

Utah Climate and Water Report

September 1, 2024



**Westwater Creek in Utah's Book Cliffs during
monsoonal flash flooding on August 13, 2024**

Photo by Logan Jamison

Utah General Summary

September 1, 2024

This report is organized to reflect two distinct geographic areas being monitored – the low elevation valley sites (Soil Climate Analysis Network) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated (SNOW TELemetry). Questions, comments and suggestions are welcome and should be directed to jordan.clayton@usda.gov.

Valley Conditions (SCAN) as of September 1st: August precipitation in Utah's valleys was 160% of normal which was welcome news! We received 1.5 inches of precipitation at our SCAN sites, bringing the statewide water year accumulation (October-August) to 105% of median for Utah's valleys. Statewide soil moisture at Utah's SCAN sites ended the month at 39% of saturation. While this is the same percentage as last month, the percent of normal is higher since it is not unusual for late summer soils to be quite dry around the state. Note that soil moisture data from several SCAN sites are missing due to sensor issues which, when integrated across multiple sites, lowers the region-wide value displayed herein.

Mountain Conditions (SNOTEL) as of September 1st: While Utah's mountains typically get some decent precipitation during the month of August due to the seasonal monsoon, this year's August was better than average. Utah received 2.7" of new precipitation during the month, which is 178% of normal. This brings our statewide water year to date precipitation to 105% of normal, up 2% from last month. Utah's mountain soil moisture levels responded nicely to the monsoonal moisture—though it should be noted that soils have been quickly drying since most of that precipitation fell in the middle to late portion of August. Statewide depth-averaged soil moisture is currently at 39% of saturation, 7% lower than at this time last year.

Water availability: Statewide storage is now at 77% of capacity, which is 6% lower than last month. Similar to what was presented in last month's Climate and Water Report, Table 1 (below) compares reservoir levels for each of Utah's major basins and shows the degree of change from a couple months ago. While some areas of the state have been able to retain a large percentage of their storage capacity (e.g. the Northeastern Uintas and Southwestern Utah, as well as the Duchesne, Bear, and Provo watersheds), others such as the San Pitch, Upper Sevier, and Beaver watershed, as well as the Tooele-Vernon Creek area have depleted available water resources at a faster rate. While Utah's reservoirs are generally in good shape, we continue to encourage water managers to conserve water where possible to prepare for the possibility of a return to drought conditions in future years. Water Availability Indices (WAIs) for Utah basins combine current reservoir conditions with observed monthly streamflow for each region. WAIs are below normal (50th percentile) for the Blacks Fork, Smiths Fork, and Lower Sevier areas. Conversely, water availability conditions are well above normal for this time of year in the Ogden, Provo, Price, and Ferron Creek watersheds.

	1-Jul	1-Sep	% change
Bear	81	70	-11
Beaver	90	46	-44
Duchesne	99	90	-9
Lower Sevier	35	22	-13
NE Uintas	86	84	-2
Price-San Rafael	100	81	-19
Provo-Utah Lake-Jordan	100	87	-13
San Pitch	91	29	-62
SE Utah	100	83	-17
SW Utah	83	71	-12
Tooele-Vernon Creek	89	45	-44
Upper Sevier	77	46	-31
Weber-Ogden	98	76	-22

Table 1: Changes in reservoir storage from July 1st to the end of August. Units are percent of capacity.

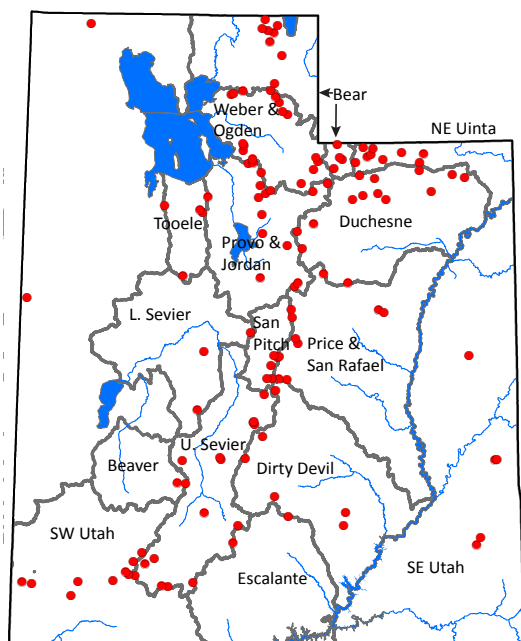
Utah Climate and Water Report

The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from the United States Geological Survey, reservoir data from the Bureau of Reclamation, and other sources), geography including high elevation United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Snowpack Telemetry (SNOTEL) data, and agriculturally important data from the USDA-NRCS Soil Climate Analysis Network (SCAN). Data on precipitation, soil moisture, soil temperature, reservoir storage, and streamflow are analyzed and presented. These data analyses can be used to increase irrigation efficiency and agricultural production. As with all data and analyses, there are limitations due to data quality, quantity, and spatial application.



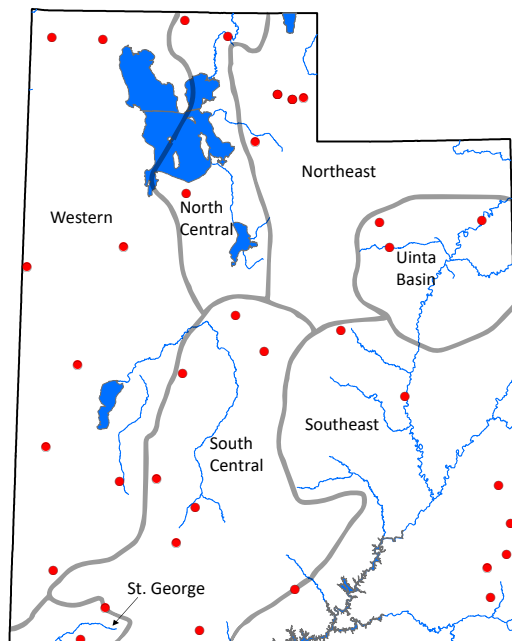
SNOTEL

- Mountainous areas
- High elevation (>6,000 ft)
- Water supply forecasting
- Installed where snow pack represents the water supply

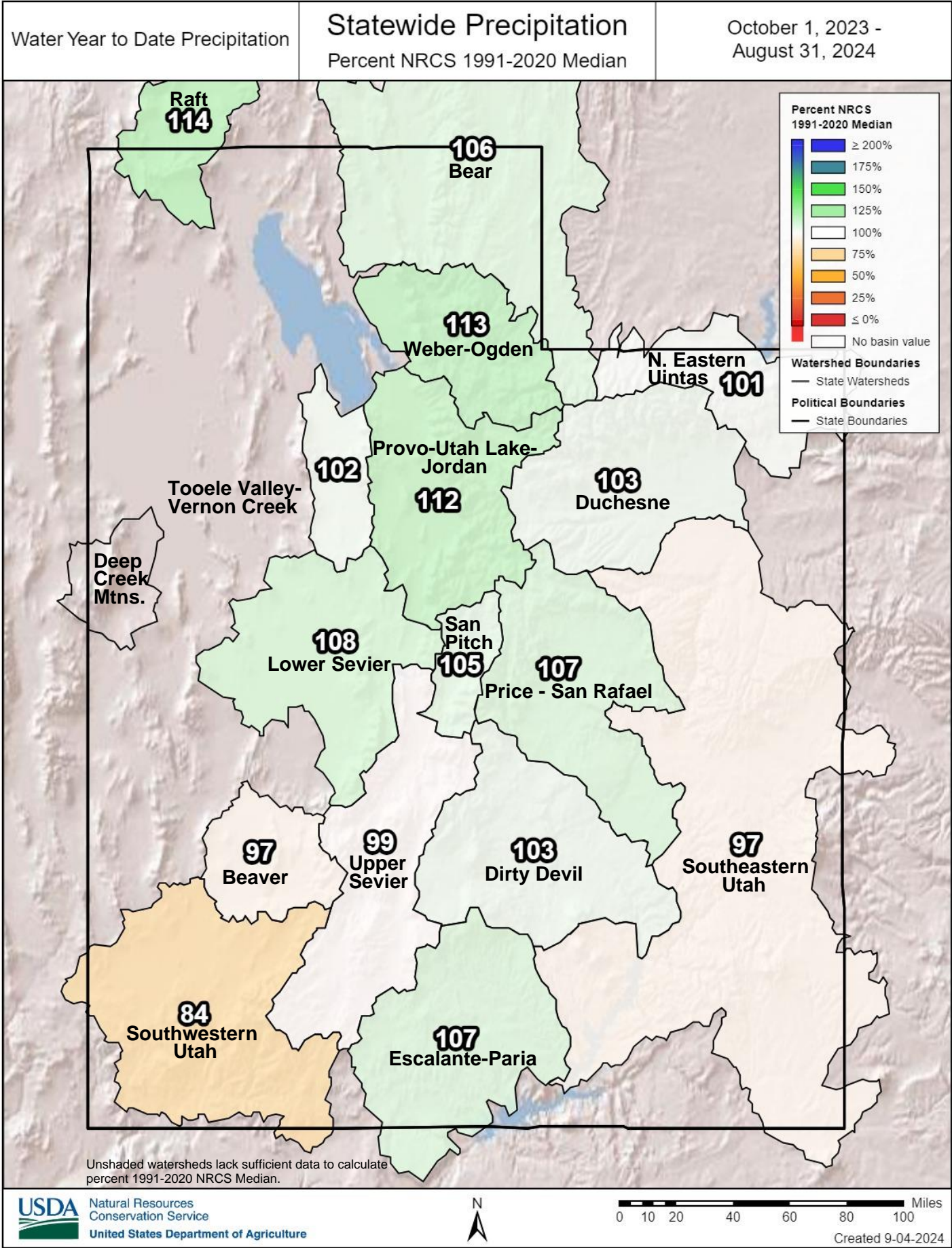


SCAN

- Agricultural and range lands
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity
- Installed on spatially representative soils



Utah Precipitation (Snotel)



Sept 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)	4221	5465	77	77
Utah (Statewide) Incl. Flaming G. & Lk. Powell	16797	32528	50	51
Bear	973	1389	63	70
Weber-Ogden	419	547	84	76
Northeastern Uintas	3256	3852	87	84
Tooele Valley	1	4	57	45
Duchesne	1248	1379	87	90
Provo	1169	1334	88	87
San Pitch	6	20	43	29
Price	129	158	87	81
Upper Sevier	120	382	34	31
Southeast UT	1	2	103	83
Beaver	10	23	65	46
Southwest Utah	84	118	83	71

Reservoir	Current Storage (KAF)	Reservoir Capacity (KAF)	Last Yr % Capacity	This Yr % Capacity
Bear Lake	921	1302	61	70
Big Sand Wash Reservoir	8	25	59	32
Causey Reservoir	4	7	81	61
Cleveland Lake	3	5	79	66
Currant Creek Reservoir	14	15	98	92
Deer Creek Reservoir	124	149	91	83
East Canyon Reservoir	38	49	85	78
Echo Reservoir	43	73	72	58
Flaming Gorge Reservoir	3201	3749	87	85
Grantsville Reservoir	1	3	57	45
Gunlock	5	10	74	55
Gunnison Reservoir	6	20	43	29
Huntington North Reservoir	3	4	78	88
Hyrum Reservoir	7	15	58	46
Joes Valley Reservoir	50	61	86	81
Jordanelle Reservoir	274	314	87	87
Ken's Lake	1	2	103	83
Kolob Reservoir	5	5	100	89
Lake Powell	9375	23314	38	40
Lost Creek Reservoir	17	22	80	77
Lower Enterprise	0	2	19	20
Meeks Cabin Reservoir	11	32	65	36
Miller Flat Reservoir	3	5	72	62
Millsite	12	16	86	74
Minersville Reservoir	10	23	65	46
Moon Lake Reservoir	12	35	64	36
Otter Creek Reservoir	38	52	84	73
Panguitch Lake	11	22	94	52
Pineview Reservoir	83	110	84	76
Piute Reservoir	18	71	49	25
Porcupine Reservoir	8	11	89	72
Quail Creek	26	40	72	65
Red Fleet Reservoir	16	25	84	66
Rockport Reservoir	44	60	83	73
Sand Hollow Reservoir	42	50	95	85
Scofield Reservoir	56	65	89	85
Settlement Canyon Reservoir	0	1	56	43
Sevier Bridge Reservoir	52	236	13	22
Smith and Morehouse	6	8	96	76
Starvation Reservoir	133	164	89	81
Stateline Reservoir	5	12	85	49
Steinaker Reservoir	19	33	81	59
Strawberry Reservoir	1065	1105	89	96
Upper Enterprise	4	10	79	41
Upper Stillwater Reservoir	14	32	78	44
Utah Lake	770	870	88	88
Willard Bay	180	215	88	83
Woodruff Creek	1	4	49	28
Woodruff Narrows Reservoir	35	57	98	61

Sept 1, 2024 | Water Availability Index (WAI)

Basin or Region	Reservoir Storage ¹ (KAF) ²	Monthly Flow	Flow + Storage (KAF) ²	WAI ³	Percentile ⁴ (%)	Similar Years
Bear	921.3	5.4	926.8	1.94	73	[1987, 2019]
Woodruff Narrows	35.4	0.5	35.9	0.83	60	[1996, 2015]
Little Bear	7.1	1.5	8.6	0.63	58	[2005, 2020]
Ogden	88.1	4.8	92.9	2.69	82	[1998, 2019]
Weber	150.4	14.7	165.2	1.46	68	[1996, 2005]
Provo	399.5	5.4	404.9	2.15	76	[1996, 2017]
Western Uintas	161.1	12.9	174.0	0.28	53	[1985, 2016]
Eastern Uintas	36.7	11.0	47.7	0.28	53	[2015, 2017]
Blacks Fork	11.9	5.6	17.6	-0.4	45	[1990, 2017]
Smiths Fork	6.0	4.4	10.3	-0.79	40	[1985, 2020]
Price	56.5	0.9	57.4	3.06	87	[2017, 2019]
Joes Valley	50.4	7.0	57.3	0.65	58	[1996, 2006]
Ferron Creek	12.5	1.5	13.9	2.5	80	[2004, 2008]
Moab	1.9	0.5	2.4	1.75	71	[1997, 2016]
Upper Sevier	56.5	1.7	58.1	1.2	64	[1987, 1997]
San Pitch	6.0	0.9	6.9	0.65	58	[1981, 2009]
Lower Sevier	52.6	3.6	56.3	-1.2	36	[1994, 2008]
Beaver River	10.8	2.6	13.4	1.76	71	[1982, 1988]
Virgin River	31.9	6.0	37.9	0.38	55	[2008, 2021]

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

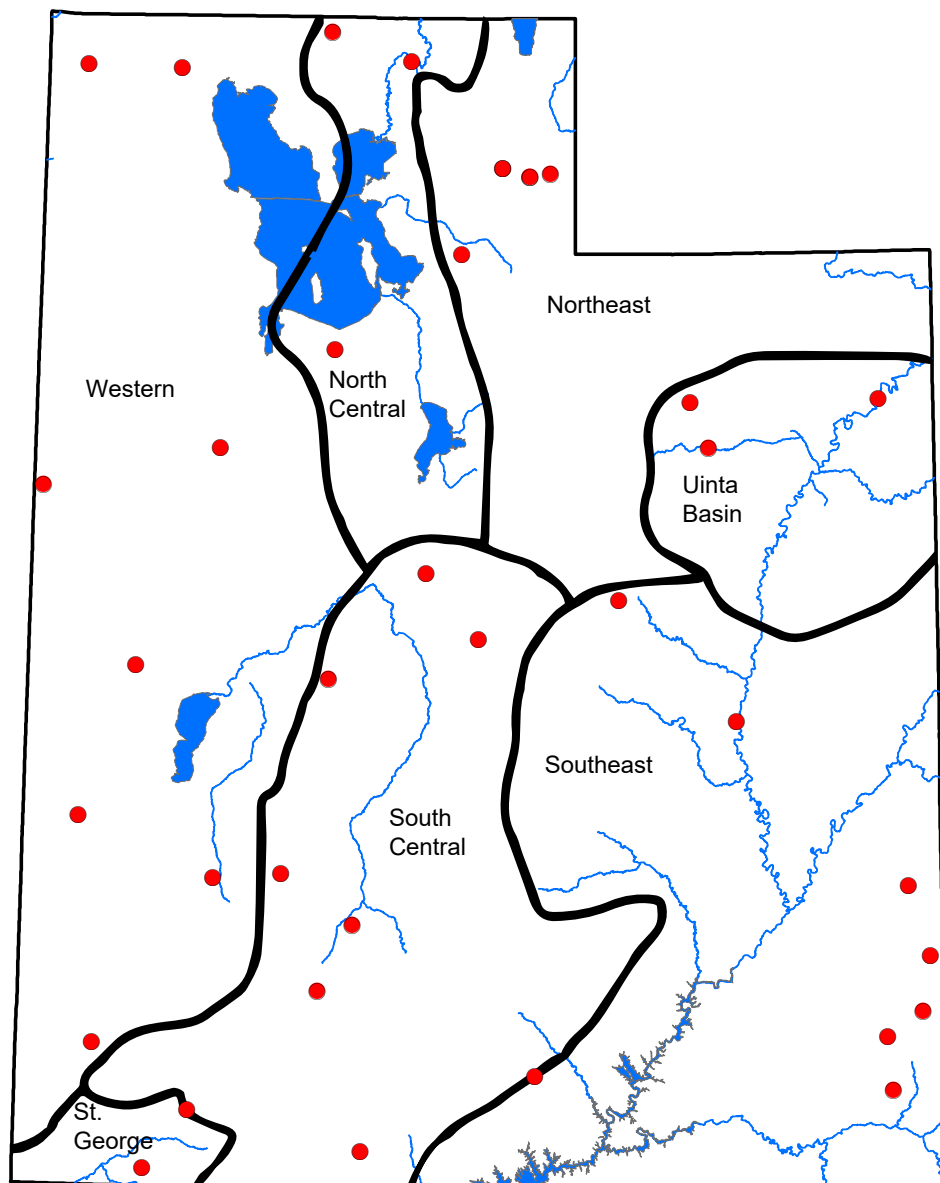
What is a Water Availability Index?

The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous month's streamflow. Note that starting in June, 2022, un-adjusted streamflow values are used in this calculation. Prior to this date, 'naturalized' or 'adjusted' values were used. Please contact Jordan Clayton for details and rationale concerning this methodological change. See Appendix A for details on specific stream gauges and reservoirs used in WAI calculations.

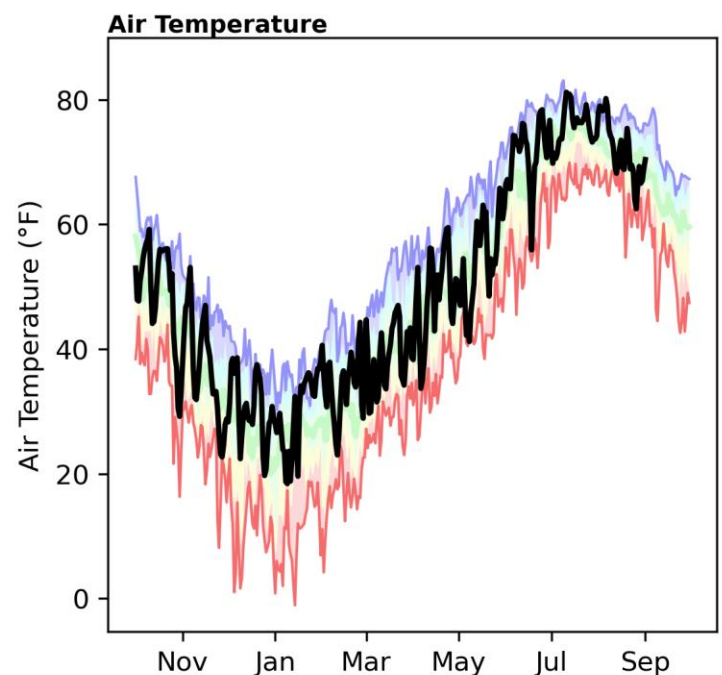
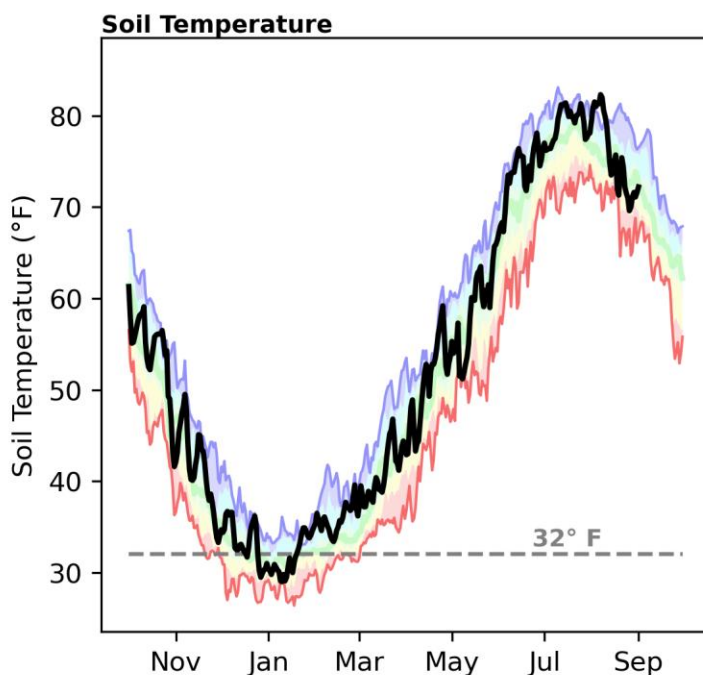
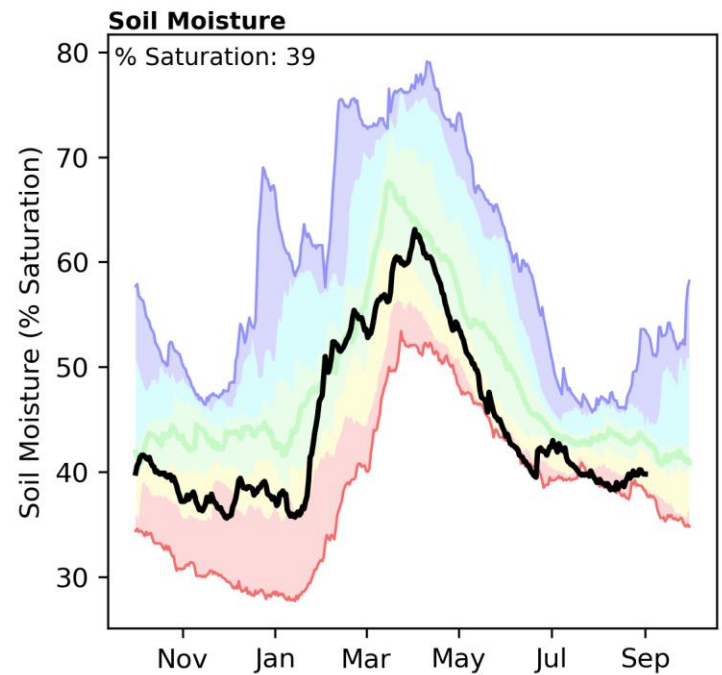
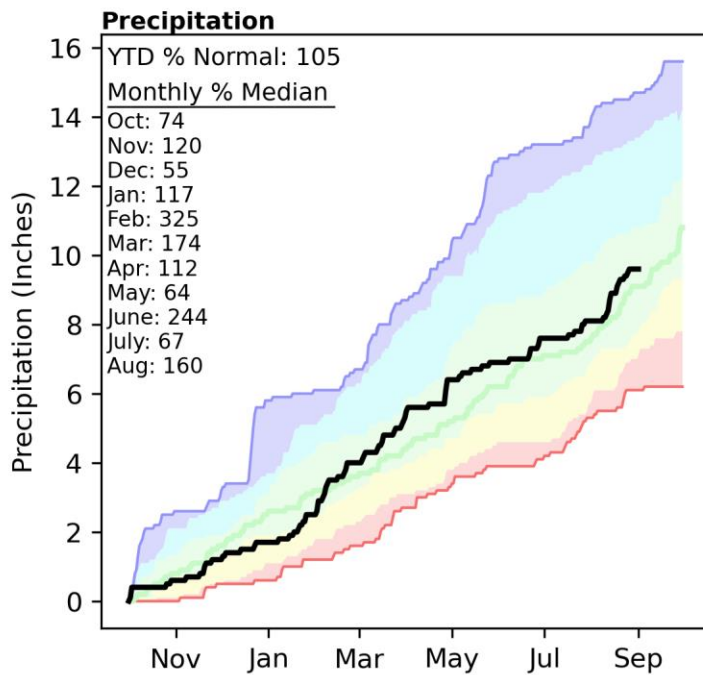
WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. WAI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

The Utah Snow Survey has also chosen to display the WAI 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 WAI 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 WAI 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 WAI 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.

SCAN portion of report



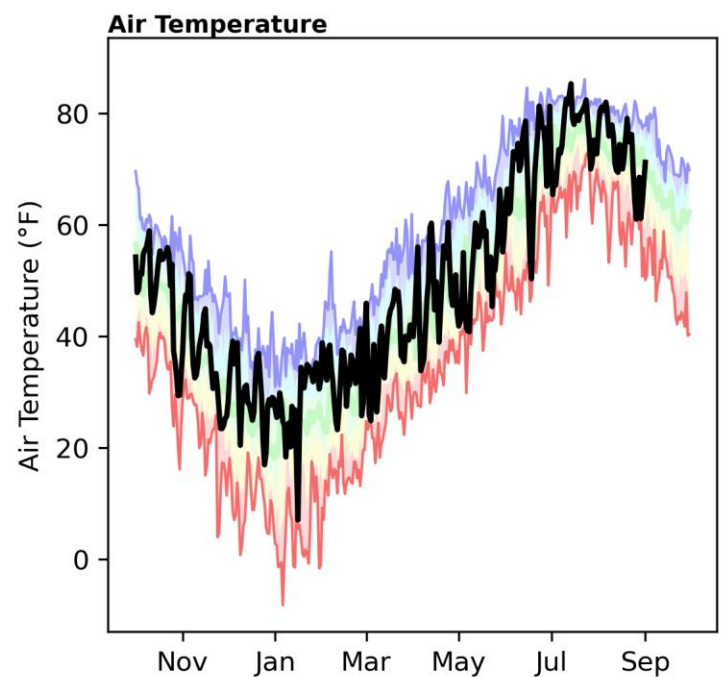
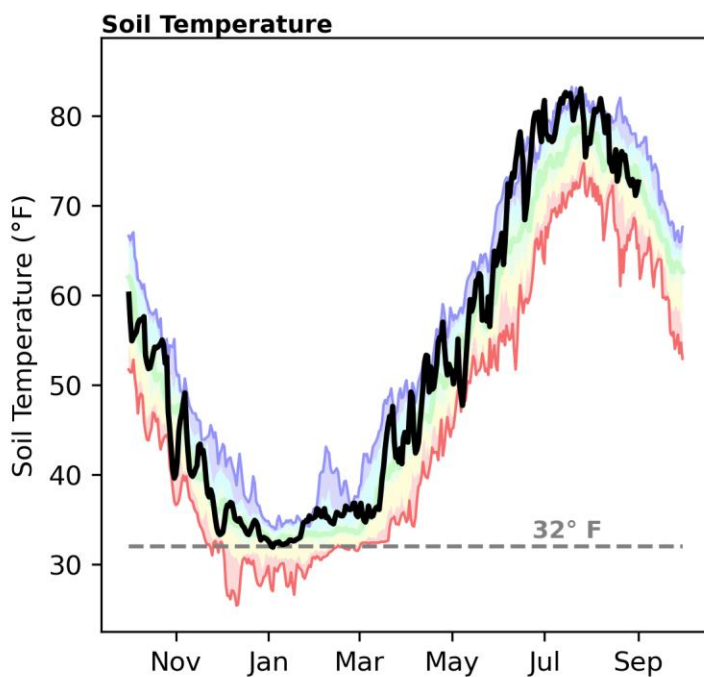
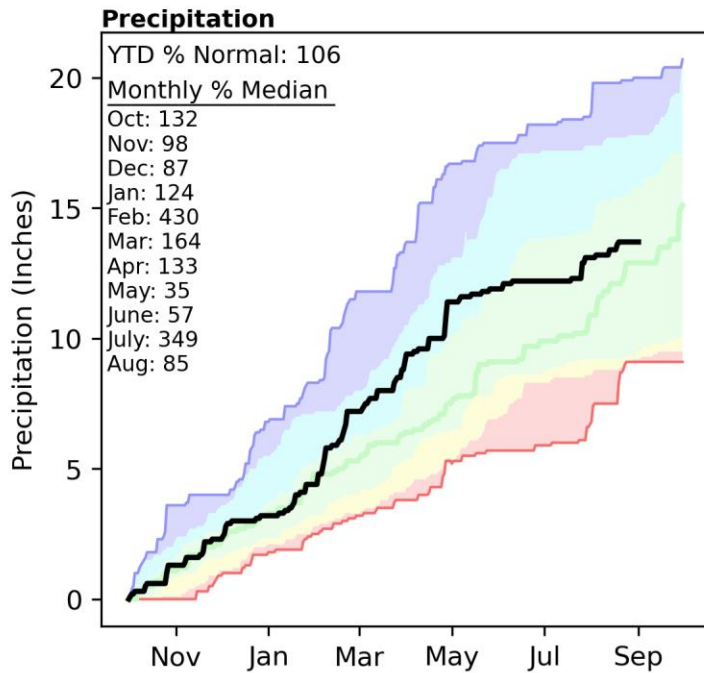
Precipitation in August was well above normal, with an average of 1.5" falling region-wide (160% of normal). This brings the water year accumulation (October-August) to 105% of median. Depth averaged soil moisture was calculated to be 39% of saturation compared to 44% at this time last year.



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

North Central Utah | September 1, 2024

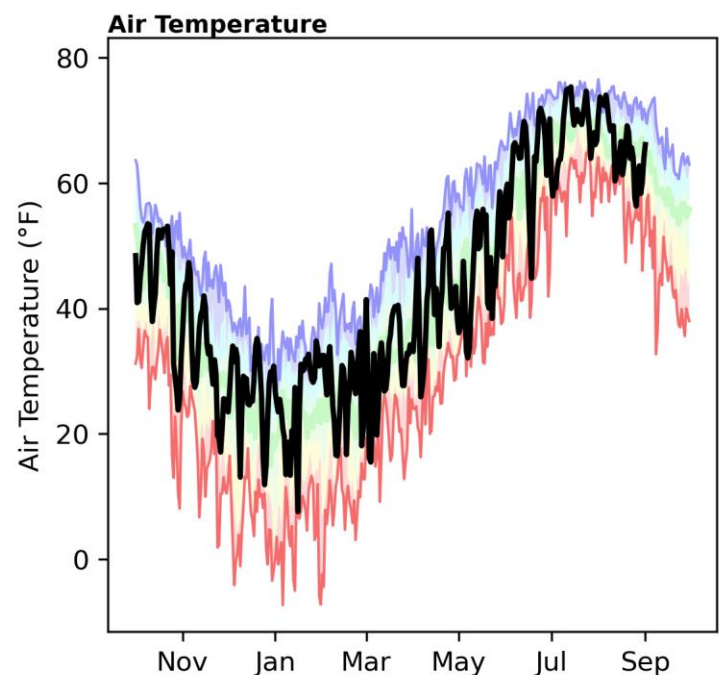
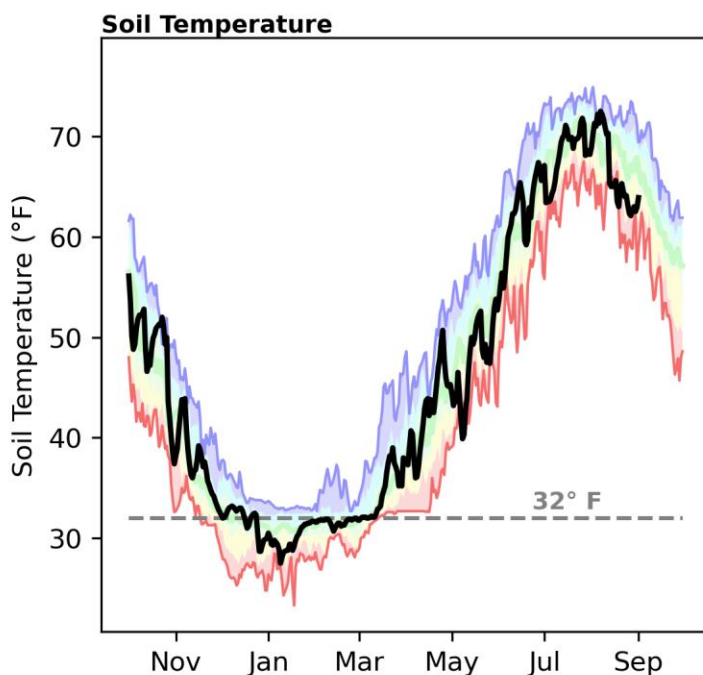
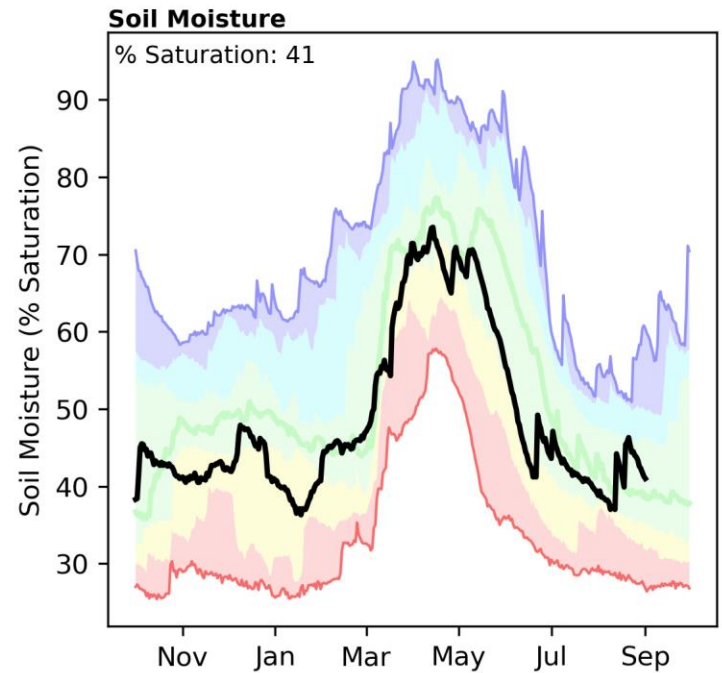
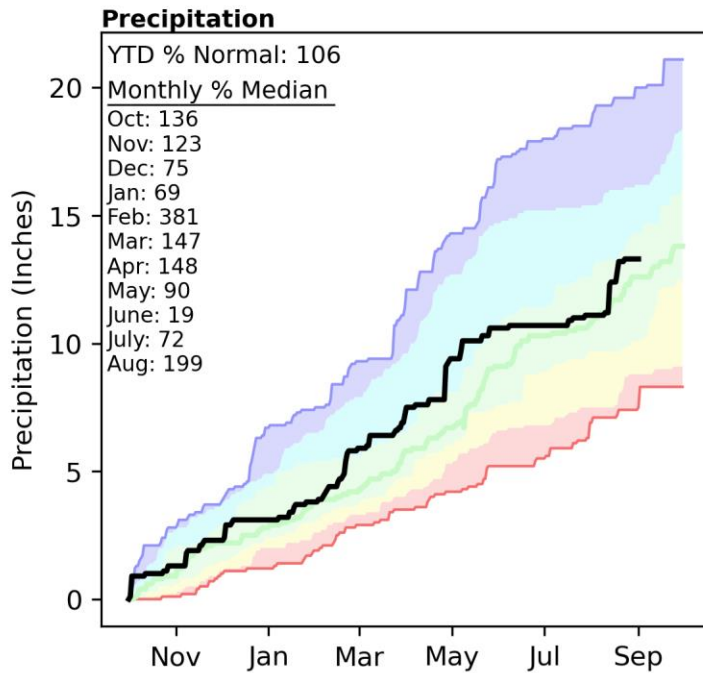
Precipitation in August was below normal, with an average of 0.6" falling region-wide (85% of normal). This brings the water year accumulation (October-August) to 106% of median. Depth averaged soil moisture was calculated to be 57% of saturation compared to 56% at this time last year.



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

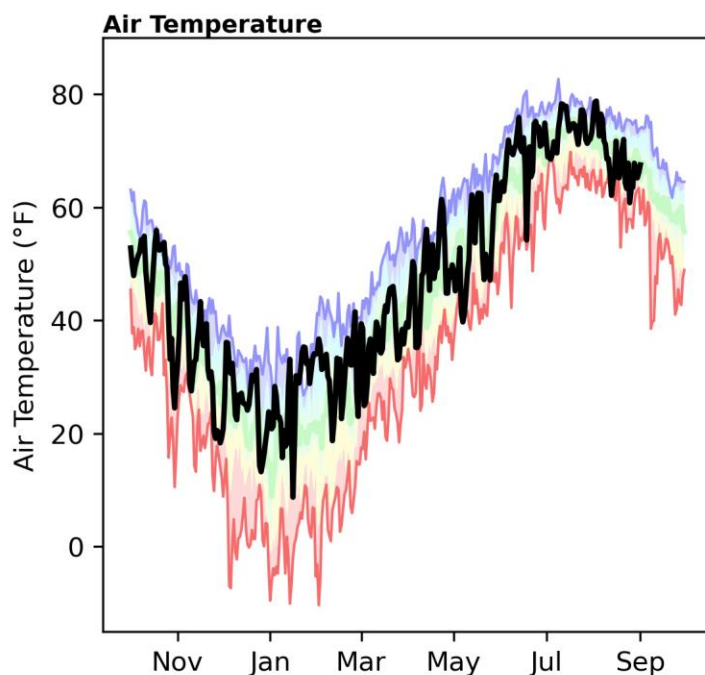
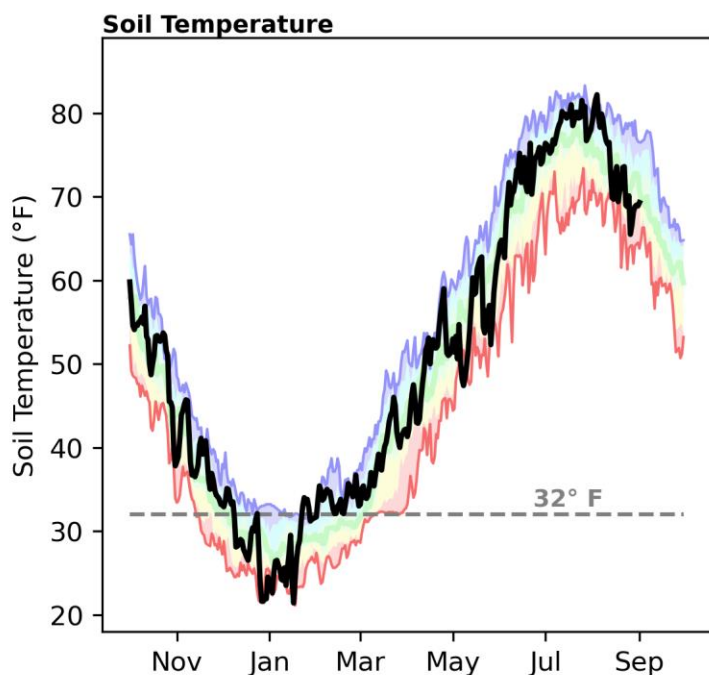
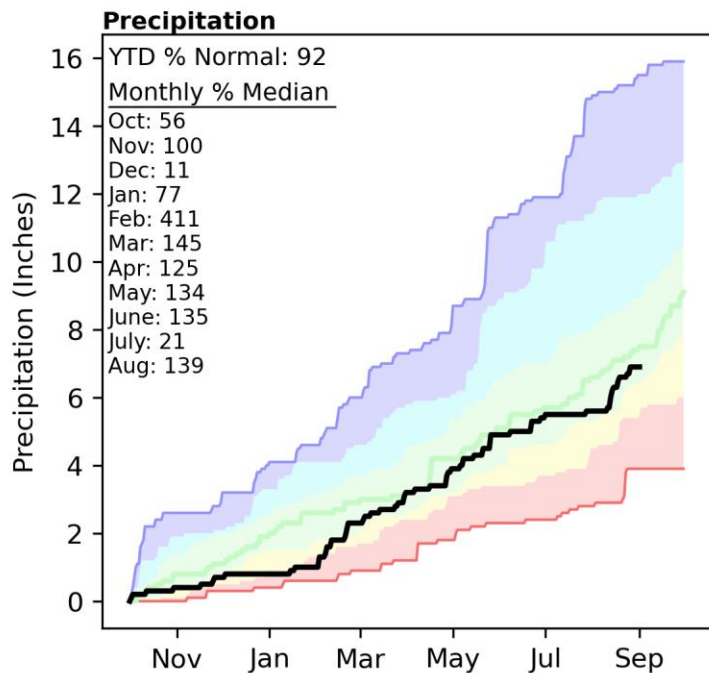
Northeast Utah | September 1, 2024

Precipitation in August was well above normal, with an average of 2.2" falling region-wide (199% of normal). This brings the water year accumulation (October-August) to 106% of median. Depth averaged soil moisture was calculated to be 41% of saturation compared to 38% at this time last year.



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

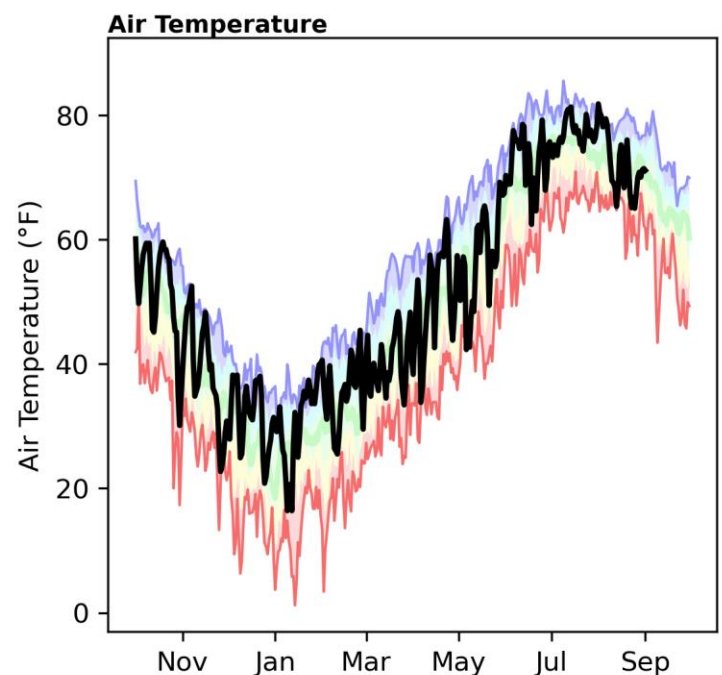
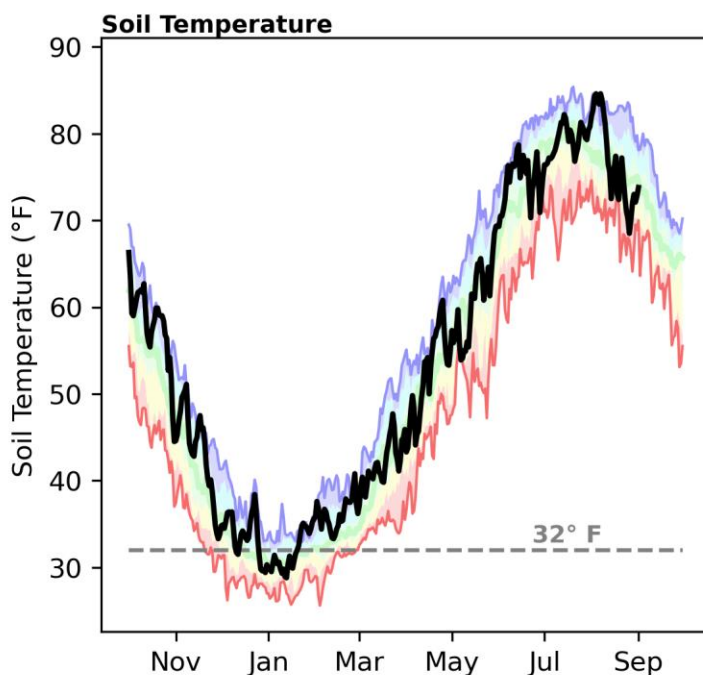
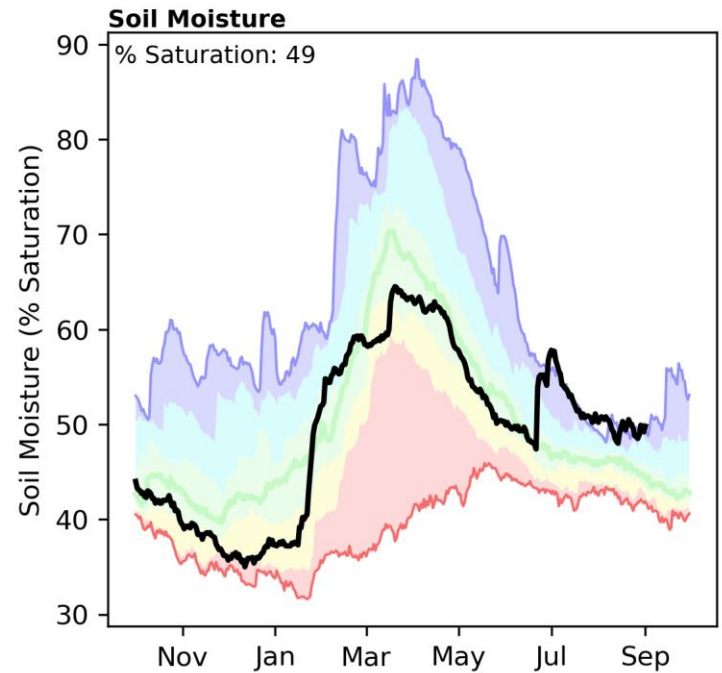
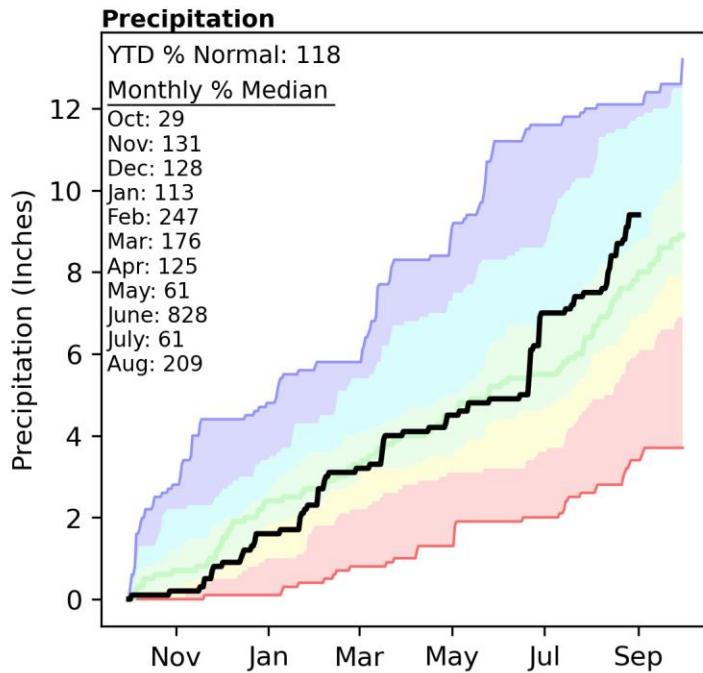
Precipitation in August was well above normal, with an average of 1.3" falling region-wide (139% of normal). This brings the water year accumulation (October-August) to 92% of median. Depth averaged soil moisture was calculated to be 37% of saturation compared to 38% at this time last year.



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

Southeast Utah | September 1, 2024

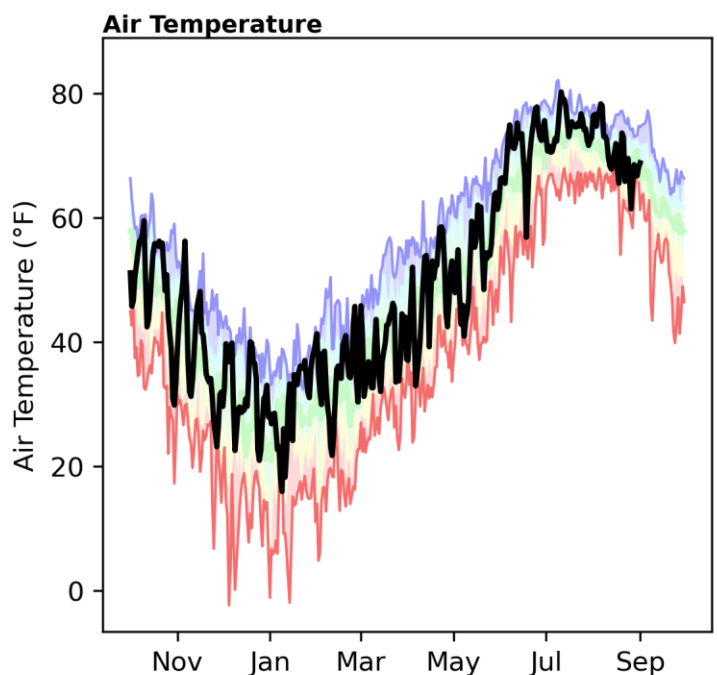
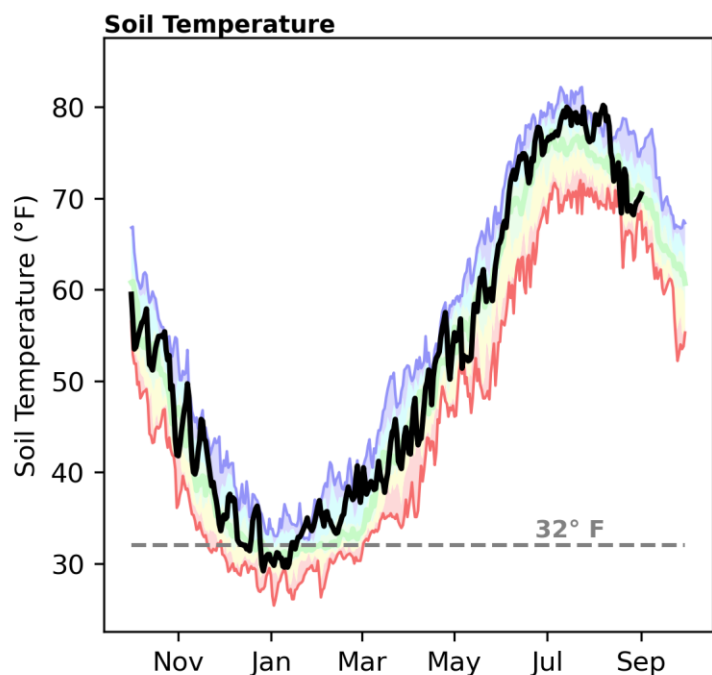
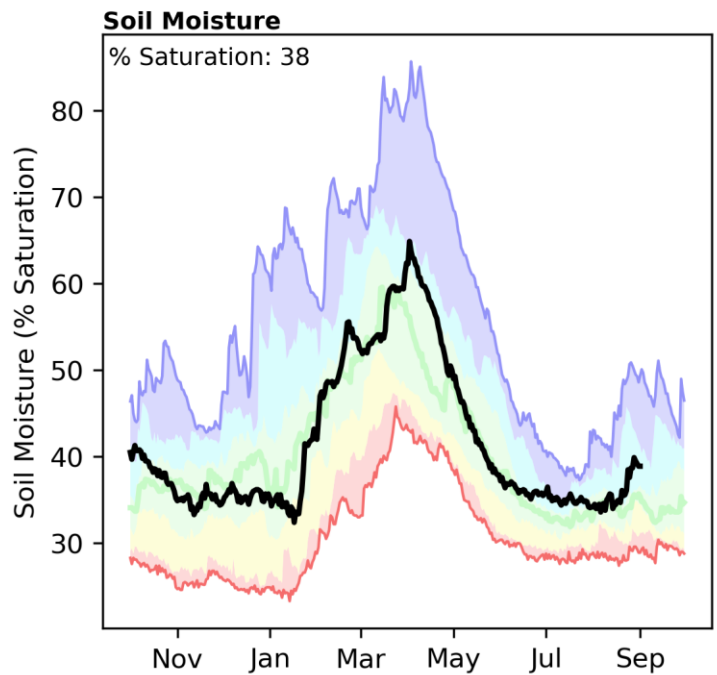
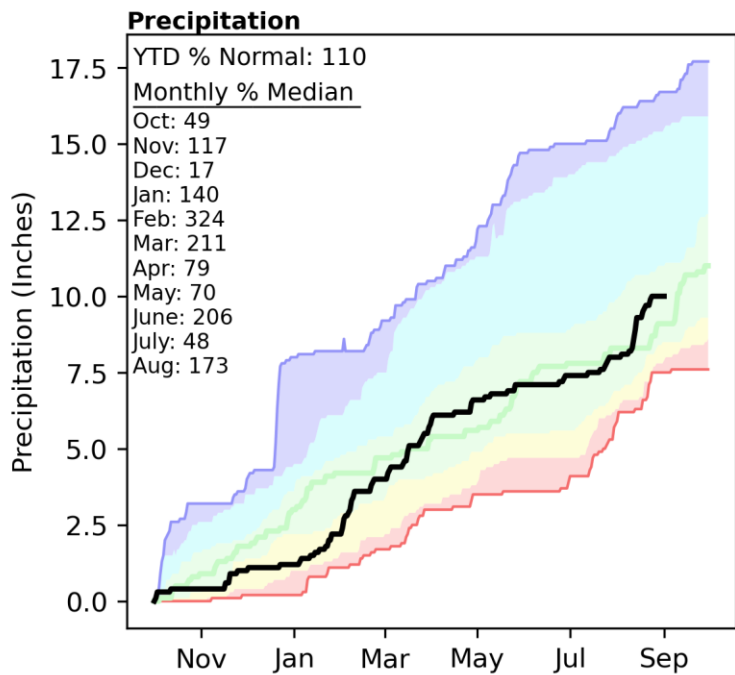
Precipitation in August was well above normal, with an average of 1.9" falling region-wide (209% of normal). This brings the water year accumulation (October-August) to 118% of median. Depth averaged soil moisture was calculated to be 49% of saturation compared to 46% at this time last year.



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

South Central Utah | September 1, 2024

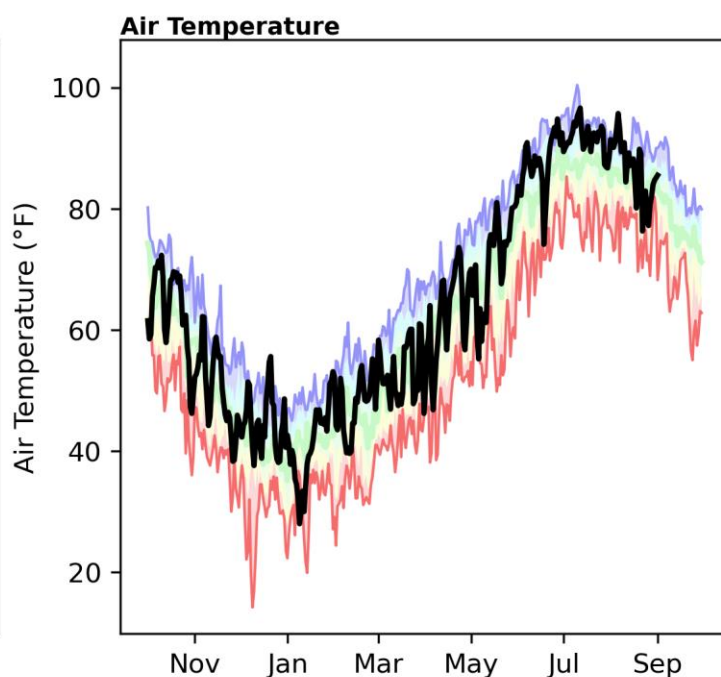
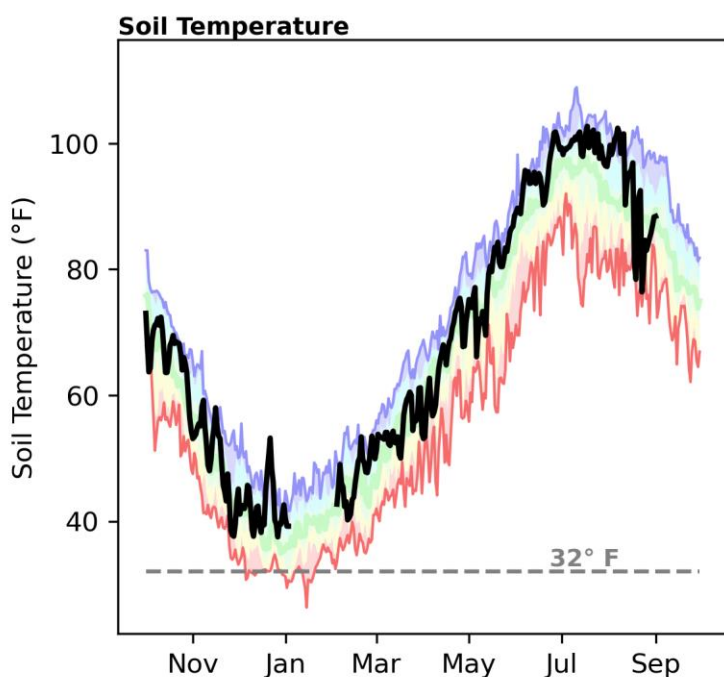
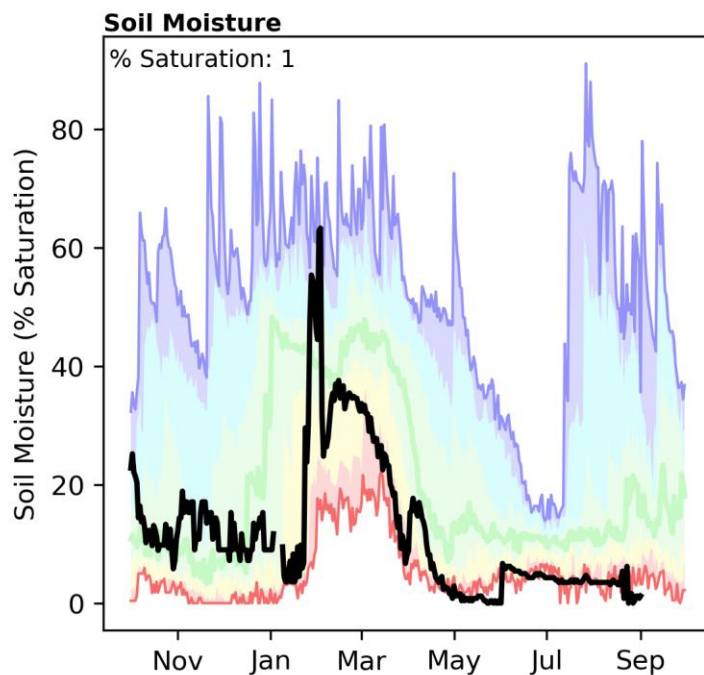
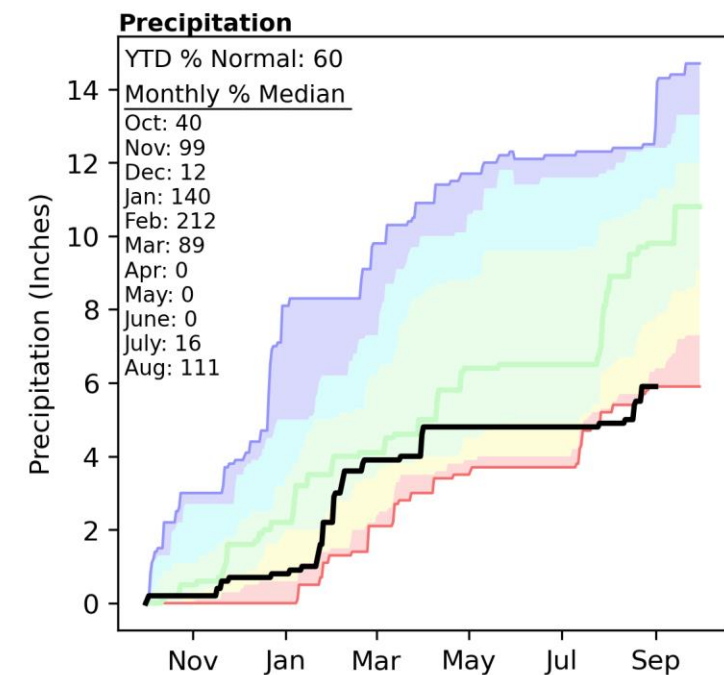
Precipitation in August was well above normal, with an average of 2.0" falling region-wide (173% of normal). This brings the water year accumulation (October-August) to 110% of median. Depth averaged soil moisture was calculated to be 38% of saturation compared to 49% at this time last year.



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

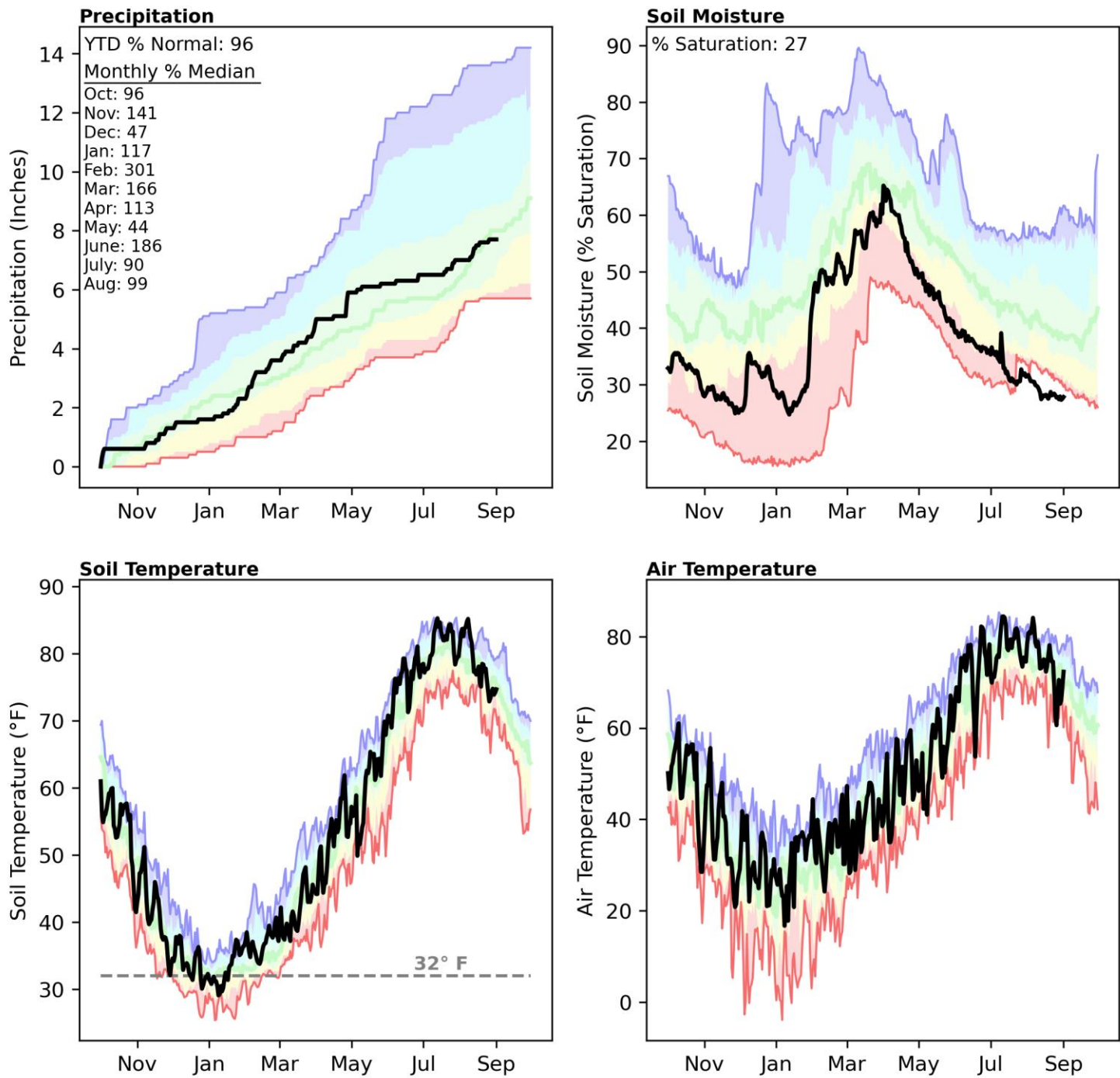
St. George Region | September 1, 2024

Precipitation in August was above normal, with an average of 1.0" falling region-wide (111% of normal). This brings the water year accumulation (October-August) to 60% of median. Depth averaged soil moisture was calculated to be 1% of saturation compared to 24% at this time last year.



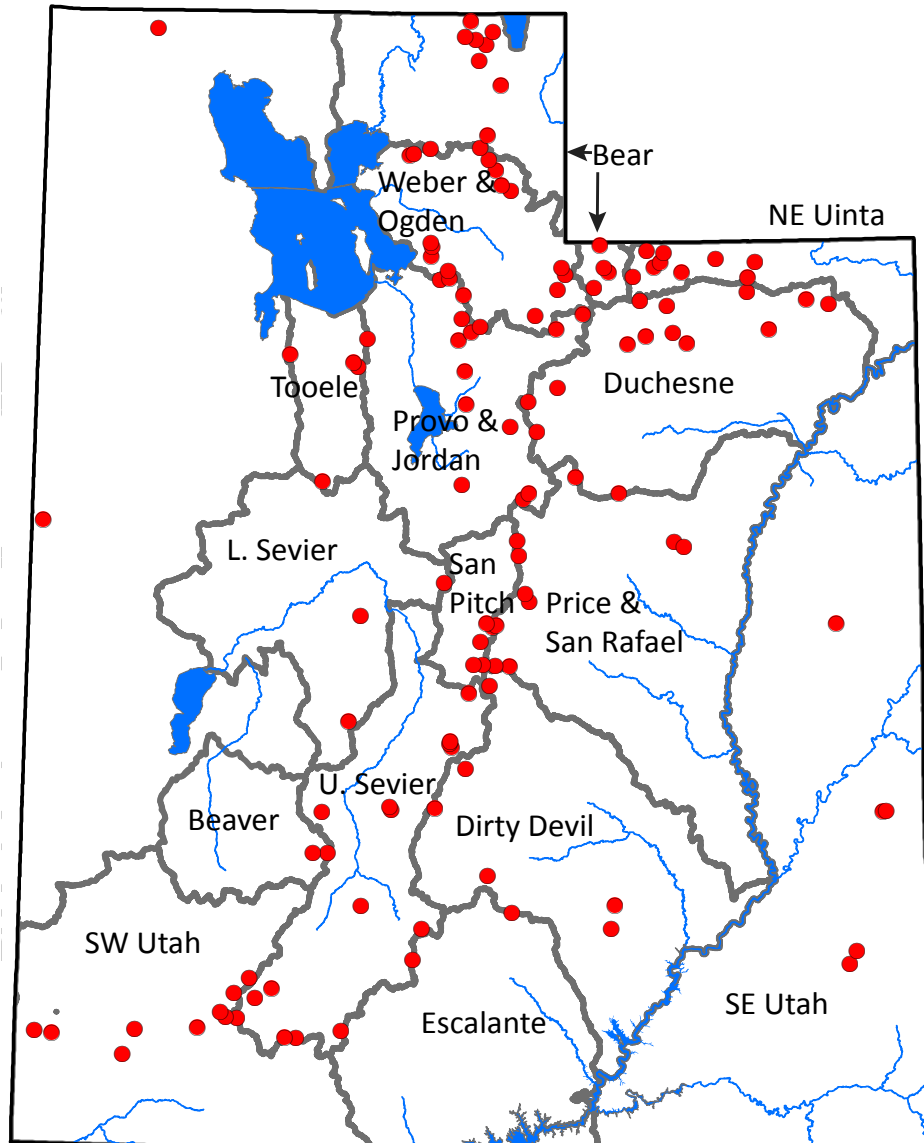
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was about normal, with an average of 0.7" falling region-wide (99% of normal). This brings the water year accumulation (October-August) to 96% of median. Depth averaged soil moisture was calculated to be 27% of saturation compared to 36% at this time last year.



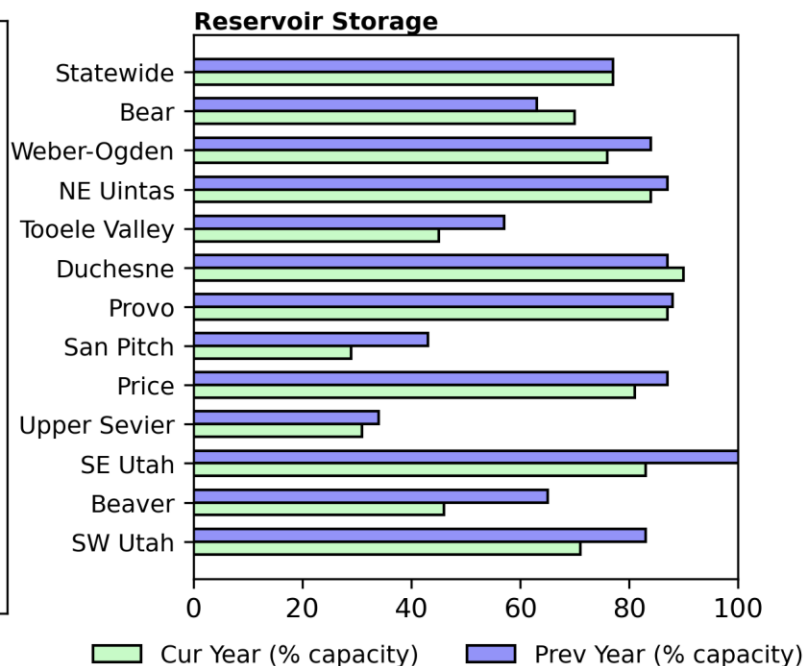
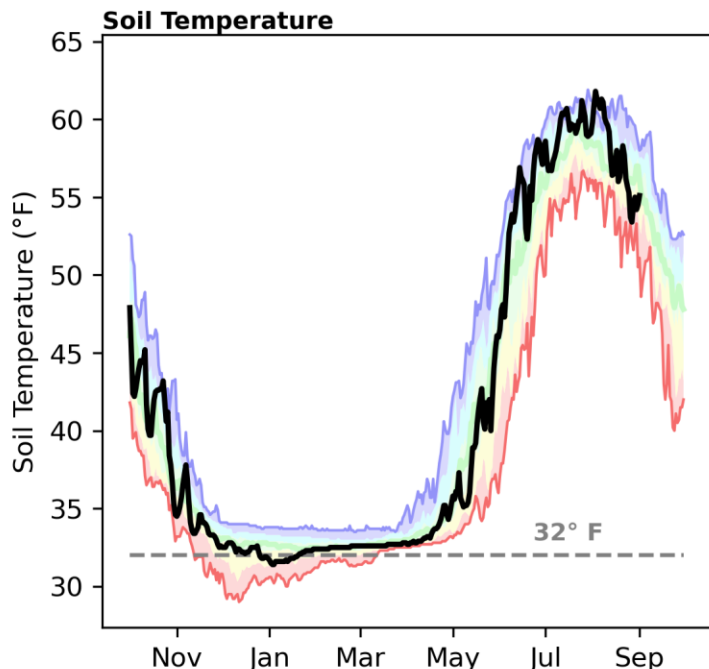
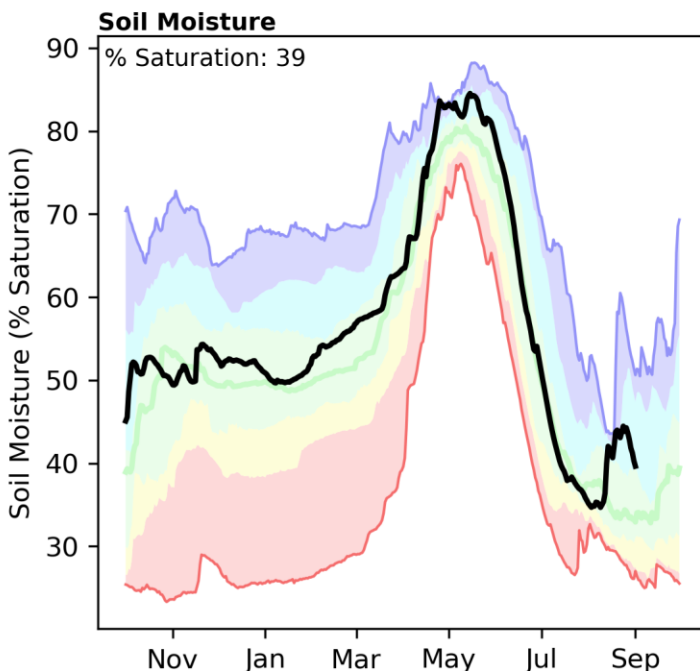
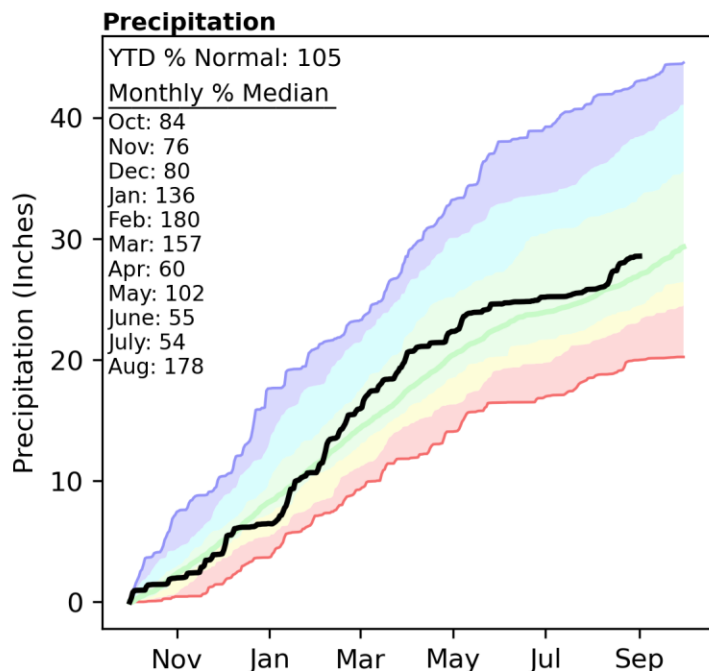
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

SNOTEL portion of report



Statewide Snotel | September 1, 2024

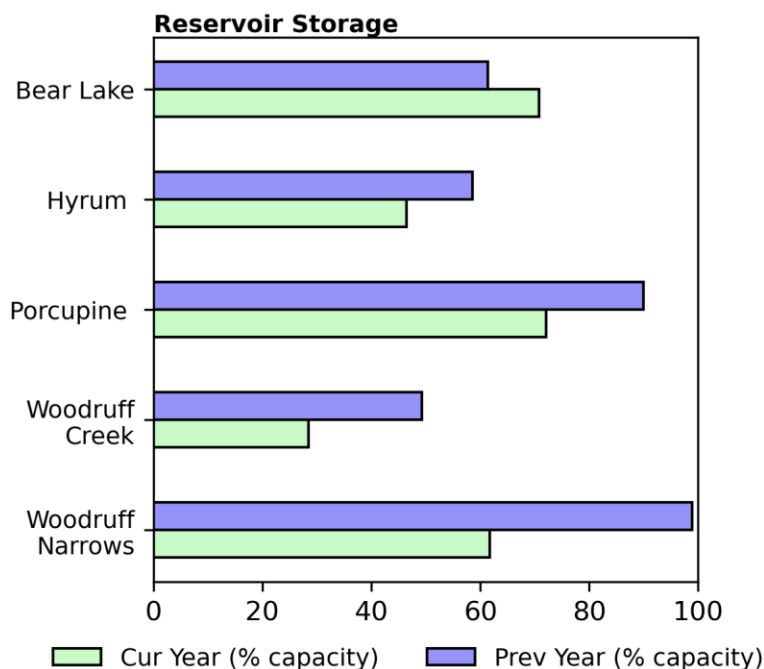
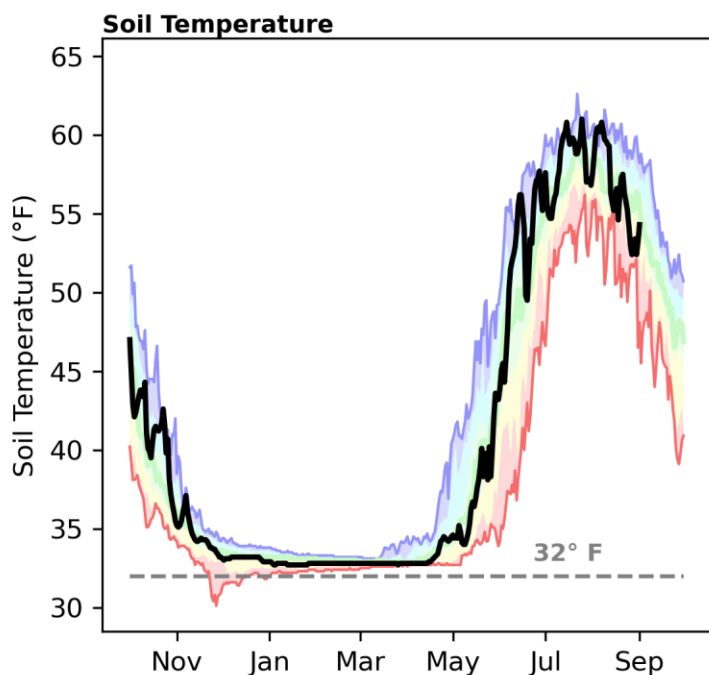
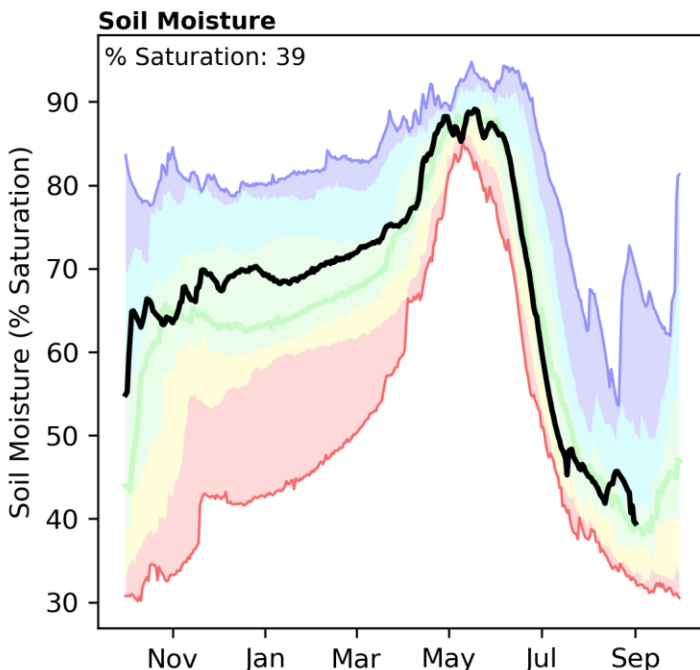
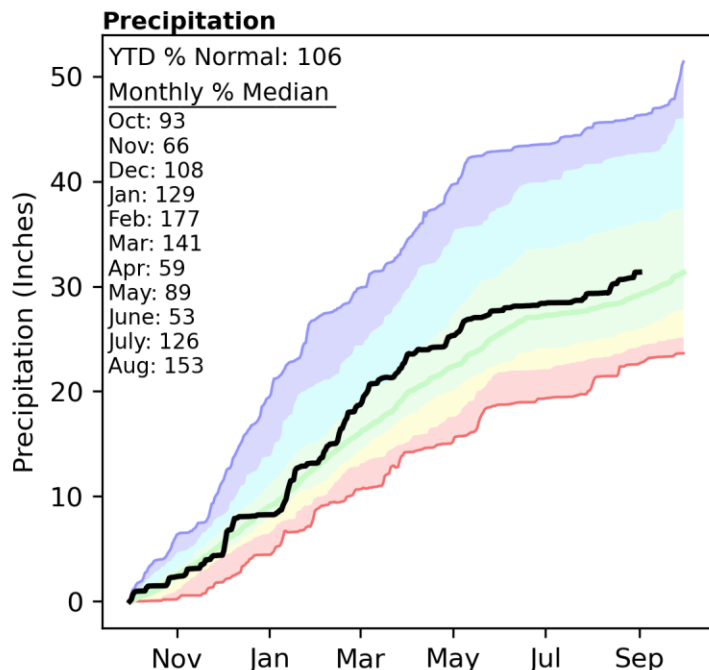
Precipitation in August was well above normal, with an average of 2.7" falling region-wide (178% of normal). This brings the water year accumulation (October-August) to 105% of median. Depth averaged soil moisture was calculated to be 39% of saturation compared to 46% at this time last year. Statewide, reservoir storage is 77% of capacity, compared to 77% last year¹.



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

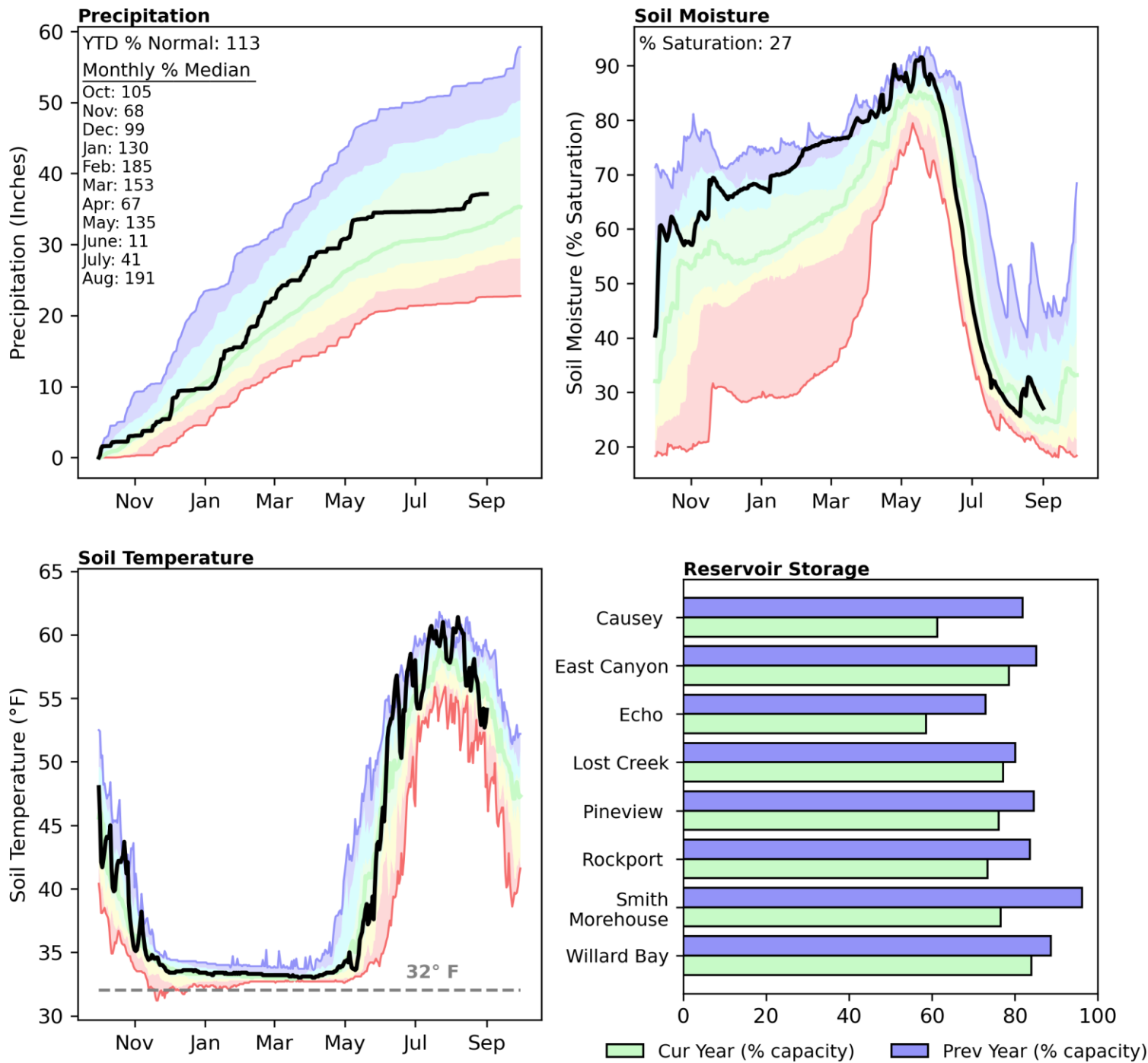
¹Statewide reservoir percentages exclude Lake Powell and Flaming Gorge Reservoirs.

Precipitation in August was well above normal, with an average of 2.0" falling region-wide (153% of normal). This brings the water year accumulation (October-August) to 106% of median. Depth averaged soil moisture was calculated to be 39% of saturation compared to 47% at this time last year. Reservoir storage is 70% of capacity, compared to 63% last year. The Water Availability Index percentiles are 73% for the Bear, 58% for the Little Bear, and 60% for Woodruff Narrows.



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

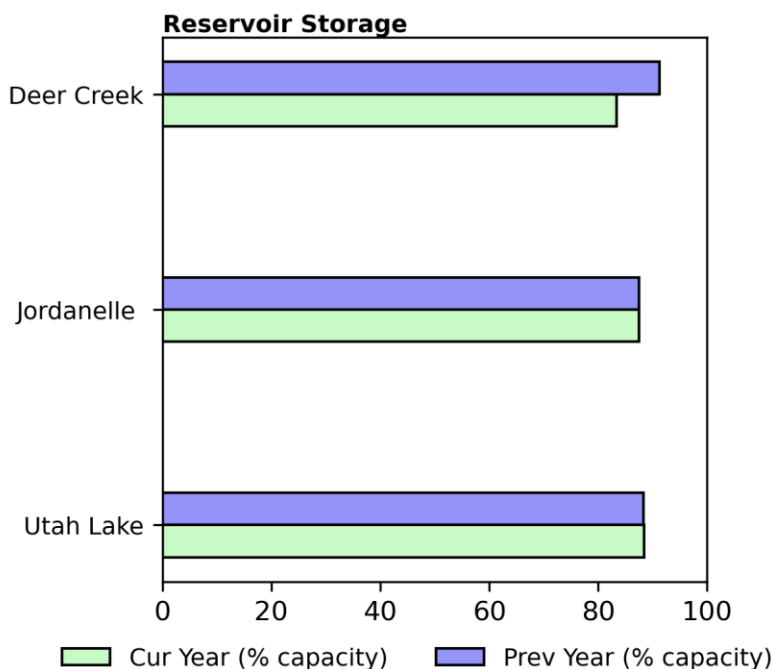
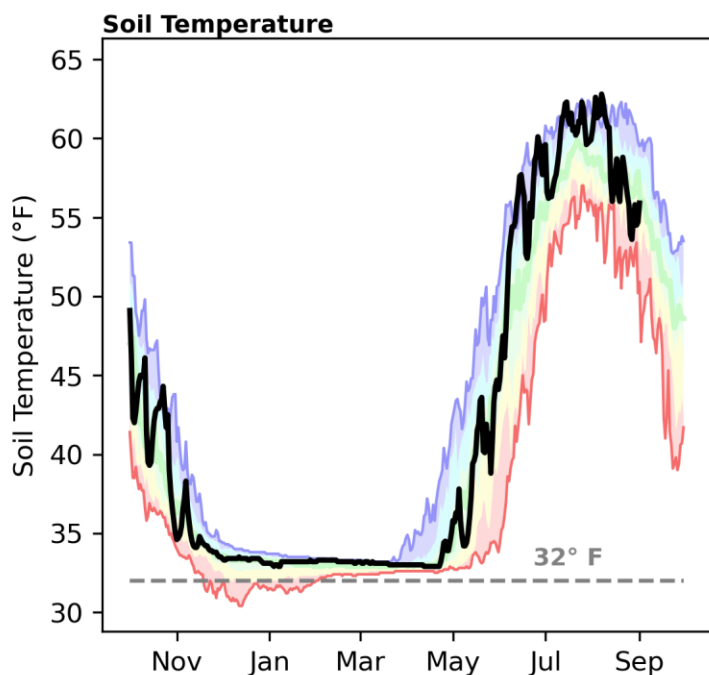
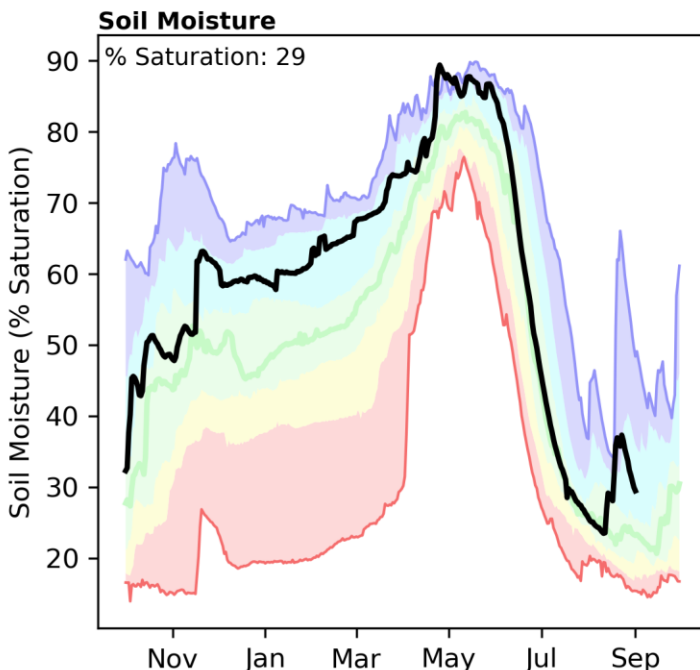
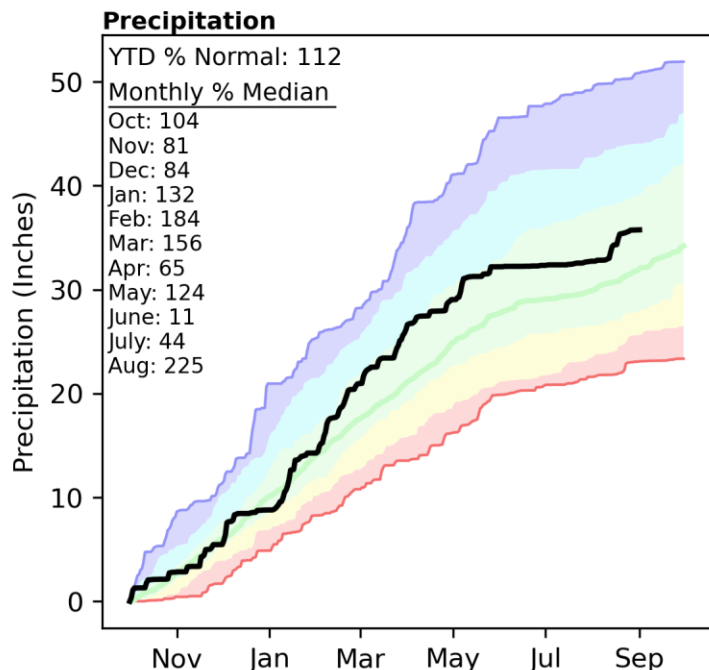
Precipitation in August was well above normal, with an average of 2.2" falling region-wide (191% of normal). This brings the water year accumulation (October-August) to 113% of median. Depth averaged soil moisture was calculated to be 27% of saturation compared to 36% at this time last year. Reservoir storage is 76% of capacity, compared to 84% last year. The Water Availability Index percentiles are 68% for the Weber, and 82% for the Ogden.



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

Provo-Jordan-Utah Lake | September 1, 2024

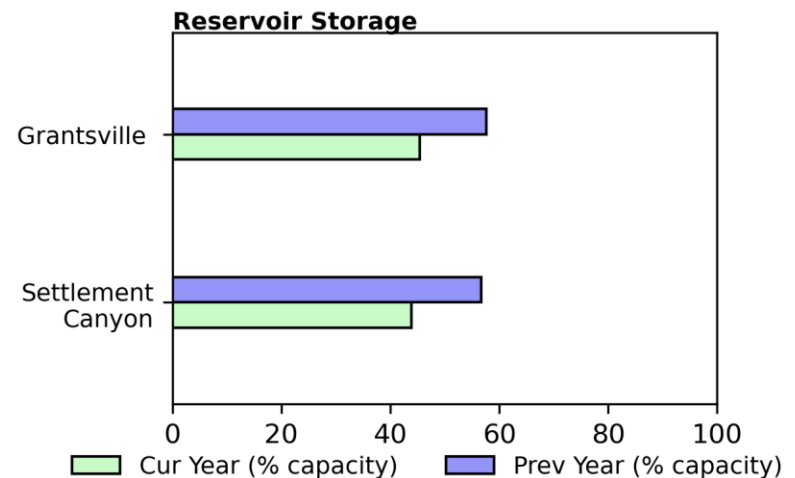
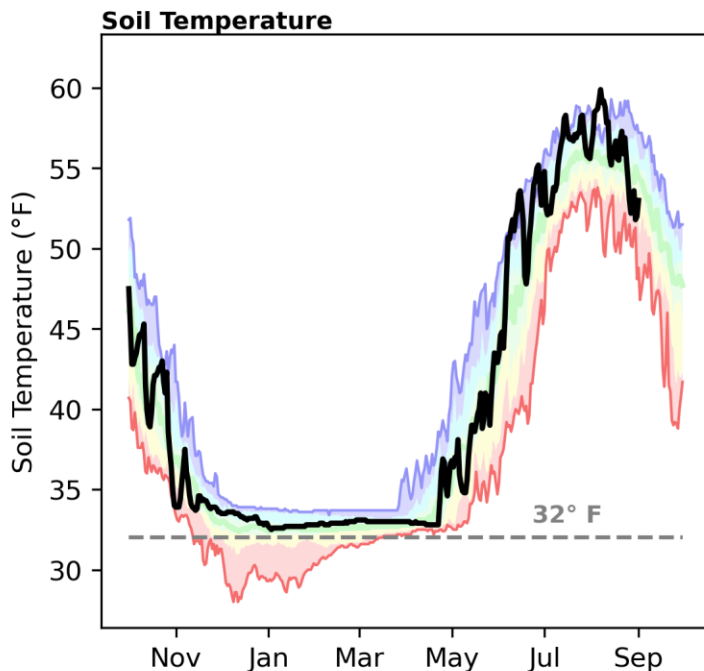
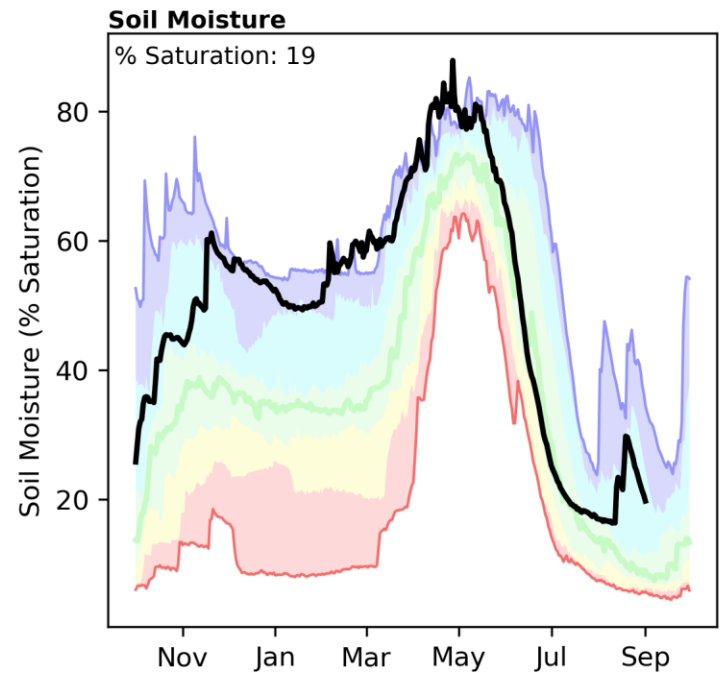
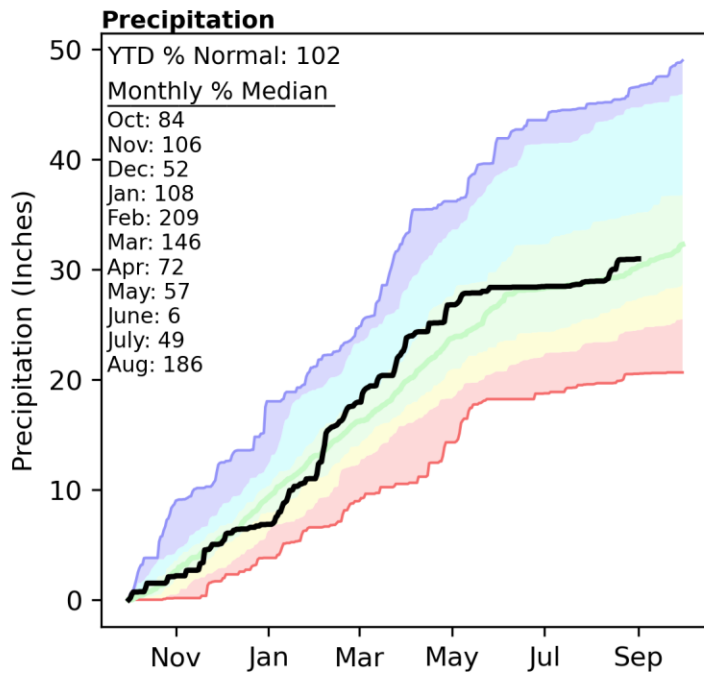
Precipitation in August was well above normal, with an average of 3.0" falling region-wide (225% of normal). This brings the water year accumulation (October-August) to 112% of median. Depth averaged soil moisture was calculated to be 29% of saturation compared to 34% at this time last year. Reservoir storage is 87% of capacity, compared to 88% last year. The Water Availability Index percentile is 76% for the Provo.



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

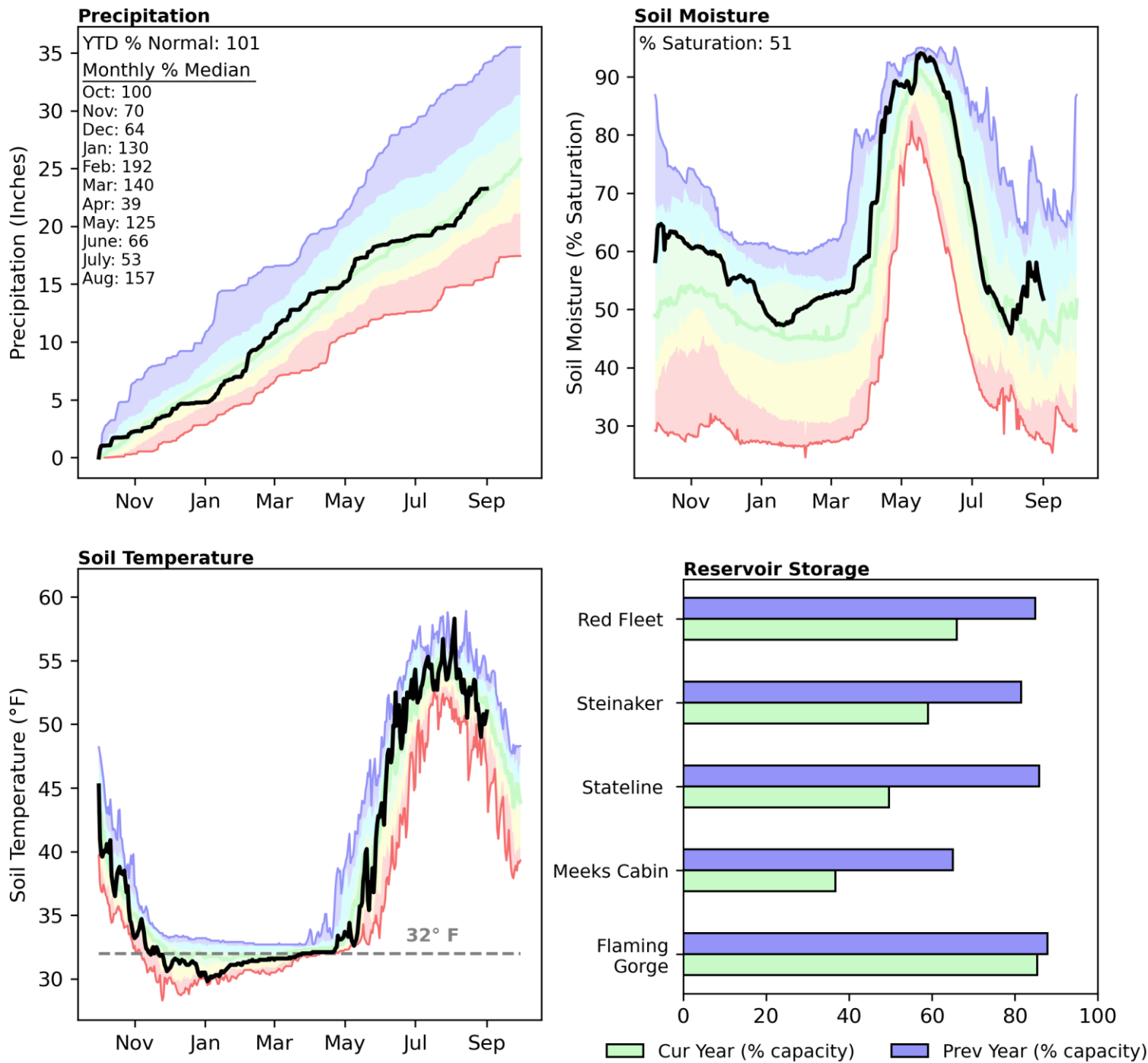
Tooele Valley-Vernon Creek | September 1, 2024

Precipitation in August was well above normal, with an average of 2.1" falling region-wide (186% of normal). This brings the water year accumulation (October-August) to 102% of median. Depth averaged soil moisture was calculated to be 19% of saturation compared to 34% at this time last year. Reservoir storage is 45% of capacity, compared to 57% last year.



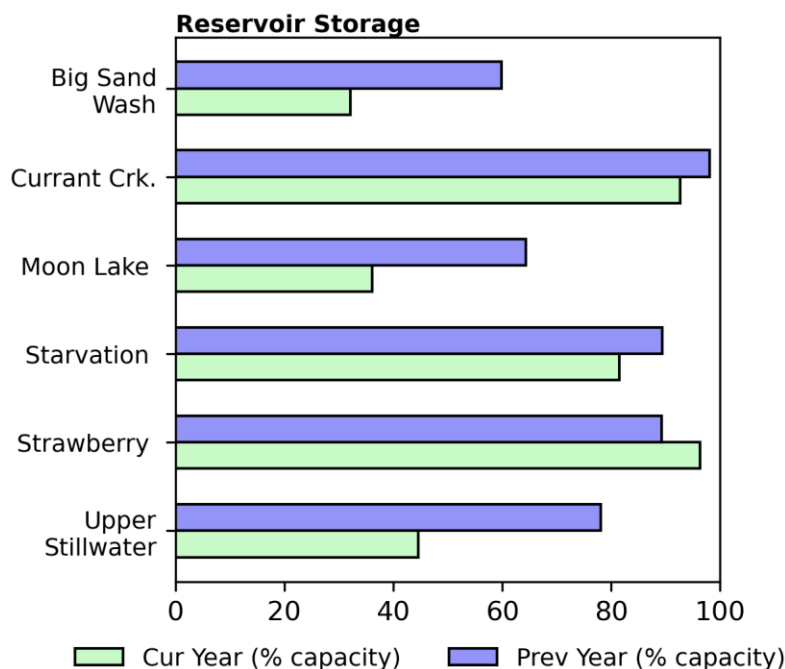
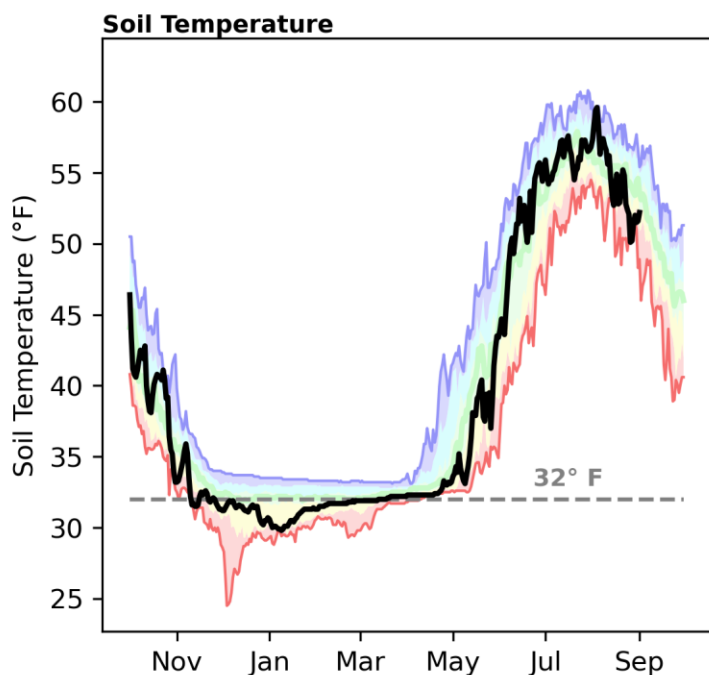
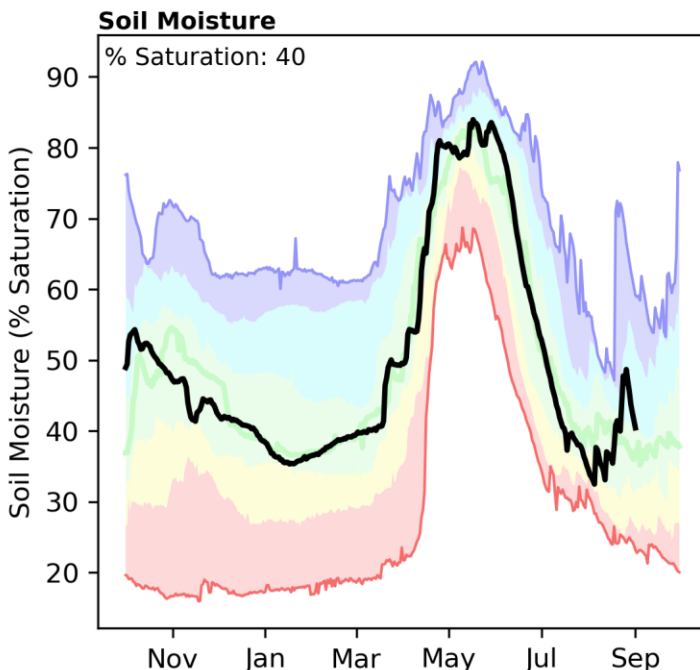
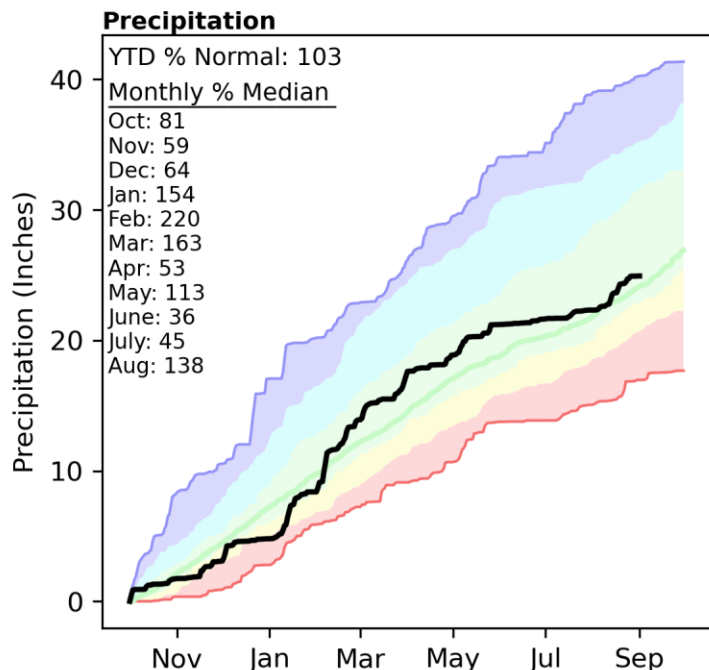
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 3.2" falling region-wide (157% of normal). This brings the water year accumulation (October-August) to 101% of median. Depth averaged soil moisture was calculated to be 51% of saturation compared to 63% at this time last year. Reservoir storage is 84% of capacity, compared to 87% last year. The Water Availability Index percentiles are 45% for the Blacks Fork, and 40% for the Smiths Fork.



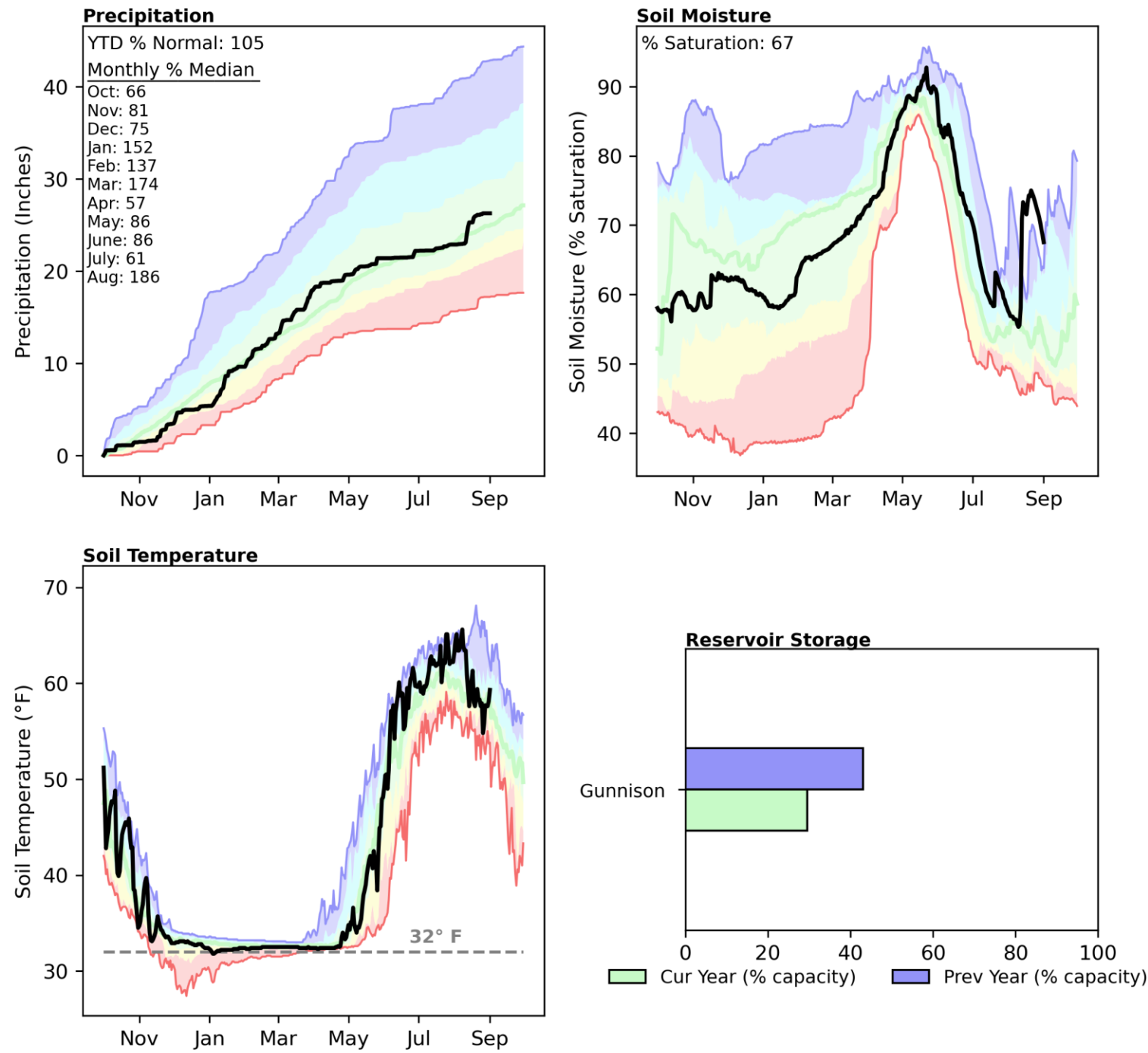
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 2.6" falling region-wide (138% of normal). This brings the water year accumulation (October-August) to 103% of median. Depth averaged soil moisture was calculated to be 40% of saturation compared to 51% at this time last year. Reservoir storage is 90% of capacity, compared to 87% last year. The Water Availability Index percentiles are 53% for the Western Uintas, and 53% for the Eastern Uintas.



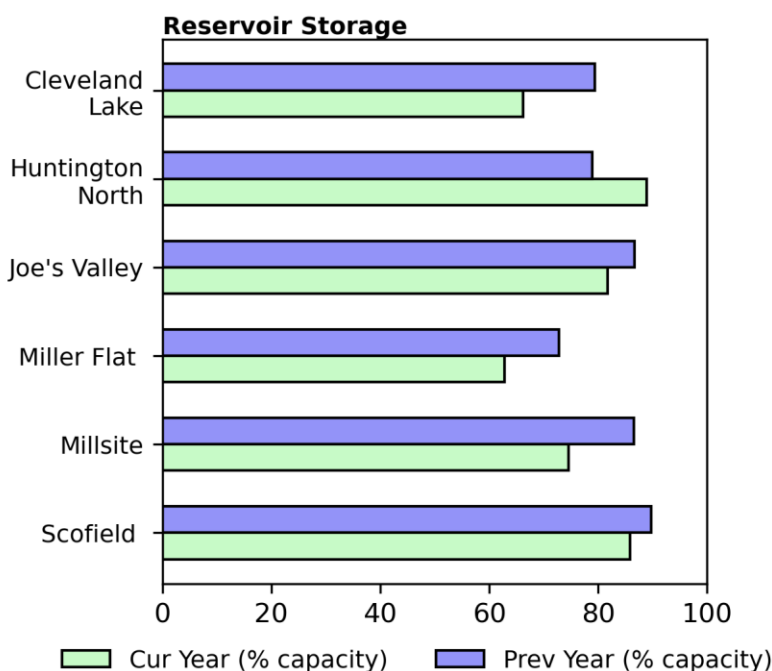
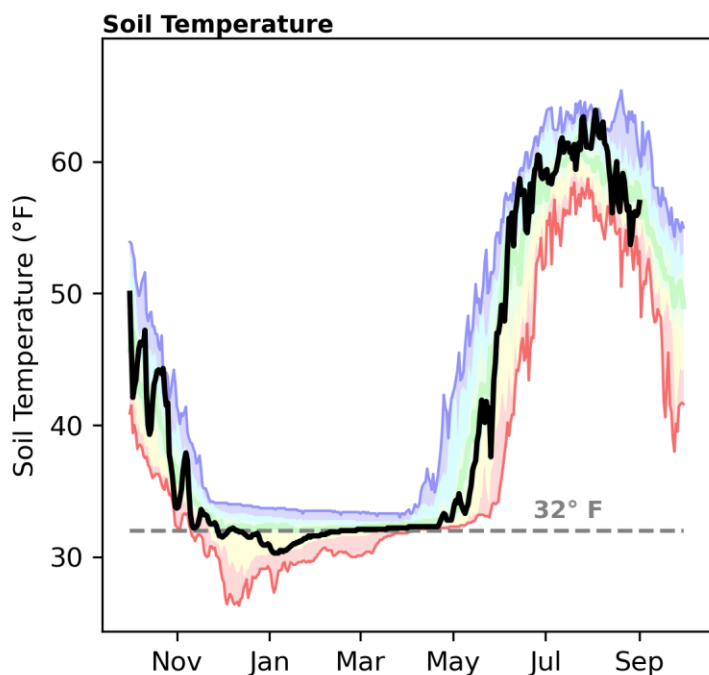
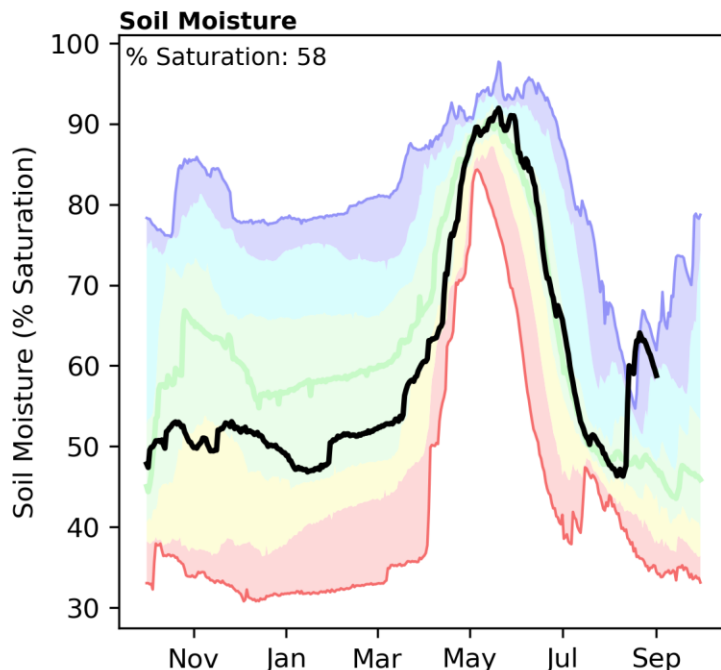
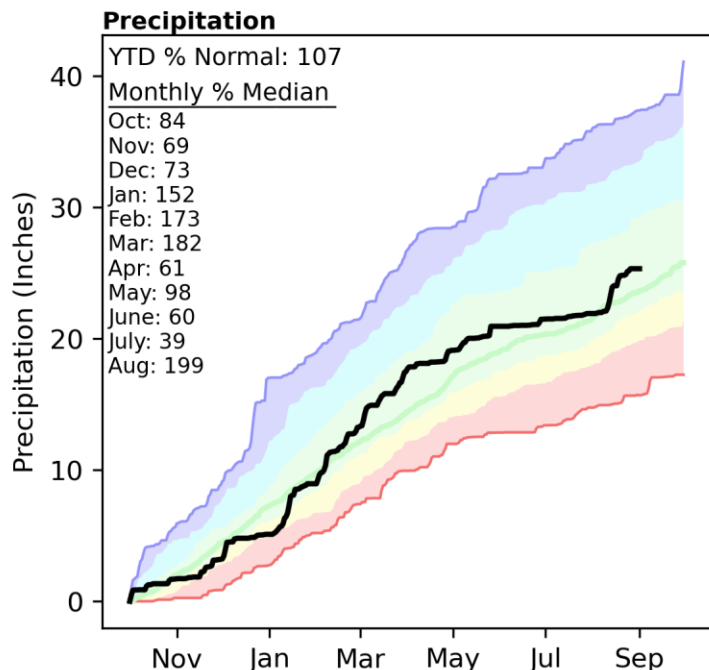
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 3.4" falling region-wide (186% of normal). This brings the water year accumulation (October-August) to 105% of median. Depth averaged soil moisture was calculated to be 67% of saturation compared to 62% at this time last year. Reservoir storage is 29% of capacity, compared to 43% last year. The Water Availability Index percentile is 58% for the San Pitch.



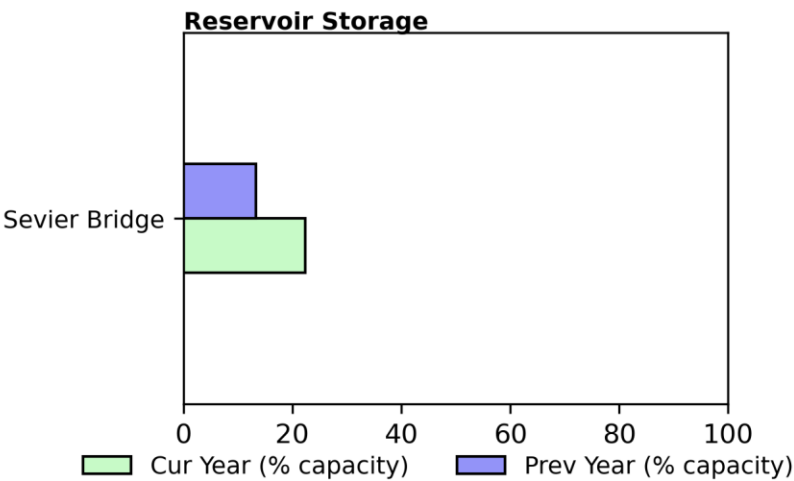
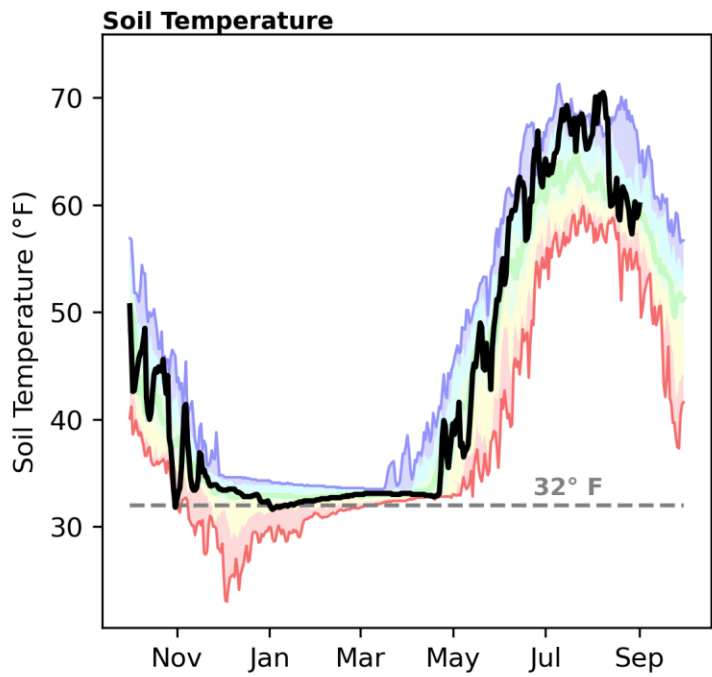
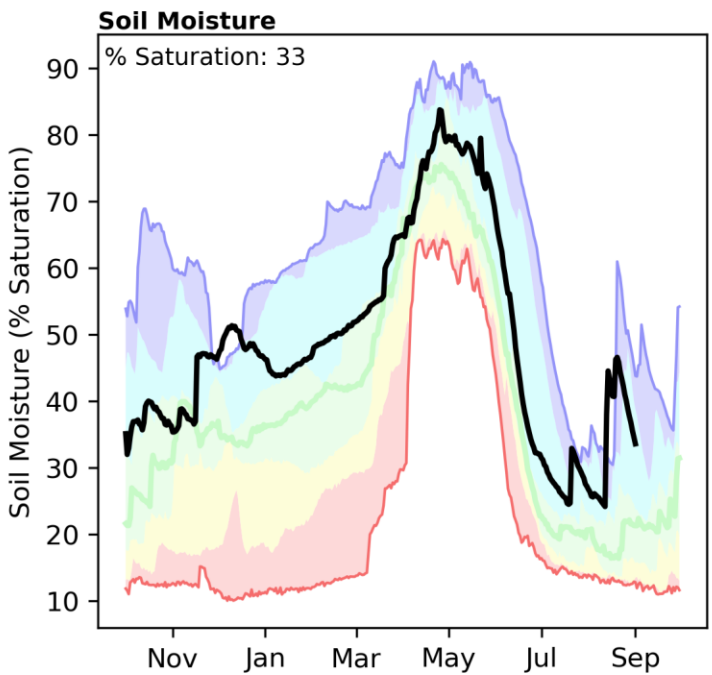
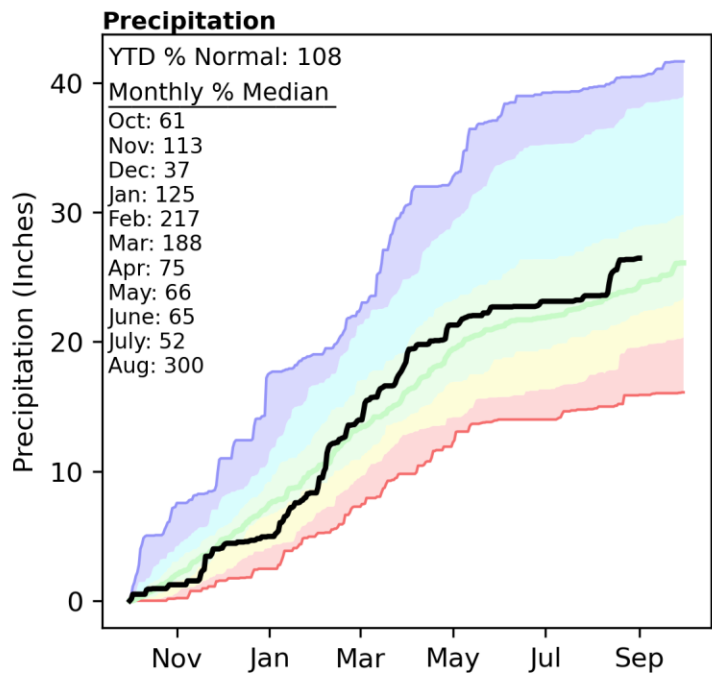
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 3.4" falling region-wide (199% of normal). This brings the water year accumulation (October-August) to 107% of median. Depth averaged soil moisture was calculated to be 58% of saturation compared to 48% at this time last year. Reservoir storage is 81% of capacity, compared to 87% last year. The Water Availability Index percentiles are 87% for the Price, 58% for Joes Valley, and 80% for Ferron Creek.



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

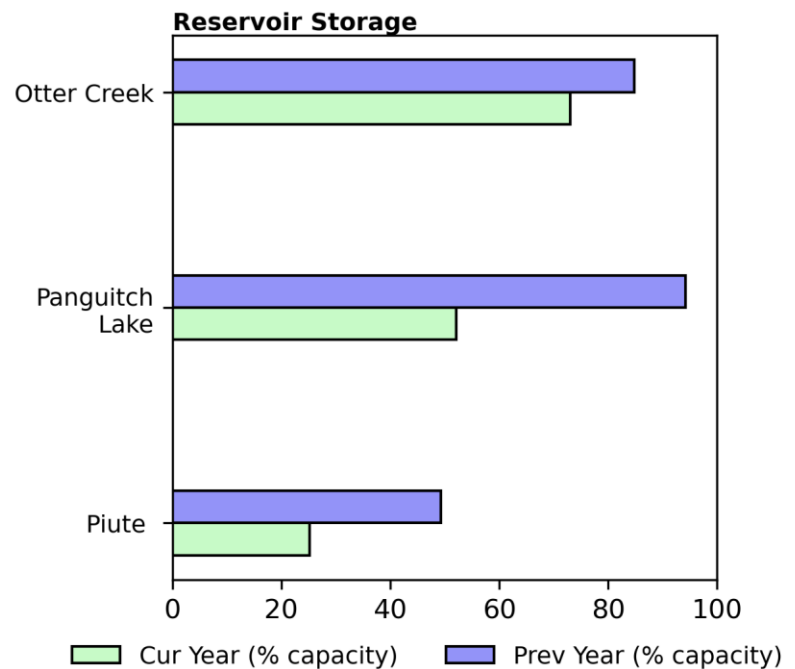
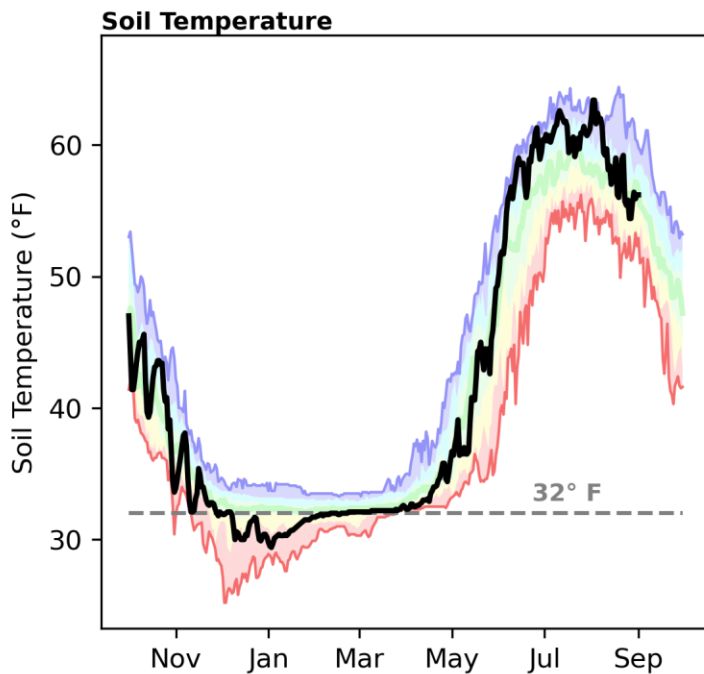
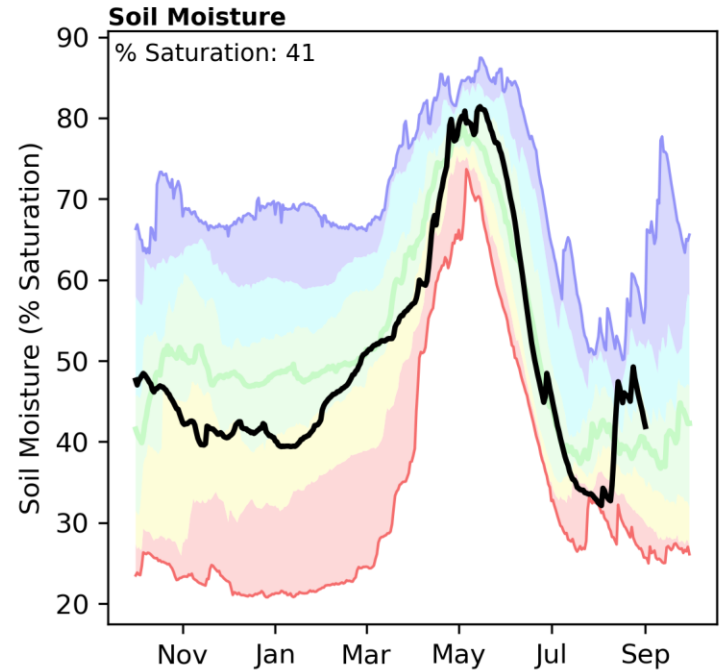
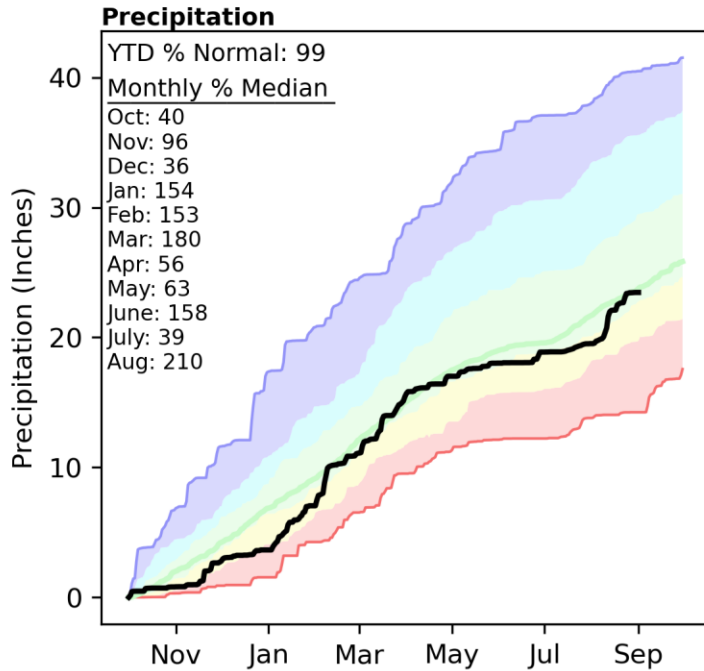
Precipitation in August was well above normal, with an average of 2.9" falling region-wide (300% of normal). This brings the water year accumulation (October-August) to 108% of median. Depth averaged soil moisture was calculated to be 33% of saturation compared to 43% at this time last year. Reservoir storage is 22% of capacity, compared to 13% last year. The Water Availability Index percentile is 36% for the Lower Sevier.



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

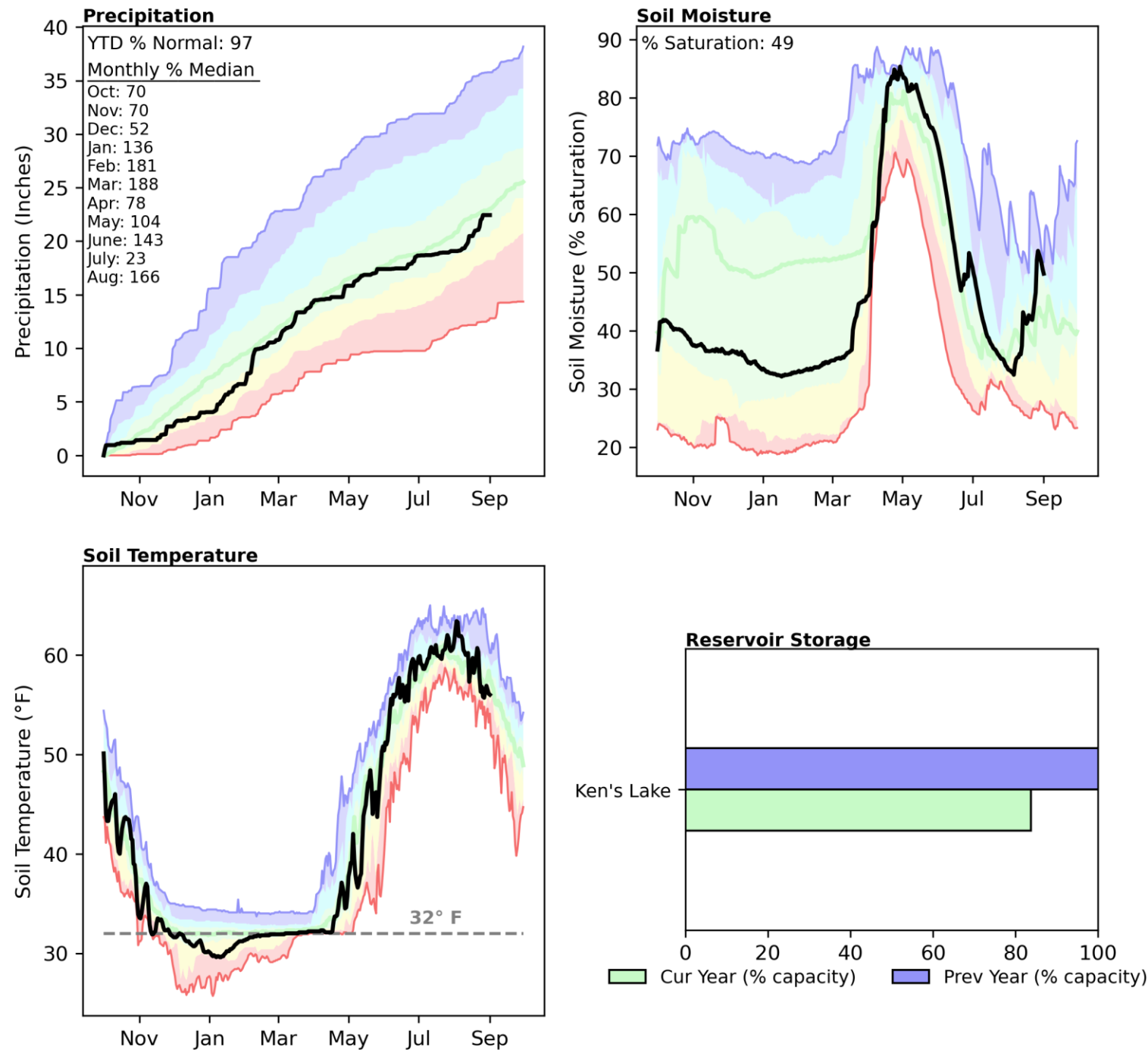
Upper Sevier | September 1, 2024

Precipitation in August was well above normal, with an average of 3.9" falling region-wide (210% of normal). This brings the water year accumulation (October-August) to 99% of median. Depth averaged soil moisture was calculated to be 41% of saturation compared to 53% at this time last year. Reservoir storage is 46% of capacity, compared to 68% last year. The Water Availability Index percentile is 64% for the Upper Sevier.



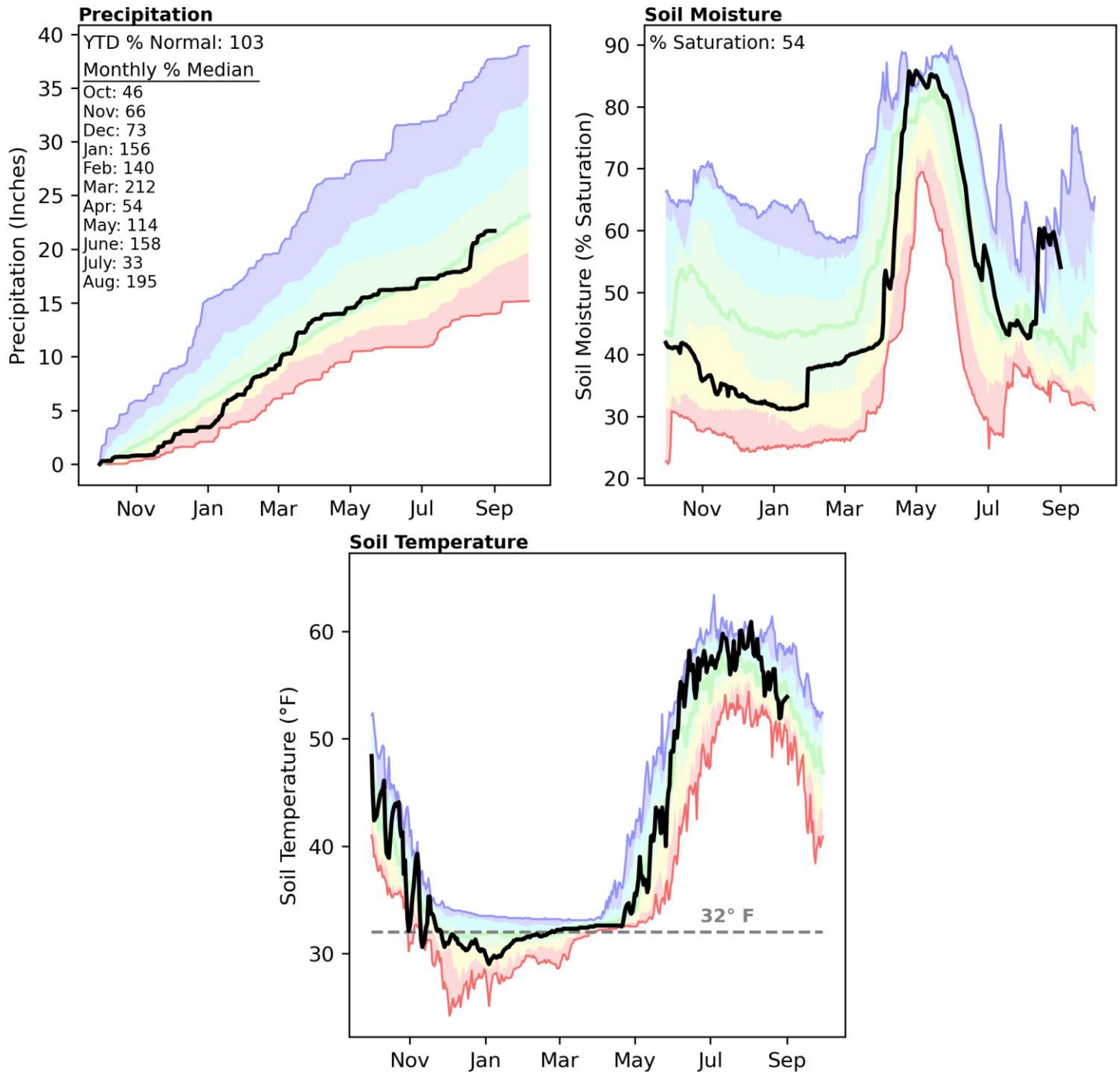
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 3.4" falling region-wide (166% of normal). This brings the water year accumulation (October-August) to 97% of median. Depth averaged soil moisture was calculated to be 49% of saturation compared to 45% at this time last year. Reservoir storage is 83% of capacity, compared to 103% last year. The Water Availability Index percentile is 71% for Moab.



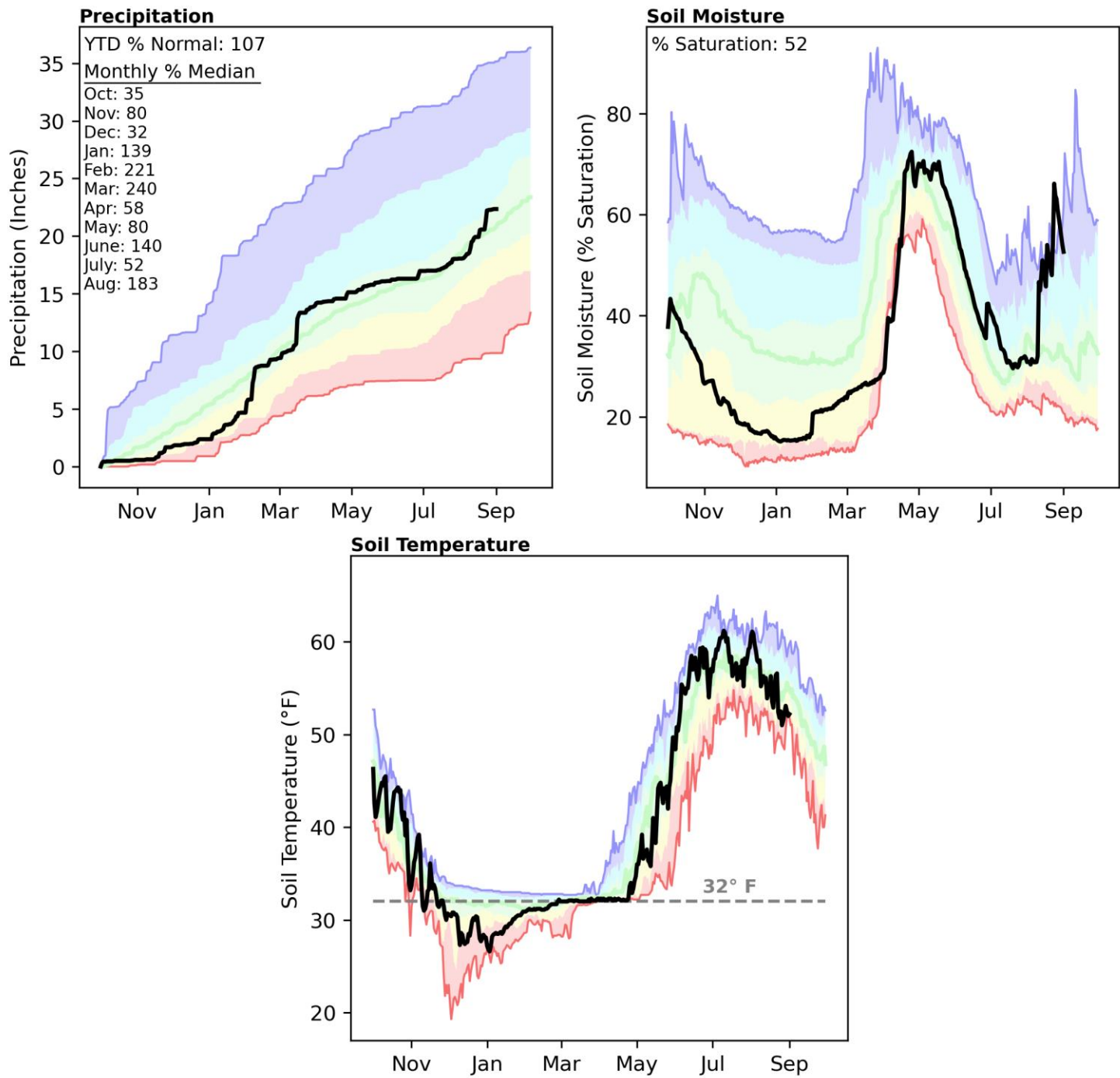
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 3.8" falling region-wide (195% of normal). This brings the water year accumulation (October-August) to 103% of median. Depth averaged soil moisture was calculated to be 54% of saturation compared to 45% at this time last year.



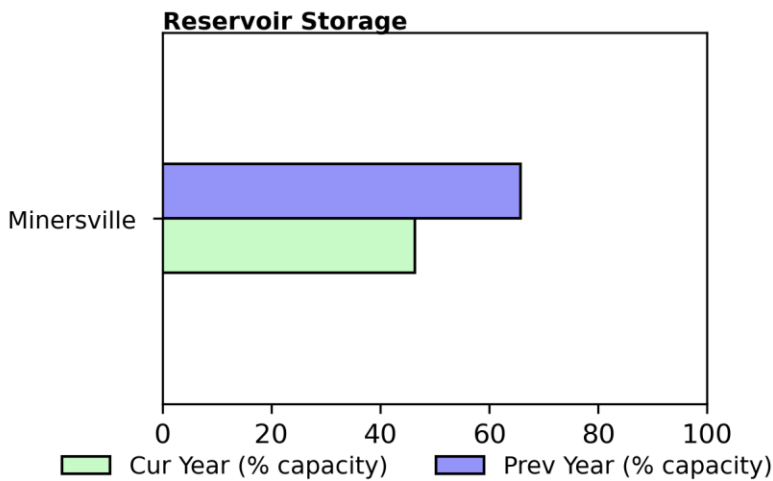
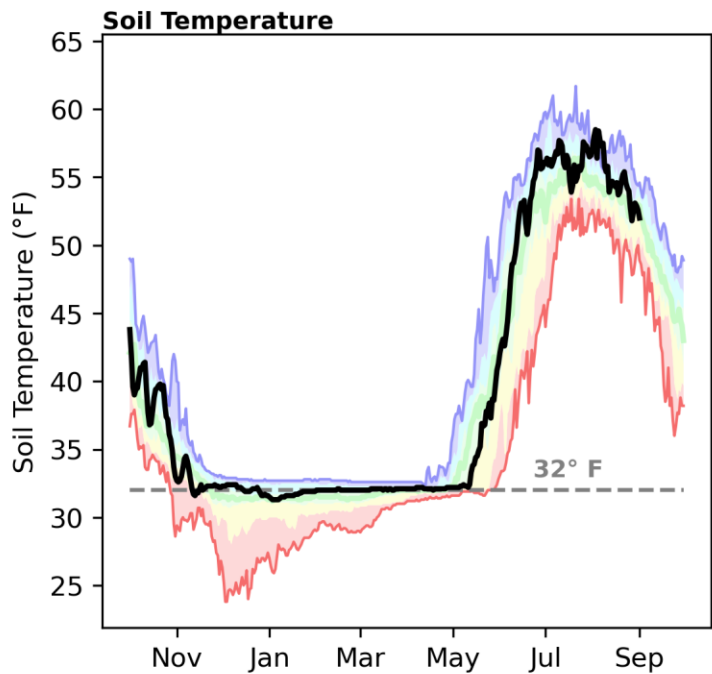
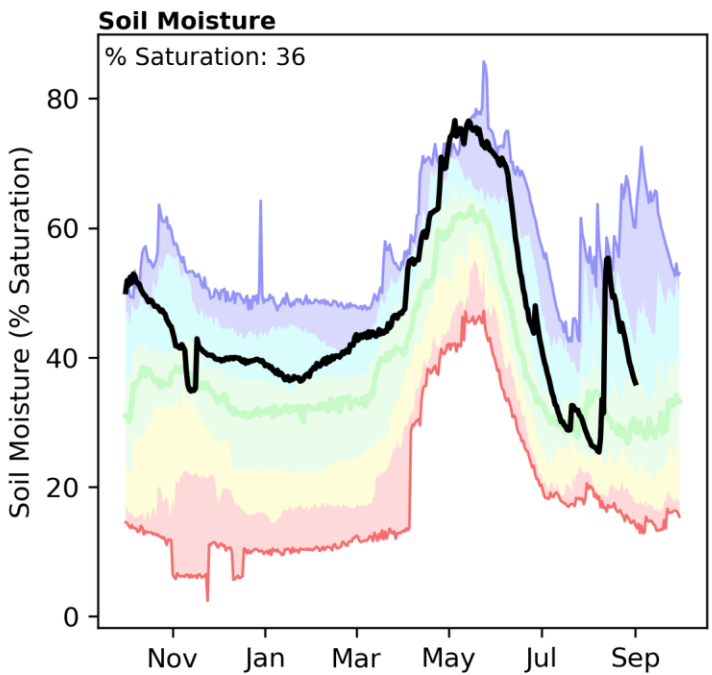
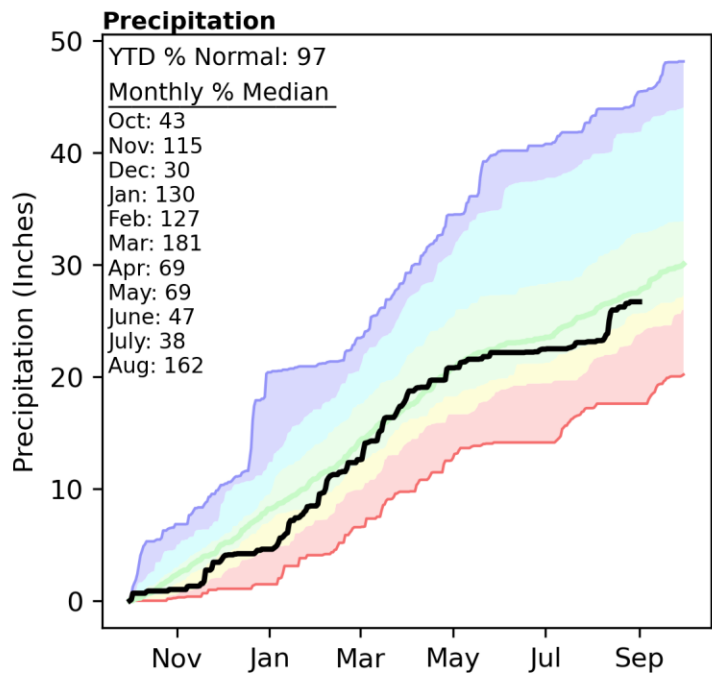
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in August was well above normal, with an average of 4.3" falling region-wide (183% of normal). This brings the water year accumulation (October-August) to 107% of median. Depth averaged soil moisture was calculated to be 52% of saturation compared to 46% at this time last year.



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

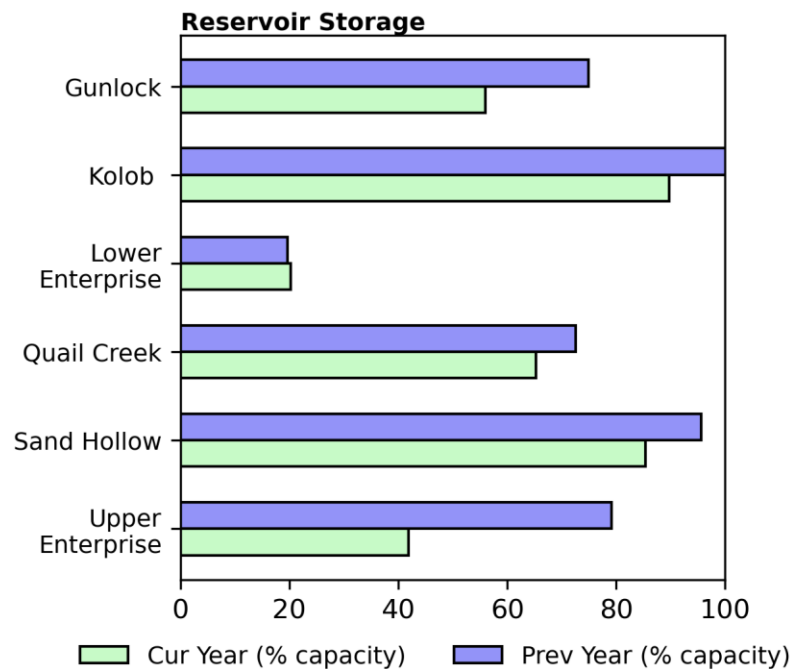
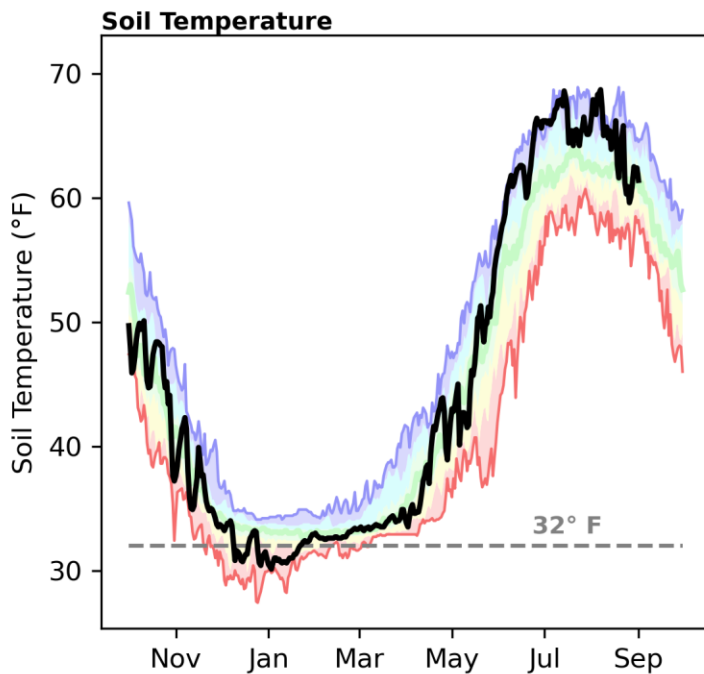
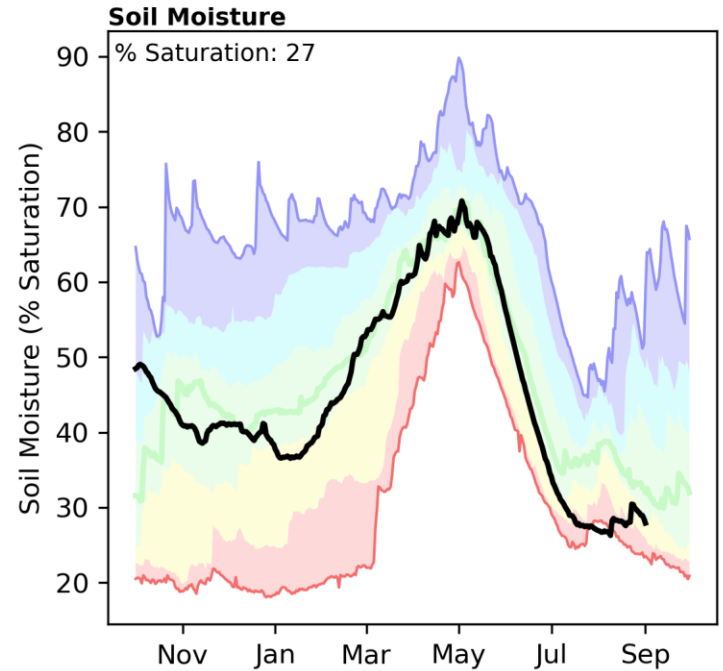
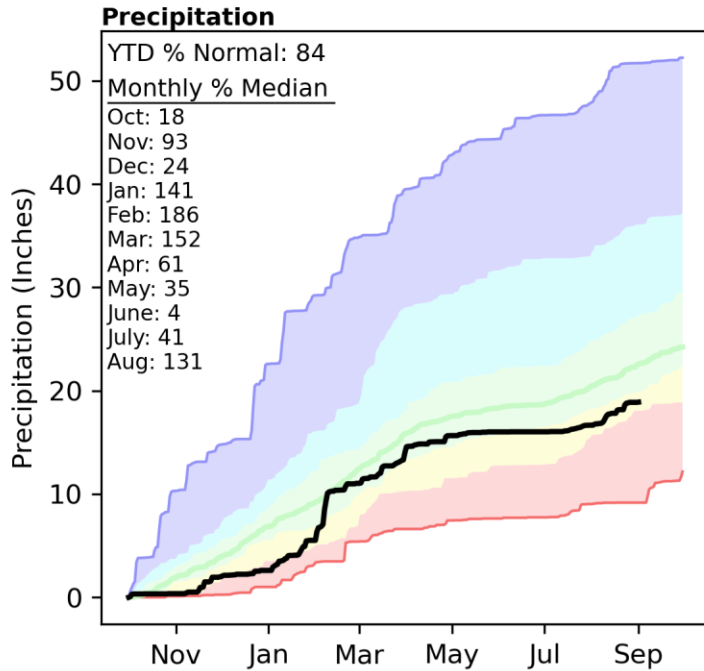
Precipitation in August was well above normal, with an average of 3.6" falling region-wide (162% of normal). This brings the water year accumulation (October-August) to 97% of median. Depth averaged soil moisture was calculated to be 36% of saturation compared to 60% at this time last year. Reservoir storage is 46% of capacity, compared to 65% last year. The Water Availability Index percentile is 71% for the Beaver River.



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

Southwestern Utah | September 1, 2024

Precipitation in August was well above normal, with an average of 2.2" falling region-wide (131% of normal). This brings the water year accumulation (October-August) to 84% of median. Depth averaged soil moisture was calculated to be 27% of saturation compared to 49% at this time last year. Reservoir storage is 71% of capacity, compared to 83% last year. The Water Availability Index percentile is 55% for the Virgin River.



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

Appendix A: Data used in WAI 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	1981
Little Bear	Little Bear R at Paradise	Hyrum Reservoir	1993
Ogden	SF Ogden R nr Huntsville	Pineview Reservoir, Causey Reservoir	1981
Weber	Weber R nr Oakley, Chalk Ck at Coalville, East Canyon Ck nr Morgan	East Canyon Reservoir, Echo Reservoir, Lost Creek Reservoir, Rockport Reservoir, Smith And Morehouse Reservoir	1989
Provo	Provo R at Woodland	Deer Creek Reservoir, Jordanelle Reservoir	1993
Western Uintas	Lake Fk R ab Moon Lk nr Mountain Home, Rock Ck nr Mountain Home, Yellowstone R nr Altonah	Starvation Reservoir, Moon Lake Reservoir, Upper Stillwater Reservoir	1988
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	EF of Smiths Fork nr Robertson	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	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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Utah Water Supply Outlook Report

Natural Resources Conservation Service
Salt Lake City, UT

