Snowpack & Streamflow Forecast Update

Presented by: Erin Whorton
NRCS Snow Survey: 2024

Figure 1:
Monthly Precipitation
April 1 - 30, 2024
Percent of NRCS
1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤0%
Panhandle Basins
64
78
Clearwater Basin
91
Salmon Basin
80
86
83
West Central Basins
68
77
Wood and Lost Basins
62
66
59
34
Upper Snake Basins
63
62
56
56
Bear Basin
41
53
43
32
61
Southern Snake Basins
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Figure 2:
Total Water Year Precipitation
May 1, 2024
Percent of NRCS
1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤0%
Panhandle Basins
88
77
Clearwater Basin
78
Salmon Basin
86
89
88
West Central Basins
91
89
Wood and Lost Basins
93
97
96
95
Upper Snake Basins
102
98
120
112
Bear Basin
126
112
Southern Snake Basins
114
116
126
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Figure 3:
2024 Peak Snowpack
Percent of Median Peak Snowpack
Percent of NRCS
1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤0%
Panhandle Basins
78
68
Clearwater Basin
69
Salmon Basin
84
86
84
West Central Basins
94
96
Wood and Lost Basins
94
96
90
97
Upper Snake Basins
96
97
134
111
Bear Basin
144
123
Southern Snake Basins
129
140
120
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Snow Water Equivalent, Water Year Peak
Percentile (POR)
2024
Percentile (POR)
90
80
70
60
50
40
30
20
10
Observation missing
Watershed Boundaries

SNOW WATER EQUIVALENT IN CLEARWATER
Reset Range
Link to data: CSV / JSON
Current as of 05/08/2024:
% of Median - 78%
% Median Peak - 56%
Days Since Median Peak - 28
Percentile - 25
Snow Water Equivalent (in.)
50
40
30
20
10
0
Nov 1
Jan 1
Mar 1
May 1
Jul 1
Sep 1
Station List
Median Peak SWE
Max
Median (POR)
Median ('91-'20)
Min
Stats. Shading
2024 (16 sites)
2024 (16 sites)
2023 (16 sites)
2022 (16 sites)
2021 (16 sites)
2020 (16 sites)
2019 (16 sites)
2018 (16 sites)
2017 (16 sites)
2016 (16 sites)
2015 (16 sites)
2014 (16 sites)
2013 (16 sites)
2012 (16 sites)
2011 (16 sites)
2010 (16 sites)
USDA

Figure 4:
Percent of Peak Snowpack Remaining
May 1, 2024
Percent of NRCS 1991-2020 Median
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤0%
Panhandle Basins
85
77
Clearwater Basin
75
Salmon Basin
70
West Central Basins
43
65
66
Wood and Lost Basins
50
56
66
57
53
Upper Snake Basins
86
75
Southern Snake Basins
33
45
61
61
78
Bear Basin
40
64
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SNOW WATER EQUIVALENT IN BOISE
Reset Range
Link to data: CSV / JSON
Current as of 05/08/2024:
% of Median - 111%
% Median Peak - 73%
Days Since Median Peak - 34
Percentile - 52
Snow Water Equivalent (in.)
0
10
20
30
40
50
Nov 1
Jan 1
Mar 1
May 1
Jul 1

SNOW WATER EQUIVALENT IN SALMON
Press Esc to exit full screen
Reset Range
Link to data: CSV / JSON
Current as of 05/08/2024:
% of Median - 90%
% Median Peak - 59%
Days Since Median Peak - 27
Percentile - 43
Snow Water Equivalent (in.)
0
5
10
15
20
25
30
35
40

Monday, May 06, 2024

7-day average streamflow in May

April 2024

Monthly average streamflow during April

Mf Salmon R at Mf Lodge Snow to Flow Plot

Snow Trace (in.) & Shading Statistics

Min - 10%	10% - 30%	30% - 70%	70% - 90%	90% - Max
Much Below Median	Below Median	Near Median	Above Median	Much Above Median

Flow Trace (cfs) & Shading Statistics

Min - 10%	10% - 30%	30% - 70%	70% - 90%	90% - Max
Much Below Median	Below Median	Near Median	Above Median	Much Above Median

AWS Plots | Air, Water, and Soil Plots

NWCC Home Site Plots Basin Plots Interactive M

Filter by State

Add

Indiv

Forecasted Streamflow Sites

Snow to Flow Plots 57 *Individual Sites*

Mf Salmon R at Mf Lodge

Go

Period of record data displayed in water year format (Oct-Sept).

May 1, May to July Median Forecast

Forecast Point	KAF	% *normal
NF Clearwater (Dworshak Inflow)	1110	64%
Salmon R at Salmon	545	80%
Boise R nr Boise	690	82%
Big Wood bl Magic Dam	94	79%
Big Lost R at Howell	115	92%
Snake R nr Heise	2460	90%
Oakley Inflow	21	179%
Salmon Falls nr San Jacinto	52	130%
Owyhee R nr Rome	210	186%

***normal climatological reference is based on 1991-2020 NRCS median streamflow data**

20 cm Soil Moisture Percentile
Last month
0
2
5
10
20
30
70
70
80
90
95
98
100
Source(s): NationalSoilMoisture.com
Data Valid: 04/06/24
Drought.gov

20 cm Soil Moisture Percentile
Now
20 cm Soil Moisture Percentile
0
2
5
10
20
30
70
80
90
95
98
Source(s): NationalSoilMoisture.com
Data Valid: 05/04/24
Drought.go

0–100 cm Soil Moisture Percentile

Last month

0 2 5 10 20 30 70

70 80 90 95 98 100

Source(s): NASA
Data Valid: 04/09/24

Drought.gov

0–100 cm Soil Moisture Percentile

Now

0–100 cm Soil Moisture Percentile

0 2 5 10 20 30

70 80 90 95 98

Source(s): NASA
Data Valid: 05/07/24

Drought.go

El Niño SWE - Idaho SNOTEL Sites - Early Winter (January 1)

El Niño SWE - Idaho SNOTEL Sites - Late Winter (April 1)

El Niño SWE - Upper Snake River Basin SNOTEL

Percent of Median SWE (1991-2020)
160
120
80
40
Henrys Fork-Teton
Snake River Above Heise
Willow-Blackfoot-Portneuf
year
1983
1987
1992
1998
2003
2010
2016
2024

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Idaho Water Supply Outlook Report

May 1, 2024

John Wilford prepares to measure sample point #5 at the Mores Creek Summit Snow Course
Pictured: John Wilford, Photo Credit: Danny Tappa, 4/30/2024

As we transition to spring and the snow disappears until next season, the NRCS Idaho Snow Survey team will also be going through a period of transition. John Wilford, lead Electronic Technician for the Idaho Snow Survey, will be hanging up his skis and work boots at the end of this month. After nearly 10 years of service with NRCS Idaho Snow Survey, 20 years total service with USDA, and a military veteran, John's retirement is much deserved. During his tenure with Snow Survey, he oversaw the installation of four new SNOTEL stations, seven new SNOLITE stations, and the rebuild of one SNOTEL station post fire (Soldier R.S.). In addition, John oversaw the most meaningful infrastructure upgrade to the Idaho SNOTEL network in several decades – the complete overhaul of our telemetry systems to modern (cell, satellite) forms of remote data communications, resulting in more consistent and reliable data delivery to our many users. Over the last 10 years, if your favorite SNOTEL station went offline, it's more than likely John was the one who was directly involved in its repairs!

- May is last water supply outlook report
- Stay tuned in for end of water year report in October
- John Wilford retirement

Thank you!

https://www.nrcs.usda.gov/idaho/snow-survey

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