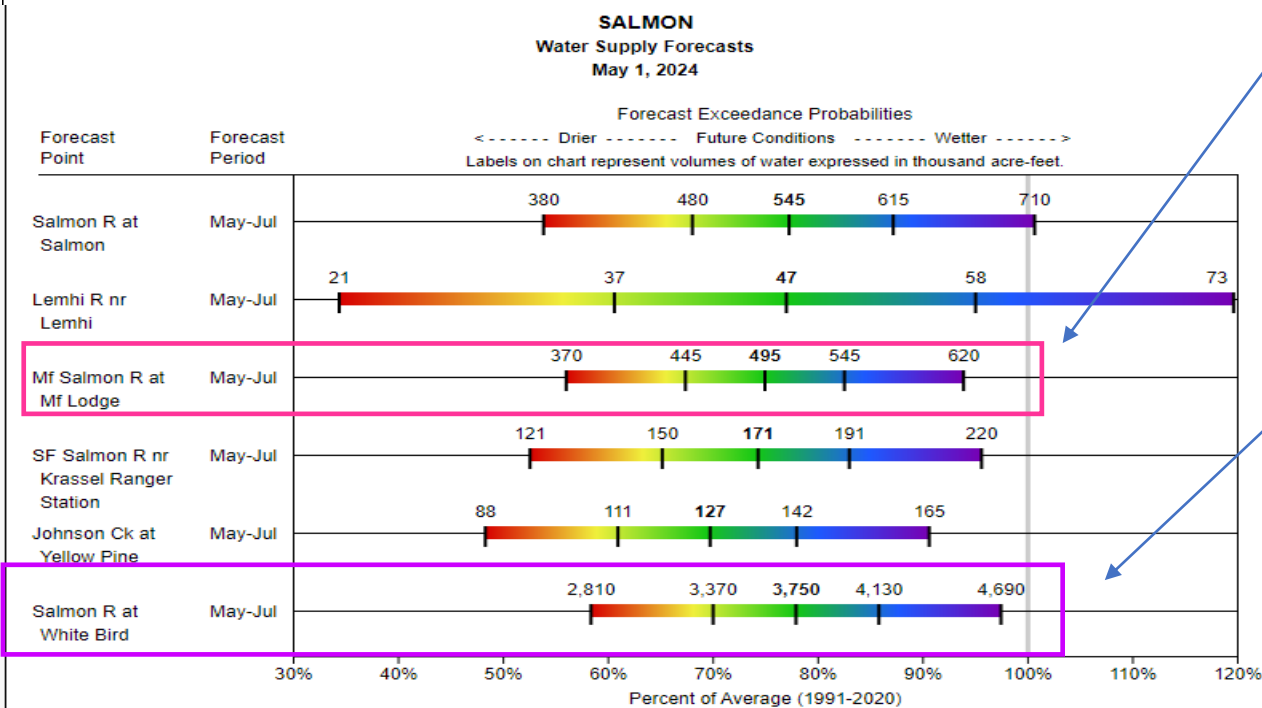
2021 May-Jul volume was 55%, 2778.6 KAF, Average is 5012.9 KAF



May 1, 2004 MF & Salmon Rivers Streamflow Forecasts



MF Salmon River May-Jul Volume Streamflow Forecast 75% of avg, 495 KAF with a range of 370 to 620 KAF



Salmon River at White Bird May-Jul Volume Streamflow Forecast 78% of avg, 3750 KAF with a range of 2810 to 4690 KAF