

Utah Water Supply Outlook Report

February 1, 2024



Aerial view of Wasatch Front

Photo by Jordan Clayton

STATE OF UTAH GENERAL OUTLOOK

February 1, 2024

SUMMARY

Utah got a nice boost to its **snowpack** in January! The statewide snow water equivalent (SWE) percent of normal increased from 69% at the beginning of the month to 95% by month's end. Not bad! Similarly, on January 1st all of Utah's major basins were below 80% of normal SWE, but as of February 1st the opposite is true; all of our major basins are now above 80%. The individual SNOTEL site with the highest SWE total as of February 1st is the Ben Lomond Peak site at 25.3" SWE, with the Atwater and Tony Grove Lake SNOTELs close behind. Utah's snowpack conditions have continued to improve since February 1st, but this report is based on conditions as of the first of the month. For the latest conditions, check [today's snowpack map](#).

Every major watershed in Utah received above normal **precipitation** for the month of January, with >150% of normal monthly totals for the Duchesne, San Pitch, Price-San Rafael, Upper Sevier, Dirty Devil, and Raft watersheds. As of February 1st, the water-year-to-date precipitation value for Utah was 93% of normal, up 15% from the previous month.

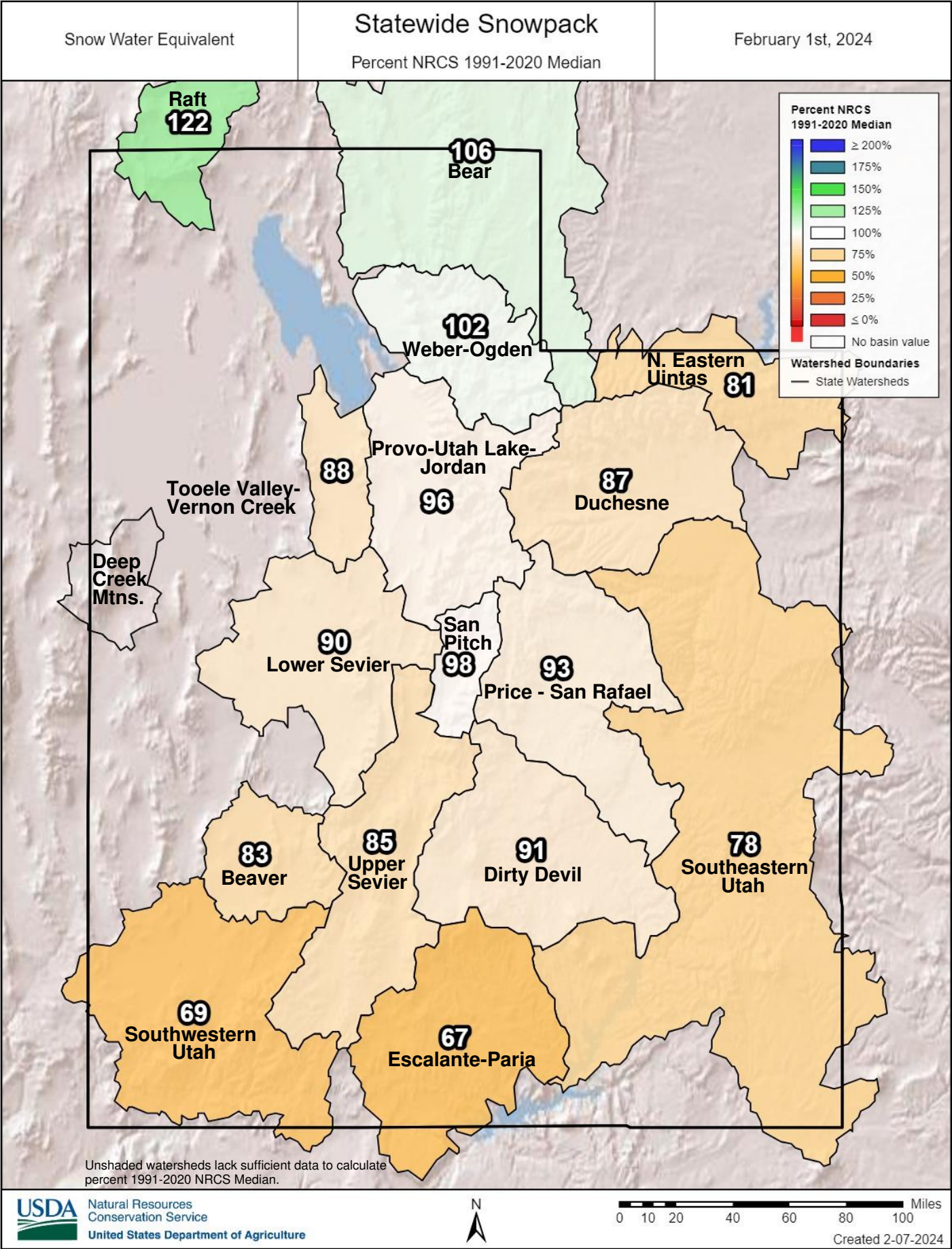
Statewide **soil moisture** is at 52% of saturation, which is very close to last year's value and is 105% of normal. Generally-speaking, soil moisture conditions are typical (or better) for this time of year for all of Utah's major basins except for Southeastern Utah. As noted in previous reports, where present the relatively moist mountain soils will help promote runoff efficiency in the spring.

Utah's **streamflow forecasts** for April to July snowmelt runoff volume are very similar to those produced by the Colorado Basin River Forecast Center (see comparison [here](#)) and are more optimistic than last month due to the improved conditions in our mountains. Forecasted flow ranges from 72% to 170% of median (20% to 110% of average). As noted in last month's report, water users should beware of misplaced optimism while assessing forecasts based on percent of median for most areas of the state. *We recommend focusing on the forecast value itself or the percent of average when assessing these streamflow predictions.* Forecasted streamflow is most optimistic for the Wasatch Front, Weber-Ogden, Bear, and Strawberry watersheds. However, conditions need to substantially improve in southern Utah to result in better runoff predictions for this summer. As of this writing, February is off to a promising start!

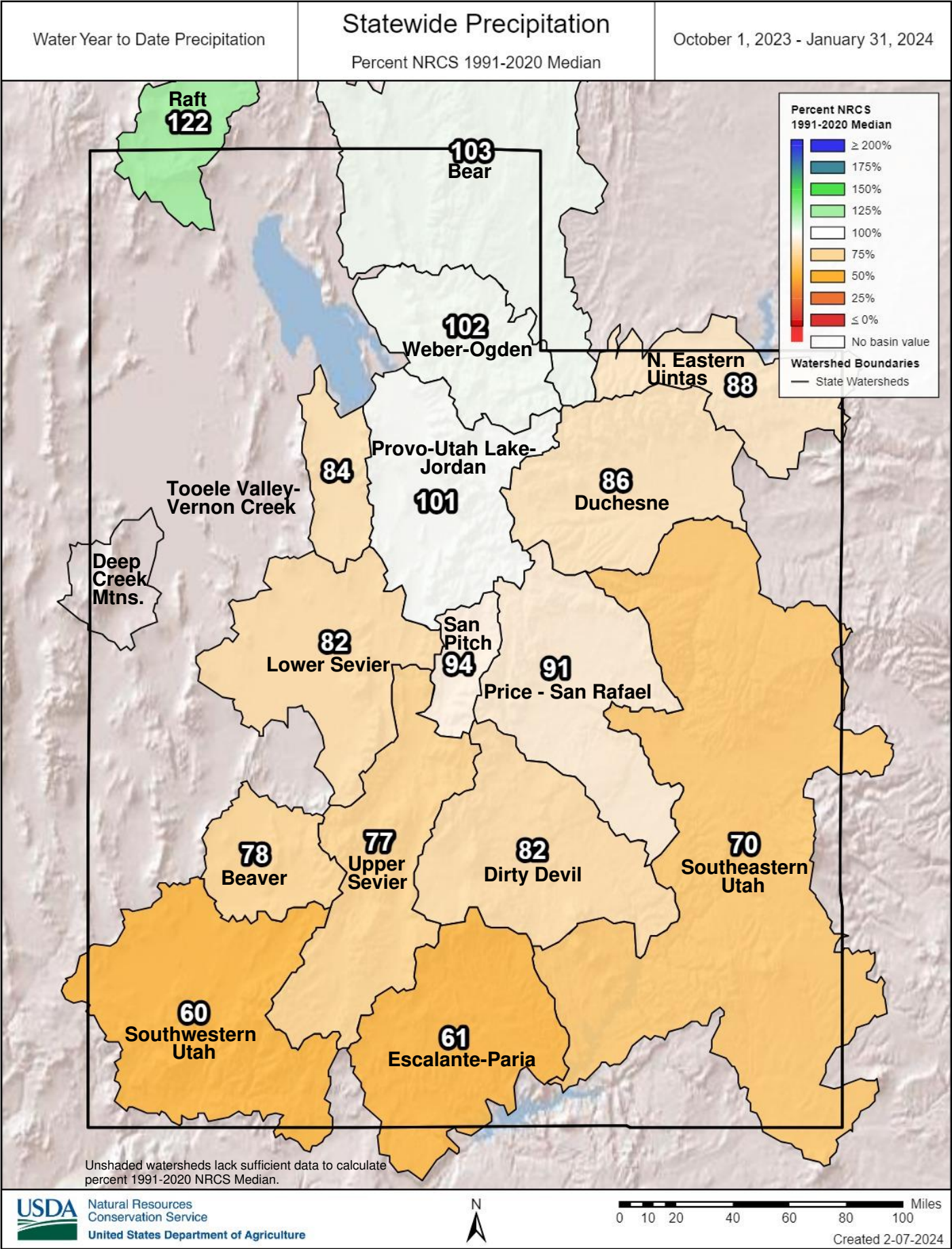
Utah's reservoir storage continues to reflect the benefit of last winter's outstanding snowpack and the conservation measures promoted across the state. Our current statewide **reservoir storage** is at 80% of capacity, compared with 49% last year at this time. **Surface Water Supply Indices** (SWSI) for Utah basins combine our current reservoir levels with the additional volume of water anticipated for each watershed based on these February 1 streamflow forecasts. While some areas of the state with significant ground to make up (due to large amounts of depleted reservoir storage) have low SWSI values, such as the Lower Sevier basin, SWSI values for most of the state are close to average (50th percentile), suggesting that water supply conditions will be close to normal for those areas. A few basins are expected to have well above-normal water supply conditions, such as the Provo and Price watersheds.

As introduced last month, we are now able to include basin-level conditions and inflow forecasts for the **Great Salt Lake** (GSL) in our monthly Water Supply Outlook Reports. This new section of our report includes updated GSL basin-wide conditions (SWE, precipitation, soil moisture, and reservoir) as well as forecast details (predicted April through July inflow volume as well as modeled lake level rise from February to this year's peak water elevation). Currently, SWE in the GSL basin is 102% of normal, with 101% of normal water year to date precipitation. Soil moisture is well above normal at 64% of saturation, and the basin's reservoir storage is at 82% of capacity, up 32% from last year at this time. The 50% exceedance forecast for April through July inflow into the GSL is 645 thousand acre-feet (143% of median, 90% of average) which would result in a lake level rise of roughly 1.2 feet predicted from the beginning of February until the lake reaches its peak water elevation for this year. Please contact us with any questions related to these data and bear in mind that inflow forecasts for the GSL include substantial uncertainty.

Utah (statewide) Snowpack



Utah (statewide) Precipitation



Feb 1, 2024 | Surface Water Supply Index (SWSI)

Basin or Region	Reservoir Storage ¹ (KAF) ²	Apr-July Forecast (KAF) ²	Forecast + Storage (KAF) ²	SWSI ³	Percentile ⁴ (%)	Similar Years
Bear	849.6	93.0	942.6	1.2	64	[1982, 1997]
Woodruff Narrows	48.8	81.0	129.8	0.42	55	[1987, 2006]
Little Bear	9.9	31.0	40.9	0.38	55	[2008, 2016]
Ogden	84.1	99.0	183.1	0.65	58	[1993, 2016]
Weber	370.3	245.0	615.3	0.83	60	[1993, 2009]
Provo	1252.6	169.3	1421.9	2.28	77	[2006, 2012]
Western Uintas	187.9	43.0	230.9	0.65	58	[2001, 2006]
Eastern Uintas	49.5	76.0	125.5	-1.2	36	[1981, 1988]
Blacks Fork	17.2	74.0	91.2	-0.79	40	[2006, 2022]
Smiths Fork	8.0	25.0	33.0	1.19	64	[1985, 1995]
Price	58.1	29.0	87.1	1.94	73	[1997, 1999]
Joes Valley	50.3	39.0	89.3	0.46	56	[1993, 2010]
Ferron Creek	9.9	26.0	35.9	-1.2	36	[2000, 2020]
Moab	2.0	3.3	5.3	1.1	63	[2007, 2017]
Upper Sevier	102.1	20.3	122.4	-0.09	49	[2000, 2001]
San Pitch	8.3	11.8	20.1	-0.46	44	[1993, 2023]
Lower Sevier	81.0	26.0	107.0	-2.87	16	[2003, 2016]
Beaver River	19.5	16.7	36.2	0.46	56	[1996, 2017]
Virgin River	39.1	35.0	74.1	-0.38	45	[1994, 2016]

¹ End of Month Reservoir Storage; ² KAF, Thousand Acre-Feet; ³ SWSI, Surface Water Supply Index; ⁴ Threshold for coloring: >75% Green, <25% Red

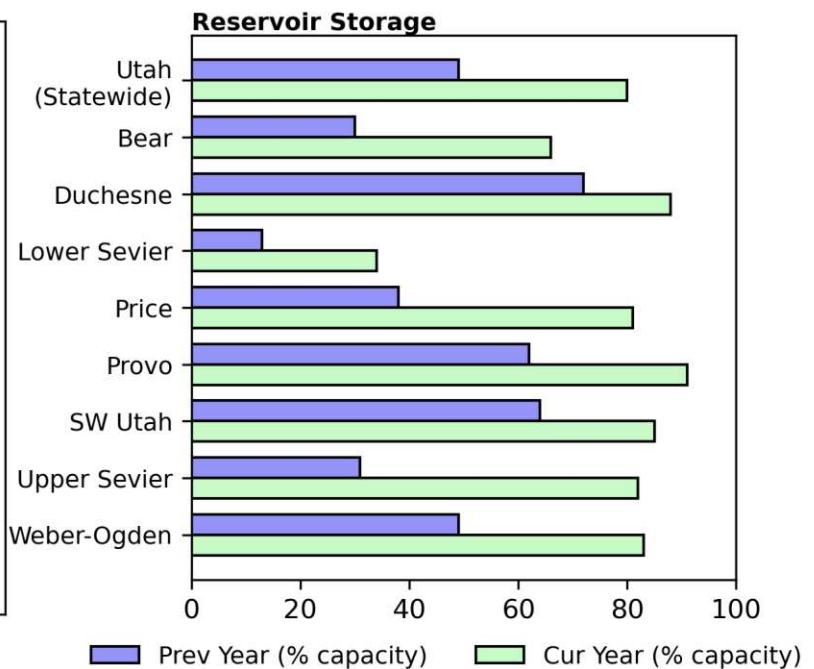
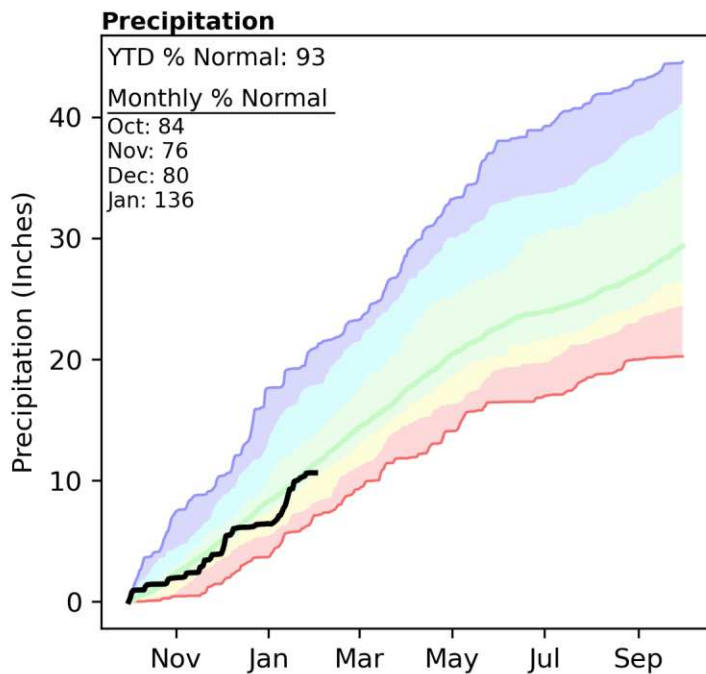
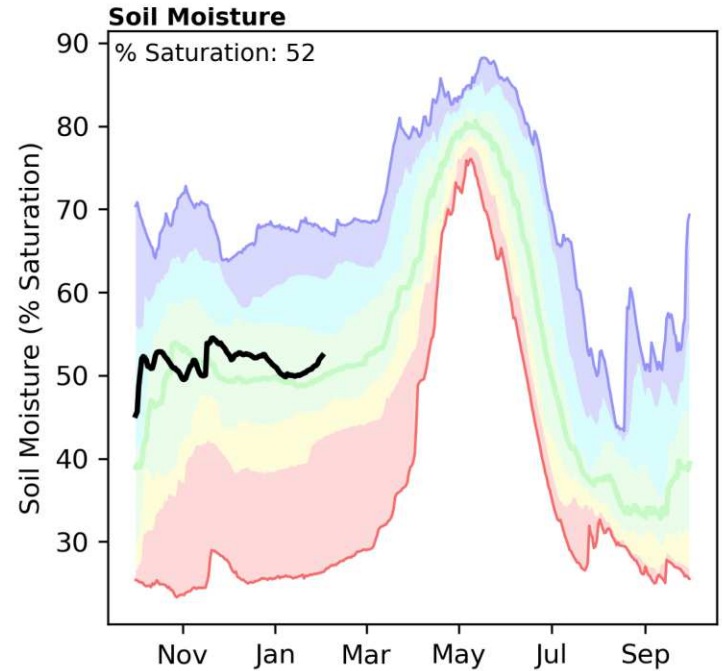
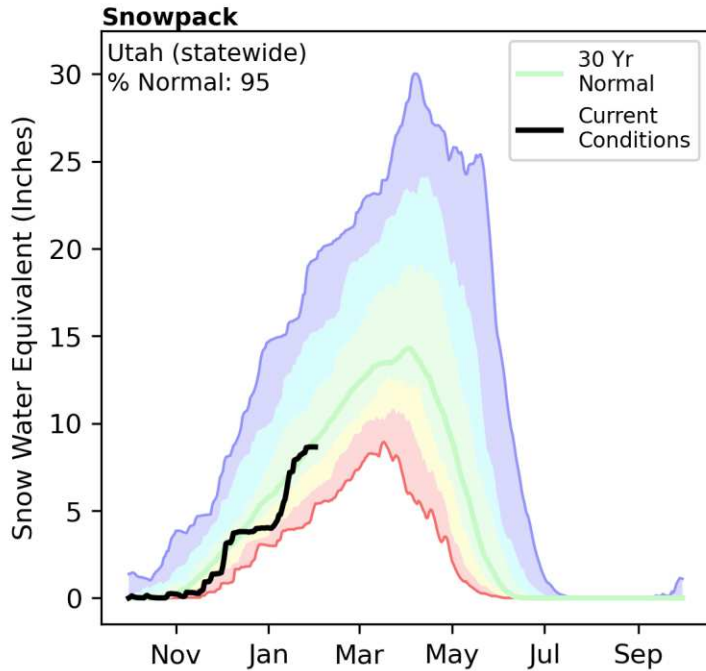
What is a Surface Water Supply Index?

The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index. See Appendix A for details on forecast points and reservoirs used in SWSI calculations.

The Utah Snow Survey has also chosen to display the SWSI value as well as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a cumbersome name, it has a simple application. It can be best thought of as a scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a SWSI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a SWSI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

Utah (statewide) | February 1, 2024

Snowpack in Utah (statewide) is about normal at 95% of median, compared to 171% at this time last year. Precipitation in January was well above normal at 136%, which brings the seasonal accumulation (October-January) to 93% of median. Soil moisture is at 52% saturation compared to 57% saturation last year. Statewide, reservoir storage is 80% of capacity, compared to 49% last year¹. Forecast streamflow volumes (50% exceedence, April-July) range from 72% to 170% of normal.

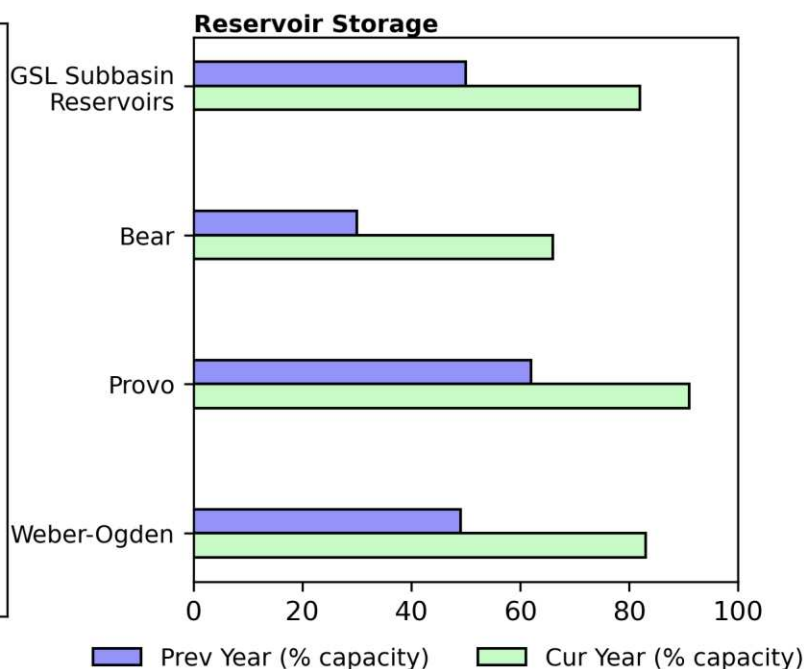
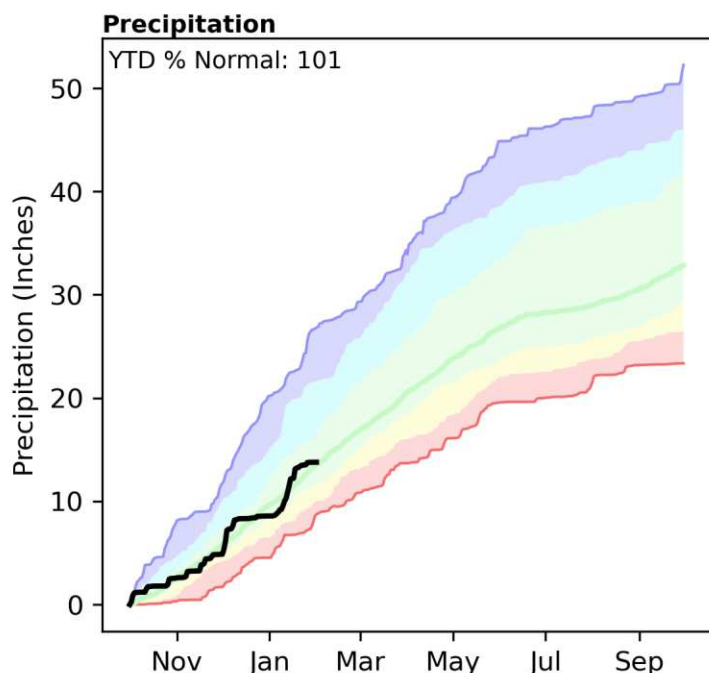
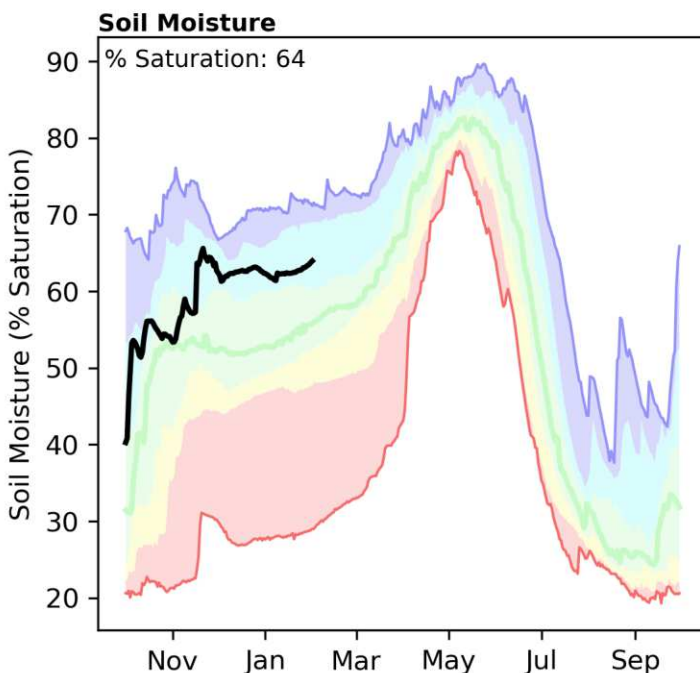
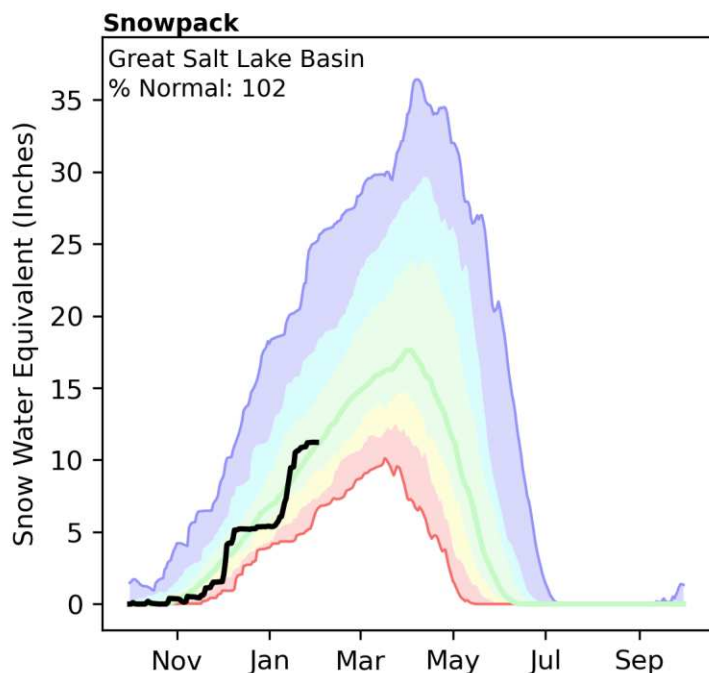


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

¹Statewide reservoir percentages exclude Lake Powell and Flaming Gorge Reservoirs.

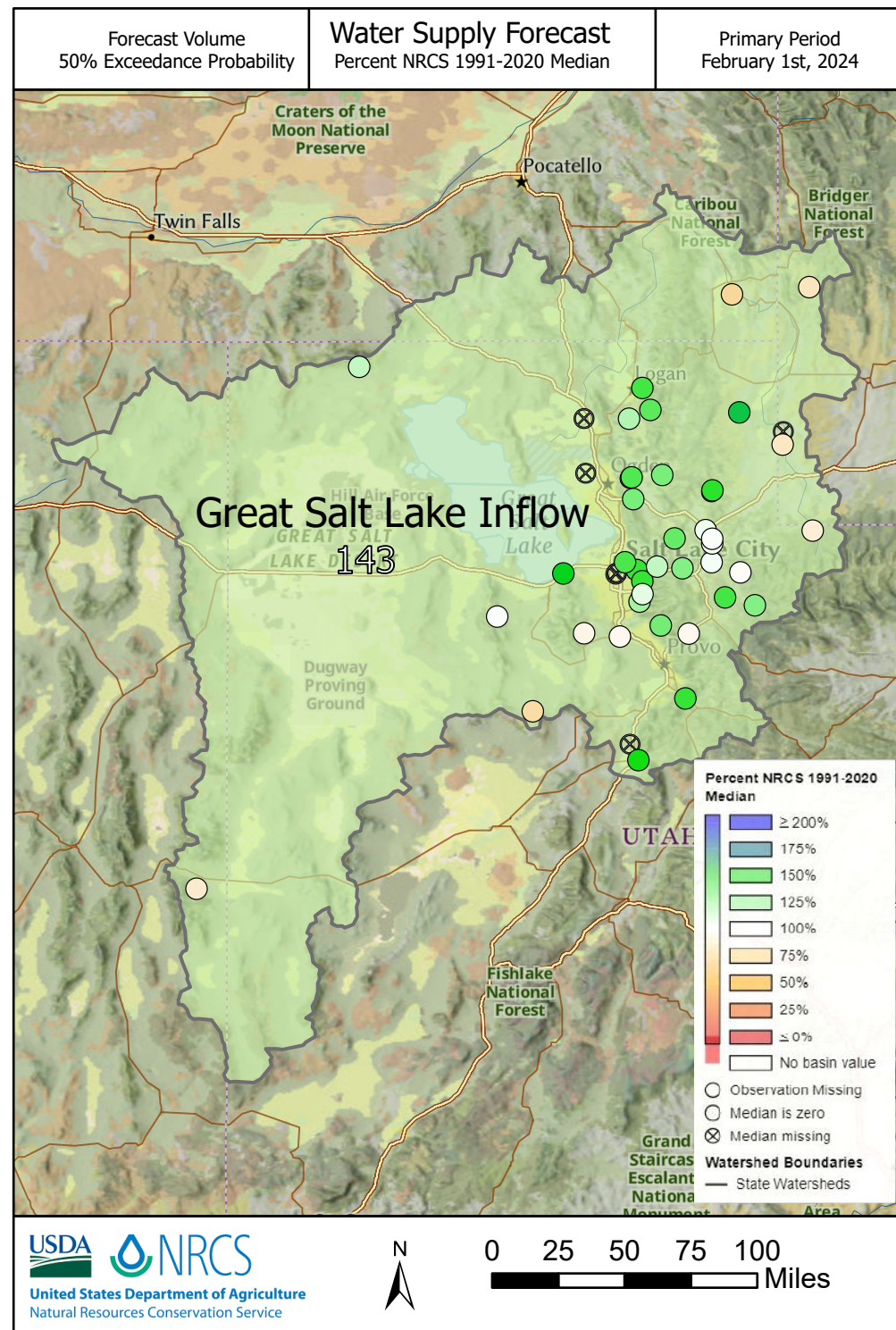
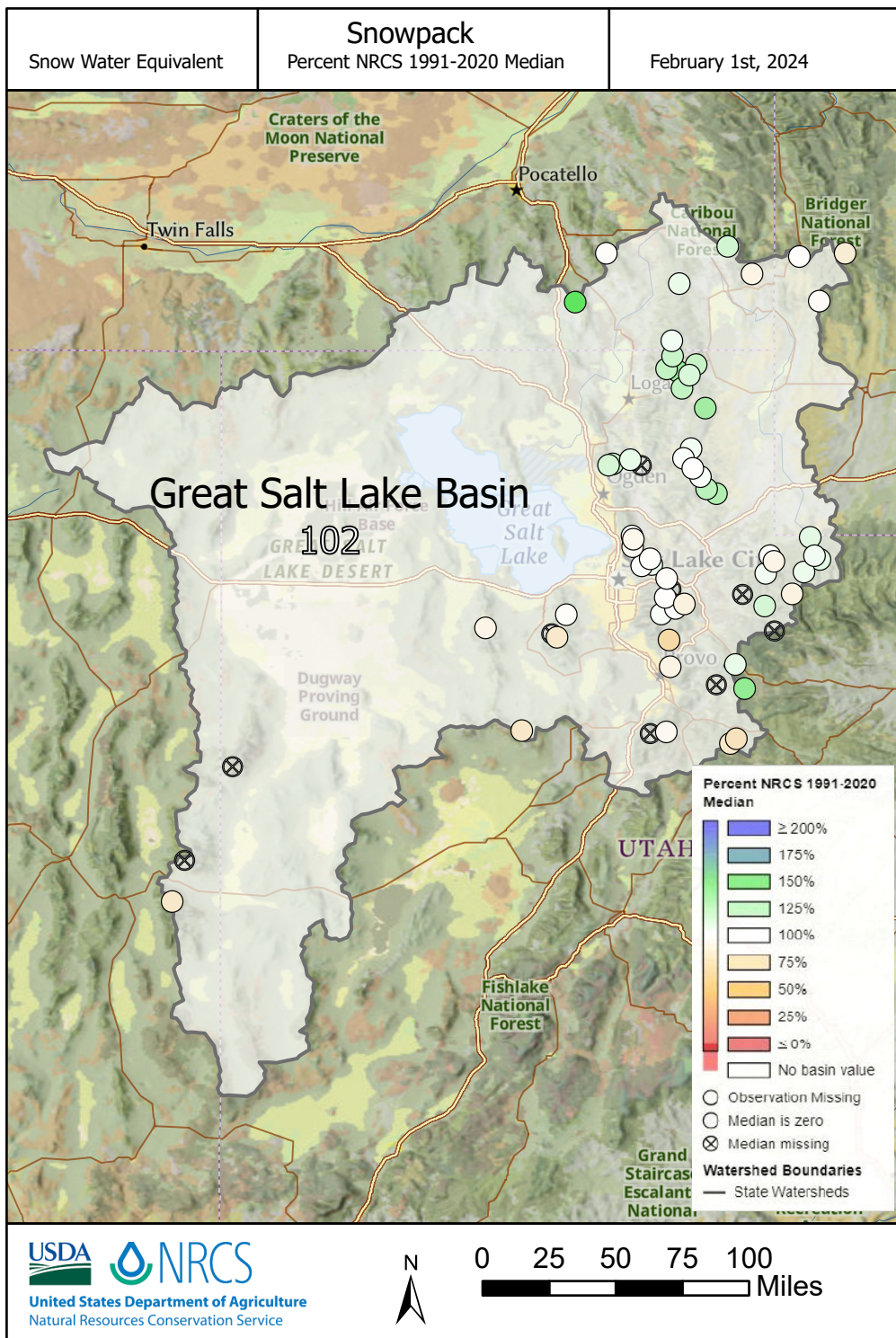
Great Salt Lake Basin | February 1, 2024

Snowpack in The Great Salt Lake (GSL) Basin¹ is about normal at 102% of median, compared to 167% at this time last year. Precipitation in January was well above normal at 130%, which brings the seasonal accumulation (October-January) to 101% of median. Soil moisture is at 64% saturation compared to 57% saturation last year. Reservoir storage in GSL subbasins is 82% of capacity, compared to 50% last year. The forecast inflow volume (50% exceedence, April-July) for the GSL is 645 thousand acre-feet (143% of median), resulting in a projected lake level (stage) increase of 1.2 feet.



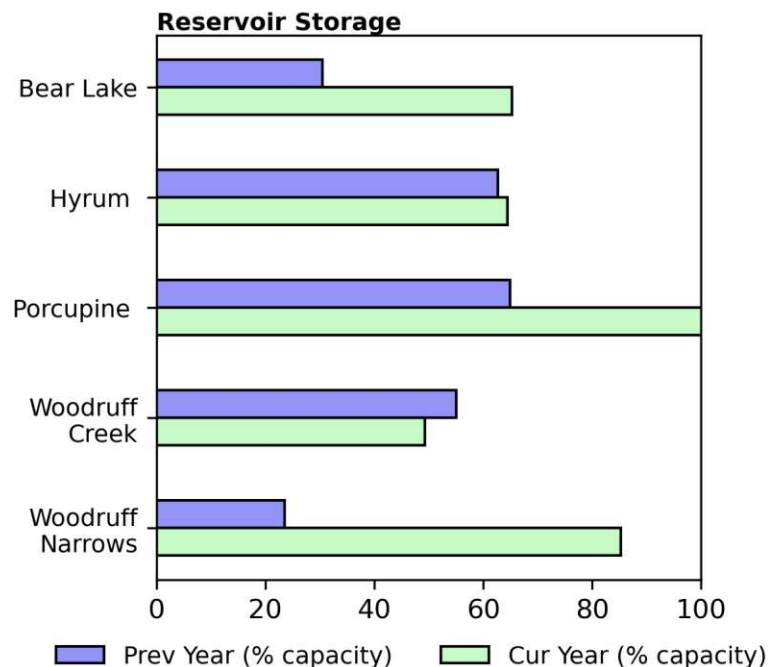
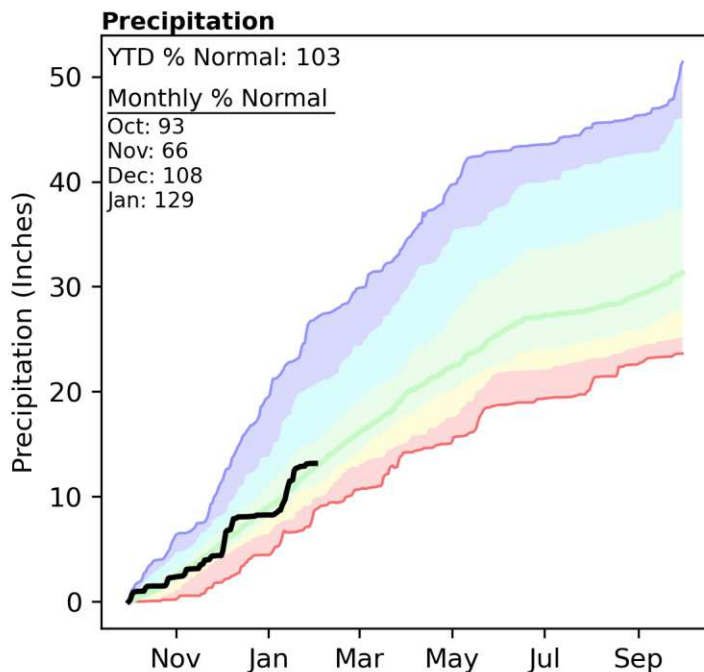
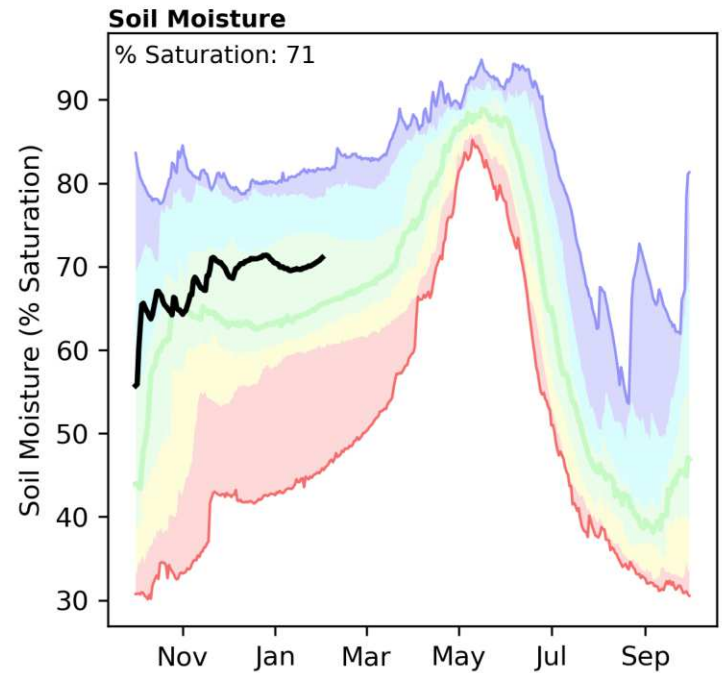
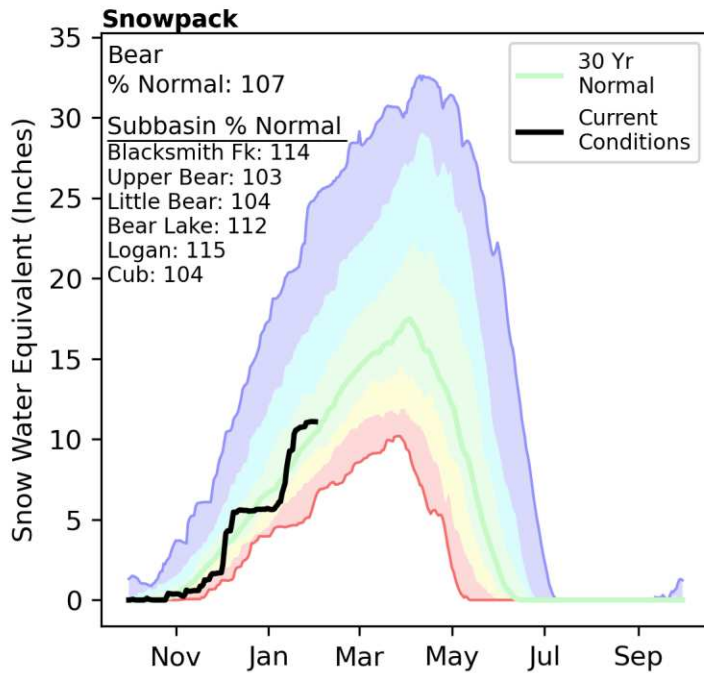
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

¹Comprised of the Weber, Provo, and Bear River Watersheds. Other subbasins for the Great Salt Lake do not substantively contribute to its seasonal rise.

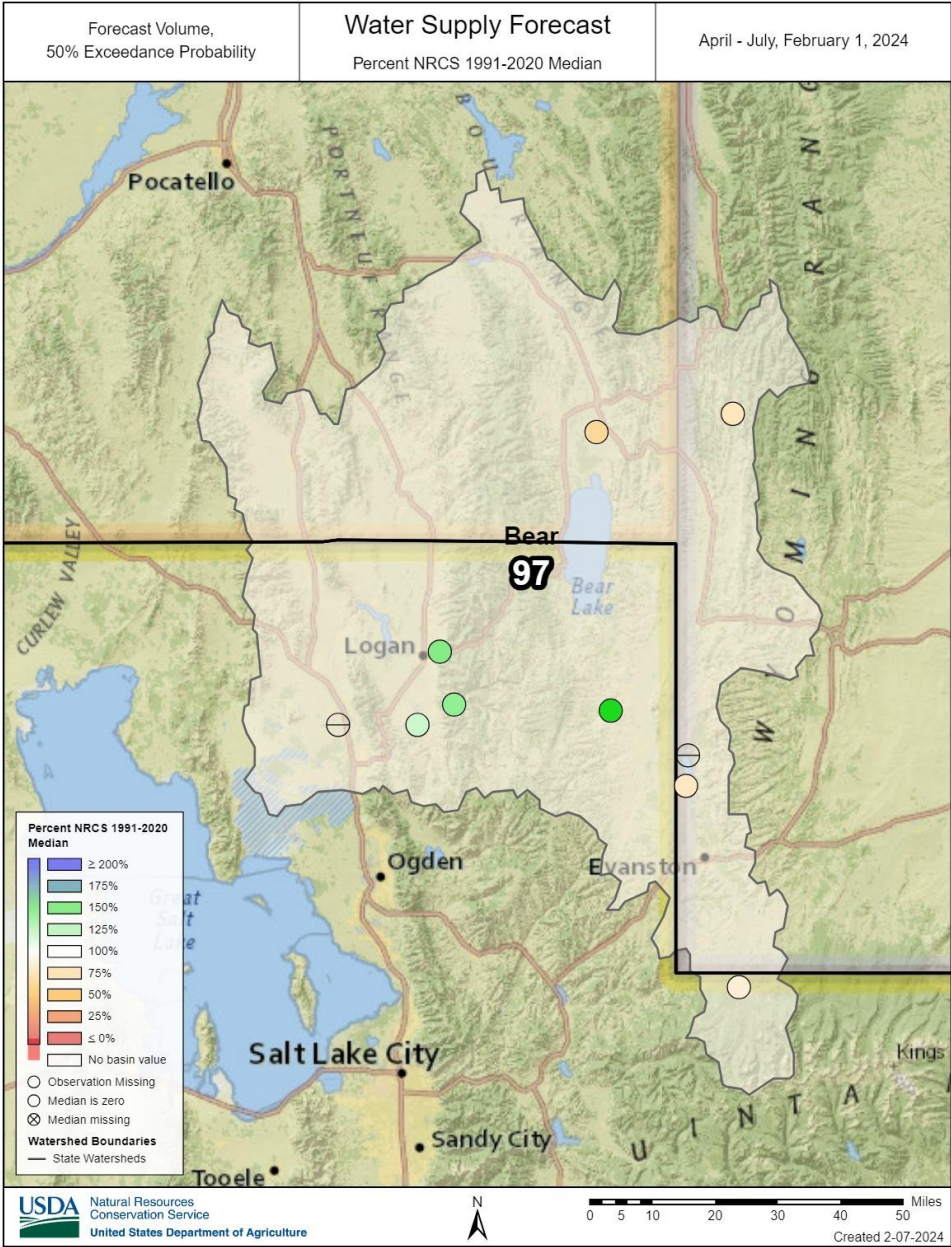
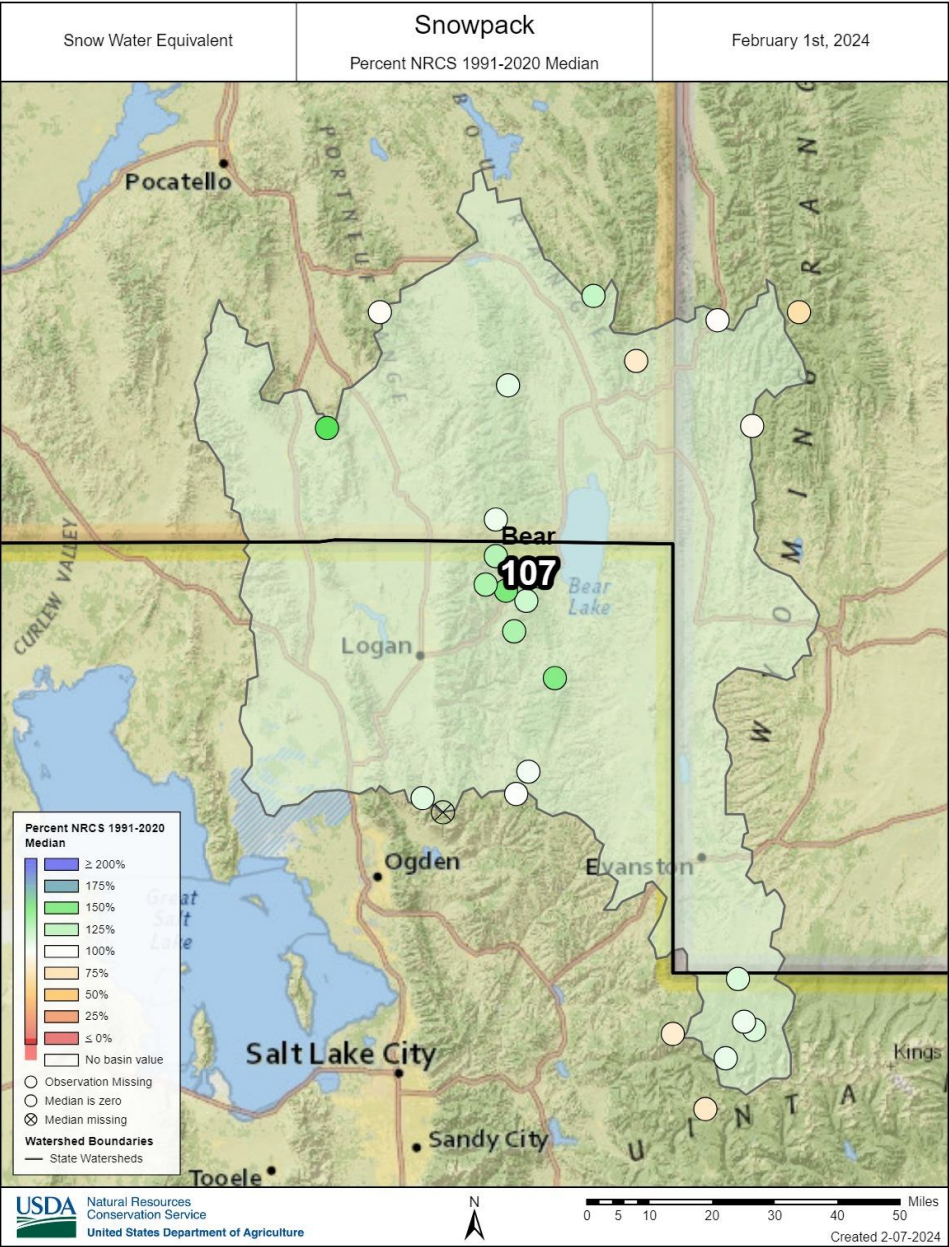


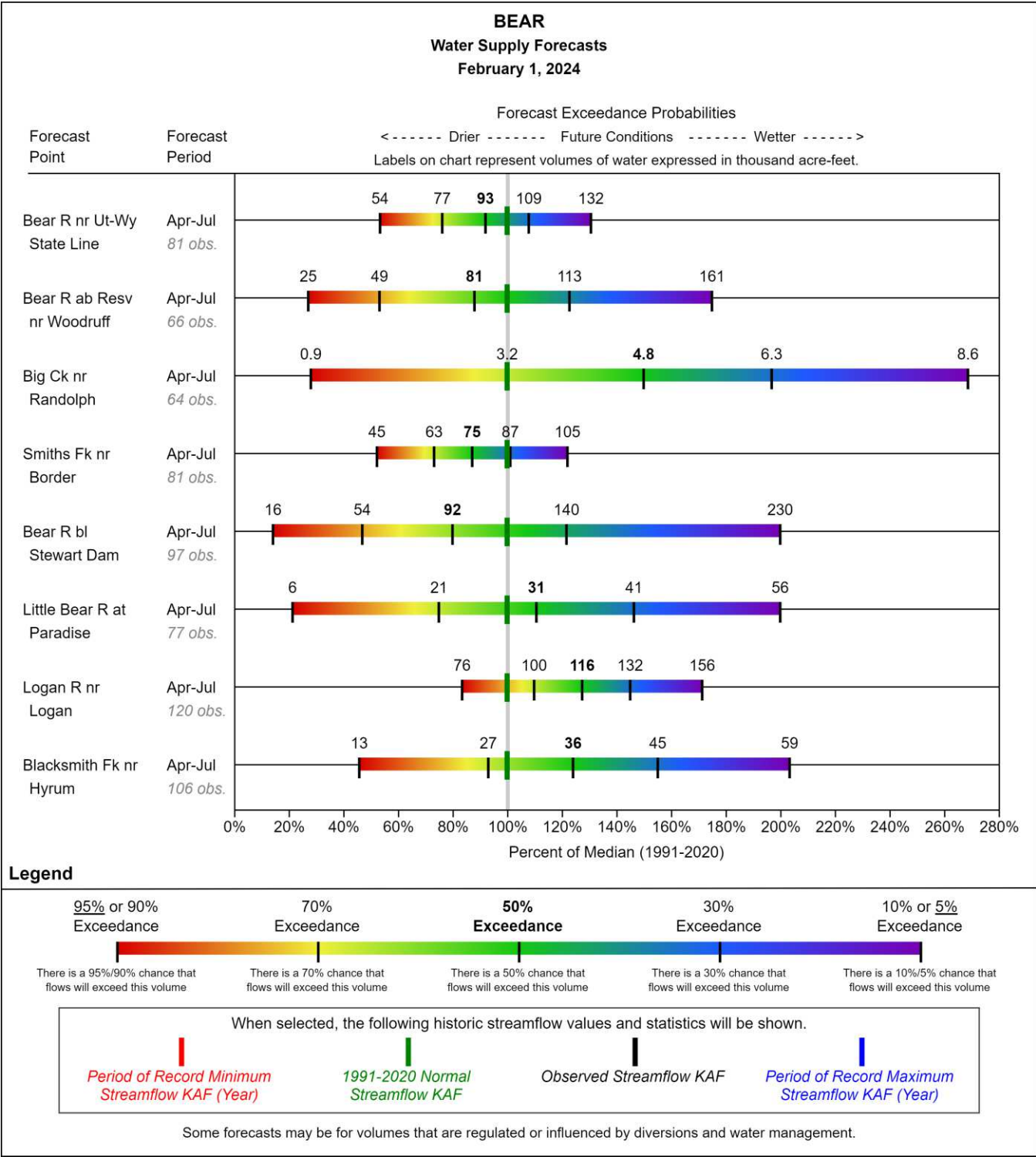


Snowpack in the Bear River Basin is about normal at 107% of median, compared to 151% at this time last year. Precipitation in January was above normal at 129%, which brings the seasonal accumulation (October-January) to 103% of median. Soil moisture is at 71% saturation compared to 65% saturation last year. Reservoir storage is 66% of capacity, compared to 30% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 80% to 150% of normal. The Surface Water Supply Index percentiles are 64% for the Bear, 55% for the Little Bear, and 55% for Woodruff Narrows.

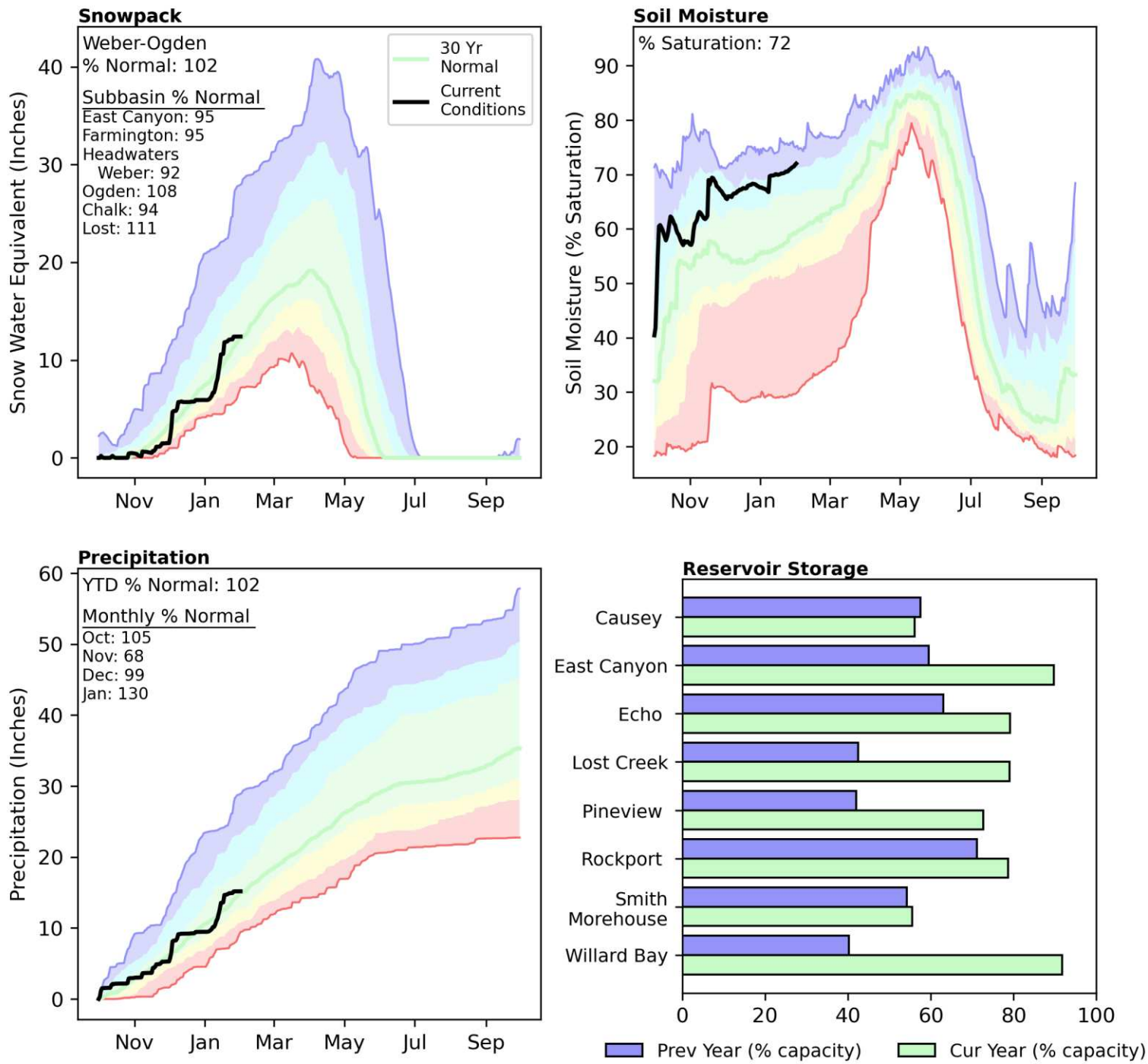


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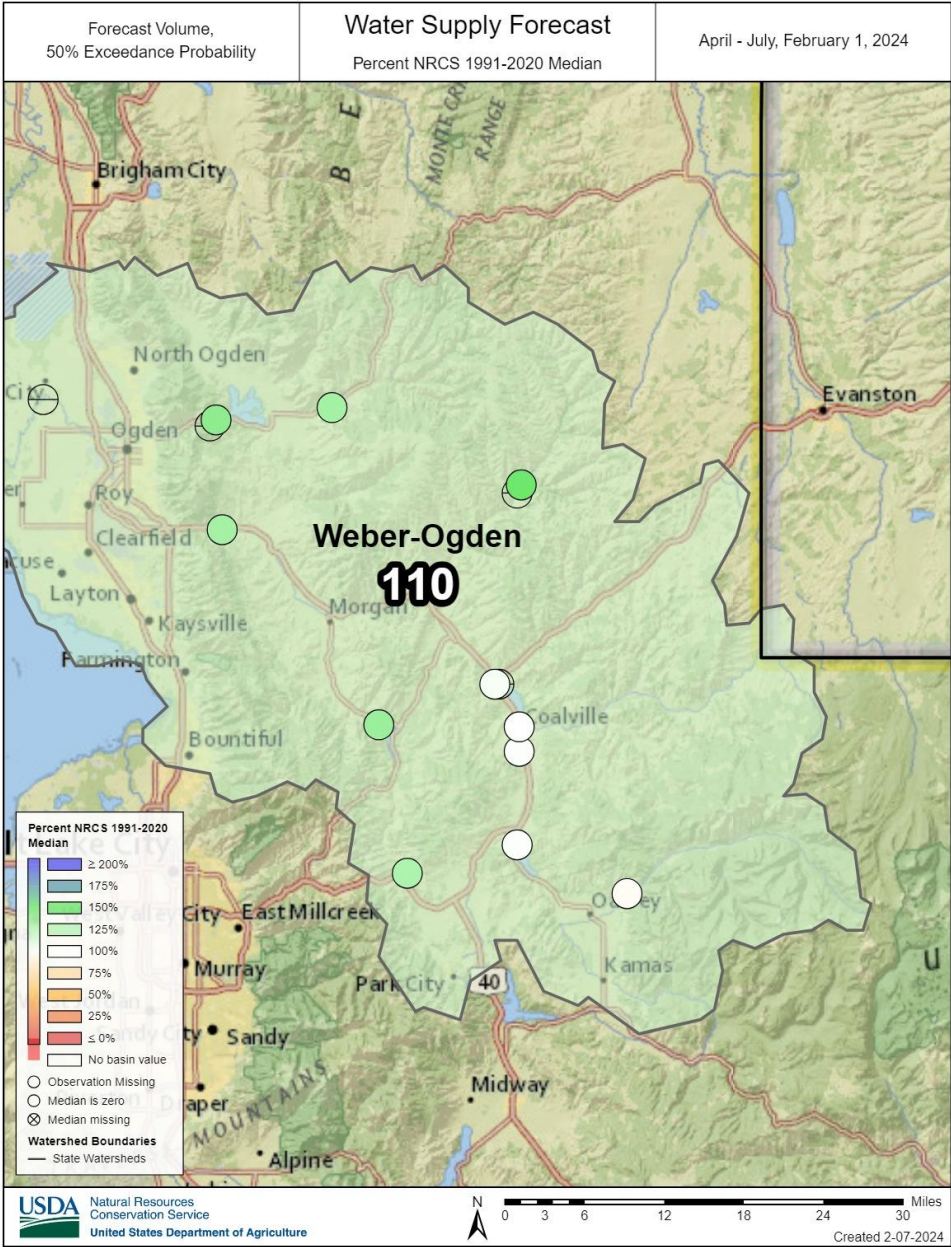
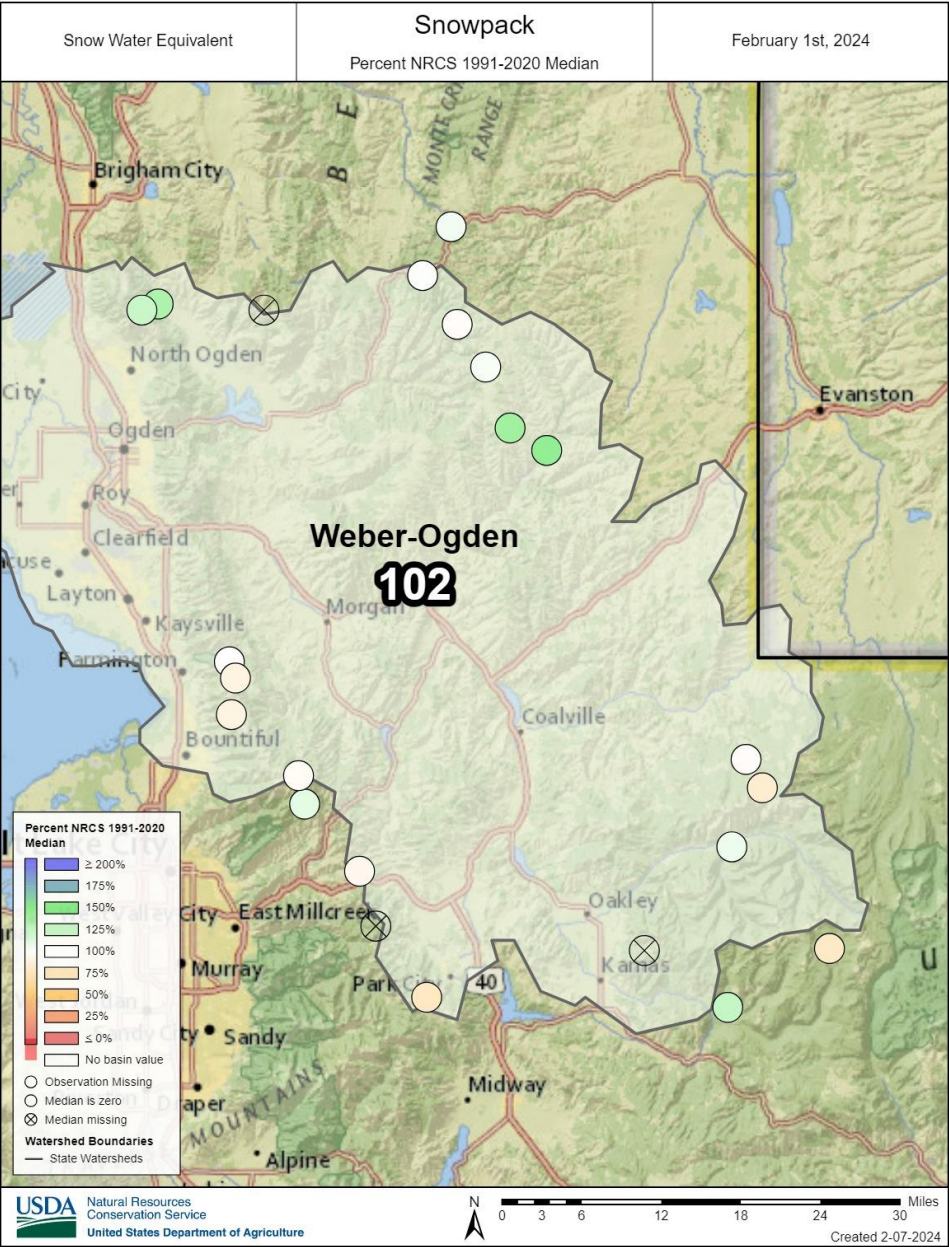


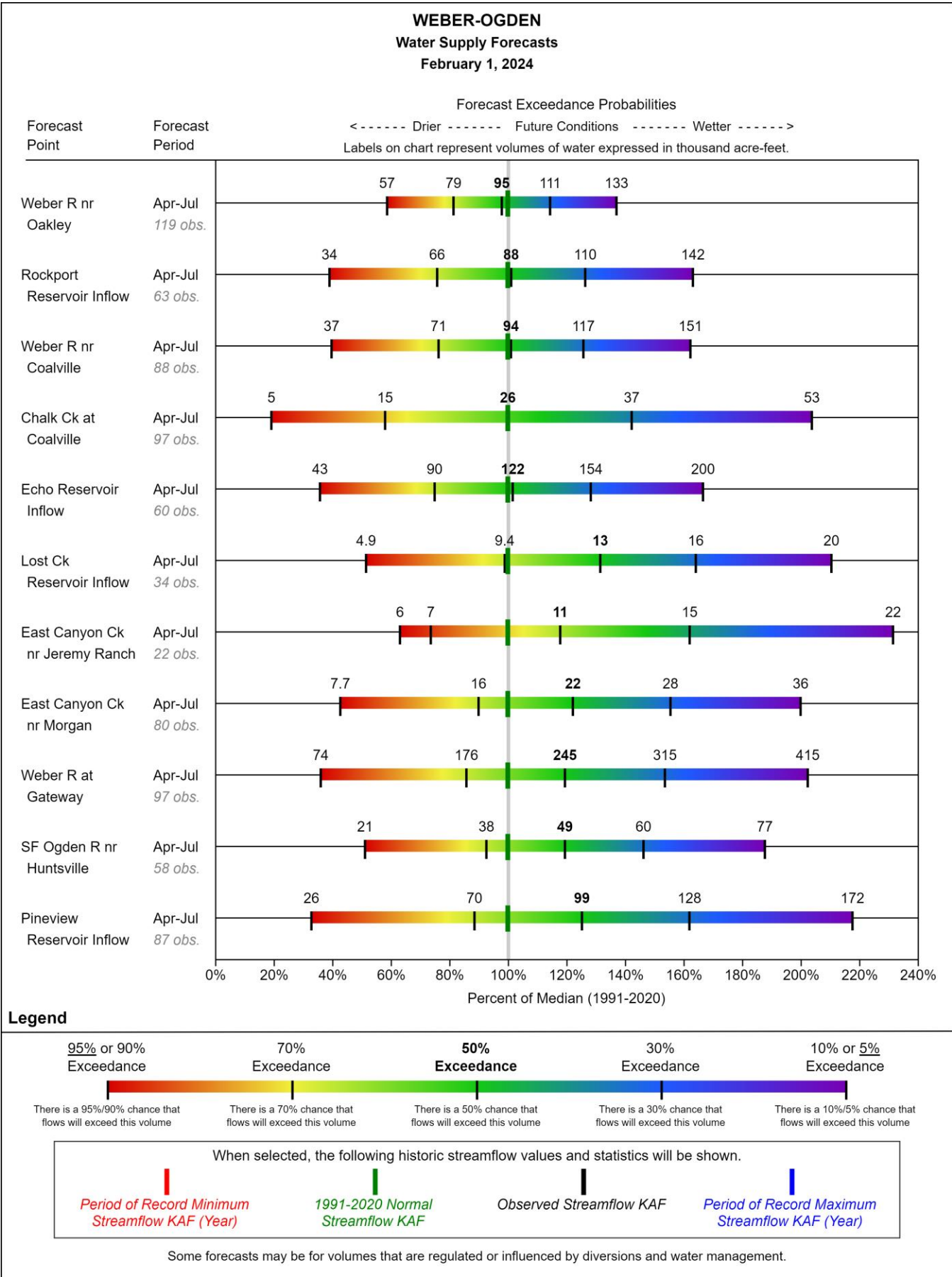
Snowpack in the Weber and Ogden River Basins is about normal at 102% of median, compared to 167% at this time last year. Precipitation in January was well above normal at 130%, which brings the seasonal accumulation (October-January) to 102% of median. Soil moisture is at 72% saturation compared to 62% saturation last year. Reservoir storage is 83% of capacity, compared to 49% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 98% to 132% of normal. The Surface Water Supply Index percentiles are 60% for the Weber, and 58% for the Ogden.



Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
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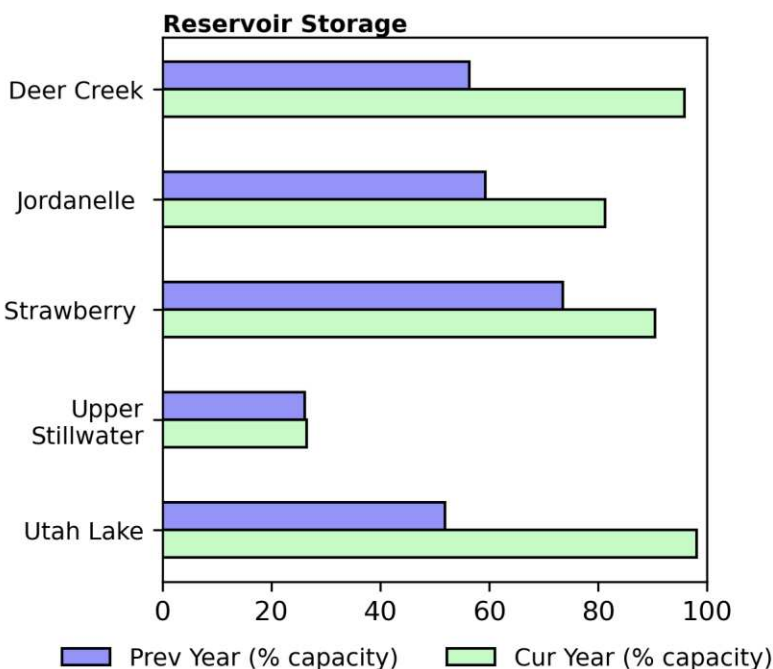
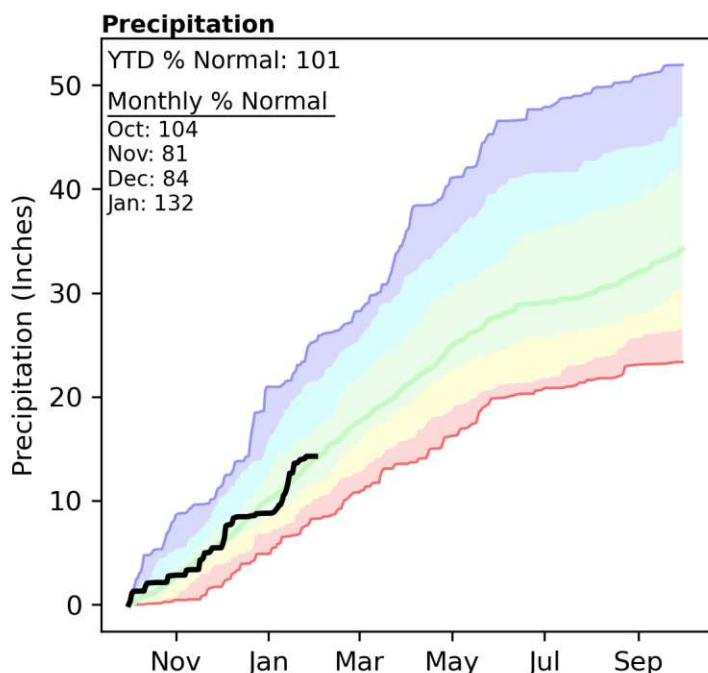
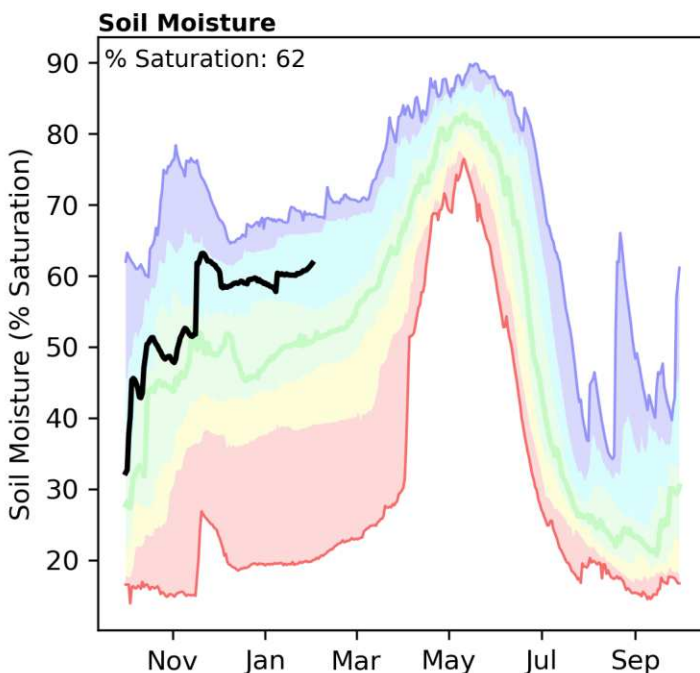
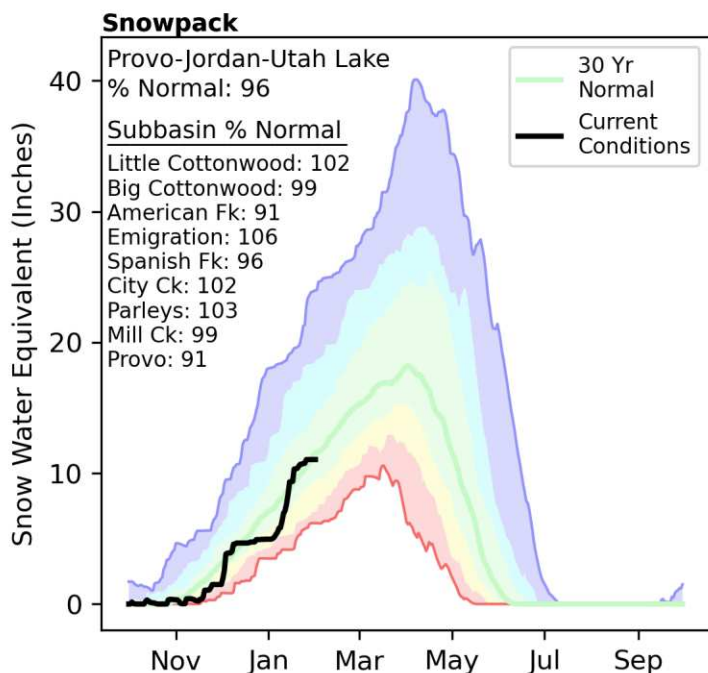
Weber-Ogden





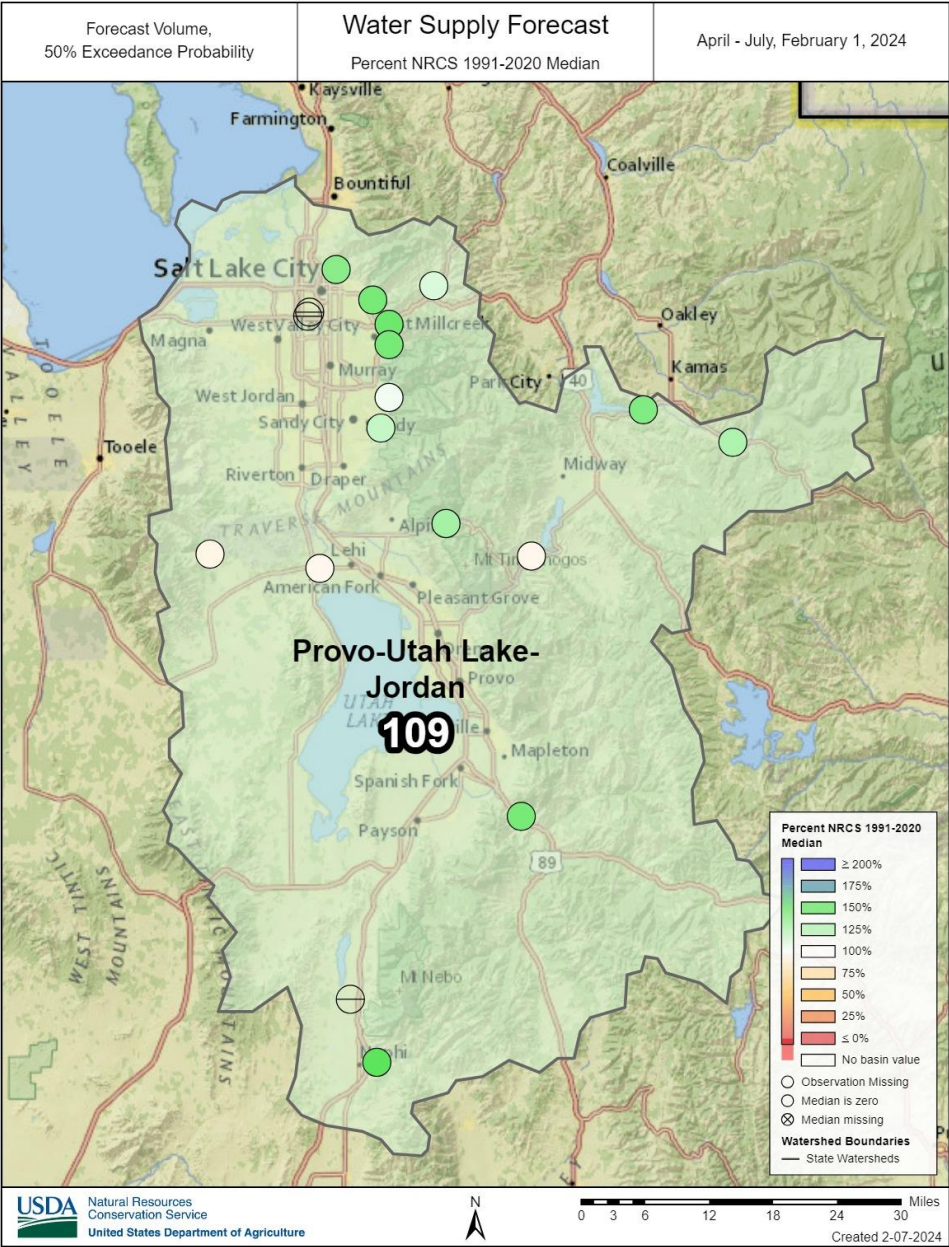
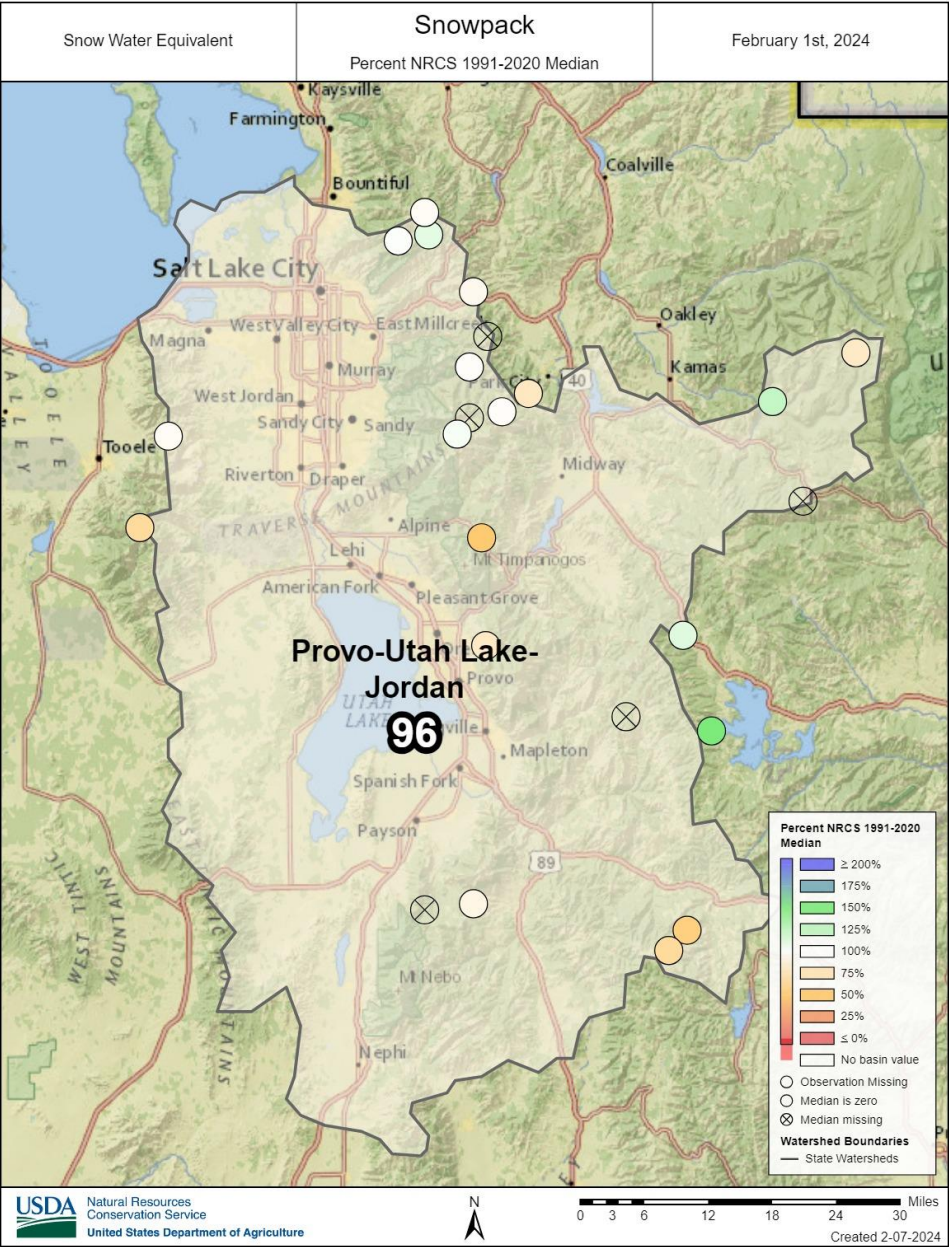
Provo-Jordan-Utah Lake | February 1, 2024

Snowpack in the Provo and Jordan River Basins is about normal at 96% of median, compared to 182% at this time last year. Precipitation in January was well above normal at 132%, which brings the seasonal accumulation (October-January) to 101% of median. Soil moisture is at 62% saturation compared to 54% saturation last year. Reservoir storage is 91% of capacity, compared to 62% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 95% to 136% of normal. The Surface Water Supply Index percentile is 77% for the Provo.

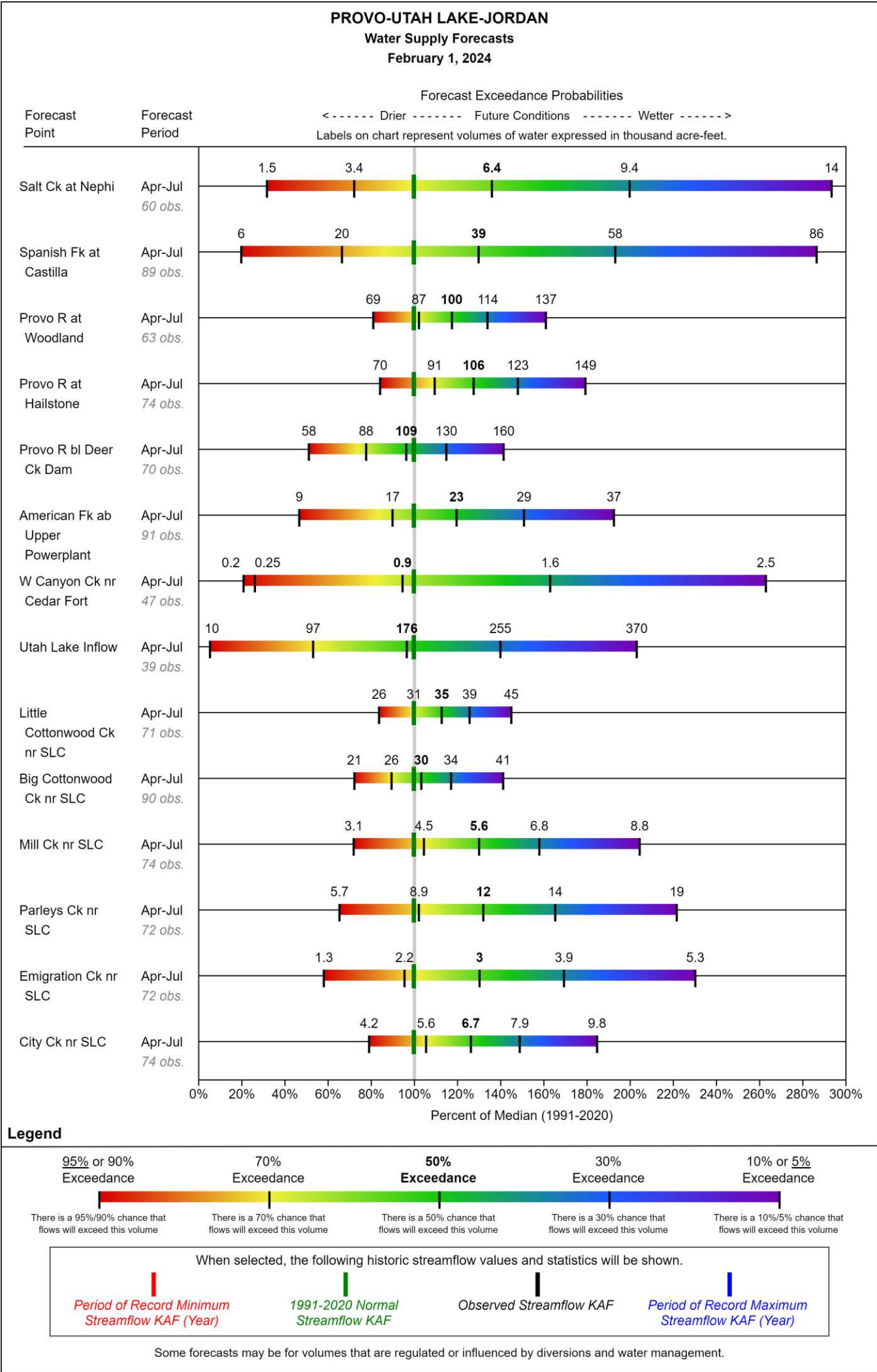


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Provo-Utah Lake-Jordan

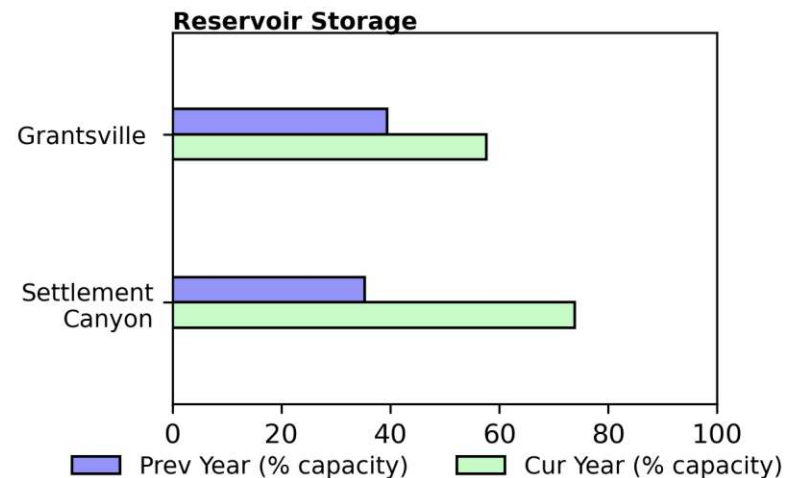
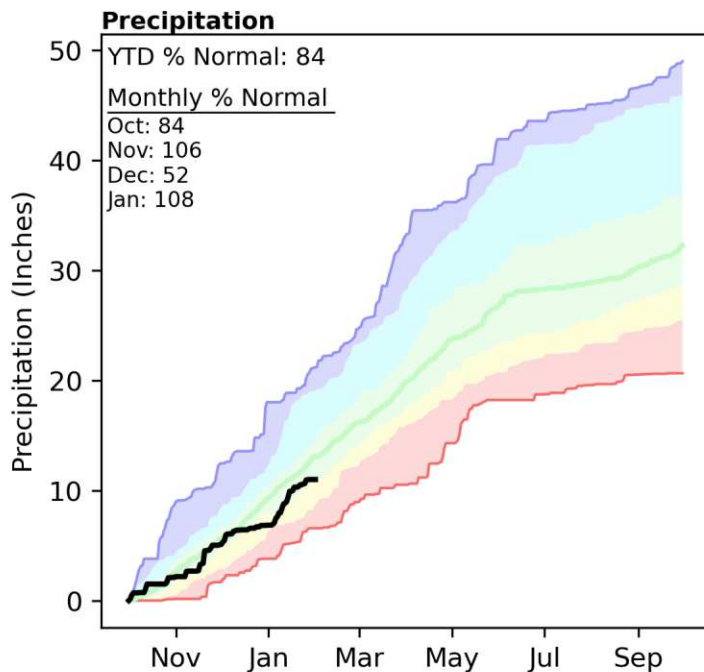
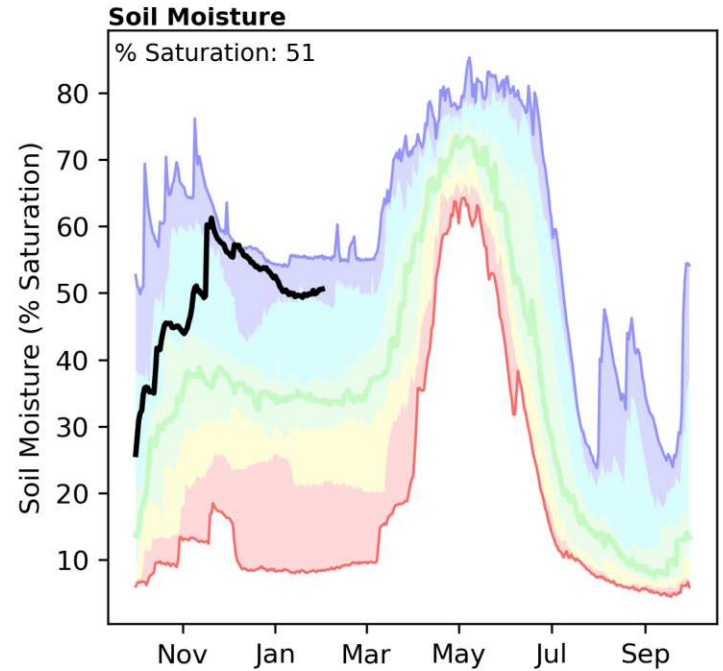
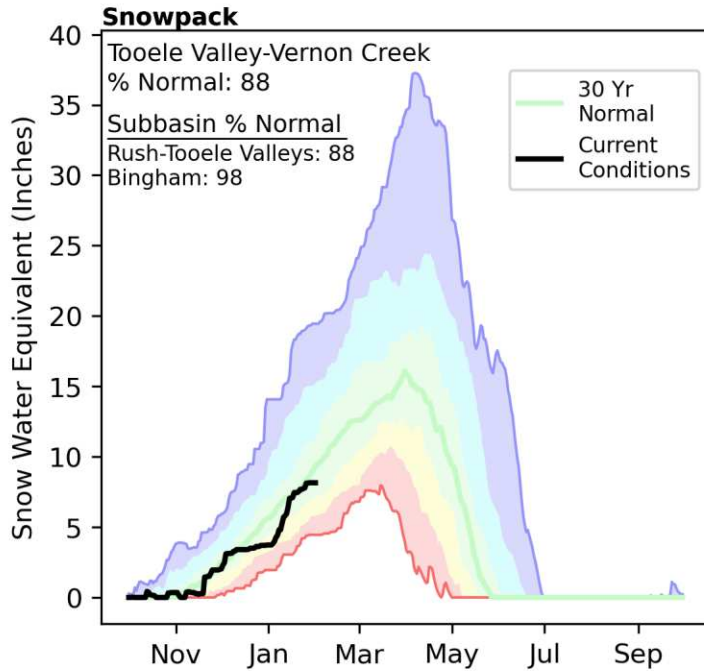


Provo-Utah Lake-Jordan



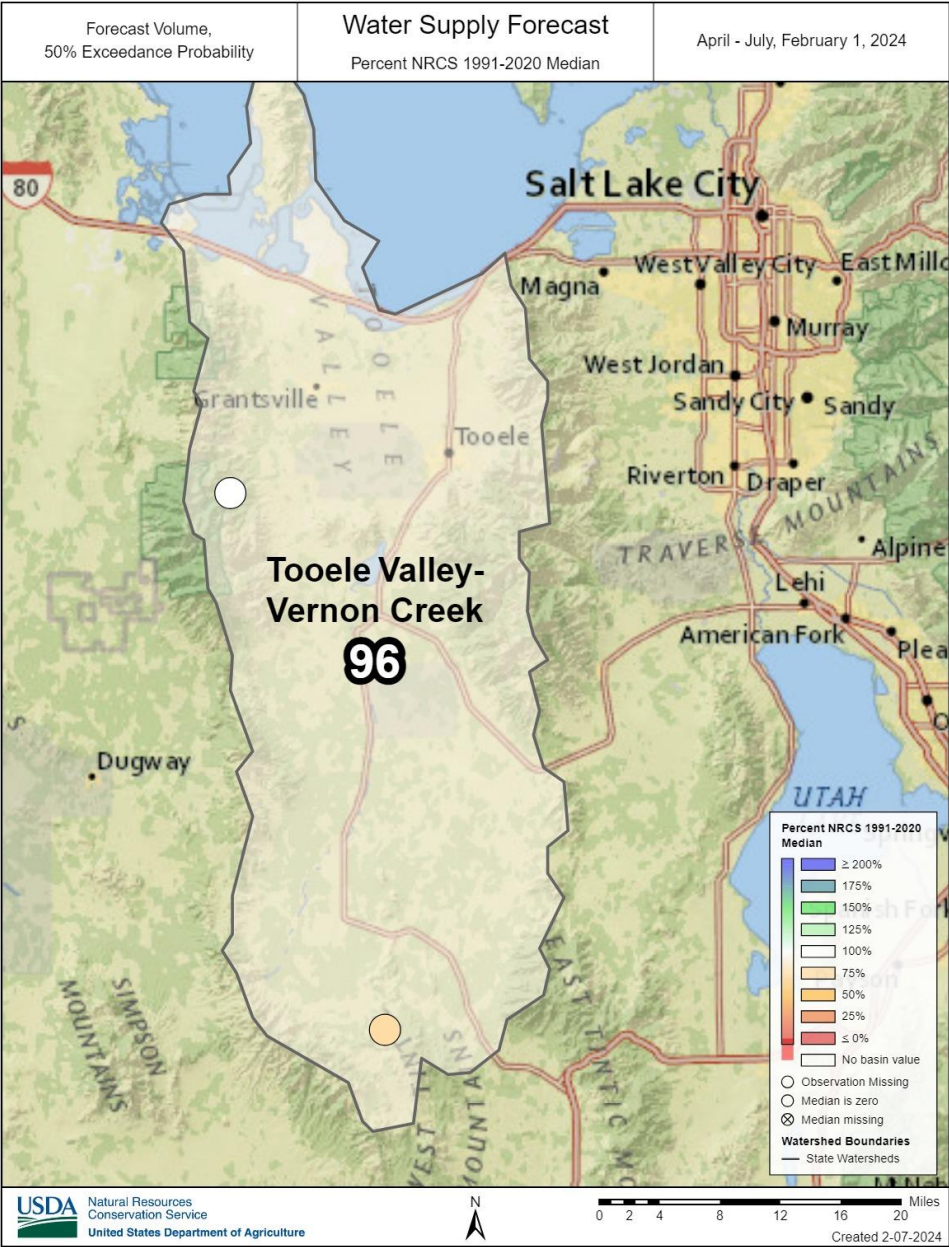
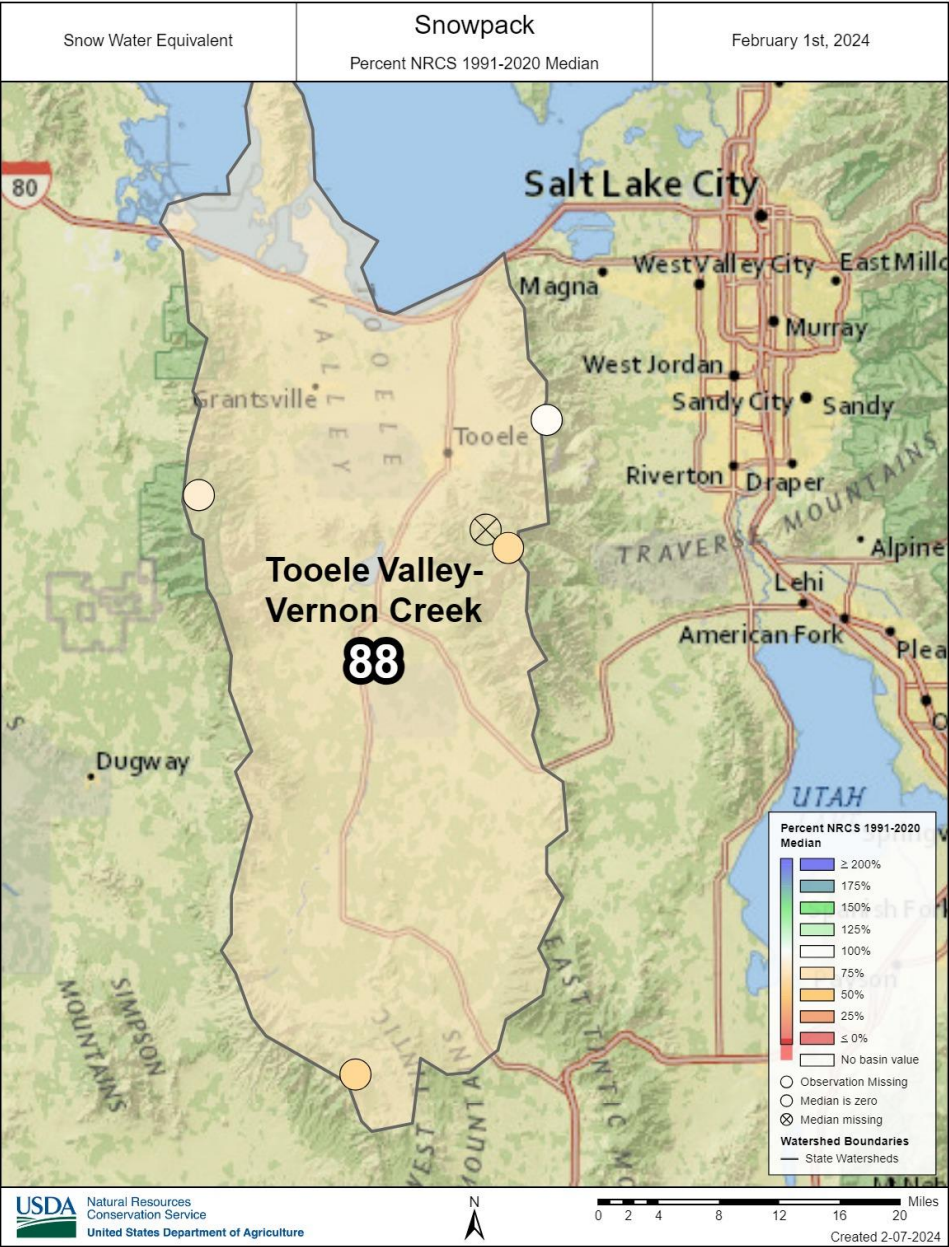
Tooele Valley-Vernon Creek | February 1, 2024

Snowpack in the Tooele Valley and West Desert Region is below normal at 88% of median, compared to 209% at this time last year. Precipitation in January was about normal at 108%, which brings the seasonal accumulation (October-January) to 84% of median. Soil moisture is at 51% saturation compared to 31% saturation last year. Reservoir storage is 61% of capacity, compared to 38% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 82% to 108% of normal.

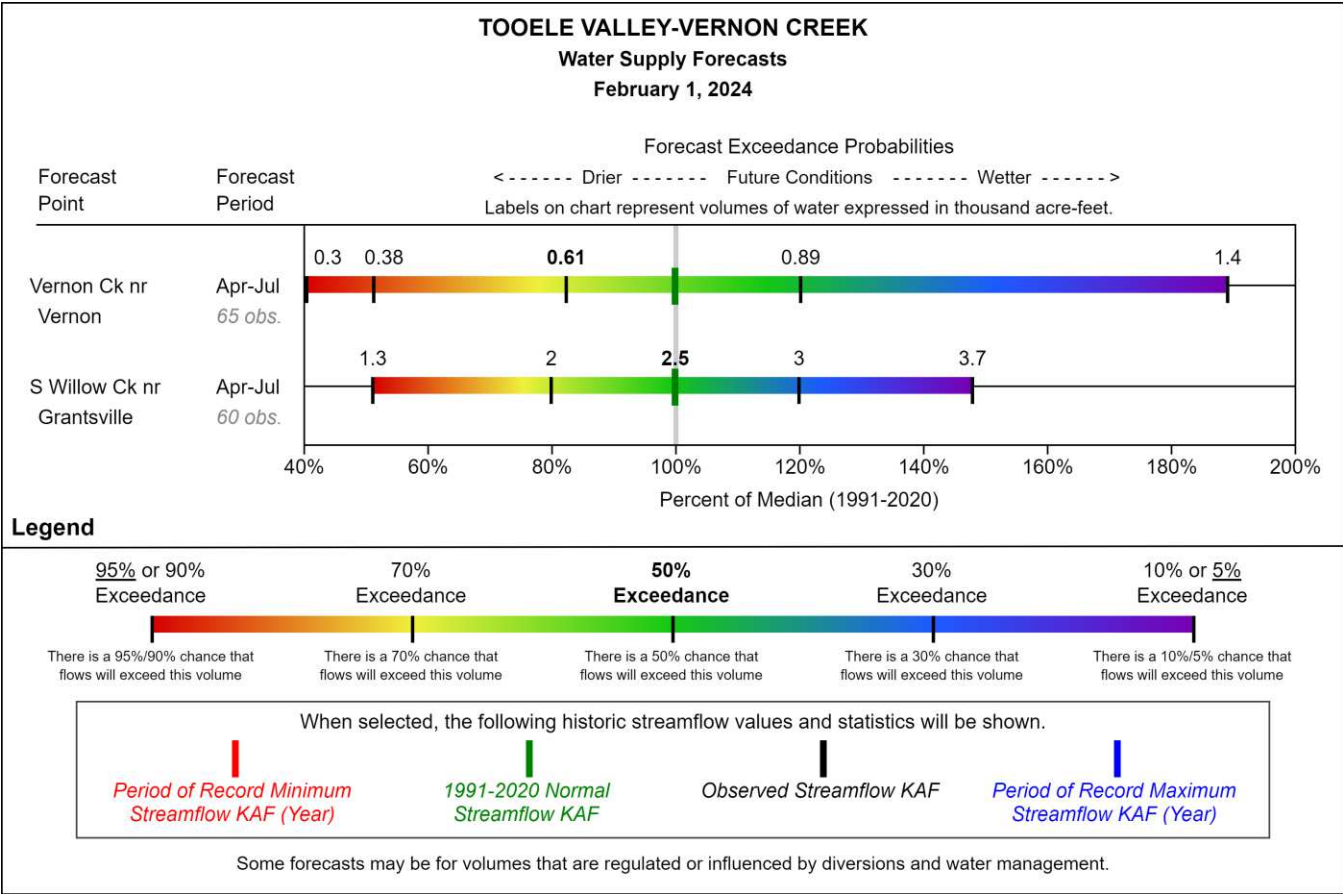


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Tooele Valley-Vernon Creek

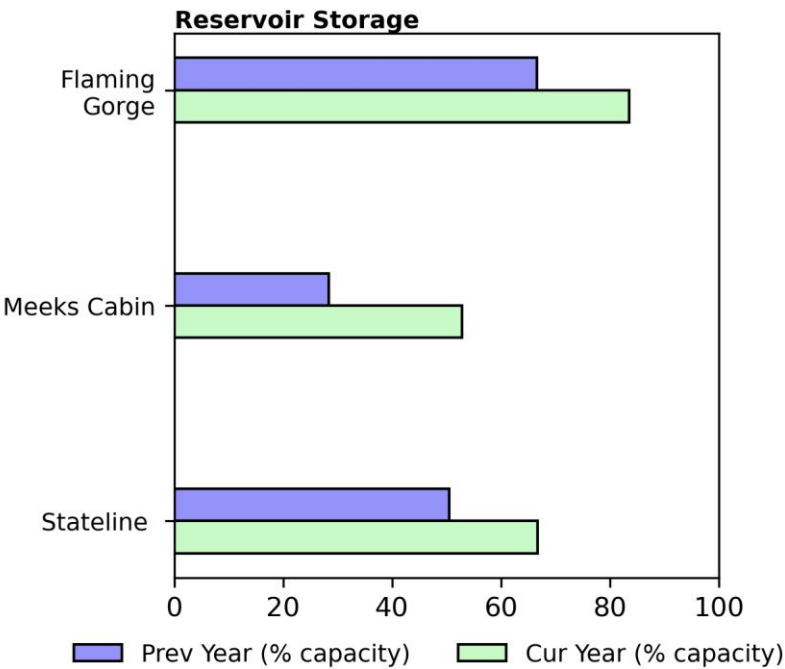
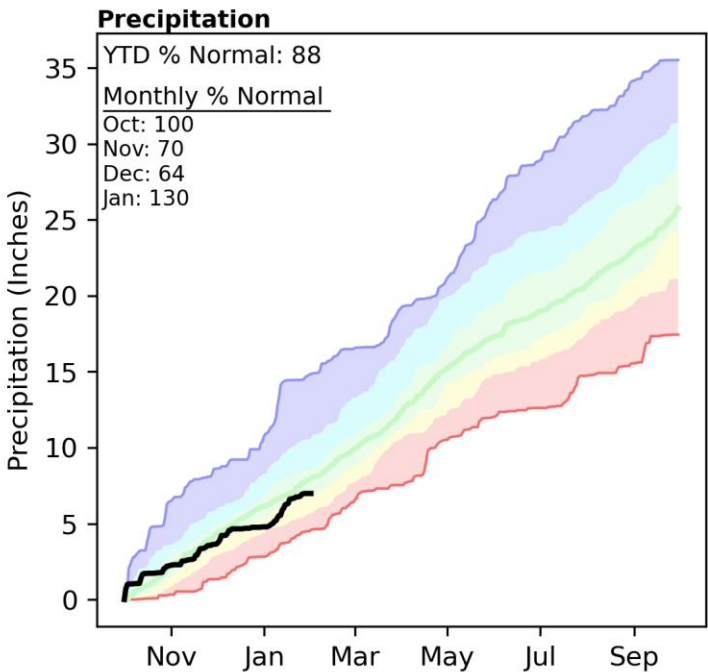
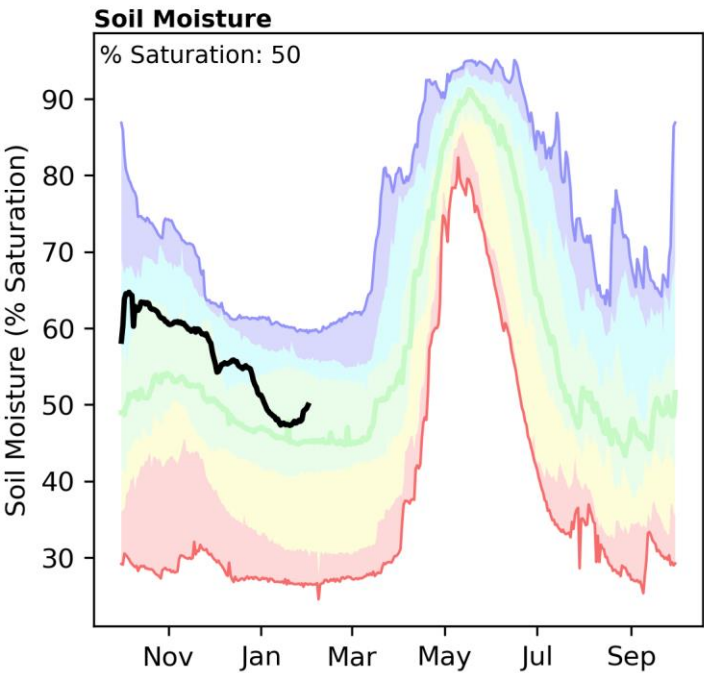
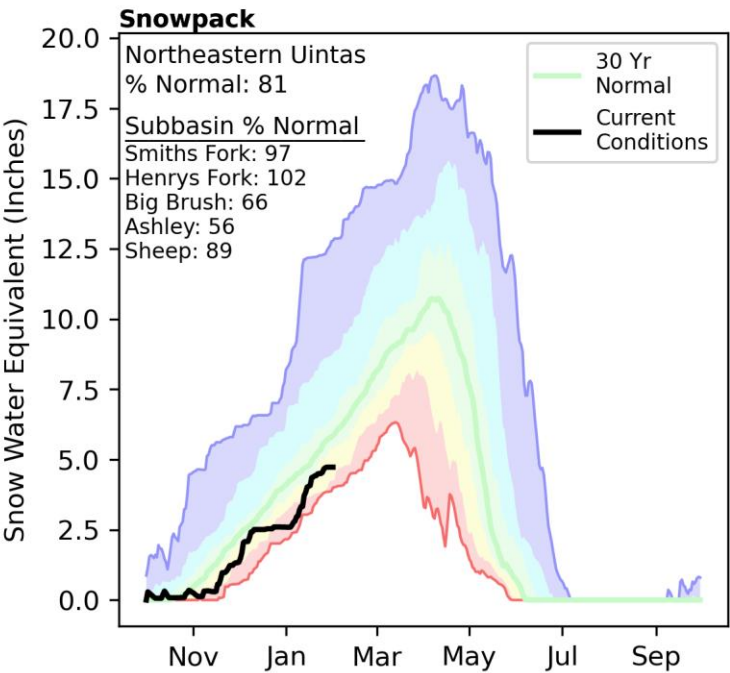


Tooele Valley-Vernon Creek



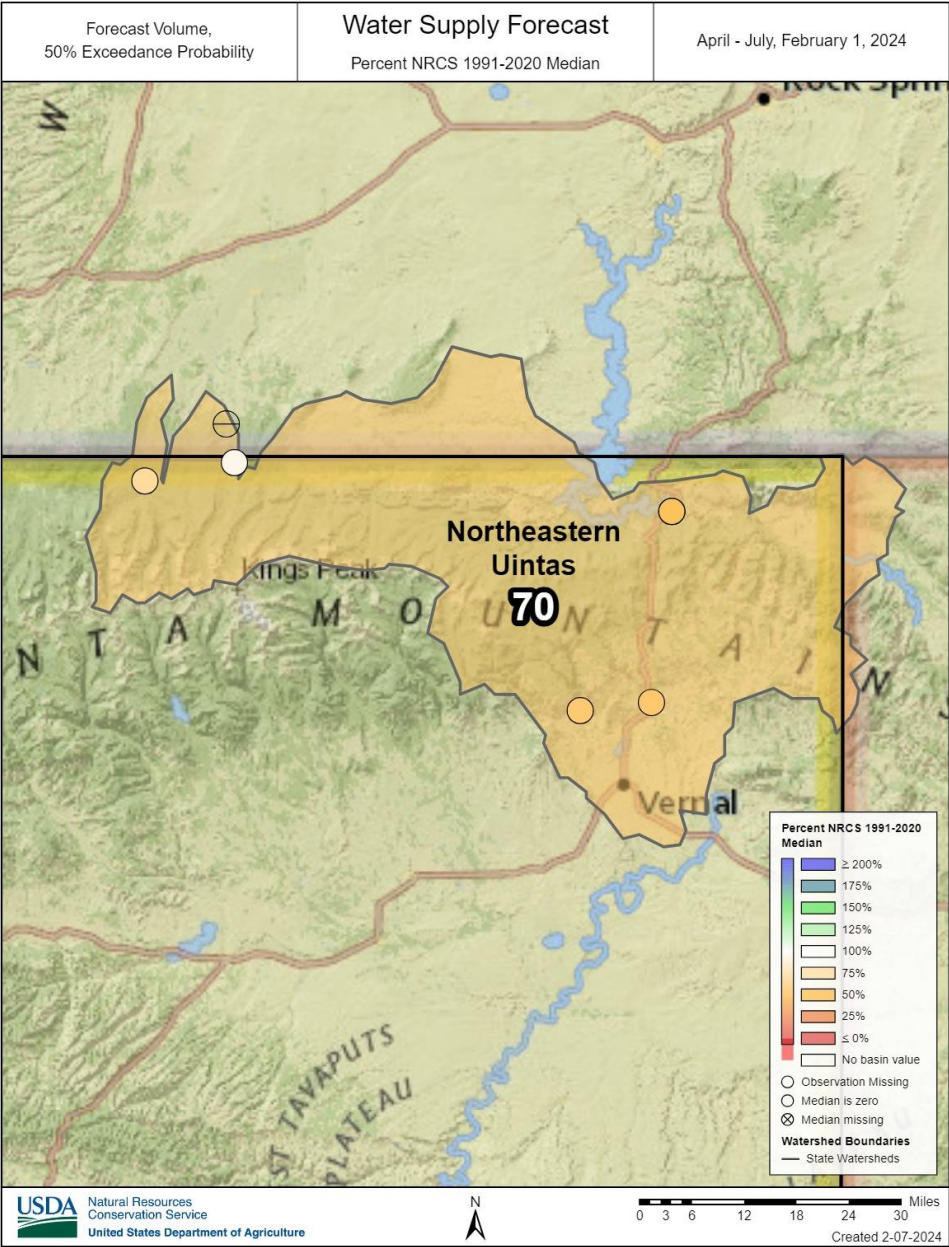
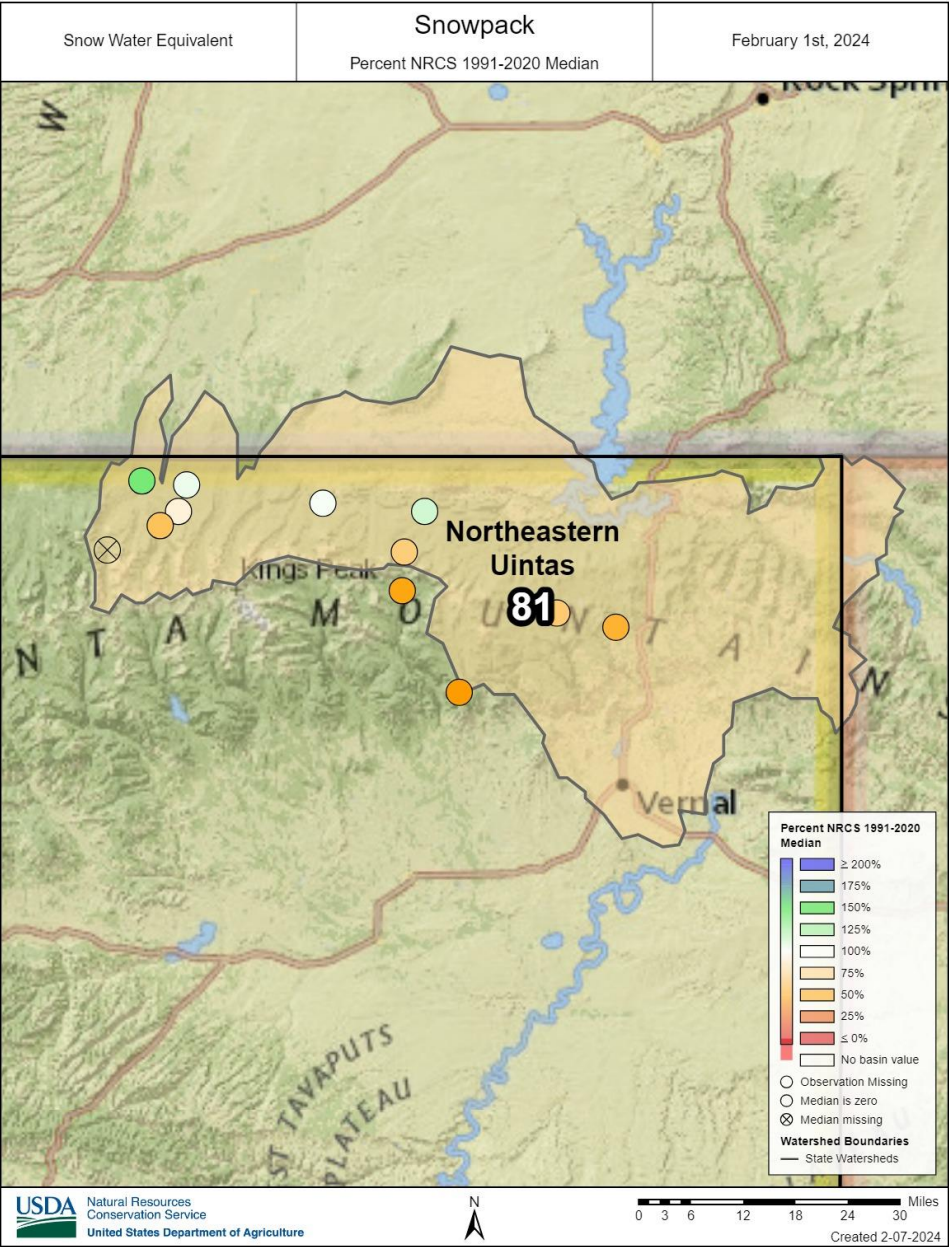
Northeastern Uintas | February 1, 2024

Snowpack in the Northeastern Uintas is below normal at 81% of median, compared to 171% at this time last year. Precipitation in January was well above normal at 130%, which brings the seasonal accumulation (October-January) to 88% of median. Soil moisture is at 50% saturation compared to 55% saturation last year. Reservoir storage is 83% of capacity, compared to 66% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 68% to 96% of normal. The Surface Water Supply Index percentiles are 40% for the Blacks Fork, and 64% for the Smiths Fork.

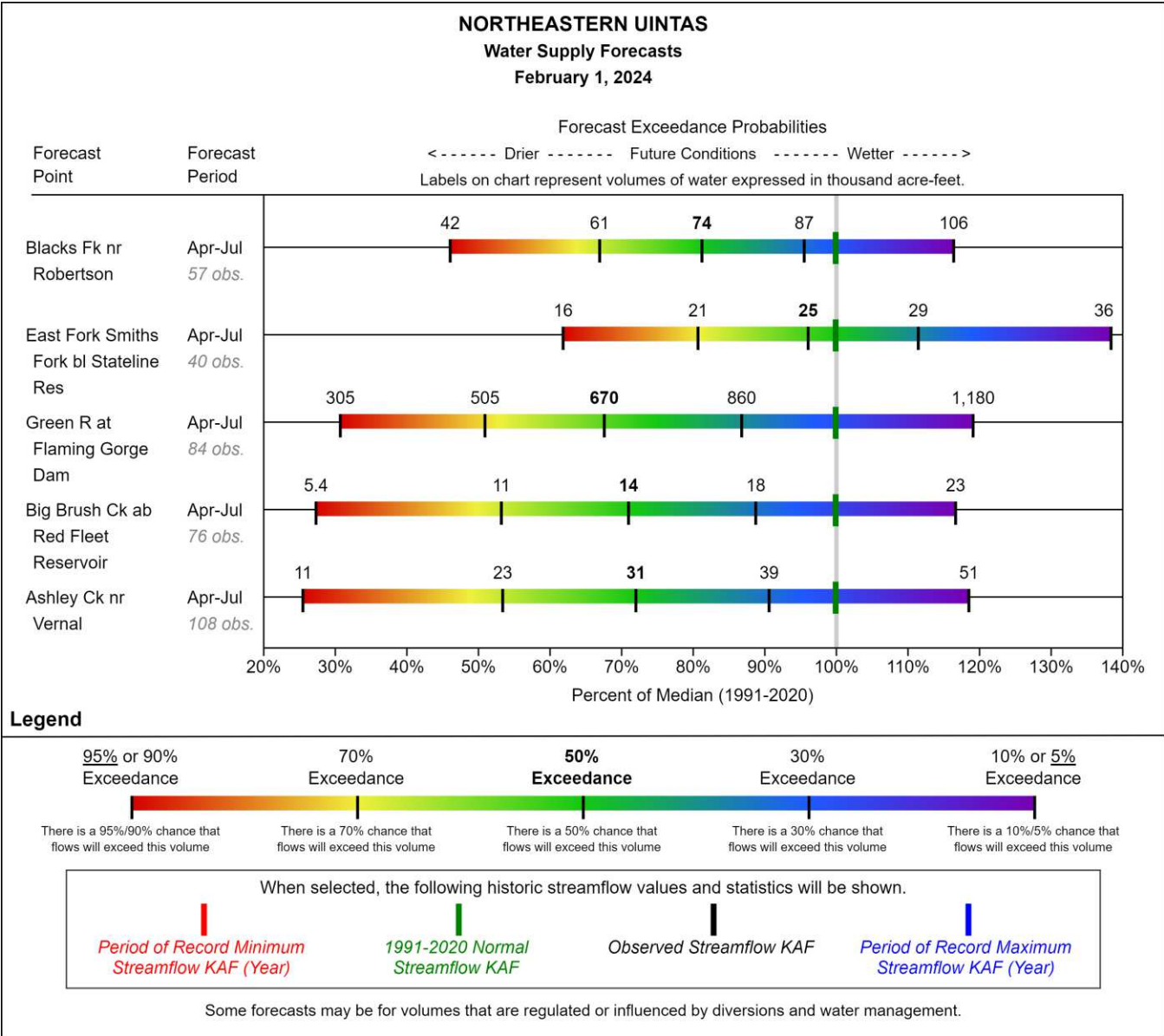


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For more information visit: [30 year normal calculation description](#)

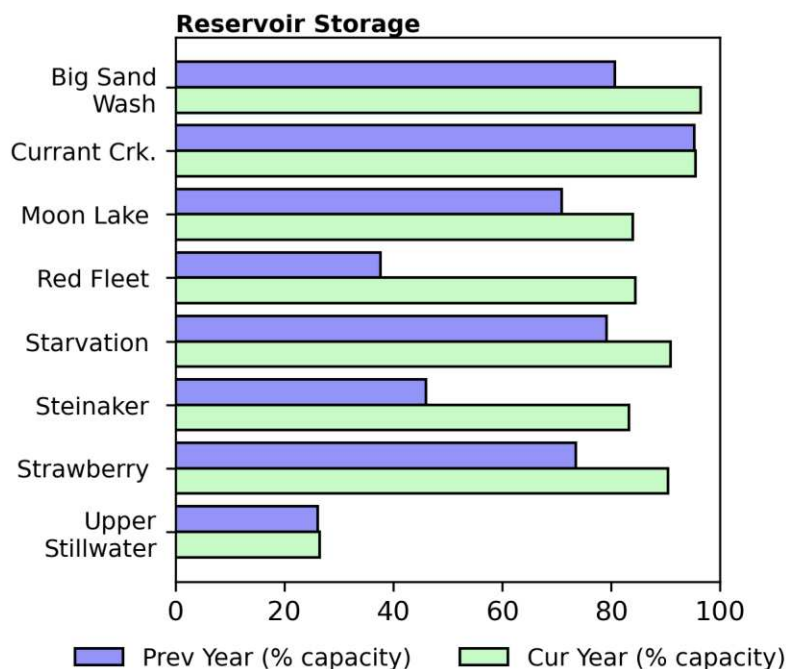
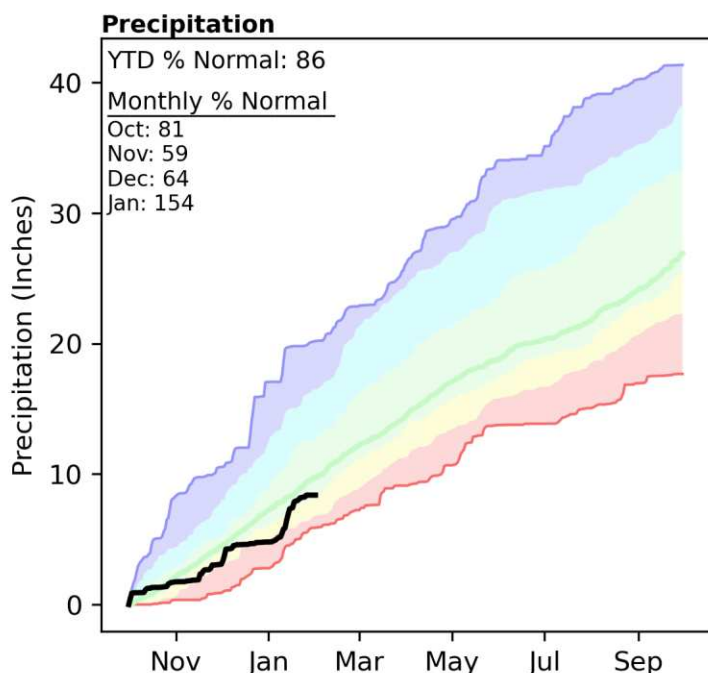
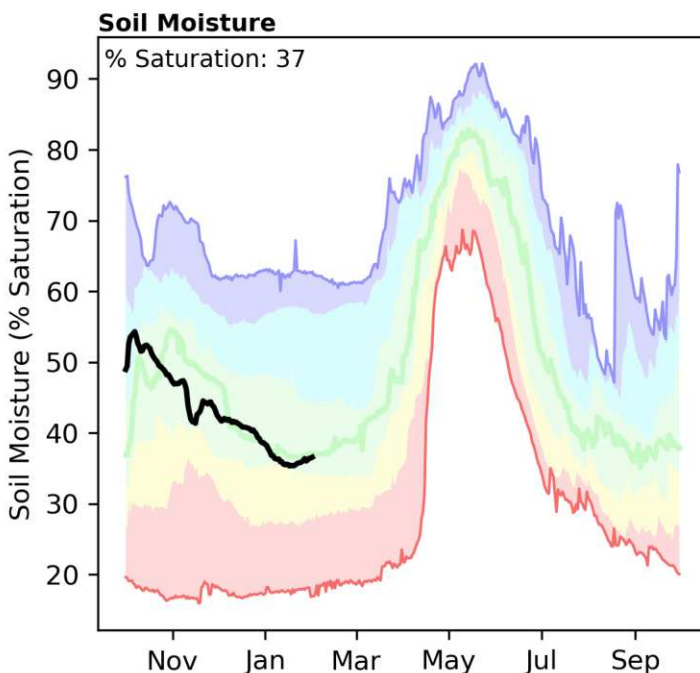
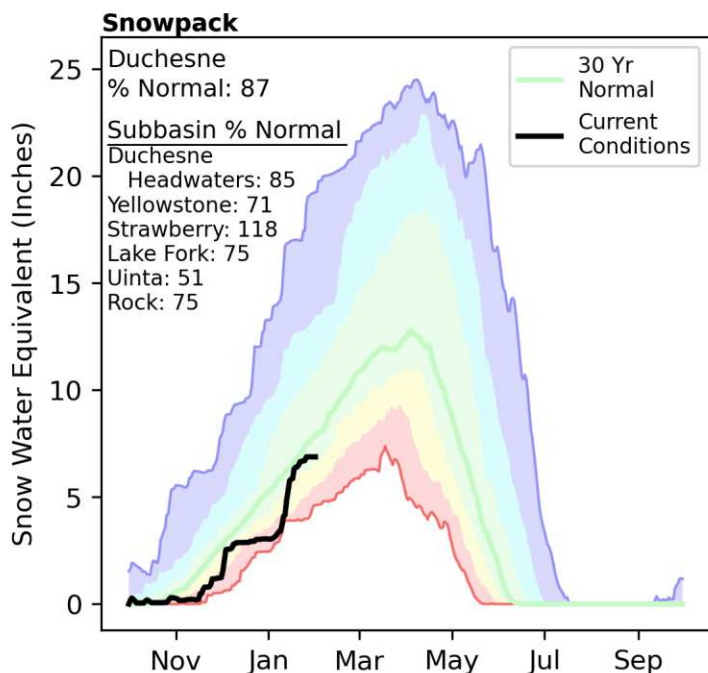
Northeastern Uintas



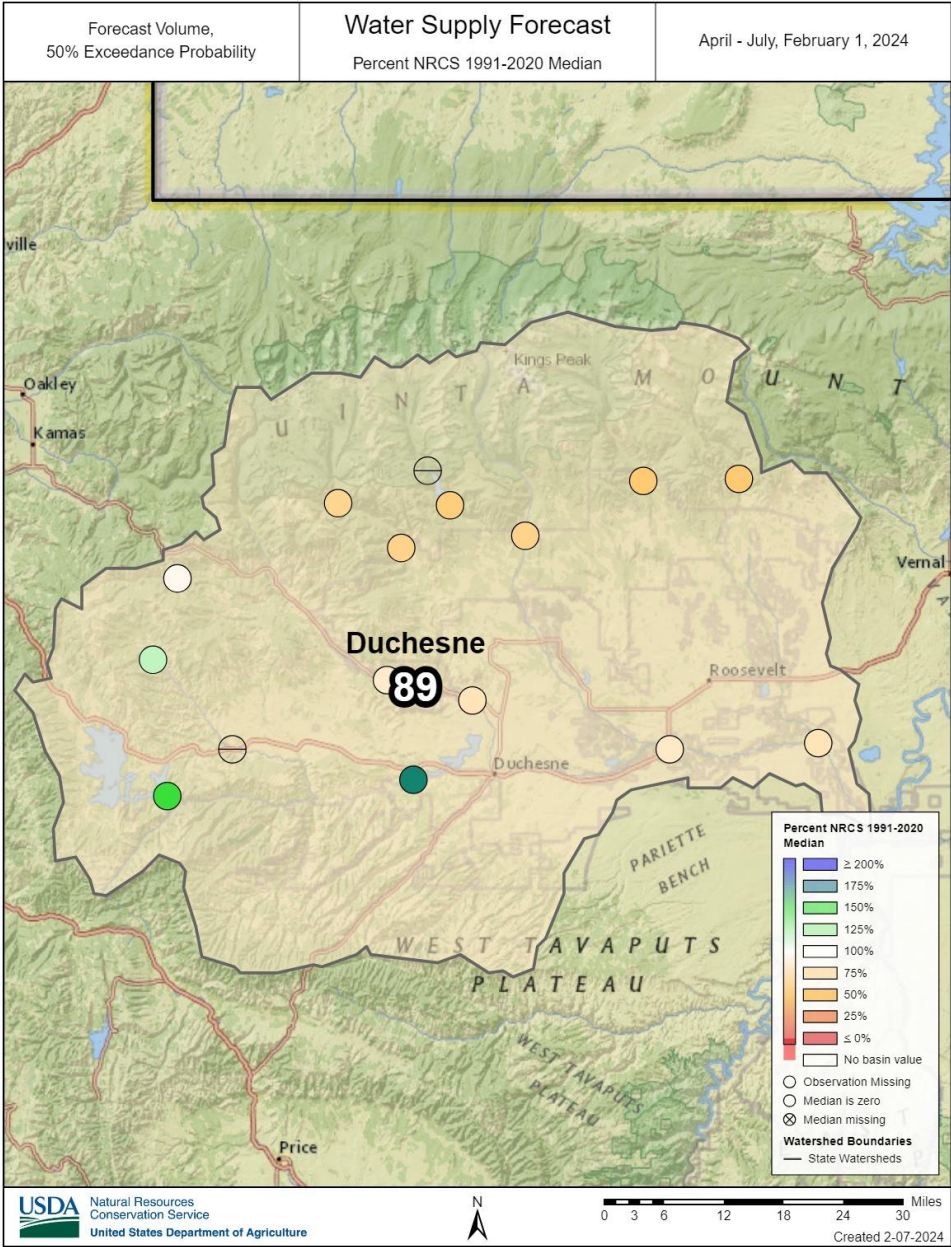
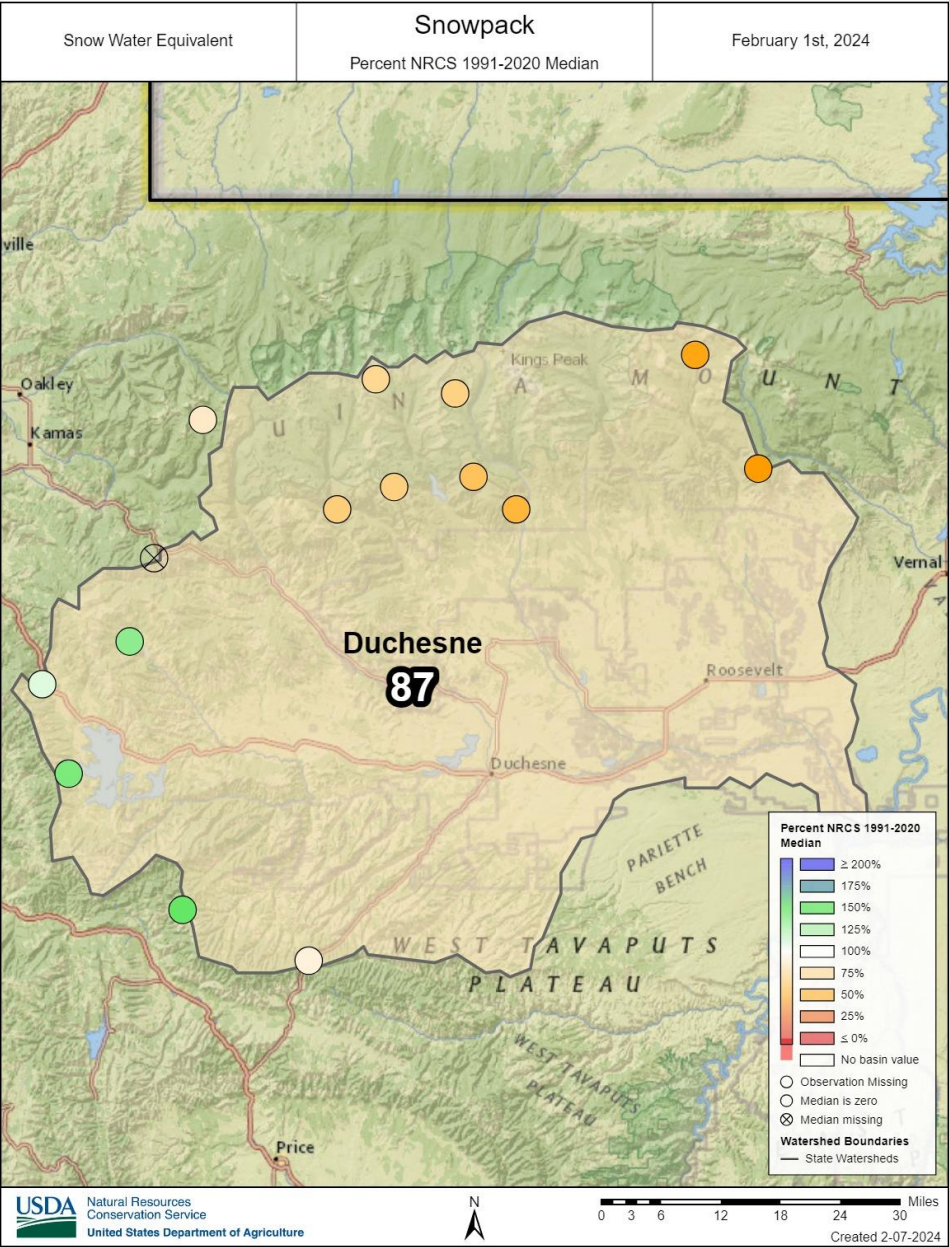
Northeastern Uintas

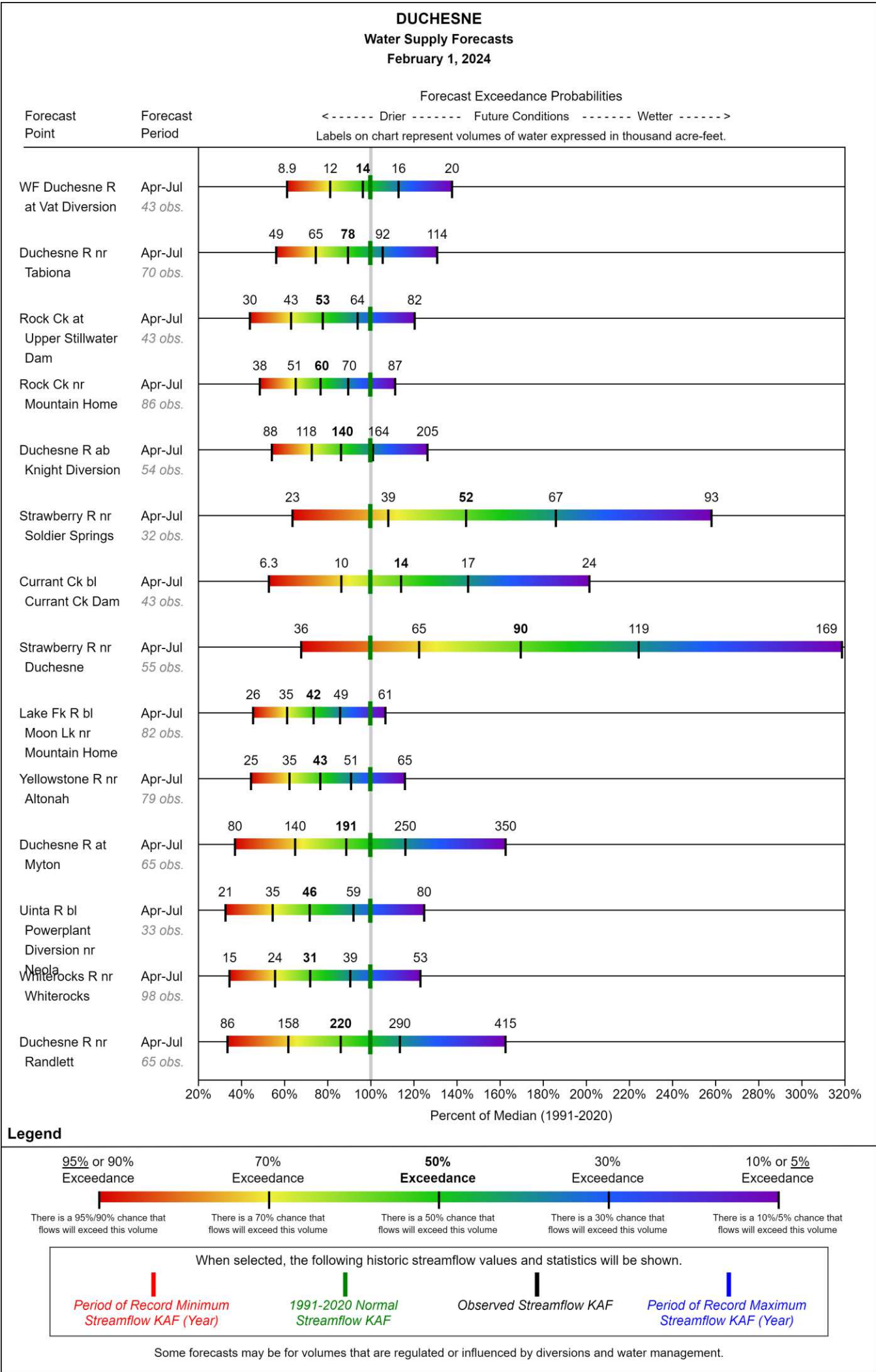


Snowpack in the Duchesne River Basin is below normal at 87% of median, compared to 171% at this time last year. Precipitation in January was well above normal at 154%, which brings the seasonal accumulation (October-January) to 86% of median. Soil moisture is at 37% saturation compared to 52% saturation last year. Reservoir storage is 88% of capacity, compared to 72% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 72% to 170% of normal. The Surface Water Supply Index percentiles are 58% for the Western Uintas, and 36% for the Eastern Uintas.



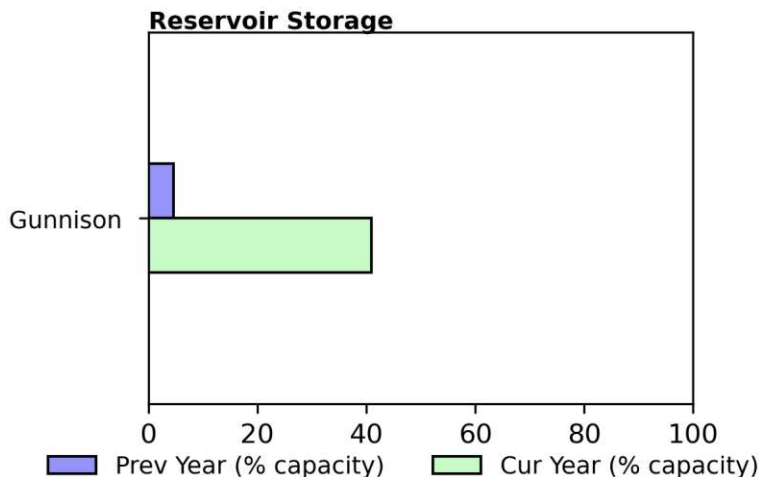
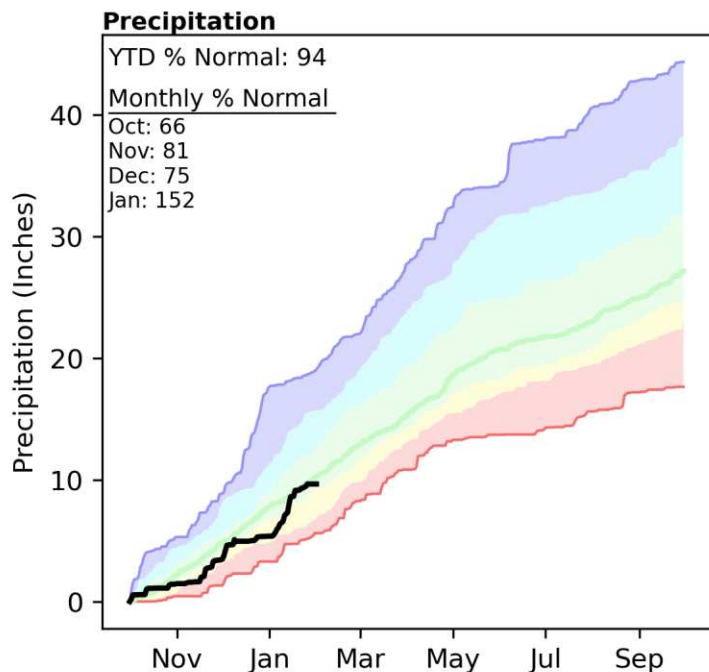
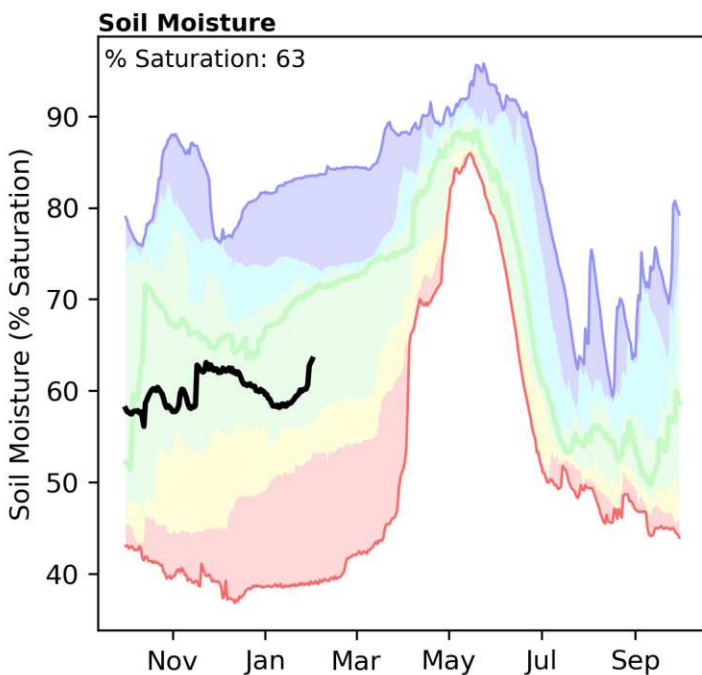
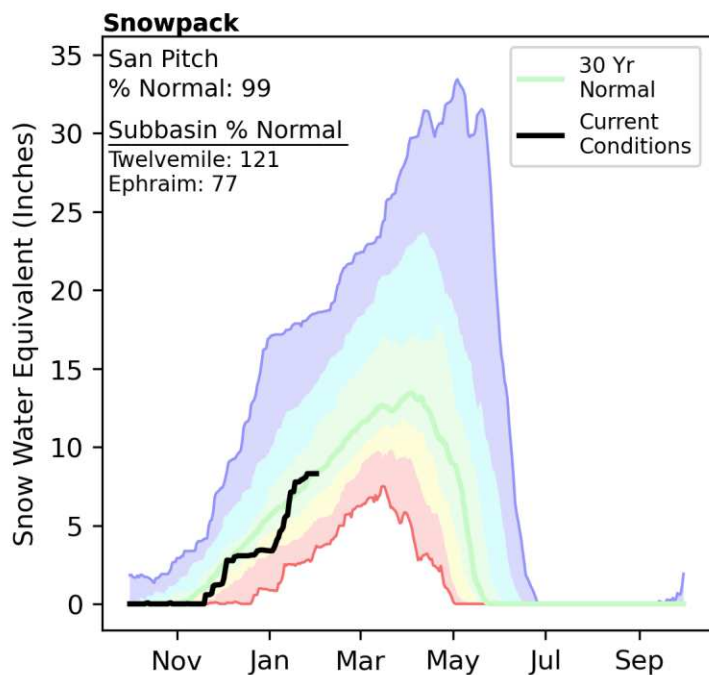
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)





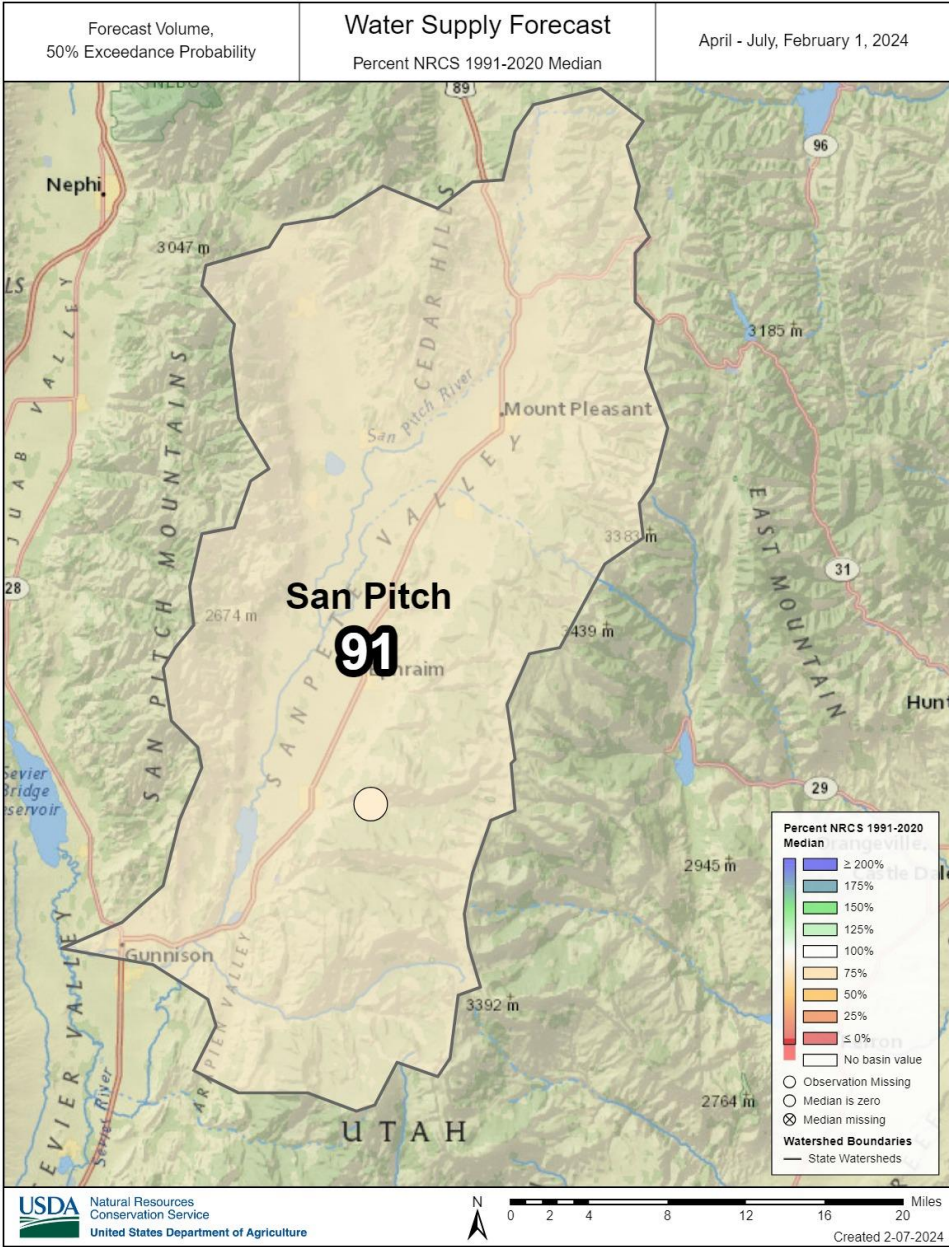
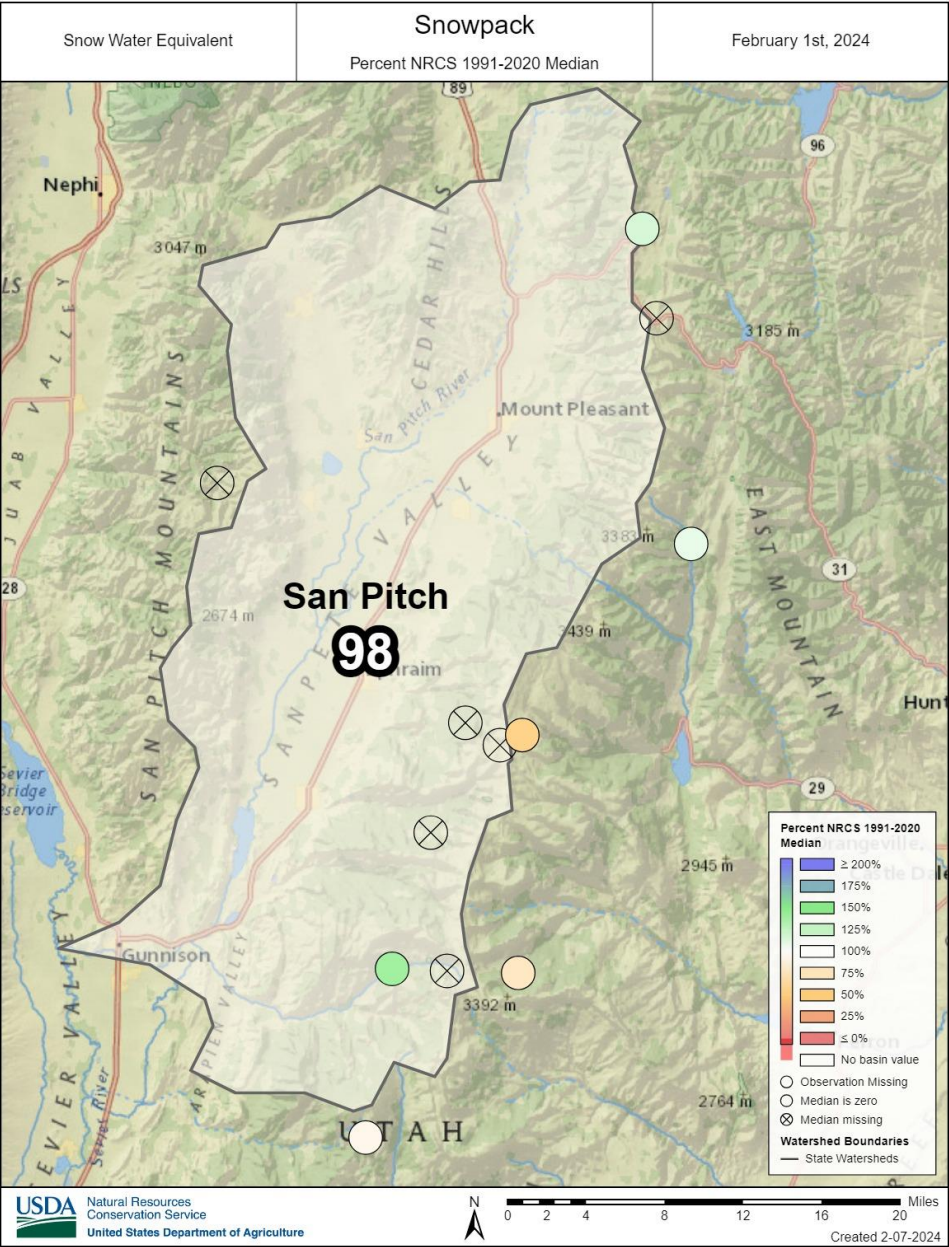
San Pitch | February 1, 2024

Snowpack in the San Pitch River Basin is about normal at 99% of median, compared to 183% at this time last year. Precipitation in January was well above normal at 152%, which brings the seasonal accumulation (October-January) to 94% of median. Soil moisture is at 63% saturation compared to 72% saturation last year. Reservoir storage is 40% of capacity, compared to 4% last year. The forecast streamflow volume (50% exceedence, April-July) for Manti Creek is 91% of normal. The Surface Water Supply Index percentile is 44% for the San Pitch.

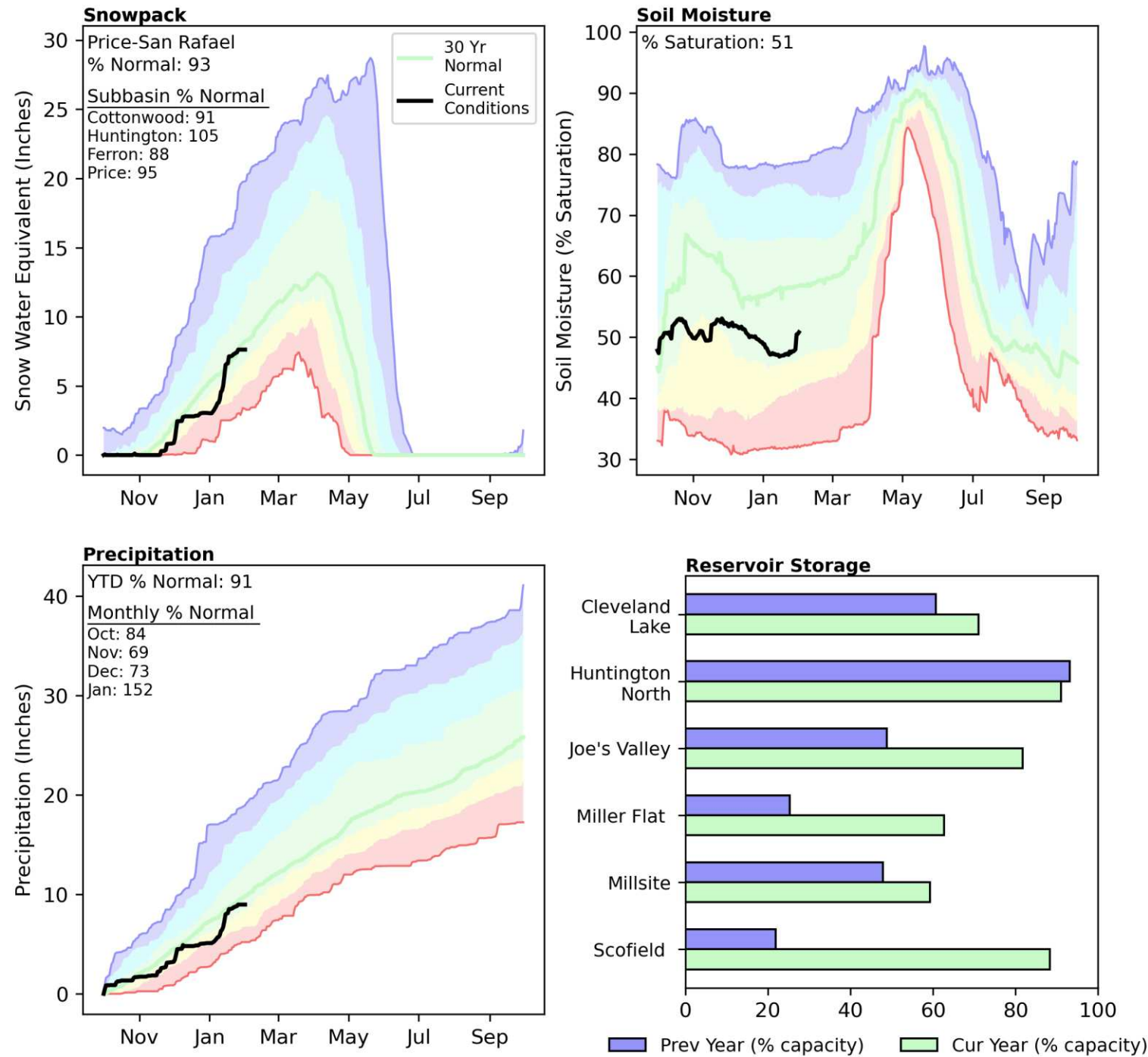


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

San Pitch

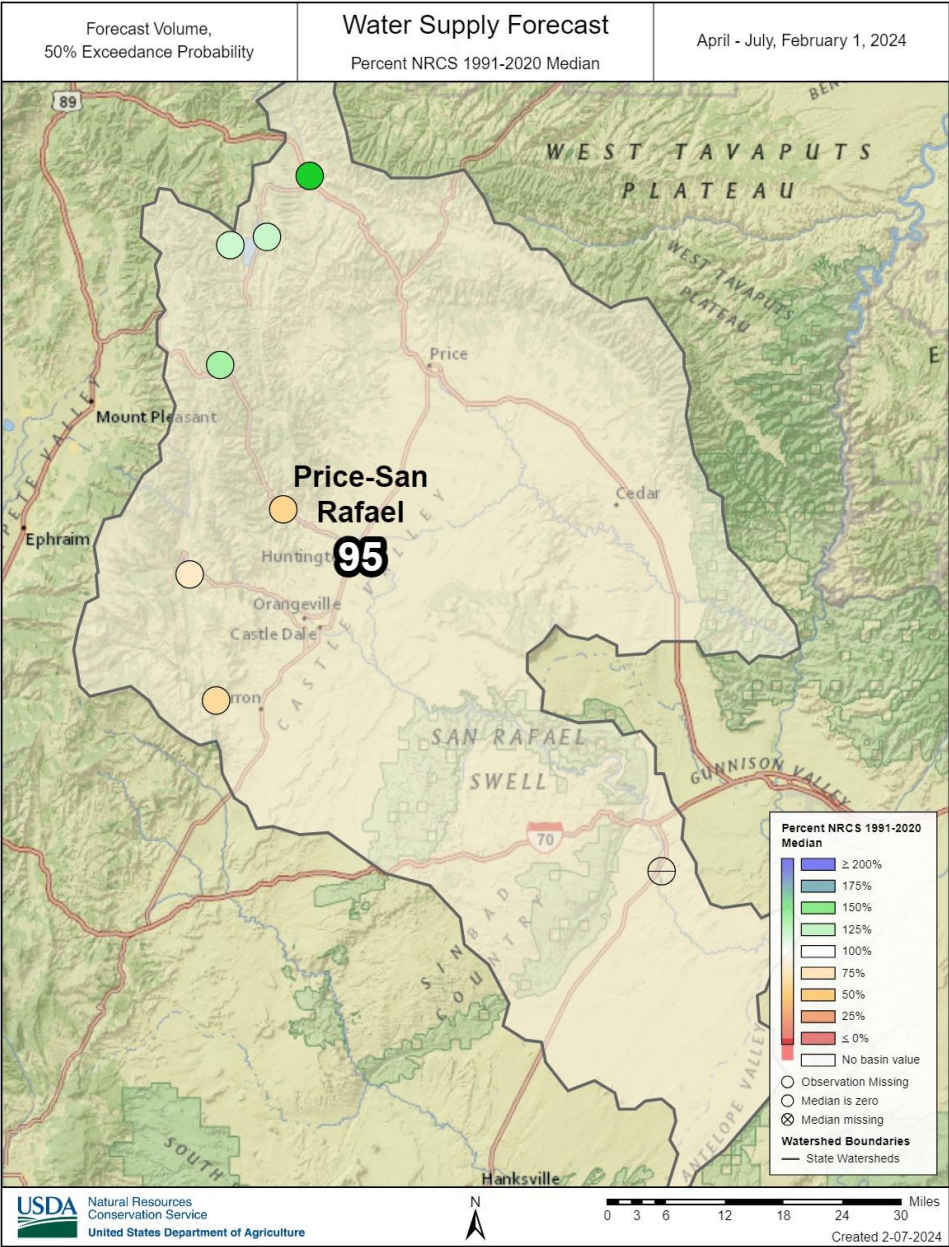
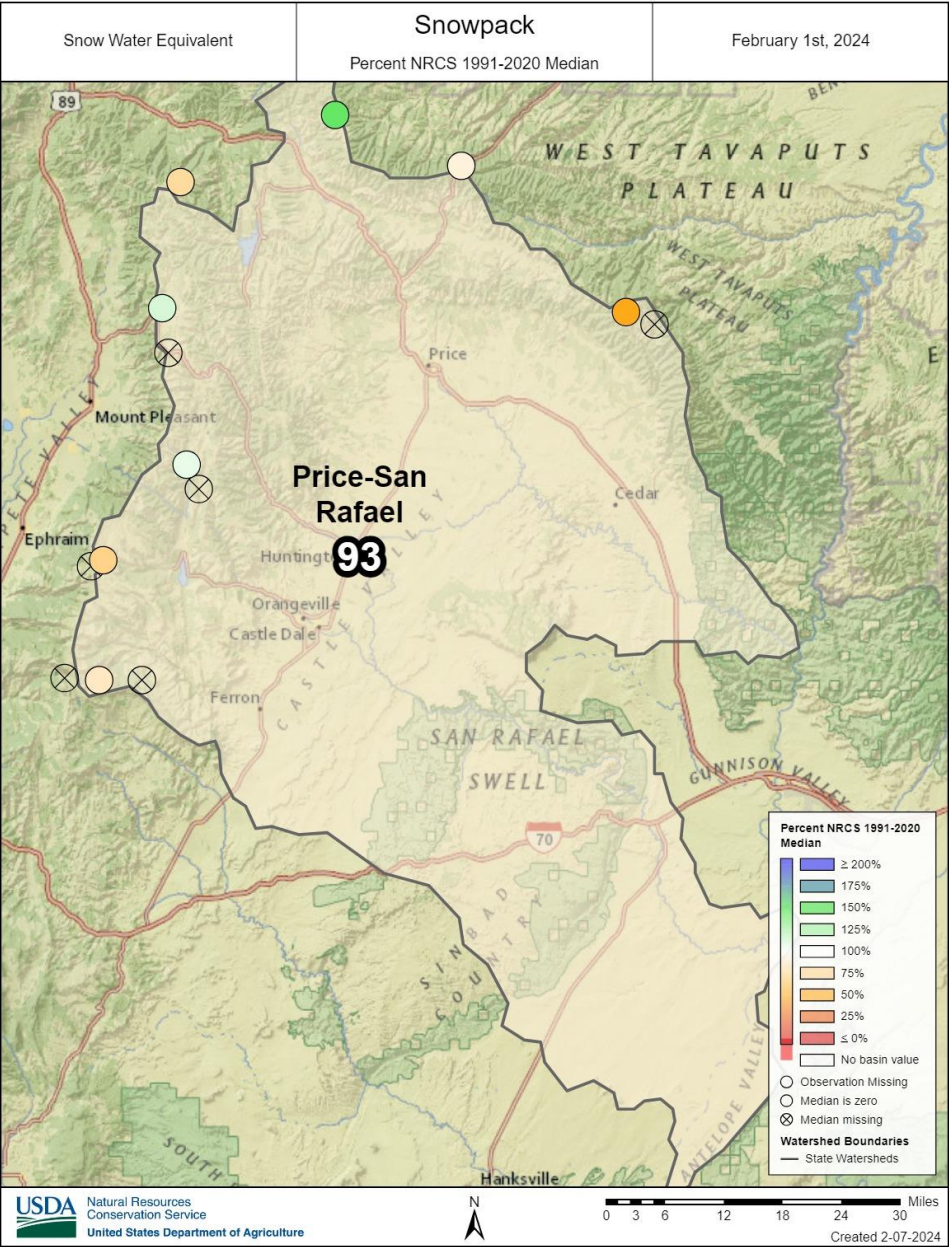


Snowpack in the Price and San Rafael River Basins is about normal at 93% of median, compared to 189% at this time last year. Precipitation in January was well above normal at 152%, which brings the seasonal accumulation (October-January) to 91% of median. Soil moisture is at 51% saturation compared to 56% saturation last year. Reservoir storage is 81% of capacity, compared to 38% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 78% to 153% of normal. The Surface Water Supply Index percentiles are 73% for the Price, 56% for Joes Valley, and 36% for Ferron Creek.

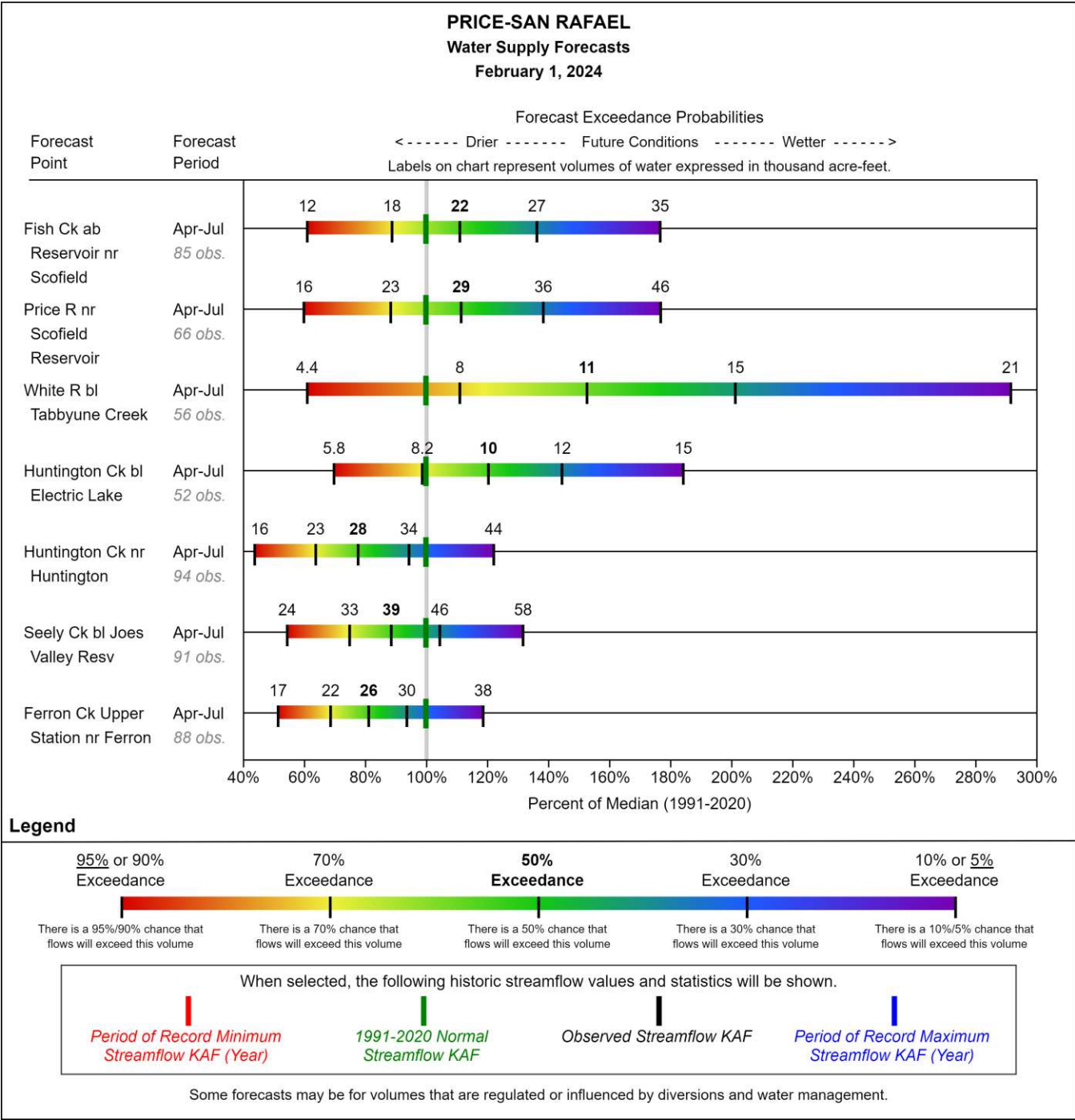


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

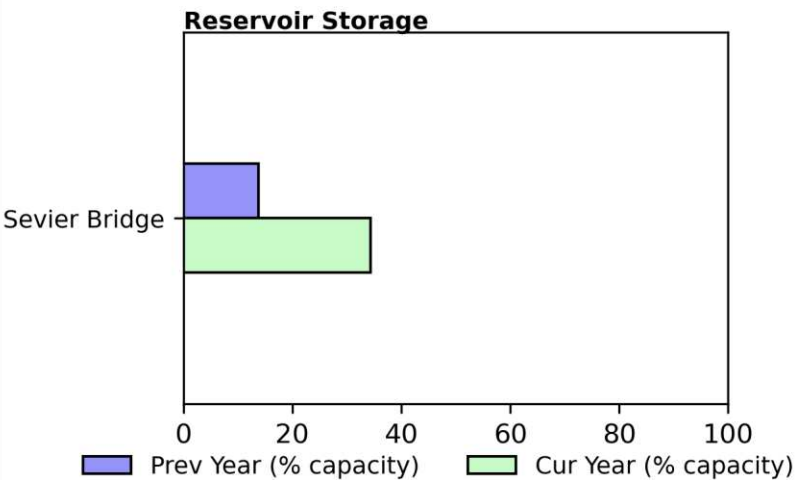
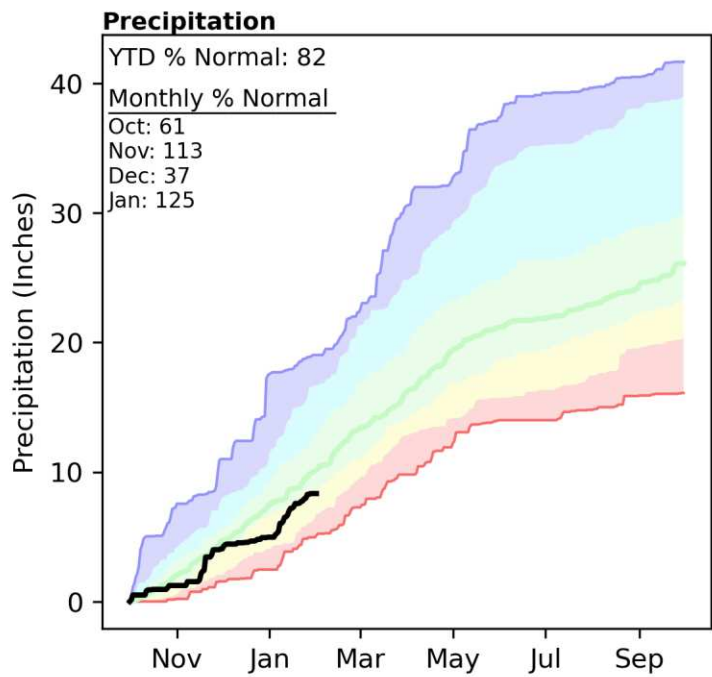
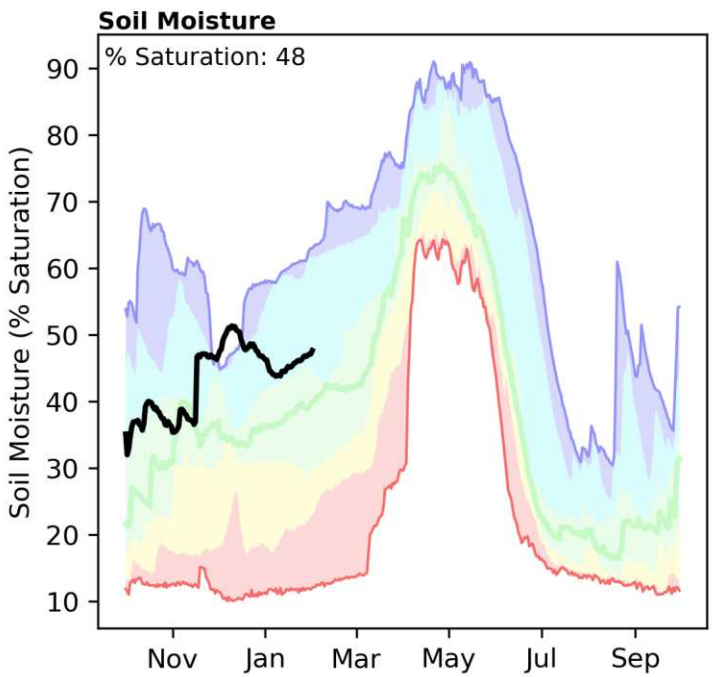
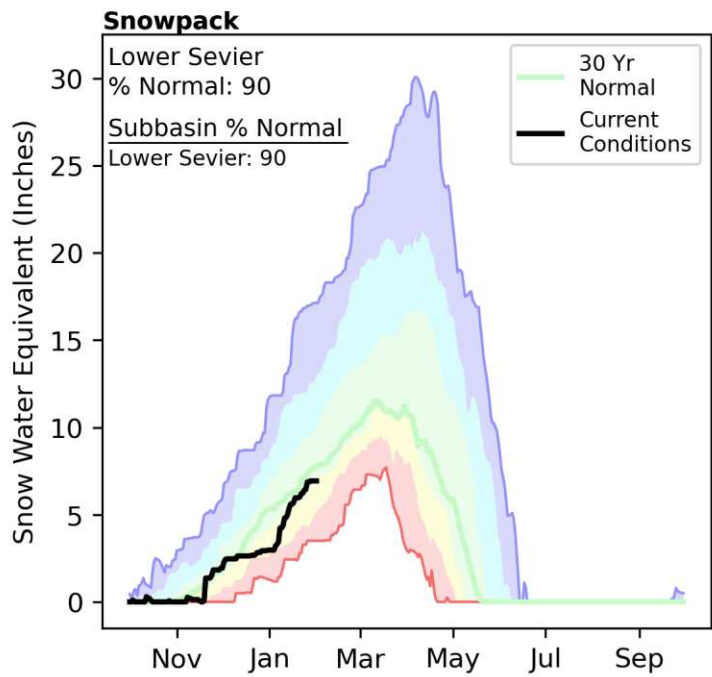
Price San-Rafael



Price-San Rafael

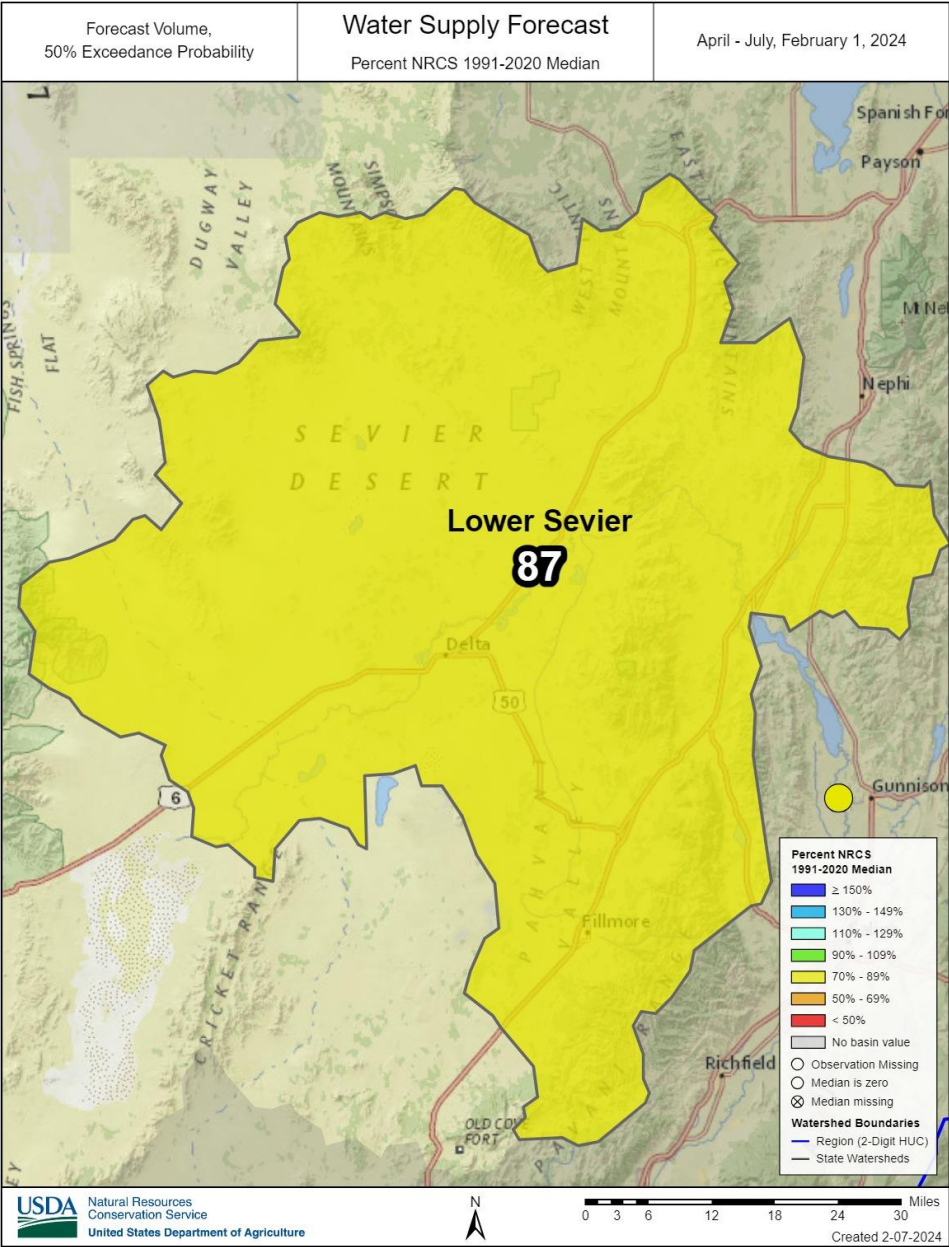
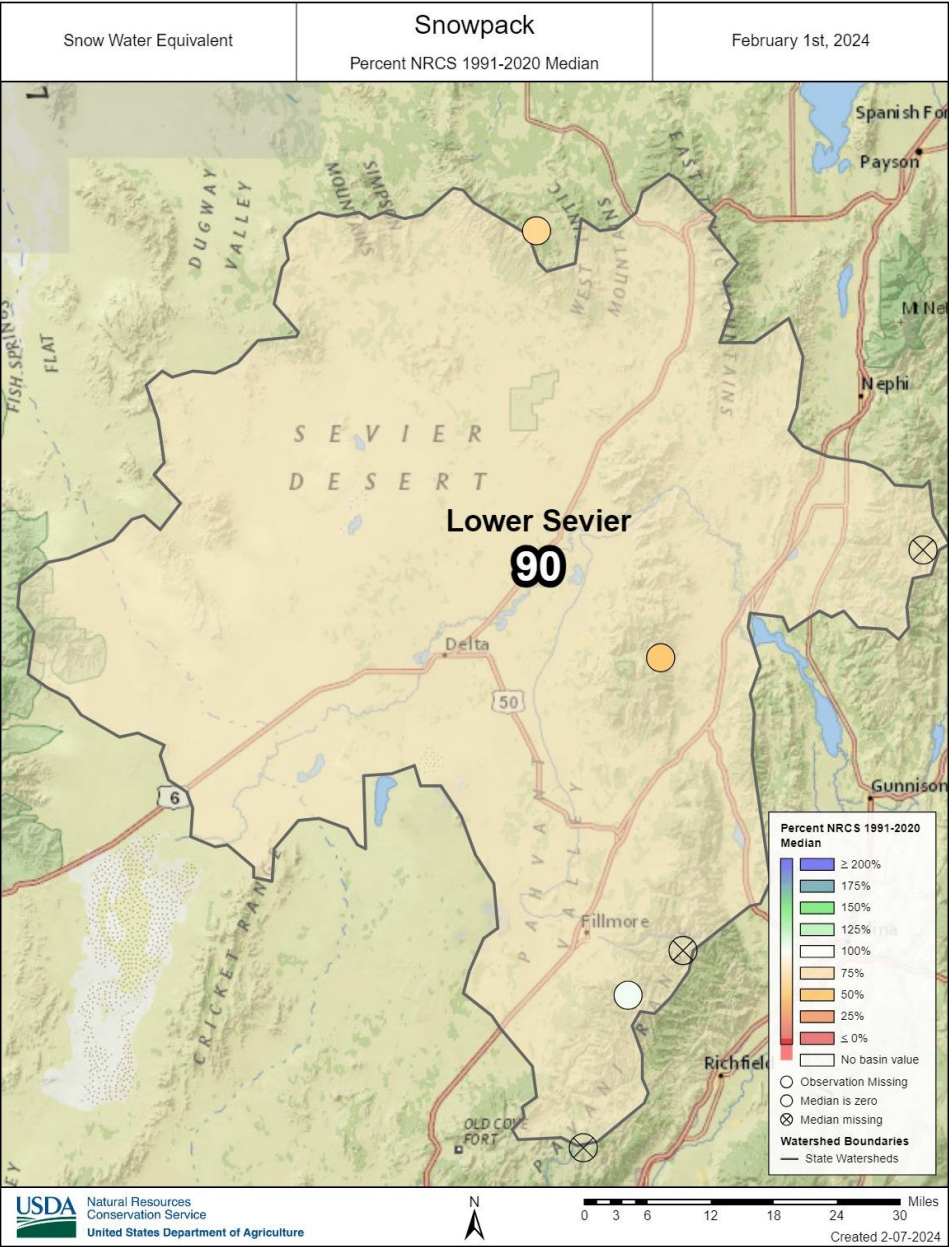


Snowpack in the Lower Sevier River Basin is about normal at 90% of median, compared to 222% at this time last year. Precipitation in January was above normal at 125%, which brings the seasonal accumulation (October-January) to 82% of median. Soil moisture is at 48% saturation compared to 62% saturation last year. Reservoir storage is 34% of capacity, compared to 13% last year. Forecast streamflow volume (50% exceedence, April-July) for the Sevier River near Gunnison is 87% of normal. The Surface Water Supply Index percentile is 16% for the Lower Sevier.

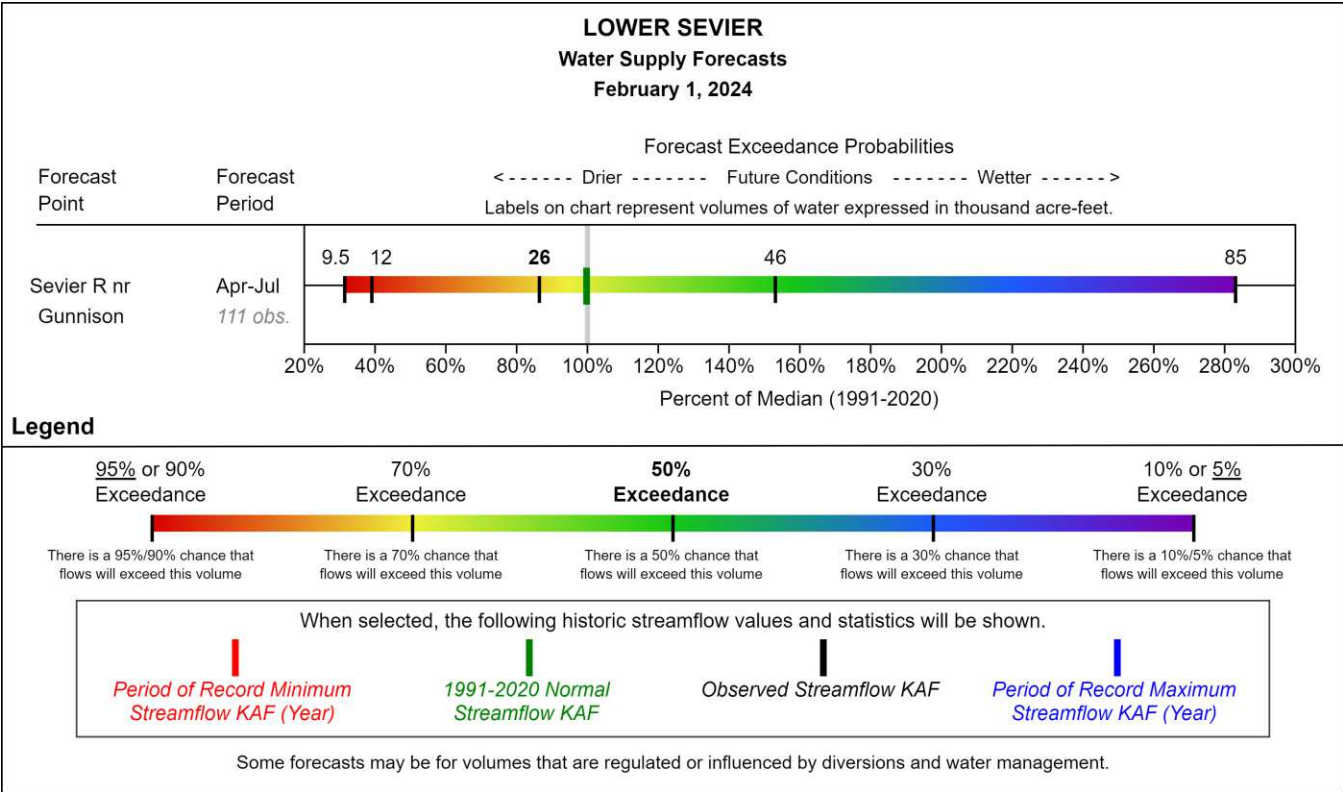


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Lower Sevier

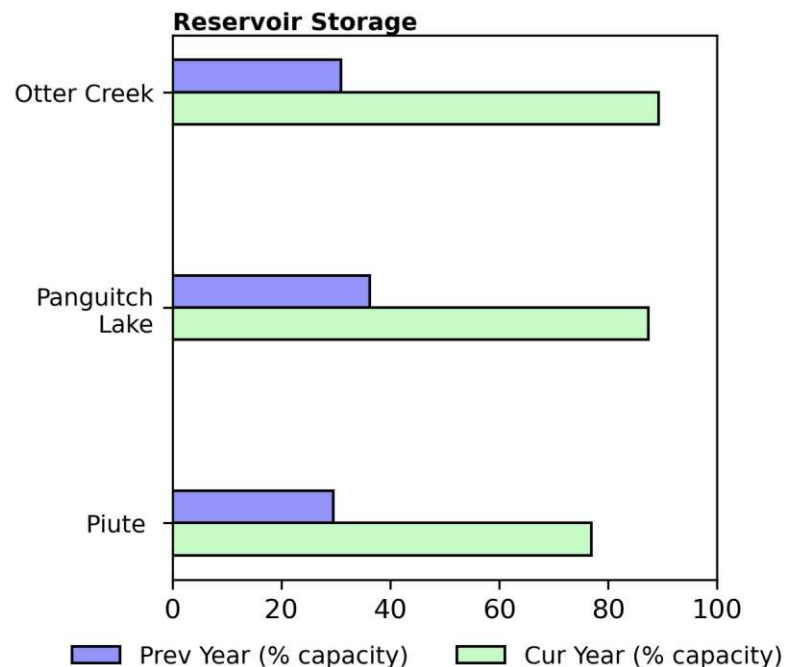
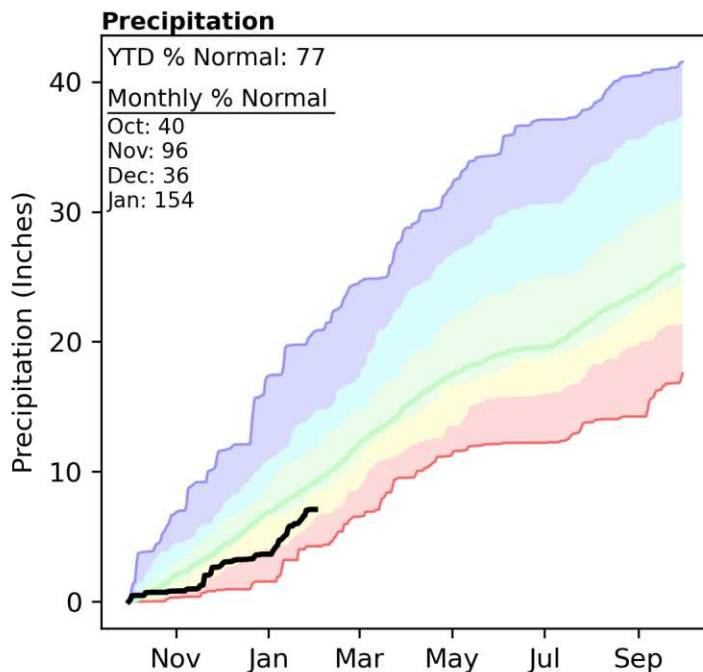
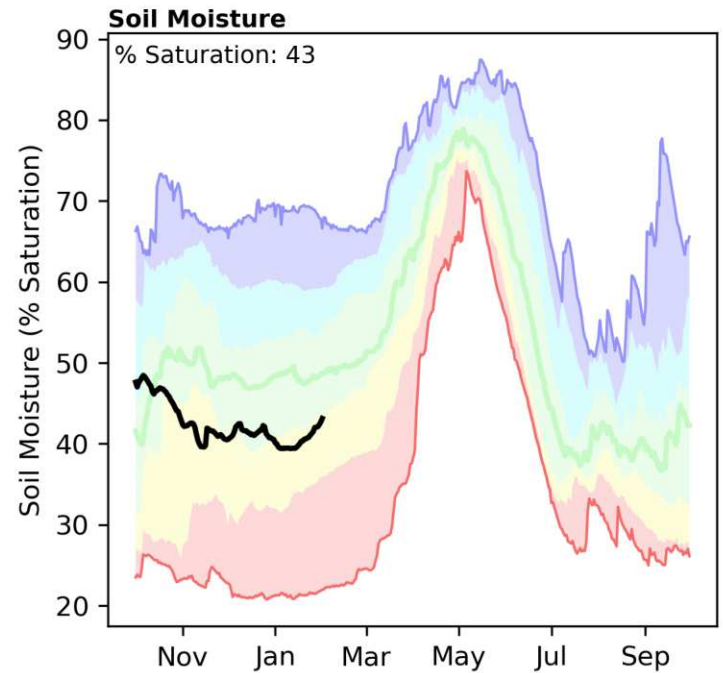
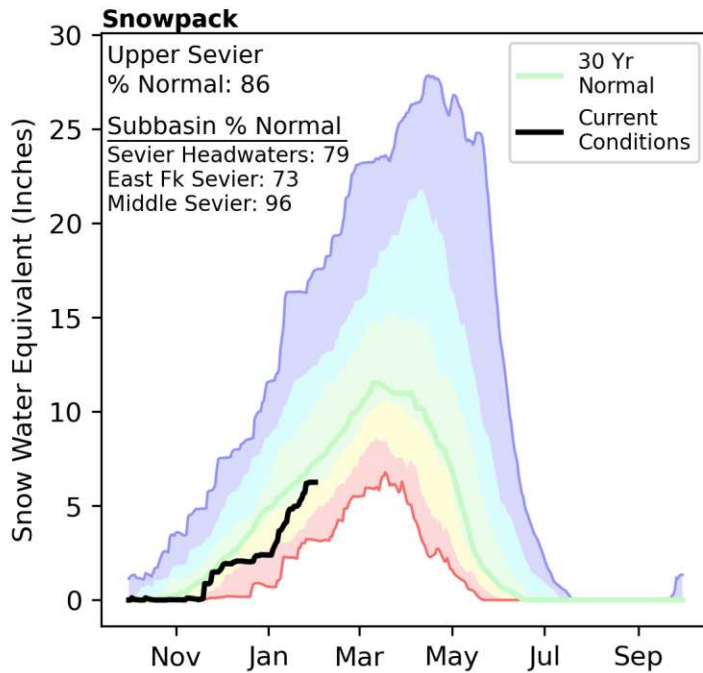


Lower Sevier



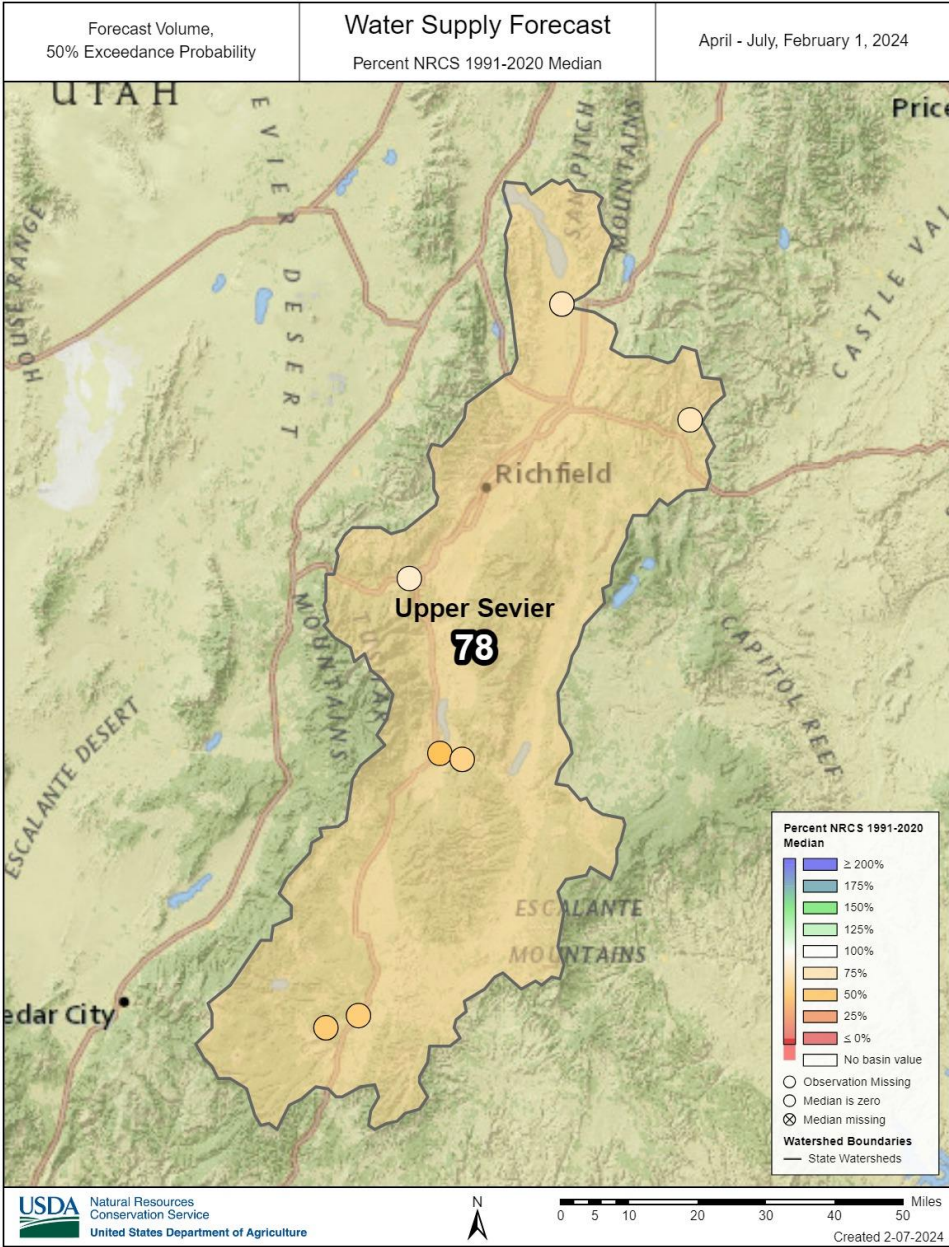
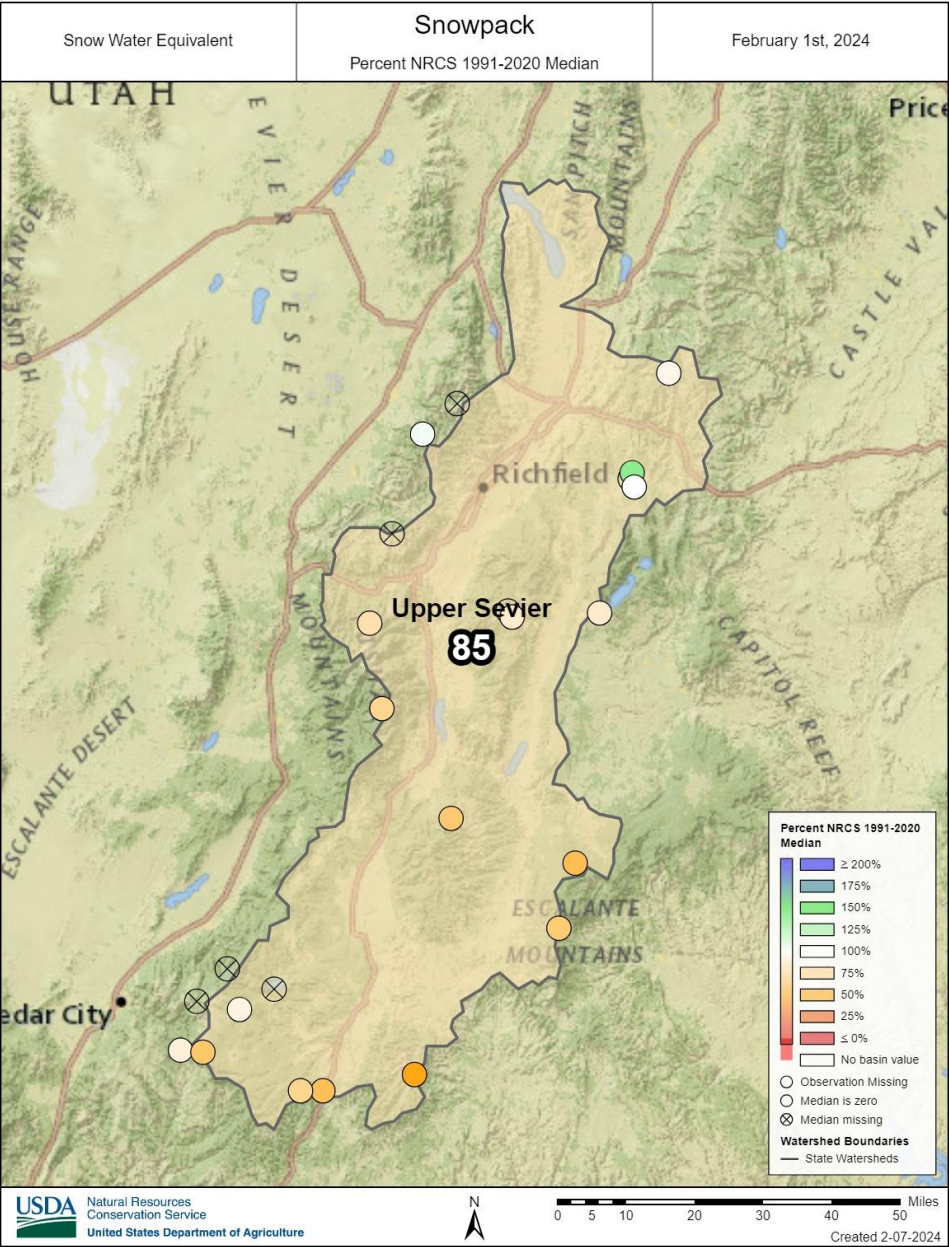
Upper Sevier | February 1, 2024

Snowpack in the Upper Sevier River Basin is below normal at 86% of median, compared to 181% at this time last year. Precipitation in January was well above normal at 154%, which brings the seasonal accumulation (October-January) to 77% of median. Soil moisture is at 43% saturation compared to 59% saturation last year. Reservoir storage is 82% of capacity, compared to 31% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 68% to 90% of normal. The Surface Water Supply Index percentile is 49% for the Upper Sevier.

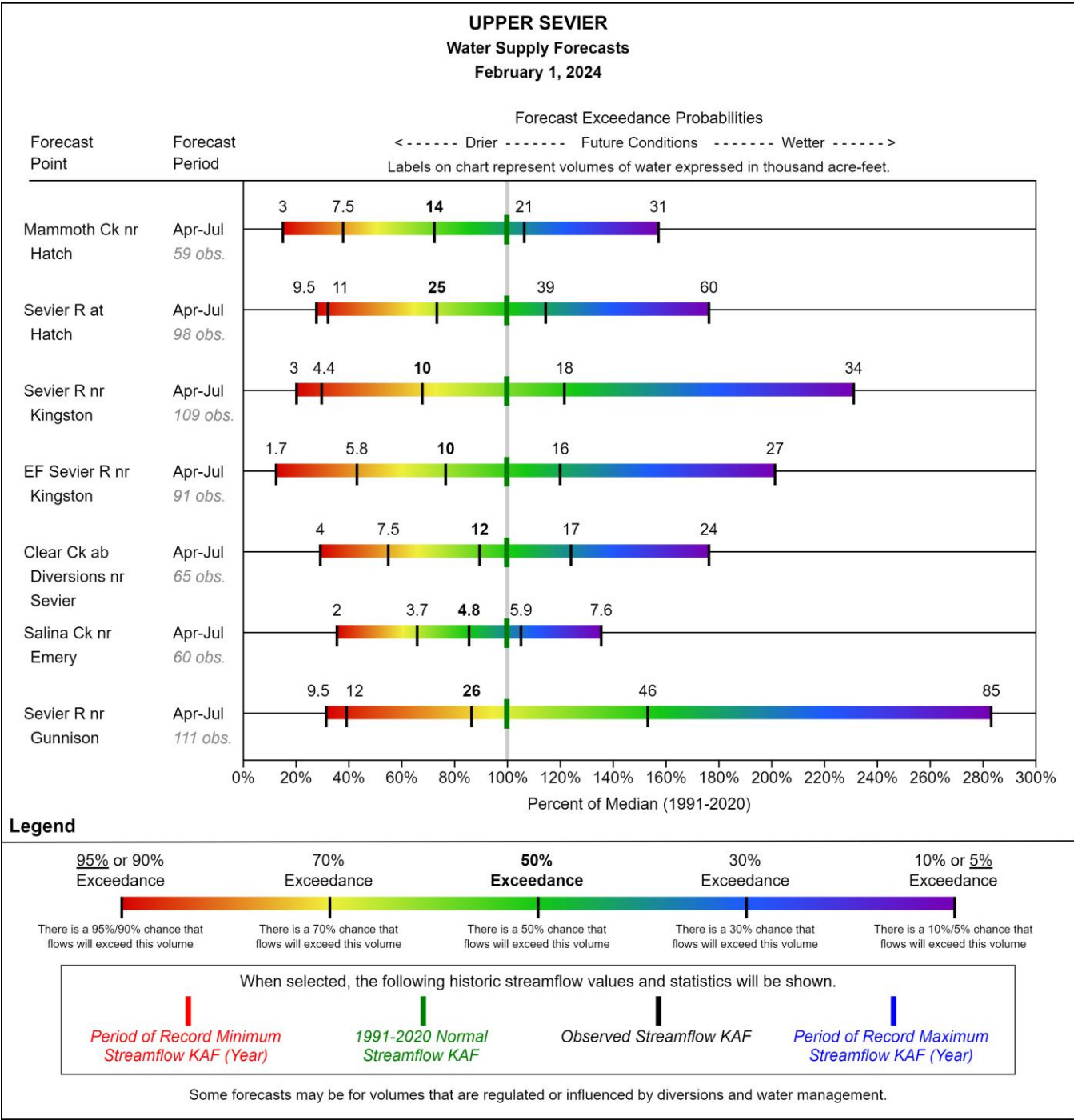


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Upper Sevier

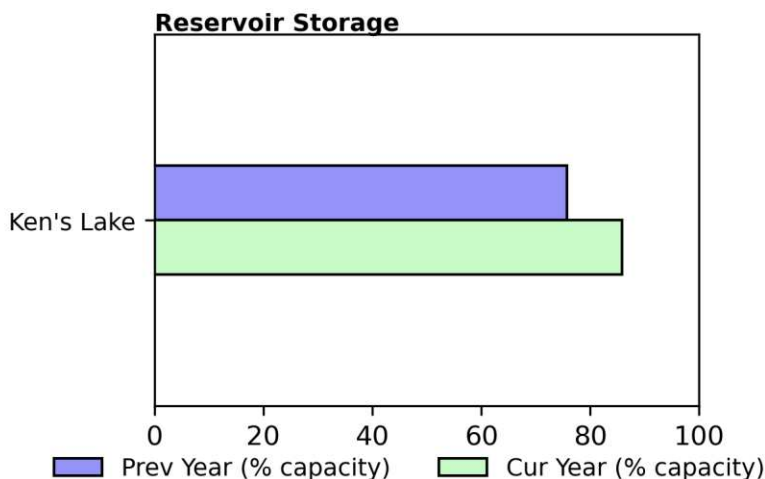
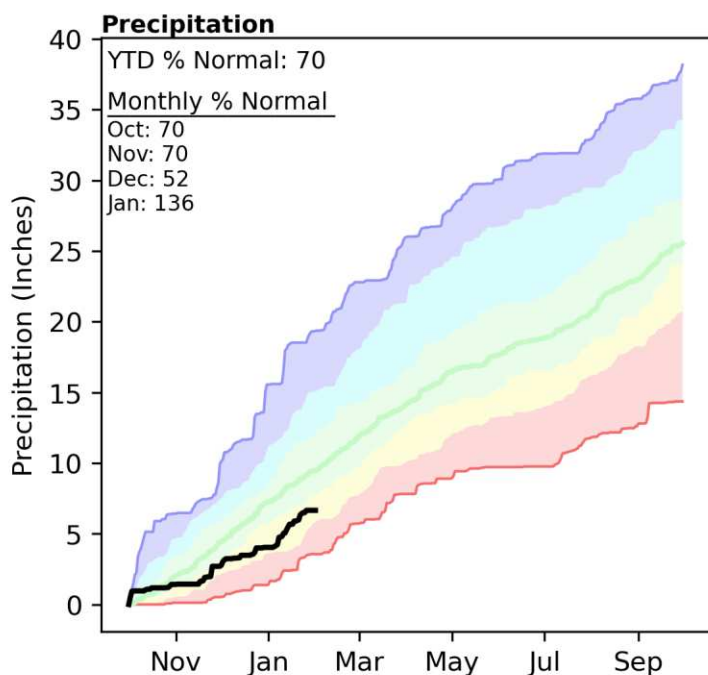
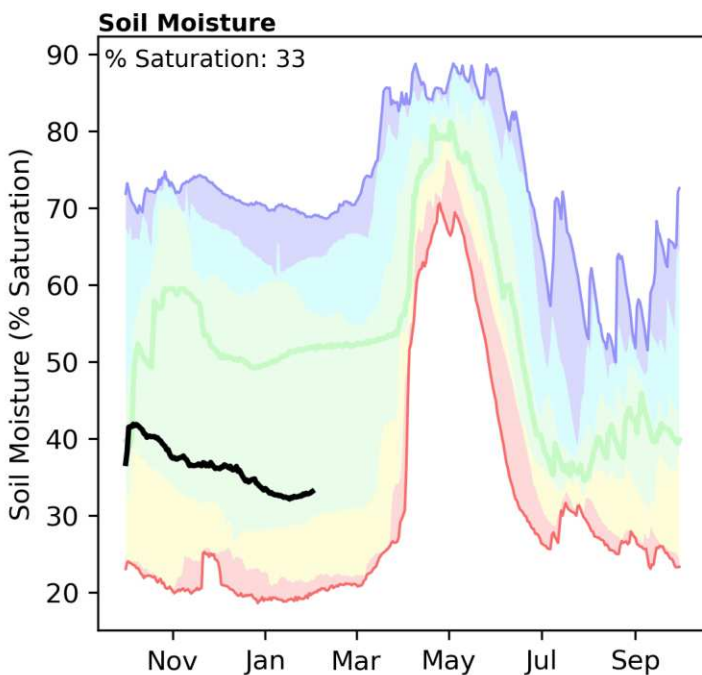
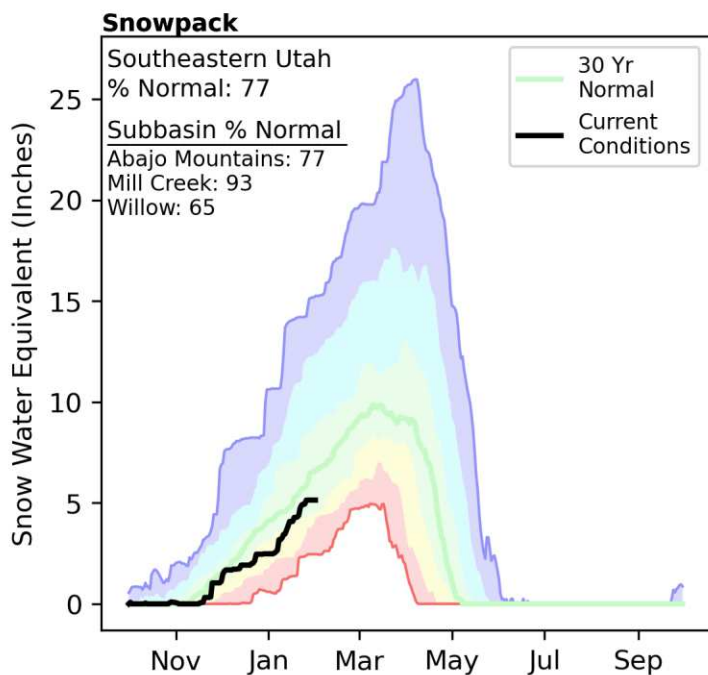


Upper Sevier



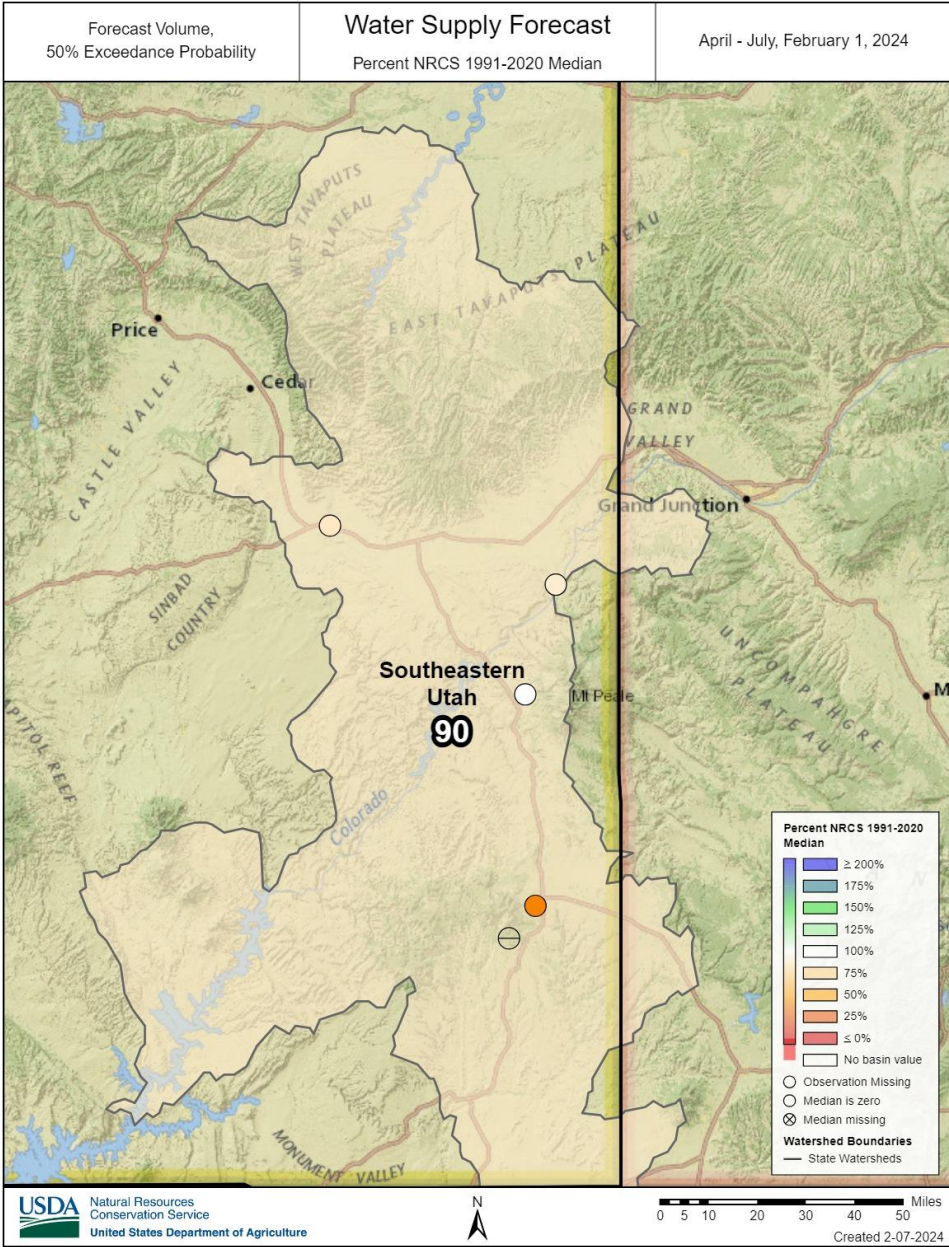
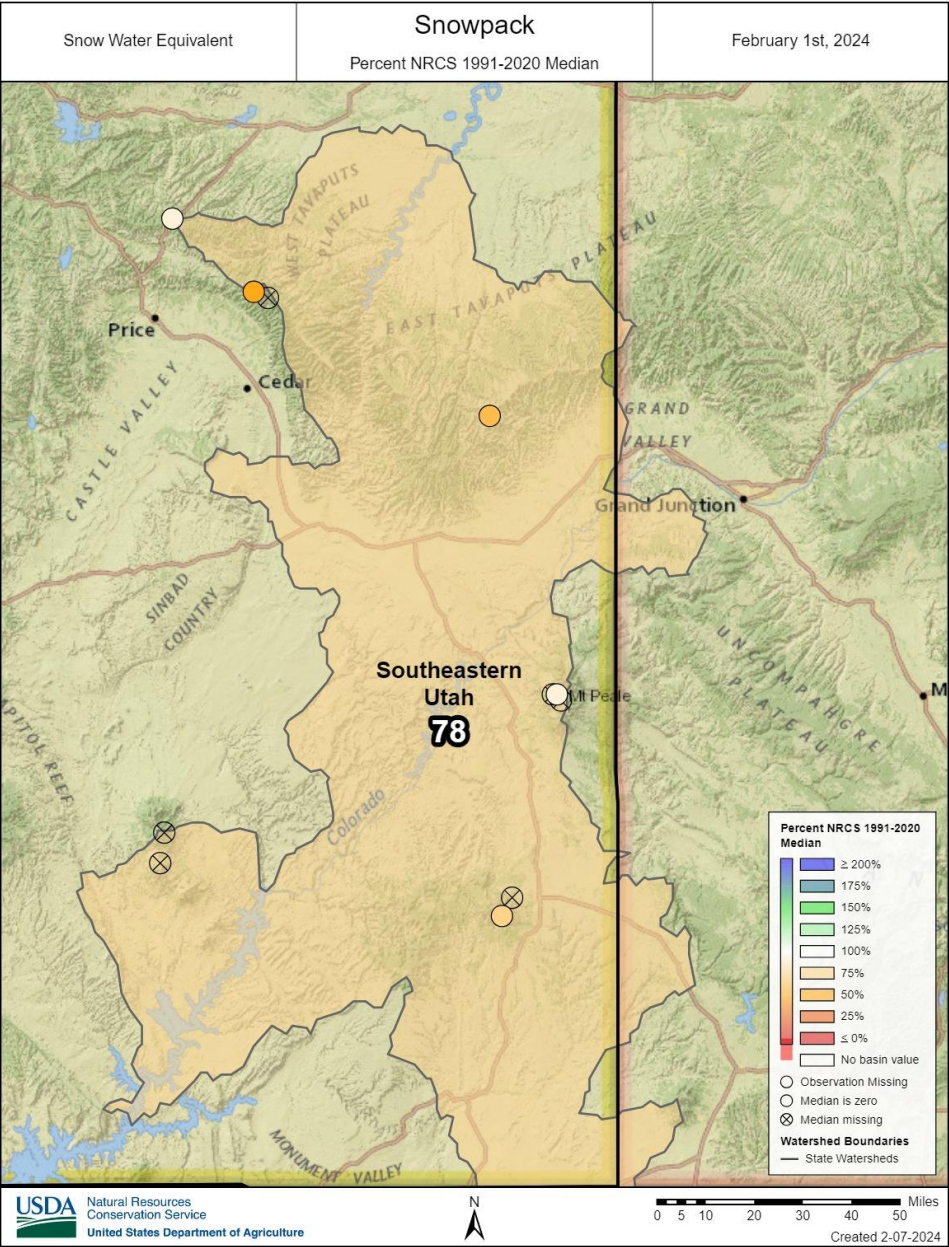
Southeastern Utah | February 1, 2024

Snowpack in Southeastern Utah is below normal at 77% of median, compared to 205% at this time last year. Precipitation in January was well above normal at 136%, which brings the seasonal accumulation (October-January) to 70% of median. Soil moisture is at 33% saturation compared to 52% saturation last year. Reservoir storage is 85% of capacity, compared to 75% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 41% to 100% of normal. The Surface Water Supply Index percentile is 63% for Moab.

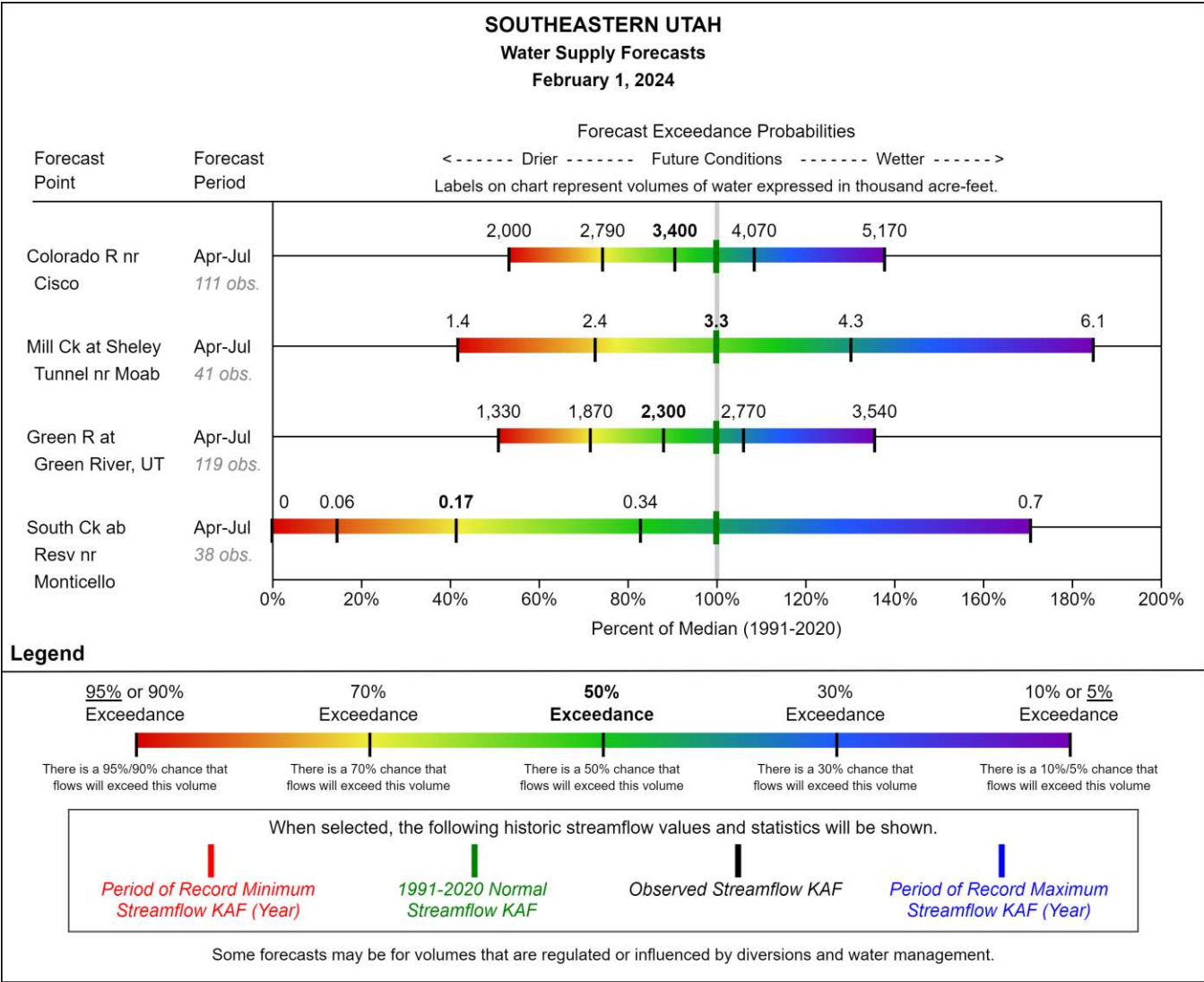


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

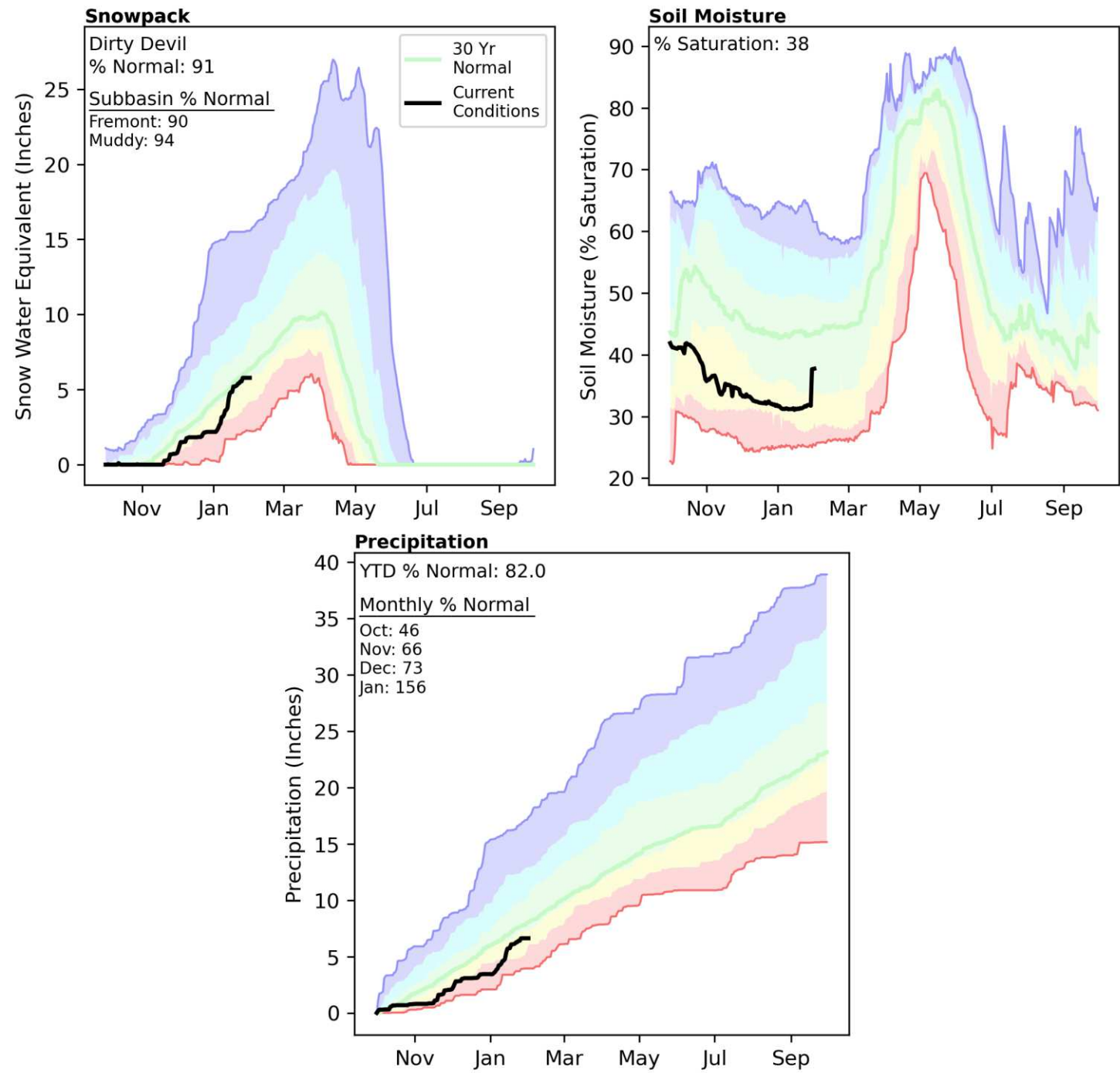
Southeastern Utah



Southeastern Utah

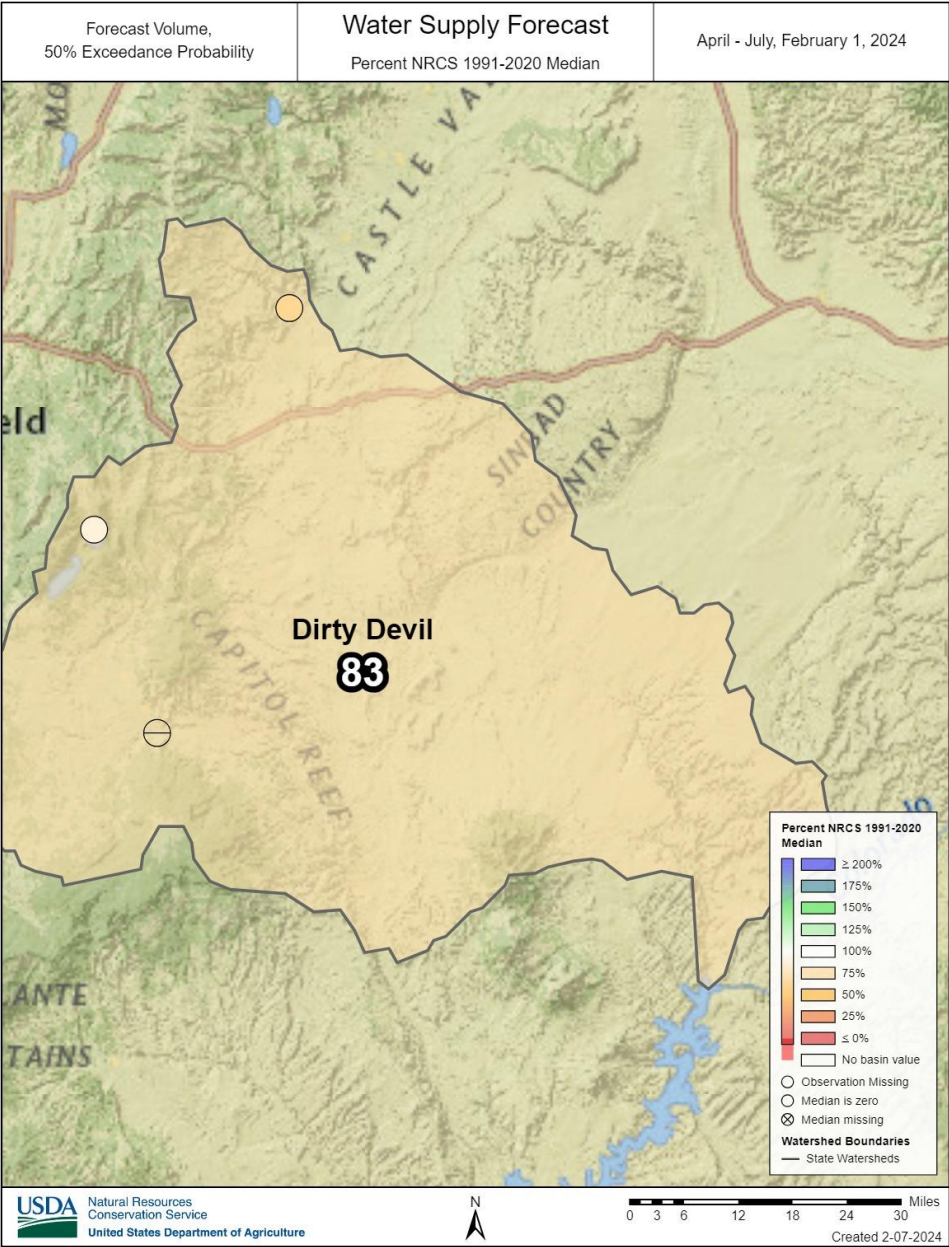
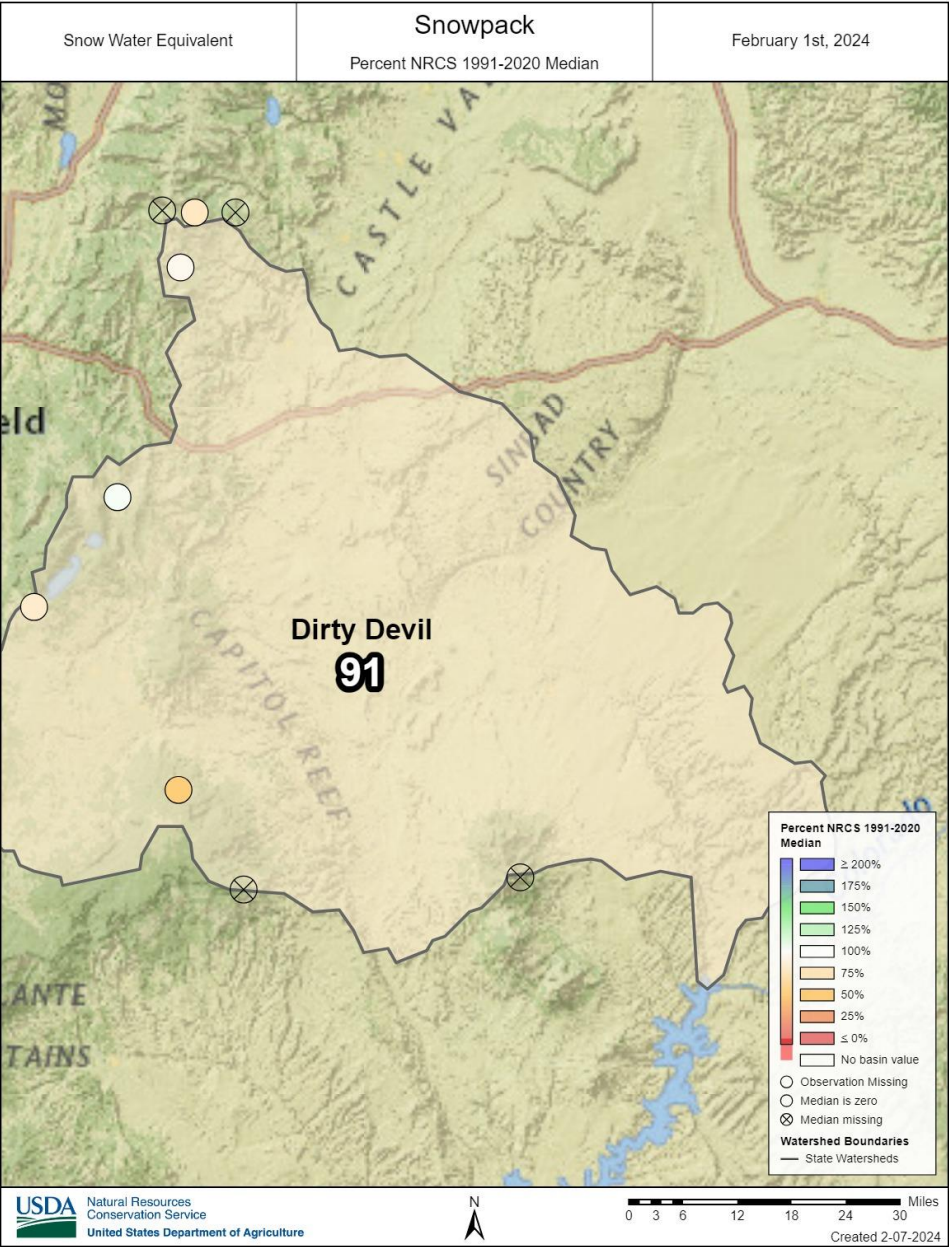


Snowpack in the Dirty Devil River Basin is about normal at 91% of median, compared to 169% at this time last year. Precipitation in January was well above normal at 156%, which brings the seasonal accumulation (October-January) to 82% of median. Soil moisture is at 38% saturation compared to 41% saturation last year. Forecast streamflow volumes (50% exceedence, April-July) range from 79% to 93% of normal.

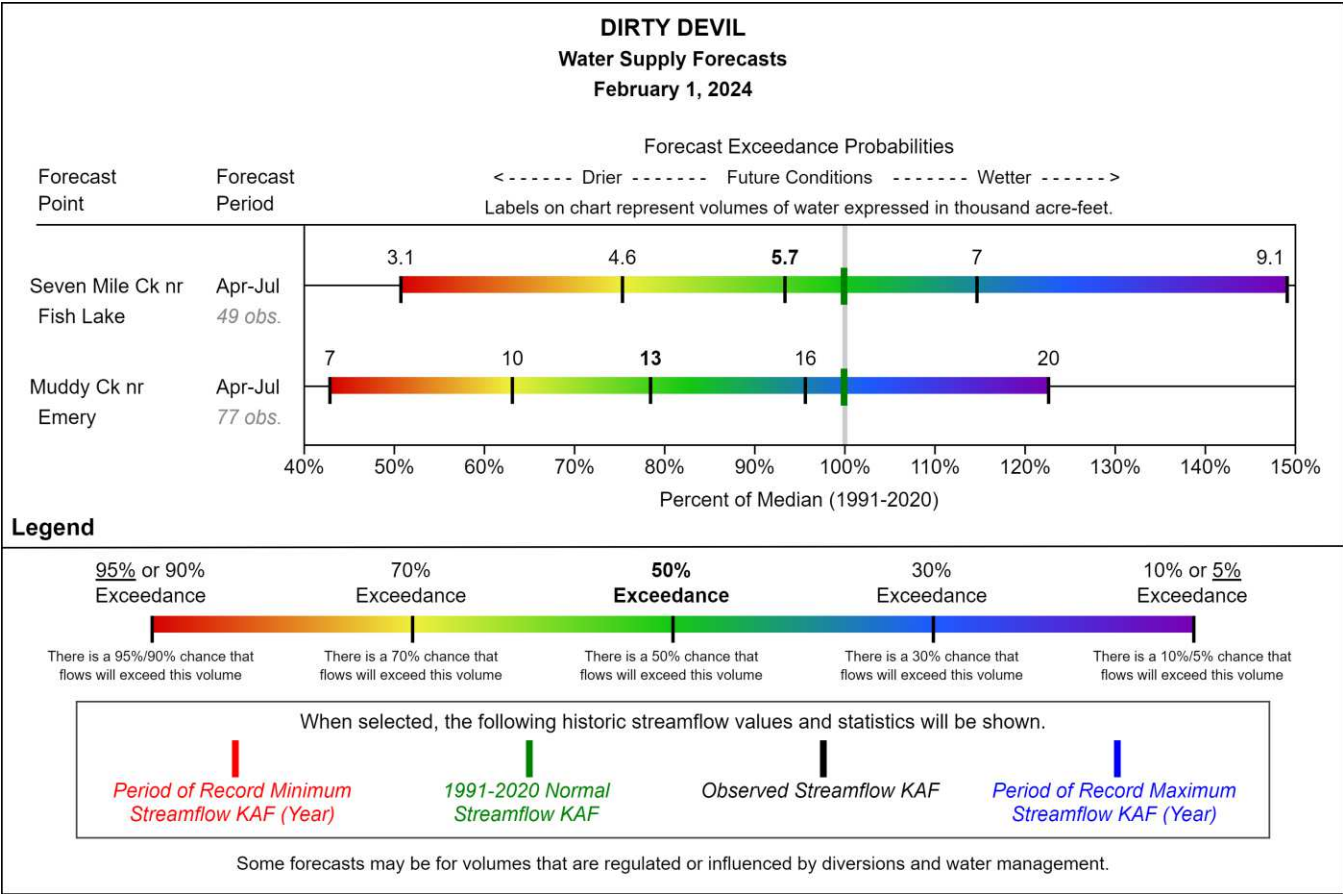


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

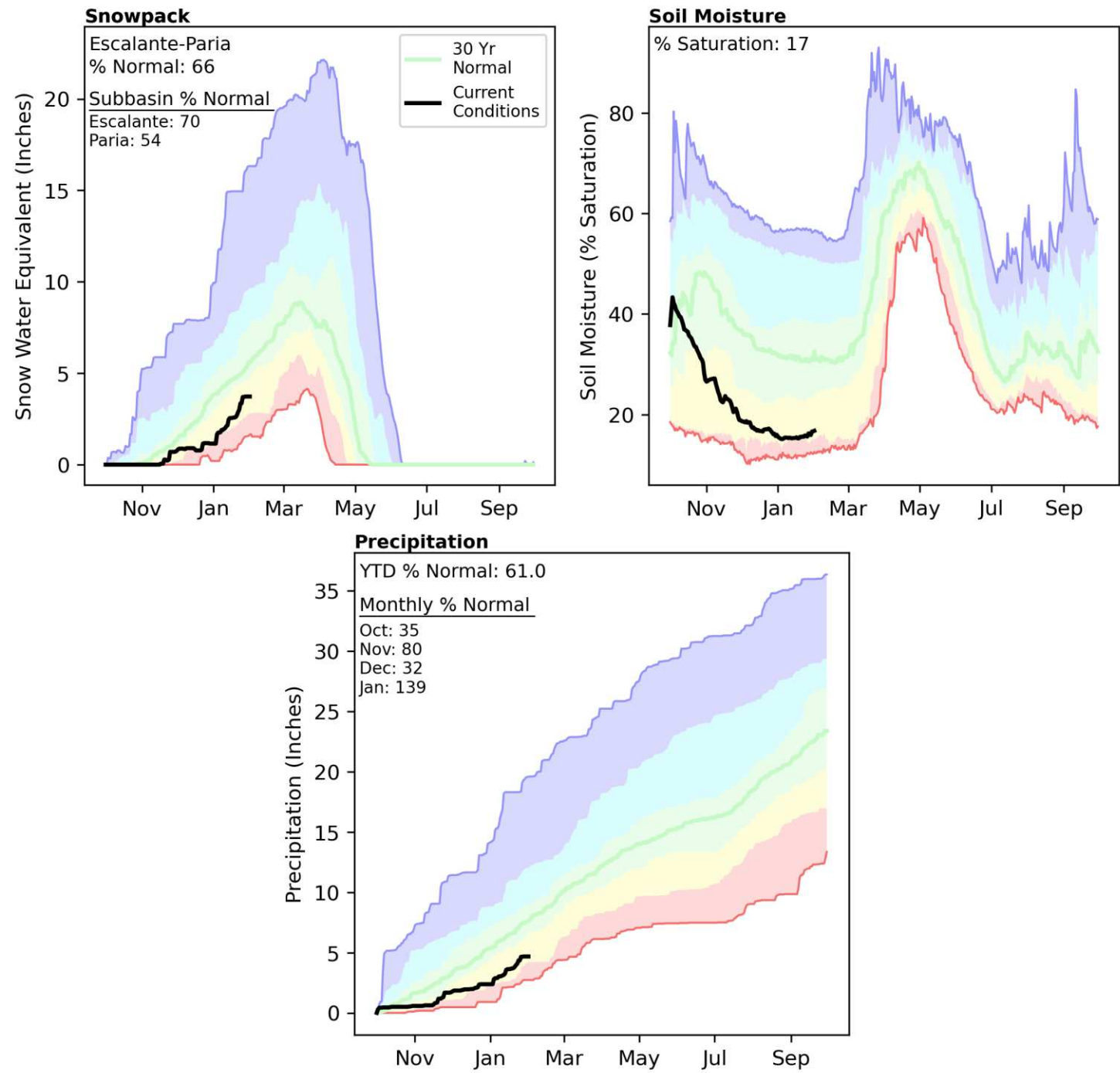
Dirty Devil



Dirty Devil

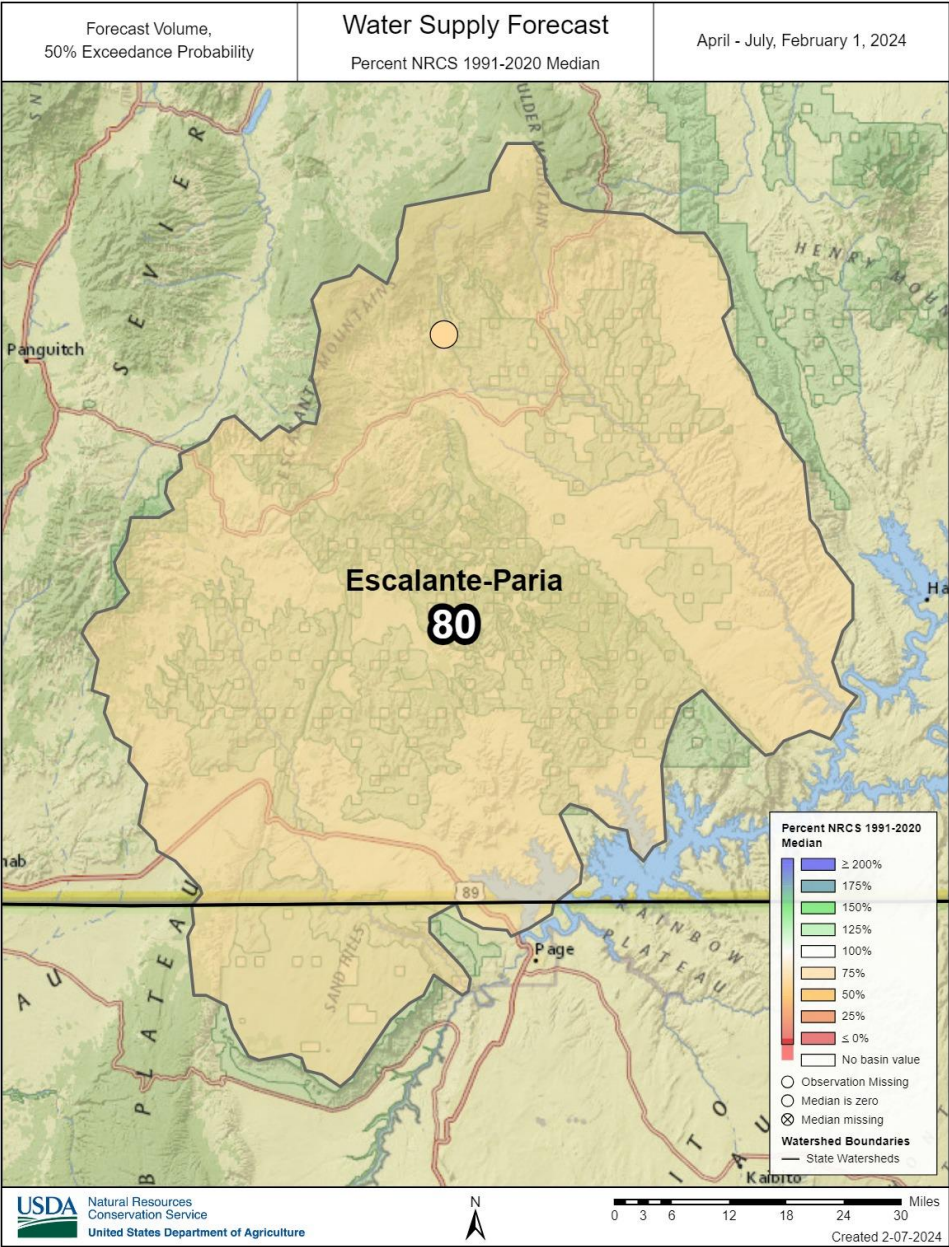
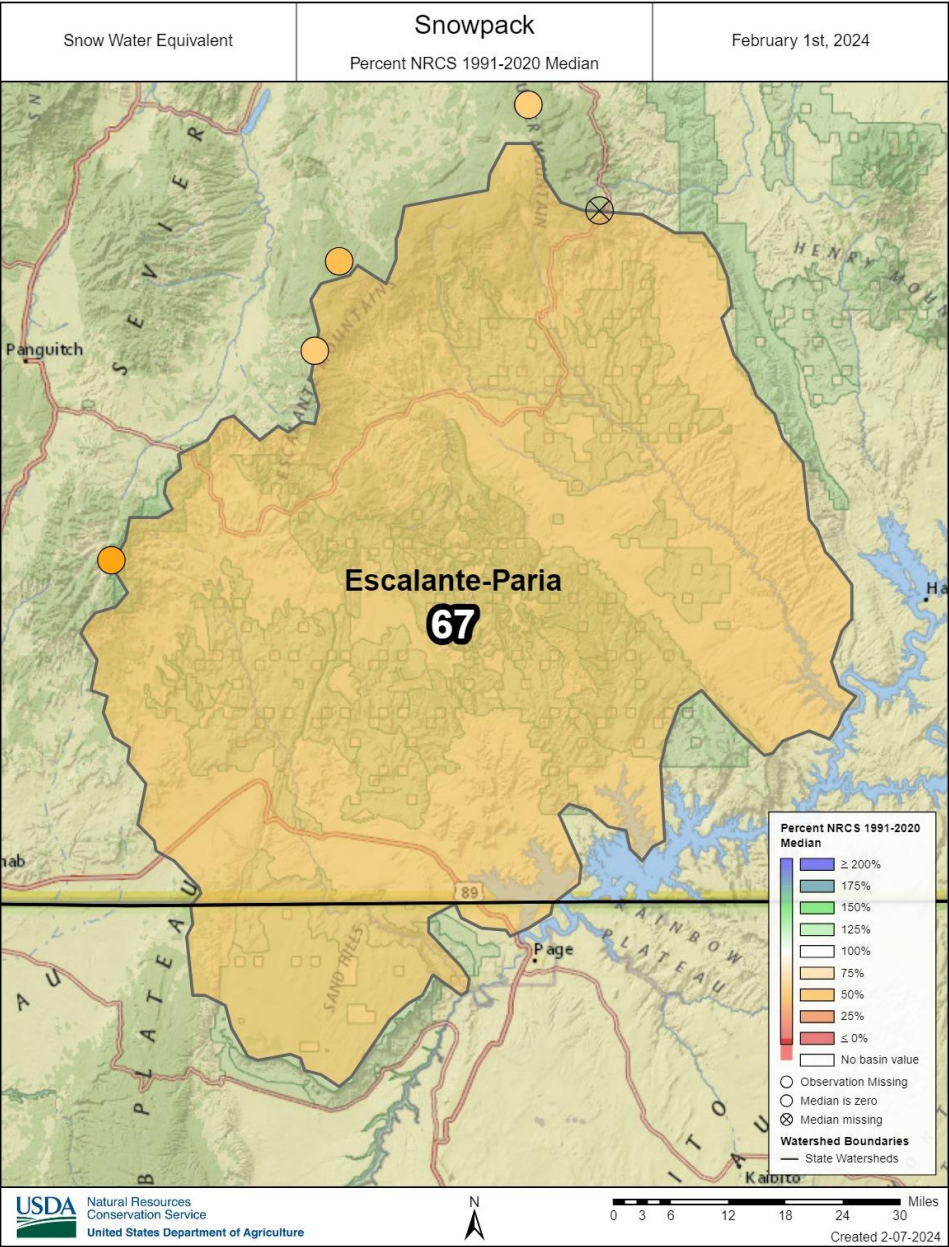


Snowpack in the Escalante and Paria River Basins is well below normal at 66% of median, compared to 180% at this time last year. Precipitation in January was well above normal at 139%, which brings the seasonal accumulation (October-January) to 61% of median. Soil moisture is at 17% saturation compared to 40% saturation last year. The forecast streamflow volume (50% exceedence, April-July) for Pine Creek is 80% of normal.

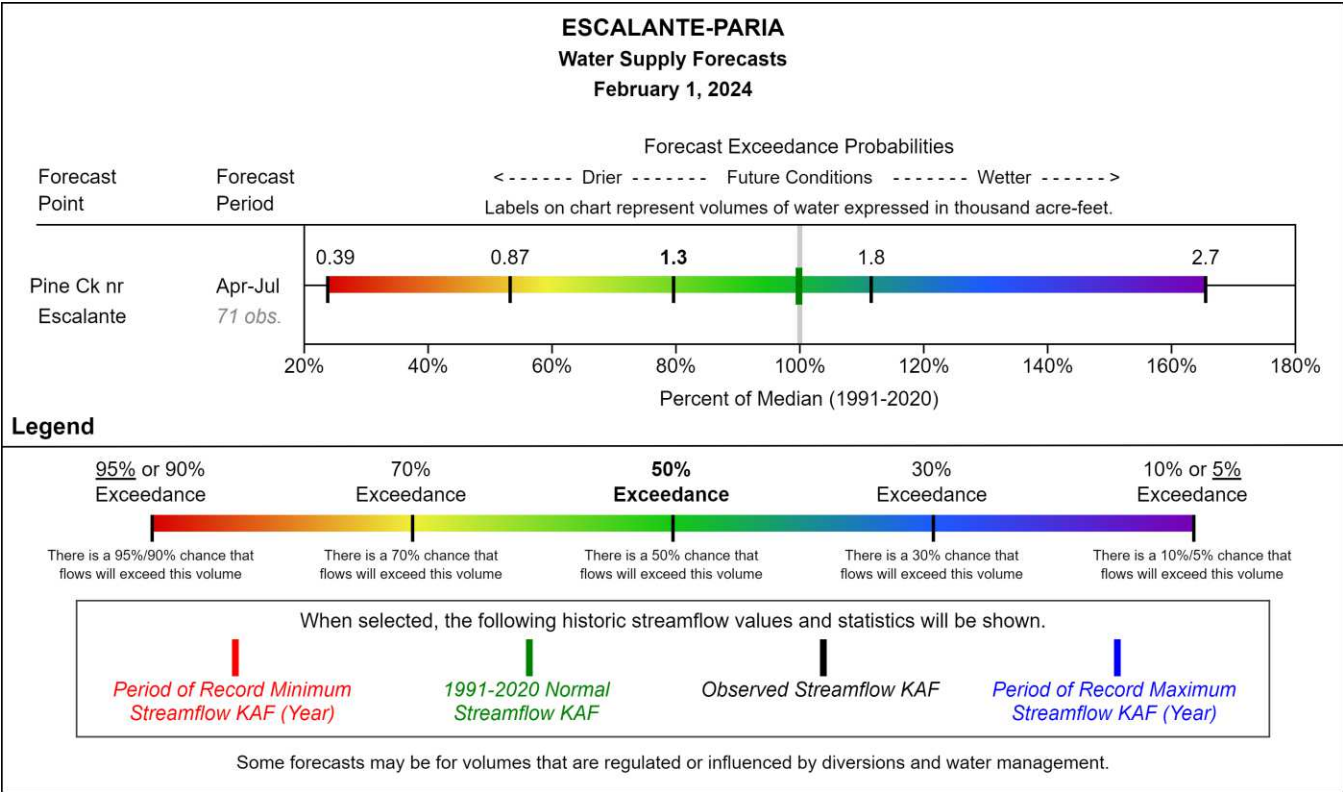


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

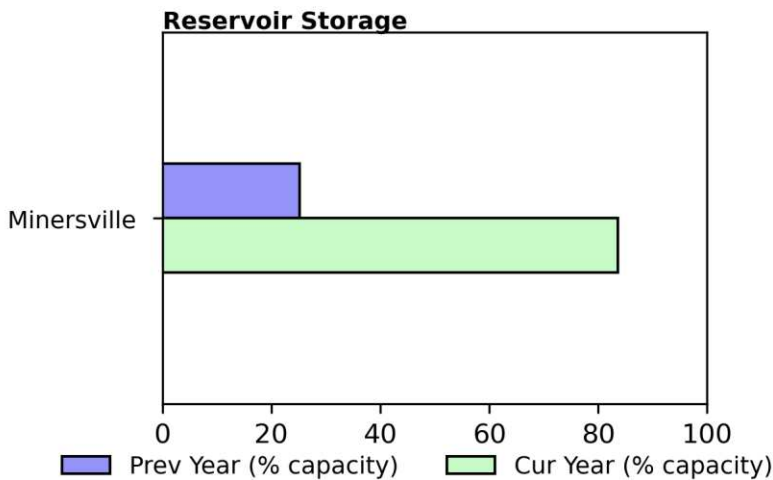
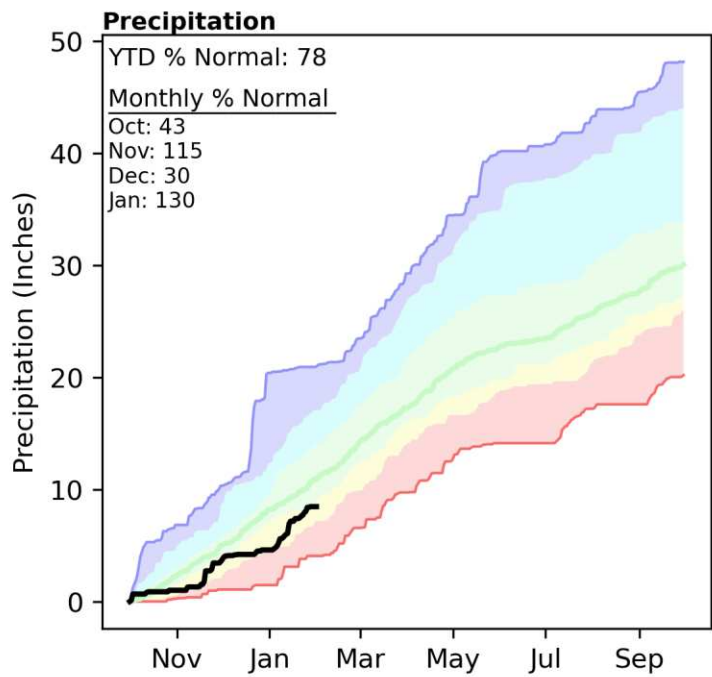
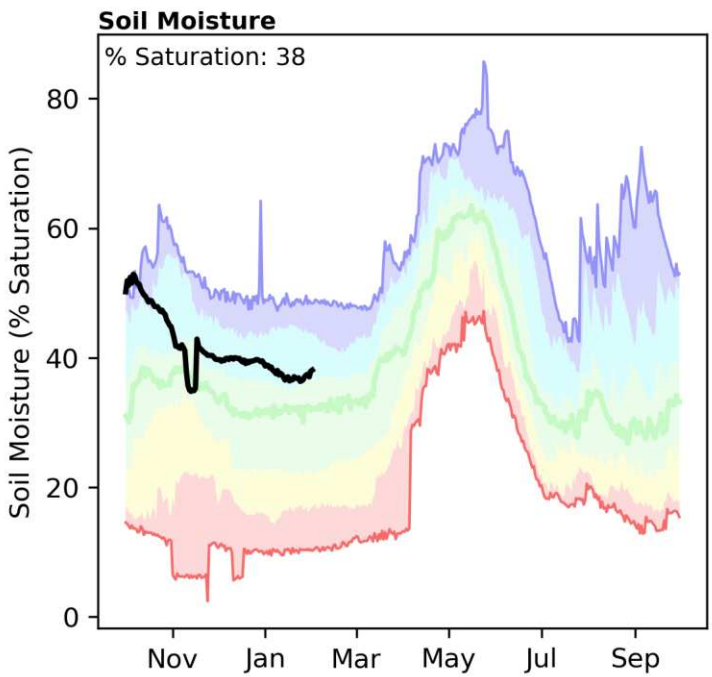
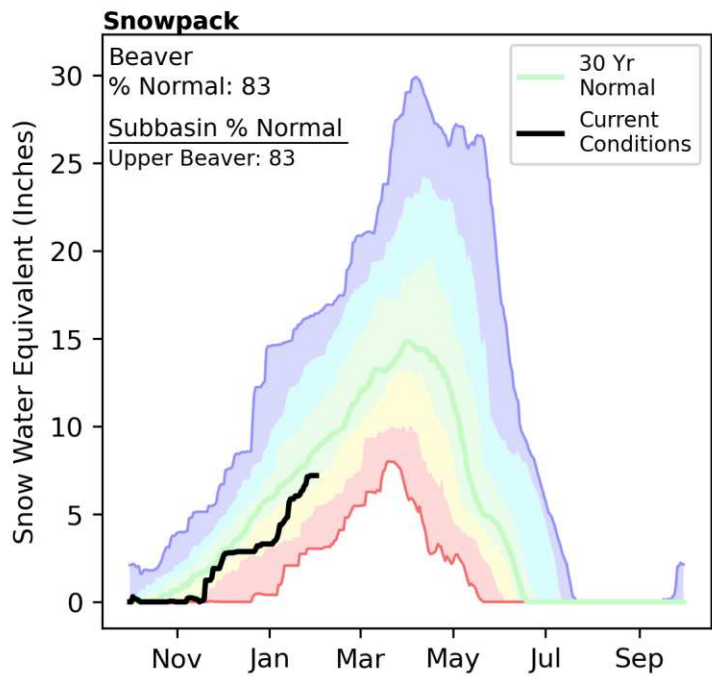
Escalante-Paria



Escalante-Paria

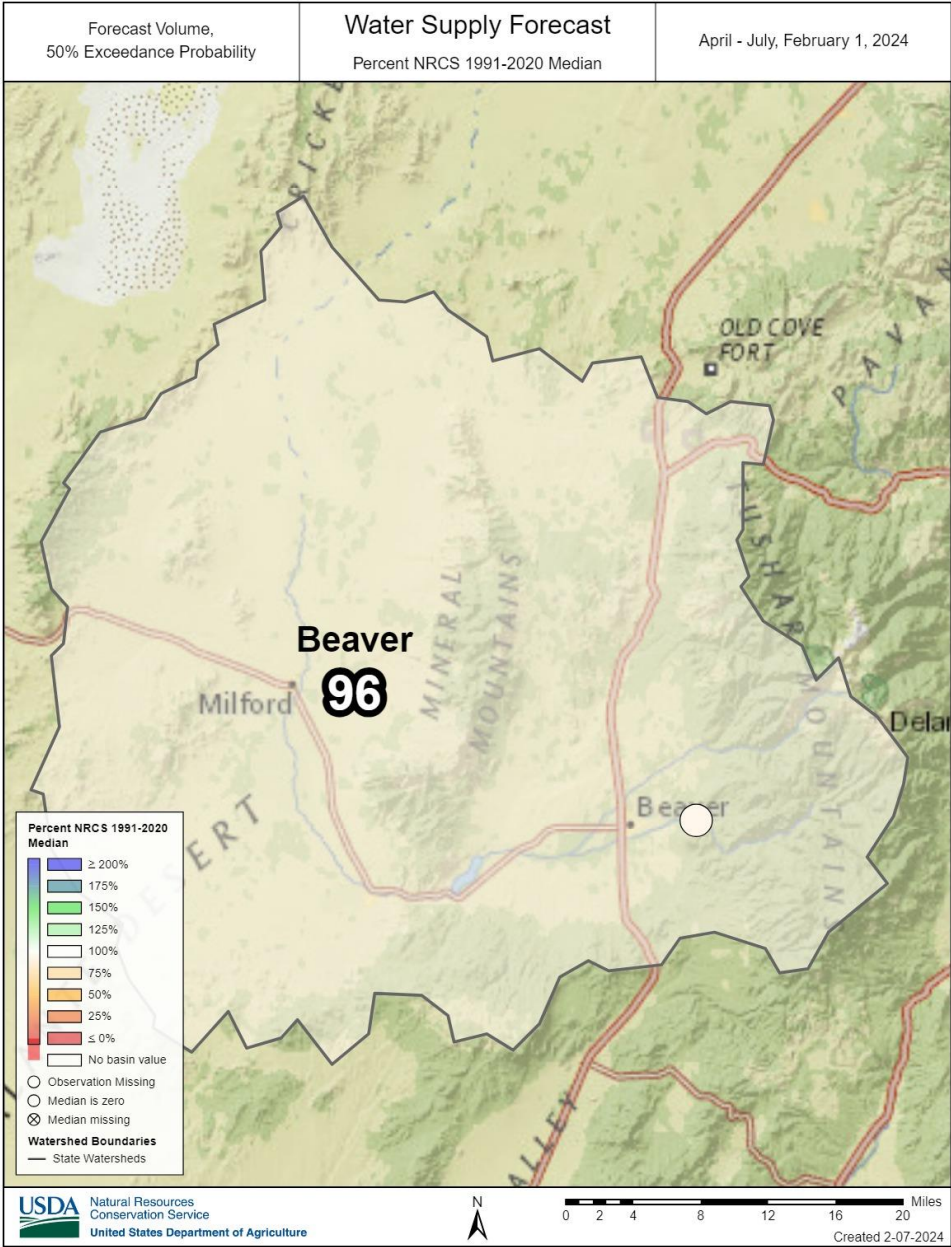
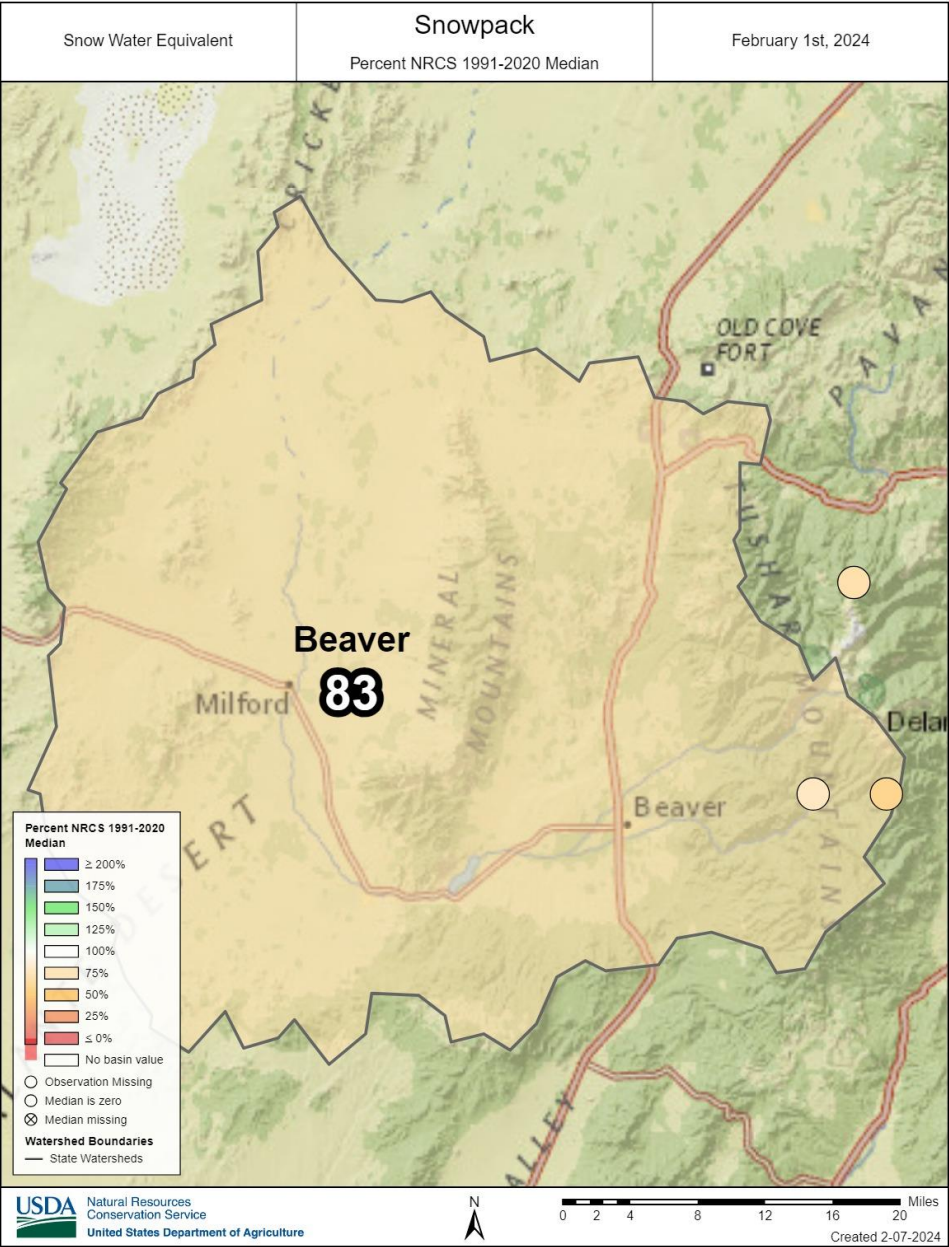


Snowpack in the Beaver River Basin is below normal at 83% of median, compared to 189% at this time last year. Precipitation in January was well above normal at 130%, which brings the seasonal accumulation (October-January) to 78% of median. Soil moisture is at 38% saturation compared to 48% saturation last year. Reservoir storage is 83% of capacity, compared to 25% last year. The forecast streamflow volume (50% exceedence, April-July) for the Beaver River is 96% of normal. The Surface Water Supply Index percentile is 56% for the Beaver River.

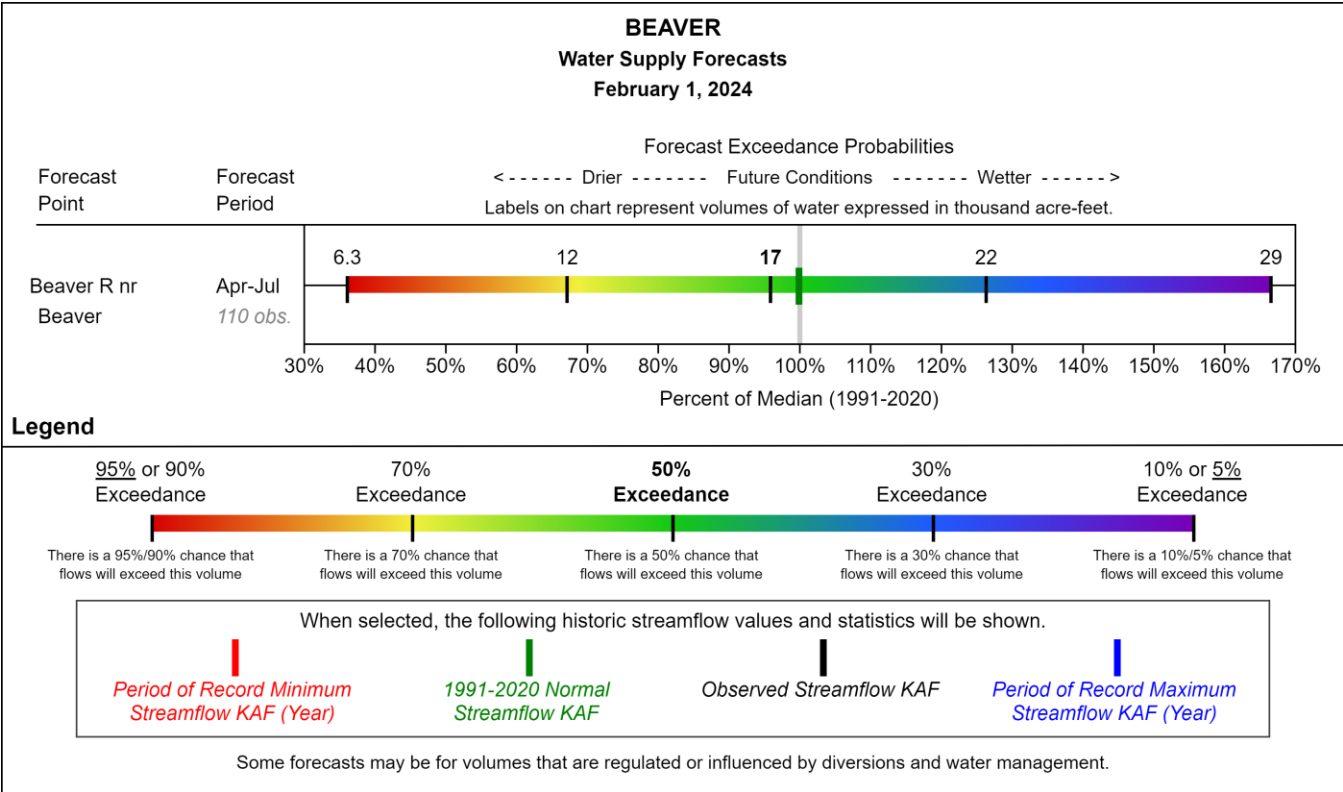


Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Beaver

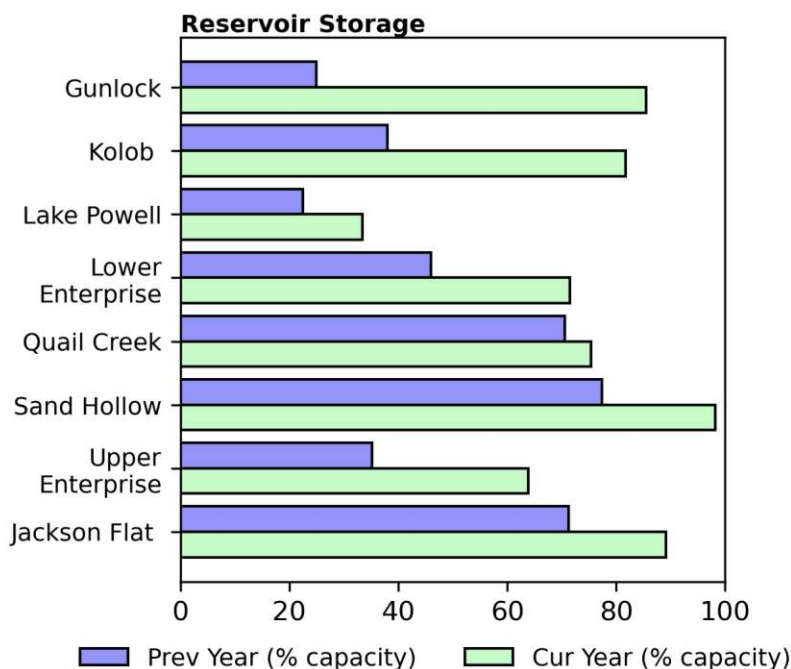
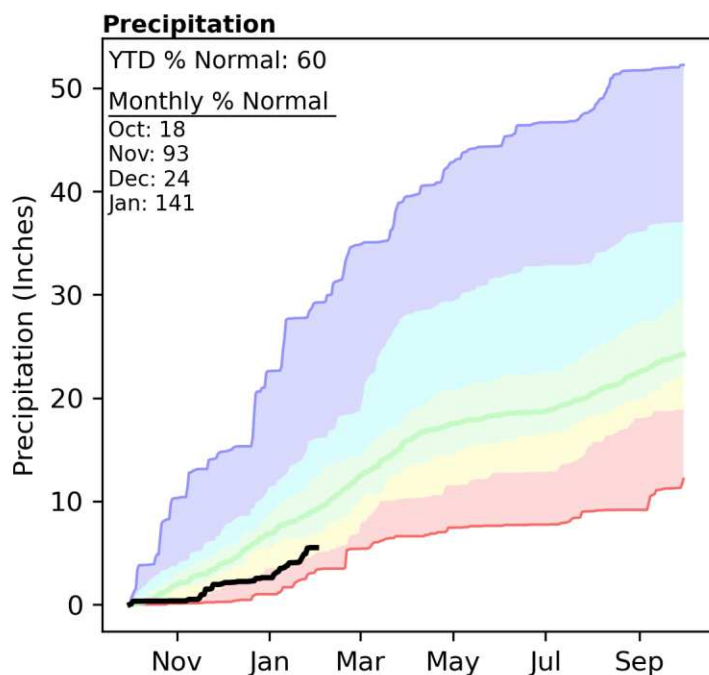
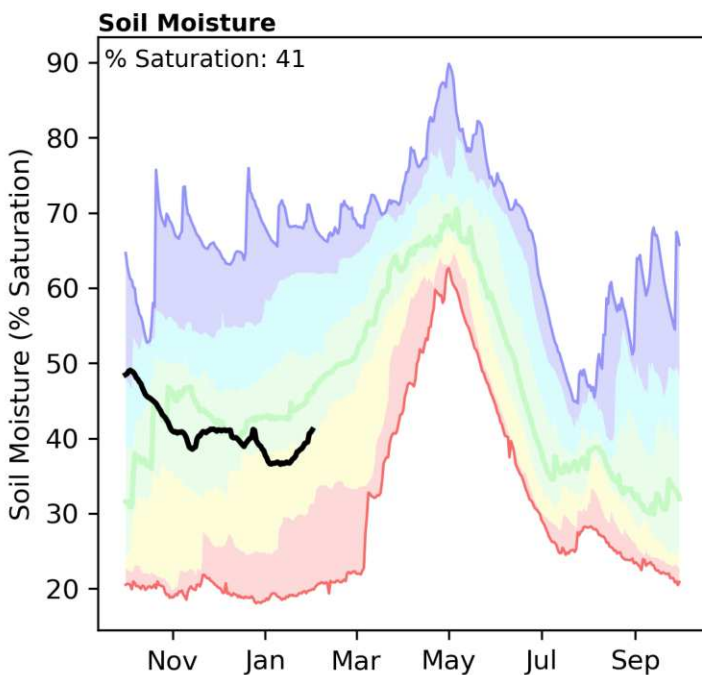
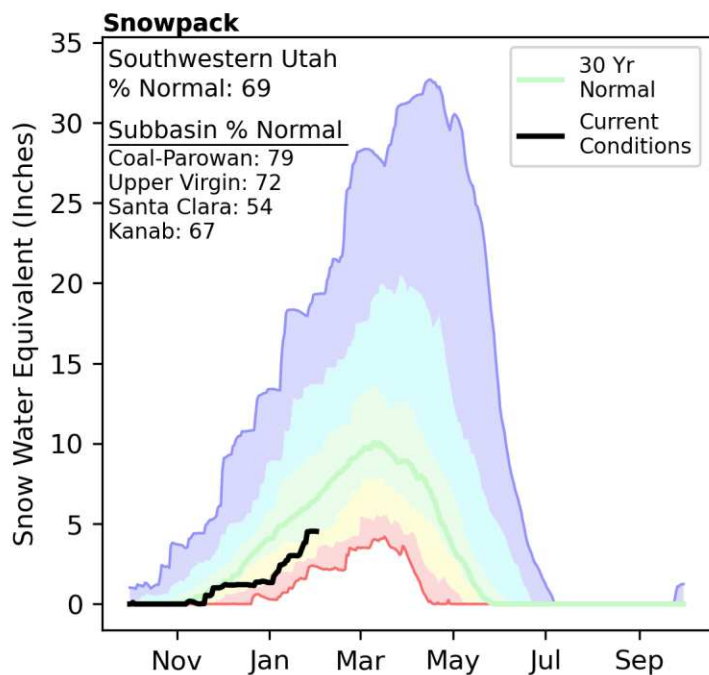


Beaver



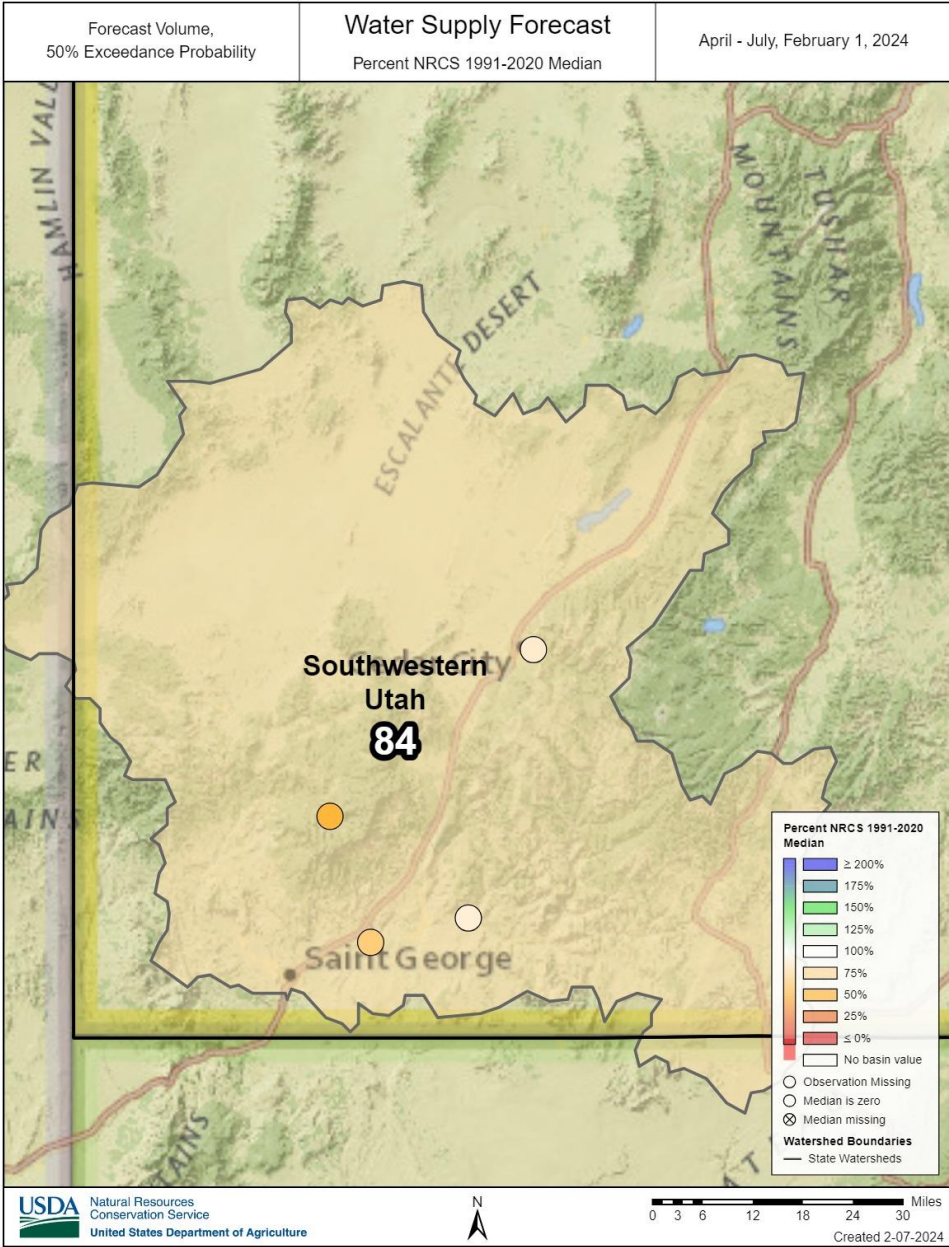
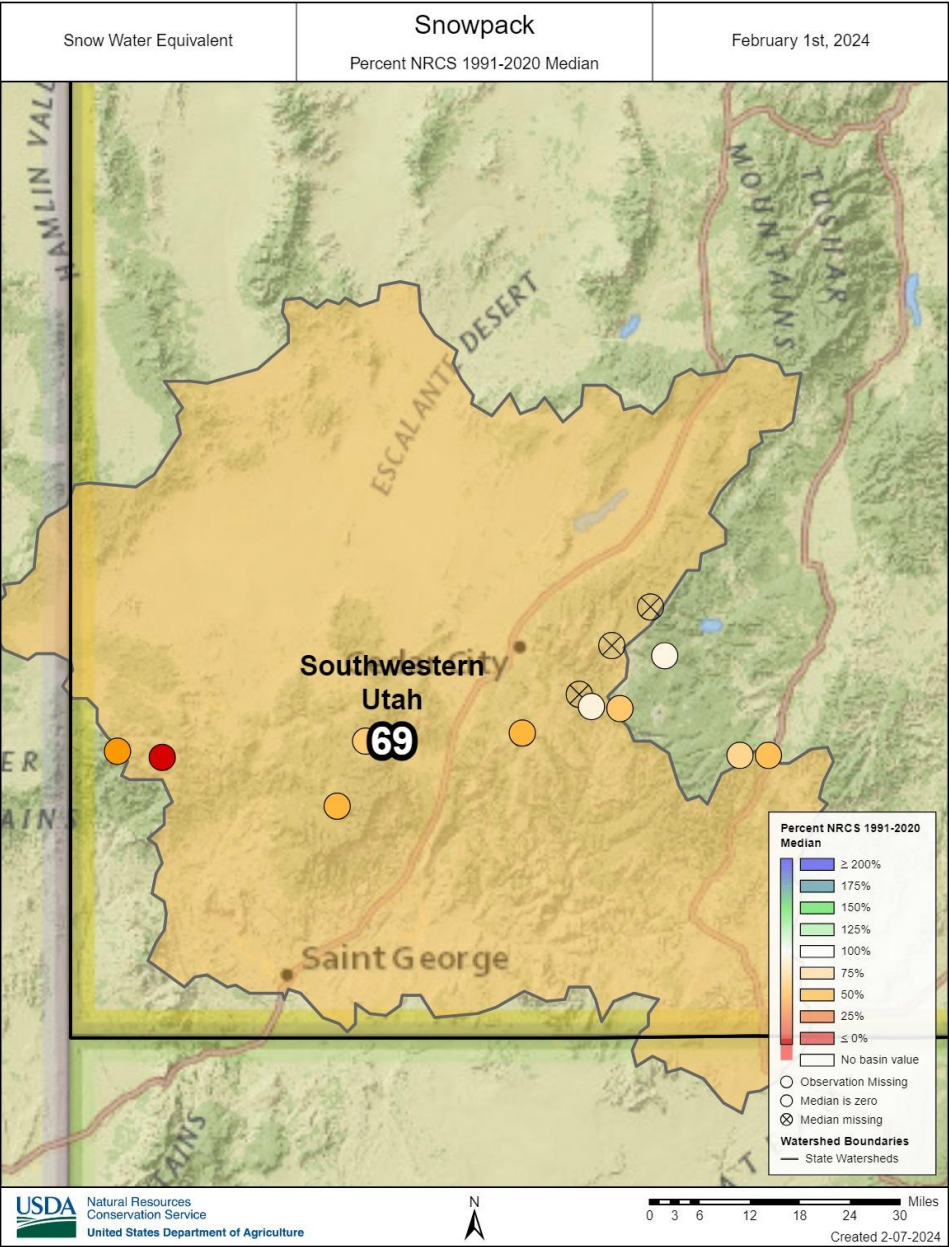
Southwestern Utah | February 1, 2024

Snowpack in Southwestern Utah is well below normal at 69% of median, compared to 223% at this time last year. Precipitation in January was well above normal at 141%, which brings the seasonal accumulation (October-January) to 60% of median. Soil moisture is at 41% saturation compared to 61% saturation last year. Reservoir storage is 33% of capacity, compared to 22% last year. Forecast streamflow volumes (50% exceedence, April-July) range from 62% to 92% of normal. The Surface Water Supply Index percentile is 45% for the Virgin River.



Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Southwestern Utah



Feb 1, 2024 | Utah Reservoir Summary

Watershed/Region	Current Storage (Basinwide KAF)	Reservoir Capacity (Basinwide KAF)	Last Yr % Capacity (Basinwide)	This Yr % Capacity (Basinwide)
Utah (Statewide)	4400	5469	49	80
Utah (Statewide) Incl. Flaming G. & Lk. Powell	15670	33540	31	46
Bear	922	1389	30	66
Weber-Ogden	454	547	49	83
Northeastern Uintas	3206	3852	65	83
Tooele Valley	2	4	38	61
Duchesne	1227	1379	73	89
Provo	1252	1334	54	93
San Pitch	8	20	4	40
Price	129	158	38	81
Upper Sevier	202	382	20	52
Southeast UT	1	2	75	85
Beaver	19	23	25	83
Southwest Utah	104	122	64	85

Red (green) shading indicates >5% decrease (increase) in % capacity from this time last year.

Reservoir	Current Storage (KAF)	Reservoir Capacity (KAF)	Last Yr % Capacity	This Yr % Capacity
Bear Lake	849	1302	30	65
Big Sand Wash Reservoir	24	25	80	96
Causey Reservoir	3	7	57	56
Cleveland Lake	3	5	60	70
Currant Creek Reservoir	14	15	95	95
Deer Creek Reservoir	143	149	56	95
East Canyon Reservoir	44	49	59	89
Echo Reservoir	58	73	63	79
Flaming Gorge Reservoir	3131	3749	66	83
Grantsville Reservoir	1	3	39	57
Gunlock	8	10	24	85
Gunnison Reservoir	8	20	4	40
Huntington North Reservoir	3	4	93	91
Hyrum Reservoir	9	15	62	64
Jackson Flat Reservoir	3	4	71	89
Joes Valley Reservoir	50	61	48	81
Jordanelle Reservoir	255	314	59	81
Ken's Lake	1	2	75	85
Kolob Reservoir	4	5	38	81
Lake Powell	8138	24322	22	33
Lost Creek Reservoir	17	22	42	78
Lower Enterprise	1	2	46	71
Meeks Cabin Reservoir	17	32	28	52
Miller Flat Reservoir	3	5	25	62
Millsite	9	16	47	59
Minersville Reservoir	19	23	25	83
Moon Lake Reservoir	30	35	70	83
Otter Creek Reservoir	46	52	30	89
Panguitch Lake	19	22	36	87
Pineview Reservoir	80	110	41	72
Piute Reservoir	55	71	29	76
Porcupine Reservoir	12	11	64	106
Quail Creek	30	40	70	75
Red Fleet Reservoir	21	25	37	84
Rockport Reservoir	47	60	71	78
Sand Hollow Reservoir	49	50	77	98
Scofield Reservoir	58	65	21	88
Settlement Canyon Reservoir	0	1	35	73
Sevier Bridge Reservoir	81	236	13	34
Smith and Morehouse	4	8	54	55
Starvation Reservoir	149	164	79	90
Stateline Reservoir	8	12	50	66
Steinaker Reservoir	27	33	45	83
Strawberry Reservoir	1000	1105	73	90
Upper Enterprise	6	10	35	63
Upper Stillwater Reservoir	8	32	26	26
Utah Lake	853	870	51	98
Willard Bay	197	215	40	91
Woodruff Creek	1	4	55	49
Woodruff Narrows Reservoir	48	57	23	85

Red (green) shading indicates >5% decrease (increase) in % capacity from this time last year.

Report Created:
2/7/2024 7:01:20 AM

Streamflow Forecast Summary: February 1, 2024
(Medians based On 1991-2020 reference period)

Forecast Exceedance Probabilities For Risk Assessment
Chance that actual volume will exceed forecast

Raft	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Dunn Ck nr Park Valley	APR-JUL	0.91	1.91	2.6	108%	3.3	4.3	2.4

- 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

Forecast Exceedance Probabilities For Risk Assessment
Chance that actual volume will exceed forecast

Bear	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Blacksmith Fk nr Hyrum	APR-JUL	13.3	27	36	124%	45	59	29
Big Ck nr Randolph	APR-JUL	0.9	3.2	4.8	150%	6.3	8.6	3.2
Smiths Fk nr Border	APR-JUL	45	63	75	87%	87	105	86
	APR-SEP	54	74	88	88%	102	122	100
Bear R ab Resv nr Woodruff	APR-JUL	25	49	81	88%	113	161	92
	APR-SEP	26	48	83	84%	118	169	99
Bear R bl Stewart Dam	FEB-JUL	25	67	107	80%	156	245	133
	FEB-SEP	29	76	121	83%	176	275	145
	MAR-JUL	21	60	98	78%	146	235	126
	MAR-SEP	25	71	115	83%	170	270	139
Bear R nr UT-WY State Line	APR-JUL	54	77	93	92%	109	132	101
	APR-SEP	65	90	107	94%	124	149	114
Logan R nr Logan	APR-JUL	76	100	116	127%	132	156	91
Little Bear at Paradise	APR-JUL	6	21	31	111%	41	56	28

- 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

Forecast Exceedance Probabilities For Risk Assessment
Chance that actual volume will exceed forecast

Weber-Ogden	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Weber R at Gateway	APR-JUL	74	176	245	120%	315	415	205
Weber R nr Coalville	APR-JUL	37	71	94	101%	117	151	93
Chalk Ck at Coalville	APR-JUL	5	15.1	26	100%	37	53	26
East Canyon Ck nr Jeremy Ranch	APR-JUL	6	7	11.2	118%	15.4	22	9.5
SF Ogden R nr Huntsville	APR-JUL	21	38	49	120%	60	77	41
Weber R nr Oakley								

Rockport Reservoir Inflow	APR-JUL	57	79	95	98%	111	133	97
East Canyon Ck nr Morgan	APR-JUL	34	66	88	101%	110	142	87
Pineview Reservoir Inflow	APR-JUL	7.7	16.2	22	122%	28	36	18
Lost Ck Reservoir Inflow	APR-JUL	26	70	99	125%	128	172	79
Echo Reservoir Inflow	APR-JUL	4.9	9.4	12.5	132%	15.6	20	9.5
	APR-JUL	43	90	122	102%	154	200	120

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Northeastern Uintas	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Blacks Fk nr Robertson	APR-JUL	42	61	74	81%	87	106	91
Ashley Ck nr Vernal	APR-JUL	11	23	31	72%	39	51	43
Flaming Gorge Reservoir Inflow ²	APR-JUL	305	505	670	68%	860	1180	990
Stateline Reservoir Inflow ²	APR-JUL	16.1	21	25	96%	29	36	26
Big Brush Ck ab Red Fleet Reservoir	APR-JUL	5.4	10.5	14	71%	17.5	23	19.7

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Tooele Valley-Vernon Creek	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
S Willow Ck nr Grantsville	APR-JUL	1.28	2	2.5	100%	3	3.7	2.5
Vernon Ck nr Vernon	APR-JUL	0.3	0.38	0.61	82%	0.89	1.4	0.74

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Duchesne	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Yellowstone R nr Altonah	APR-JUL	25	35	43	77%	51	65	56
WF Duchesne R at VAT Diversion ²	APR-JUL	8.9	11.8	14	97%	16.4	20	14.5
Currant Ck Reservoir Inflow ²	APR-JUL	6.3	10.3	13.6	114%	17.3	24	11.9

Duchesne R at Myton ²	APR-JUL	80	140	191	89%	250	350	215
Upper Stillwater Reservoir Inflow ²	APR-JUL	30	43	53	78%	64	82	68
Strawberry R nr Duchesne ²	APR-JUL	36	65	90	170%	119	169	53
Duchesne R nr Tabiona ²	APR-JUL	49	65	78	90%	92	114	87
Duchesne R nr Randlett ²	APR-JUL	86	158	220	86%	290	415	255
Strawberry R nr Soldier Springs ²	APR-JUL	23	39	52	144%	67	93	36
Uinta R bl Powerplant Diversion nr Neola	APR-JUL	21	35	46	72%	59	80	64
Rock Ck nr Mountain Home ²	APR-JUL	38	51	60	77%	70	87	78
Lake Fk R bl Moon Lk nr Mountain Home ²	APR-JUL	26	35	42	74%	49	61	57
Whiterocks R nr Whiterocks	APR-JUL	14.9	24	31	72%	39	53	43
Duchesne R ab Knight Diversion ²	APR-JUL	88	118	140	86%	164	205	162

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Provo-Utah Lake-Jordan	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
W Canyon Ck nr Cedar Fort	APR-JUL	0.2	0.25	0.9	95%	1.55	2.5	0.95
Provo R bl Deer Ck Dam	APR-JUL	58	88	109	96%	130	160	113
Emigration Ck nr SLC	APR-JUL	1.34	2.2	3	130%	3.9	5.3	2.3
Utah Lake Inflow	APR-JUL	10	97	176	97%	255	370	182
Parleys Ck nr SLC	APR-JUL	5.7	8.9	11.5	132%	14.4	19.3	8.7
Provo R at Hailstone	APR-JUL	70	91	106	128%	123	149	83
American Fk ab Upper Powerplant	APR-JUL	9	17.3	23	120%	29	37	19.2
Provo R at Woodland	APR-JUL	69	87	100	118%	114	137	85
Little Cottonwood Ck nr SLC	APR-JUL	26	31	35	113%	39	45	31
Dell Fk nr SLC	APR-JUL	2.1	3.1	3.9	108%	4.8	6.3	3.6
City Ck nr SLC	APR-JUL	4.2	5.6	6.7	126%	7.9	9.8	5.3
Salt Ck at Nephi	APR-JUL	1.5	3.4	6.4	136%	9.4	13.8	4.7
Spanish Fk at Castilla	APR-JUL	6	20	39	130%	58	86	30
Big Cottonwood Ck nr SLC	APR-JUL	21	26	30	103%	34	41	29
Mill Ck nr SLC								

APR-JUL	3.1	4.5	5.6	130%	6.8	8.8	4.3
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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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Lower Sevier	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Sevier R nr Gunnison	APR-JUL	9.5	11.8	26	87%	46	85	30

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

San Pitch	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Manti Ck bl Dugway Ck nr Manti	APR-JUL	6	9	11.8	91%	14.6	18.7	13

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Price-San Rafael	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Joes Valley Reservoir Inflow ²	APR-JUL	24	33	39	89%	46	58	44
Fish Ck ab Reservoir nr Scofield	APR-JUL	12.1	17.6	22	111%	27	35	19.8
Huntington Ck nr Huntington ²	APR-JUL	15.8	23	28	78%	34	44	36
White R bl Tabbyune Creek	APR-JUL	4.4	8	11	153%	14.5	21	7.2
Ferron Ck (Upper Station) nr Ferron	APR-JUL	16.5	22	26	81%	30	38	32
Electric Lake Inflow ²	APR-JUL	5.8	8.2	10	120%	12	15.3	8.3
Price R nr Scofield Reservoir ²	APR-JUL	15.6	23	29	112%	36	46	26

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Upper Sevier	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Salina Ck nr Emery	APR-JUL	2	3.7	4.8	86%	5.9	7.6	5.6

Sevier R at Hatch	APR-JUL	9.5	11	25	74%	39	60	34
EF Sevier R nr Kingston	APR-JUL	1.7	5.8	10.3	77%	16.1	27	13.4
Mammoth Ck nr Hatch	APR-JUL	3	7.5	14.3	73%	21	31	19.7
Sevier R nr Gunnison	APR-JUL	9.5	11.8	26	87%	46	85	30
Sevier R nr Kingston	APR-JUL	3	4.4	10	68%	17.9	34	14.7
Clear Ck ab Diversions nr Sevier	APR-JUL	4	7.5	12.2	90%	16.9	24	13.6

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Southeastern Utah	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Mill Ck at Sheley Tunnel nr Moab	APR-JUL	1.38	2.4	3.3	100%	4.3	6.1	3.3
Colorado R nr Cisco ²	APR-JUL	2000	2790	3400	91%	4070	5170	3750
Green R at Green River, UT ²	APR-JUL	1330	1870	2300	88%	2770	3540	2610
South Ck ab Resv nr Monticello	APR-JUL	0	0.06	0.17	41%	0.34	0.7	0.41

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Dirty Devil	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Muddy Ck nr Emery	APR-JUL	7	10.3	12.8	79%	15.6	20	16.3
Seven Mile Ck nr Fish Lake	APR-JUL	3.1	4.6	5.7	93%	7	9.1	6.1

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Beaver	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Beaver R nr Beaver	APR-JUL	6.3	11.7	16.7	96%	22	29	17.4

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Southwestern Utah	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Virgin R nr Hurricane	APR-JUL	3.3	12.9	23	74%	36	60	31
Virgin R at Virgin	APR-JUL	11.6	23	33	92%	45	65	36
Santa Clara R nr Pine Valley	APR-JUL	0.35	1.17	2	63%	3.1	5	3.2
Coal Ck nr Cedar City	APR-JUL	3	6.8	11.3	90%	15.8	22	12.5

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Escalante-Paria	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Pine Ck nr Escalante	APR-JUL	0.39	0.87	1.3	80%	1.82	2.7	1.63

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

Great Salt Lake	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Blacksmith Fk nr Hyrum	APR-JUL	13.3	27	36	124%	45	59	29
Parleys Ck nr SLC	APR-JUL	5.7	8.9	11.5	132%	14.4	19.3	8.7
Lehman Ck nr Baker	APR-JUL	0.72	1.11	1.8	90%	2.5	3.5	1.99
Great Salt Lake Inflow								
Salt Ck at Nephi	APR-JUL	1.5	3.4	6.4	136%	9.4	13.8	4.7
Little Bear at Paradise	APR-JUL	6	21	31	111%	41	56	28
SF Ogden R nr Huntsville	APR-JUL	21	38	49	120%	60	77	41
Emigration Ck nr SLC	APR-JUL	1.34	2.2	3	130%	3.9	5.3	2.3
Utah Lake Inflow	APR-JUL	10	97	176	97%	255	370	182
Smiths Fk nr Border	APR-JUL	45	63	75	87%	87	105	86
	APR-SEP	54	74	88	88%	102	122	100
Little Cottonwood Ck nr SLC	APR-JUL	26	31	35	113%	39	45	31
Rockport Reservoir Inflow	APR-JUL	34	66	88	101%	110	142	87
East Canyon Ck nr Morgan	APR-JUL	7.7	16.2	22	122%	28	36	18

Spanish Fk at Castilla	APR-JUL	6	20	39	130%	58	86	30
Mill Ck nr SLC	APR-JUL	3.1	4.5	5.6	130%	6.8	8.8	4.3
Weber R at Gateway	APR-JUL	74	176	245	120%	315	415	205
East Canyon Ck nr Jeremy Ranch	APR-JUL	6	7	11.2	118%	15.4	22	9.5
Chalk Ck at Coalville	APR-JUL	5	15.1	26	100%	37	53	26
Provo R bl Deer Ck Dam	APR-JUL	58	88	109	96%	130	160	113
Provo R at Hailstone	APR-JUL	70	91	106	128%	123	149	83
American Fk ab Upper Powerplant	APR-JUL	9	17.3	23	120%	29	37	19.2
Dell Fk nr SLC	APR-JUL	2.1	3.1	3.9	108%	4.8	6.3	3.6
Bear R ab Resv nr Woodruff	APR-JUL	25	49	81	88%	113	161	92
	APR-SEP	26	48	83	84%	118	169	99
Bear R bl Stewart Dam	FEB-JUL	25	67	107	80%	156	245	133
	FEB-SEP	29	76	121	83%	176	275	145
	MAR-JUL	21	60	98	78%	146	235	126
	MAR-SEP	25	71	115	83%	170	270	139
City Ck nr SLC	APR-JUL	4.2	5.6	6.7	126%	7.9	9.8	5.3
Weber R nr Oakley	APR-JUL	57	79	95	98%	111	133	97
Pineview Reservoir Inflow	APR-JUL	26	70	99	125%	128	172	79
Logan R nr Logan	APR-JUL	76	100	116	127%	132	156	91
Echo Reservoir Inflow	APR-JUL	43	90	122	102%	154	200	120
W Canyon Ck nr Cedar Fort	APR-JUL	0.2	0.25	0.9	95%	1.55	2.5	0.95
Vernon Ck nr Vernon	APR-JUL	0.3	0.38	0.61	82%	0.89	1.4	0.74
Weber R nr Coalville	APR-JUL	37	71	94	101%	117	151	93
Dunn Ck nr Park Valley	APR-JUL	0.91	1.91	2.6	108%	3.3	4.3	2.4
Big Ck nr Randolph	APR-JUL	0.9	3.2	4.8	150%	6.3	8.6	3.2
Provo R at Woodland	APR-JUL	69	87	100	118%	114	137	85
S Willow Ck nr Grantsville	APR-JUL	1.28	2	2.5	100%	3	3.7	2.5
Bear R nr UT-WY State Line	APR-JUL	54	77	93	92%	109	132	101
	APR-SEP	65	90	107	94%	124	149	114
Big Cottonwood Ck nr SLC	APR-JUL	21	26	30	103%	34	41	29
Lost Ck Reservoir Inflow	APR-JUL	4.9	9.4	12.5	132%	15.6	20	9.5

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

Forecast Exceedance Probabilities For Risk Assessment Chance that actual volume will exceed forecast

State of Utah	Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Median	30% (KAF)	10% (KAF)	30yr Median (KAF)
Blacks Fk nr Robertson	APR-JUL	42	61	74	81%	87	106	91
Duchesne R nr Tabiona ²	APR-JUL	49	65	78	90%	92	114	87
EF Sevier R nr Kingston	APR-JUL	1.7	5.8	10.3	77%	16.1	27	13.4
Strawberry R nr Soldier Springs ²	APR-JUL	23	39	52	144%	67	93	36
Price R nr Scofield Reservoir ²	APR-JUL	15.6	23	29	112%	36	46	26
Little Cottonwood Ck nr SLC	APR-JUL	26	31	35	113%	39	45	31
Huntington Ck nr Huntington ²	APR-JUL	15.8	23	28	78%	34	44	36
Rock Ck nr Mountain Home ²	APR-JUL	38	51	60	77%	70	87	78
Fish Ck ab Reservoir nr Scofield	APR-JUL	12.1	17.6	22	111%	27	35	19.8
Sevier R at Hatch	APR-JUL	9.5	11	25	74%	39	60	34
Dell Fk nr SLC	APR-JUL	2.1	3.1	3.9	108%	4.8	6.3	3.6
Duchesne R nr Randlett ²	APR-JUL	86	158	220	86%	290	415	255
City Ck nr SLC	APR-JUL	4.2	5.6	6.7	126%	7.9	9.8	5.3
Mammoth Ck nr Hatch	APR-JUL	3	7.5	14.3	73%	21	31	19.7
Electric Lake Inflow ²	APR-JUL	5.8	8.2	10	120%	12	15.3	8.3
Seven Mile Ck nr Fish Lake	APR-JUL	3.1	4.6	5.7	93%	7	9.1	6.1
White R bl Tabbyune Creek	APR-JUL	4.4	8	11	153%	14.5	21	7.2
Ferron Ck (Upper Station) nr Ferron	APR-JUL	16.5	22	26	81%	30	38	32
Flaming Gorge Reservoir Inflow ²	APR-JUL	305	505	670	68%	860	1180	990
Joes Valley Reservoir Inflow ²	APR-JUL	24	33	39	89%	46	58	44
Parleys Ck nr SLC	APR-JUL	5.7	8.9	11.5	132%	14.4	19.3	8.7
Green R at Green River, UT ²	APR-JUL	1330	1870	2300	88%	2770	3540	2610
SF Ogden R nr Huntsville	APR-JUL	21	38	49	120%	60	77	41
Santa Clara R nr Pine Valley	APR-JUL	0.35	1.17	2	63%	3.1	5	3.2
Emigration Ck nr SLC	APR-JUL	1.34	2.2	3	130%	3.9	5.3	2.3
East Canyon Ck nr Jeremy Ranch	APR-JUL	6	7	11.2	118%	15.4	22	9.5
Salina Ck nr Emery	APR-JUL	2	3.7	4.8	86%	5.9	7.6	5.6
Provo R bl Deer Ck Dam	APR-JUL	58	88	109	96%	130	160	113

American Fk ab Upper Powerplant								
APR-JUL	9	17.3	23	120%	29	37	19.2	
Bear R ab Resv nr Woodruff								
APR-JUL	25	49	81	88%	113	161	92	
APR-SEP	26	48	83	84%	118	169	99	
Bear R bl Stewart Dam								
FEB-JUL	25	67	107	80%	156	245	133	
FEB-SEP	29	76	121	83%	176	275	145	
MAR-JUL	21	60	98	78%	146	235	126	
MAR-SEP	25	71	115	83%	170	270	139	
Muddy Ck nr Emery								
APR-JUL	7	10.3	12.8	79%	15.6	20	16.3	
Echo Reservoir Inflow								
APR-JUL	43	90	122	102%	154	200	120	
Vernon Ck nr Vernon								
APR-JUL	0.3	0.38	0.61	82%	0.89	1.4	0.74	
Dunn Ck nr Park Valley								
APR-JUL	0.91	1.91	2.6	108%	3.3	4.3	2.4	
Provo R at Woodland								
APR-JUL	69	87	100	118%	114	137	85	
S Willow Ck nr Grantsville								
APR-JUL	1.28	2	2.5	100%	3	3.7	2.5	
Colorado R nr Cisco ²								
APR-JUL	2000	2790	3400	91%	4070	5170	3750	
Whiterocks R nr Whiterocks								
APR-JUL	14.9	24	31	72%	39	53	43	
Duchesne R ab Knight Diversion ²								
APR-JUL	88	118	140	86%	164	205	162	
Lost Ck Reservoir Inflow								
APR-JUL	4.9	9.4	12.5	132%	15.6	20	9.5	
Manti Ck bl Dugway Ck nr Manti								
APR-JUL	6	9	11.8	91%	14.6	18.7	13	
Upper Stillwater Reservoir Inflow ²								
APR-JUL	30	43	53	78%	64	82	68	
Strawberry R nr Duchesne ²								
APR-JUL	36	65	90	170%	119	169	53	
Mill Ck at Sheley Tunnel nr Moab								
APR-JUL	1.38	2.4	3.3	100%	4.3	6.1	3.3	
Pine Ck nr Escalante								
APR-JUL	0.39	0.87	1.3	80%	1.82	2.7	1.63	
Virgin R at Virgin								
APR-JUL	11.6	23	33	92%	45	65	36	
Uinta R bl Powerplant Diversion nr Neola								
APR-JUL	21	35	46	72%	59	80	64	
South Ck ab Resv nr Monticello								
APR-JUL	0	0.06	0.17	41%	0.34	0.7	0.41	
Sevier R nr Kingston								
APR-JUL	3	4.4	10	68%	17.9	34	14.7	
Yellowstone R nr Altonah								
APR-JUL	25	35	43	77%	51	65	56	
WF Duchesne R at VAT Diversion ²								
APR-JUL	8.9	11.8	14	97%	16.4	20	14.5	
Smiths Fk nr Border								
APR-JUL	45	63	75	87%	87	105	86	
APR-SEP	54	74	88	88%	102	122	100	
Rockport Reservoir Inflow								
APR-JUL	34	66	88	101%	110	142	87	
Coal Ck nr Cedar City								
APR-JUL	3	6.8	11.3	90%	15.8	22	12.5	
Weber R at Gateway								
APR-JUL	74	176	245	120%	315	415	205	
Chalk Ck at Coalville								

Provo R at Hailstone	APR-JUL	5	15.1	26	100%	37	53	26
Pineview Reservoir Inflow	APR-JUL	70	91	106	128%	123	149	83
Sevier R nr Gunnison	APR-JUL	26	70	99	125%	128	172	79
Clear Ck ab Diversions nr Sevier	APR-JUL	9.5	11.8	26	87%	46	85	30
W Canyon Ck nr Cedar Fort	APR-JUL	4	7.5	12.2	90%	16.9	24	13.6
Big Brush Ck ab Red Fleet Reservoir	APR-JUL	0.2	0.25	0.9	95%	1.55	2.5	0.95
Virgin R nr Hurricane	APR-JUL	5.4	10.5	14	71%	17.5	23	19.7
Bear R nr UT-WY State Line	APR-JUL	3.3	12.9	23	74%	36	60	31
Blacksmith Fk nr Hyrum	APR-JUL	54	77	93	92%	109	132	101
	APR-SEP	65	90	107	94%	124	149	114
Salt Ck at Nephi	APR-JUL	13.3	27	36	124%	45	59	29
Little Bear at Paradise	APR-JUL	1.5	3.4	6.4	136%	9.4	13.8	4.7
Utah Lake Inflow	APR-JUL	6	21	31	111%	41	56	28
East Canyon Ck nr Morgan	APR-JUL	10	97	176	97%	255	370	182
Lake Fk R bl Moon Lk nr Mountain Home ²	APR-JUL	7.7	16.2	22	122%	28	36	18
Spanish Fk at Castilla	APR-JUL	26	35	42	74%	49	61	57
Mill Ck nr SLC	APR-JUL	6	20	39	130%	58	86	30
Beaver R nr Beaver	APR-JUL	3.1	4.5	5.6	130%	6.8	8.8	4.3
Currant Ck Reservoir Inflow ²	APR-JUL	6.3	11.7	16.7	96%	22	29	17.4
Stateline Reservoir Inflow ²	APR-JUL	6.3	10.3	13.6	114%	17.3	24	11.9
Weber R nr Oakley	APR-JUL	16.1	21	25	96%	29	36	26
Logan R nr Logan	APR-JUL	57	79	95	98%	111	133	97
Ashley Ck nr Vernal	APR-JUL	76	100	116	127%	132	156	91
Weber R nr Coalville	APR-JUL	11	23	31	72%	39	51	43
Duchesne R at Myton ²	APR-JUL	37	71	94	101%	117	151	93
Big Ck nr Randolph	APR-JUL	80	140	191	89%	250	350	215
Big Cottonwood Ck nr SLC	APR-JUL	0.9	3.2	4.8	150%	6.3	8.6	3.2
	APR-JUL	21	26	30	103%	34	41	29

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

Appendix A: Data used in SWSI Calculations

Watershed/ Region	USGS Gauging Station(s)	Reservoir(s)	Start Date
Bear	Bear R nr Ut-Wy State Line	Bear Lake	1981
Woodruff Narrows	Bear R ab Resv nr Woodruff	Woodruff Narrows Reservoir	1986
Little Bear	Little Bear R at Paradise	Hyrum Reservoir	1993
Ogden	Pineview Reservoir Inflow	Pineview Reservoir, Causey Reservoir	1981
Weber	Weber R at Gateway	East Canyon Reservoir, Echo Reservoir, Lost Creek Reservoir, Rockport Reservoir, Smith And Morehouse Reservoir, Willard Bay	1981
Provo	Provo R at Woodland, Spanish Fk at Castilla, W Canyon Ck nr Cedar Fort, Salt Ck at Nephi, American Fk ab Upper Powerplant	Utah Lake, Deer Creek Reservoir, Jordanelle Reservoir	1995
Western Uintas	Yellowstone R nr Altonah	Starvation Reservoir, Moon Lake Reservoir, Upper Stillwater Reservoir	1981
Eastern Uintas	Big Brush Ck ab Red Fleet Reservoir, Ashley Ck nr Vernal, Whiterocks R nr Whiterocks	Red Fleet Reservoir, Steinaker Reservoir	1981
Blacks Fork	Blacks Fk nr Robertson	Meeks Cabin Reservoir	1984
Smiths Fork	East Fork Smiths Fork bl Stateline Res	Stateline Reservoir	1984
Price	Fish Ck ab Reservoir nr Scofield	Scofield Reservoir	1981
Joes Valley	Seely Ck bl Joes Valley Resv	Joes Valley Reservoir	1981
Ferron Creek	Ferron Ck Upper Station nr Ferron	Millsite	1981
Moab	Mill Ck at Sheley Tunnel nr Moab	Ken's Lake	1988
Upper Sevier	Sevier R nr Kingston, EF Sevier R nr Kingston	Piute Reservoir, Otter Creek Reservoir	1981
San Pitch	Manti Ck bl Dugway Ck nr Manti	Gunnison Reservoir	1981
Lower Sevier	Sevier R nr Gunnison	Sevier Bridge Reservoir	1981
Beaver River	Beaver R nr Beaver	Minersville Reservoir	1981
Virgin River	Virgin R at Virgin, Santa Clara R nr Pine Valley	Quail Creek, Gunlock	1993

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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 it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, 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 uncertain 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.

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