



Utah Climate and Water Report

July 1, 2023



Deseret Peak Wilderness, near Mining Fork SNOTEL site

Photo by Logan Jamison

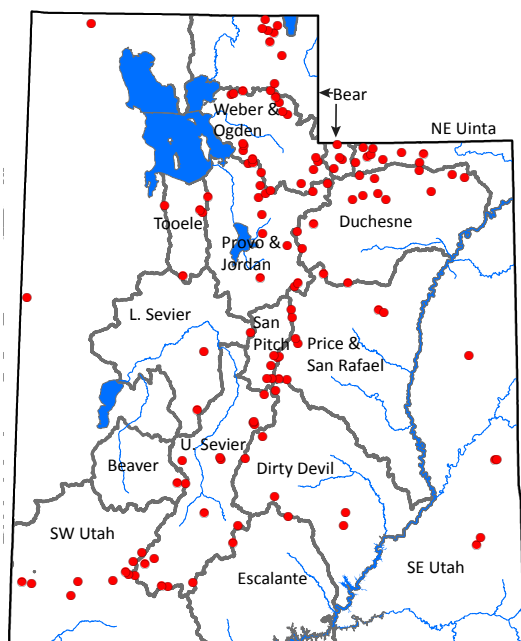
Utah Climate and Water Report

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.



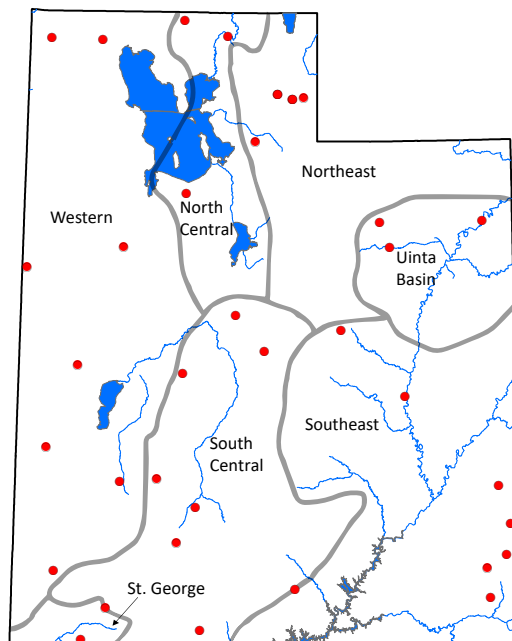
SNOTEL

- 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 General Summary

July 1, 2023

Valley Conditions (SCAN) as of July 1st: While conditions have been dry lately, overall June was a good month for precipitation. Utah received an average of 0.8 inches of precipitation in our valley locations, which was well above normal (182%), ranging from 118% in Southeastern Utah to 478% in the south-central portion of the state. However, bear in mind that monthly precipitation values for Utah's valley locations are typically rather low this time of year, so the percent of normal precipitation values are somewhat inflated (as an example, South Central Utah received 0.7" of rain during June compared with a normal value of only ~0.15", resulting in the large 478% of normal value for the month). Statewide soil moisture at Utah's SCAN sites ended the month at 44% of saturation, which is 7% higher than last year and in the top 10% of all observations for the end of June since the SCAN network was installed in the early 2000s. The statewide soil moisture value masks important regional differences, however; valley soils in Western Utah are below normal, compared with fairly typical soil moisture levels in Northeastern Utah and the Uinta Basin for this time of year, and above normal valley soil moisture levels elsewhere. Finally, as of July 1st, soil temperatures were below normal in Utah's valley locations.

Mountain Conditions (SNOTEL) as of July 1st: Similarly, precipitation in Utah's mountains was well above normal for June—mostly due to storm activity during the first two-thirds of the month. Overall, this resulted in an average of 1.6" of accumulation, which is well above normal at 161%. Of Utah's 16 major watersheds, all had above normal mountain precipitation during June (ranging from 113 to 477%) except for Southeastern Utah (100%). As of July 1st, statewide soil moisture in Utah's mountains was well above normal at 60% of saturation, which is 11% higher than last year at this time. This clearly reflects the aftermath of our phenomenal snowpack season in Utah's mountains. Along those same lines, Utah's reservoir storage is currently at 86% of capacity, which is a whopping 28% higher than last year at this time! In fact, every major basin's reservoir supply improved substantively from this year's snowmelt runoff—so much so that several basins are at their capacity for reservoir storage (Weber-Ogden, Price, Southeastern Utah, and Beaver watersheds) and several others are close to full (Tooele Valley, Duchesne, San Pitch, Northeastern Uintas, Southwestern Utah, and Provo watersheds); see the bottom-right figure on page 16 of this report for additional context. Water Availability Indices (WAIs) for Utah basins combine current reservoir conditions with observed streamflow for each region. WAIs are in the top 25th percentile for 14 of Utah's 18 major basins, which is a drastic improvement from last year and reflects the outstanding snowpack and runoff season we experienced. That said, Utah's largest water bodies (Bear Lake, Sevier Bridge Reservoir, the Great Salt Lake, and Lake Powell) still need a LOT of water, so it will continue to be important to use our water resources wisely this summer.

*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.*

July 1, 2023 | Utah Reservoir Summary

Watershed/Region	Current Storage (Basinwide KAF)	Reservoir Capacity (Basinwide KAF)	Last Yr % Capacity (Basinwide)	This Yr % Capacity (Basinwide)
Utah (Statewide)	4700	5465	58	86
Utah (Statewide) Incl. Flaming G. & Lk. Powell	17523	33536	38	52
Bear	933	1389	45	67
Weber-Ogden	552	547	65	101
Northeastern Uintas	3354	3852	73	87
Tooele Valley	4	4	60	95
Duchesne	1268	1379	78	91
Provo	1298	1334	61	97
San Pitch	17	20	1	87
Price	166	158	61	104
Upper Sevier	221	382	15	57
Southeast UT	2	2	90	112
Beaver	23	23	15	100
Southwest Utah	105	118	65	88

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	846	1302	44	64
Big Sand Wash Reservoir	25	25	61	100
Causey Reservoir	7	7	99	99
Cleveland Lake	5	5	70	99
Currant Creek Reservoir	15	15	94	97
Deer Creek Reservoir	149	149	78	99
East Canyon Reservoir	49	49	75	100
Echo Reservoir	72	73	86	98
Flaming Gorge Reservoir	3249	3749	73	86
Grantsville Reservoir	3	3	67	96
Gunlock	9	10	45	86
Gunnison Reservoir	17	20	1	87
Huntington North Reservoir	2	4	53	62
Hyrum Reservoir	14	15	84	93
Joes Valley Reservoir	62	61	67	101
Jordanelle Reservoir	309	314	76	98
Ken's Lake	2	2	90	112
Kolob Reservoir	5	5	98	101
Lake Powell	9574	24322	28	39
Lost Creek Reservoir	22	22	63	98
Lower Enterprise	1	2	13	61
Meeks Cabin Reservoir	29	32	85	91
Miller Flat Reservoir	8	5	78	162
Millsite	18	16	100	108
Minersville Reservoir	23	23	15	100
Moon Lake Reservoir	38	35	74	106
Otter Creek Reservoir	50	52	28	96
Panguitch Lake	24	22	58	107
Pineview Reservoir	109	110	63	99
Piute Reservoir	62	71	1	87
Porcupine Reservoir	13	11	106	116
Quail Creek	31	40	64	79
Red Fleet Reservoir	25	25	59	99
Rockport Reservoir	61	60	96	101
Sand Hollow Reservoir	48	50	79	97
Scofield Reservoir	68	65	43	104
Settlement Canyon Reservoir	0	1	38	94
Sevier Bridge Reservoir	84	236	12	35
Smith and Morehouse	8	8	102	103
Starvation Reservoir	164	164	82	99
Stateline Reservoir	14	12	112	117
Steinaker Reservoir	36	33	62	108
Strawberry Reservoir	994	1105	77	89
Upper Enterprise	8	10	15	85
Upper Stillwater Reservoir	31	32	87	96
Utah Lake	839	870	52	96
Willard Bay	220	215	45	102
Woodruff Creek	2	4	17	60
Woodruff Narrows Reservoir	57	57	28	100

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

July 1, 2023 | 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	846.1	69.8	915.9	0.57	57	[1988, 1996]
Woodruff Narrows	57.8	69.1	126.9	2.65	82	[1997, 2010]
Little Bear	14.4	13.5	27.9	2.6	81	[1999, 2005]
Ogden	116.8	14.6	131.4	2.27	77	[1982, 2017]
Weber	215.0	92.1	307.1	2.55	81	[1999, 2008]
Provo	458.9	79.5	538.5	3.39	91	[2017, 2019]
Western Uintas	233.6	111.1	344.7	2.46	80	[1997, 2017]
Eastern Uintas	61.8	73.4	135.2	2.65	82	[1999, 2010]
Blacks Fork	29.7	50.5	80.2	1.93	73	[2008, 2017]
Smiths Fork	14.1	13.8	27.9	1.93	73	[1999, 2010]
Price	68.8	14.2	83.0	3.03	86	[1986, 1995]
Joes Valley	62.8	7.9	70.7	1.7	70	[1988, 1996]
Ferron Creek	18.1	21.4	39.4	3.22	89	[1983, 1984]
Moab	2.6	3.0	5.5	2.82	84	[2011, 2016]
Upper Sevier	113.0	28.5	141.6	2.84	84	[1993, 1998]
San Pitch	17.8	9.4	27.2	2.08	75	[2010, 2011]
Lower Sevier	84.6	79.1	163.8	0.76	59	[1981, 1987]
Beaver River	23.4	18.8	42.2	2.84	84	[1984, 1998]
Virgin River	40.8	16.3	57.1	2.6	81	[1999, 2001]

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

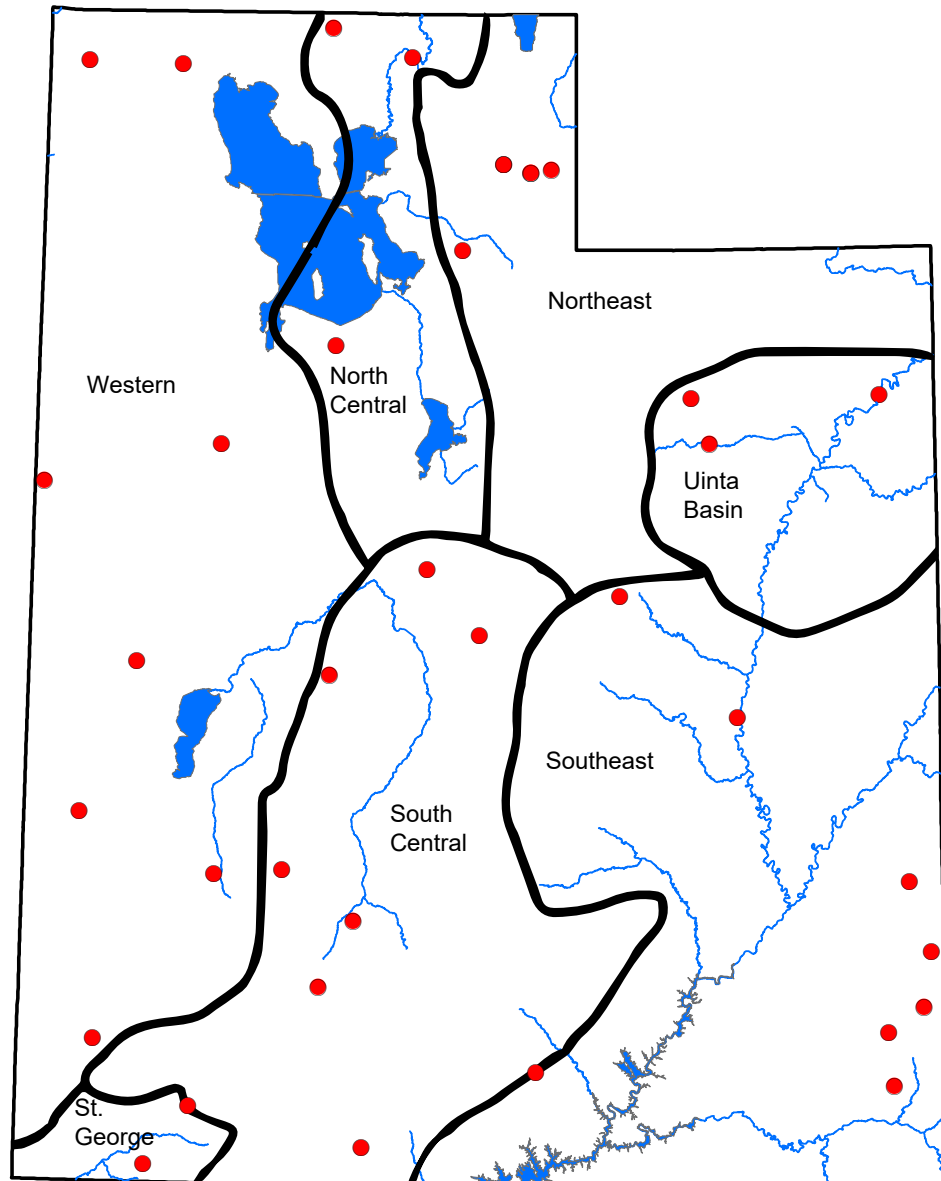
What is a Water Availability Index?

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.

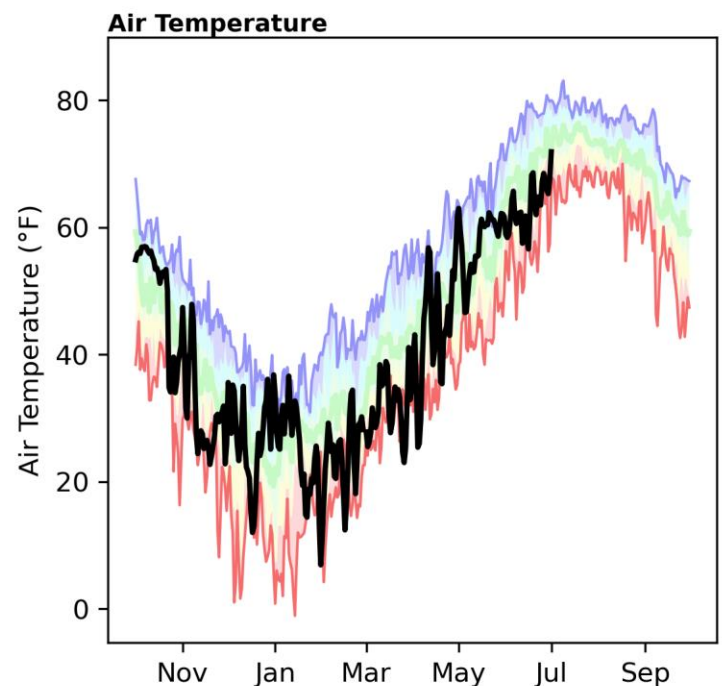
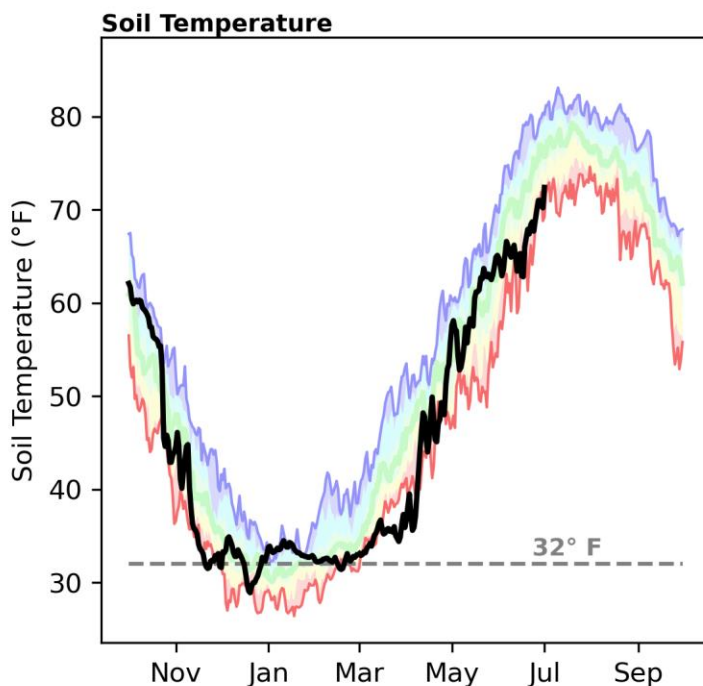
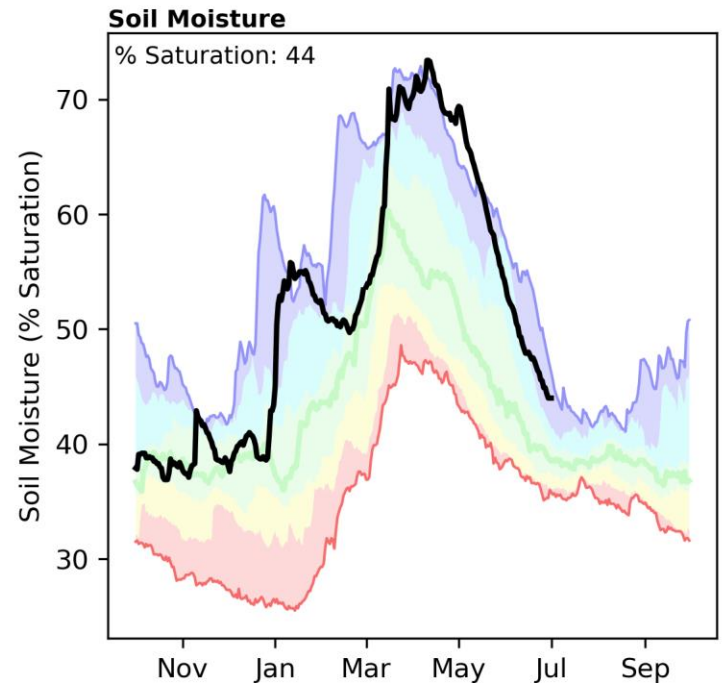
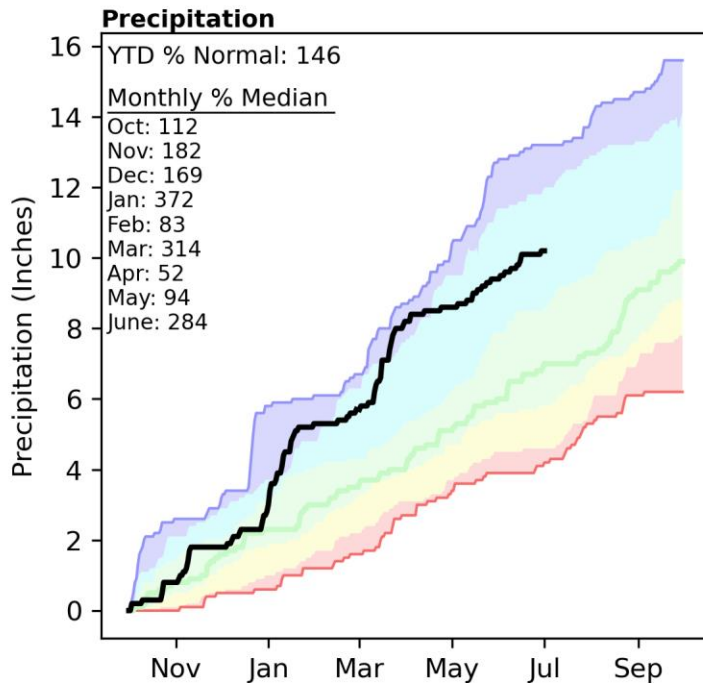
The Utah Snow Survey has also chosen to display the WAI value as well as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a cumbersome name, it has a simple application. It can be best thought of as a scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood 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



Statewide SCAN | July 1, 2023

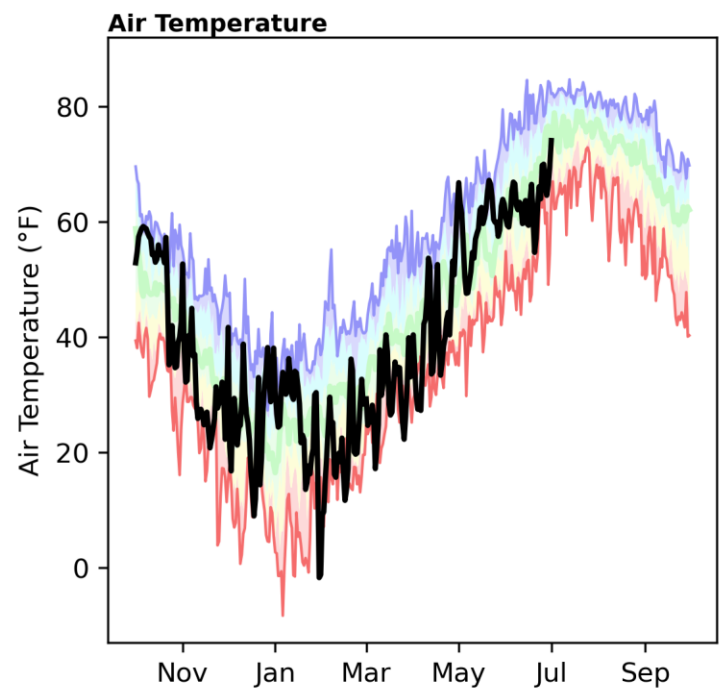
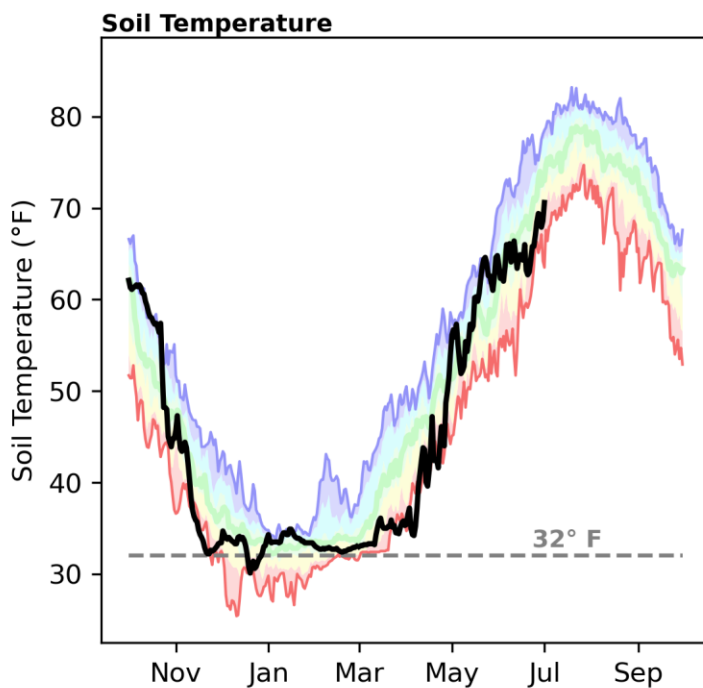
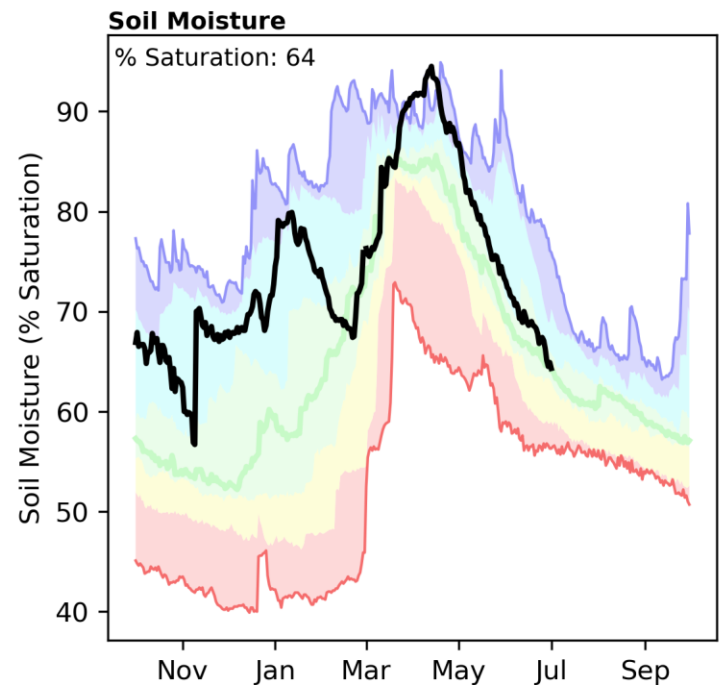
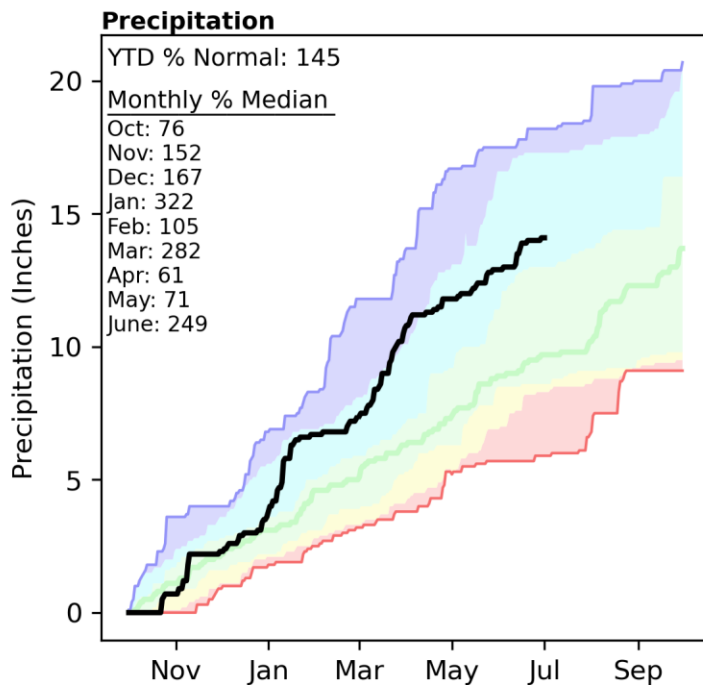
Precipitation in June was well above normal, with an average of 0.8" falling region-wide (284% of normal). This brings the water year accumulation (October-June) to 146% of median. Depth averaged soil moisture was calculated to be 44% of saturation compared to 37% at this time last year.



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

North Central Utah | July 1, 2023

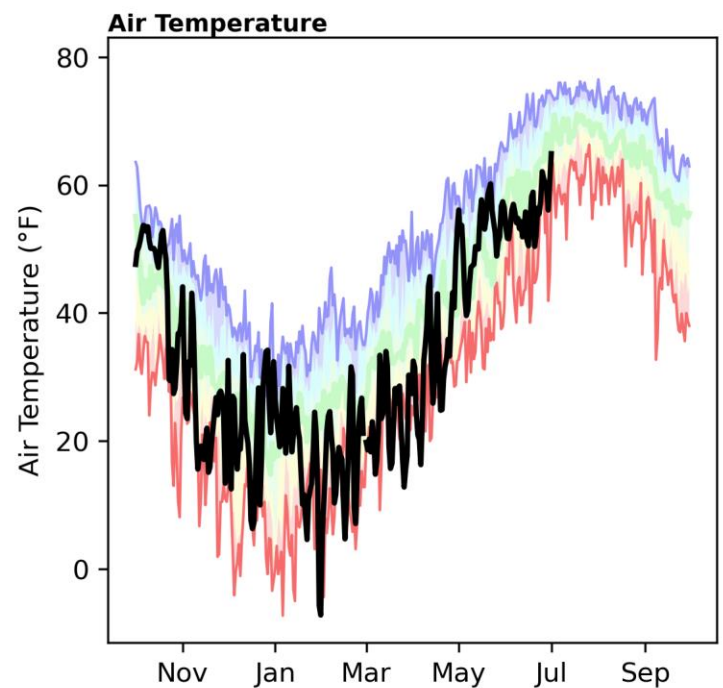
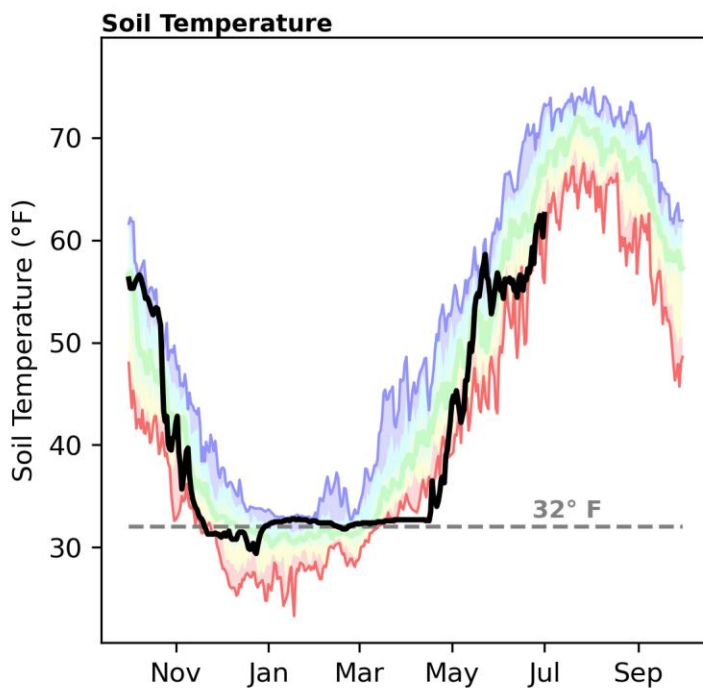
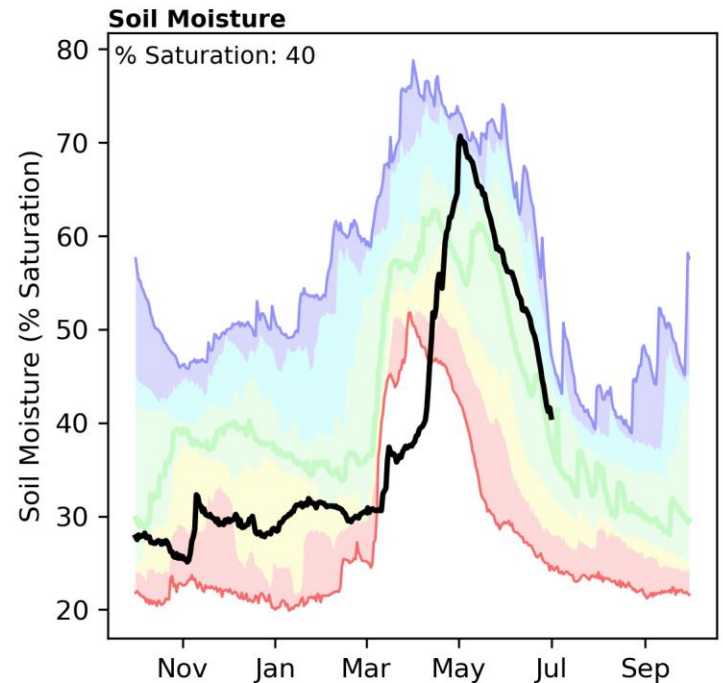
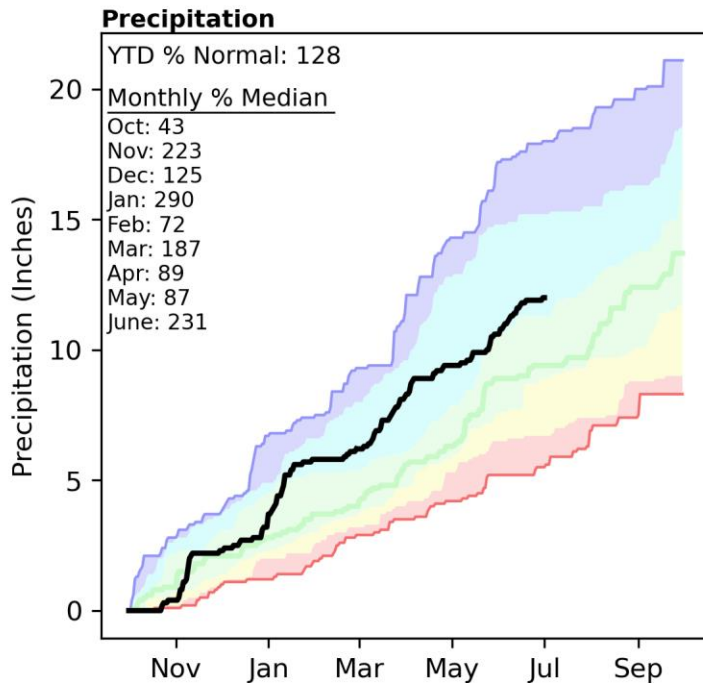
Precipitation in June was well above normal, with an average of 1.2" falling region-wide (249% of normal). This brings the water year accumulation (October-June) to 145% of median. Depth averaged soil moisture was calculated to be 64% of saturation compared to 63% at this time last year.



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

Northeast Utah | July 1, 2023

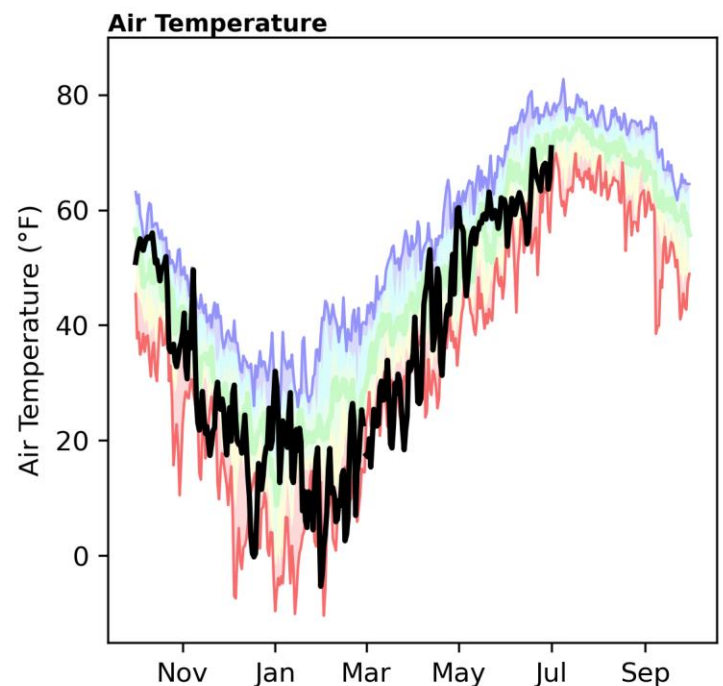
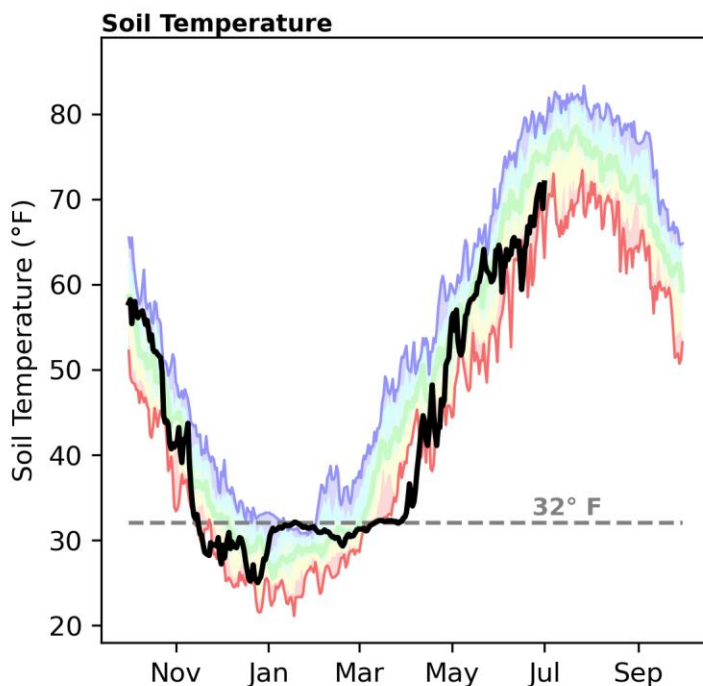
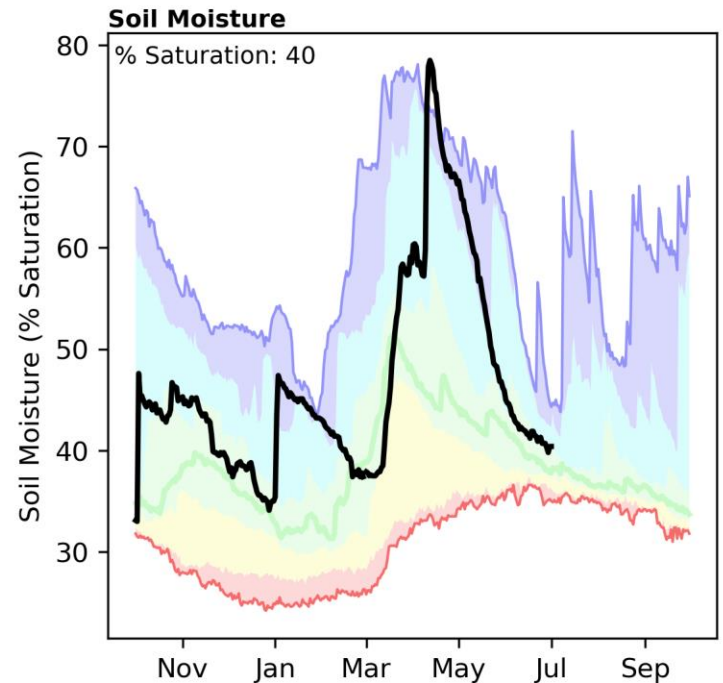
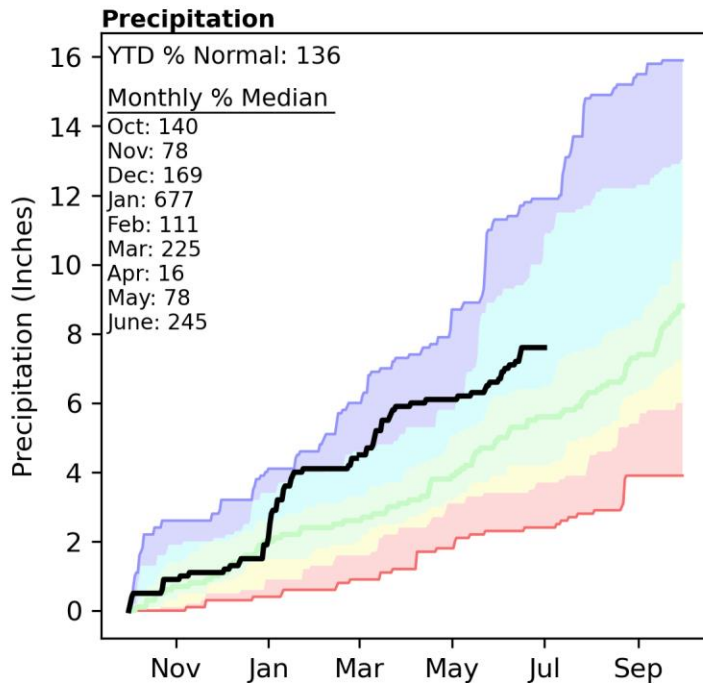
Precipitation in June was well above normal, with an average of 1.5" falling region-wide (231% of normal). This brings the water year accumulation (October-June) to 128% of median. Depth averaged soil moisture was calculated to be 40% of saturation compared to 32% at this time last year.



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

Uinta Basin | July 1, 2023

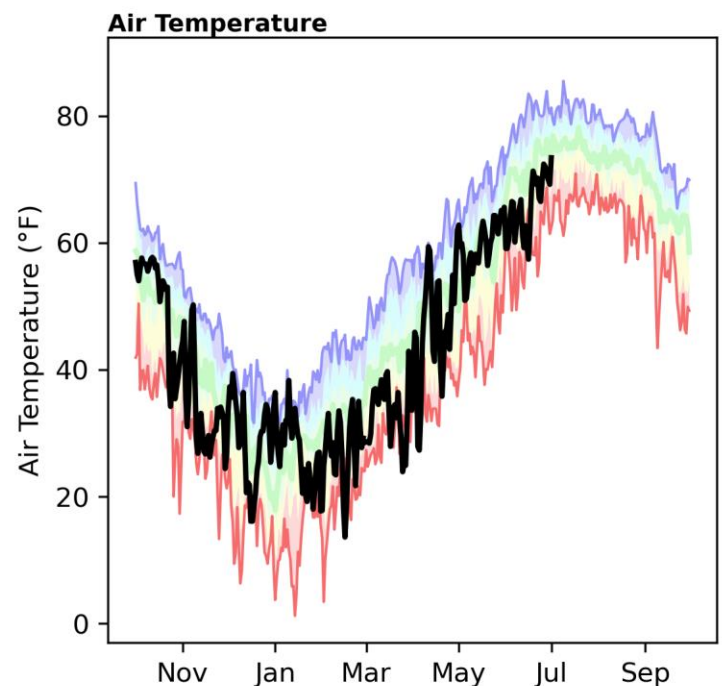
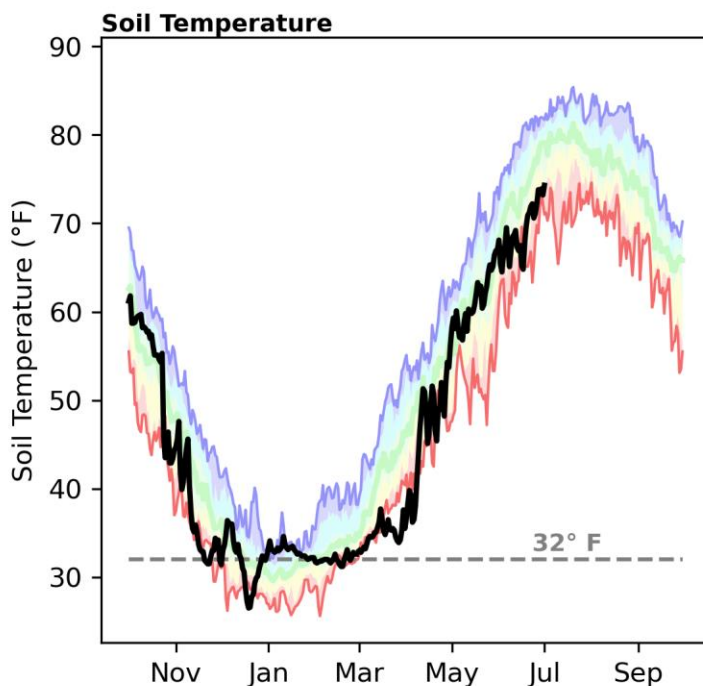
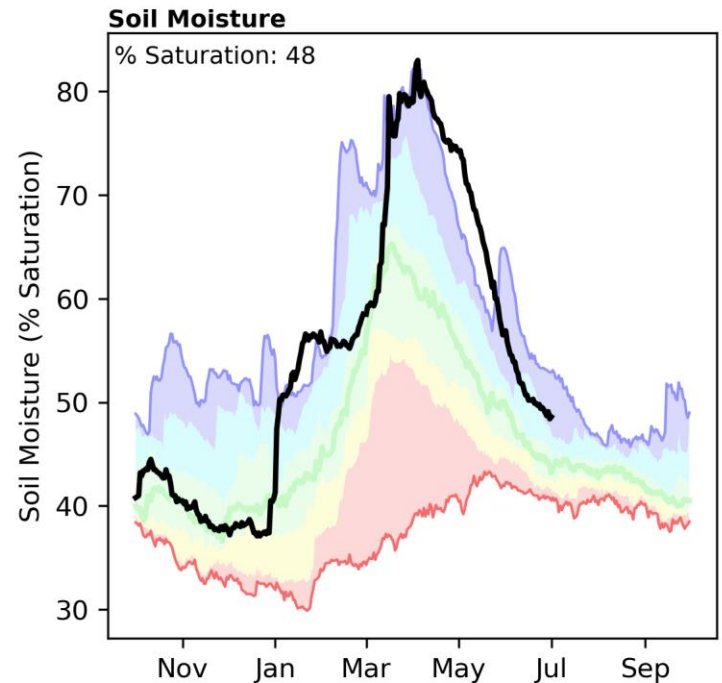
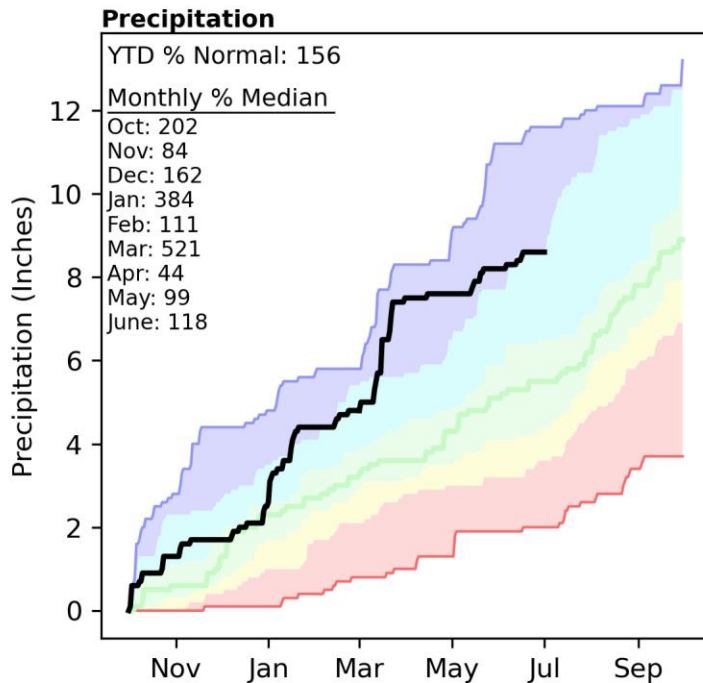
Precipitation in June was well above normal, with an average of 0.9" falling region-wide (245% of normal). This brings the water year accumulation (October-June) to 136% of median. Depth averaged soil moisture was calculated to be 40% of saturation compared to 37% at this time last year.



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

Southeast Utah | July 1, 2023

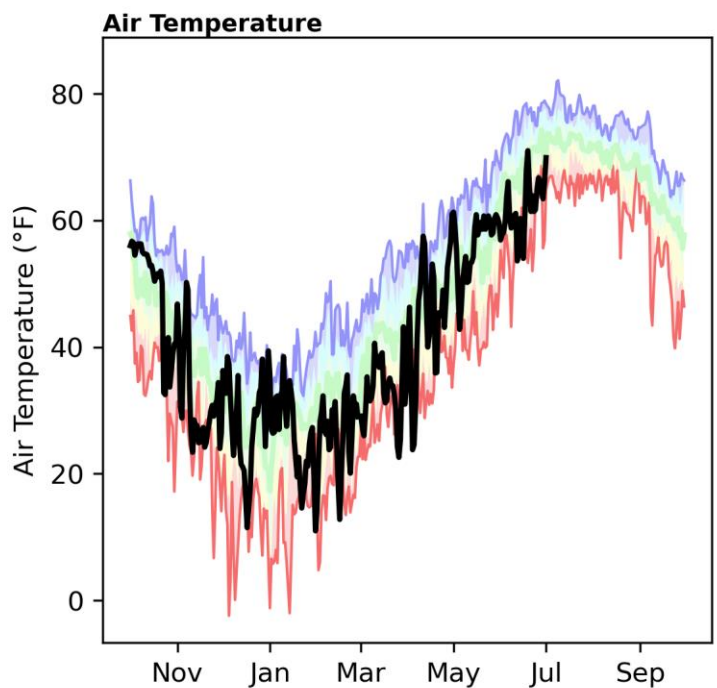
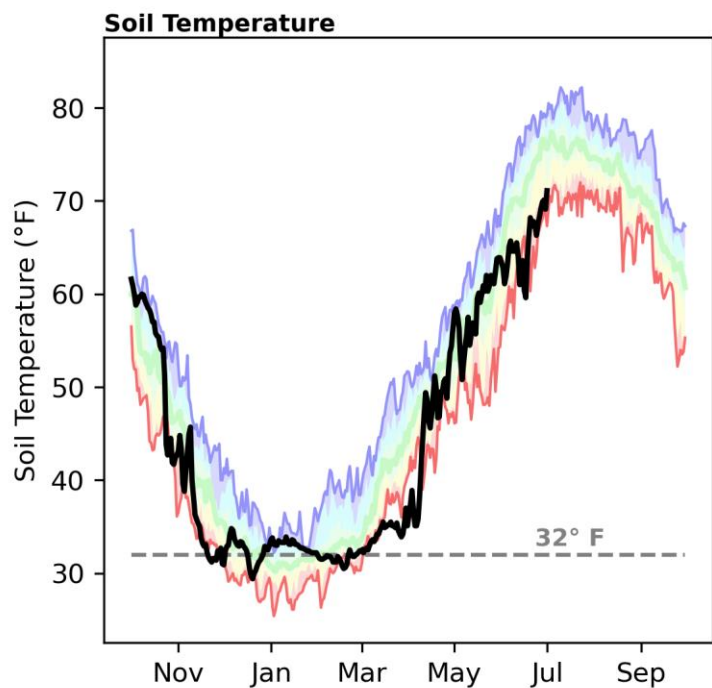
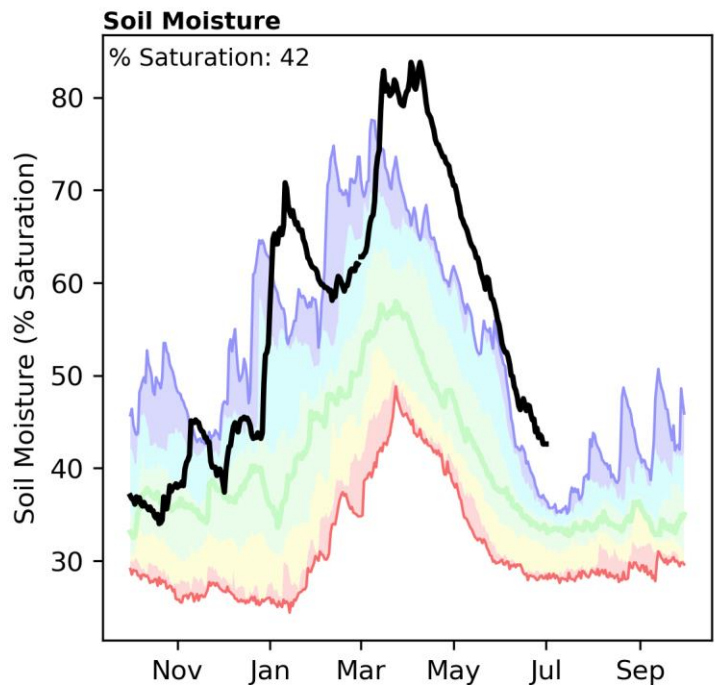
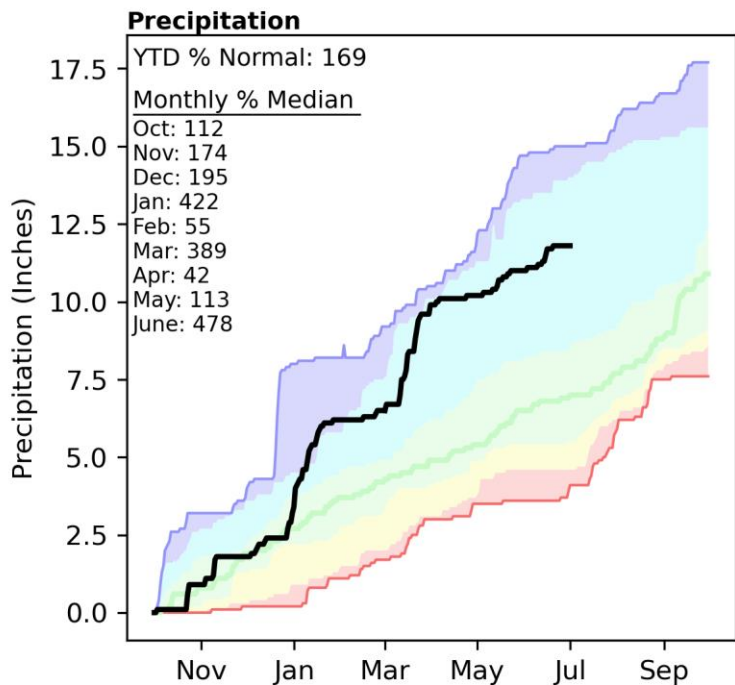
Precipitation in June was above normal, with an average of 0.3" falling region-wide (118% of normal). This brings the water year accumulation (October-June) to 156% of median. Depth averaged soil moisture was calculated to be 48% of saturation compared to 43% at this time last year.



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

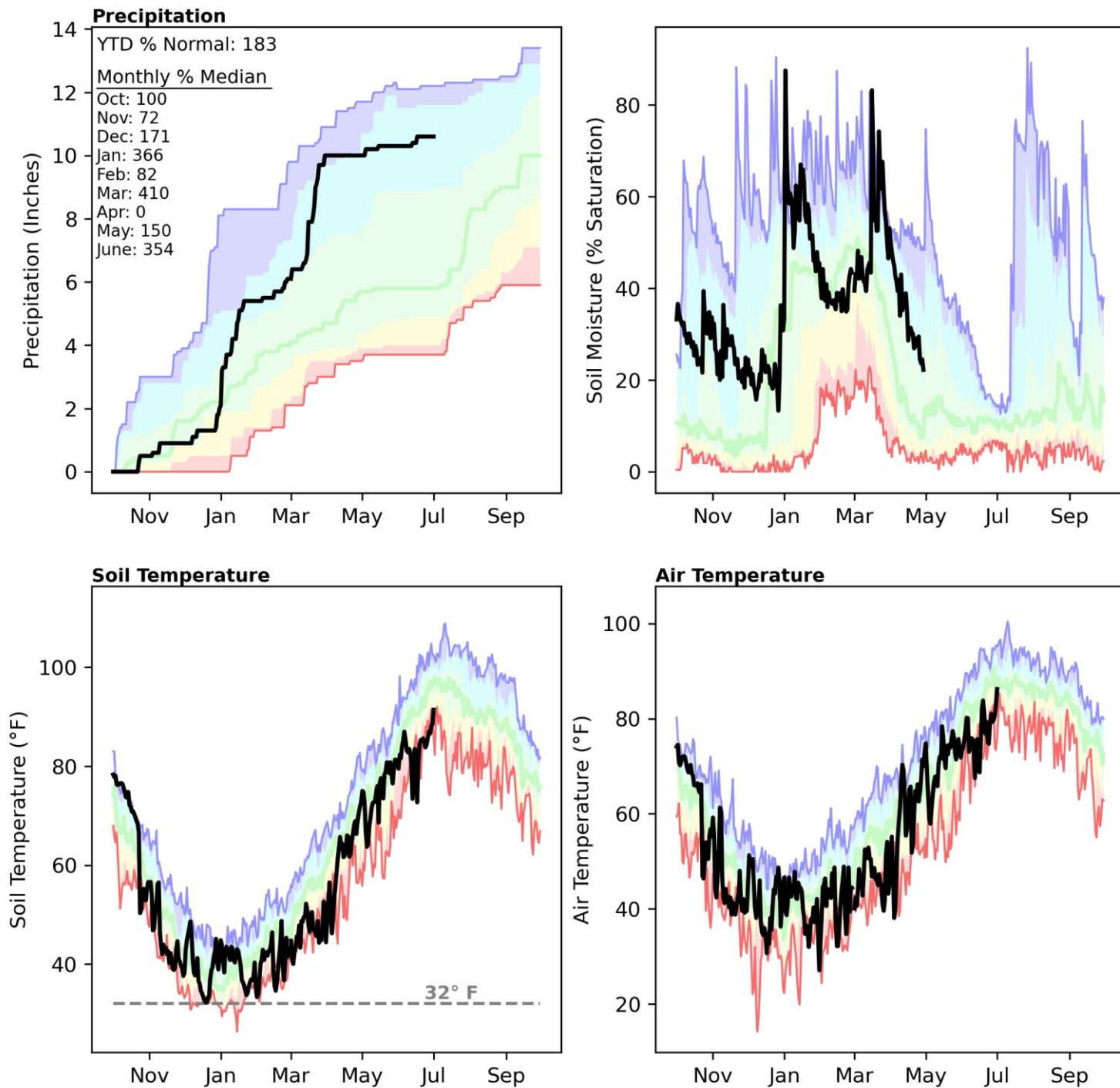
South Central Utah | July 1, 2023

Precipitation in June was well above normal, with an average of 0.7" falling region-wide (478% of normal). This brings the water year accumulation (October-June) to 169% of median. Depth averaged soil moisture was calculated to be 42% of saturation compared to 34% 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](#)

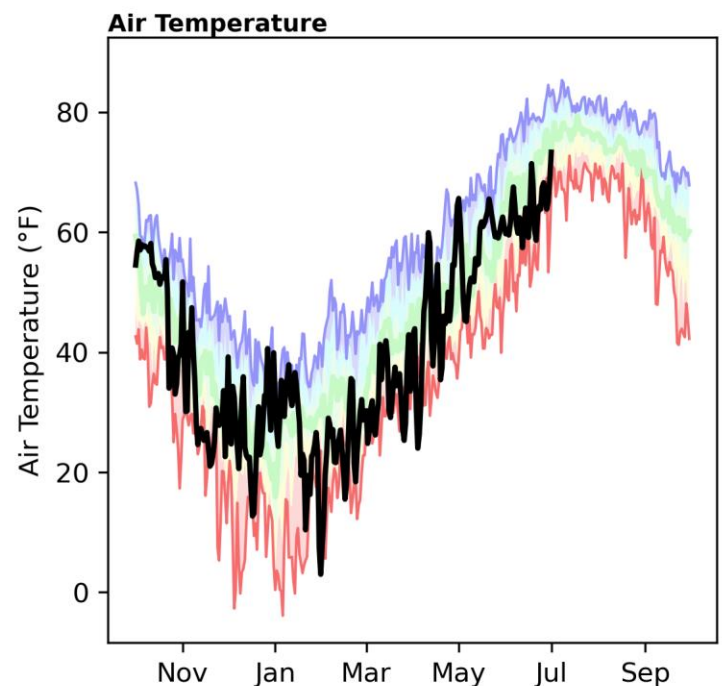
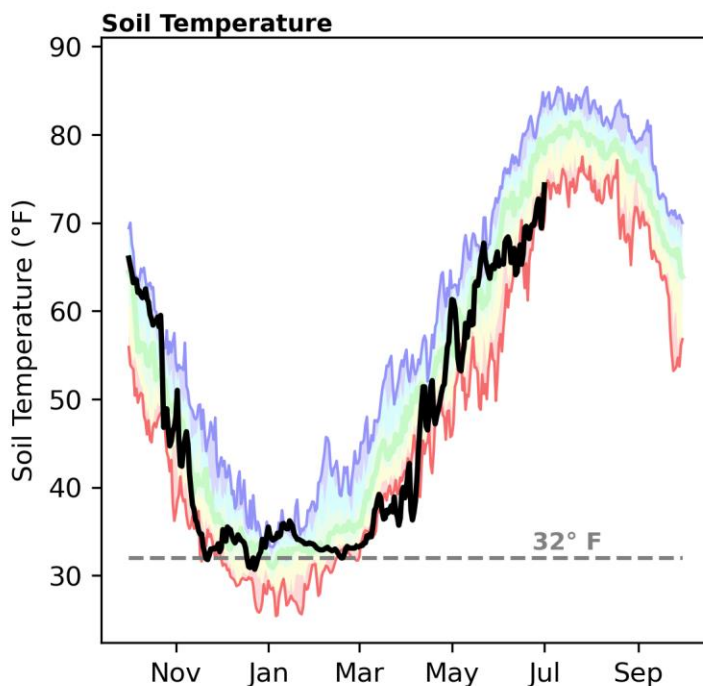
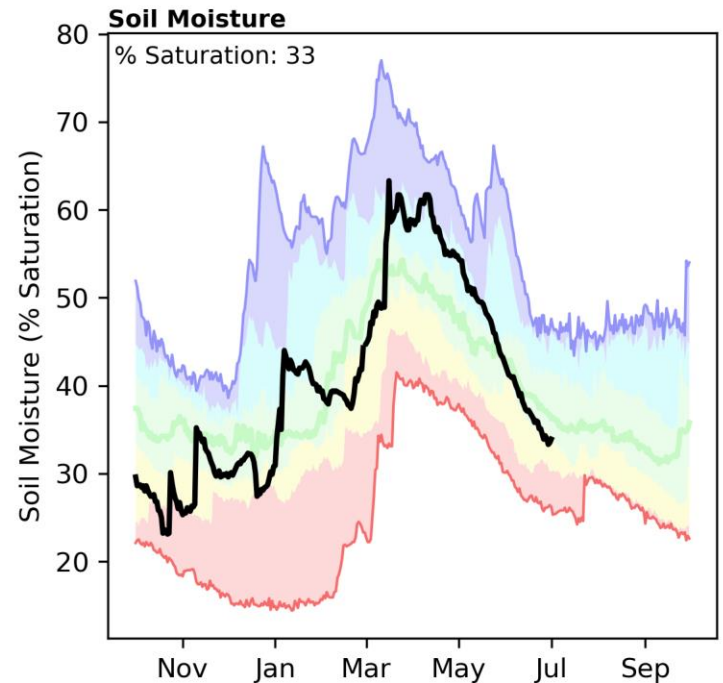
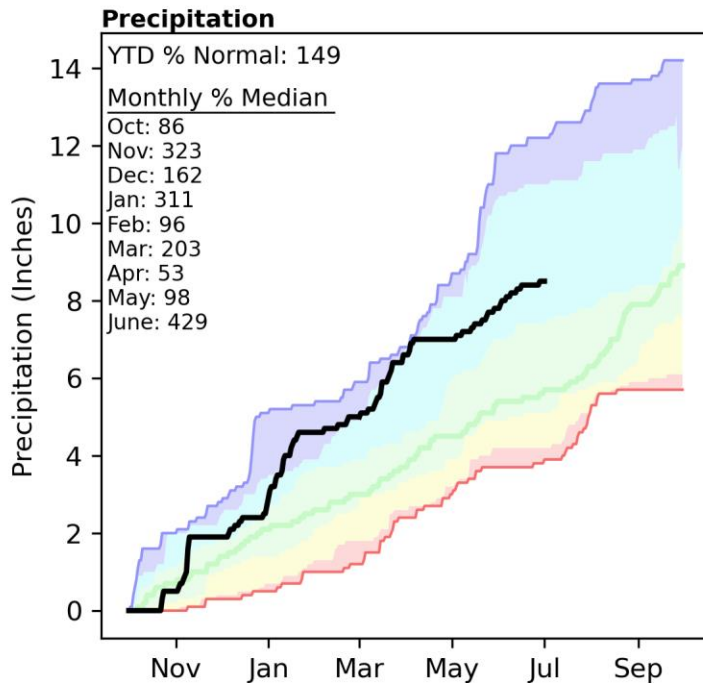
Precipitation in June was well above normal, with an average of 0.3" falling region-wide (354% of normal). This brings the water year accumulation (October-June) to 183% of median. Note that the soil moisture sensors in this region are not functioning currently, so June data are missing.



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

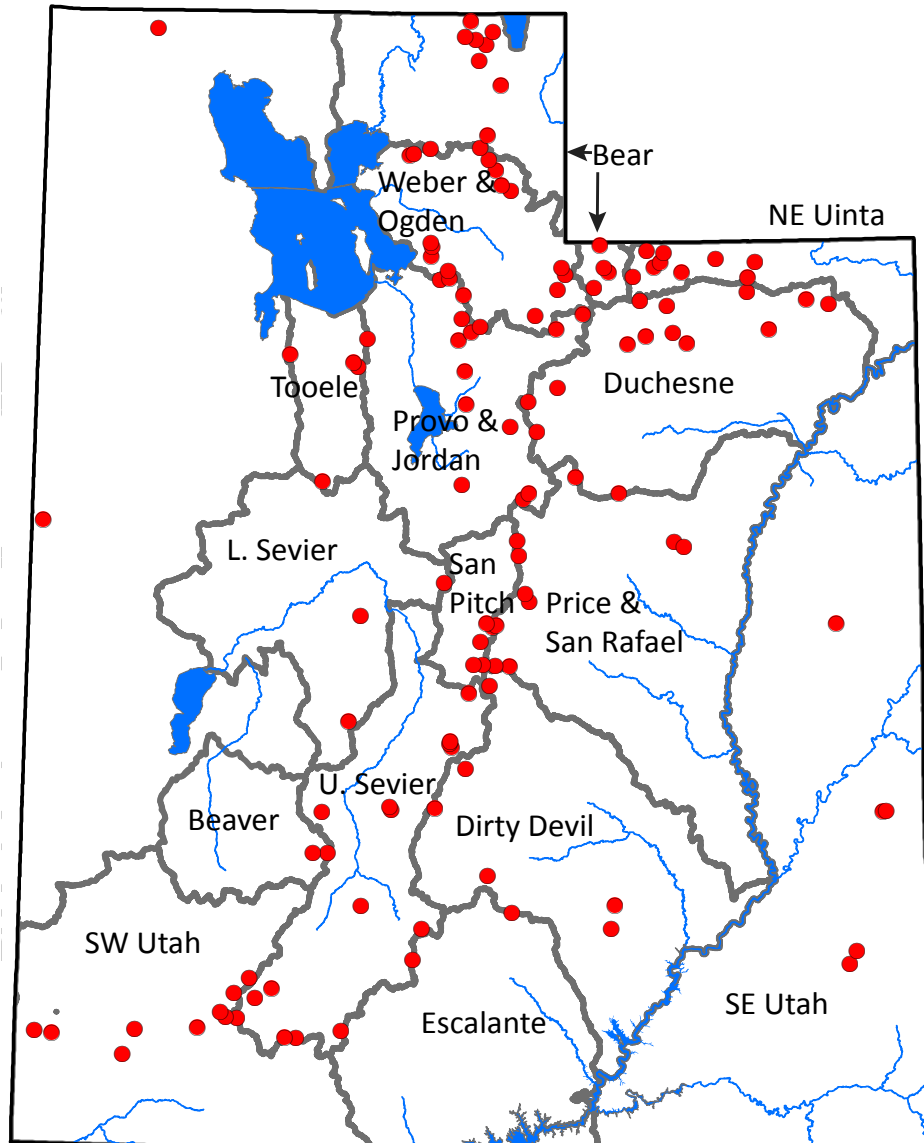
Western Utah | July 1, 2023

Precipitation in June was well above normal, with an average of 0.7" falling region-wide (429% of normal). This brings the water year accumulation (October-June) to 149% of median. Depth averaged soil moisture was calculated to be 33% of saturation compared to 33% at this time last year.



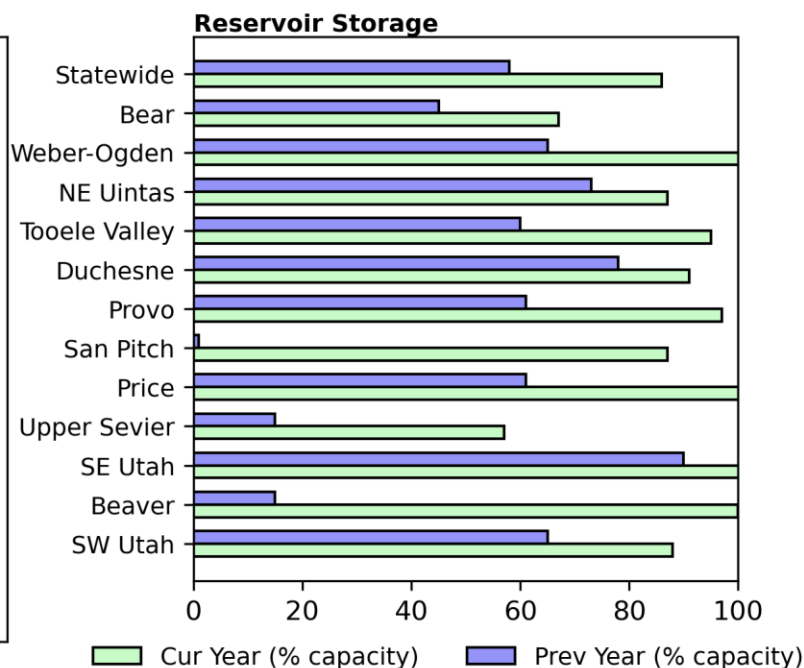
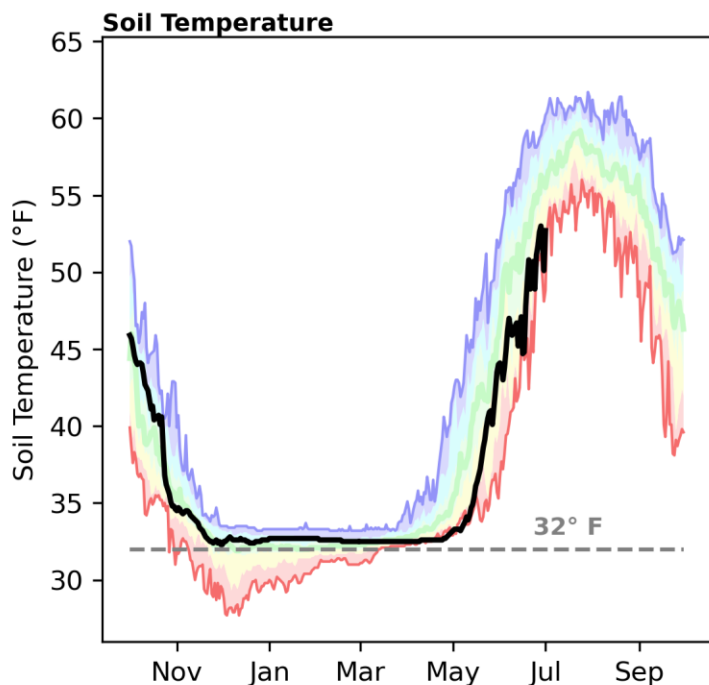
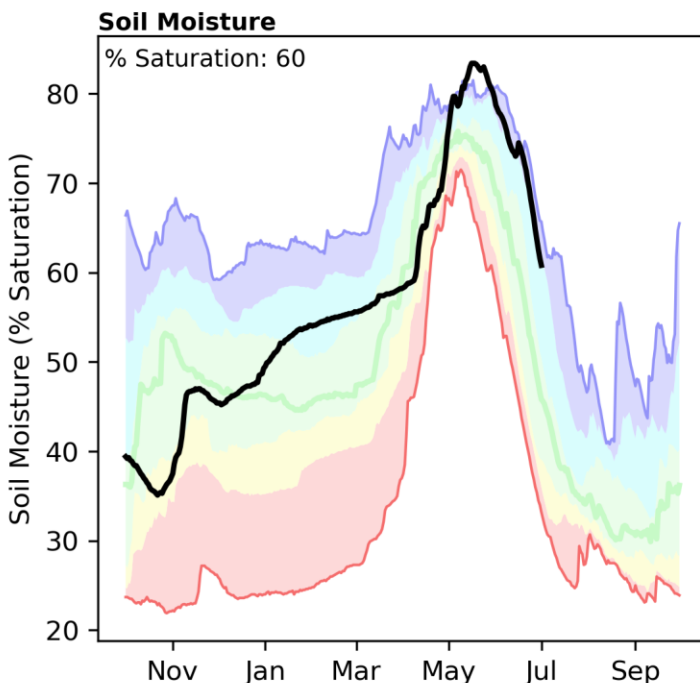
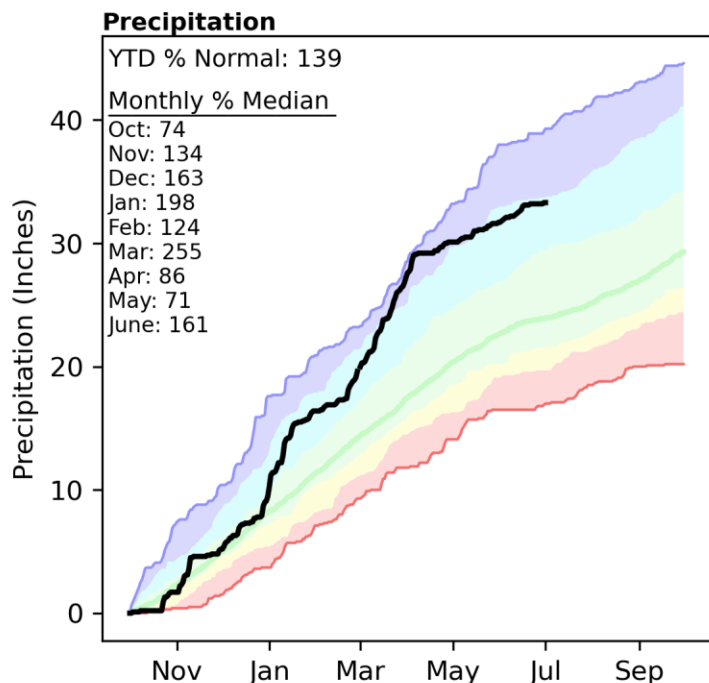
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

SNOTEL portion of report



Statewide Snotel | July 1, 2023

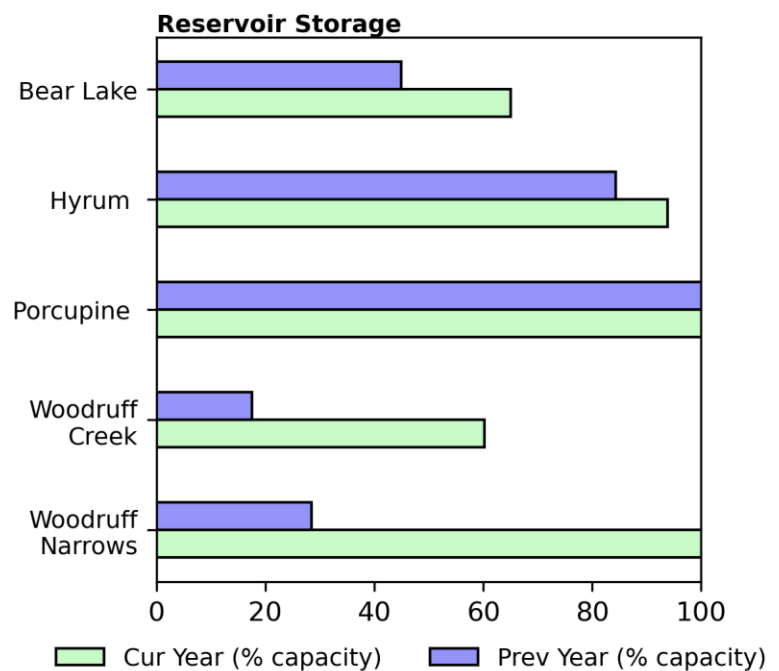
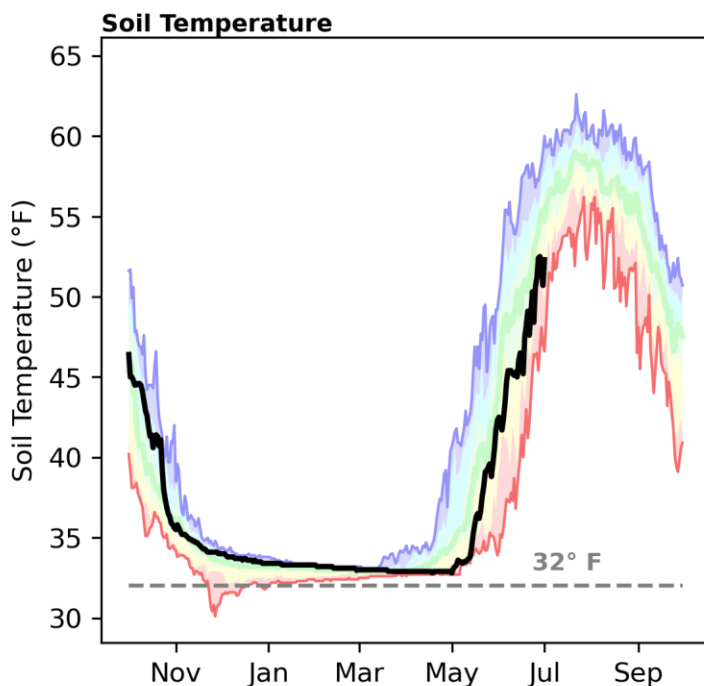
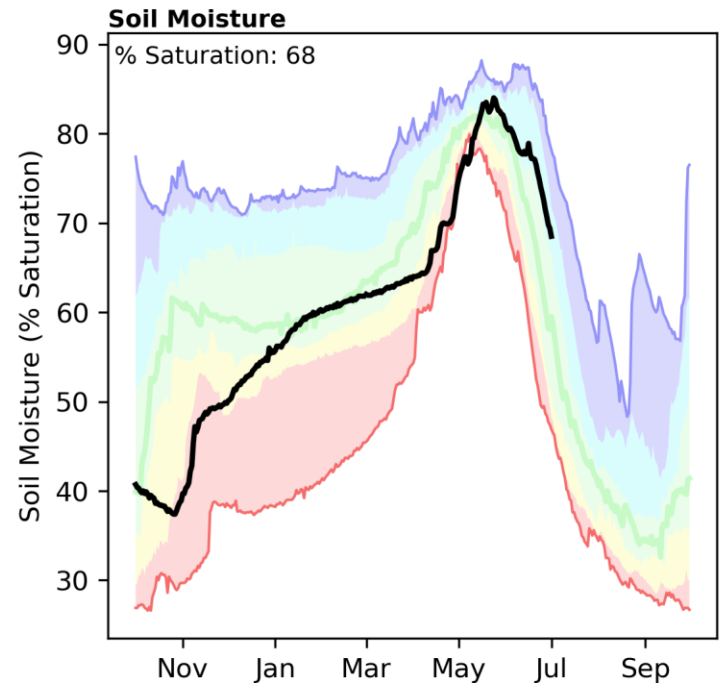
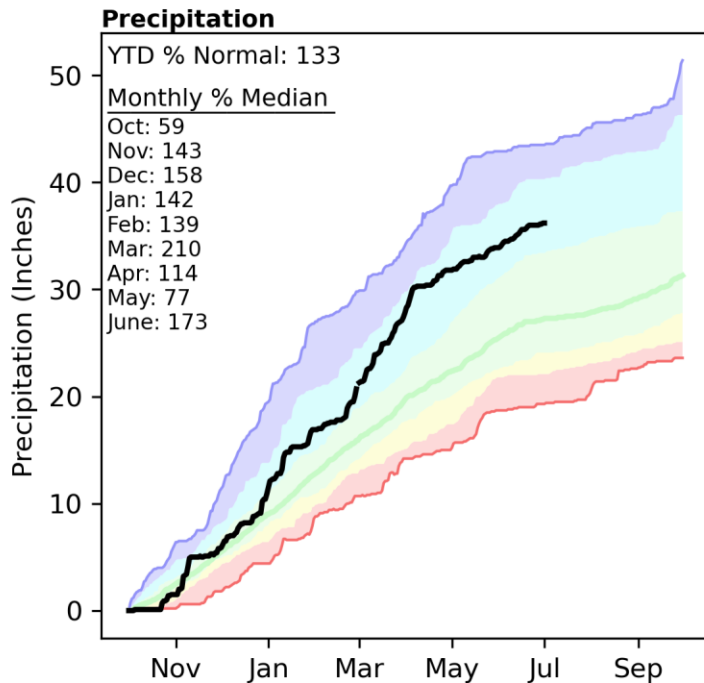
Precipitation in June was well above normal, with an average of 1.6" falling region-wide (161% of normal). This brings the water year accumulation (October-June) to 139% of median. Depth averaged soil moisture was calculated to be 60% of saturation compared to 49% at this time last year. Statewide, reservoir storage is 86% of capacity, compared to 58% last year¹.



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

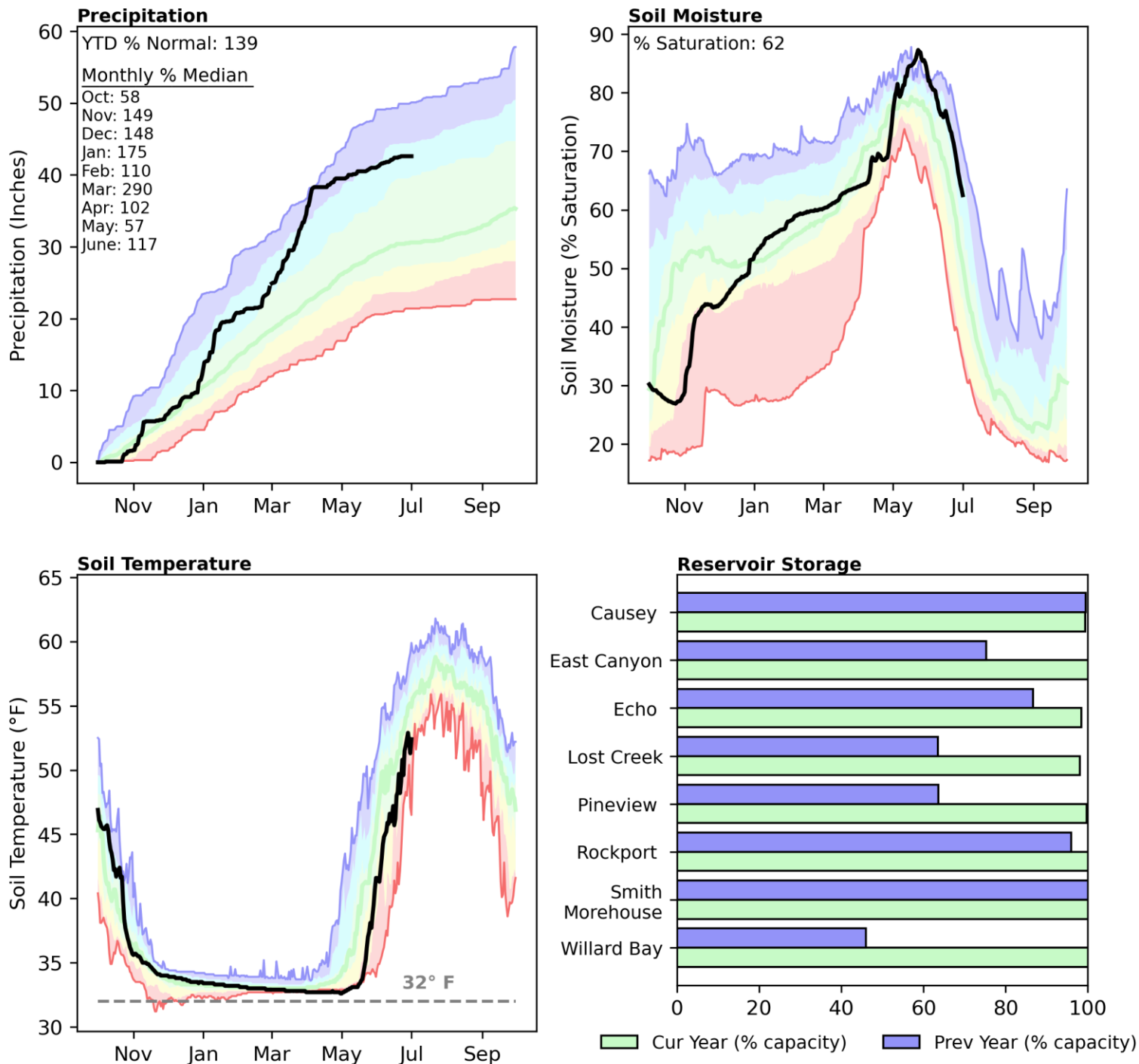
¹Statewide reservoir percentages exclude Lake Powell and Flaming Gorge Reservoirs.

Precipitation in June was well above normal, with an average of 2.3" falling region-wide (173% of normal). This brings the water year accumulation (October-June) to 133% of median. Depth averaged soil moisture was calculated to be 68% of saturation compared to 59% at this time last year. Reservoir storage is 67% of capacity, compared to 45% last year. The Water Availability Index percentiles are 57% for the Bear, 81% for the Little Bear, and 82% for Woodruff Narrows.



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

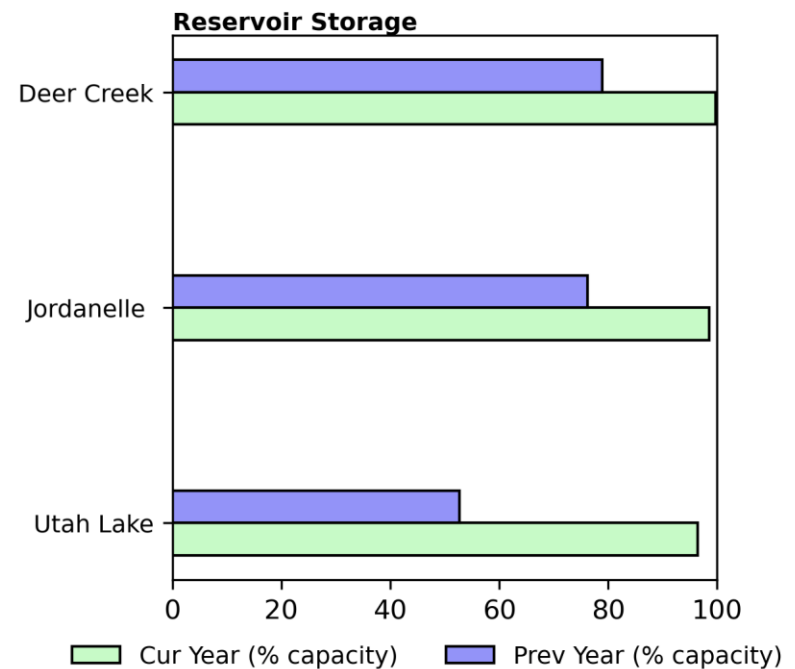
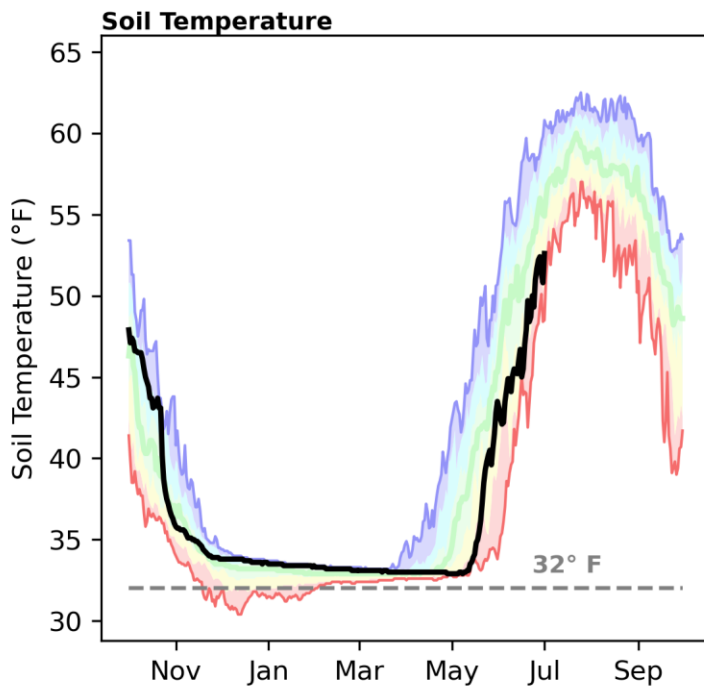
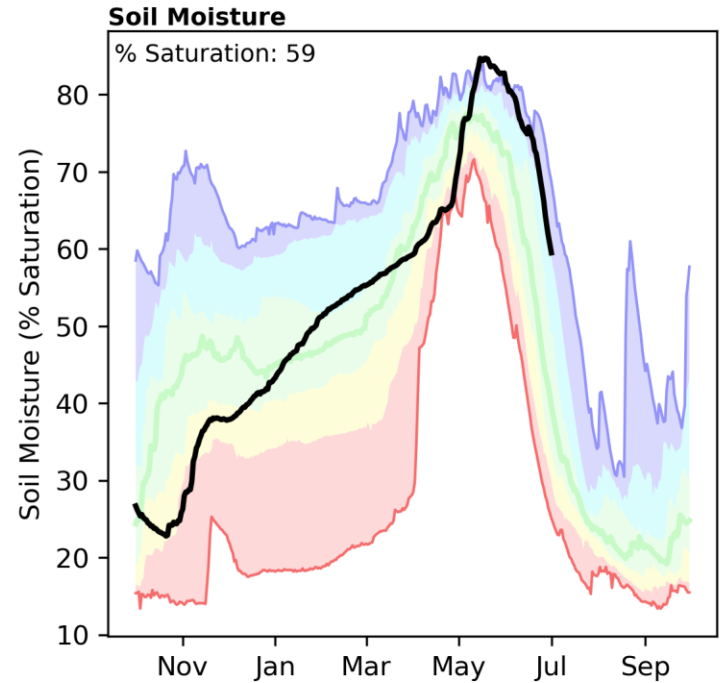
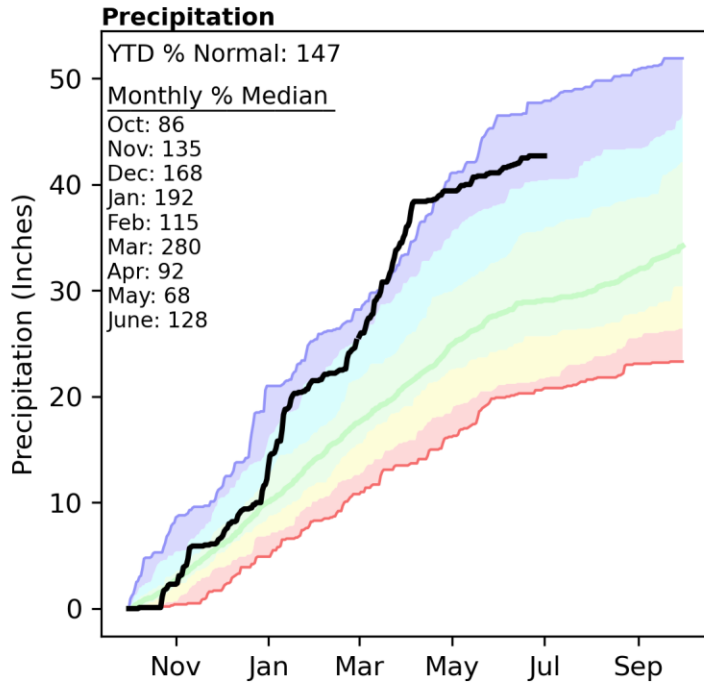
Precipitation in June was above normal, with an average of 1.5" falling region-wide (117% of normal). This brings the water year accumulation (October-June) to 139% of median. Depth averaged soil moisture was calculated to be 62% of saturation compared to 54% at this time last year. Reservoir storage is 101% of capacity, compared to 65% last year. The Water Availability Index percentiles are 81% for the Weber, and 77% 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 | July 1, 2023

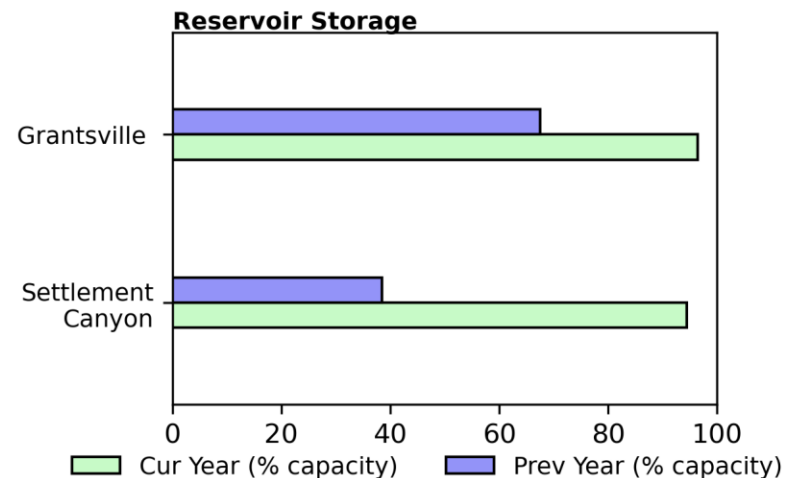
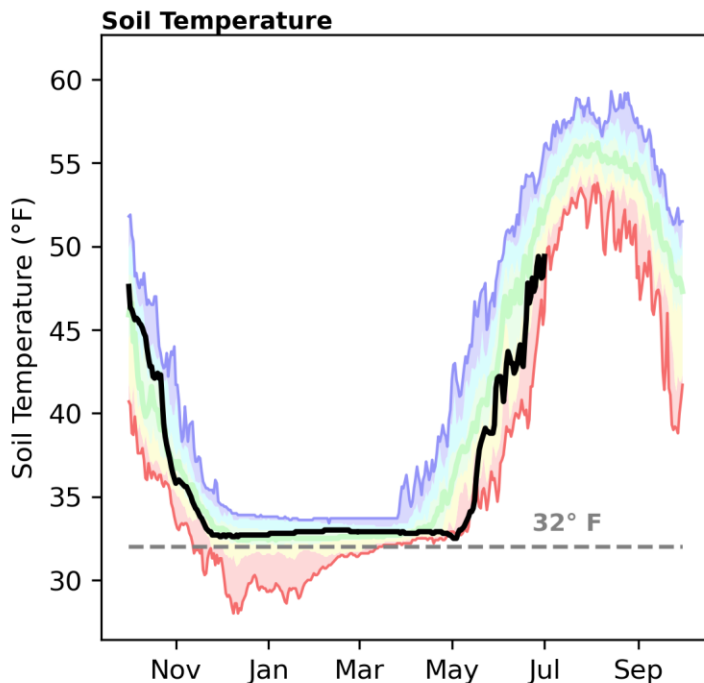
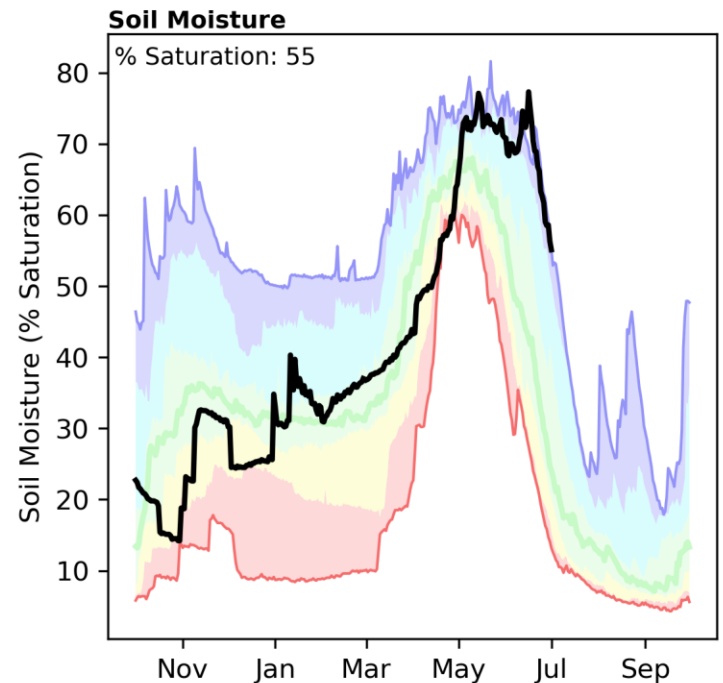
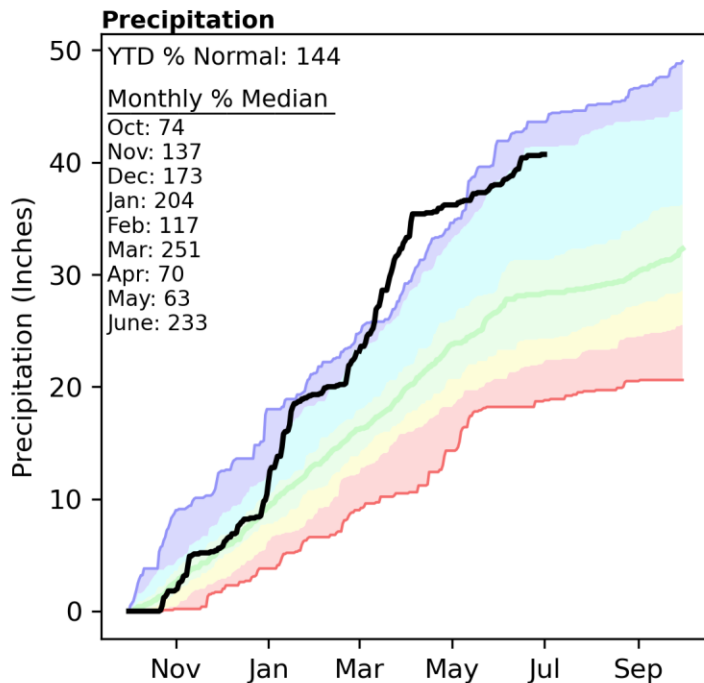
Precipitation in June was above normal, with an average of 1.6" falling region-wide (128% of normal). This brings the water year accumulation (October-June) to 147% of median. Depth averaged soil moisture was calculated to be 59% of saturation compared to 43% at this time last year. Reservoir storage is 97% of capacity, compared to 61% last year. The Water Availability Index percentile is 91% 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 | July 1, 2023

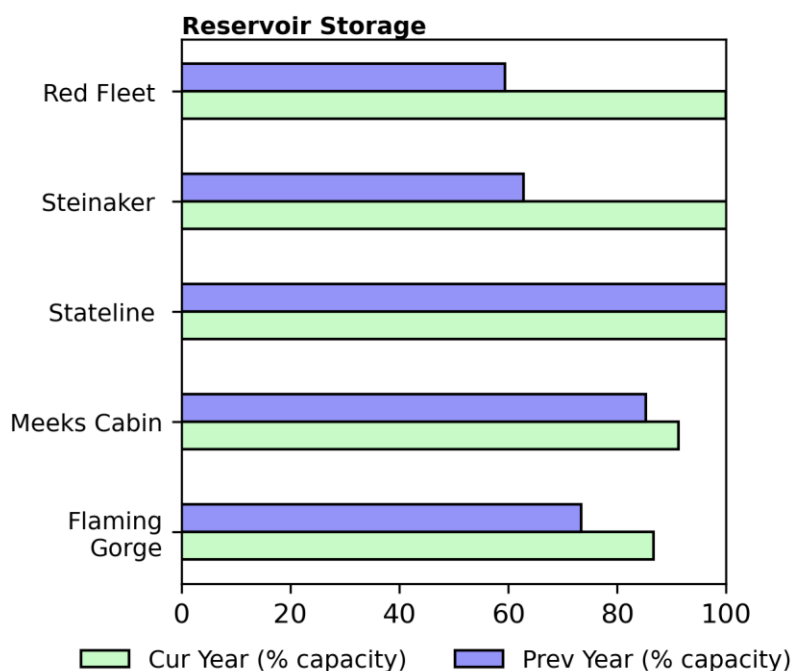
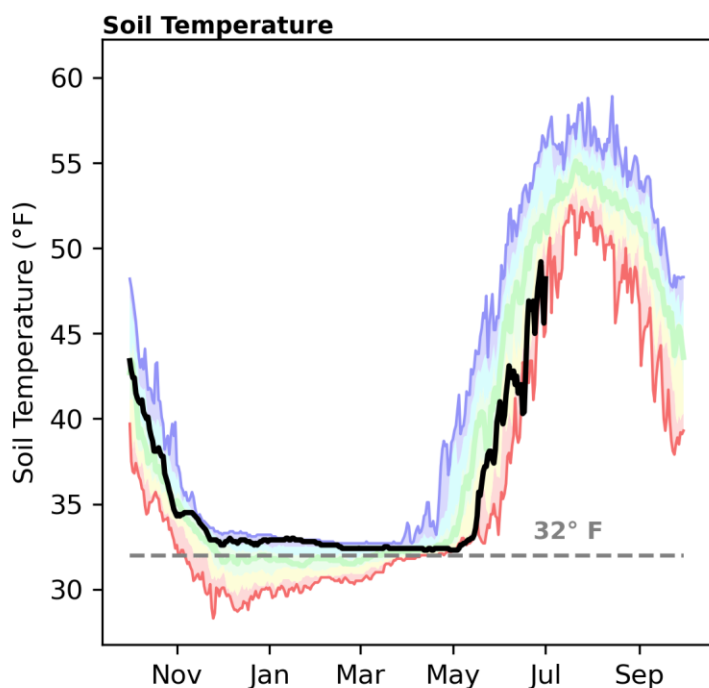
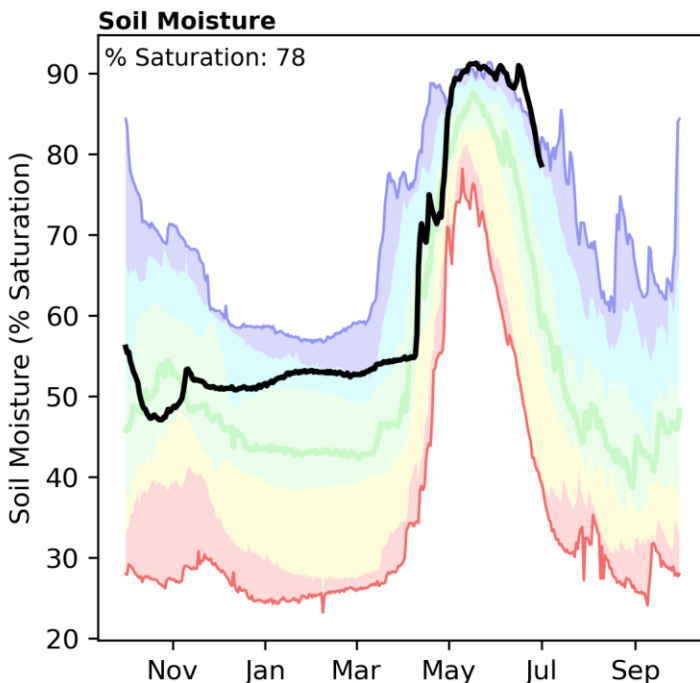
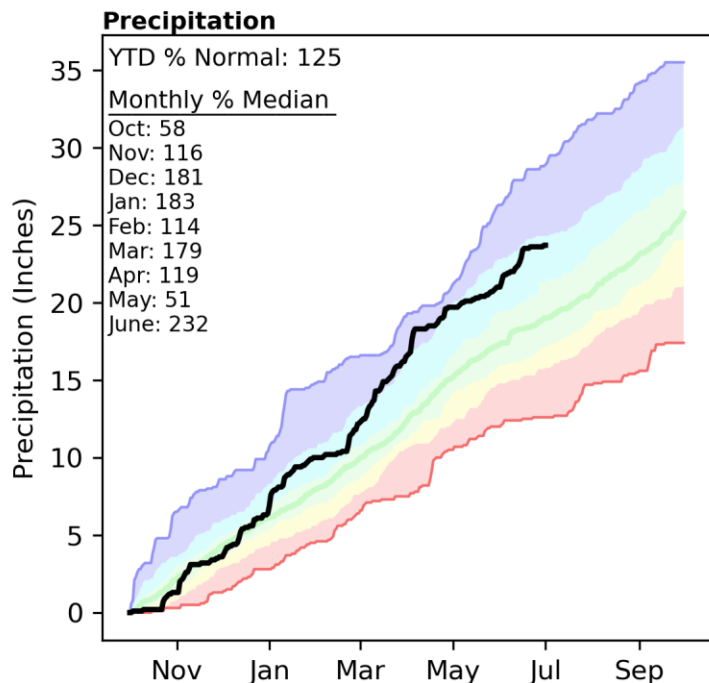
Precipitation in June was well above normal, with an average of 2.7" falling region-wide (233% of normal). This brings the water year accumulation (October-June) to 144% of median. Depth averaged soil moisture was calculated to be 55% of saturation compared to 31% at this time last year. Reservoir storage is 95% of capacity, compared to 60% last year.



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

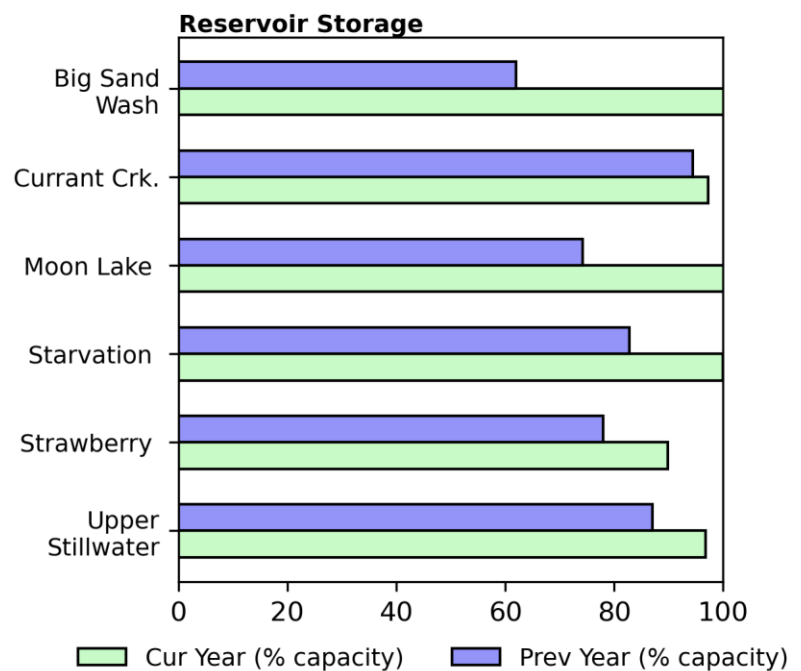
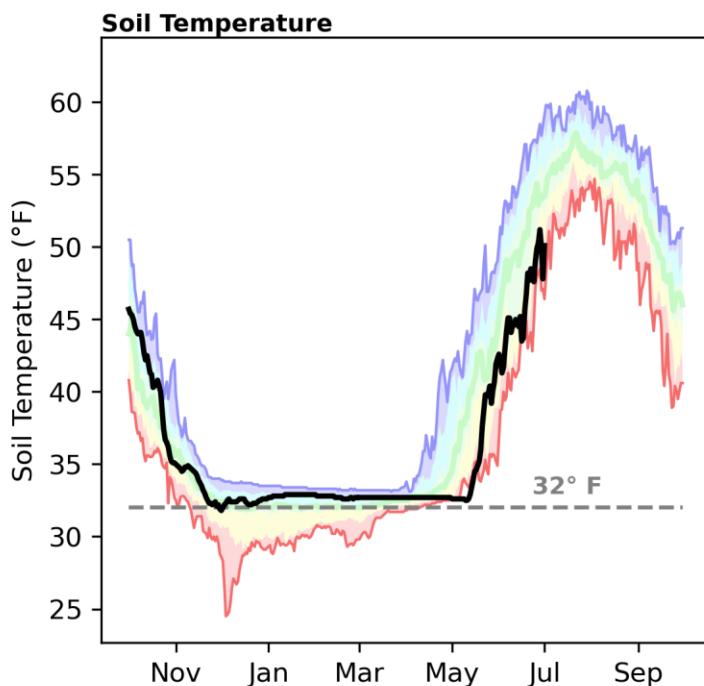
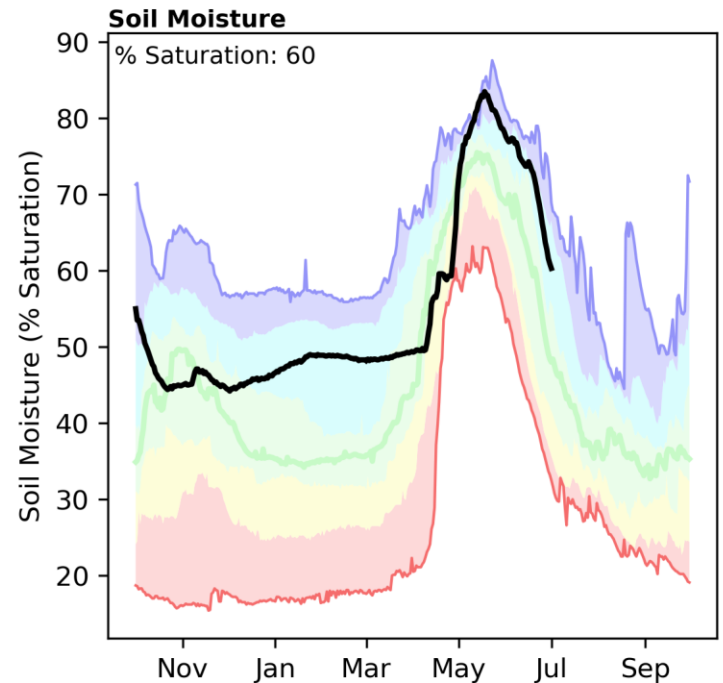
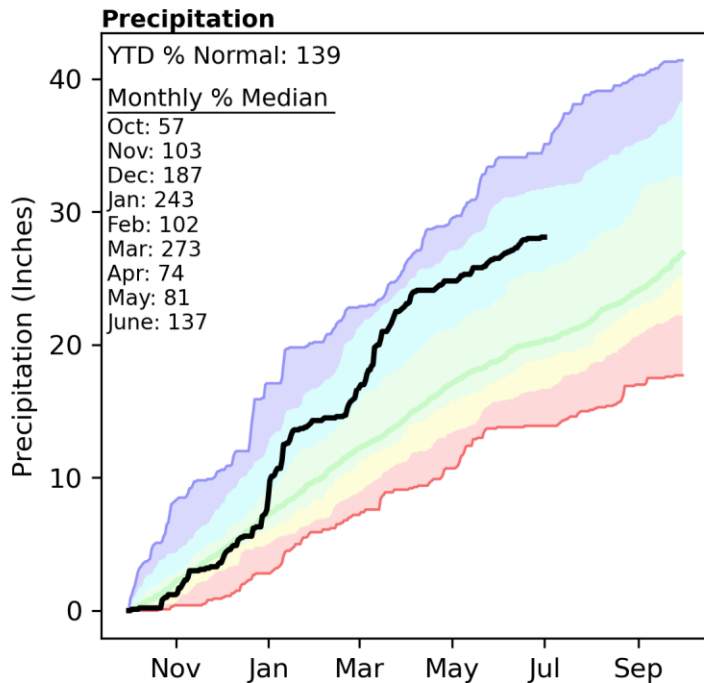
Northeastern Uintas | July 1, 2023

Precipitation in June was well above normal, with an average of 2.7" falling region-wide (232% of normal). This brings the water year accumulation (October-June) to 125% of median. Depth averaged soil moisture was calculated to be 78% of saturation compared to 82% at this time last year. Reservoir storage is 87% of capacity, compared to 73% last year. The Water Availability Index percentiles are 73% for the Blacks Fork, and 73% for the Smiths Fork.



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

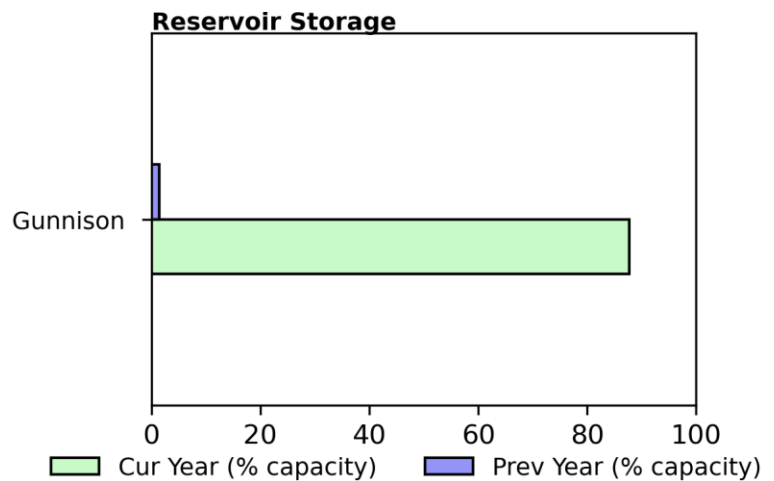
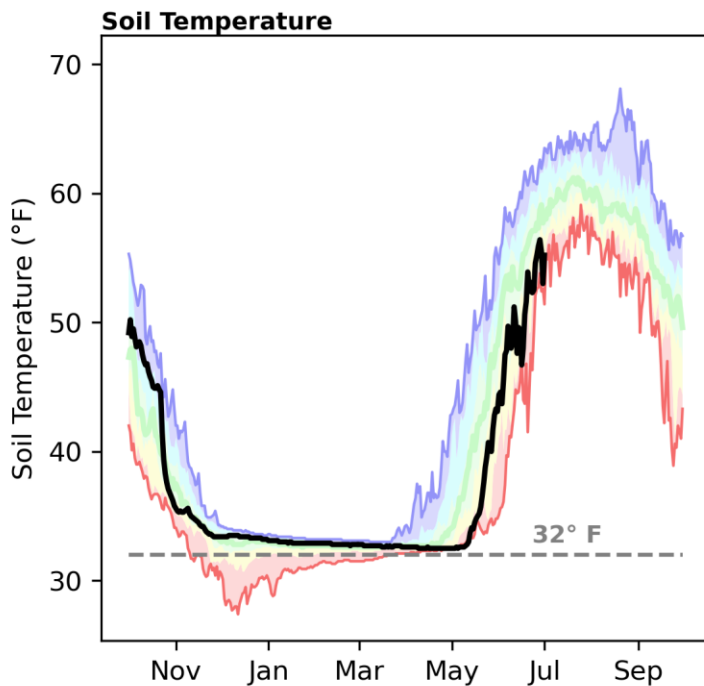
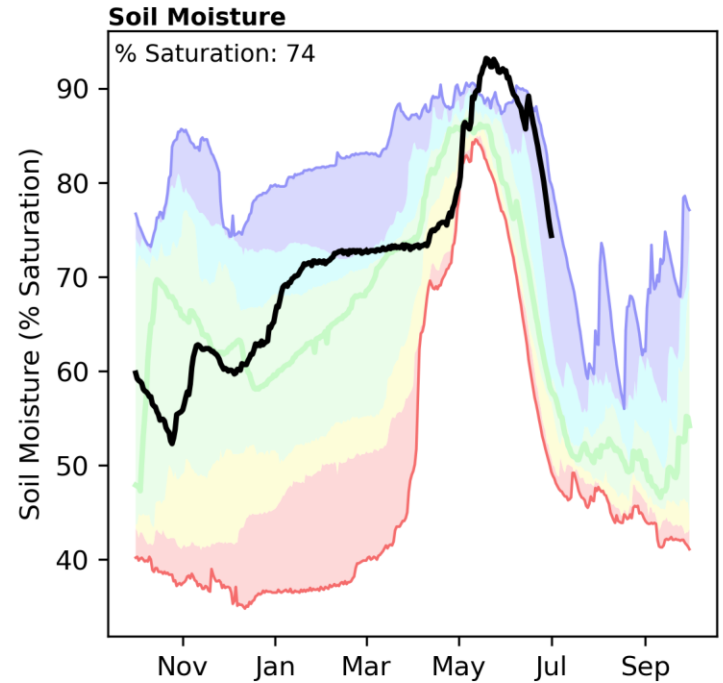
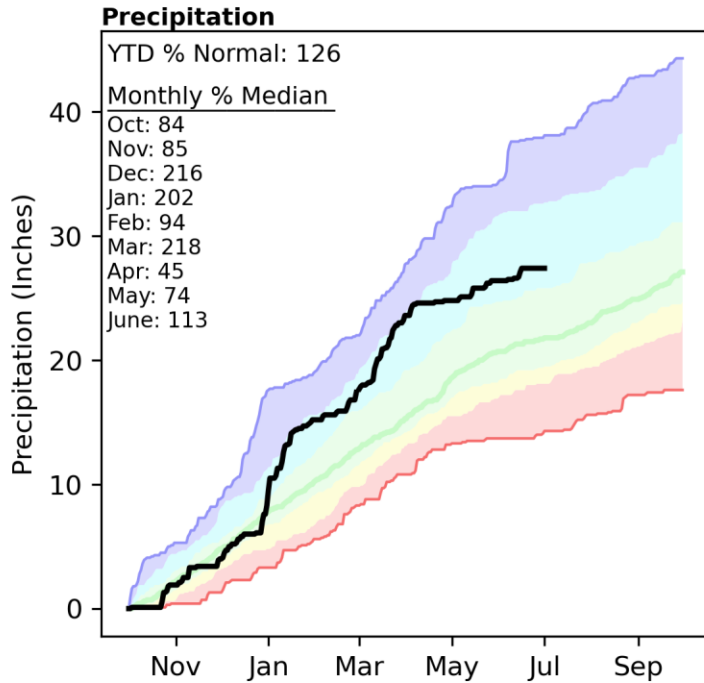
Precipitation in June was well above normal, with an average of 1.6" falling region-wide (137% of normal). This brings the water year accumulation (October-June) to 139% of median. Depth averaged soil moisture was calculated to be 60% of saturation compared to 59% at this time last year. Reservoir storage is 91% of capacity, compared to 78% last year. The Water Availability Index percentiles are 80% for the Western Uintas, and 82% 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 | July 1, 2023

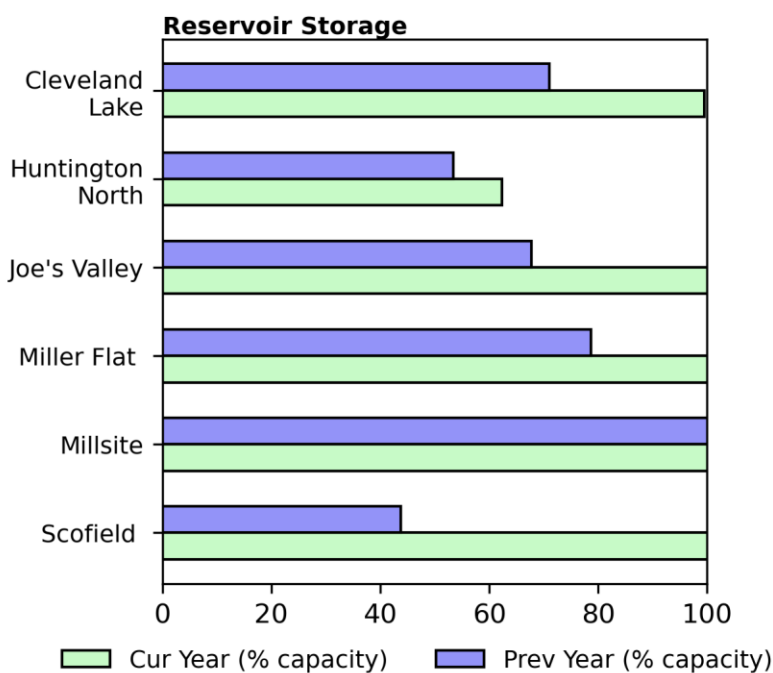
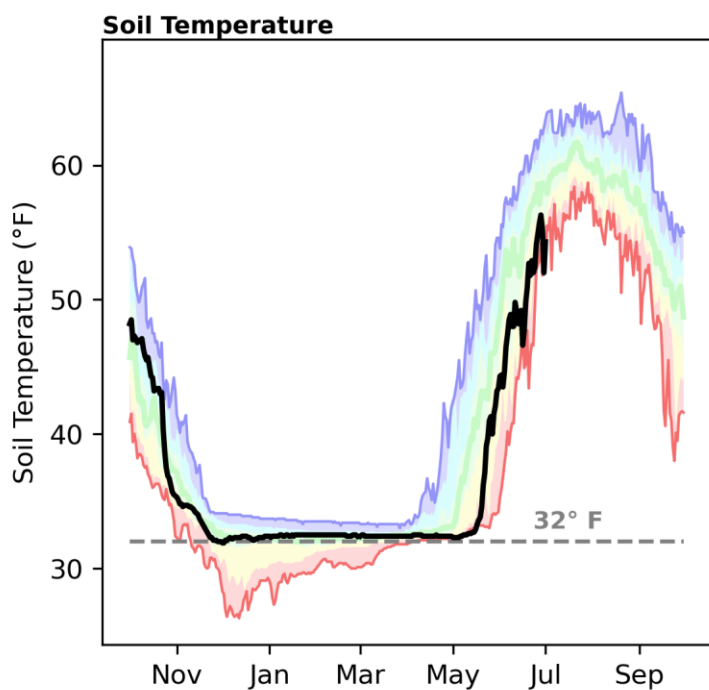
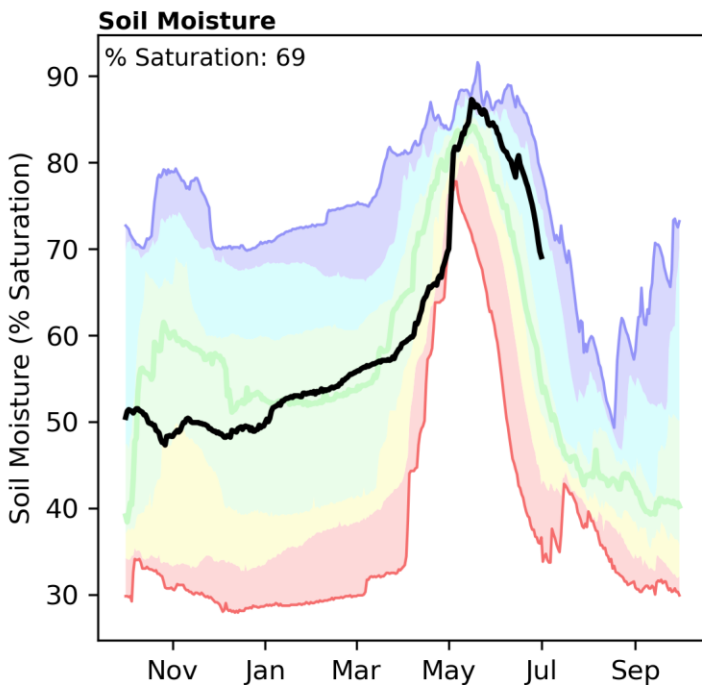
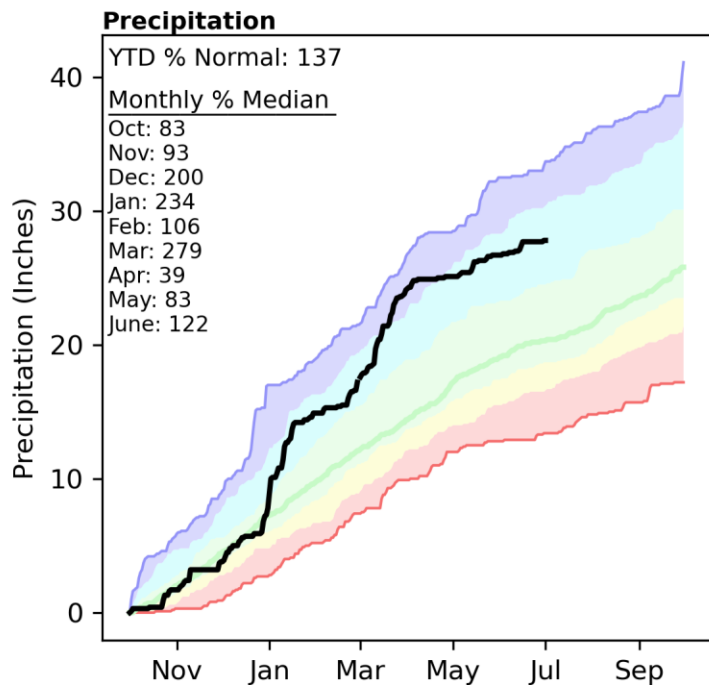
Precipitation in June was above normal, with an average of 1.0" falling region-wide (113% of normal). This brings the water year accumulation (October-June) to 126% of median. Depth averaged soil moisture was calculated to be 74% of saturation compared to 59% at this time last year. Reservoir storage is 87% of capacity, compared to 1% last year. The Water Availability Index percentile is 75% for the San Pitch.



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

Price-San Rafael | July 1, 2023

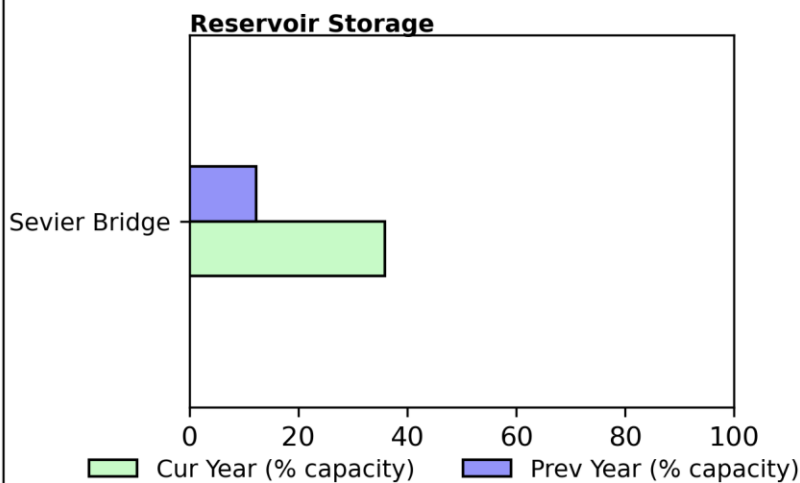
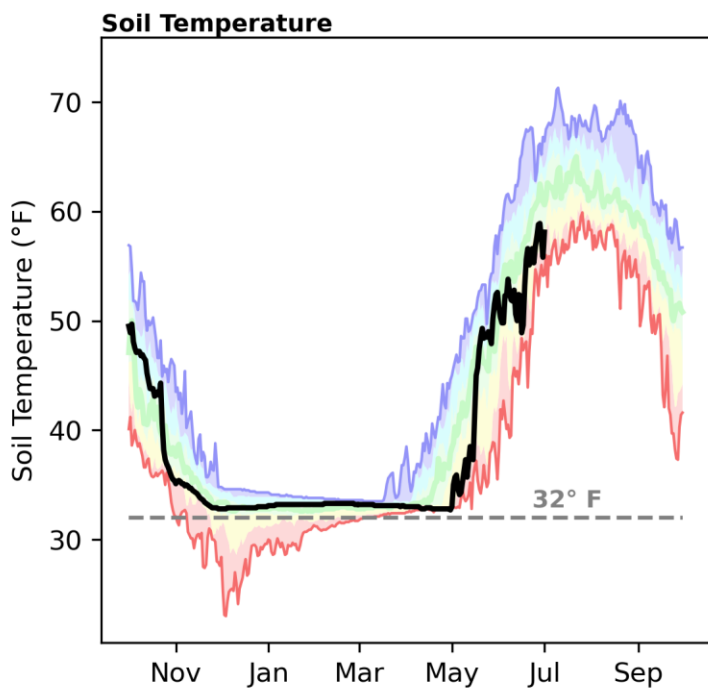
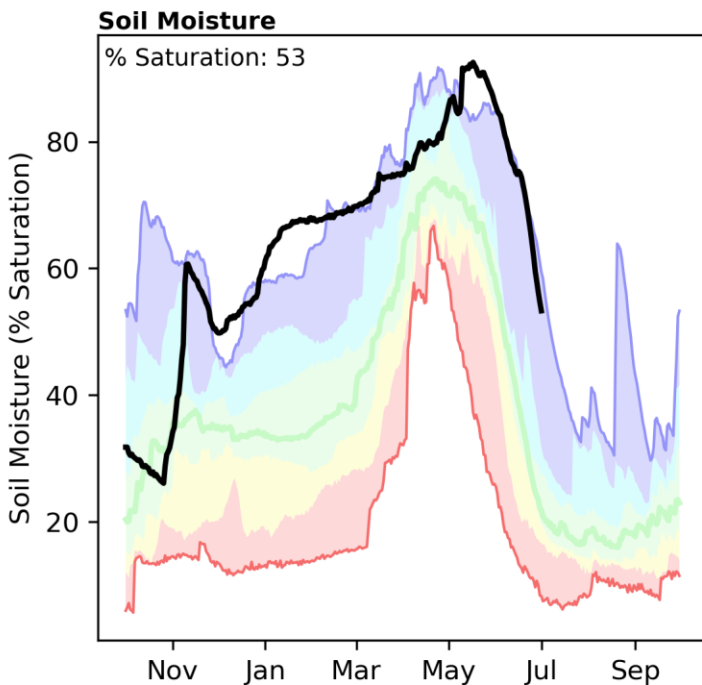
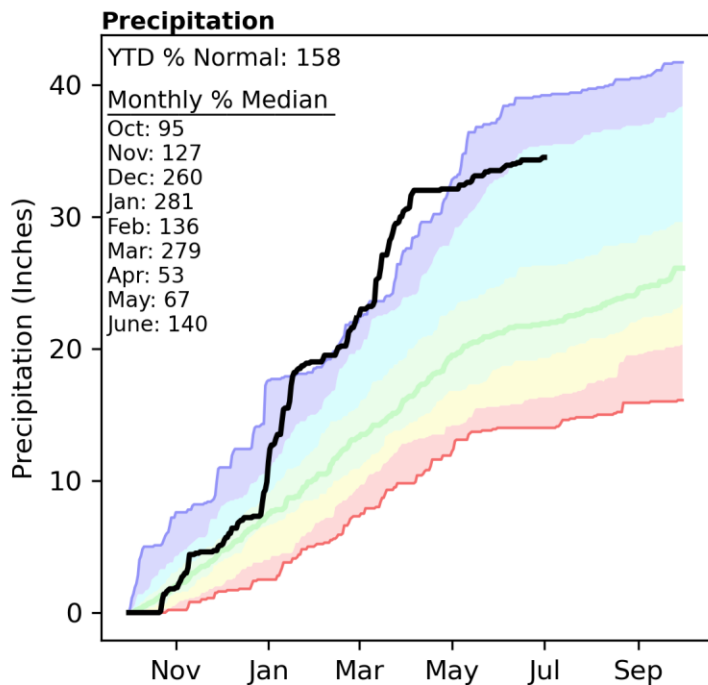
Precipitation in June was above normal, with an average of 1.1" falling region-wide (122% of normal). This brings the water year accumulation (October-June) to 137% of median. Depth averaged soil moisture was calculated to be 69% of saturation compared to 57% at this time last year. Reservoir storage is 104% of capacity, compared to 61% last year. The Water Availability Index percentiles are 86% for the Price, 70% for Joes Valley, and 89% for Ferron Creek.



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

Lower Sevier | July 1, 2023

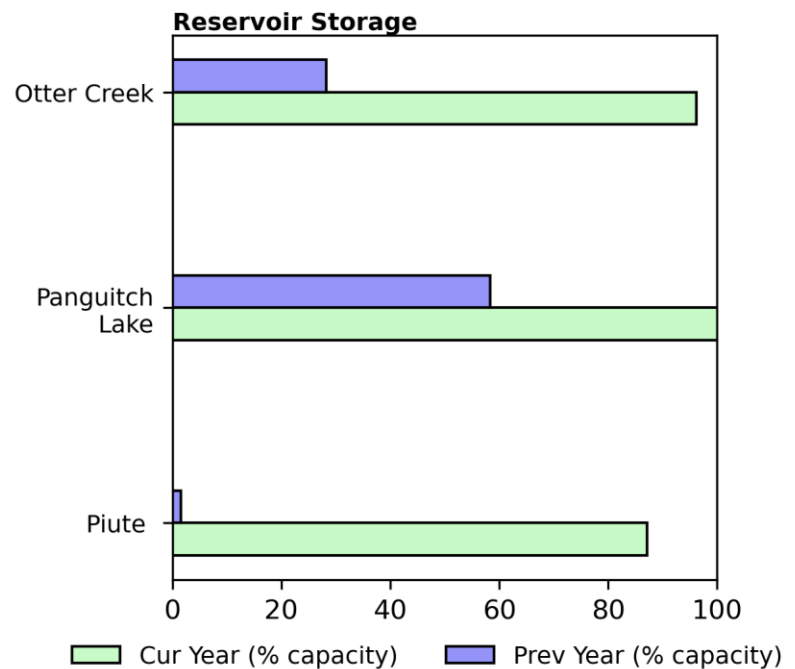
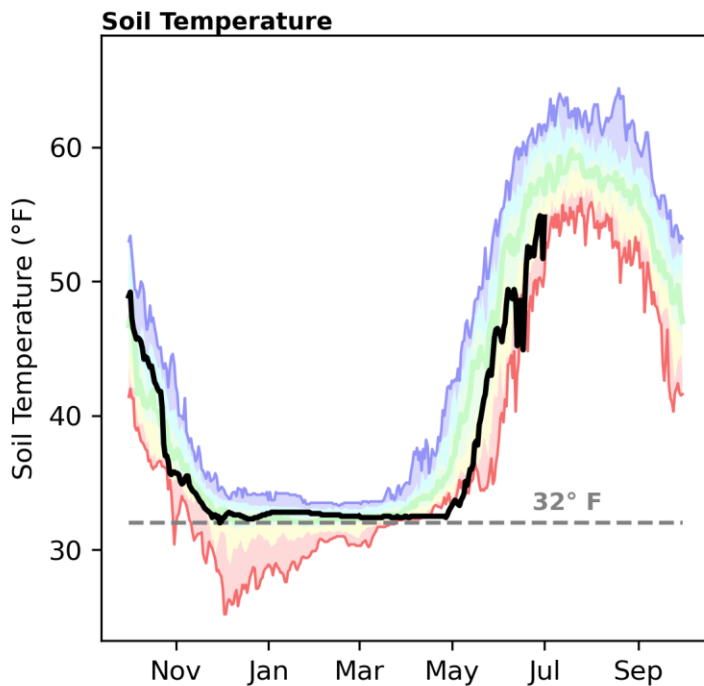
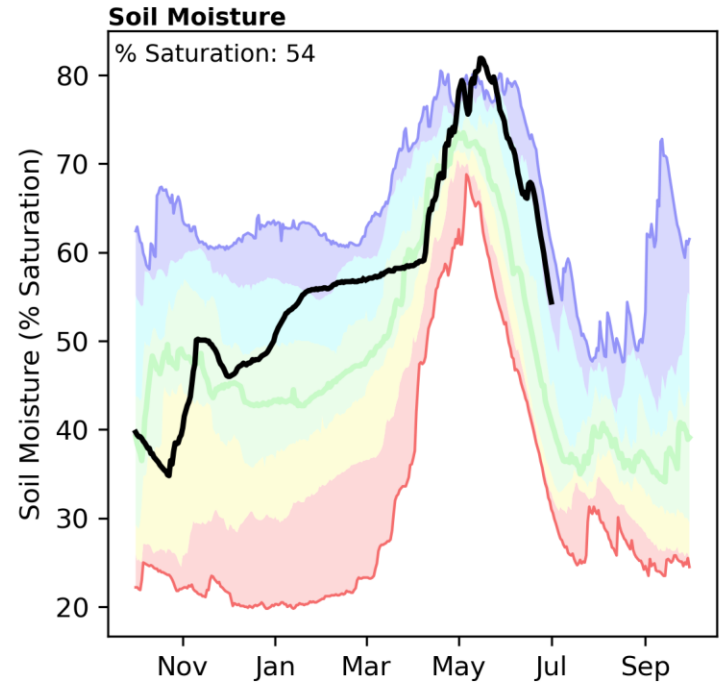
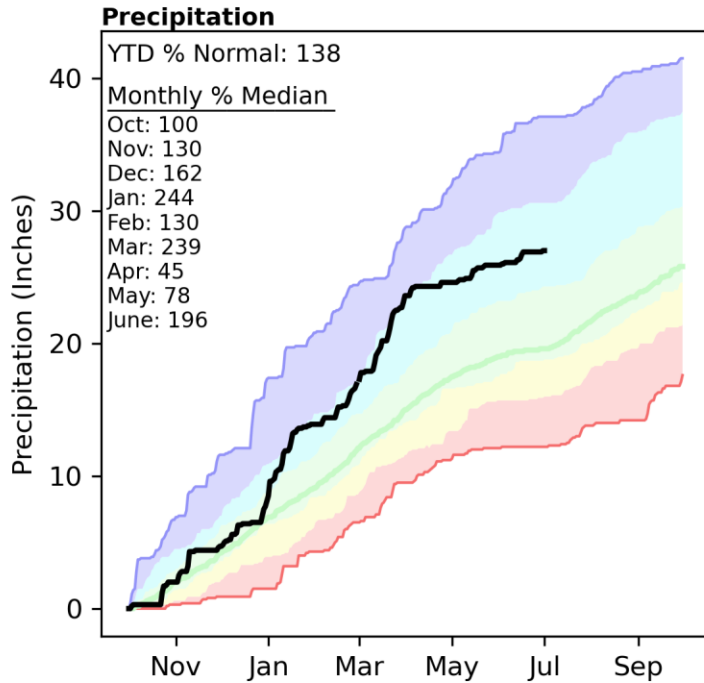
Precipitation in June was well above normal, with an average of 1.0" falling region-wide (140% of normal). This brings the water year accumulation (October-June) to 158% of median. Depth averaged soil moisture was calculated to be 53% of saturation compared to 27% at this time last year. Reservoir storage is 35% of capacity, compared to 12% last year. The Water Availability Index percentile is 59% 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 | July 1, 2023

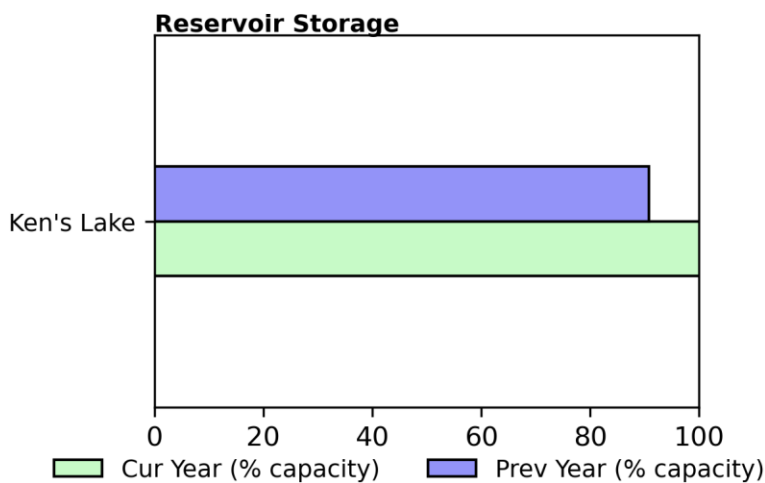
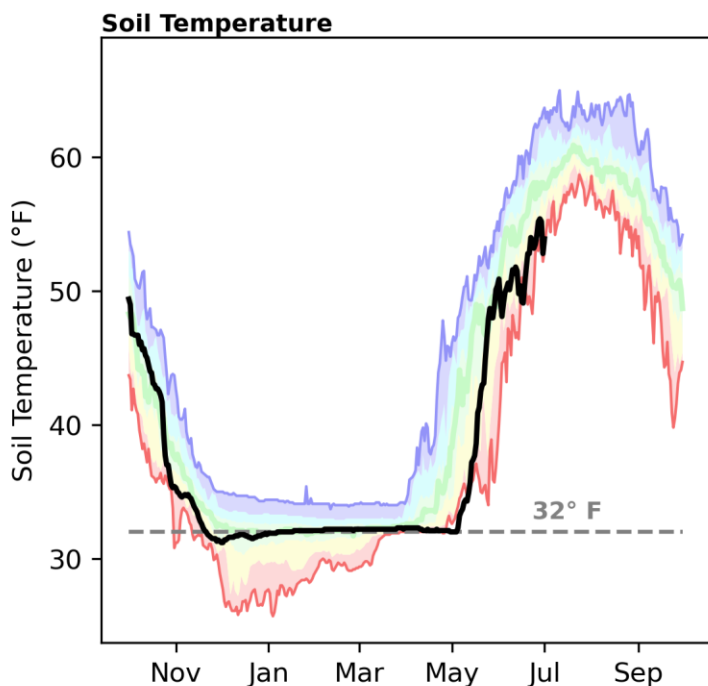
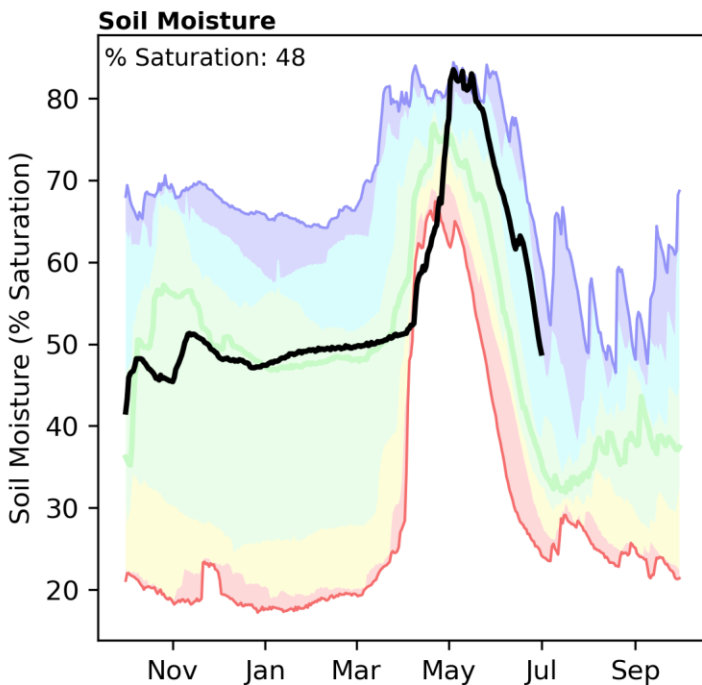
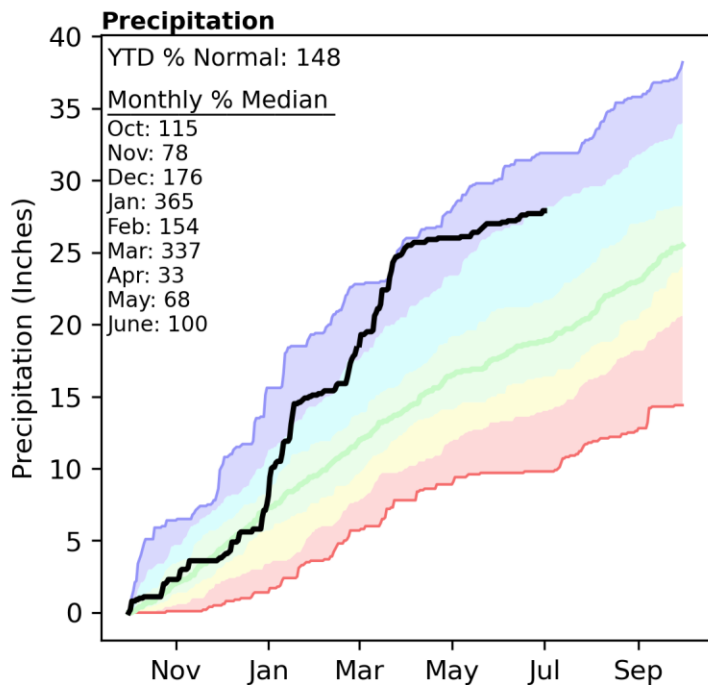
Precipitation in June was well above normal, with an average of 1.1" falling region-wide (196% of normal). This brings the water year accumulation (October-June) to 138% of median. Depth averaged soil moisture was calculated to be 54% of saturation compared to 37% at this time last year. Reservoir storage is 93% of capacity, compared to 19% last year. The Water Availability Index percentile is 84% for the Upper Sevier.



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

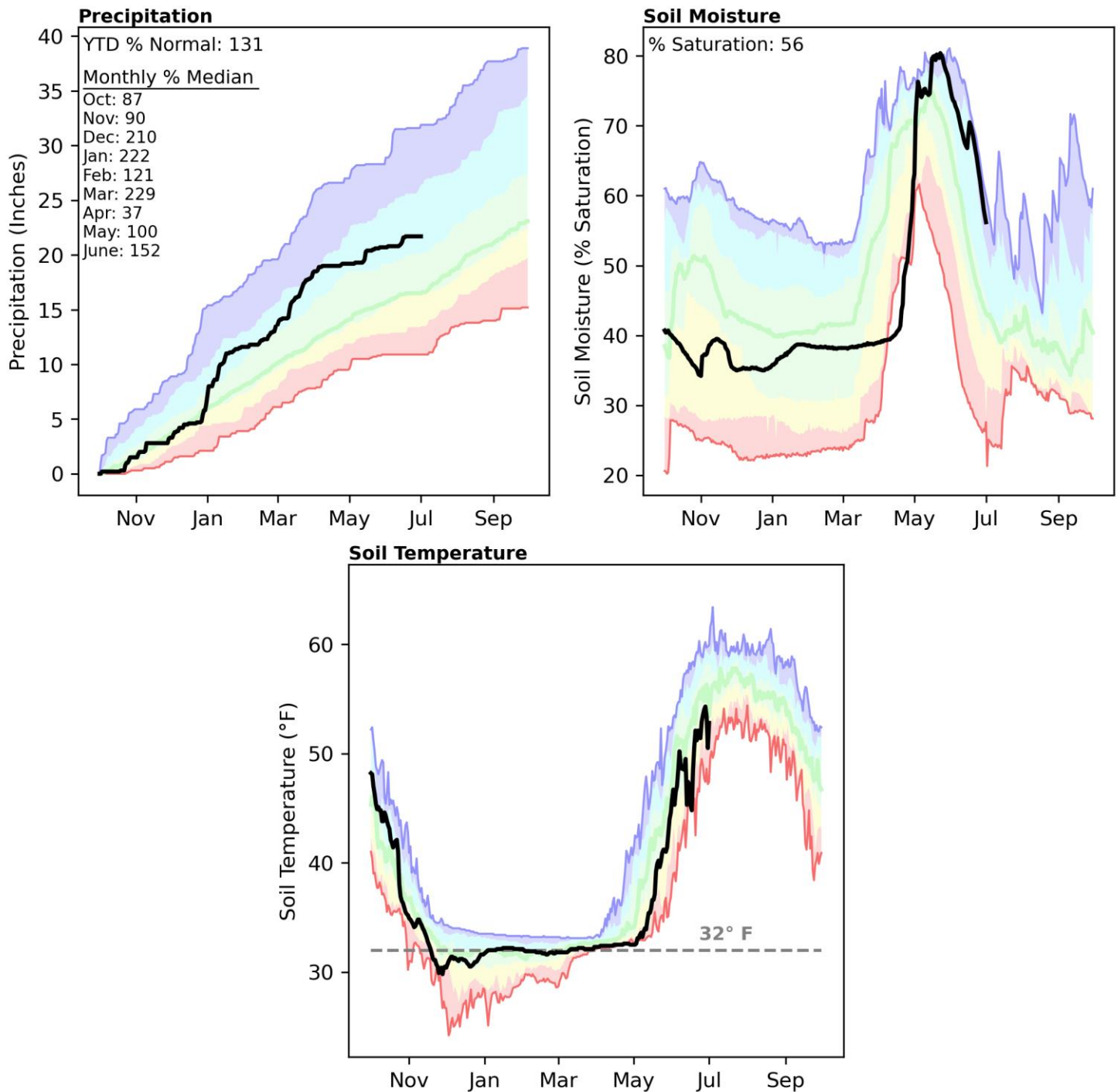
Southeastern Utah | July 1, 2023

Precipitation in June was about normal, with an average of 0.9" falling region-wide (100% of normal). This brings the water year accumulation (October-June) to 148% of median. Depth averaged soil moisture was calculated to be 48% of saturation compared to 37% at this time last year. Reservoir storage is 112% of capacity, compared to 90% last year. The Water Availability Index percentile is 84% for Moab.



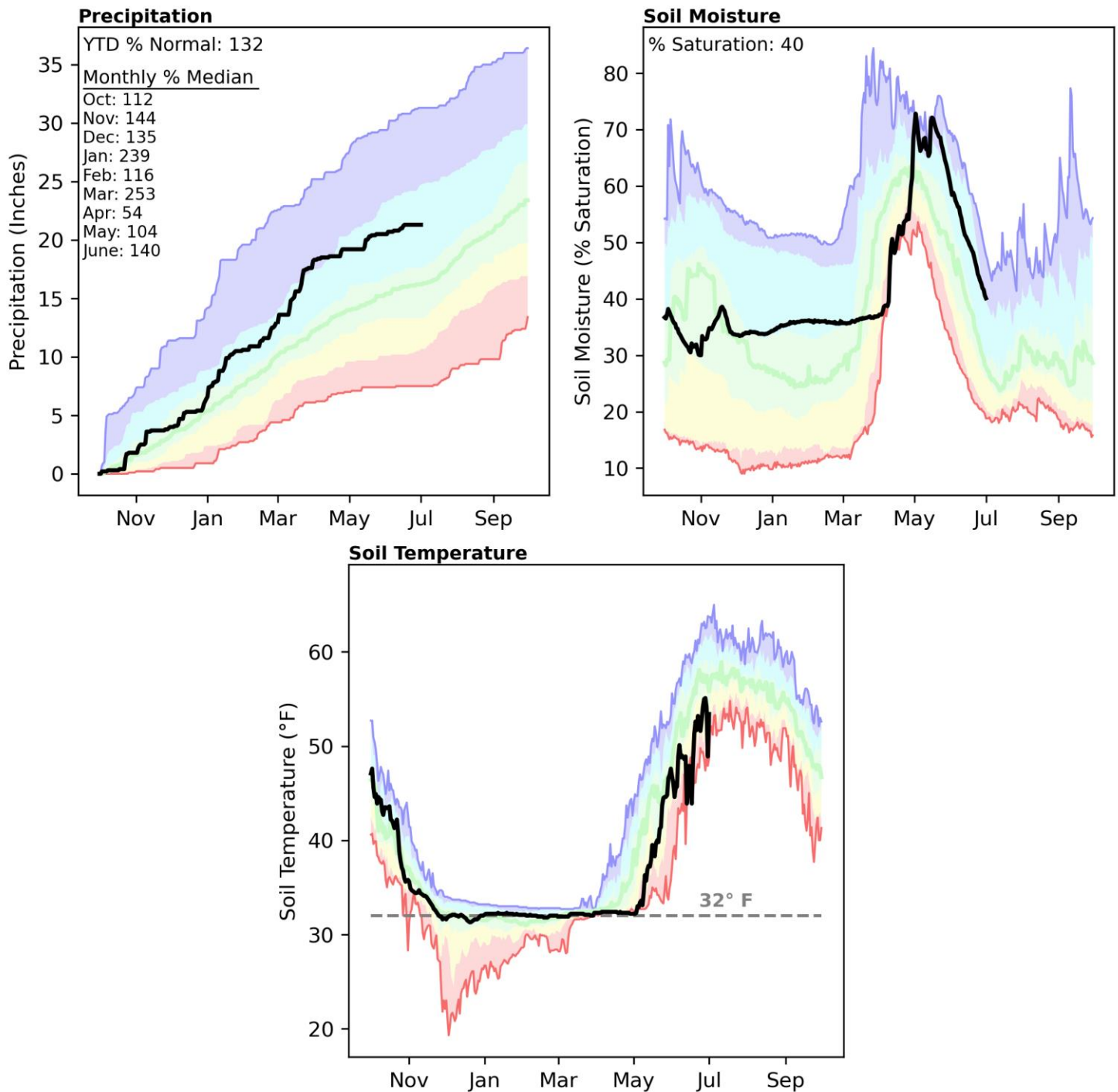
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in June was well above normal, with an average of 1.0" falling region-wide (152% of normal). This brings the water year accumulation (October-June) to 131% of median. Depth averaged soil moisture was calculated to be 56% of saturation compared to 43% at this time last year.



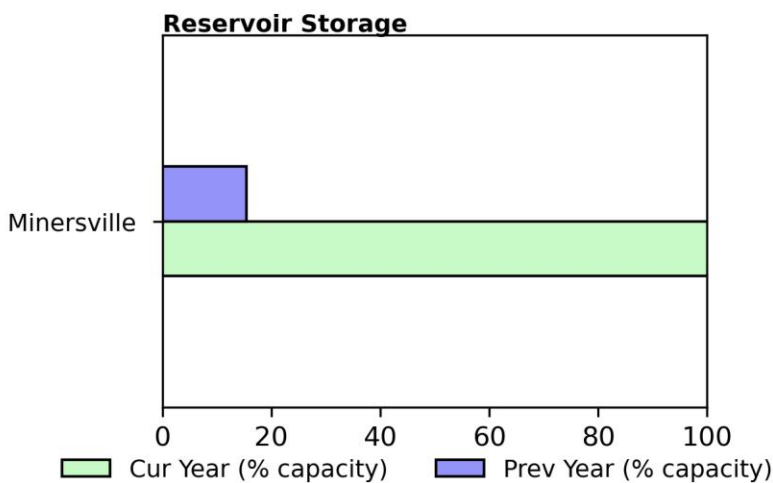
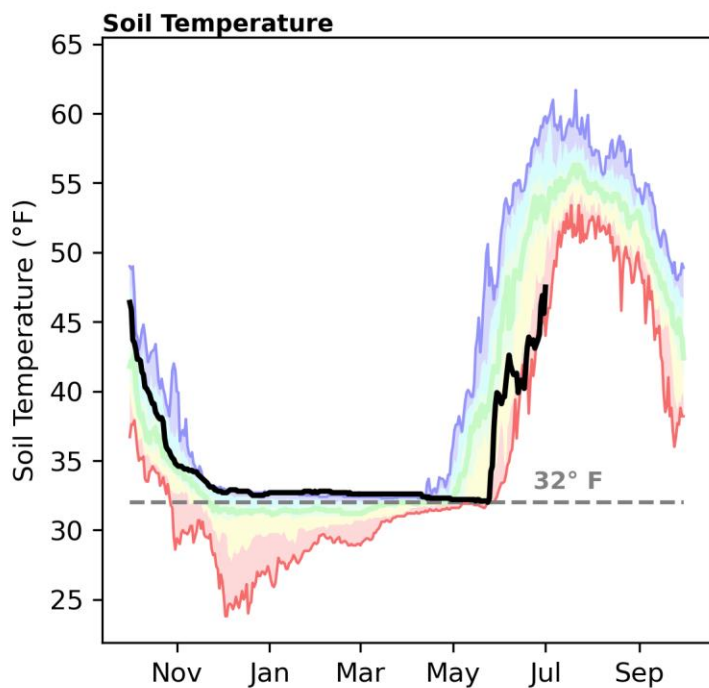
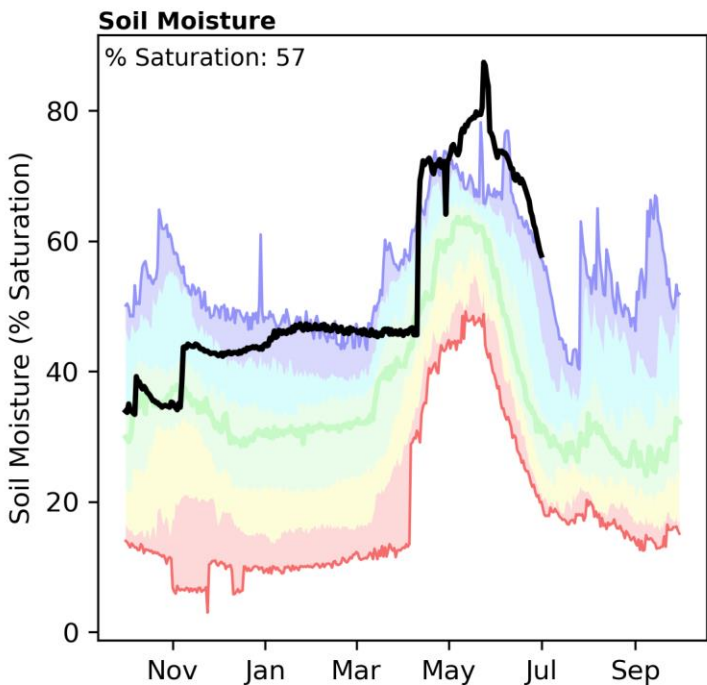
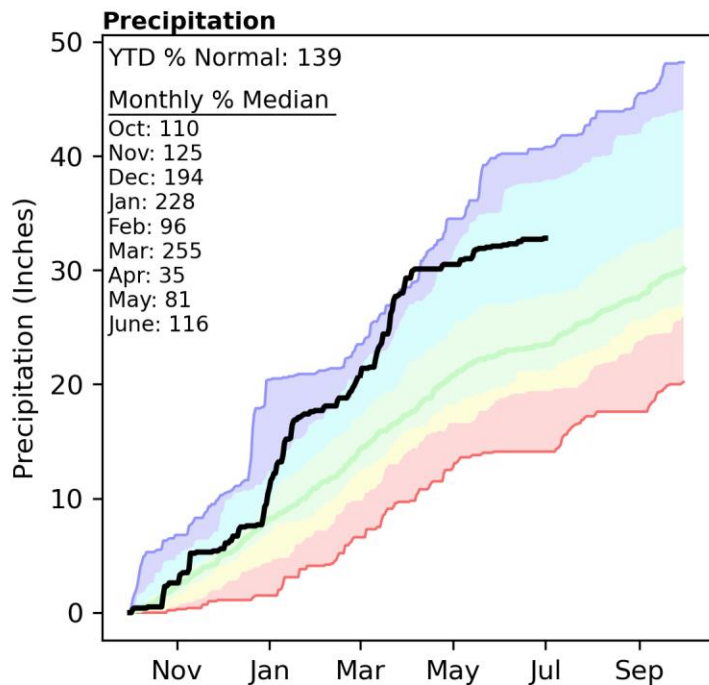
Statistical shading breaks at 10th, 30th, 50th, 70th, and 90th percentiles.
For more information visit: [30 year normal calculation description](#)

Precipitation in June was well above normal, with an average of 0.8" falling region-wide (140% of normal). This brings the water year accumulation (October-June) to 132% of median. Depth averaged soil moisture was calculated to be 40% of saturation compared to 26% 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](#)

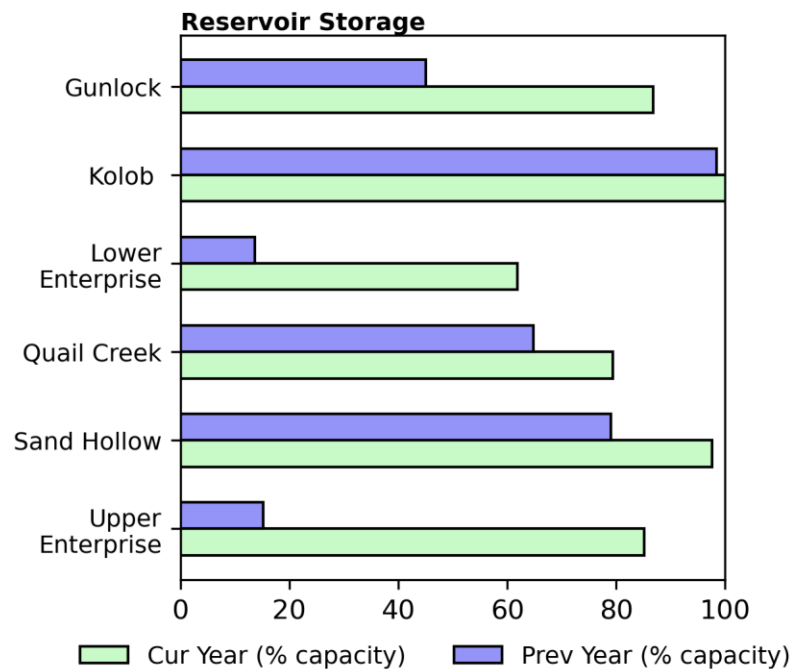
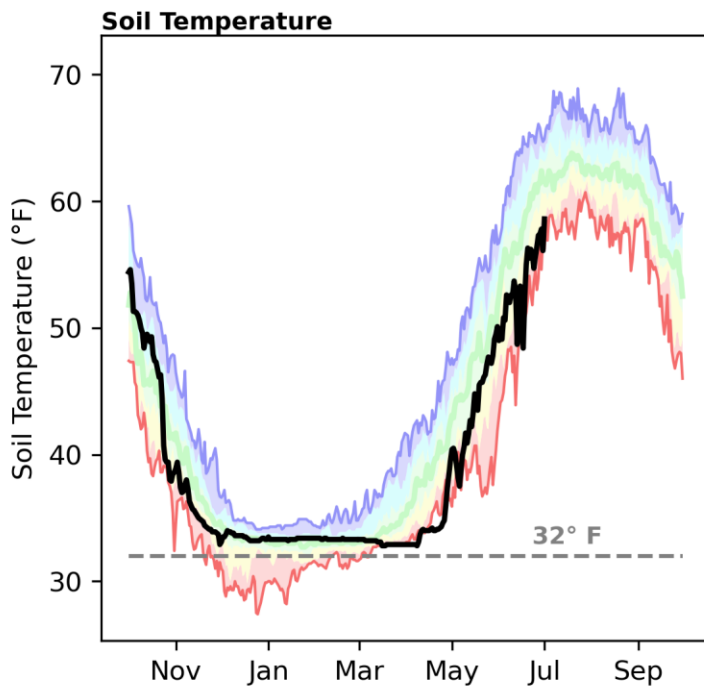
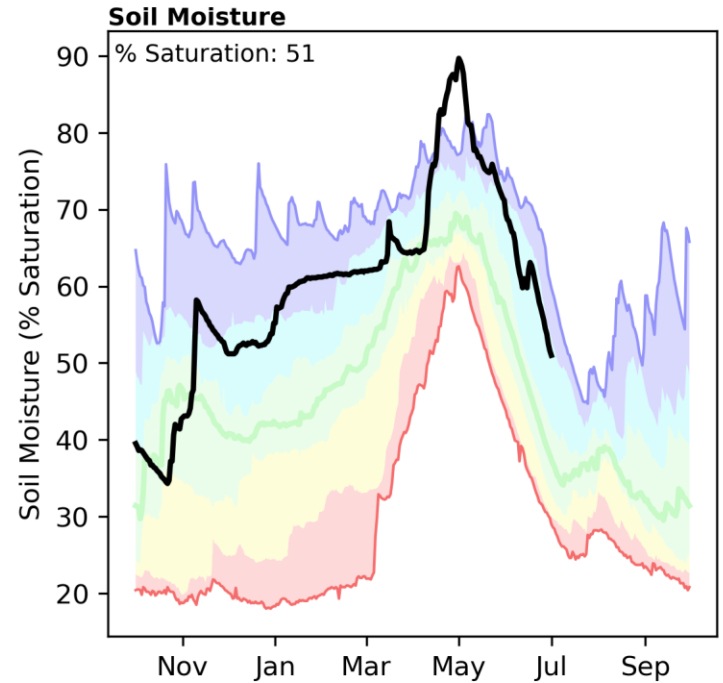
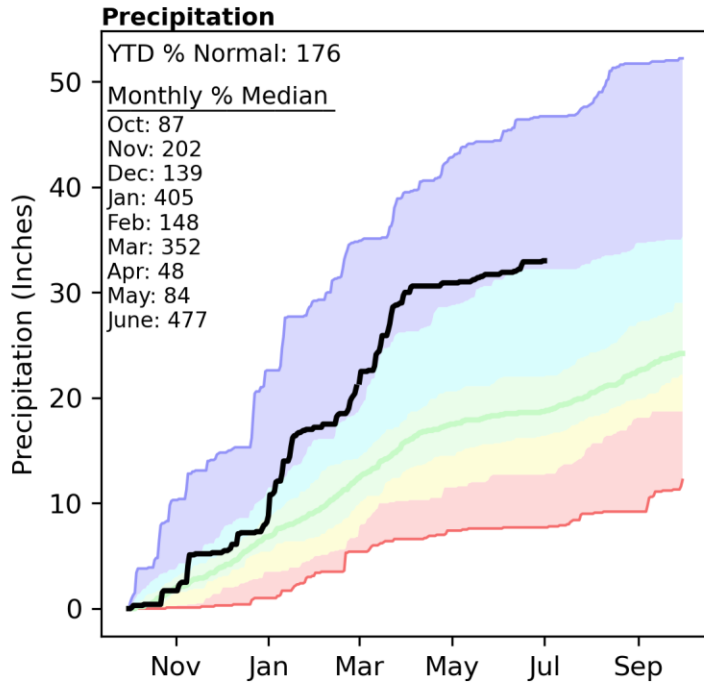
Precipitation in June was above normal, with an average of 0.7" falling region-wide (116% of normal). This brings the water year accumulation (October-June) to 139% of median. Depth averaged soil moisture was calculated to be 57% of saturation compared to 32% at this time last year. Reservoir storage is 100% of capacity, compared to 15% last year. The Water Availability Index percentile is 84% 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 | July 1, 2023

Precipitation in June was well above normal, with an average of 1.3" falling region-wide (477% of normal). This brings the water year accumulation (October-June) to 176% of median. Depth averaged soil moisture was calculated to be 51% of saturation compared to 29% at this time last year. Reservoir storage is 88% of capacity, compared to 65% last year. The Water Availability Index percentile is 81% 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

