United States Department of Agriculture

Natural Resources Conservation Service

Idaho Water Supply Outlook Report
February 1, 2025

Photo courtesy of Justin Byington

Earl Adsley, hydrologist with the Idaho Snow Survey team, peers out over the Boise National Forest while on a 100-mile snow machine trek to measure the snowpack at the recently burnt Cozy Cove SNOTEL station by Deadwood Reservoir.

Water Supply Outlook Report
Federal - State – Private Cooperative Snow Surveys

For more water supply and resource management information:

Contact: Your local county *Natural Resources Conservation Service Office* Internet Web Address: https://www.nrcs.usda.gov/idaho/snow-survey
Natural Resources Conservation Service Snow Surveys
9173 West Barnes Drive, Suite C
Boise, ID 83709-1574, (208) 378-5700 ext. 5

To join a free email subscription list, please contact us by email at: idboise-nrcs-snow@usda.gov

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when the snow melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to produce runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertainty is in the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Starting in 2020, streamflow forecasts with poor prediction skill (jackknife $r^2 < 0.34$) will no longer be issued. This will primarily affect the January and June forecasts, with little change anticipated for the February, March, April, and May forecasts. For more information, please contact Erin Whorton (erin.whorton@usda.gov)

February 1, 2025: Idaho Water Supply Summary

Overview

Mother Nature took the term 'dry January' a little too literally. After approximately January 8, very little precipitation fell in Idaho until the last day of the month. During January, snowpack percentages compared to normal decreased significantly. Fortunately, temperatures stayed cooler than average across the state so very little SWE (snow water equivalent) losses occurred outside of the West Central basins. As of February 1, basin-wide snowpack percentages range from 68 to 119%. Many SNOTEL sites reached the snow drought threshold with snowpacks below the 25th percentile during January. Persistent dry conditions lowered streamflow forecasts by 5 to 20% from last month's forecasts. If the wet weather that started February off continues through the month, we should see the snowpack continue to rebound as well as higher forecasted streamflow volumes next month.

Weather, climate and drought outlooks

Winter storms brought abundant snow across central and southern Idaho as we were writing this report, bringing snowpack totals even higher than the February 1 levels. NOAA's Climate Prediction Center (CPC) indicate that cooler and wetter than normal conditions are likely through the middle of February. The one-month outlook indicates wetter than normal conditions are likely across Idaho with cooler than normal temperatures predicted in central and northern Idaho in February.

La Niña officially arrived in December, however, it is a weak La Niña event. Historically, La Niña events, even weak ones, have led to above normal snowpack levels across Idaho. The CPC forecasts a 60% chance of transitioning to El Niño-Southern Oscillation (ENSO) neutral conditions between March and May. The seasonal outlook, predicts cooler and wetter conditions across central and northern Idaho this winter, thus reflecting the typical La Niña pattern. Along southern and eastern Idaho, the models, however, are showing equal chances for above, normal or below normal conditions so it's anyone's guess how this winter will turn out.

Currently, 79% of Idaho lands are abnormally dry or are in drought. Drought conditions improved last month in western Idaho in response to the high snowpack percentages at the beginning of January. Drought conditions worsened in Shoshone, Lemhi, Custer, Butte and Blaine counties due to lack of precipitation in those areas. The seasonal drought outlook forecasts drought conditions will improve in these counties over the next three months. We will have to wait and see whether more precipitation falls in those areas for this forecast to come true.

Snowpack

As of February 1, snowpack conditions range from 68% of normal in the Little Wood Basin to 119% of normal in the Weiser Basin (Fig. 3). After the first wet week in January, we watched day after day as the snowpack fell further and further behind normal conditions during a persistent dry weather spell. Many areas that started the month off with near or above normal conditions saw their snowpack accumulation flatline. Although January was cooler than normal and that helped preserve the existing snowpack, it didn't completely prevent SWE losses. SWE losses were observed in the West Central and Owyhee basins, while little to modest snowpack accumulation was observed elsewhere. In January, the largest snowpack gains were seen in the Clearwater Basin, but these SWE gains were only a fraction of the usual accumulation amounts. Across Idaho, new records were set for lowest accumulation rates during this January period. Snow drought conditions, typically defined as a snowpack below the 25th percentile, were observed in the Wood, Lost, Upper Snake, Bear, Salmon, Clearwater and Coeur d'Alene-St. Joe basins. It was a very dry January! Snowpack percentages started rebounding on January 31 as a series of storms began to hit Idaho. At report time, record high SWE accumulation has been observed in basins south of the Clearwater during the beginning of February. Water users can find out the latest snowpack conditions by visiting the NRCS interactive map.

Precipitation

January was notably dry with only 37 to 68% of normal precipitation falling during the month (Fig. 1). Most of that precipitation occurred in the first week of January before a high-pressure system settled in over Idaho for the rest of the month. The Panhandle basins were the driest during the month; they received less than 40% of their normal precipitation. The rest of the state received about ~50 to 70% of their normal precipitation. Goose Creek Basin was the wettest at 74% of normal.

As a result of the dry spell, water year precipitation (WYP) totals plummeted (Fig. 2). Only the Weiser Basin is above normal (114%). Total water year precipitation in the rest of the state ranges from 62% in the Little Wood Basin to 97% of normal in the Owyhee basin. Conditions are driest in the Wood and Lost basins (62% to 76%) and wettest along the southern border of Idaho (82 to 97%). In general, conditions are wetter in western Idaho south of Clearwater Basin compared to the rest of the state. WYP conditions in the Upper Snake River basins are 76 to 89% of normal. At many SNOTEL stations, the WYP is below the 25th percentile or even the 10th percentile, which puts these areas in the moderate drought category. The percentile SNOTEL total water year precipitation map closely aligns with the Idaho drought classification map.

Water supply

Snow drought conditions developed in the Wood, Lost, Upper Snake, Bear, Salmon, Clearwater and Coeur d'Alene-St. Joe basins during January. At report time, significant snowfall is occurring across the state. Hopefully, these storms will alleviate snow drought conditions. We are concerned about the low total water year precipitation conditions across much of Idaho. Idaho is still very much in drought conditions as of February 1. The one-month outlook predicts wetter than normal conditions this February, which we'll need to mitigate drought. Soil moisture products at the root zone level (upper 3-feet of the soil column) indicate drier than normal conditions exist throughout much of Idaho. Dry soils are especially prevalent in the central mountains and in the Snake River headwaters. This is concerning for water supply because dry soils act like a sponge soaking up the meltwater generated by the snowpack. This could potentially reduce the amount of water directly running off into reservoirs and streams.

Reservoir storage compared to normal is variable across the state. From the Clearwater to the Canadian border, storage is 35% to 101% of normal. The Boise River system has near normal storage at 94% of normal (51% of capacity). Reservoir storage is accruing this winter at a typical rate in the Boise system. The Payette River system is 58% full (storage is 98% of normal). Reservoir storage ranges from 84 to 127% of normal in the Wood and Lost basins. Storage in the Southern Snake basins varies considerably. Lake Owyhee is 191% of normal, Oakley Reservoir is 161% of normal, while its neighbor, Salmon Falls Reservoir, is only at 75% of normal storage. With the above normal snowpack in eastern Oregon, flood risk management operations are very likely at Lake Owyhee and nearby reservoirs. Bear Lake water users can expect a full storage allocation this year. Streamflow forecasts for the Bear River decreased from last month. Forecasts range from 50% to 89% of normal. Total storage in the Upper Snake River system above Milner Dam is 107% of normal (69% capacity). Reservoir storage has continued to accrue faster than the average rate. The NRCS forecast for the primary April to July snowmelt runoff period at Heise predicts below normal runoff at 77% of normal.

Although appreciable snow accumulation has occurred since the first of the month, please note streamflow forecasts are based on February 1 snowpack and total water year precipitation conditions (Fig. 4). In northern Idaho, streamflow forecasts dropped by 25% compared to last month due to the prolonged dry spell. Forecasts in the Panhandle range from 71% in the Coeur d'Alene-St. Joe Basin to 84% in the Pend Oreille-Kootenai. The range of streamflow forecasts in this region can be explained by the difference in the basins' snowpack conditions; the snowpack is more is more robust the farther north you go. In the Clearwater and Salmon basins, snowpack is better in the western portion of the basins. Streamflow forecasts reflect the trend towards drier conditions in the eastern portion of these basins. Forecasts in the Clearwater and Salmon basins range from 72 to 92% of normal. Forecasts in the West Central and Southern Snake River basins also had a near to above normal snowpack which led to near or above normal streamflow volumes. Forecasts in Southern Snake River basins range from 84% in the Jarbidge to 118% of

normal in the Goose Creek Basin. In the West Central basins, forecasts sites range from 83% of normal in the Payette Basin to 137% in the Weiser Basin. Boise Basin forecasts range from 86 to 95% of normal. In the Wood and Lost basins, streamflow forecasts range from 57% of normal in the Little Wood to 102% for the Camas Creek in the Big Wood. The forecast for the Big Wood at Hailey is 164 thousand acre-feet. Forecasts for some sites in the Upper Snake River (above Heise and in the Henrys Fork-Teton) decreased by 5 to 15% from last month. Streamflow forecasts range from 65% to 90% of normal. Forecasts are higher in the Willow-Blackfoot Portneuf Basin and range from 79 to 103%.

Streamflow, snowpack, and precipitation data for each basin can be accessed in basin reports or on the NRCS interactive map.

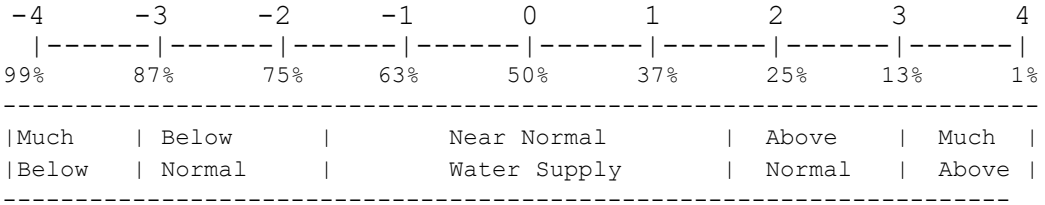
IDAHO SURFACE WATER SUPPLY INDEX (SWSI) February 1, 2025

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.0 (abundant supply) to -4.0 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences. The SWSI analysis period is from 1991 to present.

SWSI values provide a more comprehensive outlook of water availability by combining streamflow forecasts and reservoir storage where appropriate. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been determined for some basins to indicate the potential for agricultural irrigation water shortages.

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
Spokane	**-1.7**	**2016**	**NA**
Clearwater	**-1.9**	**2016**	**NA**
Salmon	**-1.9**	**2013**	**NA**
Weiser	**1.9**	**2008**	**NA**
Payette	**0.0**	**2014**	**NA**
Boise	**-0.5**	**2024**	**- 1.5**
Big Wood above Hailey	**-1.2**	**2014**	**- 2.7**
Big Wood	**-0.2**	**2016**	**0.6**
Camas Creek nr Blaine	**1.0**	**2000**	**NA**
Little Wood	**-1.4**	**2020**	**- 1.5**
Big Lost	**-0.7**	**2022**	**0.8**
Little Lost	**-0.7**	**2016**	**1.8**
Teton	**-2.6**	**2003**	**- 3.9**
Henrys Fork	**-2.4**	**2016**	**- 3.0**
Snake (Heise)	**-1.2**	**2016**	**- 1.5**
Oakley	**1.9**	**2024**	**0.6**
Salmon Falls above Jackpot	**-0.2**	**2002**	**NA**
Salmon Falls	**-1.2**	**2008**	**- 0.8**
Bruneau	**0.0**	**2020**	**NA**
Owyhee	**1.5**	**1995**	**- 2.3**
Bear River	**1.5**	**2012**	**- 3.7**

SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



NA=Not Available / Not Applicable; Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply," represents three SWSI units and would be expected to occur about one-third (36%) of the time.

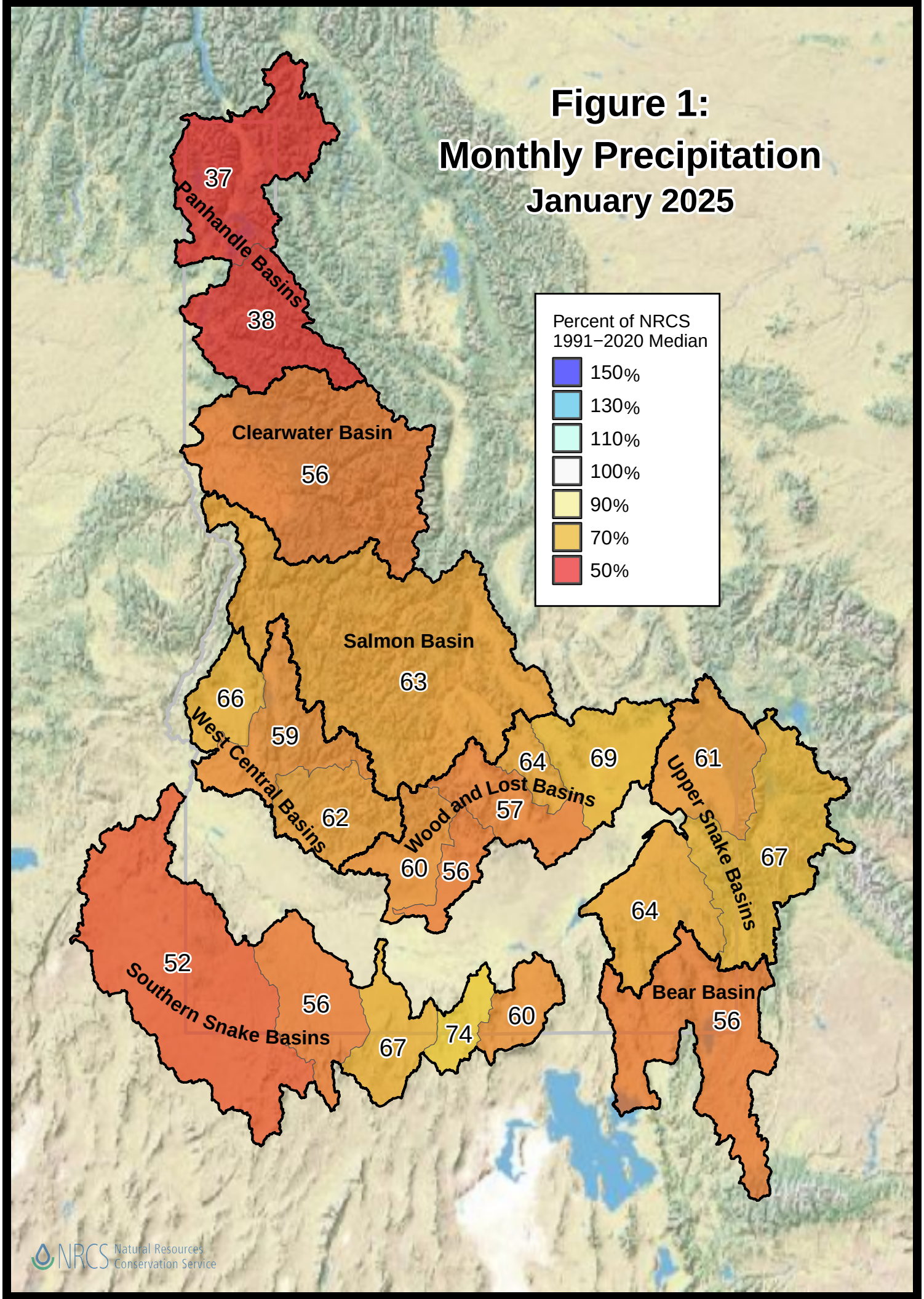


Figure 1:
Monthly Precipitation
January 2025
Percent of NRCS
1991−2020 Median
150%
130%
110%
100%
90%
70%
50%
37
Panhandle Basins
38
Clearwater Basin
56
Salmon Basin
63
66
59
West Central Basins
62
64
69
Wood and Lost Basins
57
60
56
61
Upper Snake Basins
67
64
52
Southern Snake Basins
56
67
74
60
Bear Basin
56
NRCS Natural Resources Conservation Service

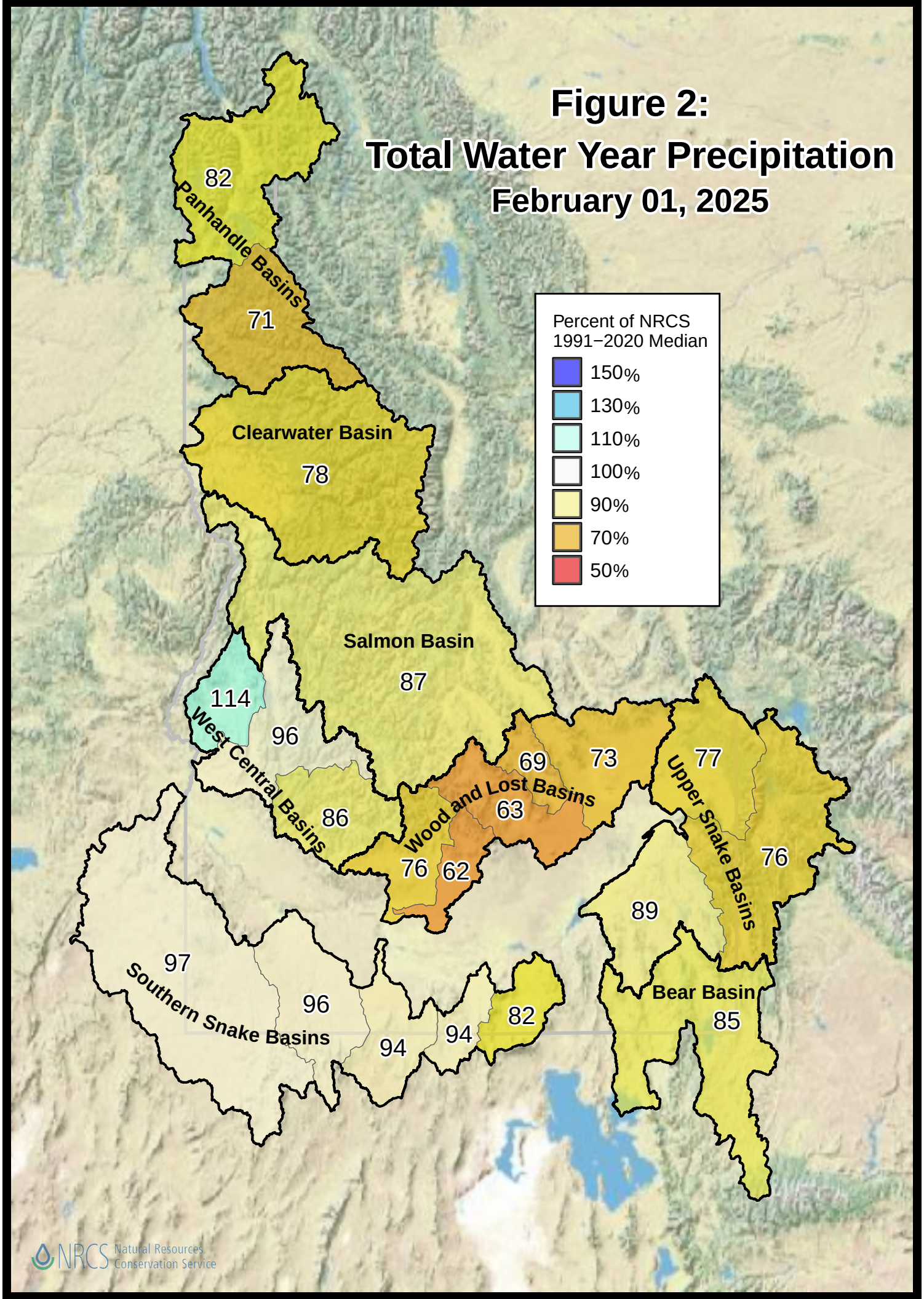


Figure 2:
Total Water Year Precipitation
February 01, 2025
Percent of NRCS
1991−2020 Median
150%
130%
110%
100%
90%
70%
50%
Panhandle Basins
82
71
Clearwater Basin
78
Salmon Basin
87
114
96
West Central Basins
86
69
73
77
Wood and Lost Basins
63
Upper Snake Basins
76
76
62
89
97
Southern Snake Basins
96
94
94
82
Bear Basin
85
NRCS Natural Resources Conservation Service

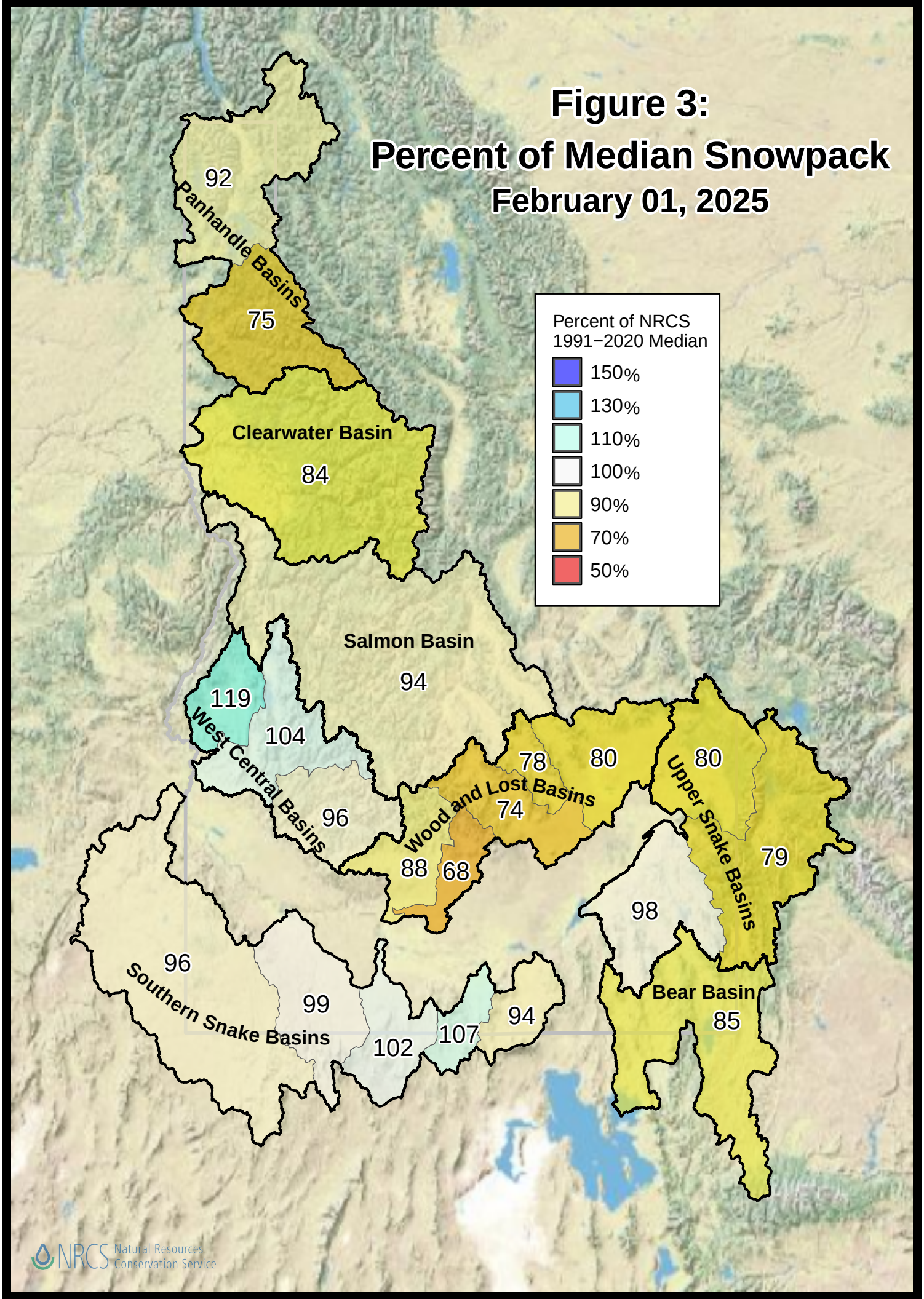
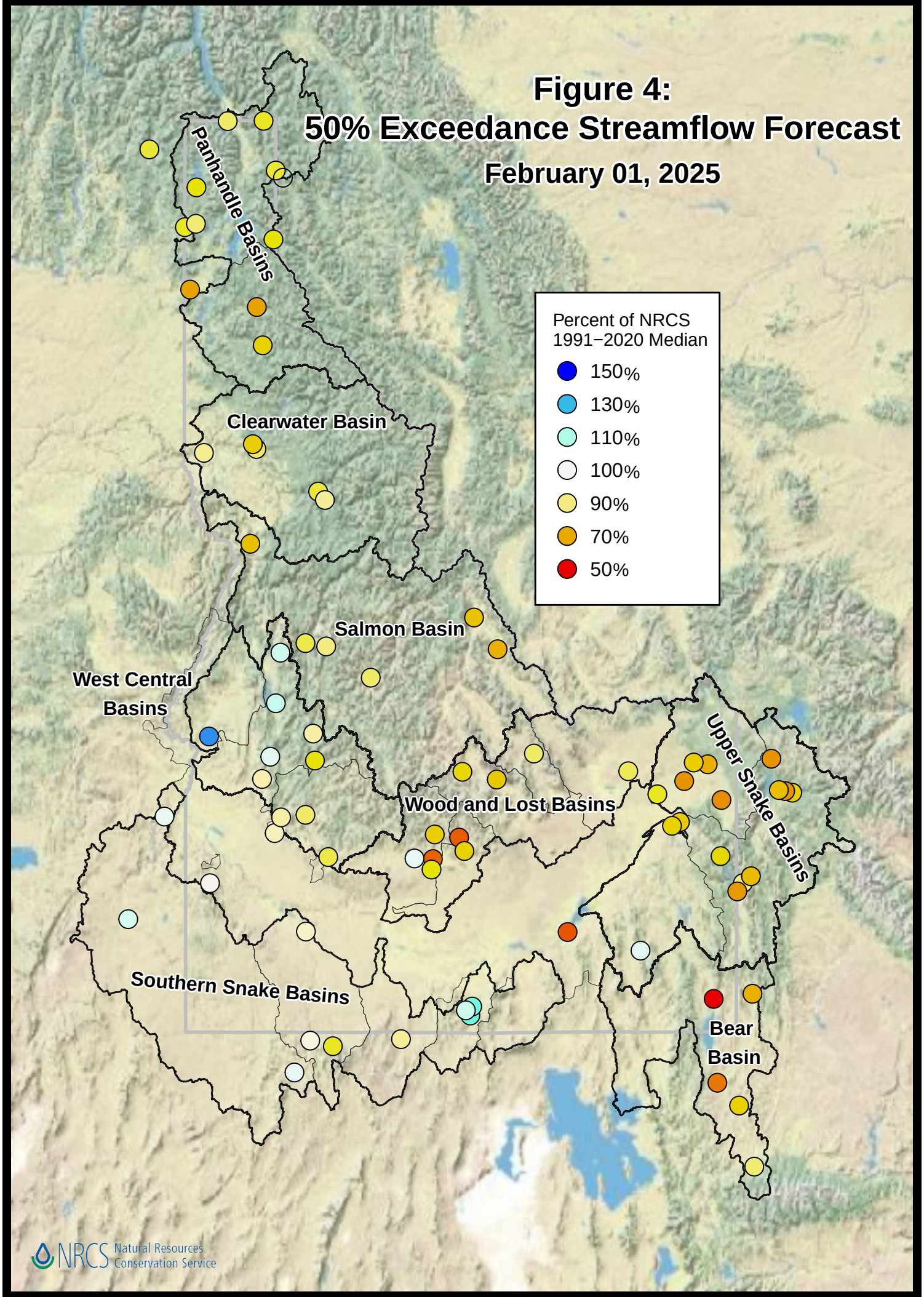


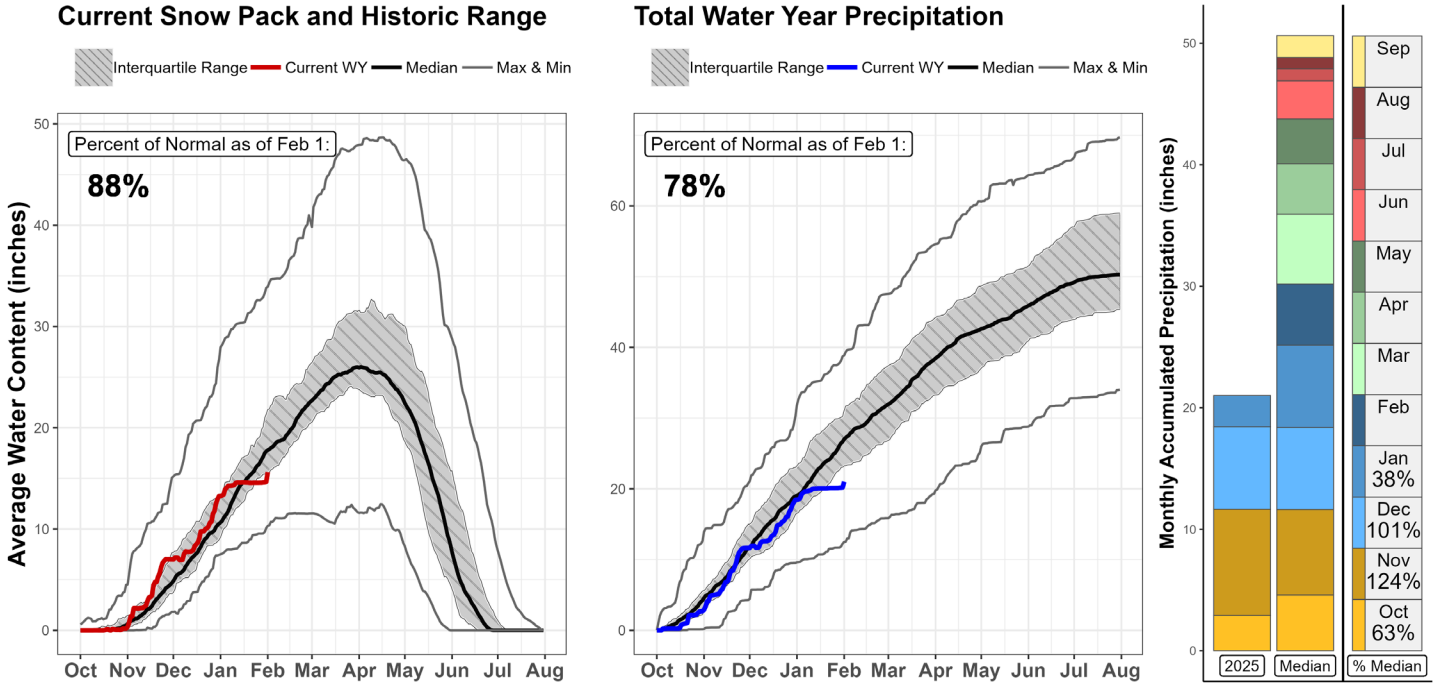
Figure 3:
Percent of Median Snowpack
February 01, 2025
Percent of NRCS
1991−2020 Median
150%
130%
110%
100%
90%
70%
50%
92
Panhandle Basins
75
Clearwater Basin
84
Salmon Basin
94
119
104
West Central Basins
96
78
80
Wood and Lost Basins
74
80
Upper Snake Basins
79
88
68
98
96
Southern Snake Basins
99
102
107
94
Bear Basin
85
NRCS Natural Resources Conservation Service

Figure 4:
50% Exceedance Streamflow Forecast
February 01, 2025



Panhandle Basins

February 1, 2025



WATER SUPPLY OUTLOOK

Last month, we were happy to report near normal snowpack and precipitation across Panhandle basins, but a lot can change in one month. In this case, the near record low precipitation in January. Monthly precipitation in January was only ~35-40% of normal (Fig. 1). With a lackluster January, total water year to date precipitation is falling behind normal at ~70 to 80% as of February 1 (Fig. 2). Despite the well below normal precipitation in January, snowpack is near normal in the Pend Orielle-Kootenai Basin at 92%, and the Coeur d'Alene-St. Joe Basin is at 75% of normal (Fig. 3). Through this dry period, temperatures were cold enough for the snowpack to hold onto its water at elevations above ~3,500 ft, while SNOTEL stations below ~3,500 ft saw minor SWE loss. Adding to this was an impressive storm to start off February which allowed the Pend Orielle-Kootenai Basin to remain near normal. Peak snowpack usually occurs around mid-April in the Panhandle basins, so there is still plenty of time for conditions to evolve.

February 1 reservoir storage shows Coeur d'Alene at 35% of normal, Pend Oreille at 97% of normal and Priest Lake at 101% of normal. Streamflow forecasts in the region are ~69% to 88% of normal (Fig. 4). Current Climate Prediction Center guidance for February is for below normal temperatures and above normal precipitation.

Panhandle Basins Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Kootenai R at Leonia 1 & 2	APR-JUL	3,780	5,100	5,700	85	6,300	7,620	6,680
	APR-SEP	4,500	5,830	6,430	85	7,030	8,360	7,560
Moyie R at Eastport	APR-JUL	210	275	315	84	365	430	375
	APR-SEP	215	280	325	83	375	440	390
Boundary Ck nr Porthill	APR-JUL	76	93	105	88	118	134	119
	APR-SEP	77	94	107	86	118	136	124
Clark Fork R bl Cabinet Gorge Dam	APR-JUL	5,560	7,160	8,330	83	9,390	11,100	9,980
	APR-SEP	6,240	7,910	9,260	85	10,400	12,300	10,900
Priest R Outflow NR Coolin	APR-JUL	380	490	570	83	640	745	690
	APR-SEP	395	505	575	79	655	765	725
Priest R nr Priest River 2	APR-JUL	500	635	745	89	845	995	840
	APR-SEP	530	665	780	89	885	1,040	880
Pend Oreille R at Newport WA 2	APR-JUL	6,710	8,610	9,850	84	11,000	13,000	11,700
	APR-SEP	7,240	9,110	10,500	83	11,800	13,900	12,600
Pend Oreille R bl Box Canyon	APR-JUL	6,960	8,730	9,970	85	11,200	13,100	11,700
	APR-SEP	7,520	9,470	10,900	86	12,200	14,300	12,700
NF Coeur dAlene R at Enaville	APR-JUL	192	365	490	69	620	790	715
	APR-SEP	191	375	495	66	625	805	750
St. Joe R at Calder 2	APR-JUL	485	705	830	79	955	1,150	1,050
	APR-SEP	505	730	870	78	1,010	1,200	1,120
Spokane R nr Post Falls 2	APR-JUL	790	1,350	1,720	69	2,080	2,610	2,510
	APR-SEP	800	1,360	1,730	67	2,080	2,600	2,570

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

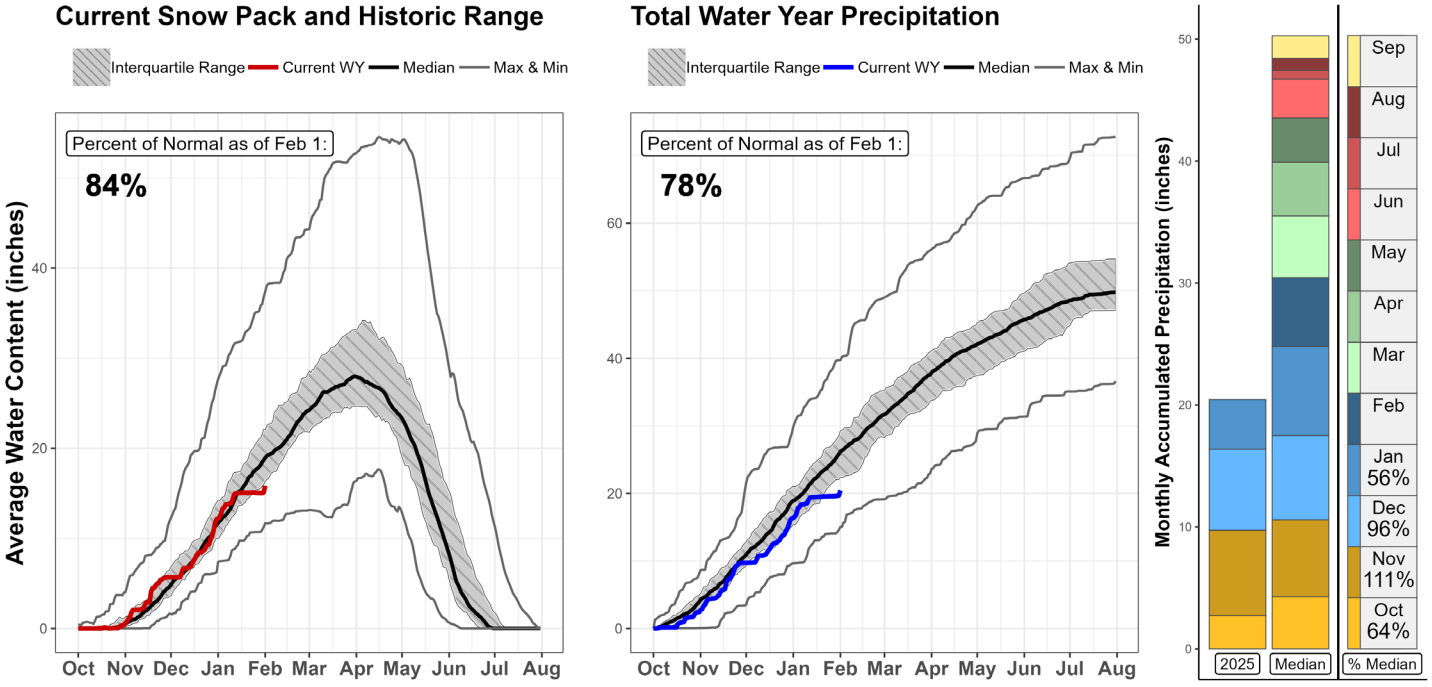
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025				
Reservoir Name	**Current (KAF)**	**2024**	**Median (KAF)**	**Capacity (KAF)**
Hungry Horse Lake	2,525.7	2,843.9	2,626.0	3,451.0
Flathead Lake	937.5	1,006.3	942.9	1,791.0
Lake Pend Oreille	613.7	584.0	630.8	1,561.3
Priest Lake	55.6	105.4	55.3	119.3
Lake Coeur d' Alene	37.2	100.3	106.7	238.5

Watershed Snowpack Analysis - February 01, 2025			
Basin Name	**# of Sites**	**% of Median 2025**	**2024**
Pend Oreille-Kootenai	**15**	**92**	**60**
Moyie	1	81	53
Lower Kootenai	2	100	64
Priest	7	99	60
Pend Oreille Lake	6	89	59
Rathdrum	2	108	60
Coeur D'Alene-St. Joe	**8**	**75**	**52**
Coeur D'Alene	5	73	50
St. Joe	3	77	55
Palouse	2	72	67

Clearwater River Basin

February 1, 2025



WATER SUPPLY OUTLOOK

January brought below normal precipitation across all of Idaho, and the Clearwater basin was no exception with only ~56% of normal precipitation (Fig.1). As a result of this, total water year precipitation decreased by ~10% from January 1 and is now ~78% of normal (Fig. 2). The Clearwater had a near normal snowpack until around January 15, then a two weeklong high-pressure system moved in, and there was nearly no precipitation until the end of the month. Luckily, active weather systems moved in and brought much needed snow starting February 1, which is reducing some of the deficits from January. As of February 1, the Clearwater snowpack is at 84% of normal (Fig. 3) and continues to improve during the writing of this report. Peak snowpack typically occurs around mid-April, so there is still plenty of time for conditions to change.

Dworshak Reservoir is at 66% capacity, which is 98% of normal on February 1. The 50% exceedance streamflow forecasts in the Clearwater range between 78 to 92% of normal for the April through July forecast period (Fig. 4). NOAA's Climate Prediction Center's 30-day outlook predicts below normal temperatures and above normal precipitation for February.

Clearwater Basin Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Selway R nr Lowell	APR-JUL	1,370	1,620	1,810	92	2,000	2,270	1,960
	APR-SEP	1,490	1,730	1,920	94	2,130	2,410	2,050
Lochsa R nr Lowell	APR-JUL	910	1,090	1,210	85	1,350	1,550	1,430
	APR-SEP	1,000	1,190	1,310	87	1,450	1,650	1,500
Clearwater R at Orofino	APR-JUL	2,990	3,440	3,840	88	4,250	4,840	4,380
	APR-SEP	3,180	3,690	4,160	91	4,630	5,300	4,570
Dworshak Reservoir Inflow 2	APR-JUL	1,150	1,600	1,850	78	2,140	2,540	2,370
	APR-SEP	1,310	1,760	2,010	79	2,310	2,730	2,560
Clearwater R at Spalding 2	APR-JUL	3,670	5,320	6,210	91	6,950	8,050	6,820
	APR-SEP	3,720	5,270	6,210	85	7,100	8,080	7,290

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025

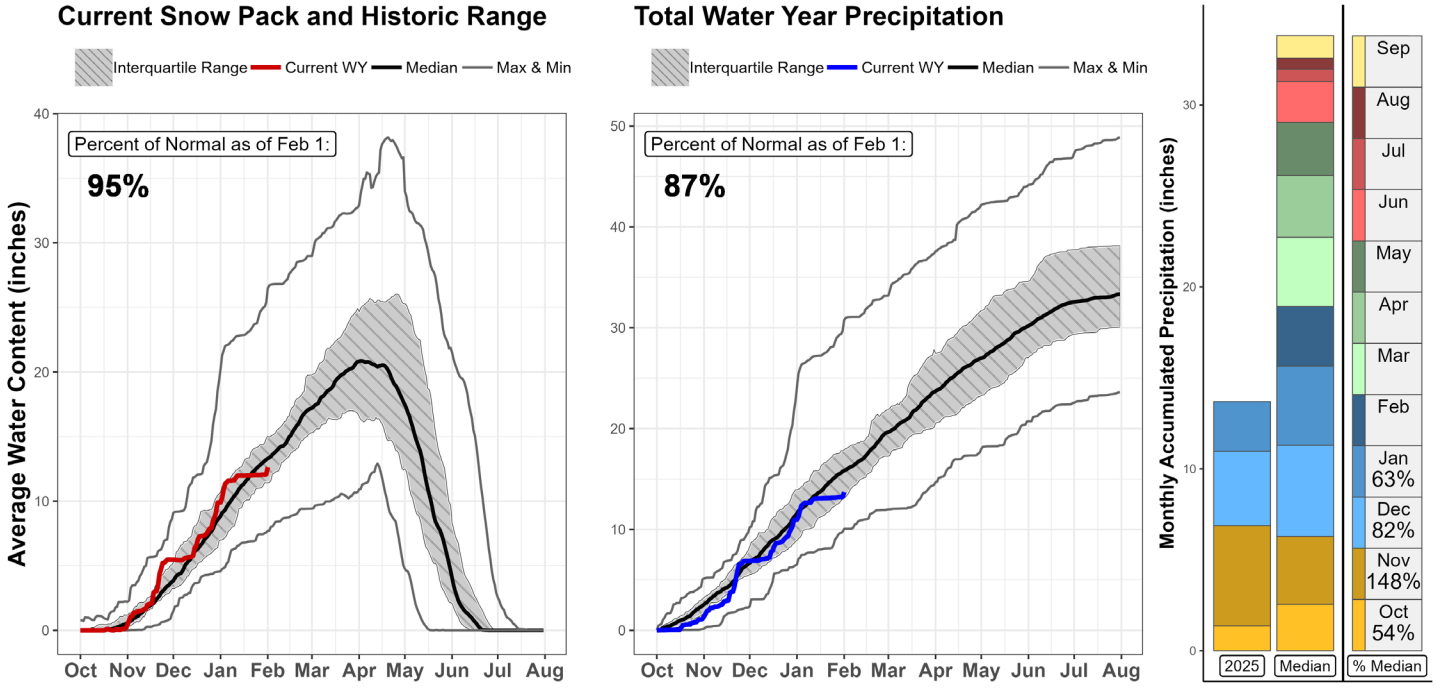
Reservoir Name	Current (KAF)	2024	Median (KAF)	Capacity (KAF)
Dworshak Reservoir	2,283.9	2,209	2,339	3,468

Watershed Snowpack Analysis - February 01, 2025

Basin Name	# of Sites	% of Median 2025	% of Median 2024
Clearwater	**15**	**84**	**59**
North Fork Clearwater	6	86	53
Lochsa	2	72	58
Selway	4	91	66
South Fork Clearwater	1	91	67

Salmon River Basin

February 1, 2025



WATER SUPPLY OUTLOOK

The Salmon Basin received below normal precipitation (63%) during January (Fig. 1) with the second half of the month accumulating little to no precipitation. The total water year precipitation reached 87% of normal on February 1 (Fig. 2). The Salmon Basin has near normal snowpack conditions (95%) as of February 1 (Fig. 3). However, there is a disparity between the west and the east portions of this basin. A large majority of the stations in the western half are ~10-20% above median snowpack. The stations in the east are ~10-30% below median due to the precipitation shadow effect from the surrounding mountains. On average, the stations in the eastern half of the basin need roughly 1.6 more inches of SWE to reach median snowpack, while the stations in the western half have more than ~1.3 inches above the median on February 1.

There are no reservoirs in the Salmon Basin. The 50% exceedance streamflow forecasts are 72 to 90% of normal for April through July (Fig. 4). NOAA's Climate Prediction Center's 30-day outlook forecasts above average precipitation for February. If average conditions persist, the projected SWE suggests we will finish the winter with near normal snowpack conditions. Recent comparable years to the current snowpack conditions occurred in 2023 and 2018.

Salmon Basin Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Salmon R at Salmon	APR-JUL	375	500	605	76	730	890	800
	APR-SEP	455	585	705	77	850	1,030	920
Lemhi R nr Lemhi	APR-JUL	29	39	49	72	59	75	68
	APR-SEP	35	45	55	67	66	83	82
MF Salmon R at MF Lodge	APR-JUL	465	575	685	88	800	1,000	775
	APR-SEP	500	620	755	89	885	1,090	850
SF Salmon R nr Krassel Ranger Station	APR-JUL	161	210	250	86	295	365	290
	APR-SEP	182	240	285	92	325	395	310
Johnson Ck at Yellow Pine	APR-JUL	122	159	189	90	220	270	210
	APR-SEP	130	173	205	93	240	290	220
Salmon R at White Bird	APR-JUL	3,100	3,870	4,440	75	5,220	6,120	5,940
	APR-SEP	3,350	4,190	4,760	72	5,580	6,600	6,600

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025

Reservoir Name	Current (KAF)	2024	Median (KAF)	Capacity (KAF)

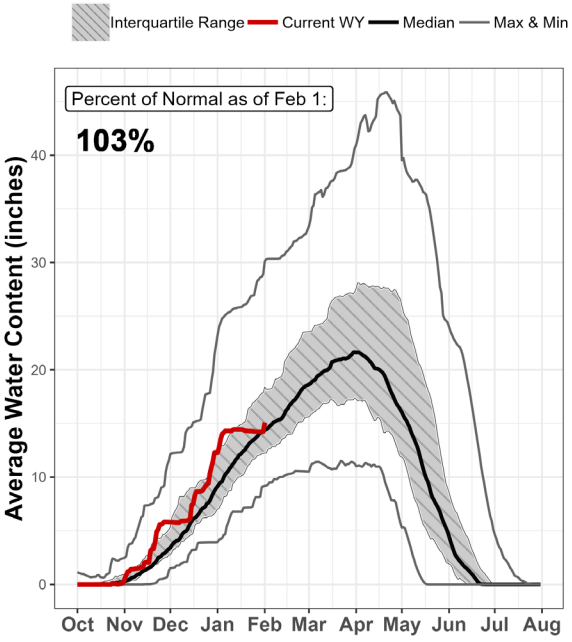
Watershed Snowpack Analysis - February 01, 2025

Basin Name	# of Sites	% of Median 2025	% of Median 2024
Salmon	**21**	**94**	**67**
Lemhi	3	82	69
Salmon ab Salmon	8	86	70
Middle Fork Salmon	3	100	66
South Fork Salmon	3	106	65
Little Salmon	4	115	71
Lower-Middle Salmon	4	97	64

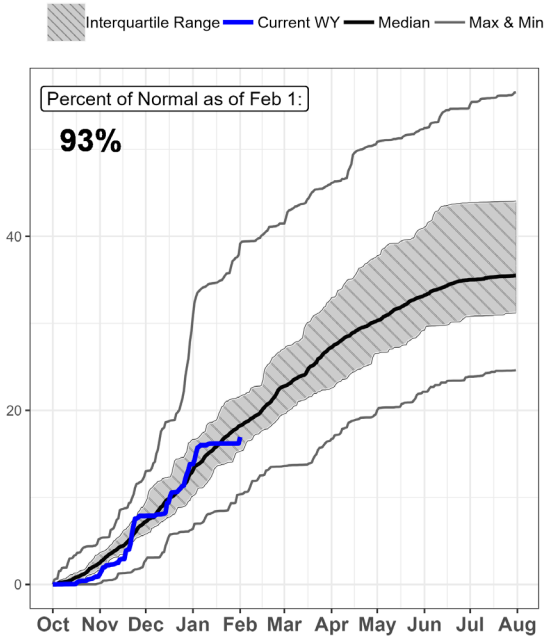
West Central Basins

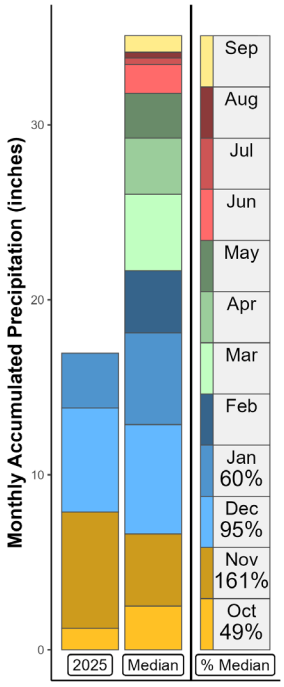
February 1, 2025

Current Snow Pack and Historic Range



Total Water Year Precipitation





WATER SUPPLY OUTLOOK

Despite strong storms at the start of the month, January was exceptionally dry in the West Central basins, with monthly precipitation ranging from ~60 to 65% of normal (Fig. 1). Because of the below normal month, total water year precipitation (Fig. 2) declined significantly, but is still near normal at ~90 to 110% of normal. SNOTEL sites in the westernmost Weiser Basin are the best performing in the region, whereas below normal sites are concentrated in the Boise Basin. This is largely due to the northwesterly direction of the storm track at the beginning of the month. Snowpack conditions are also near normal, ranging from ~100 to 120% of normal (Fig. 3). SWE loss, likely from sublimation, was widespread in the Boise Basin during the long dry spell in the middle of January. This contributed to its below normal conditions at the start of February. NOAA's medium range forecast and 30-day outlook both indicate wetter than normal conditions in February. Strong storms at the start of February are helping to bolster the snowpack already.

Reservoir storage in the Boise system (Anderson Ranch, Arrowrock and Lucky Peak combined) is 95% of normal on February 1. Storage in the Payette system is 98% of normal. Storage in the Weiser is 138% of normal. The 50% exceedance streamflow forecasts for the April through July period in the Boise Basin are 88 to 95% of normal, the Payette is 83 to 107% of normal, and the Weiser is 137% of normal.

West Central Basins Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Boise R nr Twin Springs	APR-JUL	360	445	530	88	620	755	600
	APR-SEP	295	470	565	88	665	810	645
SF Boise R at Anderson Ranch Dam 2	APR-JUL	215	285	360	86	435	570	420
	APR-SEP	245	330	410	91	500	635	450
Mores Ck nr Arrowrock Dam	APR-JUL	42	69	89	93	111	144	96
	APR-SEP	49	74	93	93	116	152	100
Boise R nr Boise 2	APR-JUL	670	875	1,070	95	1,280	1,670	1,130
	APR-SEP	765	970	1,160	95	1,380	1,760	1,220
SF Payette R at Lowman	APR-JUL	230	295	340	83	390	475	410
	APR-SEP	285	345	400	88	455	545	455
Deadwood Reservoir Inflow 2	APR-JUL	75	97	115	93	132	160	124
	APR-SEP	86	106	126	93	145	173	136
Lake Fork Payette R nr McCall	APR-JUL	65	76	86	106	96	111	81
	APR-SEP	67	79	90	108	99	113	83
NF Payette R at Cascade 2	APR-JUL	370	450	515	107	580	670	480
	APR-SEP	375	465	530	108	605	700	490
NF Payette R nr Banks 2	APR-JUL	415	530	615	103	715	860	595
	APR-SEP	415	525	615	101	710	855	610
Payette R nr Horseshoe Bend 2	APR-JUL	890	1,130	1,340	94	1,570	1,940	1,430
	APR-SEP	970	1,250	1,490	97	1,730	2,100	1,530
Weiser R nr Weiser	FEB-JUL	480	625	740	126	855	1,010	585
	APR-JUL	295	385	465	137	535	650	340
	APR-SEP	345	440	510	138	580	690	370

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025

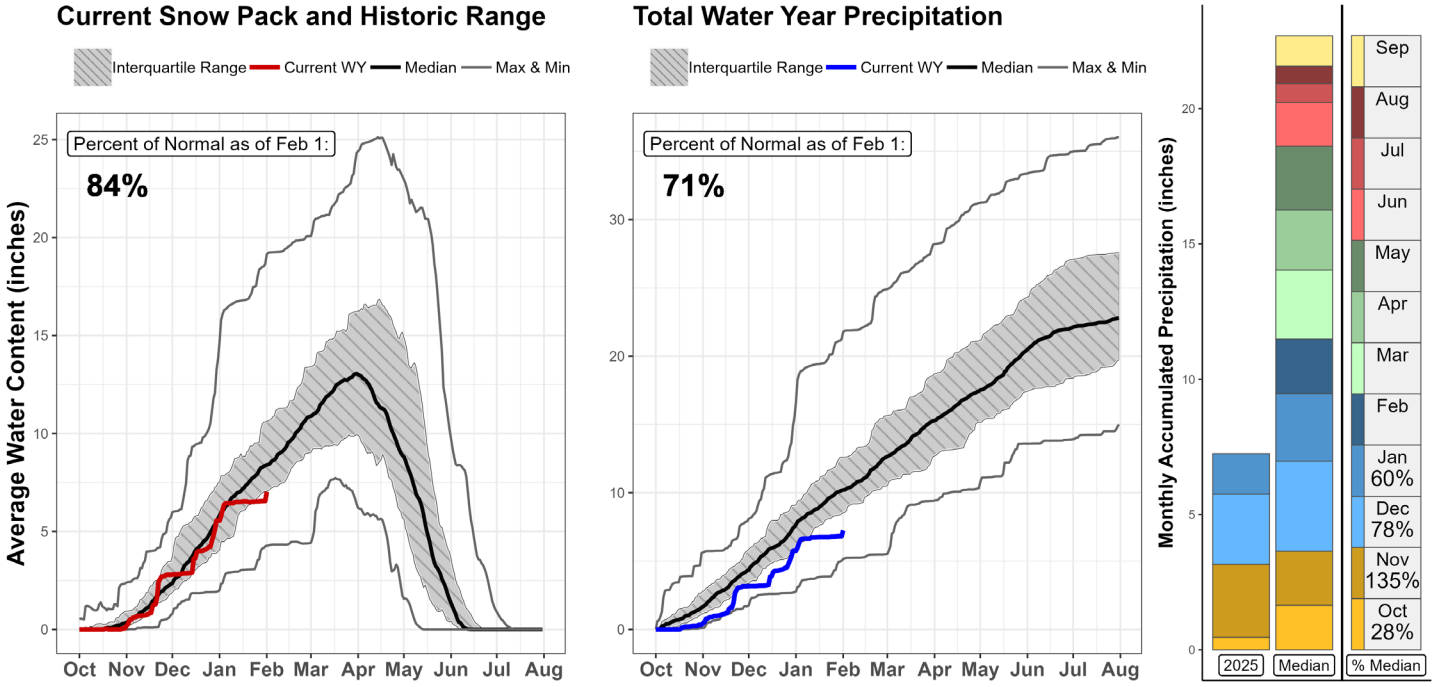
Reservoir Name	Current (KAF)	2024	Median (KAF)	Capacity (KAF)
Anderson Ranch Reservoir	303.9	388.0	270.2	450.2
Arrowrock Reservoir	150.8	198.3	206.9	272.2
Lucky Peak Reservoir	89.1	86.7	92.5	293.2
Boise River System Total	**543.8**	**673.0**	**569.6**	**1,015.6**
Deadwood Reservoir	79.1	97.5	91.6	161.9
Cascade Reservoir	459.0	476.3	454.4	693.2
Payette River System Total	**538.0**	**573.8**	**546.0**	**855.1**
Lake Lowell	102.6	116.6	98.7	165.2
Mann Creek Reservoir	3.6	2.8	2.6	11.1

Watershed Snowpack Analysis - February 01, 2025

Basin Name	# of Sites	% of Median 2025	% of Median 2024
Boise	**18**	**96**	**81**
Mores	6	97	84
North and Middle Fork Boise	6	96	74
South Fork Boise	9	94	80
Canyon	2	126	94
Payette	**16**	**104**	**69**
North Fork Payette	8	106	65
South Fork Payette	3	100	67
Weiser	**5**	**119**	**59**
Mann	1	145	75

Wood & Lost River Basins

February 1, 2025



WATER SUPPLY OUTLOOK

Dry high-pressure weather systems dominated in January; the Wood and Lost Basins received just ~55 to 70% of their normal monthly precipitation (Fig. 1). The dry month pushed the water year precipitation total further below normal, it now ranges from ~60 to 75% of normal (Fig. 2). For many SNOTEL sites in the region, this is in the bottom 10th percentile of total water year precipitation for February 1. The snowpack conditions fare slightly better but are still below normal at ~70 to 90% of normal (Fig. 3). The westernmost Big Wood Basin snowpack is closest to normal, as the basin benefited the most from westerly storm patterns at the start and end of January. Strong storms in February could bring snowpack conditions closer to normal conditions in all of the Wood and Lost basins. NOAA's Climate Prediction Center indicates that above normal precipitation is likely in the medium range forecasts and in the February monthly outlook. This is a promising sign for improved snowpack conditions by March 1.

Magic Reservoir is above normal storage as of February 1, at 127% of normal (33% capacity). Mackay and Little Wood Reservoir are slightly below normal at 84% and 88% of normal storage respectively (53% and 50% of capacity). Streamflow forecasts for the Wood and Lost basins are mostly below normal, ranging from ~60 to 90% of normal for the 50% exceedance forecast, except for Camas Creek near Blaine at 102% of normal.

Wood and Lost Basins Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Camas Ck at Camas	APR-JUL	0.7	7.6	15	87	22	33	17.3
Little Lost R bl Wet Ck nr Howe	APR-JUL	13.0	18.0	22	88	27	32	25.0
	APR-SEP	14.5	21.0	26	90	32	39	29.0
Big Lost R at Howell Ranch	APR-JUL	66.0	92.0	116	80	143	182	145.0
	APR-SEP	77.0	106.0	132	83	164	205	159.0
Big Lost R bl Mackay Reservoir	APR-JUL	35.0	60.0	80	77	105	146	104.0
	APR-SEP	58.0	80.0	100	79	124	163	127.0
Big Wood R at Hailey	APR-JUL	88.0	125.0	164	78	205	275	210.0
	APR-SEP	99.0	142.0	185	80	230	310	230.0
Big Wood R ab Magic Reservoir	APR-JUL	20.0	50.0	81	58	118	205	139.0
	APR-SEP	23.0	48.0	78	53	118	197	146.0
Camas Ck nr Blaine	MAR-JUL	9.3	29.0	54	102	82	134	53.0
	MAR-SEP	11.8	32.0	54	102	80	136	53.0
Big Wood R bl Magic Dam 2	APR-JUL	6.2	79.0	143	83	215	315	172.0
	APR-SEP	17.8	90.0	156	86	225	325	182.0
Little Wood R ab High Five Ck	MAR-JUL	10.0	23.0	33	57	45	69	58.0
	MAR-SEP	15.9	31.0	43	69	60	86	62.0
Little Wood R nr Carey 2	MAR-JUL	19.5	32.0	48	79	66	97	61.0
	MAR-SEP	14.7	29.0	44	68	62	94	65.0

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

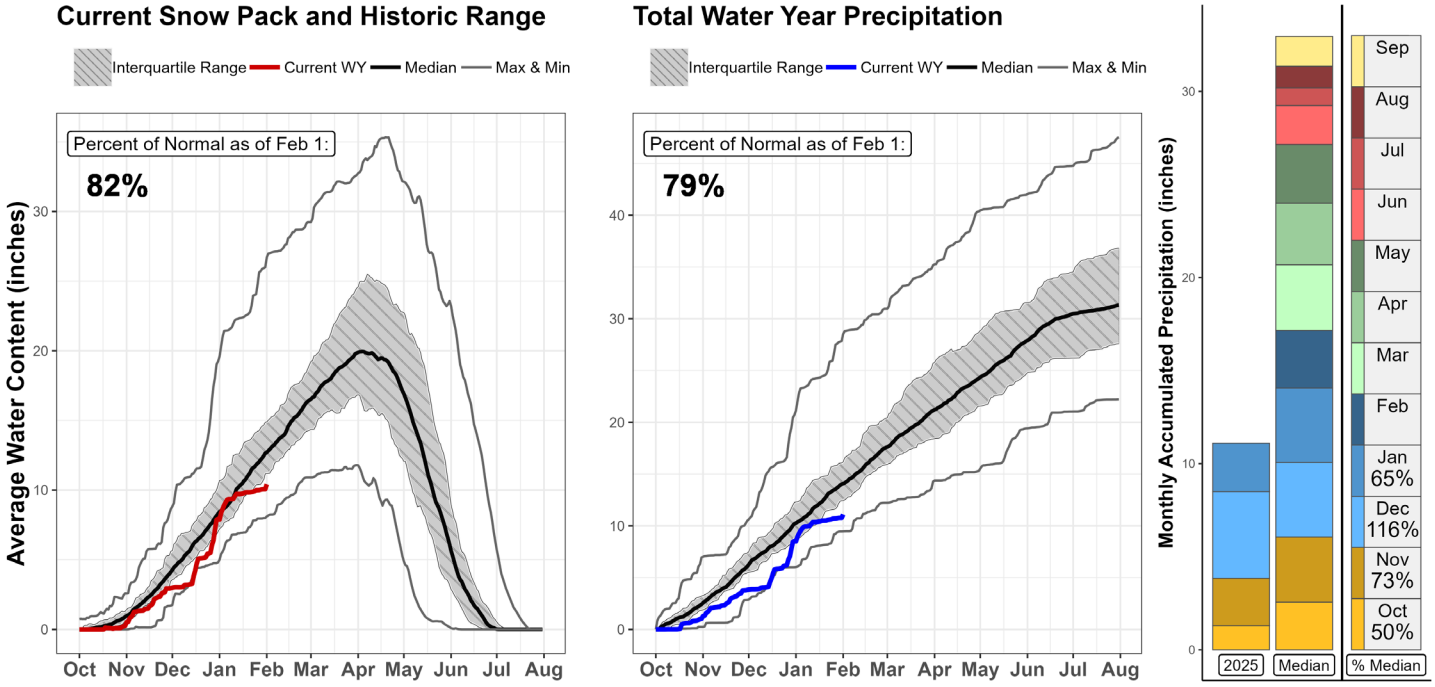
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025				
Reservoir Name	**Current (KAF)**	**2024**	**Median (KAF)**	**Capacity (KAF)**
Mackay Reservoir	23.6	16.6	28.2	44.4
Little Wood Reservoir	14.9	21.1	16.9	30.0
Magic Reservoir	63.4	132.8	50.0	191.5

Watershed Snowpack Analysis - February 01, 2025			
Basin Name	**# of Sites**	**% of Median 2025**	**2024**
Big Wood	**12**	**88**	**71**
Big Wood ab Hailey	8	86	69
Camas	4	91	76
Little Wood	**8**	**68**	**63**
Little Wood ab Resv	5	73	69
Big Lost	**7**	**74**	**64**
Big Lost ab Mackay	5	79	64
Fish	3	57	52
Little Lost	**3**	**78**	**70**
Birch-Medicine Lodge-Beaver-Camas	**5**	**80**	**56**
Birch-Medicine Lodge	2	80	74
Camas-Beaver	3	81	46

Upper Snake River Basins

February 1, 2025



WATER SUPPLY OUTLOOK

While January in the Upper Snake began with normal precipitation, the second half of the month was very dry. January precipitation ranged from 61 to 67% (Fig.1). As of February 1, total water year precipitation is 77% for Henrys Fork-Teton, 76% for Snake River above Heise, and 89% for Willow-Blackfoot-Portneuf (Fig. 2). Snowpack for the Upper Snake basins is 80% for Henrys Fork-Teton, 79% for Snake River above Heise, and 98% for Willow-Blackfoot-Portneuf (Fig. 3). NOAA's 30-day outlook is leaning to above normal precipitation. With roughly 70 days until the median peak SWE date and snow from early February storms already falling, snowpack conditions will likely improve.

The Upper Snake Reservoir System is currently 106% of normal (68% of capacity) and the Jackson-Palisades system is 103% of normal (69% of capacity). Median streamflow forecasts in the region range from ~65 to 90% for the April to July runoff period, except for Portneuf River at Topaz which is 103% of normal (Fig. 4). Conditions can evolve rapidly during the early winter months so continue to monitor daily conditions and subsequent water supply reports.

Upper Snake Basins Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Snake R at Flagg Ranch	APR-JUL	230.0	275	305	66	340	390	465
	APR-SEP	250.0	300	335	66	375	425	505
Snake R nr Moran 2	APR-JUL	405.0	485	545	75	610	700	730
	APR-SEP	485.0	565	635	78	700	805	810
Pacific Ck at Moran	APR-JUL	66.0	88	102	66	118	139	154
	APR-SEP	65.0	90	106	66	123	145	160
Buffalo Fk ab Lava Ck nr Moran	APR-JUL	171.0	200	225	79	250	290	285
	APR-SEP	198.0	225	250	81	280	320	310
Snake R ab Reservoir nr Alpine 2	APR-JUL	1,220.0	1,400	1,580	74	1,780	2,040	2,140
	APR-SEP	1,430.0	1,640	1,830	75	2,030	2,330	2,430
Greys R ab Reservoir nr Alpine	APR-JUL	210.0	250	285	90	315	365	315
	APR-SEP	235.0	270	310	85	345	400	365
Salt R ab Reservoir nr Etna	APR-JUL	125.0	164	205	67	245	305	305
	APR-SEP	171.0	215	270	71	315	380	380
Snake R nr Irwin 2	APR-JUL	1,750.0	2,070	2,350	80	2,620	3,040	2,930
	APR-SEP	2,120.0	2,470	2,780	81	3,100	3,610	3,420
Snake R nr Heise 2	APR-JUL	1,870.0	2,180	2,420	77	2,710	3,090	3,130
	APR-SEP	2,140.0	2,480	2,810	77	3,140	3,580	3,660
Henrys Fk nr Ashton 2	APR-JUL	300.0	340	370	78	405	460	475
	APR-SEP	425.0	470	505	80	550	605	630
Falls R nr Ashton 2	APR-JUL	210.0	255	285	72	315	360	395
	APR-SEP	275.0	315	345	73	380	435	475
Teton R nr Driggs	APR-JUL	61.0	80	95	65	114	138	146
	APR-SEP	83.0	105	126	71	153	183	178
Teton R nr St Anthony	APR-JUL	172.0	205	235	66	280	325	355
	APR-SEP	200.0	250	285	67	340	395	425
Henrys Fk nr Rexburg 2	APR-JUL	780.0	925	1,020	84	1,140	1,320	1,210
	APR-SEP	1,000.0	1,140	1,270	80	1,420	1,620	1,580
Willow Ck nr Ririe 2	MAR-JUL	10.8	22	34	79	49	75	43
Portneuf R at Topaz	MAR-JUL	47.0	55	63	103	70	81	61
	MAR-SEP	60.0	71	80	107	91	105	75
Snake R at Neeley 2	APR-JUL	465.0	915	1,340	56	1,830	2,670	2,390
	APR-SEP	380.0	800	1,220	52	1,710	2,570	2,360

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

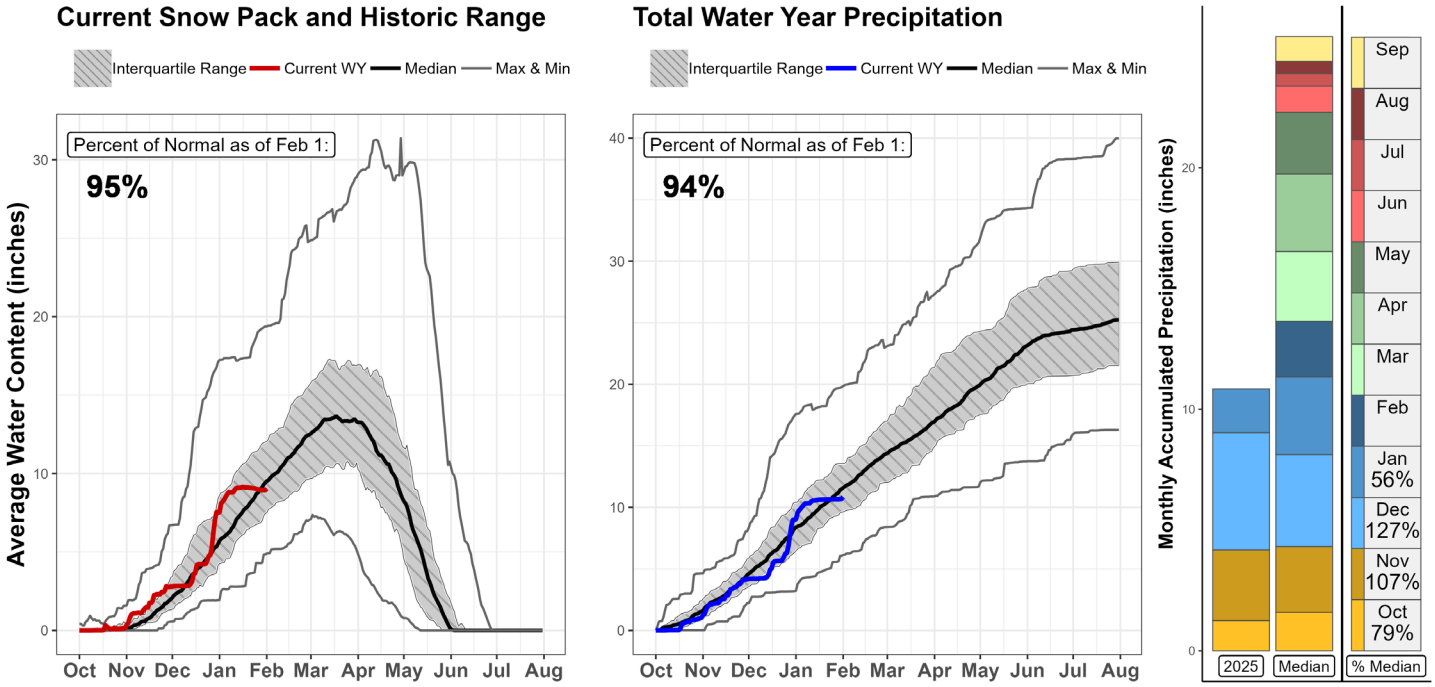
2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025				
Reservoir Name	**Current (KAF)**	**2024**	**Median (KAF)**	**Capacity (KAF)**
Jackson Lake	649.6	598.1	620.4	847.0
Palisades Reservoir	897.2	1,182.8	874.5	1,400.0
Snake River Above Heise Total	**1,546.8**	**1,780.8**	**1,494.9**	**2,247.0**
Henrys Lake	81.9	82.1	84.1	90.4
Island Park Reservoir	107.8	121.9	105.0	135.2
Grassy Lake	11.1	12.8	12.7	15.2
Henrys Fork-Teton Total	**200.8**	**216.8**	**201.8**	**240.8**
Ririe Reservoir	49.1	47.7	41.8	80.5
American Falls Reservoir	1,131.4	1,177.0	1,142.0	1,672.6
Upper Snake River System Total	**2,928.1**	**3,494.1**	**3,061.1**	**4,577.9**
Blackfoot Reservoir		271.7	180.6	337.0

Watershed Snowpack Analysis - February 01, 2025			
Basin Name	**# of Sites**	**% of Median 2025**	**2024**
Henrys Fork-Teton	**17**	**80**	**74**
Henrys Fork-Falls River	10	77	67
Teton	9	85	80
Snake River Above Heise	**36**	**79**	**73**
Snake ab Jackson Lake	12	70	68
Pacific	4	74	63
Buffalo Fork	4	77	62
Gros Ventre	4	81	64
Hoback	5	80	69
Greys	5	91	86
Salt	6	97	98
Willow-Blackfoot-Portneuf	**13**	**98**	**99**
Willow	7	97	89
Blackfoot	4	101	95
Portneuf	5	98	109

Southern Snake Basins

February 1, 2025



WATER SUPPLY OUTLOOK

The Southern Snake River basins received below normal precipitation during the month of January (Fig. 1). Monthly precipitation ranged from 52% to 74% of normal due to dry, high-pressure systems staying over the region most of the month. When looking at the total water year precipitation at the beginning of February (Fig. 2), most of the basins remain around ~95% of normal with the Raft Basin at 82% of normal. The snowpack in these basins remained near normal in January and range from 94% to 107% of normal (Fig. 3). At the beginning of January, snowpack was well above normal (116% – 146%), allowing these basins to still end up with near normal conditions by the end of the month. February started off with an influx of precipitation that broke the dry spell and will potentially lead to wetter than normal conditions. When looking at NOAA's Climate Prediction Center February Outlook, precipitation in these basins is leaning above normal.

For February 1, reservoir storage as a percent of normal means Lake Owyhee is 191% of normal (69% capacity), Wildhorse is 163% of normal (70% capacity), Oakley is 161% of normal (41% capacity) and Salmon Falls is 75% of normal (14% capacity). At this time last year, reservoir storage ranged from 119% of normal at Salmon Falls Reservoir to 189% of normal at Wild Horse Reservoir. Streamflow forecasts for the Southern Snake River basins in their primary period, ranging from March to July or April to July, are 84% to 118% of normal (Fig 4).

Southern Snake Basins Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Goose Ck ab Trapper Ck nr Oakley	MAR-JUL	10.0	15.6	20.0	118	25.0	33.0	16.9
	MAR-SEP	11.6	17.3	22.0	127	28.0	36.0	17.3
Trapper Ck nr Oakley	MAR-JUL	4.0	4.7	5.2	106	5.9	6.8	4.9
	MAR-SEP	4.9	5.8	6.4	107	7.2	8.2	6.0
Oakley Reservoir Inflow	MAR-JUL	14.4	20.0	26.0	118	31.0	41.0	22.0
	MAR-SEP	15.0	21.0	26.0	108	32.0	42.0	24.0
Salmon Falls Ck nr San Jacinto	MAR-JUL	37.0	49.0	59.0	92	72.0	92.0	64.0
	MAR-SEP	36.0	49.0	61.0	92	75.0	95.0	66.0
Bruneau R at Rowland	APR-JUL	26.0	38.0	47.0	98	58.0	80.0	48.0
	APR-SEP	25.0	36.0	45.0	92	55.0	73.0	49.0
Jarbidge River Below Jarbidge	APR-JUL	12.4	14.6	16.5	84	18.8	23.0	19.6
	APR-SEP	13.3	15.9	17.8	89	20.0	24.0	20.0
Bruneau R nr Hot Spring	MAR-JUL	102.0	134.0	166.0	96	199.0	265.0	173.0
	MAR-SEP	109.0	144.0	178.0	99	210.0	270.0	179.0
Reynolds Ck at Tollgate	MAR-JUL	4.1	5.8	7.2	99	8.8	11.2	7.3
	MAR-SEP	4.1	5.7	7.0	95	8.6	10.8	7.4
Owyhee R nr Gold Ck 2	MAR-JUL	5.1	12.2	21.0	95	34.0	68.0	22.0
	APR-JUL	3.7	11.0	17.6	102	24.0	34.0	17.2
Owyhee R nr Rome	FEB-JUL	160.0	255.0	345.0	92	445.0	600.0	375.0
	FEB-SEP	160.0	265.0	335.0	86	435.0	585.0	390.0
	APR-JUL	42.0	130.0	215.0	105	305.0	425.0	205.0
	APR-SEP	35.0	130.0	210.0	95	300.0	430.0	220.0
Owyhee R bl Owyhee Dam 2	FEB-JUL	220.0	325.0	425.0	101	550.0	760.0	420.0
	FEB-SEP	270.0	370.0	465.0	103	580.0	775.0	450.0
	APR-JUL	73.0	155.0	240.0	102	355.0	580.0	235.0
	APR-SEP	24.0	166.0	265.0	100	360.0	490.0	265.0

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025

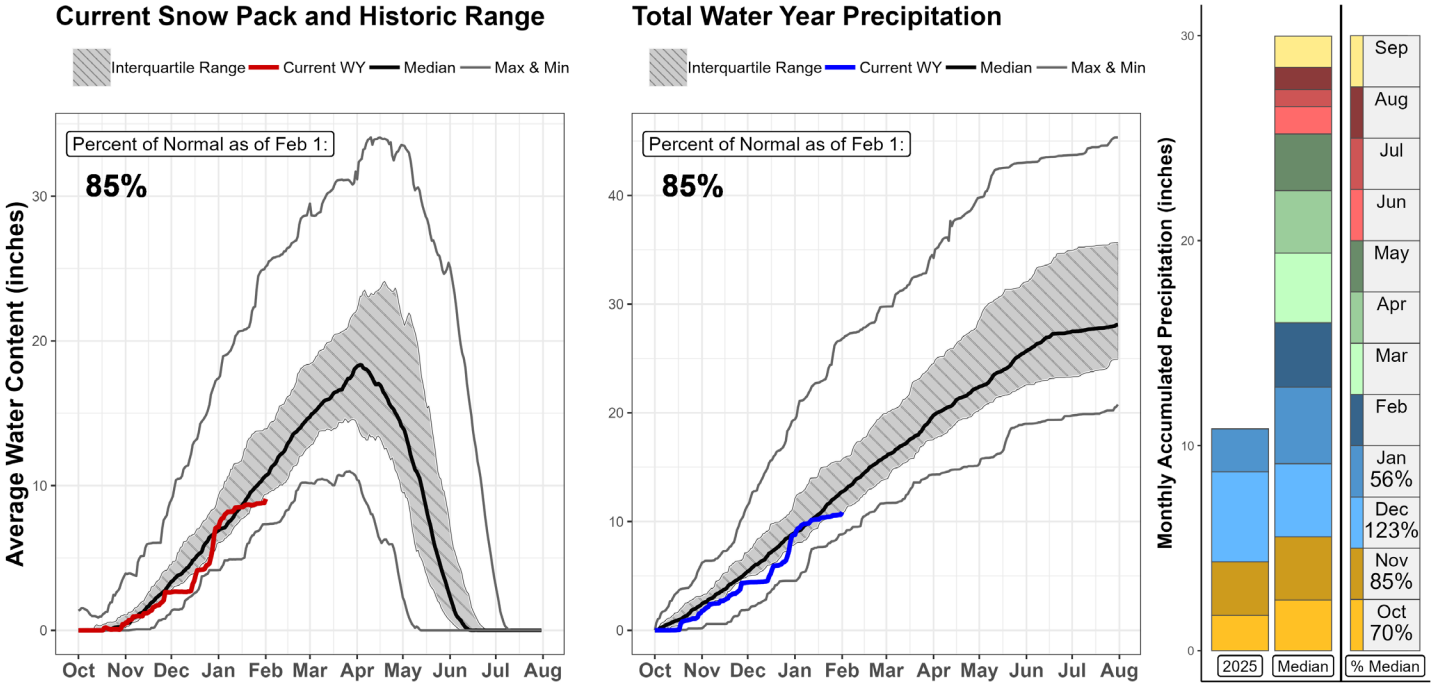
Reservoir Name	Current (KAF)	2024	Median (KAF)	Capacity (KAF)
Oakley Reservoir	30.8	25.3	19.1	75.6
Salmon Falls Reservoir	25.9	41.0	34.5	182.6
Wild Horse Reservoir	49.8	57.7	30.5	71.5
Lake Owyhee	493.7	430.6	258.8	715.0
Brownlee Reservoir	1,126.2	1,225.7	1,230.0	1,420.0

Watershed Snowpack Analysis - February 01, 2025

Basin Name	# of Sites	% of Median 2025	% of Median 2024
Raft	**3**	**94**	**122**
Goose Creek	**2**	**107**	**124**
Salmon Falls	**6**	**102**	**119**
Bruneau	**8**	**99**	**125**
Owyhee	**15**	**96**	**131**
Upper Owyhee	13	104	139
Reynolds	6	109	122

Bear River Basin

February 1, 2025



WATER SUPPLY OUTLOOK

The Bear River Basin received well below normal precipitation in the month of January (Fig. 1) at 56% of normal due to dry, high-pressure systems that remained stabilized above the region for most of the month. When looking at the total water year precipitation to the beginning of February (Fig. 2), the Bear River Basin remains around 85% of normal. The snowpack in the basin is also at 85% of normal (Fig. 3), while this time last month the snowpack was at 104% of normal. February started off with an influx of precipitation that broke the dry spell and will potentially lead to improved conditions. When looking at NOAA's Climate Prediction Center February Outlook, precipitation is likely to be above normal.

For February 1, Bear Lake reservoir storage is well above normal at 188% (67% capacity), while at this time last year, Bear Lake reservoir storage was also well above normal at 182%. Bear Lake is at 5,917.6 ft. as of February 1, so water users can expect a full storage allocation this irrigation season. The streamflow forecasts in the Bear River Basin are 50% to 89% of normal for the primary runoff period (Fig 4).

Bear Basin Streamflow Forecasts - February 01, 2025

		Forecast Exceedance Probabilities for Risk Assessment <=== Drier ===== Projected Volume ===== Wetter ===>						
Forecast Point	**Forecast Period**	**90% (KAF)**	**70% (KAF)**	**50% (KAF)**	**% Median**	**30% (KAF)**	**10% (KAF)**	**30yr Med (KAF)**
Bear R nr UT-WY State Line	APR-JUL	65.0	78.0	90	89	102	120.0	101.0
	APR-SEP	70.0	85.0	98	86	111	129.0	114.0
Bear R ab Resv nr Woodruff	APR-JUL	39.0	55.0	73	79	91	127.0	92.0
	APR-SEP	41.0	57.0	77	78	99	136.0	99.0
Big Ck nr Randolph	APR-JUL	0.6	1.1	2	61	3	5.2	3.2
Smiths Fk nr Border	APR-JUL	40.0	51.0	62	72	72	88.0	86.0
	APR-SEP	50.0	62.0	72	72	84	103.0	100.0
Bear R bl Stewart Dam 2	FEB-JUL	25.0	54.0	84	63	113	195.0	133.0
	FEB-SEP	26.0	58.0	85	59	122	210.0	145.0
	MAR-JUL	23.0	46.0	74	59	111	179.0	126.0
	MAR-SEP	24.0	52.0	83	60	112	184.0	139.0
	APR-JUL	9.3	26.0	58	50	95	170.0	115.0
	APR-SEP	11.8	29.0	59	48	101	174.0	122.0

Normals based on 1991-2020 reference period: streamflow, snowpack, precipitation, & reservoir normals are medians.

1) 90% and 10% exceedance probabilities are actually 95% and 5%

2) Forecasts are for unimpaired flows. Actual flow will be dependent on management of upstream reservoirs and diversions

Reservoir Storage (KAF): February 01, 2025

Reservoir Name	Current (KAF)	2024	Median (KAF)	Capacity (KAF)
Bear Lake	878.5	849.6	467.9	1,302.0
Woodruff Creek	2.0	2.1	2.2	4.0
Woodruff Narrows Reservoir	31.4	48.8	36.0	57.3
Montpelier Reservoir		2.1	2.1	4.0

Watershed Snowpack Analysis - February 01, 2025

Basin Name	# of Sites	% of Median 2025	2024
Bear	**21**	**85**	**104**
Smiths-Thomas Forks	5	82	92
Bear Lake	6	85	109
Mink			
Cub	1	79	104
Malad	1	90	137

Streamflow Adjustment List for All Forecasts Published in Idaho Water Supply Outlook Report: Streamflow forecasts are projections of runoff volumes that would occur without influences from upstream reservoirs or diversions. These values are referred to as natural, unregulated or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and inter-basin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made for each forecast point. **(Revised Dec. 2024).**

Panhandle Region

Kootenai R at Leonia, MT (2)
+ Lake Koocanusa storage change

Moyie R at Eastport – no corrections

Boundary Ck nr Porthill – no corrections

Clark Fork R bl Cabinet Gorge (2)
+ Hungry Horse storage change
+ Flathead Lake storage change
+ Noxon Res storage change
Whitehorse Rapid gage used create longer term record

Pend Oreille Lake Inflow (2)
+ Pend Oreille R at Newport, WA
+ Hungry Horse Res storage change
+ Flathead Lake storage change
+ Noxon Res storage change
+ Lake Pend Oreille storage change
+ Priest Lake storage change

Priest R nr Priest R (2)
+ Priest Lake storage change

Priest R nr Coolin (2)
+ Priest Lake storage change

NF Coeur d' Alene R at Enaville - no corrections

St. Joe R at Calder- no corrections

Spokane R nr Post Falls (2)
+ Lake Coeur d' Alene storage change

Spokane R at Long Lake, WA (2)
+ Lake Coeur d' Alene storage change
+ Long Lake, WA storage change

Clearwater River Basin

Selway R nr Lowell - no corrections

Lochsa R nr Lowell - no corrections

Dworshak Res Inflow (2)
+ Clearwater R nr Peck
- Clearwater R at Orofino
+ Dworshak Res storage change

Clearwater R at Orofino - no corrections

Clearwater R at Spalding (2)
+ Dworshak Res storage change

Salmon River Basin

Salmon R at Salmon - no corrections

Lemhi R nr Lemhi – no corrections

MF Salmon R at MF Lodge – no corrections
SF Salmon gage used to create longer term record

SF Salmon R nr Krassel Ranger Station – no corrections

Johnson Creek at Yellow pine – no corrections Salmon R at White Bird - no corrections

West Central Basins

Boise R nr Twin Springs - no corrections

SF Boise R at Anderson Ranch Dam (2)
+ Anderson Ranch Res storage change Mores Ck nr Arrowrock Dam – no corrections

Boise R nr Boise (2)
+ Anderson Ranch Res storage change
+ Arrowrock Res storage change
+ Lucky Peak Res storage change

SF Payette R at Lowman - no corrections

Deadwood Res Inflow (2)
+ Deadwood R bl Deadwood Res nr Lowman
+ Deadwood Res storage change

Lake Fork Payette R nr McCall – no corrections

NF Payette R at Cascade (2)
+ Payette Lake storage change
+ Cascade Res storage change

NF Payette R nr Banks (2)
+ Payette Lake storage change
+ Cascade Res storage change

Payette R nr Horseshoe Bend (2)
+ Deadwood Res storage change
+ Payette Lake storage change
+ Cascade Res storage change

Weiser R nr Weiser - no corrections

Wood and Lost Basins

Little Lost R bl Wet Ck nr Howe - no corrections

Big Lost R at Howell Ranch - no corrections

Big Lost R bl Mackay Res nr Mackay (2)
+ Mackay Res storage change

Little Wood R ab High Five Ck – no corrections

Little Wood R nr Carey (2)
+ Little Wood Res storage change

Big Wood R at Hailey - no corrections

Big Wood R ab Magic Res (2)
+ Big Wood R nr Bellevue (1912-1996)
+ Big Wood R at Stanton Crossing nr Bellevue (1997 to present)
+ Willow Ck (1997 to present)

Camas Ck nr Blaine – no corrections

Magic Res Inflow (2)
+ Big Wood R bl Magic Dam
+ Magic Res storage change

Upper Snake River Basin

Falls R nr Ashton (2)
+ Grassy Lake storage change
+ Diversions from Falls R ab nr Ashton

Henrys Fork nr Ashton (2)
+ Henrys Lake storage change
+ Island Park Res storage change

Teton R nr Driggs - no corrections

Teton R nr St. Anthony (2)
- Cross Cut Canal into Teton R
+ Sum of Diversions for Teton R ab St. Anthony
+ Teton Dam for water year 1976 only

Henrys Fork nr Rexburg (2)
+ Henrys Lake storage change
+ Island Park Res storage change
+ Grassy Lake storage change
+ 3 Diversions from Falls R ab Ashton-Chester
+ 6 Diversions from Falls R abv Ashton
+ 7 Diversions from Henrys Fk btw Ashton to St. Anthony
+ 21 Diversions from Henrys Fk btw St. Anthony to Rexburg
Snake R nr Flagg Ranch, WY – no corrections
Snake R nr Moran, WY (2)
+ Jackson Lake storage change
Pacific Ck at Moran, WY - no corrections
Buffalo Fork ab Lava nr Moran, WY - no corrections
Snake R ab Res nr Alpine, WY (2)
+ Jackson Lake storage change
Greys R nr Alpine, WY - no corrections
Salt R nr Etna, WY - no corrections
Palisades Res Inflow (2)
+ Snake R nr Irwin
+ Jackson Lake storage change
+ Palisades Res storage change
Snake R nr Heise (2)
+ Jackson Lake storage change
+ Palisades Res storage change
Ririe Res Inflow (2)
+ Willow Ck nr Ririe
+ Ririe Res storage change
The forecasted natural volume for Willow Creek nr Ririe does not include Grays Lake water diverted from Willow Creek drainage through the Clarks Cut diversion and into Blackfoot Reservoir.
Blackfoot R ab Res nr Henry (2)
+ Blackfoot Res storage change
The forecasted Blackfoot Reservoir Inflow includes Grays Lake water diverted from the Willow Creek drainage through the Clarks Cut diversion and into Blackfoot Reservoir.
Portneuf R at Topaz - no corrections
American Falls Res Inflow (2)
+ Snake R at Neeley
+ Jackson Lake storage change
+ Palisades Res storage change
+ American Falls storage change
+ Teton Dam for water year 1976 only

Southside Snake River Basins

Goose Ck nr Oakley - no adjustments
Trapper Ck nr Oakley - no adjustments
Oakley Res Inflow - *flow does not include Birch Creek*
+ Goose Ck
+ Trapper Ck
Salmon Falls Ck nr San Jacinto, NV - no corrections
Bruneau R nr Hot Springs - no corrections
Reynolds Ck at Tollgate - no corrections
Owyhee R nr Gold Ck, NV (2)
+ Wildhorse Res storage change
Owyhee R nr Rome, OR – no Corrections
Owyhee Res Inflow (2)
+ Owyhee R bl Owyhee Dam, OR
+ Lake Owyhee storage change
+ Diversions to North and South Canals

Bear River Basin

Bear R nr UT-WY Stateline, UT- no corrections
Bear R abv Res nr Woodruff, UT- no corrections
Big Ck nr Randolph, UT - no corrections
Smiths Fork nr Border, WY - no corrections
Bear R bl Stewart Dam (2)
+ Bear R bl Stewart Dam
+ Rainbow Inlet Canal
Little Bear R at Paradise, UT - no corrections
Logan R nr Logan, UT - no corrections
Blacksmith Fk nr Hyrum, UT - no corrections

Reservoir Capacity Definitions (Units in 1,000 Acre-Feet, KAF)

Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists the volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage which includes active and/or inactive storage. **(Revised Feb. 2015)**

Basin- Lake or Reservoir	Dead Storage	Inactive Storage	Active Storage	Surcharge Storage	NRCS Capacity	NRCS Capacity Includes
Panhandle Region						
Hungry Horse	39.73	---	**3451.00**	---	**3451.0**	Active
Flathead Lake	Unknown	---	**1791.00**	---	**1791.0**	Active
Noxon	Unknown	---	**335.00**	---	**335.0**	Active
Lake Pend Oreille	**406.20**	**112.40**	**1042.70**	**---**	**1561.3**	Dead + Inactive + Active
Lake Coeur d'Alene	Unknown	13.50	**225.00**	**---**	**238.5**	Inactive + Active
Priest Lake	**20.00**	**28.00**	**71.30**	**---**	**119.3**	Dead + Inactive + Active
Clearwater Basin						
Dworshak	Unknown	**1452.00**	**2016.00**	**---**	**3468.0**	Inactive + Active
West Central Basins						
Anderson Ranch	24.90	**37.00**	**413.10**	---	450.1	Inactive + Active
Arrowrock	Unknown	---	**272.20**	**---**	**272.2**	Active
Lucky Peak	Unknown	**28.80**	**264.40**	13.80	**293.2**	Inactive + Active
Lake Lowell	7.90	**5.80**	**159.40**	---	165.2	Inactive + Active
Deadwood	Unknown	---	**161.90**	**---**	**161.9**	Active
Cascade	Unknown	**46.70**	**646.50**	**---**	**693.2**	Inactive + Active
Mann Creek	1.61	0.24	**11.10**	**---**	**11.1**	Active
Wood and Lost Basins						
Mackay	0.13	---	**44.37**	**---**	**44.4**	Active
Little Wood	Unknown	---	**30.00**	**---**	**30.0**	Active
Magic	Unknown	---	**191.50**	**---**	**191.5**	Active
Upper Snake Basin						
Jackson Lake	Unknown	---	**847.00**	**---**	**847.0**	Active
Palisades	44.10	**155.50**	**1200.00**	**---**	**1400.0**	Dead +Inactive +Active
Henrys Lake	Unknown	---	**90.40**	**---**	**90.4**	Active
Island Park	0.40	---	**127.30**	**7.90**	**135.2**	Active + Surcharge
Grassy Lake	Unknown	---	**15.18**	**---**	**15.2**	Active
Ririe	4.00	6.00	**80.54**	10.00	**80.5**	Active
Blackfoot	0.00	---	**333.50**	3.50	**333.50**	Active (rev. 2/1/2015)
American Falls	Unknown	---	**1672.60**	**---**	**1672.6**	Active
Southside Snake Basins						
Oakley	0.00	---	**75.60**	**---**	**75.6**	Active
Salmon Falls	48.00	**5.00**	**182.65**	**---**	**182.6**	Active
Wild Horse	Unknown	---	**71.50**	**---**	**71.5**	Active
Lake Owyhee	406.83	---	**715.00**	**---**	**715.0**	Active
Brownlee	0.45	**444.70**	**975.30**	**---**	**1420.0**	Inactive + Active
Bear River Basin						
Bear Lake	5000.00	119.00	**1302.00**	**---**	**1302.0**	Active:
Capacity does not include 119 KAF that can be used, historic values below this level are rounded to zero						
Montpelier	**0.21**	**---**	**3.84**	**---**	**4.0**	Dead + Active

Interpreting Water Supply Forecasts

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Median. The 30-year median streamflow for each forecast period is provided for comparison. The median is based on data from 1991-2020. The % MED column compares the 50% chance of exceedance forecast to the 30-year median streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year median streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet (KAF).

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

<u>Forecast use example:</u>

Using the 50 Percent Exceedance Forecast. Using the example forecasts shown on the next page, there is a 50% chance that actual streamflow volume at the Henry's Fork near Ashton will be less than 280 KAF between June 1 and Sept. 30. There is also a 50% chance that actual streamflow volume will be greater than 280 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 245 KAF during Jun 1 through September 30 (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 245 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 198 KAF (from the **90** percent exceedance forecast). There is 10% chance of receiving less than 72 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 315 KAF between June 1 and Sept. 30 (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 315 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 360 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 360 KAF. Users could also choose a volume in between any of these values to reflect their desired risk level.

Upper Snake River Basin Streamflow Forecasts - June 1, 2015

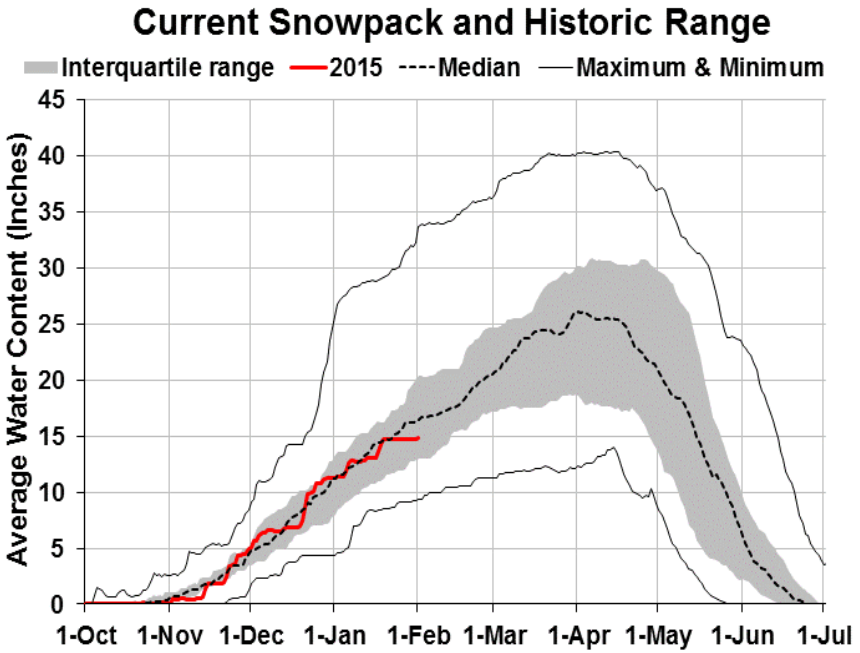
Forecast Point	Forecast Period	Forecast Exceedance Probabilities for Risk Assessment <---Drier----------Projected Volume----------Wetter---> 90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
Henrys Fk nr Ashton	JUN-JUL	72	106	129	56	152	186	230
	JUN-SEP	198	245	280	68	315	360	410

Interpreting Snowpack Plots

Basin snowpack plots represent snow water equivalent indices using the average daily SNOTEL data[1] from several sites in or near individual basins. The solid red line (2015), which represents the current water year snowpack water content, can be compared to the normal dashed black line (Median) which is considered "normal", as well as the SNOTEL observed historical snowpack range for each basin. This allows users to gather important information about the current year's snowpack as well as the historical variability of snowpack in each basin.

The gray shaded area represents the interquartile range (also known as the "middle fifty"), which is the 25th to 75th percentiles of the historical daily snowpack data for each basin. Percentiles depict the value of the average snowpack below which the given percent of historical years fall. For example, the top part of the interquartile range (75th percentile) indicates that the snowpack index has been below this line for 75 percent of the period of record, whereas the reverse is true for the lower part of the interquartile range (25th percentile). This means 50 percent of the time the snowpack index is within the interquartile range (gray area) during the period of record.

[1] All data used for these plots come from daily SNOTEL data only and does not include snow course data (collected monthly), whereas the official basin snowpack percent of normal includes both SNOTEL and snow course data, potentially leading to slight discrepancies between plots and official basin percent of normal.



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This publication is dedicated to the people, agencies and organizations utilizing this data, information and forecasts for short and long term water management, planning, preparation, recreation and otherwise, for the enhancement of the economy and enrichment of livelihoods.