Utah Climate and Water Report

July 1, 2021

Ben Lomond Trail

Photo by Joel Burley

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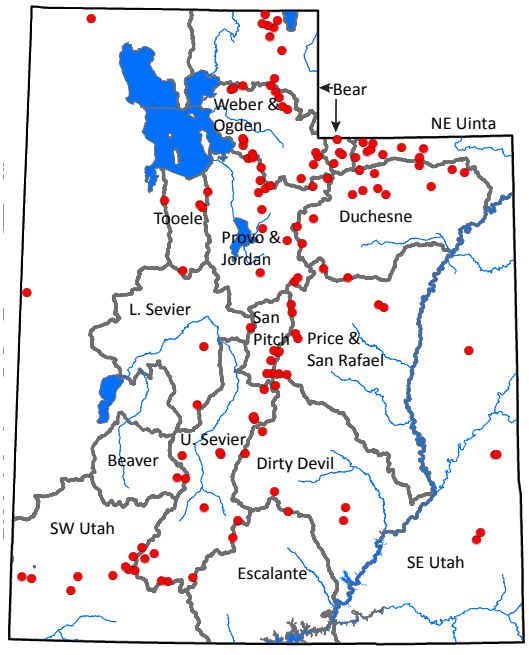
Utah Climate and Water Report

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.

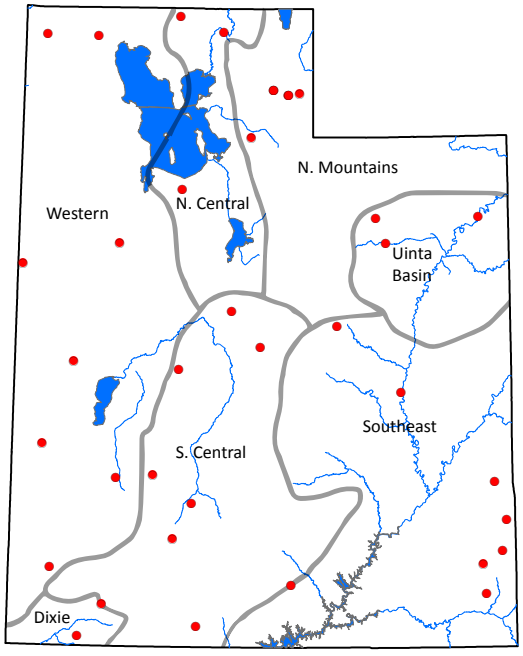
SNOTEL

- 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, 2021

*This report has been reorganized to better reflect two distinct geographic areas being monitored – the low elevation valley sites (**S**oil **C**limate **A**nalysis **N**etwork) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated (**SNO**w**TEL**emetry). Most of the graphs have been updated to utilize daily data versus the old monthly bar charts so that the timing and distribution of precipitation and other events can be seen. The timing distribution of precipitation can be as important as the overall amount in an agricultural context. These graphs are hyperlinked so that the user can simply click on the graph and be taken to the most recent version on the Snow Survey web page. Questions, comments and suggestions are welcome and should be directed to jordan.clayton@usda.gov.*

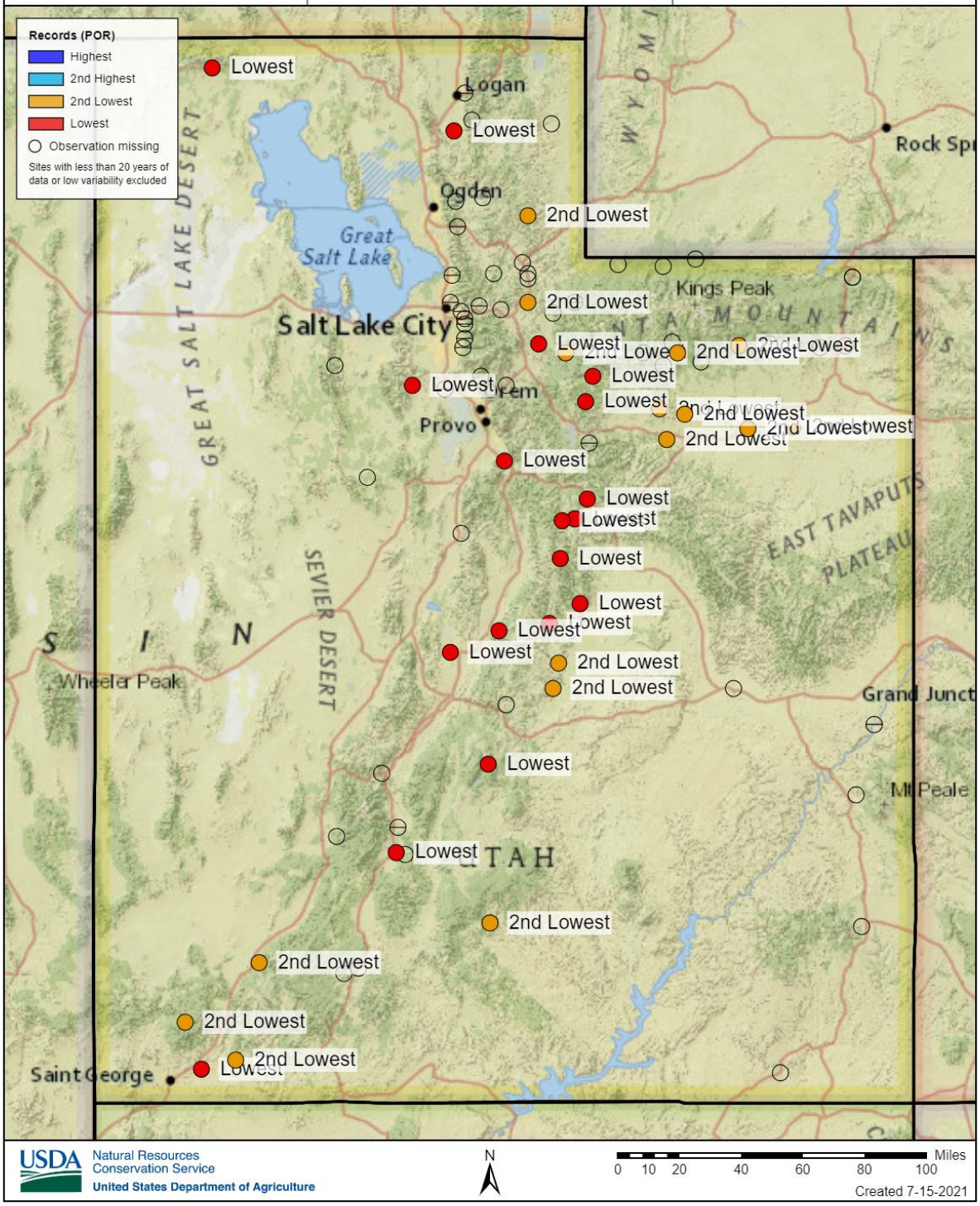
Current Valley Conditions (SCAN)

Utah's Valley locations ended up with an average of 0.3 inches of precipitation again in June. The 2021 water year total now stands at a paltry 4.1 inches of precipitation, on average, at Utah's SCAN sites. As was the case in previous months, Southwestern Utah fared poorly in June and subsequently soil moisture values are very low. Recent storm activity in the region should help this improve the situation. Soil temperatures across the state mirrored the exceptionally high air temperatures during June. Thankfully, both moderated at the end of the month. Drought conditions deteriorated slightly during June, with the entire state persisting at Moderate (D1) to Exceptional (D4) drought. The portion of Utah experiencing Exceptional Drought now stands at a very discouraging 64%.

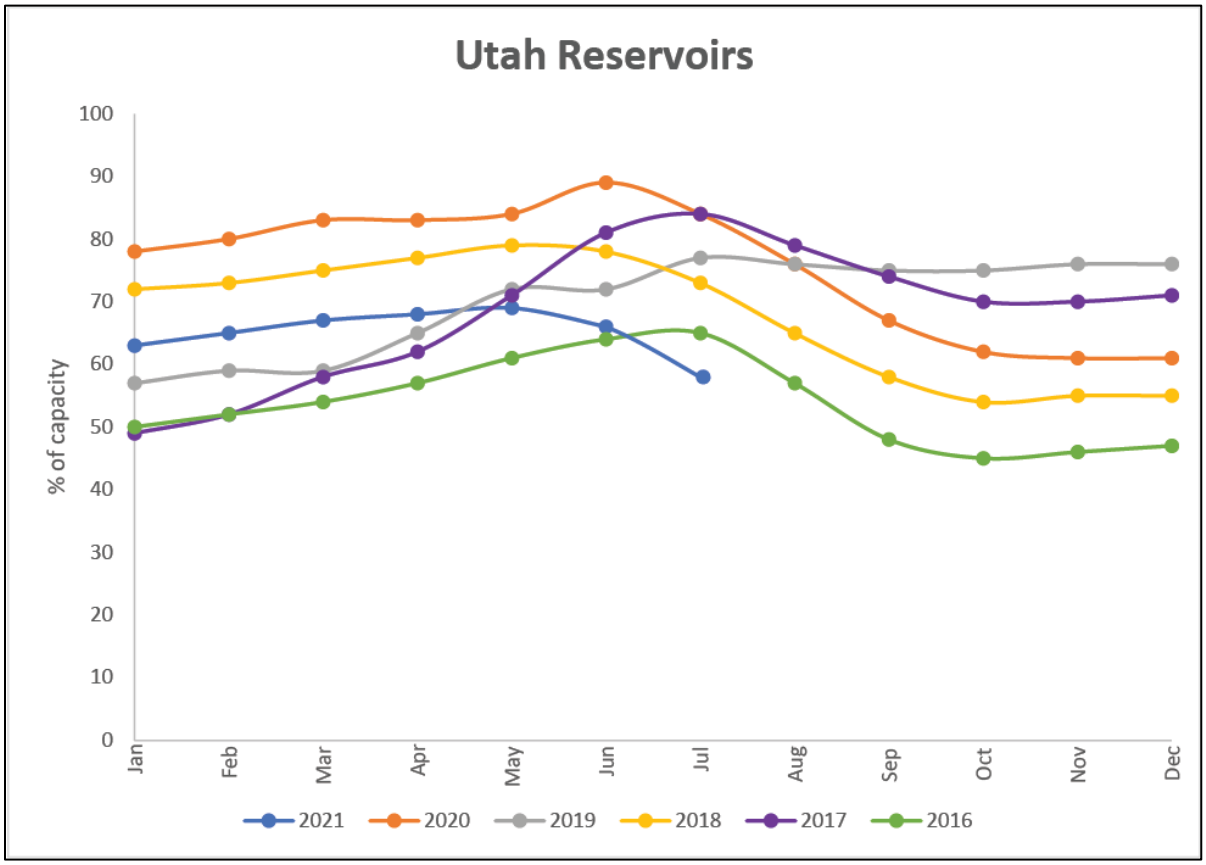
Current Mountain Conditions (SNOTEL)

When it comes to water supply conditions in Utah's mountains, June was not the month we were looking for. Last month's accumulated precipitation was only 31% of normal, bringing the water-year-to-date accumulation to 64%. Statewide soil moisture is at 38% of saturation, compared with 52% last year. Unless we receive significant precipitation this summer and fall, we will enter next year's snowpack season with another soil moisture deficit, which will again necessitate an above-average snowpack just to get average runoff. As noted in our Water Supply Outlook Reports this spring, we anticipated that we would receive alarmingly low runoff from last winter's snow due to the dry soils and below-average snow water equivalent levels which, unfortunately, turned out to be correct. Most streams in Utah have already delivered the majority of water supply related to snowmelt. In numerous cases, the total volume of streamflow received was either the lowest or the second-lowest quantity ever recorded for those locations. This is illustrated with the map below, which ranks the observed April-June flow for this year against all previous observations. The red dots are for the lowest runoff amounts on record and the orange dots are for the second lowest.

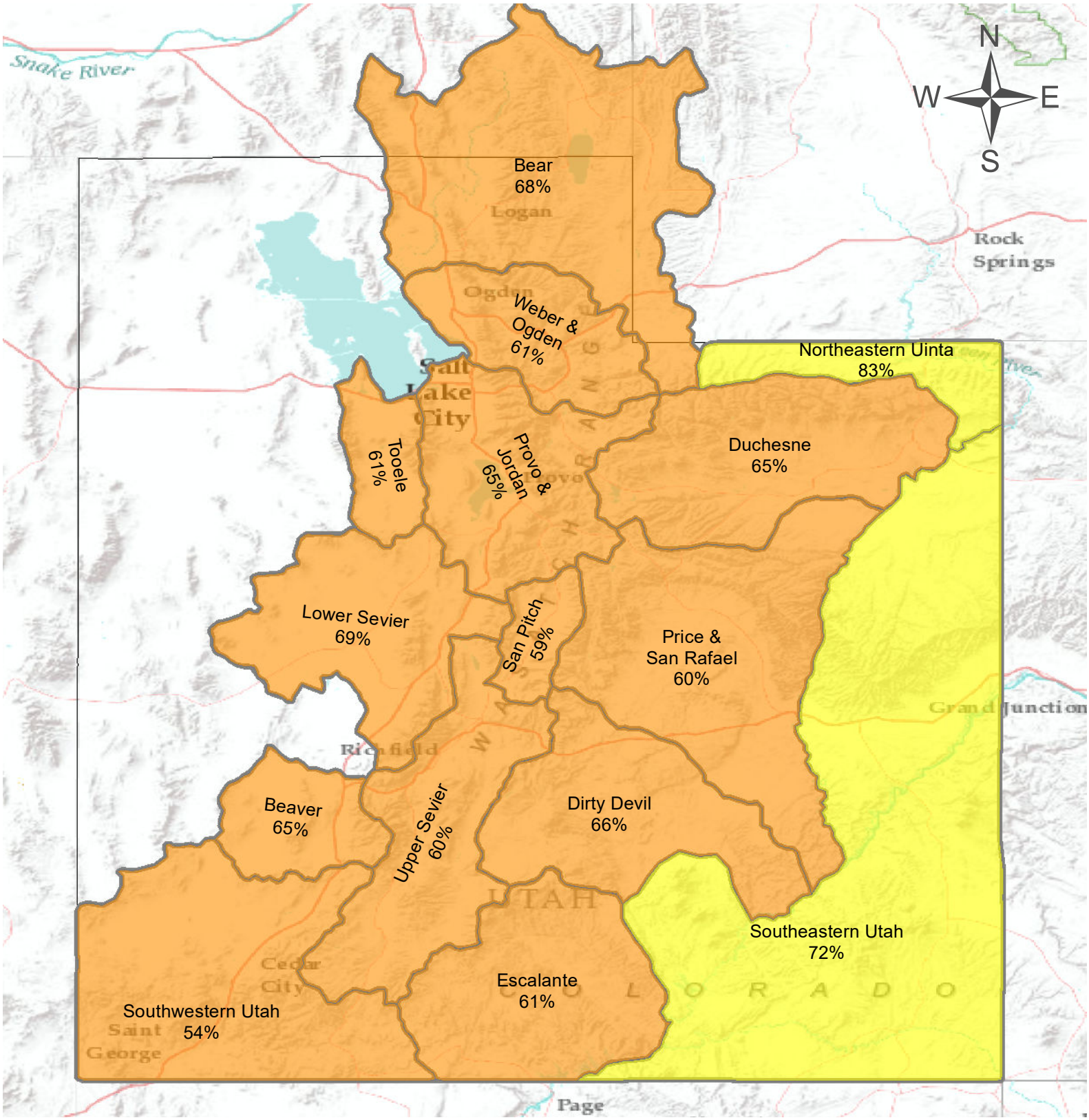
3 month Adjusted Volume, Observed	Records (POR)	April 1, 2021 - June 30, 2021



Utah's reservoir storage is currently at 58% of capacity, which is 26% lower than last year at this time. Shown below is a graph that plots how this statewide percentage has varied over time for the last several years, with the current year shown in blue. Statewide storage has already dropped 11% from its peak at the beginning of May and can be projected to decline to a low of roughly 40% capacity based on a 25% annual drop seen during other recent dry years. This would be below the previous minimum (in 2016) displayed on the plot below. Importantly, Utah's *reservoirs are very unlikely to see substantial gains until next spring's runoff*. Based on current precipitation and soil moisture conditions, we really need next winter's snowpack to be outstanding to preclude a continued decline in our reservoir storage levels. However, we could potentially be looking at statewide reservoir storage in the 15-20% of capacity range (or worse) by the end of next summer if conditions remain similar to this year. Water managers should take note of this potential outcome.



These water supply conditions are causing Utah's current Water Availability Indices (WAIs) to drop to historically-low levels (bottom 10th percentile) for 10 of Utah's 18 major basins, and to extremely-low levels (bottom 20th percentile) for all other basins except for the Bear, Virgin, and Smith's Creek watersheds, as shown in the summary table on subsequent pages.



Statewide Precipitation

As of July 1, 2021:

64% of Normal Precipitation

31% of Normal Precipitation Last Month

0 10 20 40 60 80 100
Miles

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	*KAF^*	*KAF^*	*KAF^*	*%*		
Bear River	**711**	**20.9**	**732**	**48**	**-0.2**	**01, 16, 13, 89**
Woodruff Narrows	**7.4**	**20.9**	**28.3**	**14**	**-3.0**	**12, 04, 03, 00**
Little Bear	**8.6**	**0.8**	**9.4**	**3**	**-3.9**	**01, 03, 13, 00**
Ogden	**52.1**	**2.6**	**54.6**	**5**	**-3.8**	**92, 88, 00, 13**
Weber	**101.1**	**14.8**	**115.9**	**3**	**-3.9**	**92, 13, 02, 01**
Provo River	**324.1**	**5.2**	**329.4**	**4**	**-3.9**	**13, 04, 02, 03**
Western Uinta	**163.8**	**11.2**	**175.0**	**17**	**-2.7**	**02, 12, 04, 18**
Eastern Uinta	**22.4**	**7.4**	**29.8**	**7**	**-3.6**	**02, 14, 18, 89**
Blacks Fork	**10.1**	**22.6**	**32.8**	**15**	**-2.9**	**94, 07, 92, 04**
Price	**27.6**	**0.5**	**28.1**	**19**	**-2.6**	**14, 02, 13, 89**
Smiths Creek	**7.2**	**19.5**	**26.8**	**61**	**0.9**	**08, 05, 20, 97**
Joes Valley	**34.2**	**-0.6**	**33.7**	**2**	**-4.0**	**02, 13, 18, 92**
Moab	**0.9**	**0.3**	**1.2**	**20**	**-2.5**	**12, 90, 00, 09**
Upper Sevier River	**19.5**	**0.6**	**20.1**	**5**	**-3.8**	**04, 18, 92, 90**
San Pitch	**0.0**	**1.8**	**1.8**	**5**	**-3.8**	**18, 13, 02, 92**
Lower Sevier	**34.8**	**1.7**	**36.5**	**7**	**-3.6**	**04, 18, 17, 03**
Beaver	**4.8**	**1.5**	**6.3**	**2**	**-4.0**	**02, 18, 04, 00**
Virgin River	**34.6**	**3.7**	**38.3**	**32**	**-1.5**	**18, 12, 07, 15**

**EOM, end of month; # WAI, water availibilty index; ^KAF, thousand acre-feet.*

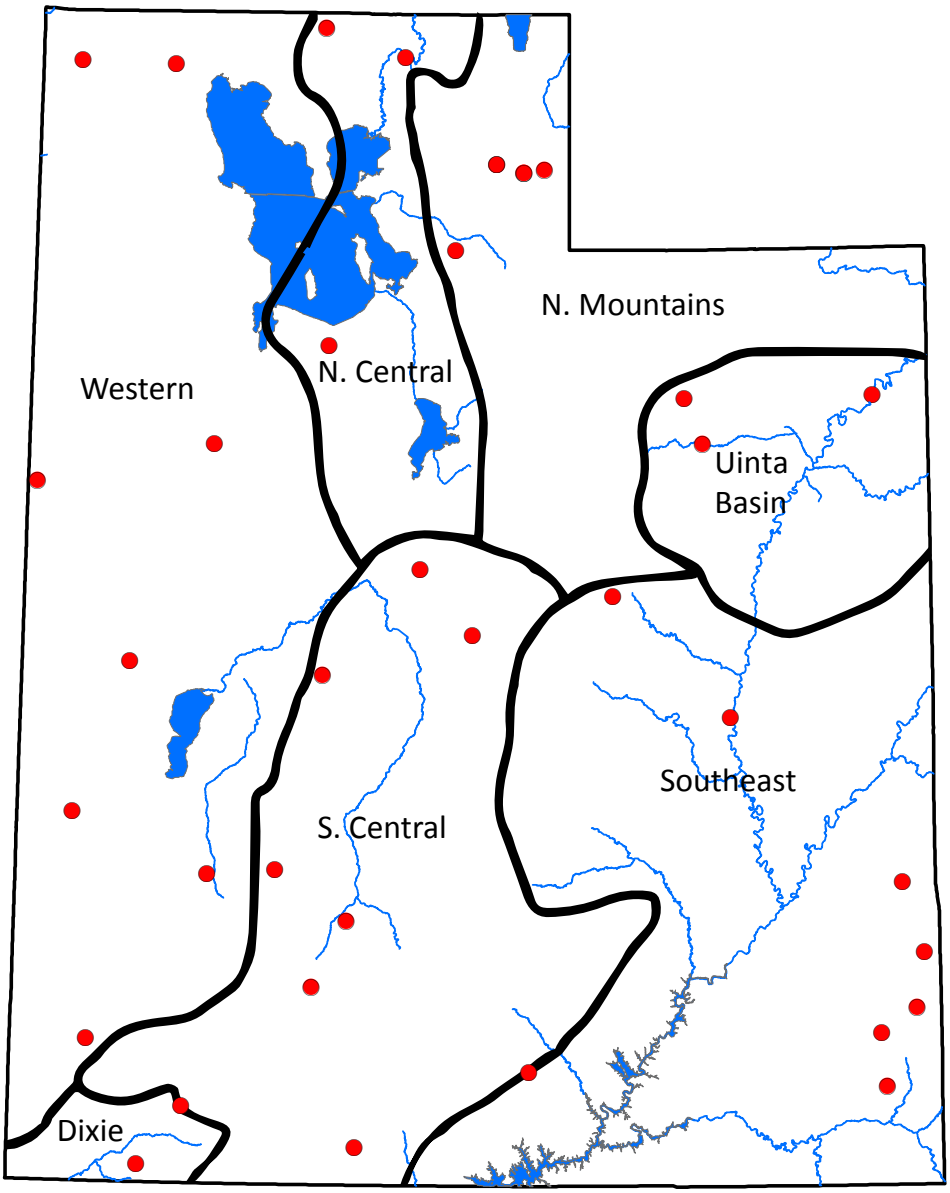
What is a Water Availability Index?

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 months streamflow. 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.

Utah Snow Surveys 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 the simplest 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.

For more information on the WAI go to: www.ut.nrcs.usda.gov/snow/ on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

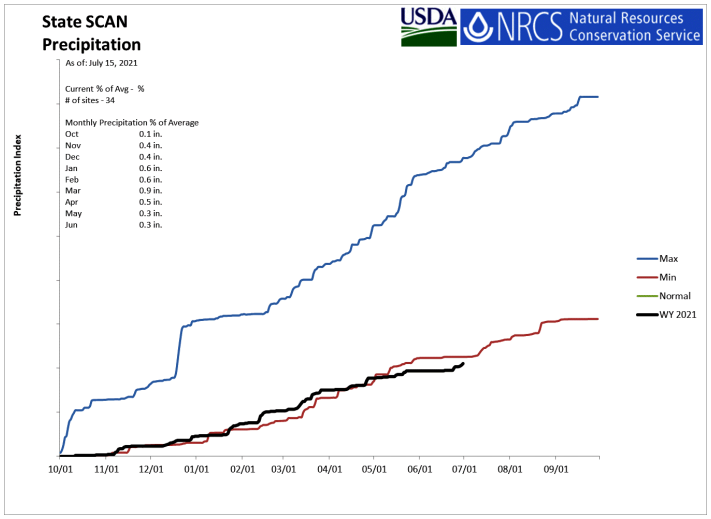
SCAN portion of report

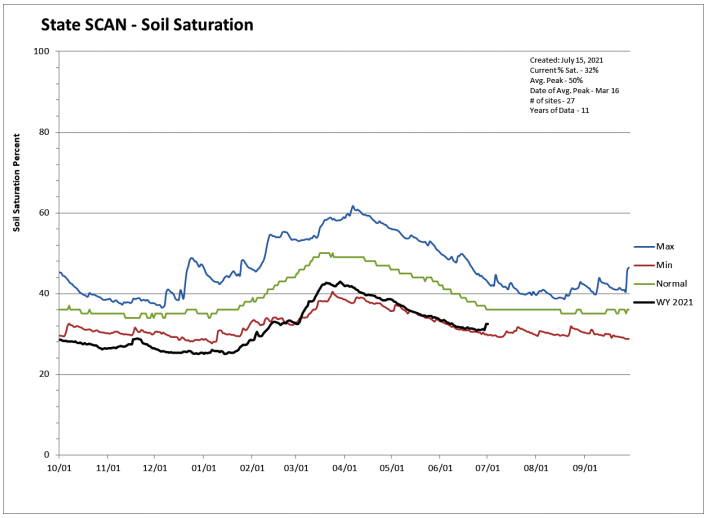


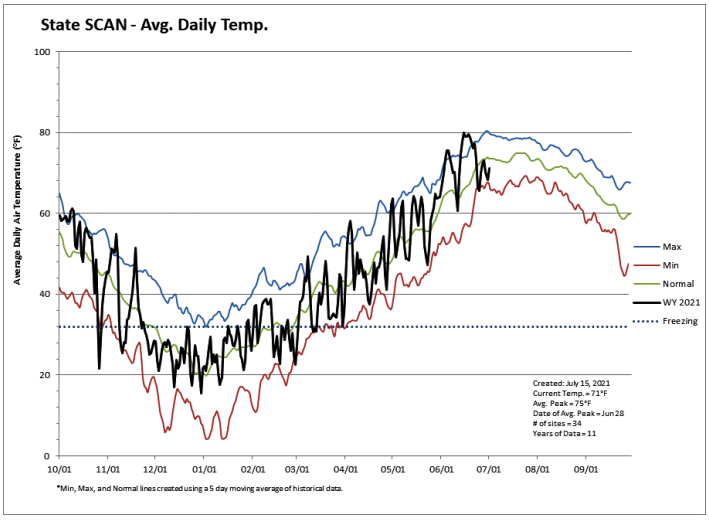
Statewide SCAN

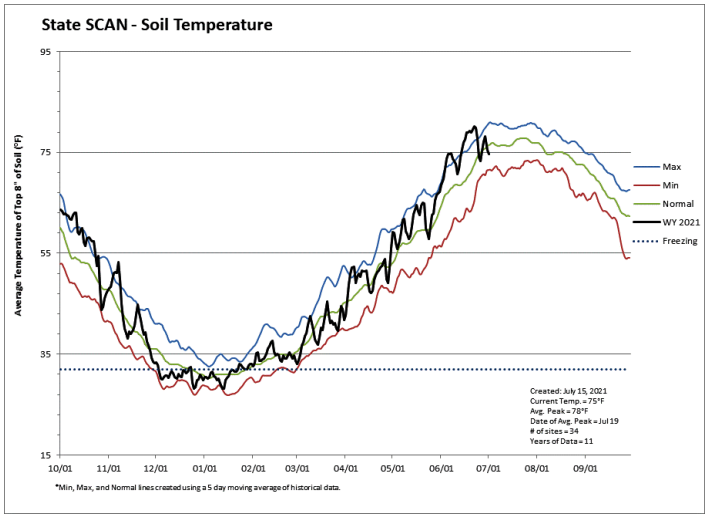
July 1, 2021

The average precipitation at SCAN sites within Utah was 0.3 inches in June, which brings the seasonal accumulation (Oct-Jun) to 4.2 inches. Soil moisture is at 32% compared to 34% last year.





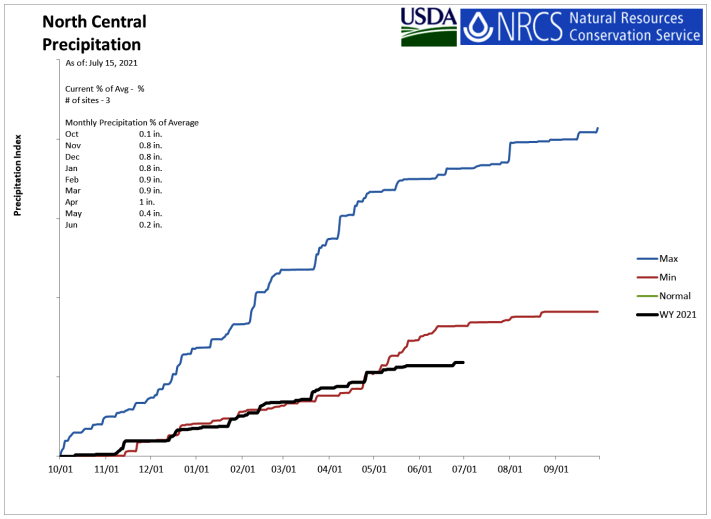


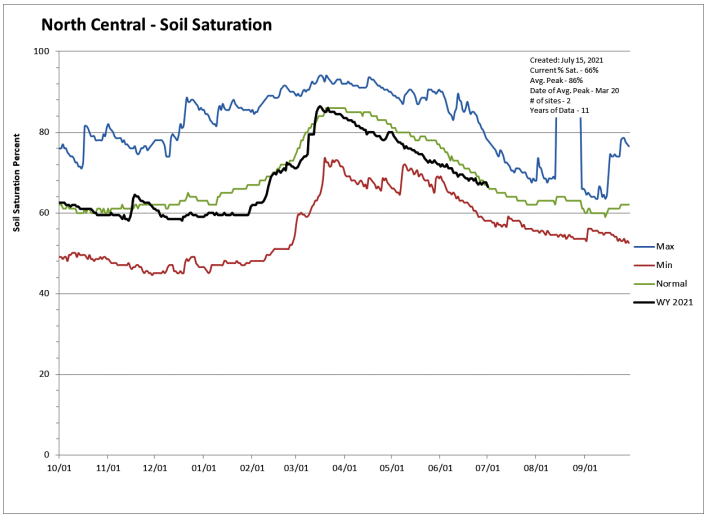


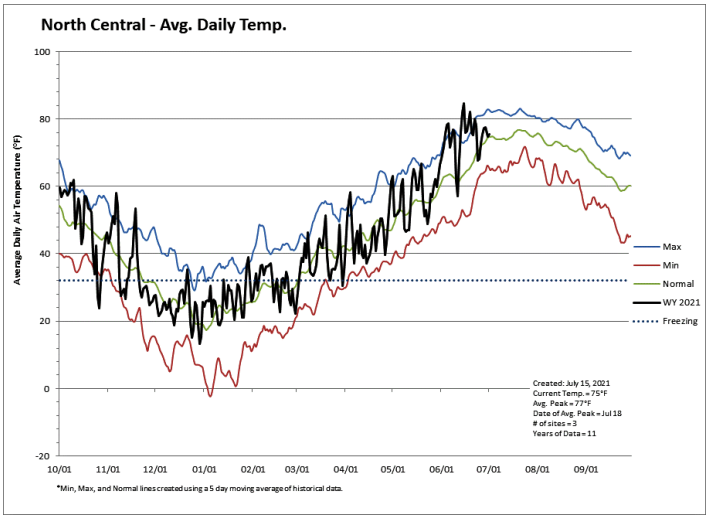
North Central

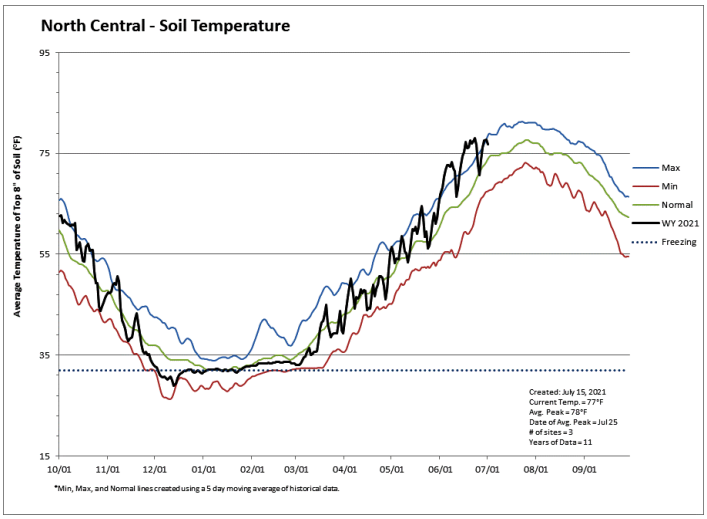
July 1, 2021

The average precipitation in June at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Jun) to 5.9 inches. Soil moisture is at 67% compared to 79% last year.





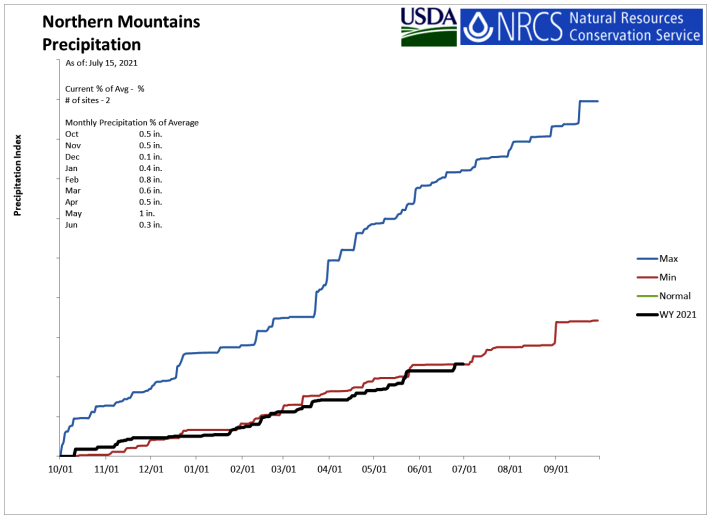


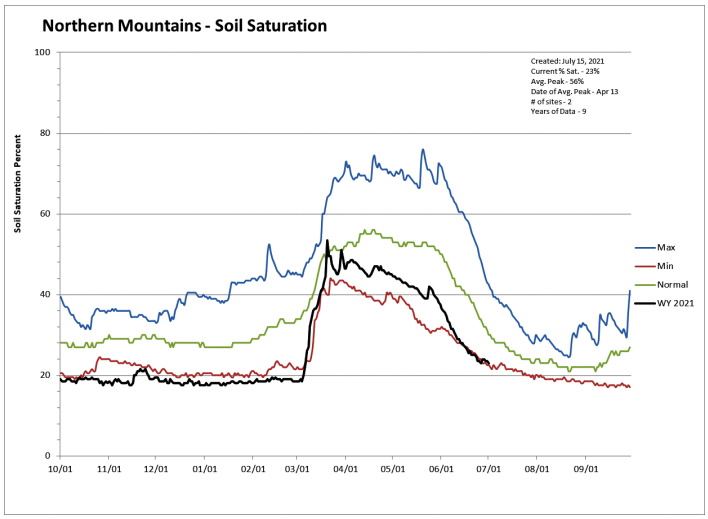


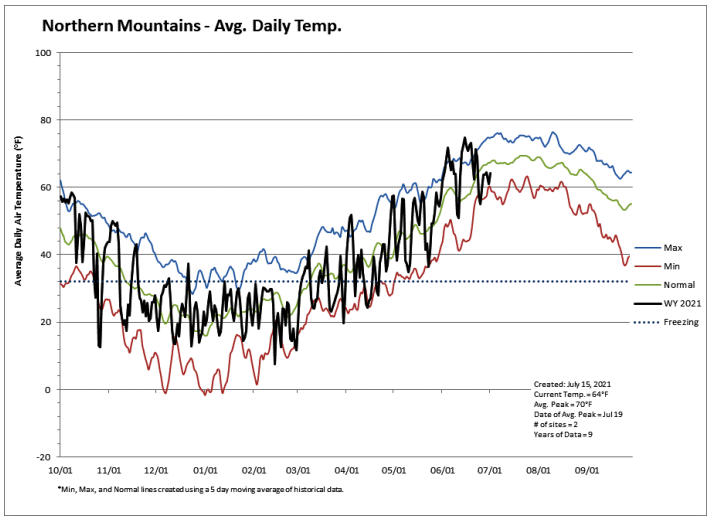
Northern Mountains

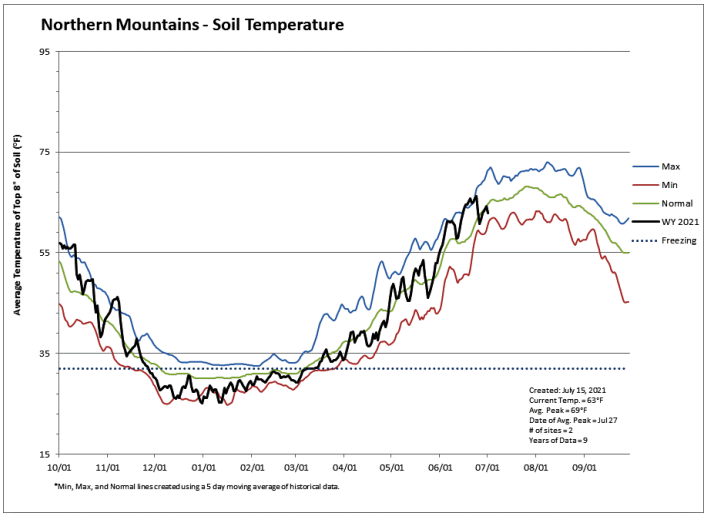
July 1, 2021

The average precipitation in June at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Jun) to 4.6 inches. Soil moisture is at 24% compared to 36% last year.





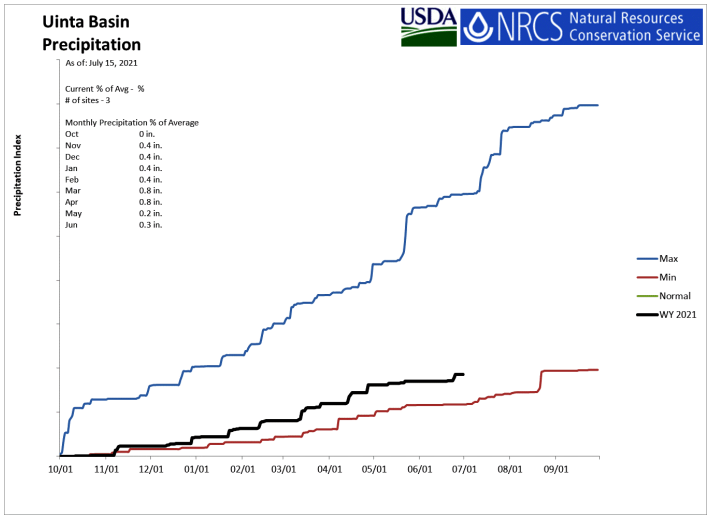


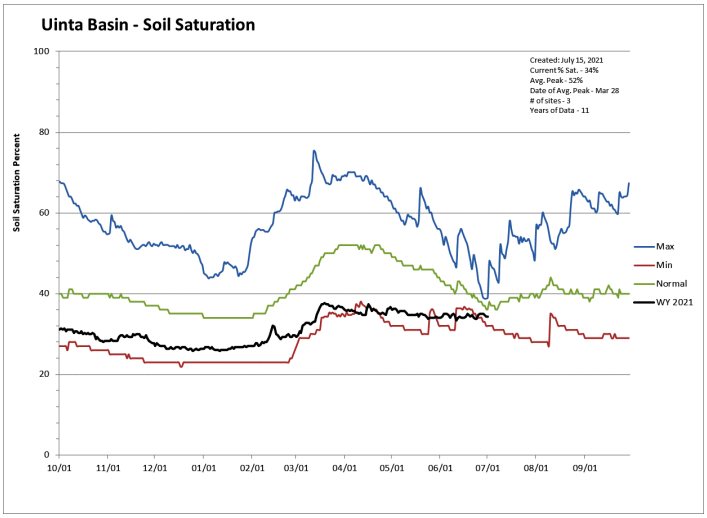


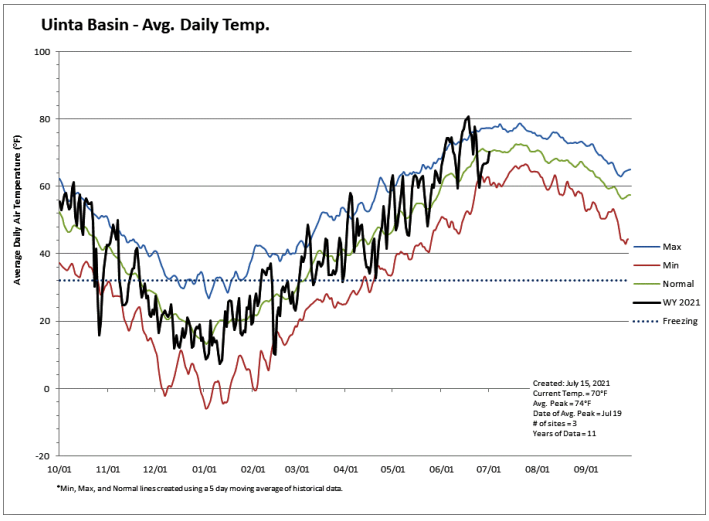
Uinta Basin

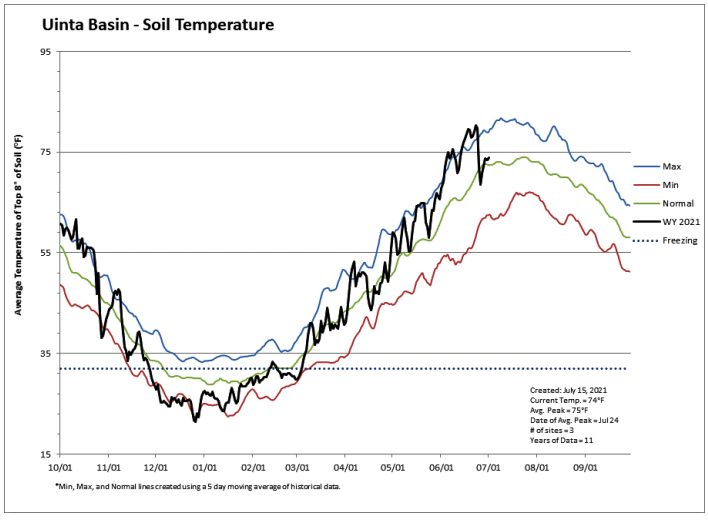
July 1, 2021

The average precipitation in June at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Jun) to 3.7 inches. Soil moisture is at 34% compared to 36% last year.





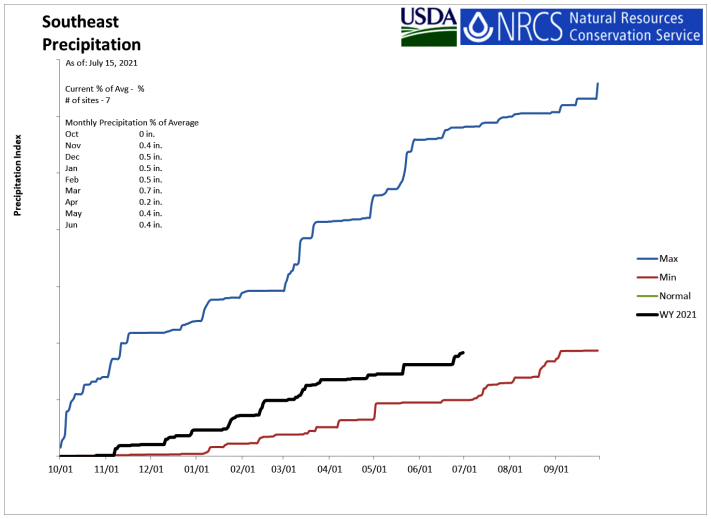


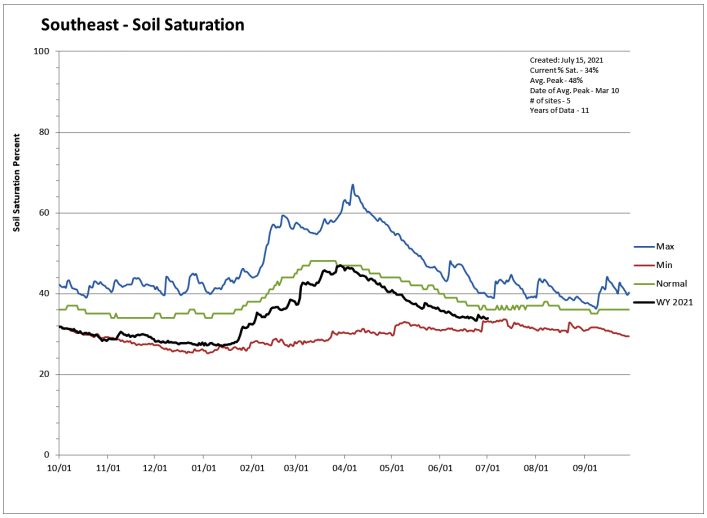


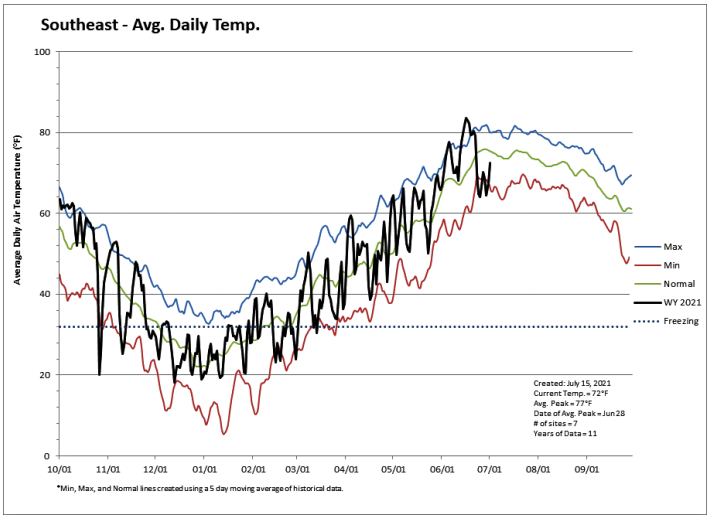
Southeast

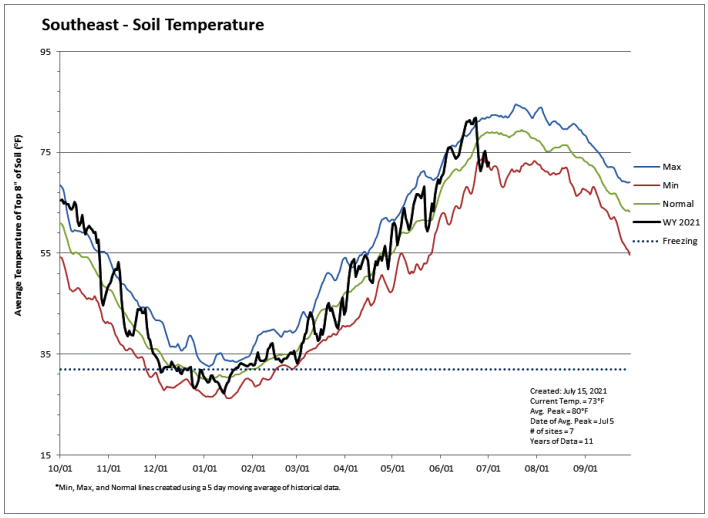
July 1, 2021

The average precipitation in June at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-Jun) to 3.7 inches. Soil moisture is at 34% compared to 34% last year.





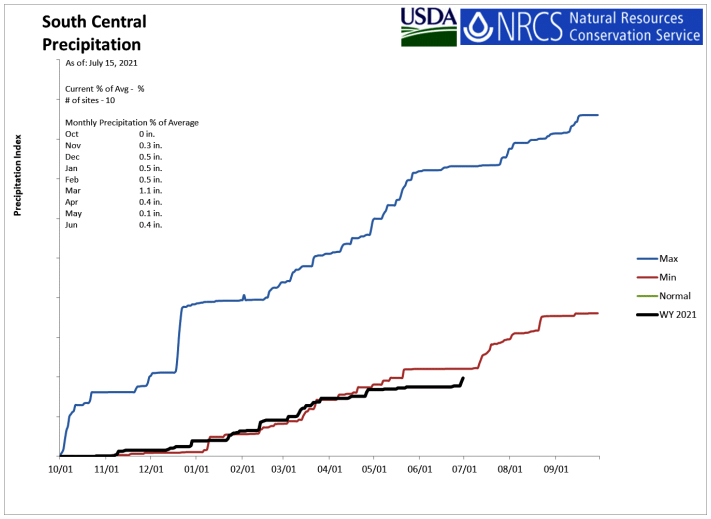


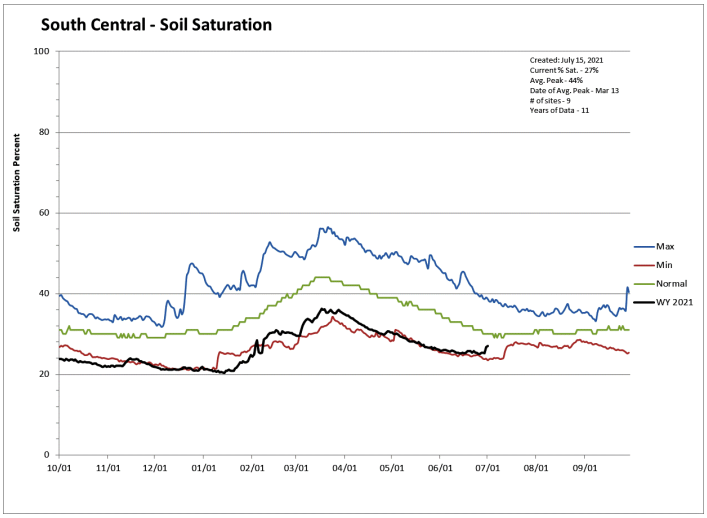


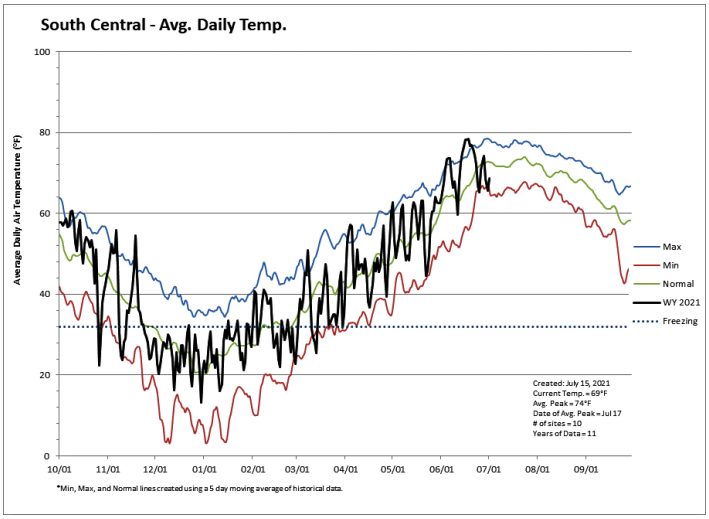
South Central

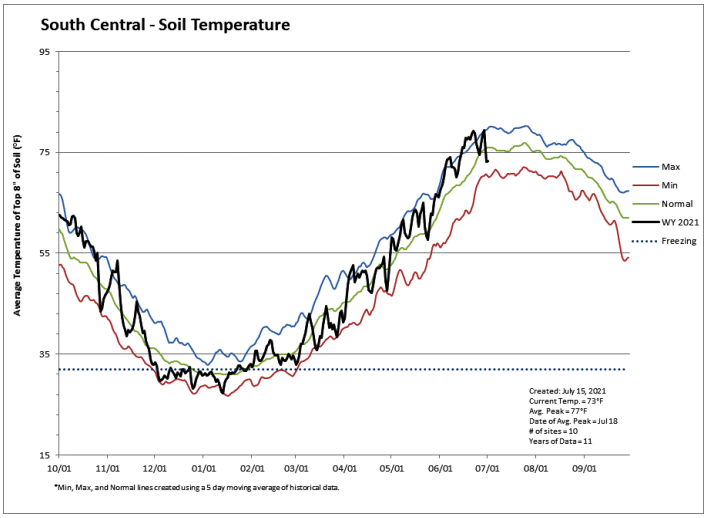
July 1, 2021

The average precipitation in June at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-Jun) to 3.9 inches. Soil moisture is at 27% compared to 27% last year.





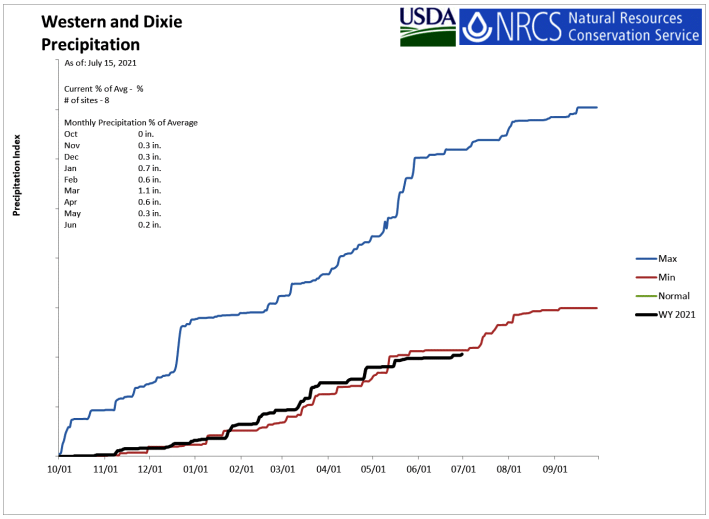


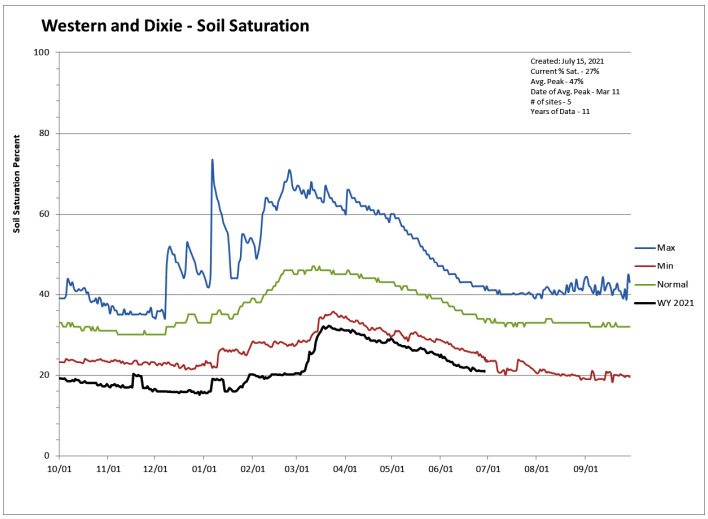


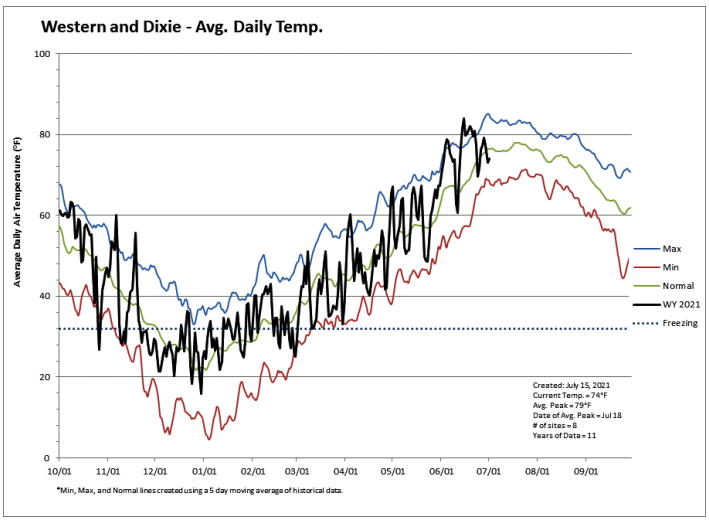
Western and Dixie

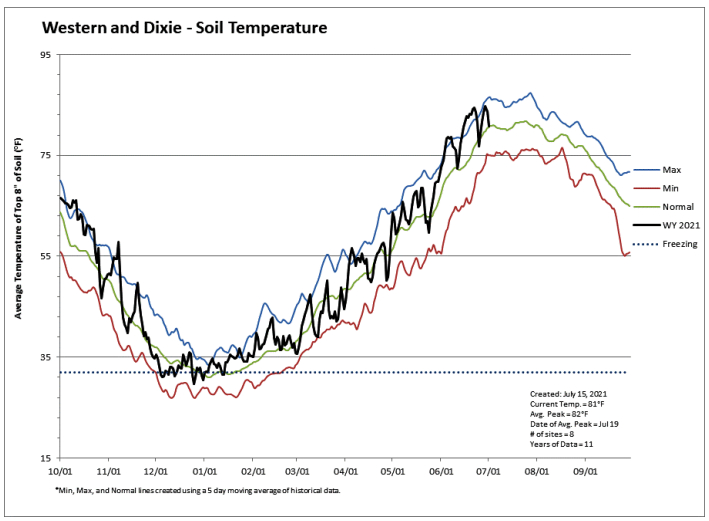
July 1, 2021

The average precipitation in June at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Jun) to 4.1 inches. Soil moisture is at 27% compared to 23% last year.

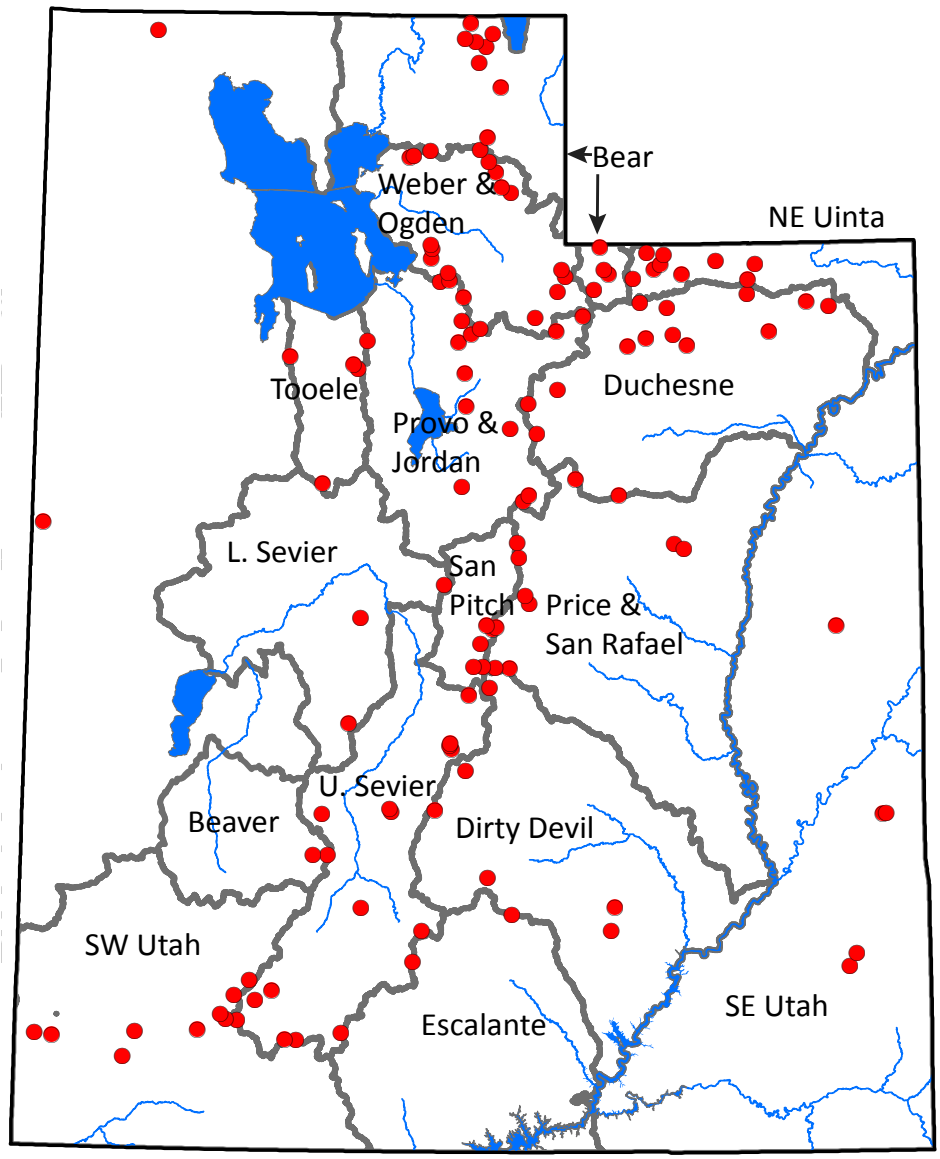








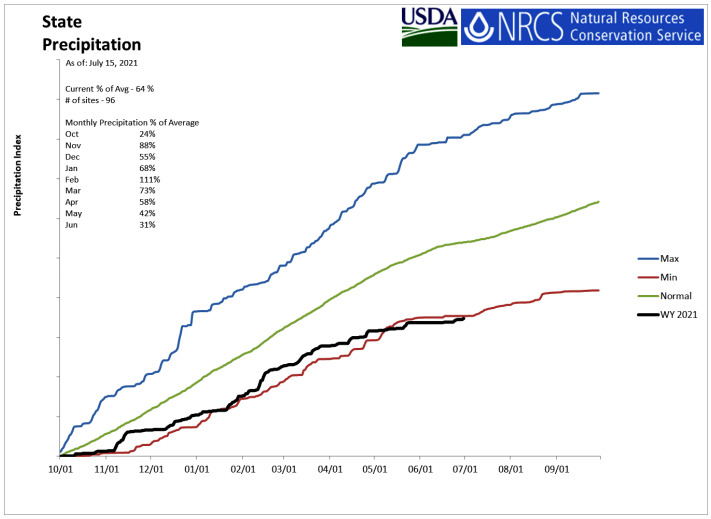
SNOTEL portion of report

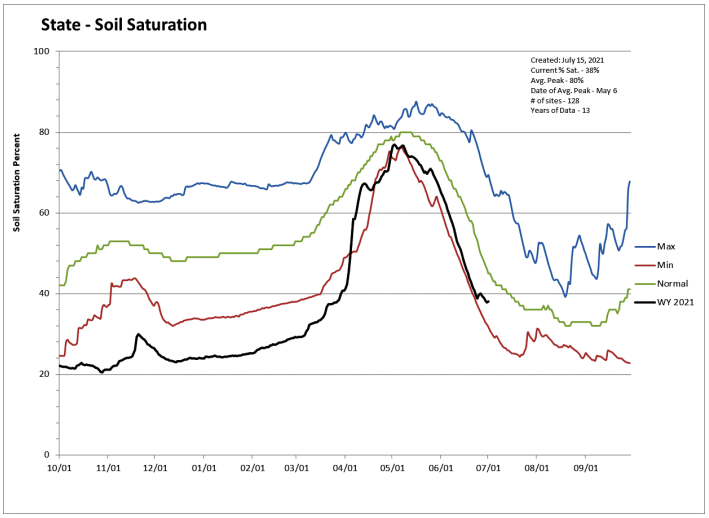


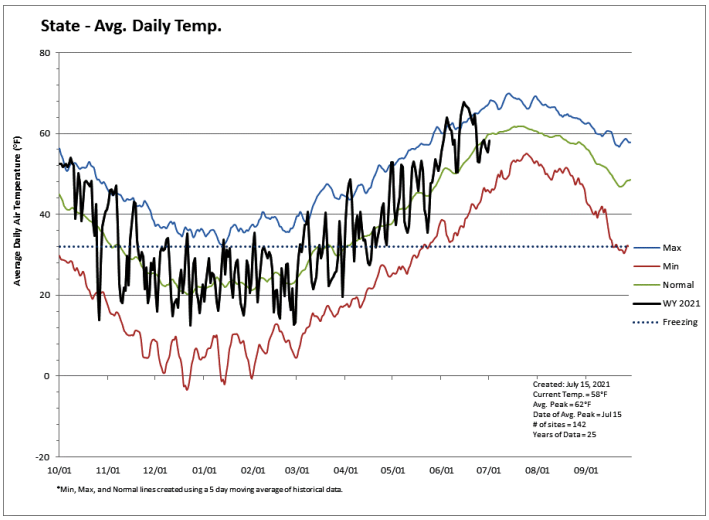
Statewide SNOTEL

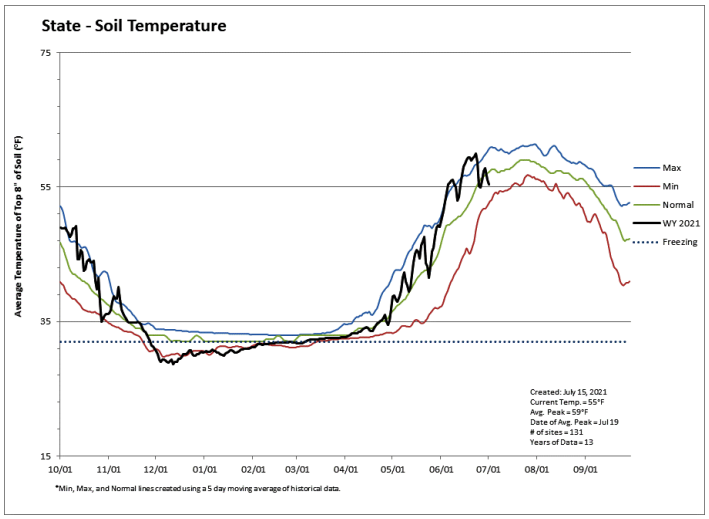
July 1, 2021

Precipitation at SNOTEL sites during June was much below average at 31%, which brings the seasonal accumulation (Oct-Jun) to 64% of average. Soil moisture is at 38% compared to 52% last year. Reservoir storage is at 58% of capacity, compared to 84% last year.





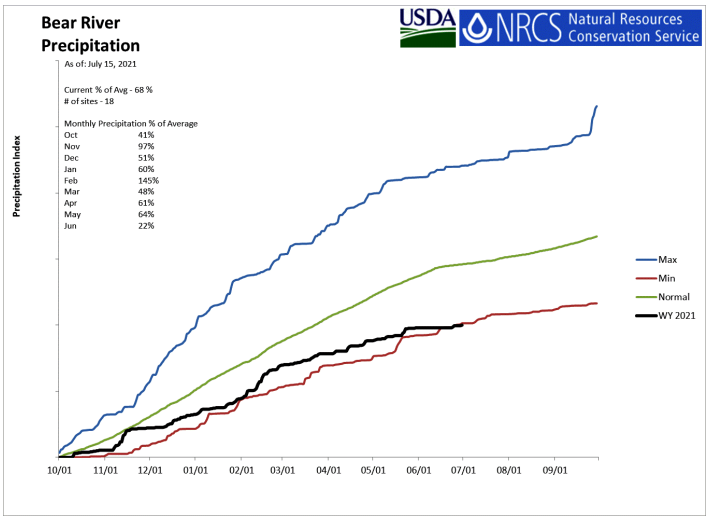


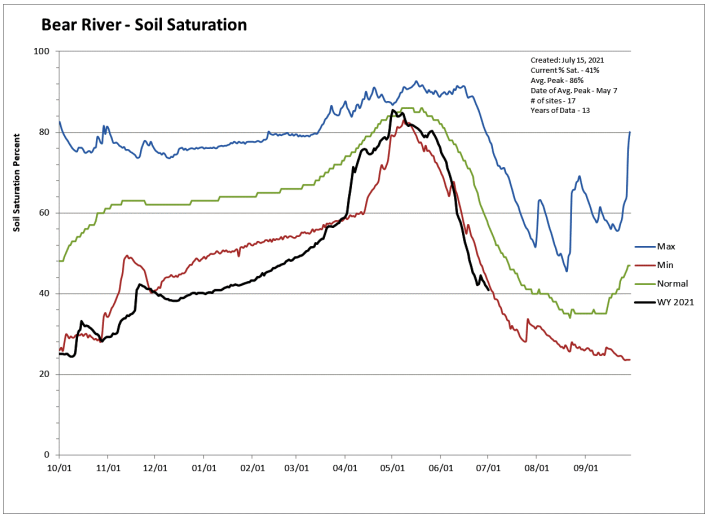


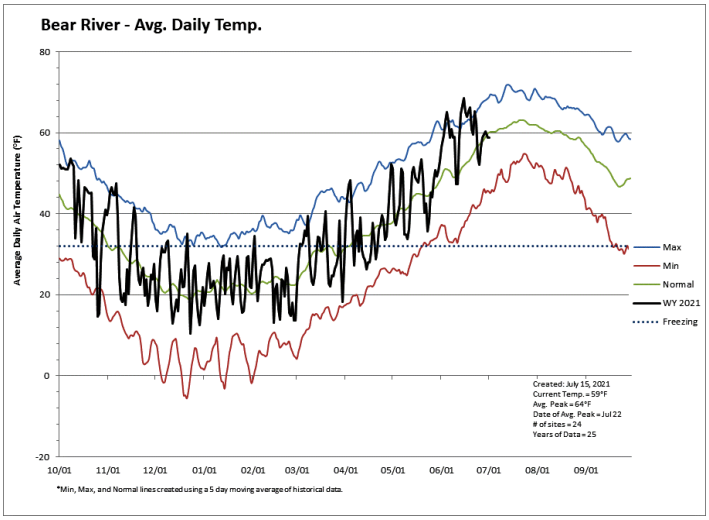
Bear River Basin

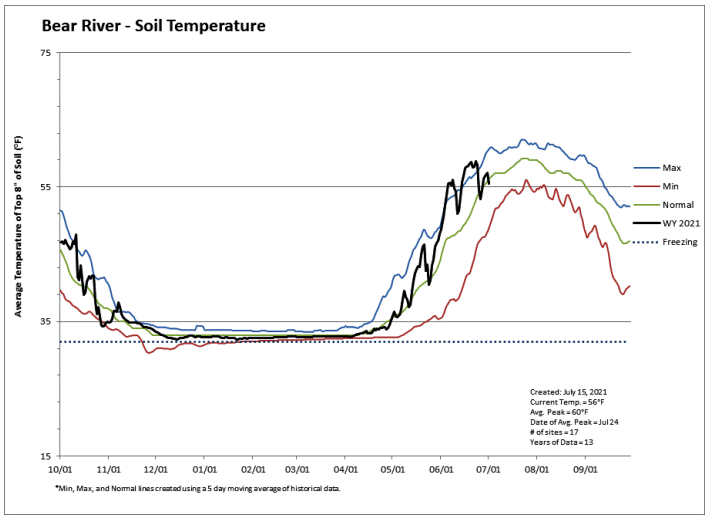
July 1, 2021

Precipitation in June was much below average at 22%, which brings the seasonal accumulation (Oct-Jun) to 68% of average. Soil moisture is at 44% compared to 71% last year. Reservoir storage is at 53% of capacity, compared to 77% last year. The water availability index for the Bear River is 48%, 14% for Woodruff Narrows and 3% for the Little Bear.









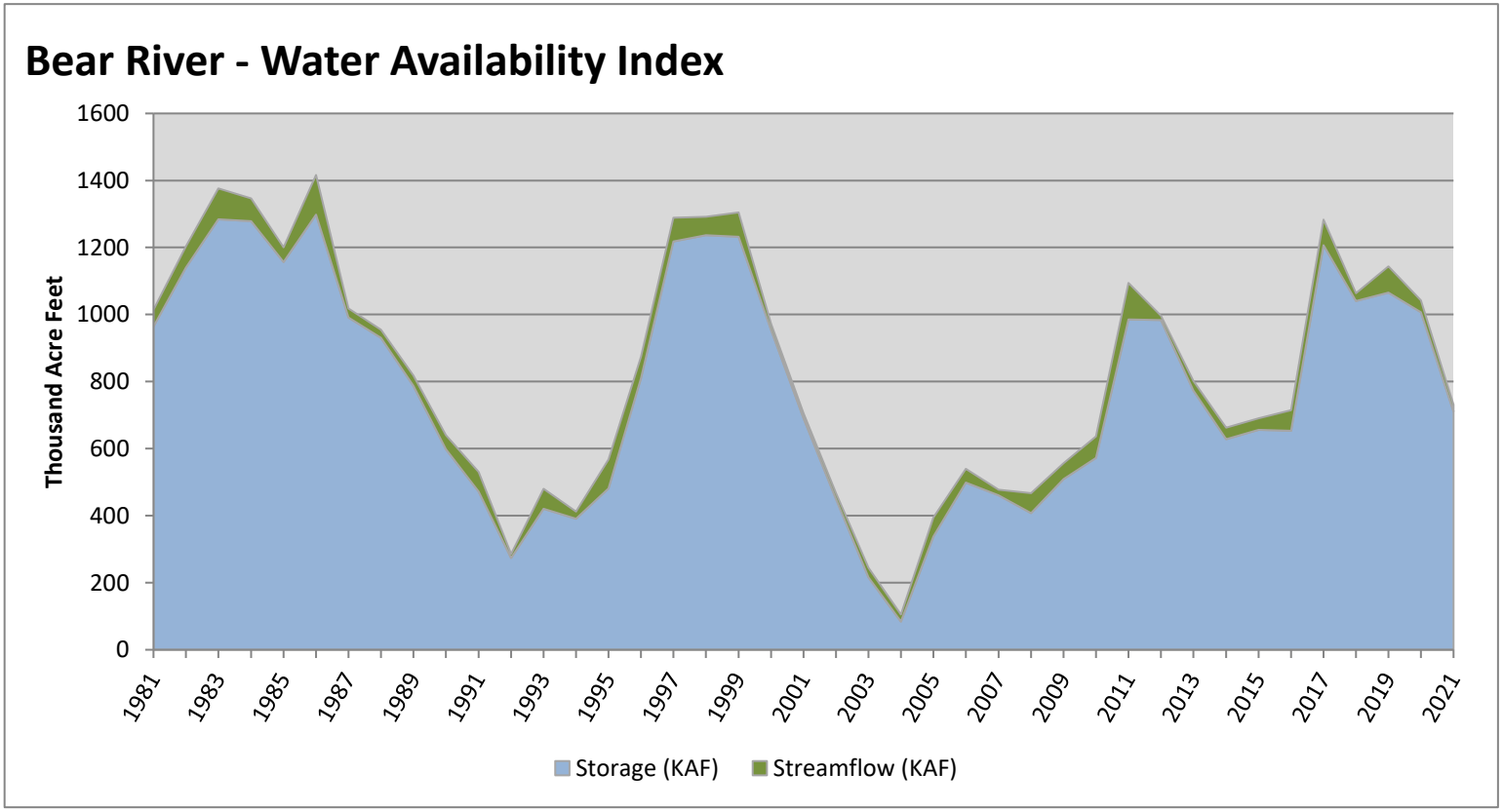
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	**710.72**	**20.90**	**731.62**	**48**	**-0.2**	**01, 16, 13, 89**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

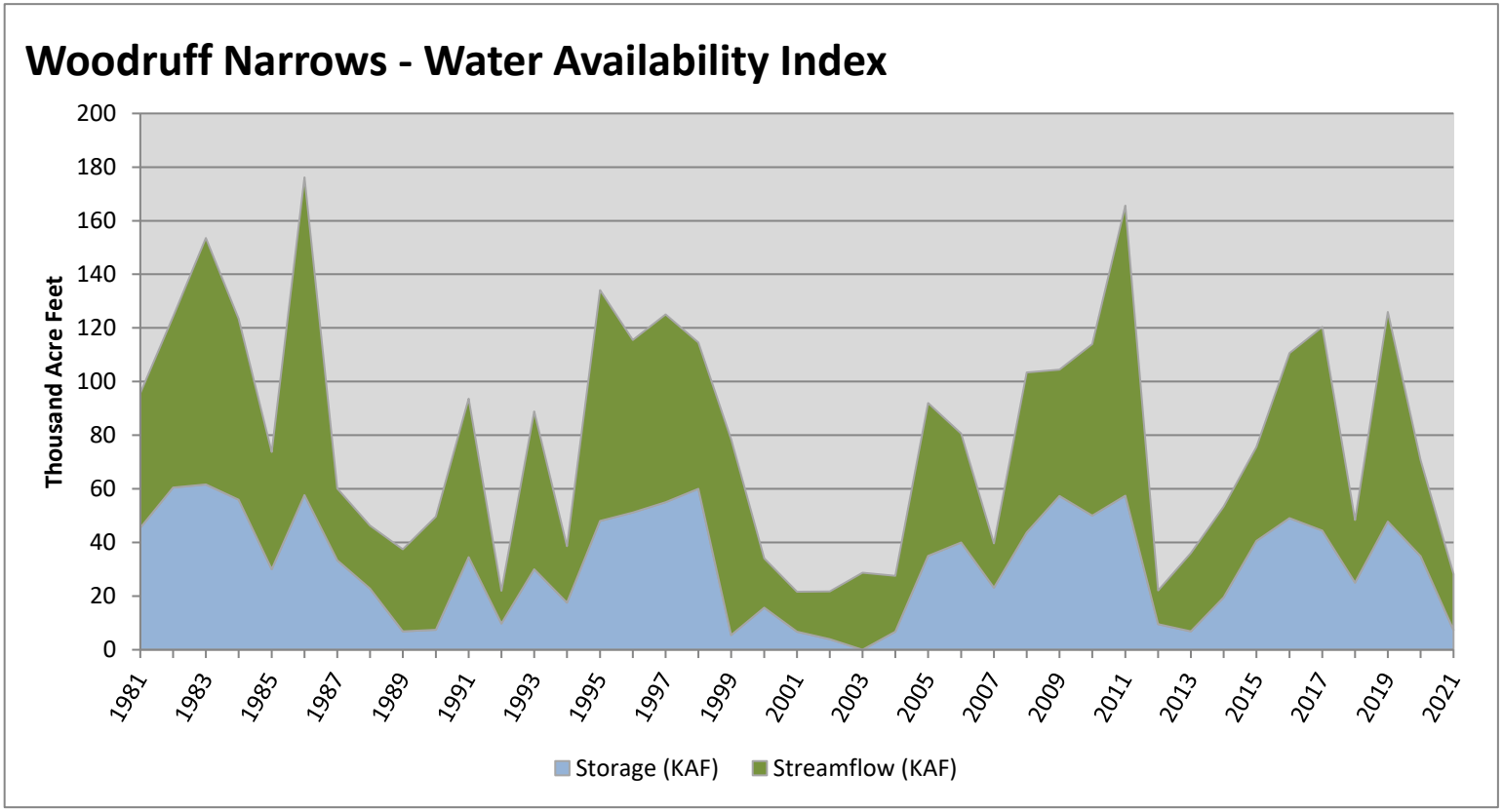


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Woodruff Narrows	**7.35**	**20.90**	**28.25**	**14**	**-2.98**	**12, 04, 03, 00**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

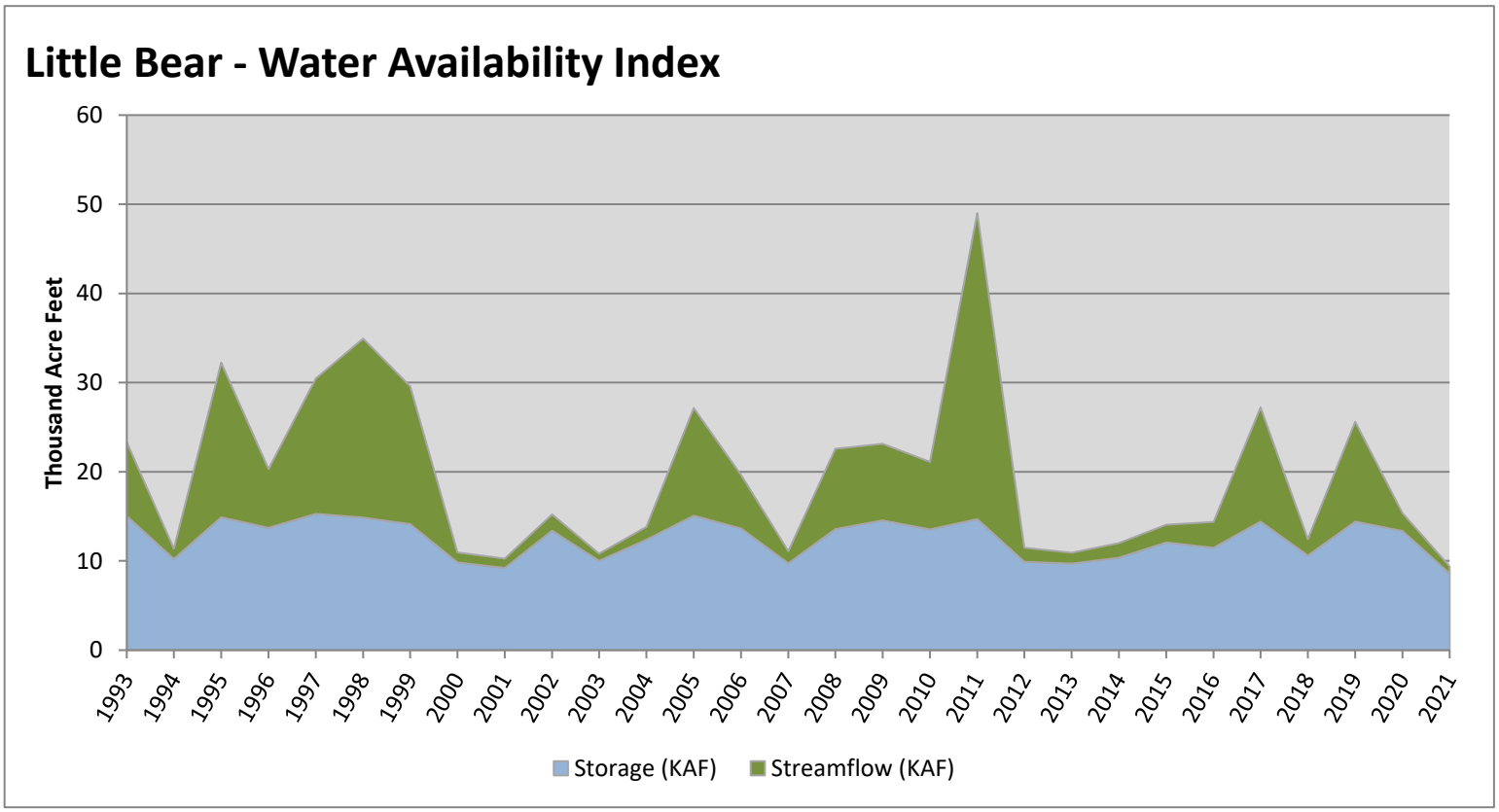


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Little Bear	**8.59**	**0.79**	**9.38**	**3**	**-3.89**	**01, 03, 13, 00**

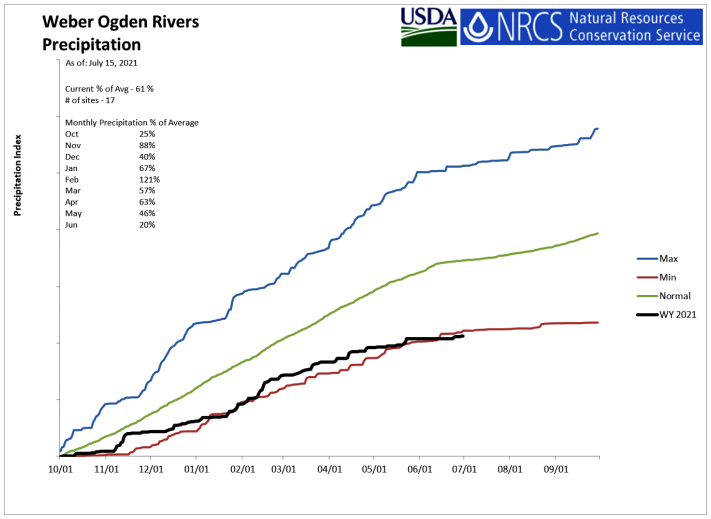
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

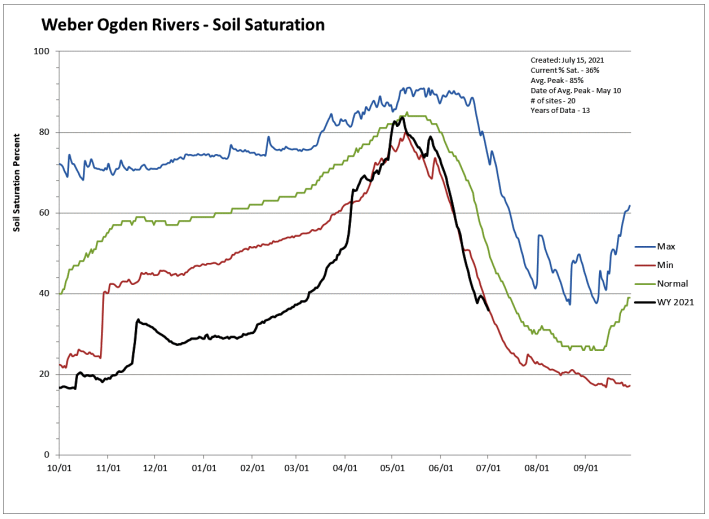


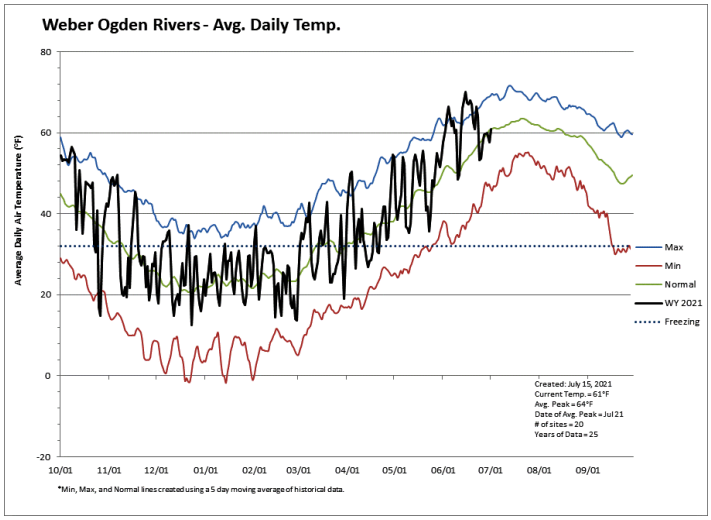
Weber & Ogden River Basins

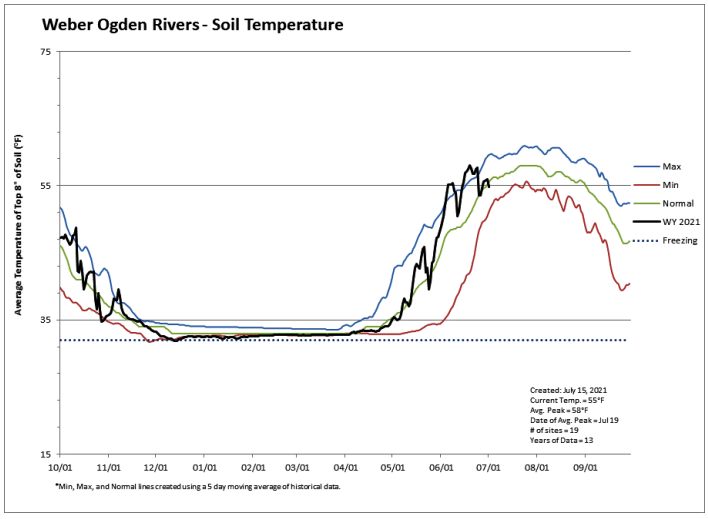
July 1, 2021

Precipitation in June was much below average at 20%, which brings the seasonal accumulation (Oct-Jun) to 61% of average. Soil moisture is at 37% compared to 68% last year. Reservoir storage is at 50% of capacity, compared to 87% last year. The water availability index for the Ogden River is 5% and 3% for the Weber River.









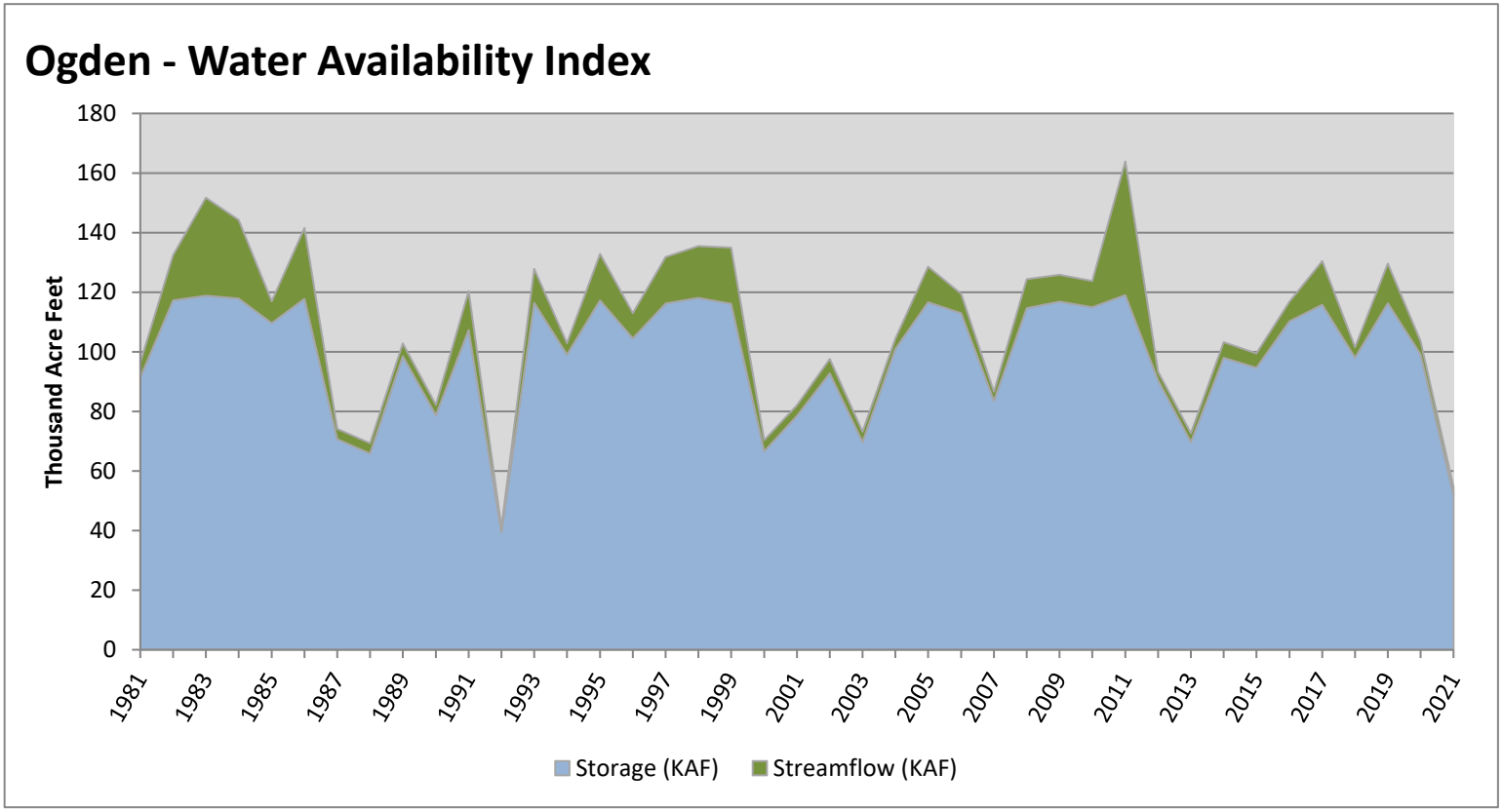
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Ogden	**52.06**	**2.58**	**54.64**	**5**	**-3.77**	**92, 88, 00, 13**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

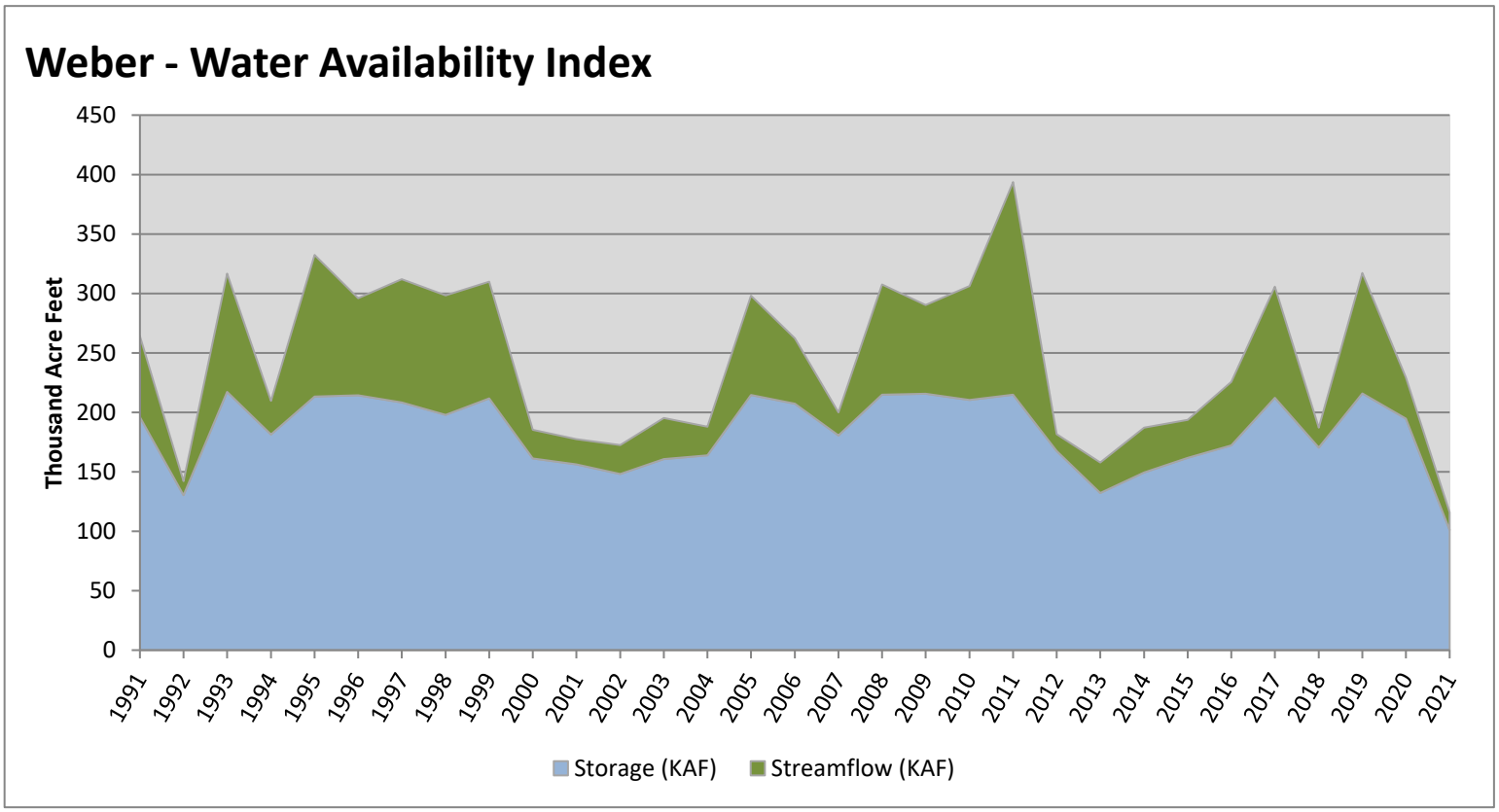


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Weber	**101.05**	**14.82**	**115.87**	**3**	**-3.91**	**92, 13, 02, 01**

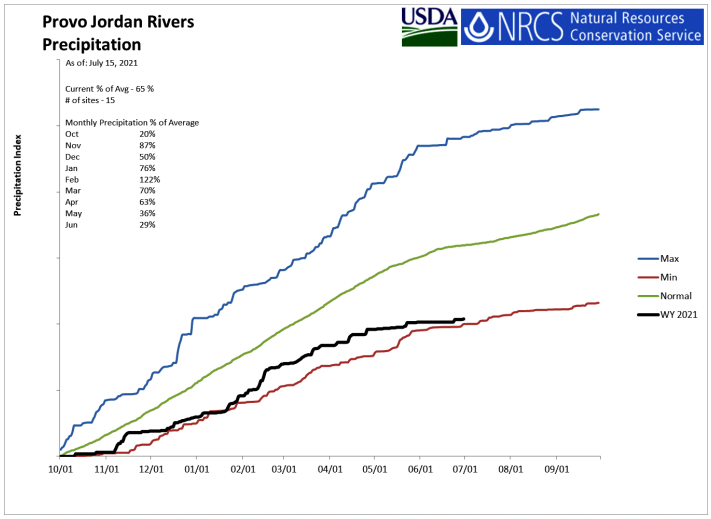
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

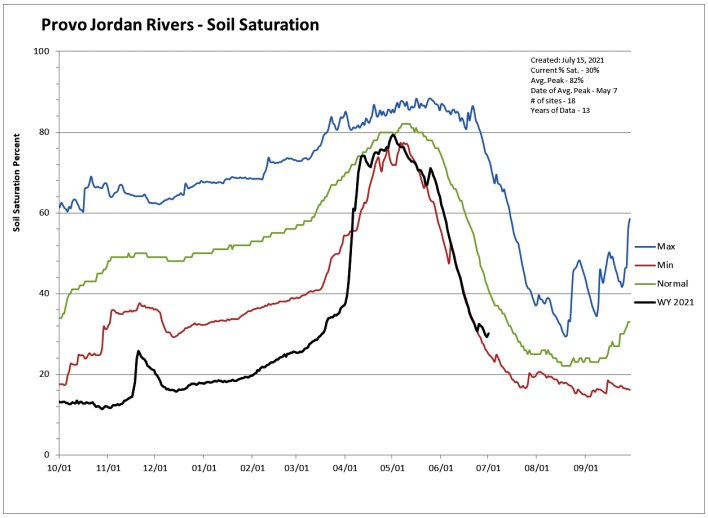


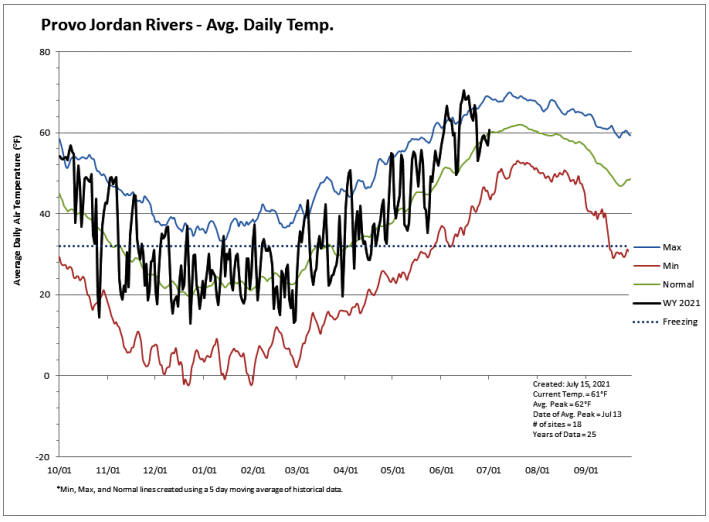
Provo & Jordan River Basins

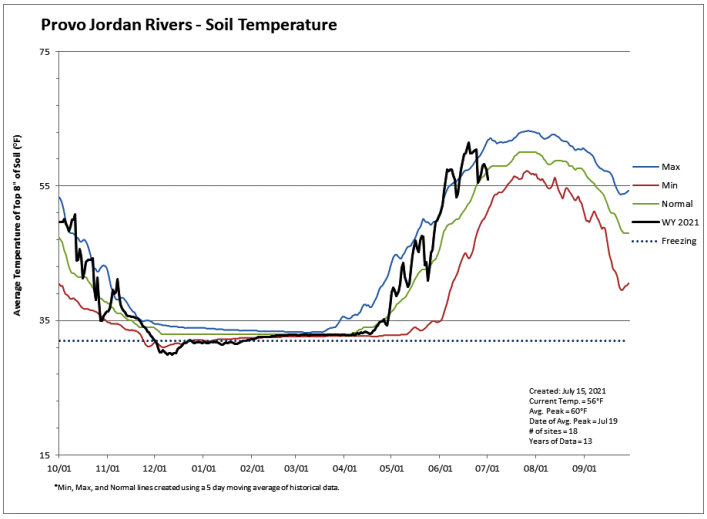
July 1, 2021

Precipitation in June was much below average at 29%, which brings the seasonal accumulation (Oct-Jun) to 65% of average. Soil moisture is at 30% compared to 48% last year. Reservoir storage is at 71% of capacity, compared to 92% last year. The water availability index for the Provo River is 4%.









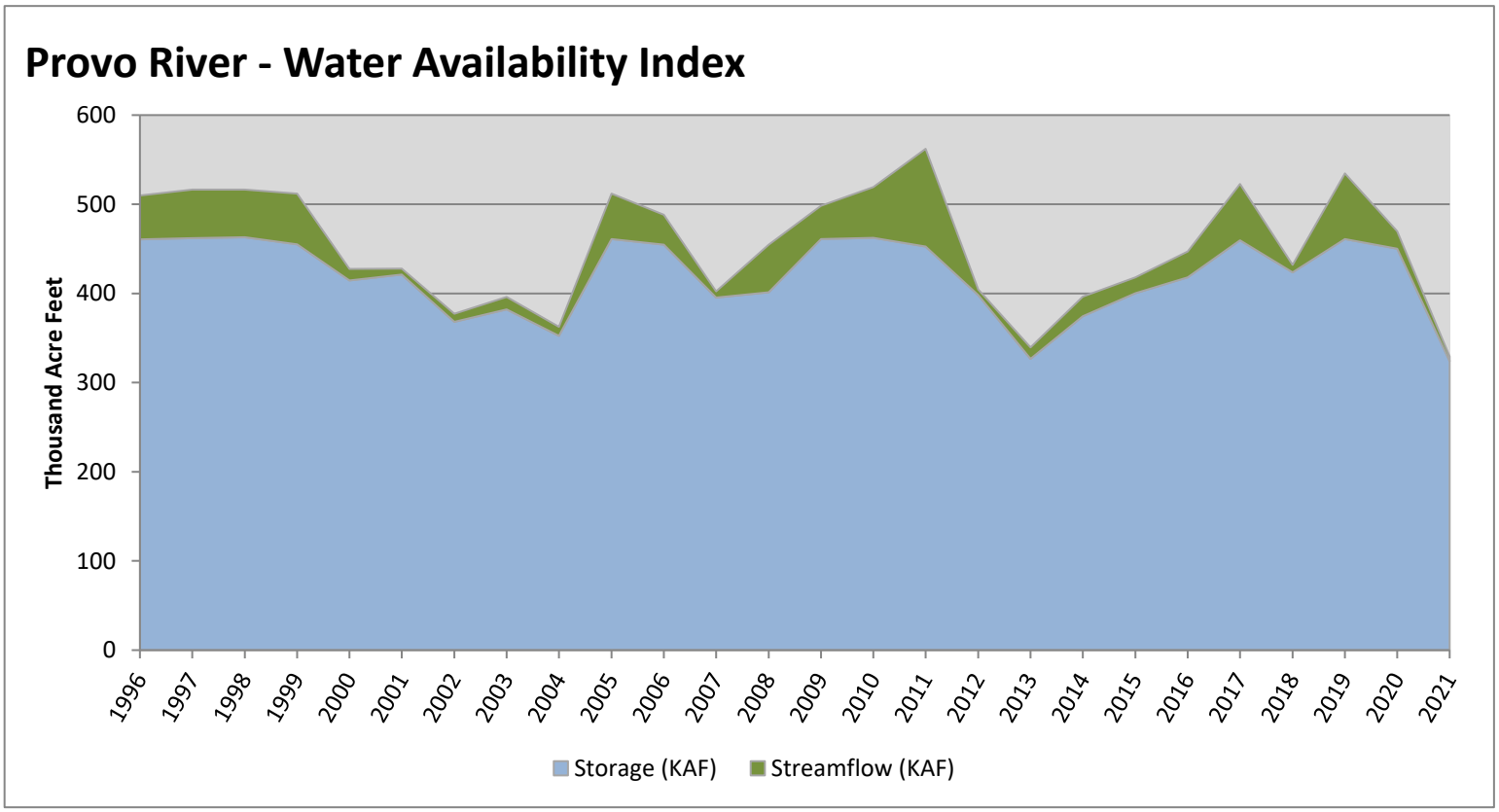
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Provo River	**324.12**	**5.23**	**329.35**	**4**	**-3.86**	**13, 04, 02, 03**

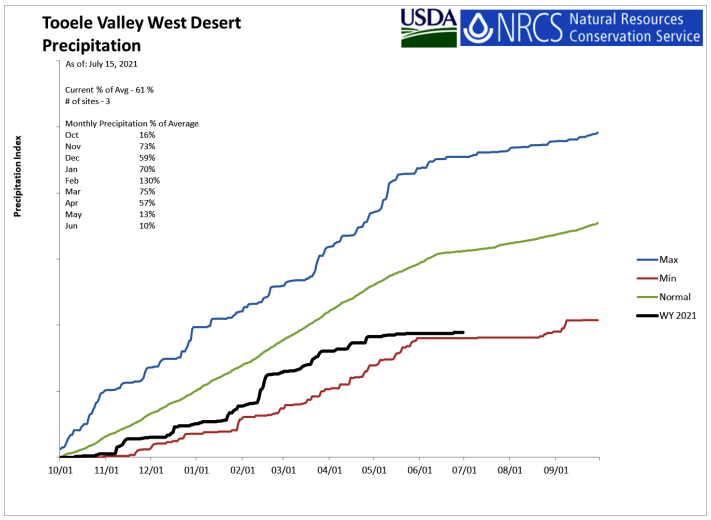
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

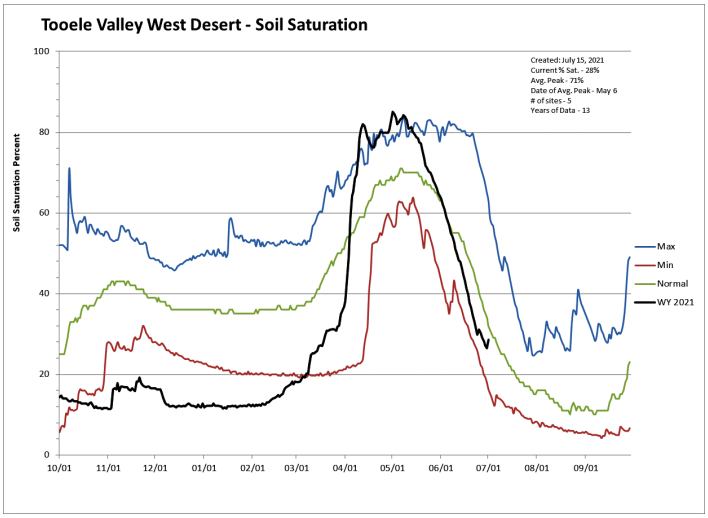


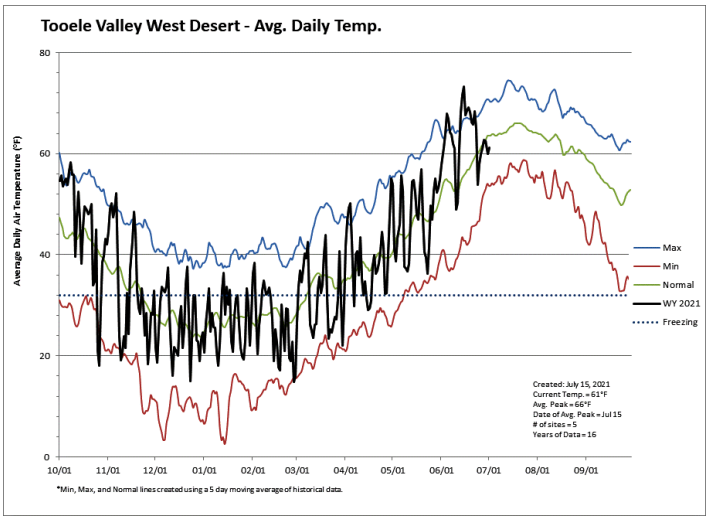
Tooele Valley & West Desert Basins

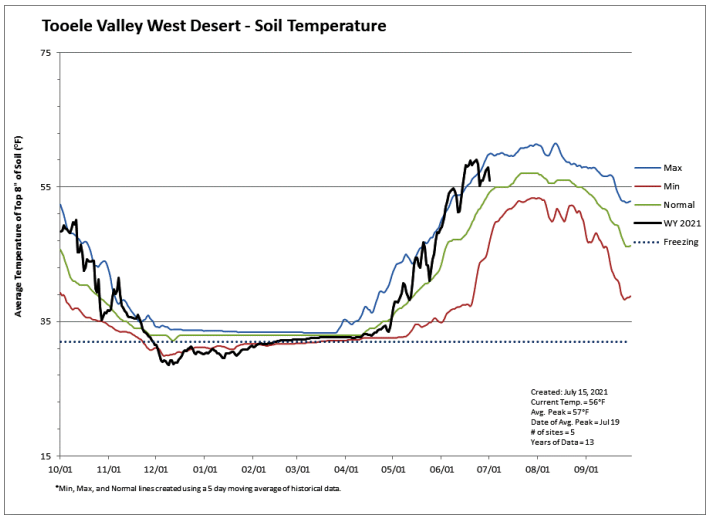
July 1, 2021

Precipitation in June was much below average at 10%, which brings the seasonal accumulation (Oct-Jun) to 61% of average. Soil moisture is at 22% compared to 46% last year. Reservoir storage is at 48% of capacity, compared to 63% last year.







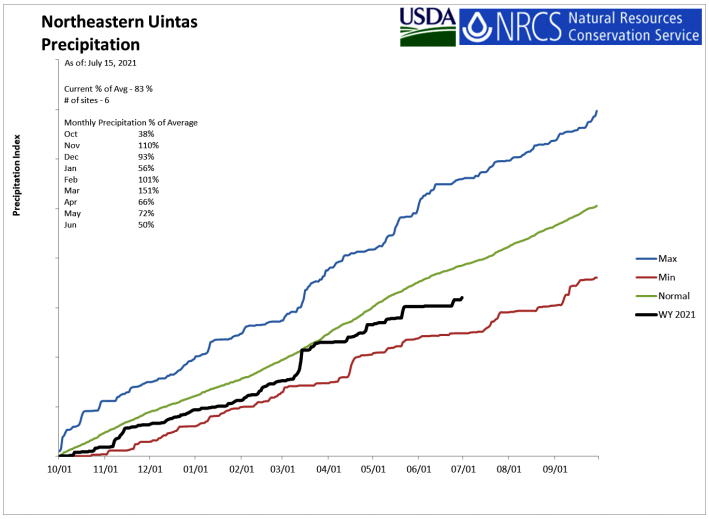


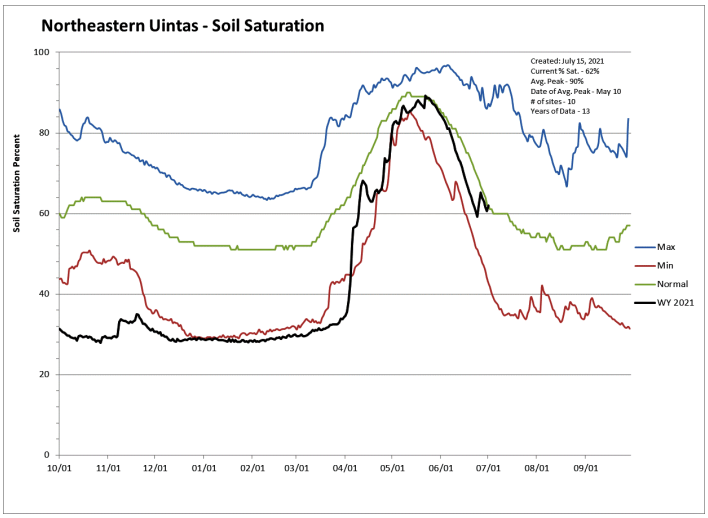
SNOTEL Data

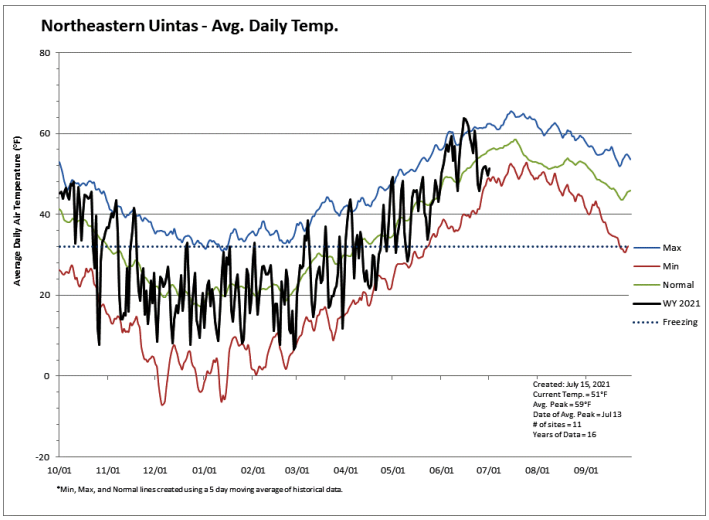
Northeastern Uinta Basin

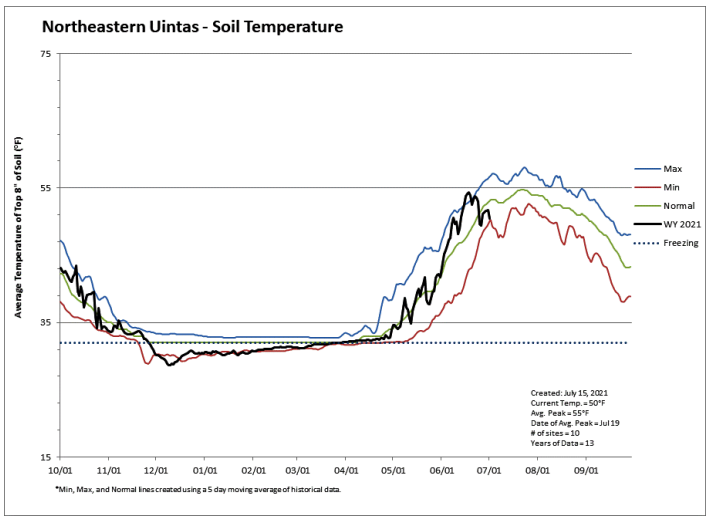
July 1, 2021

Precipitation in June was much below average at 50%, which brings the seasonal accumulation (Oct-Jun) to 83% of average. Soil moisture is at 57% compared to 75% last year. Reservoir storage is at 82% of capacity, compared to 87% last year. The water availability index for Blacks Fork is 15% and 61% for Smiths Creek.







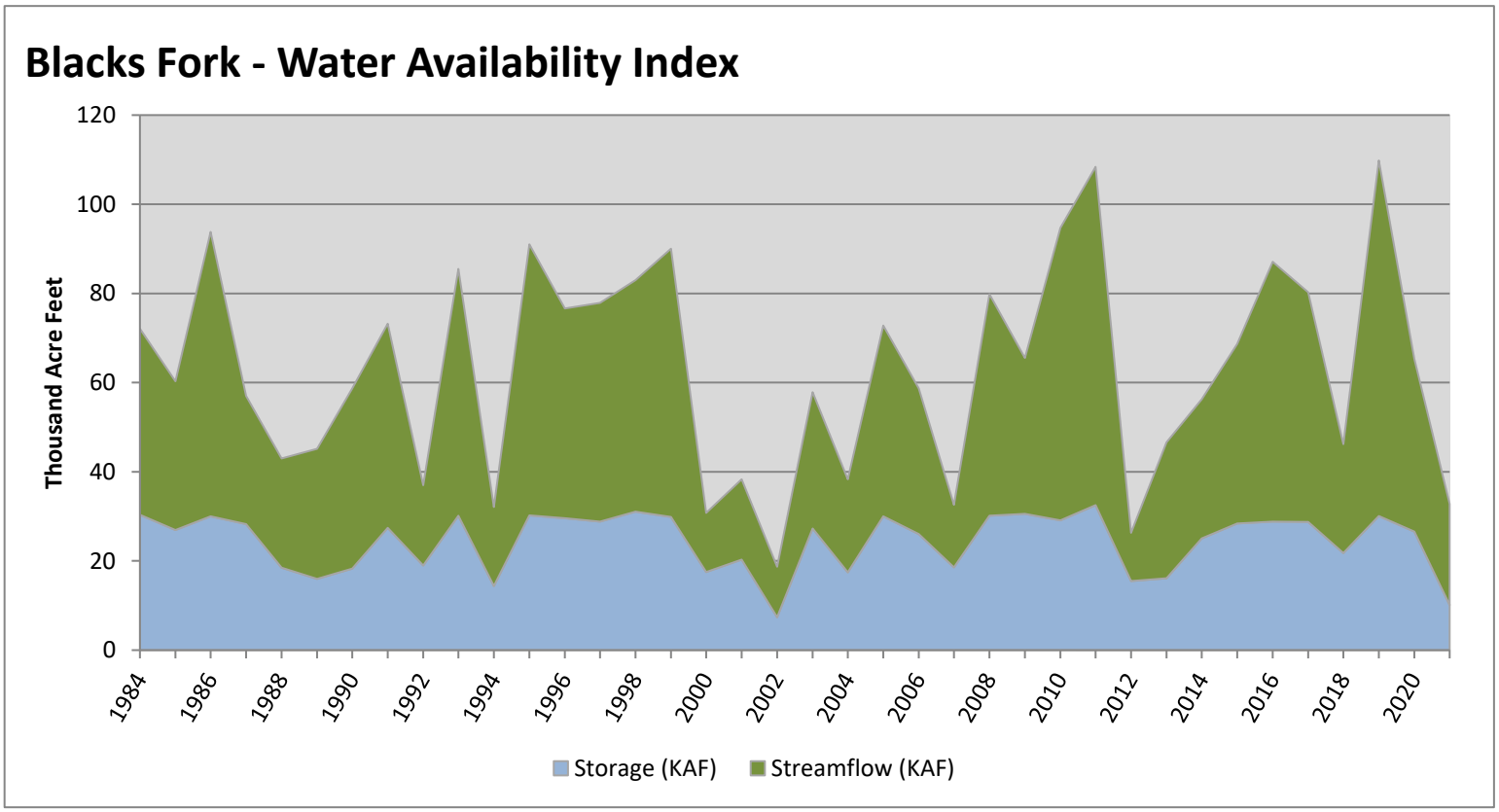


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Blacks Fork	**10.14**	**22.64**	**32.78**	**15**	**-2.88**	**94, 07, 92, 04**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

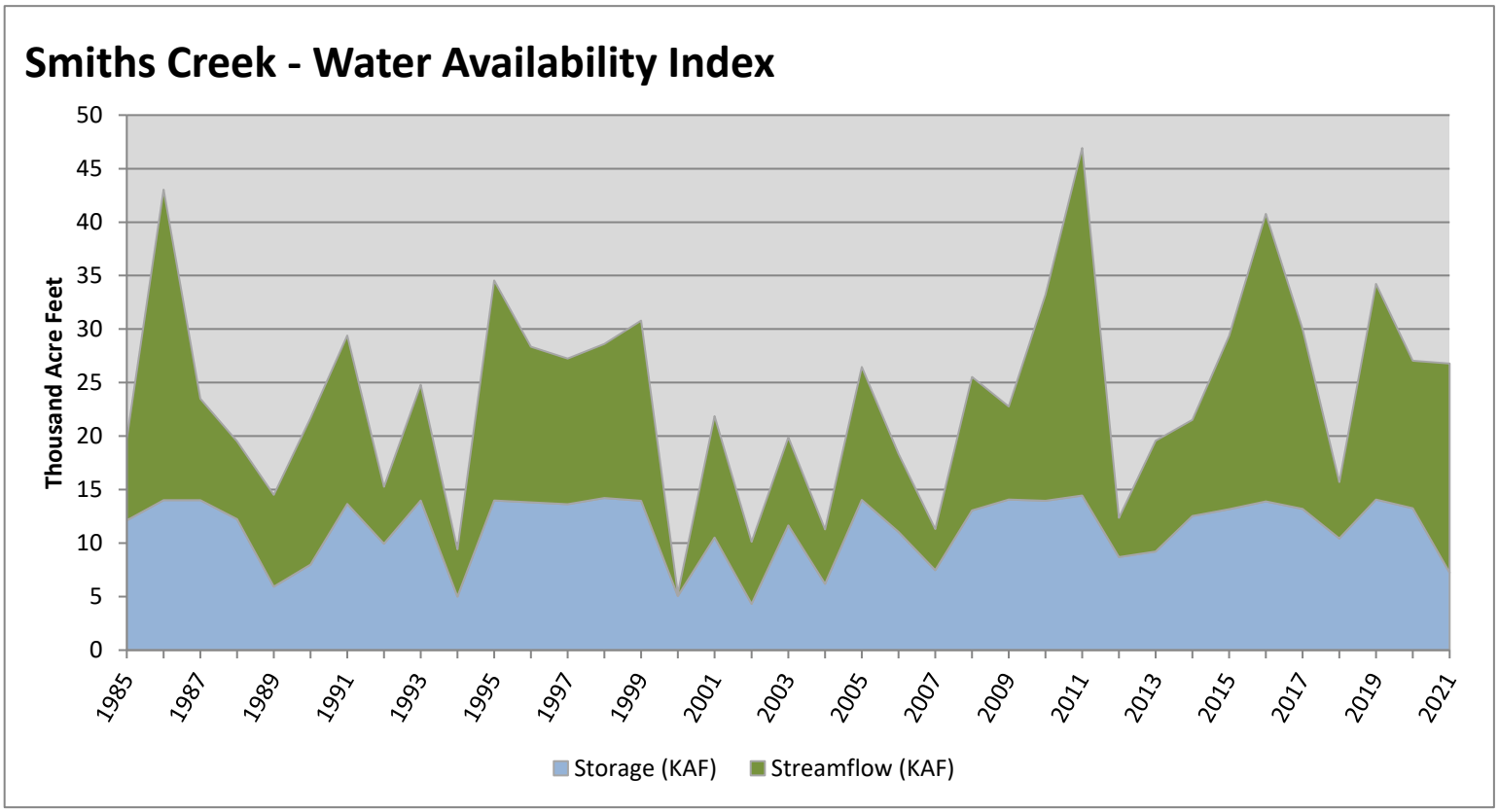


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Smiths Creek	**7.24**	**19.54**	**26.78**	**61**	**0.88**	**08, 05, 20, 97**

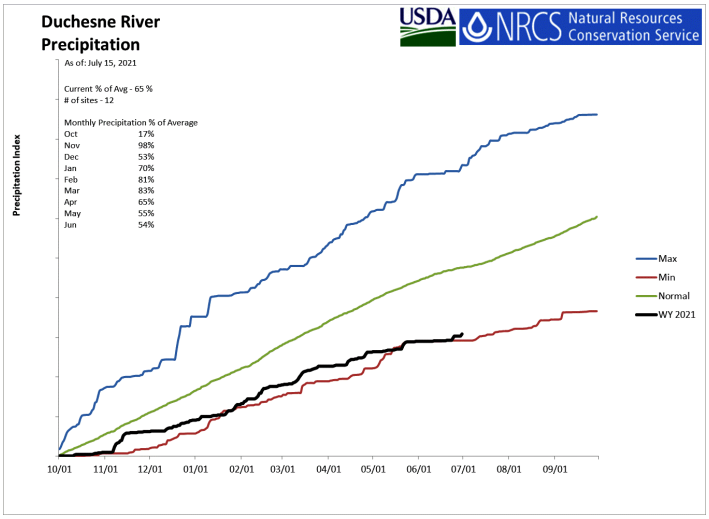
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

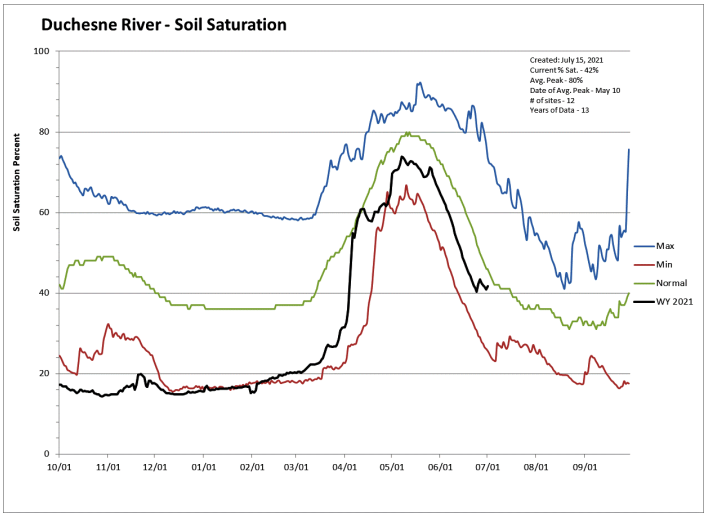


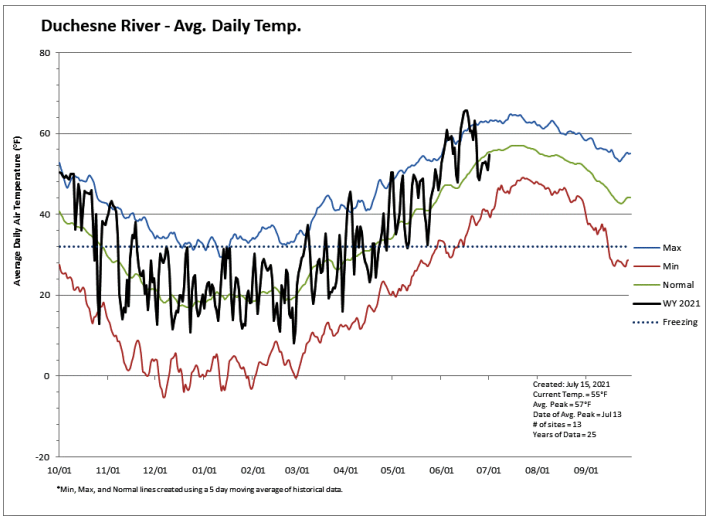
Duchesne River Basin

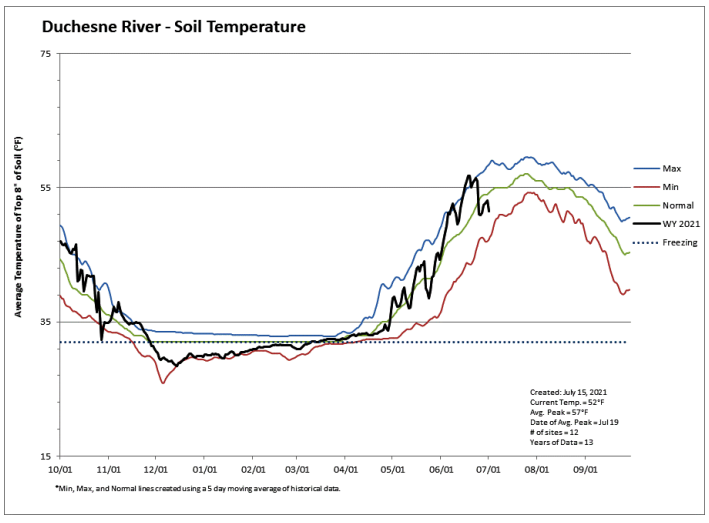
July 1, 2021

Precipitation in June was much below average at 54%, which brings the seasonal accumulation (Oct-Jun) to 65% of average. Soil moisture is at 41% compared to 50% last year. Reservoir storage is at 76% of capacity, compared to 91% last year. The water availability index for the Western Uintas is 17% and 7% for the Eastern Uintas.







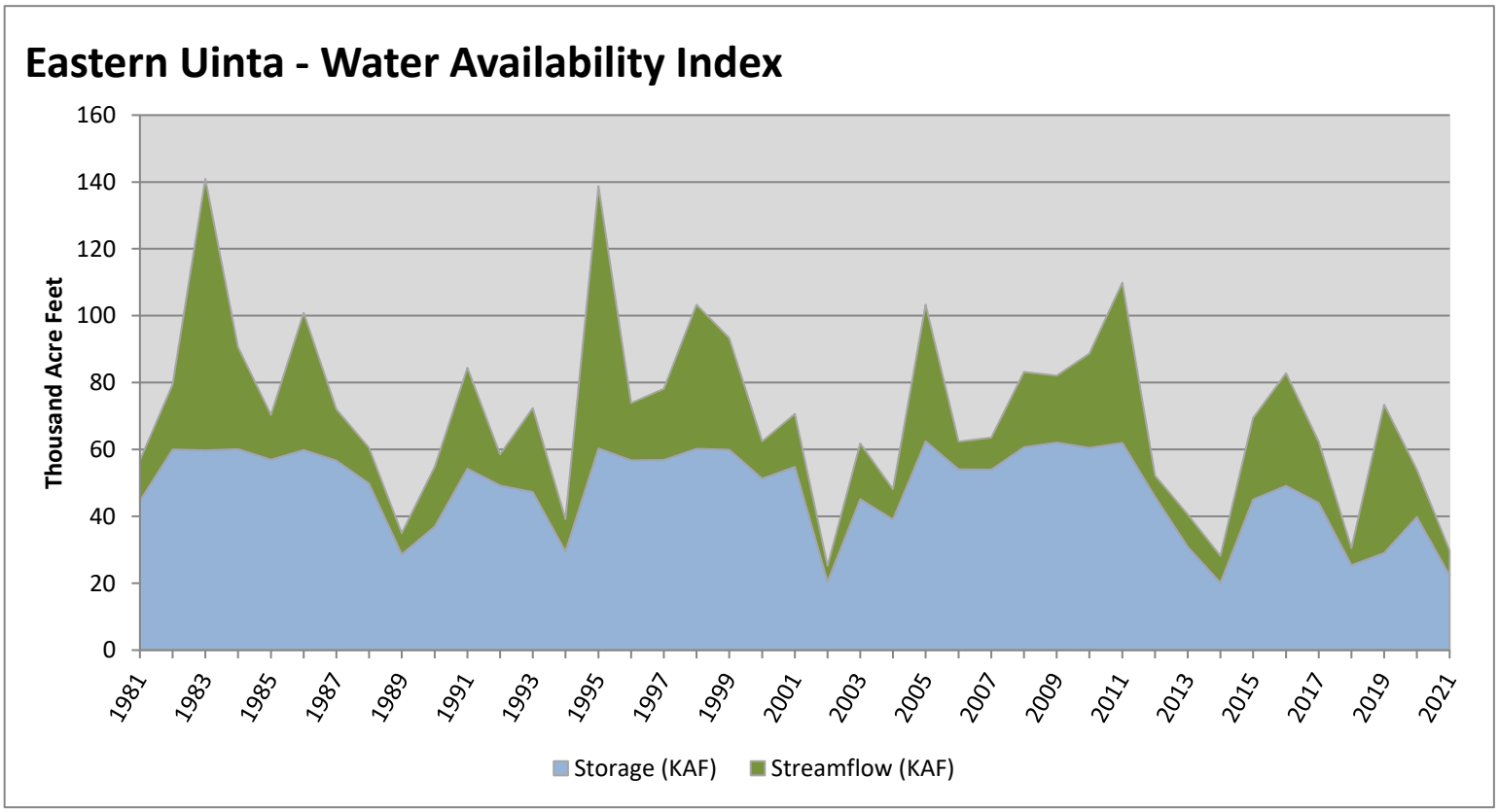


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Eastern Uinta	**22.35**	**7.40**	**29.75**	**7**	**-3.57**	**02, 14, 18, 89**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

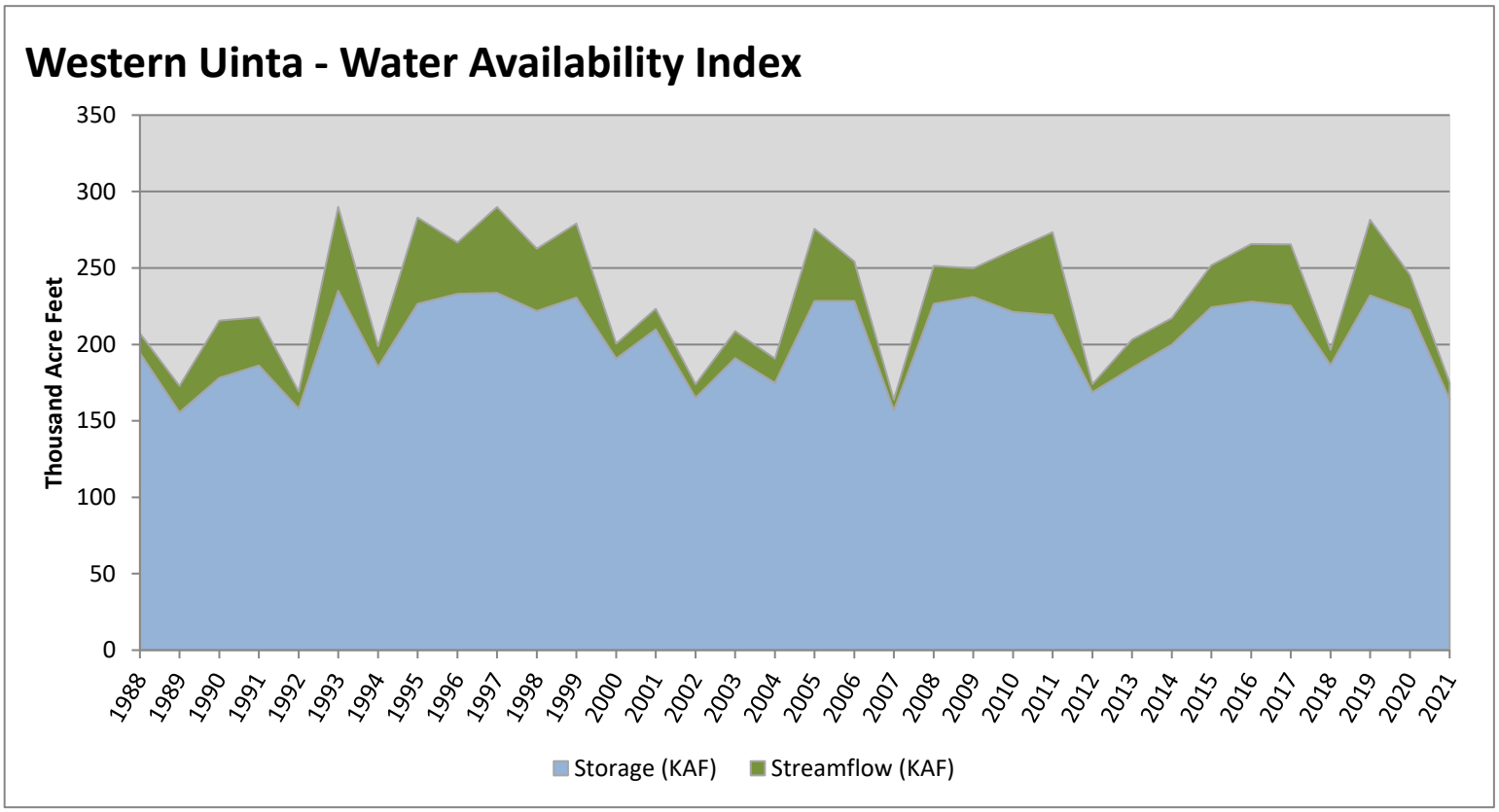


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Western Uinta	**163.82**	**11.17**	**174.99**	**17**	**-2.74**	**02, 12, 04, 18**

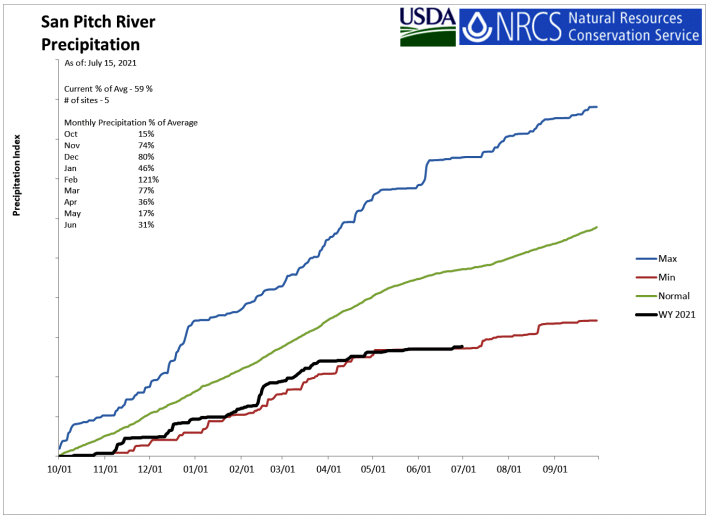
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

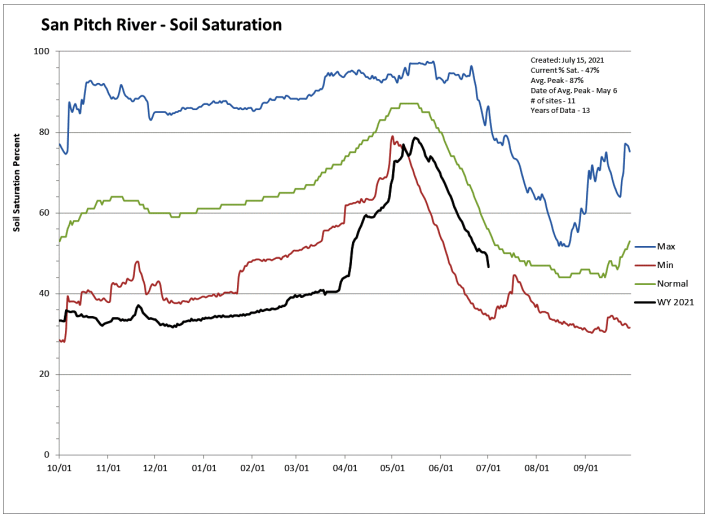


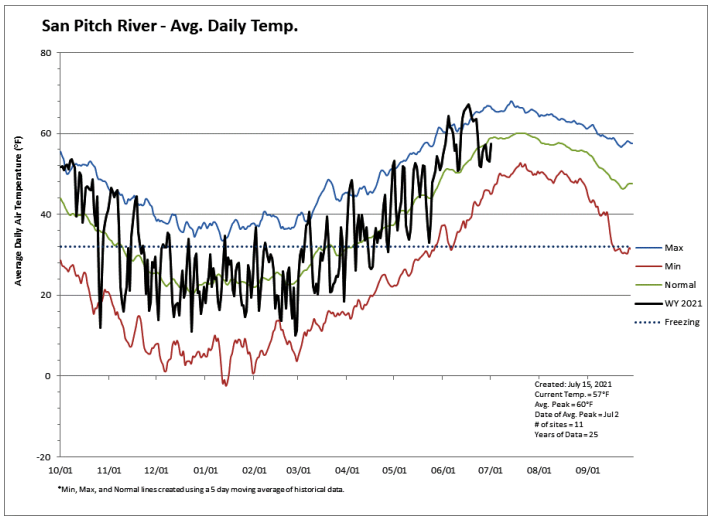
San Pitch River Basin

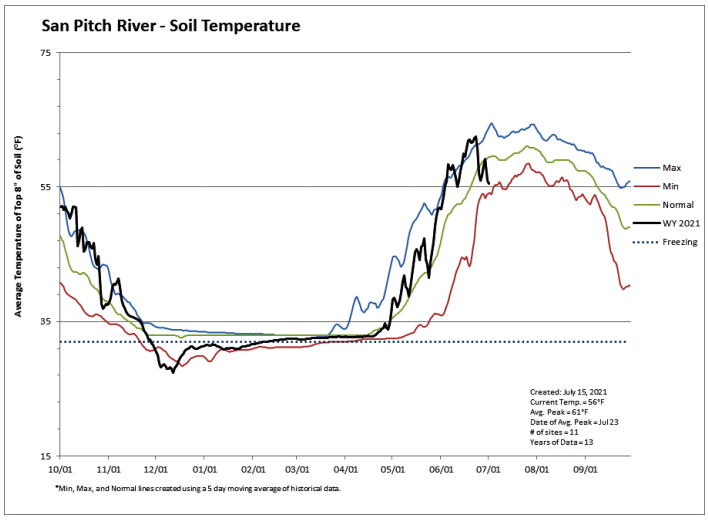
July 1, 2021

Precipitation in June was much below average at 31%, which brings the seasonal accumulation (Oct-Jun) to 59% of average. Soil Moisture is at 50% compared to 53% last year. Reservoir storage is at 0% of capacity, compared to 26% last year.The water availability index for the San Pitch is 5%.









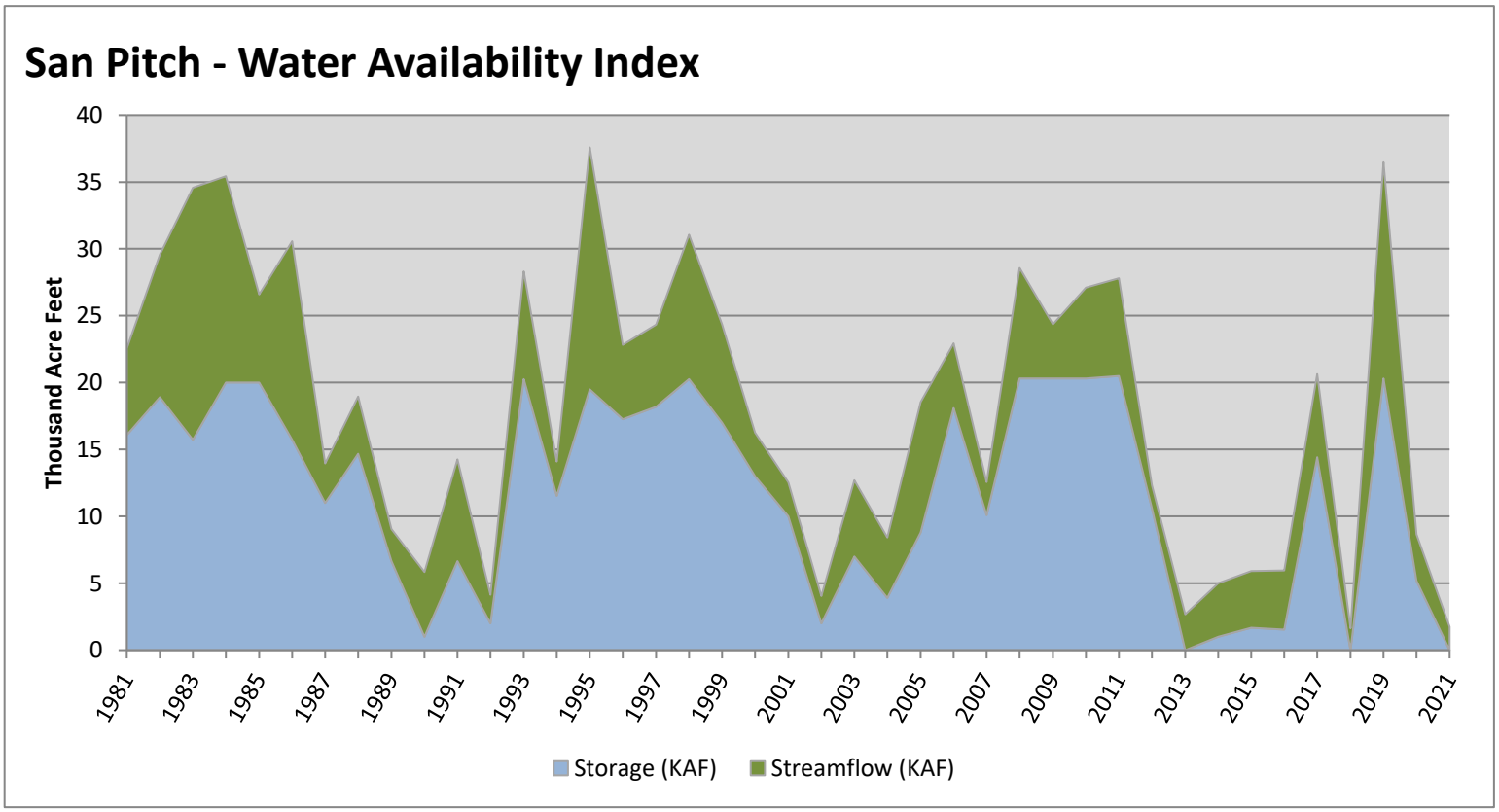
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
San Pitch	**0.00**	**1.75**	**1.75**	**5**	**-3.77**	**18, 13, 02, 92**

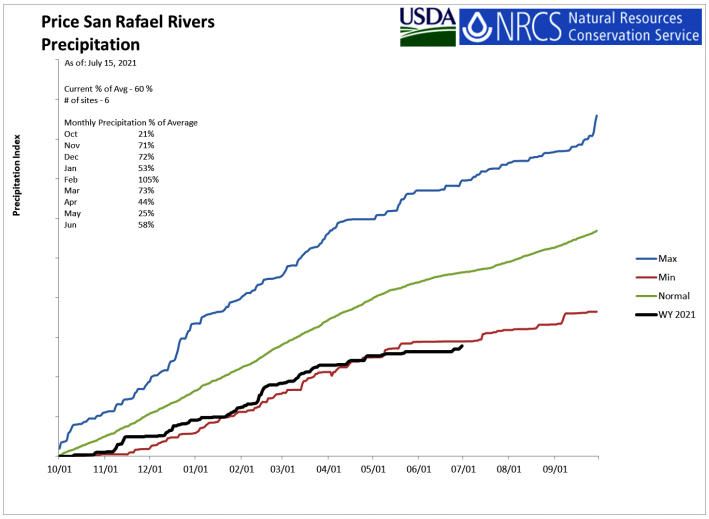
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

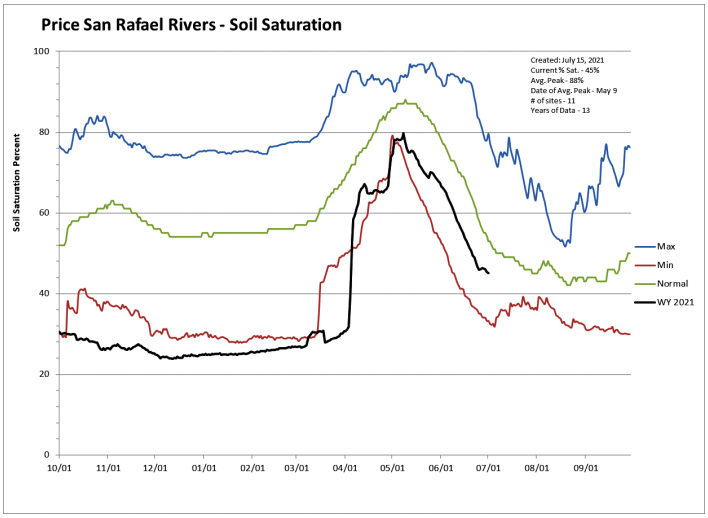


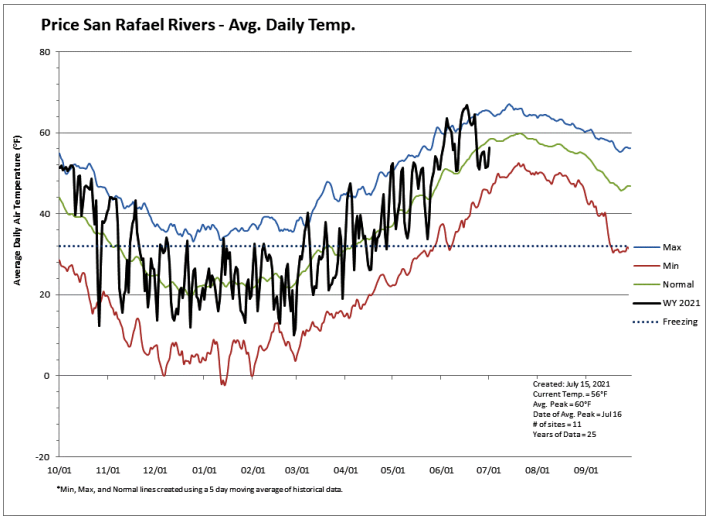
Price & San Rafael Basins

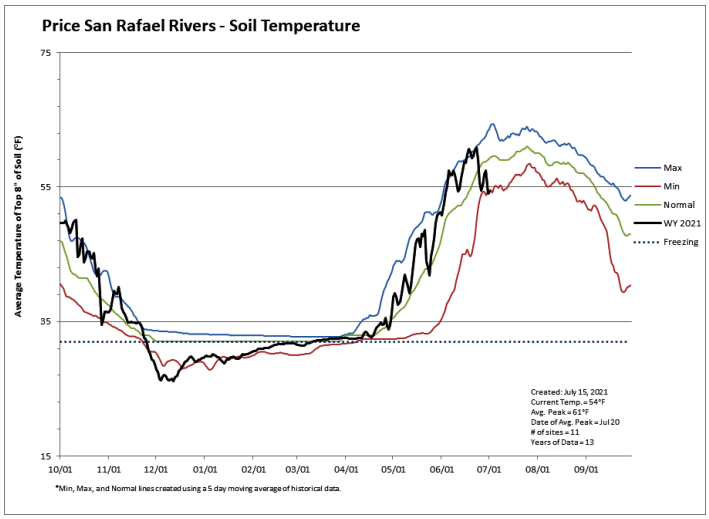
July 1, 2021

Precipitation in June was much below average at 59%, which brings the seasonal accumulation (Oct-Jun) to 60% of average. Soil moisture is at 46% compared to 50% last year. Reservoir storage is at 46% of capacity, compared to 88% last year. The water availability index for the Price River is 19%, and 2% for Joe's Valley.







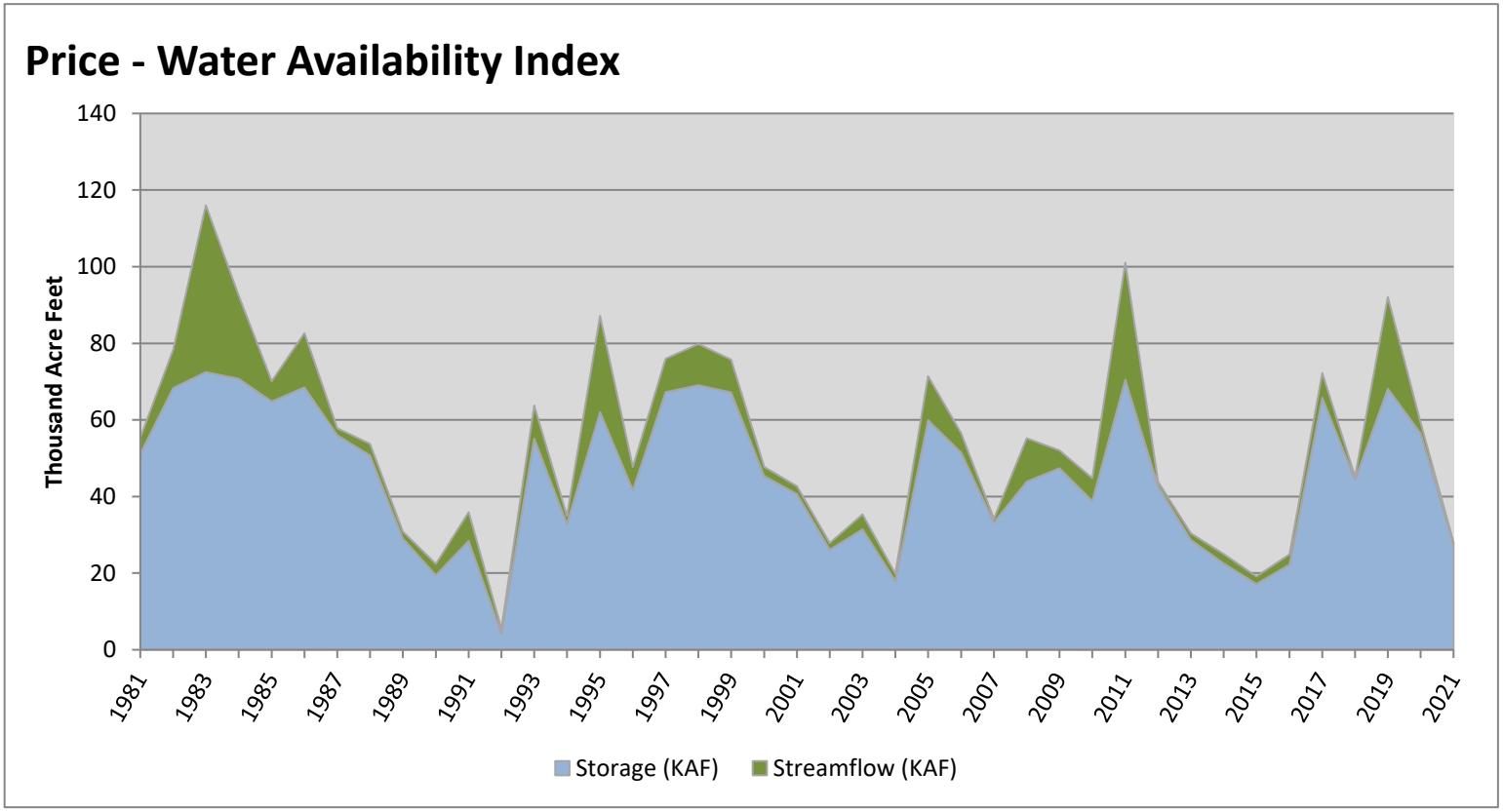


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Price	**27.63**	**0.49**	**28.12**	**19**	**-2.58**	**14, 02, 13, 89**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

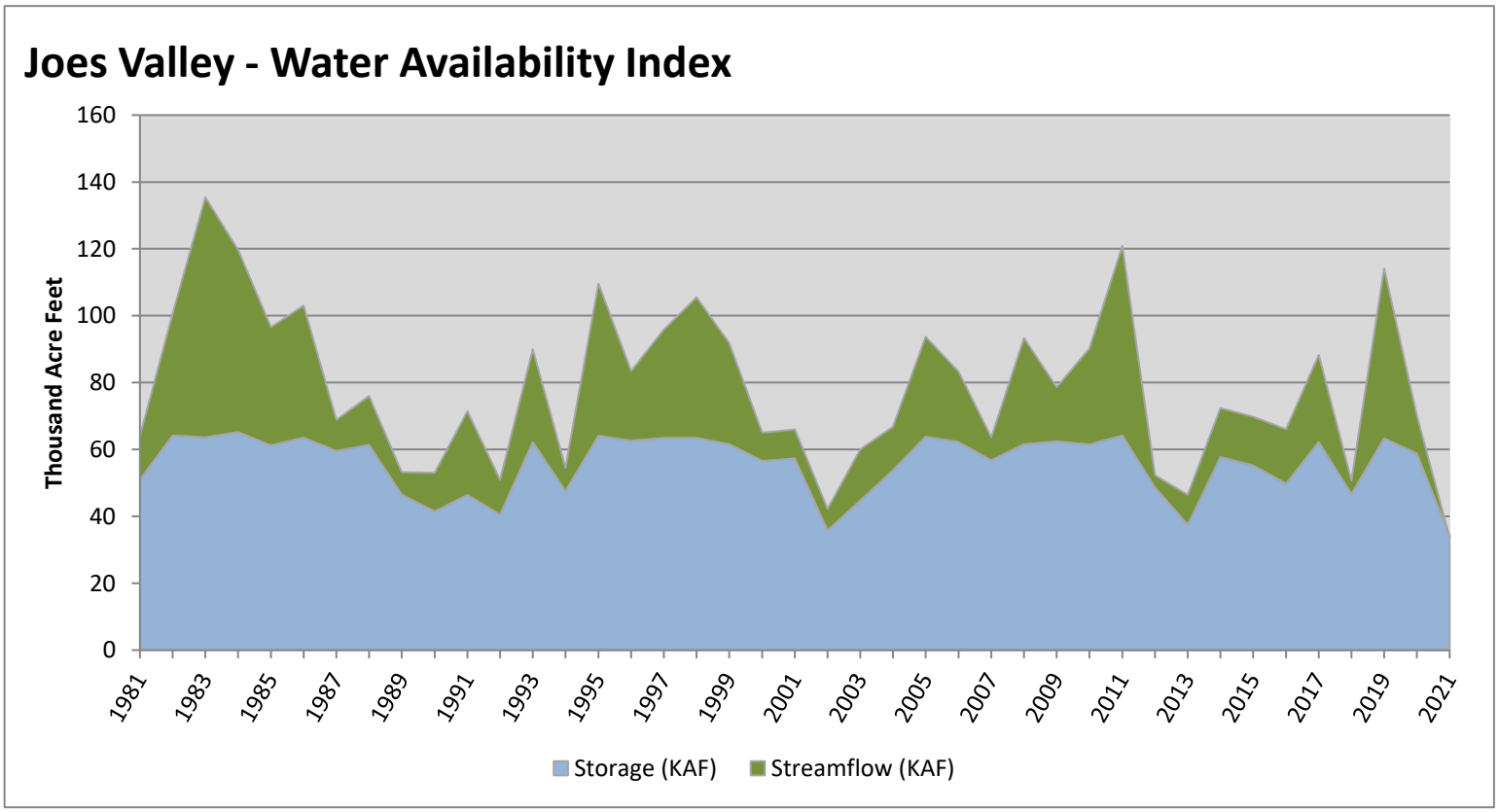


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Joes Valley	**34.24**	**-0.57**	**33.67**	**2**	**-3.97**	**02, 13, 18, 92**

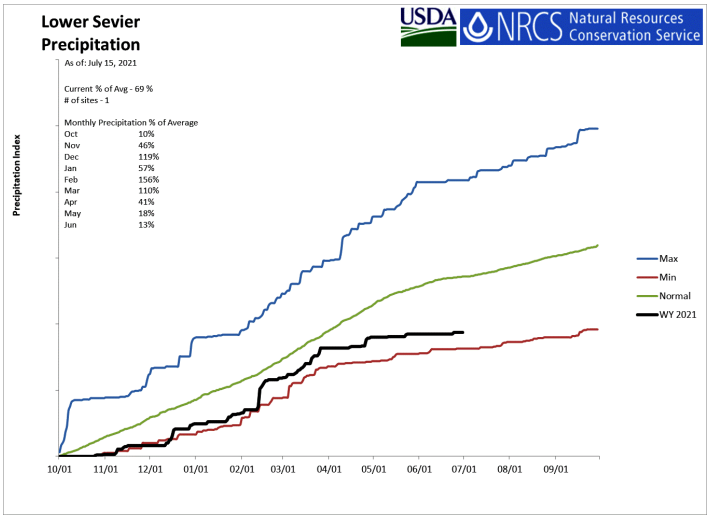
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

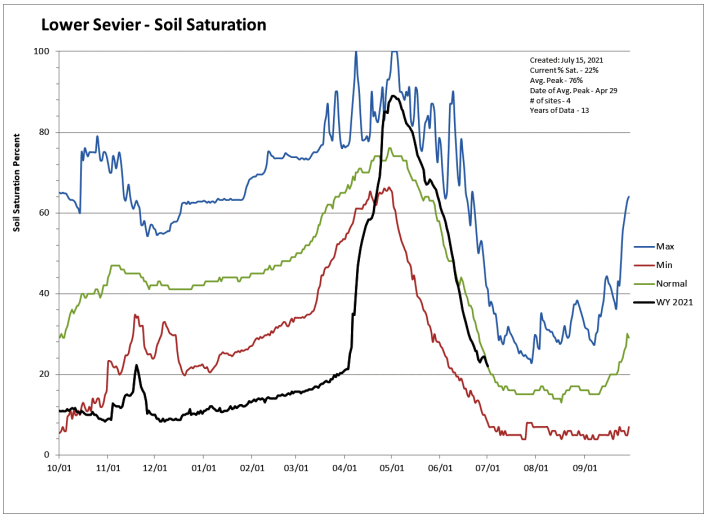


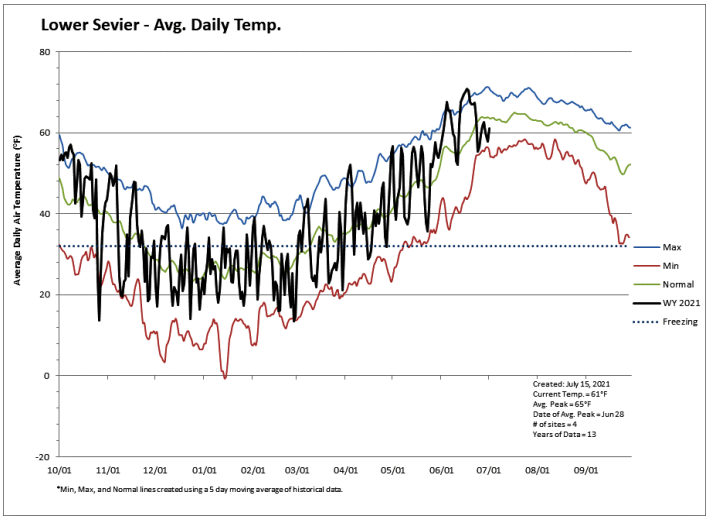
Lower Sevier Basin

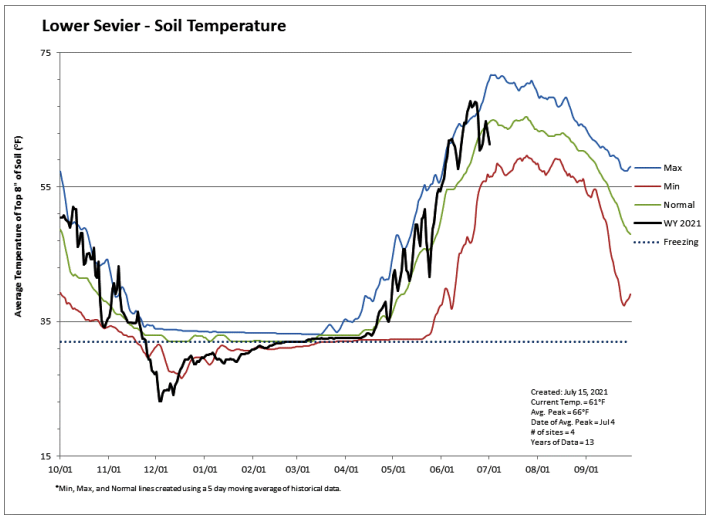
July 1, 2021

Precipitation in June was much below average at 13%, which brings the seasonal accumulation (Oct-Jun) to 69% of average. Soil moisture is at 23% compared to 29% last year. Reservoir storage is at 15% of capacity, compared to 34% last year. The water availability index for the Lower Sevier is 7%.







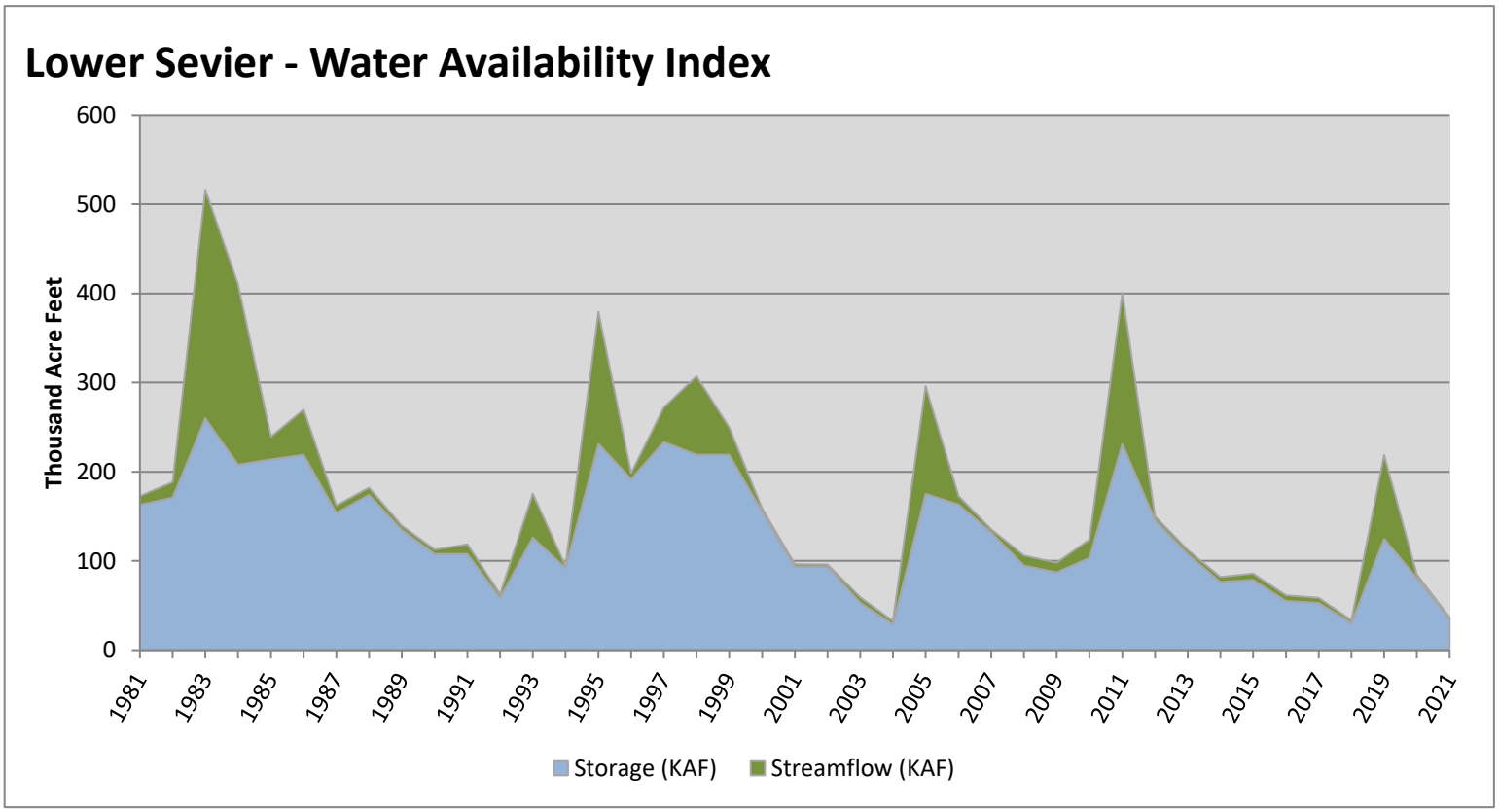


July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Lower Sevier	**34.78**	**1.72**	**36.50**	**7**	**-3.57**	**04, 18, 17, 03**

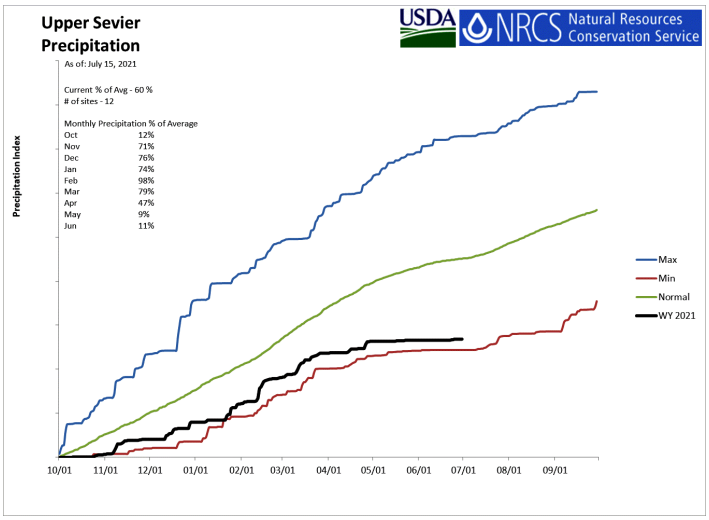
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

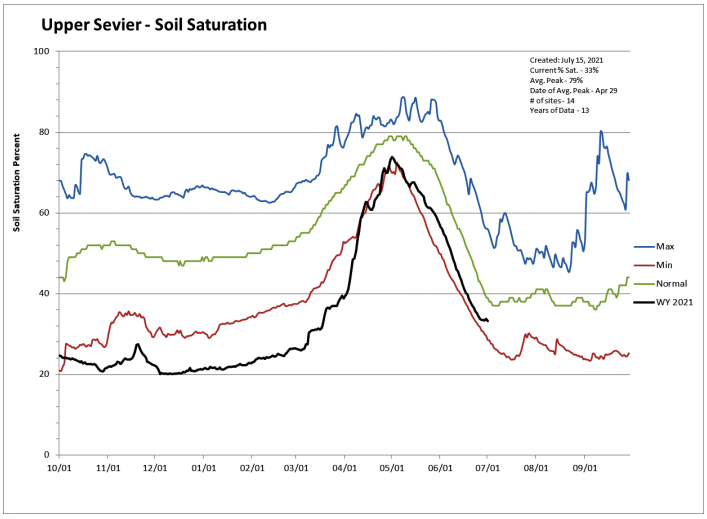


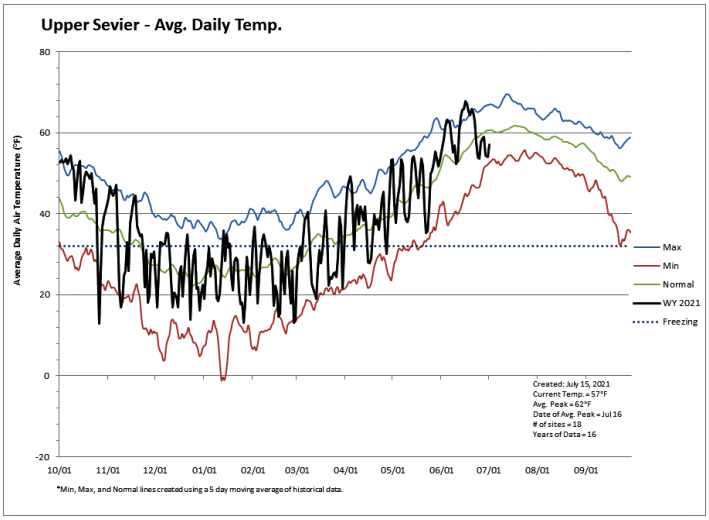
Upper Sevier Basin

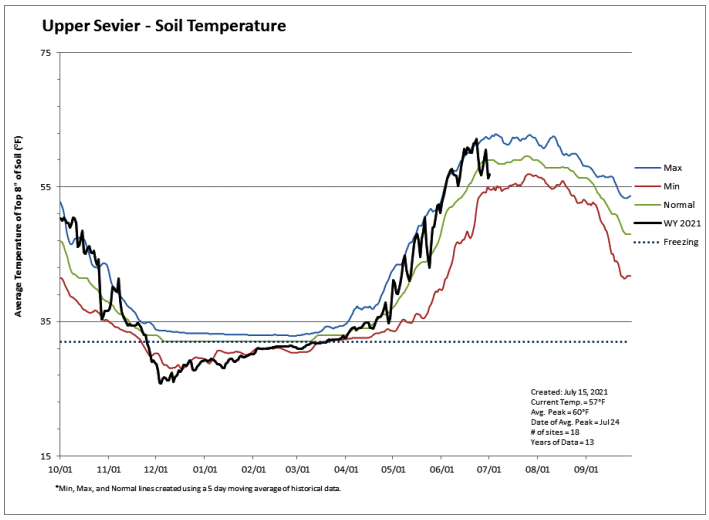
July 1, 2021

Precipitation in June was much below average at 11%, which brings the seasonal accumulation (Oct-Jun) to 60% of average. Soil moisture is at 34% compared to 43% last year. Reservoir storage is at 24% of capacity, compared to 74% last year. The water availability index for the Upper Sevier is 5%.









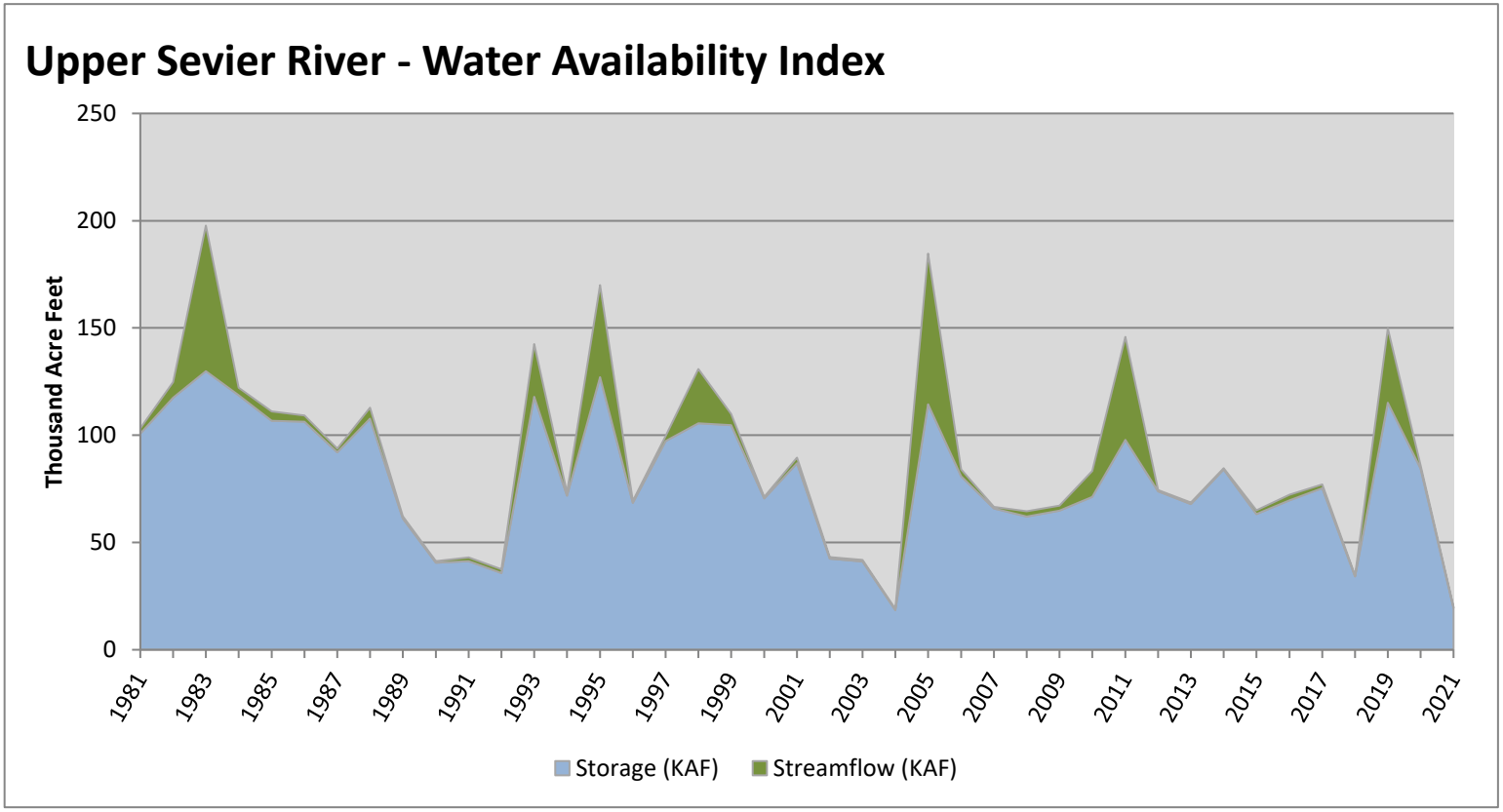
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Upper Sevier River	**19.50**	**0.58**	**20.08**	**5**	**-3.77**	**04, 18, 92, 90**

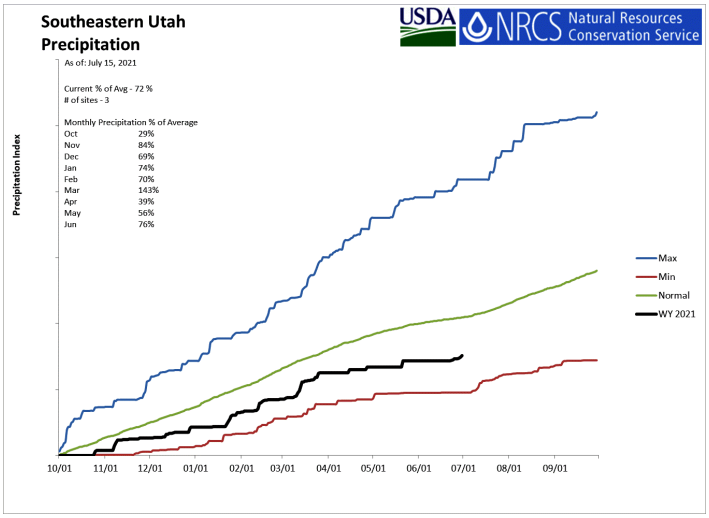
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

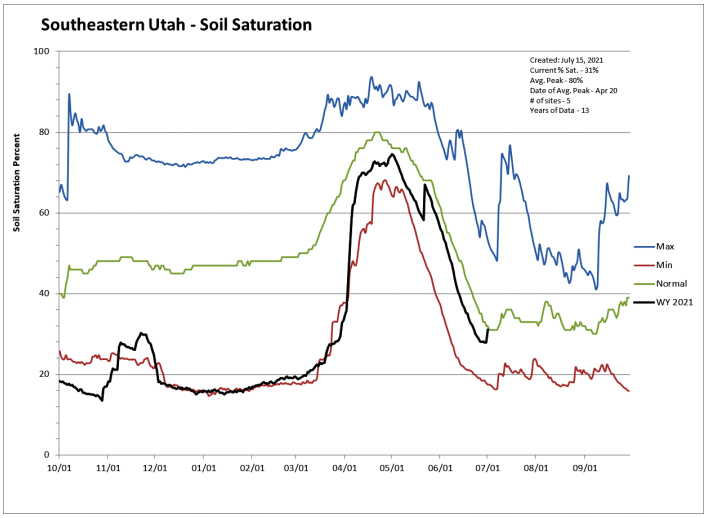


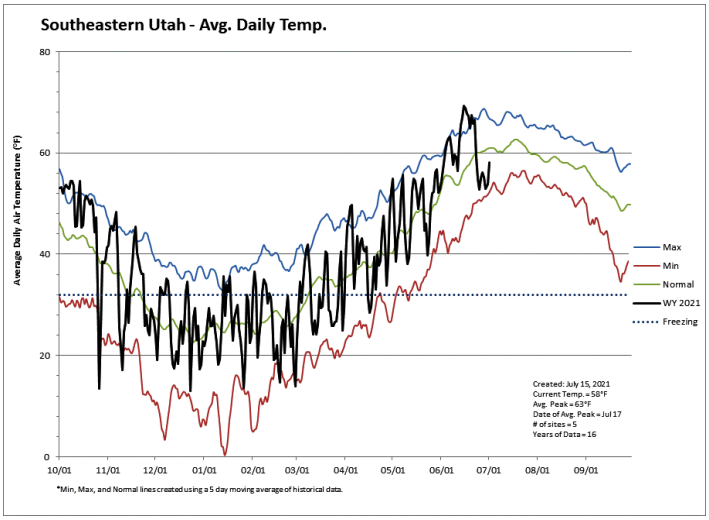
Southeastern Utah

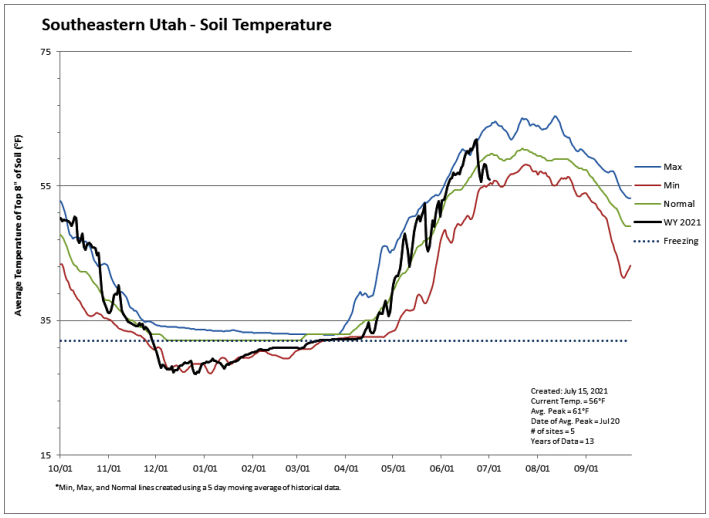
July 1, 2021

Precipitation in June was below average at 79%, which brings the seasonal accumulation (Oct-Jun) to 72% of average. Soil moisture is at 29% compared to 28% last year. Reservoir storage is at 37% of capacity, compared to 68% last year. The water availability index for Moab is 20%.









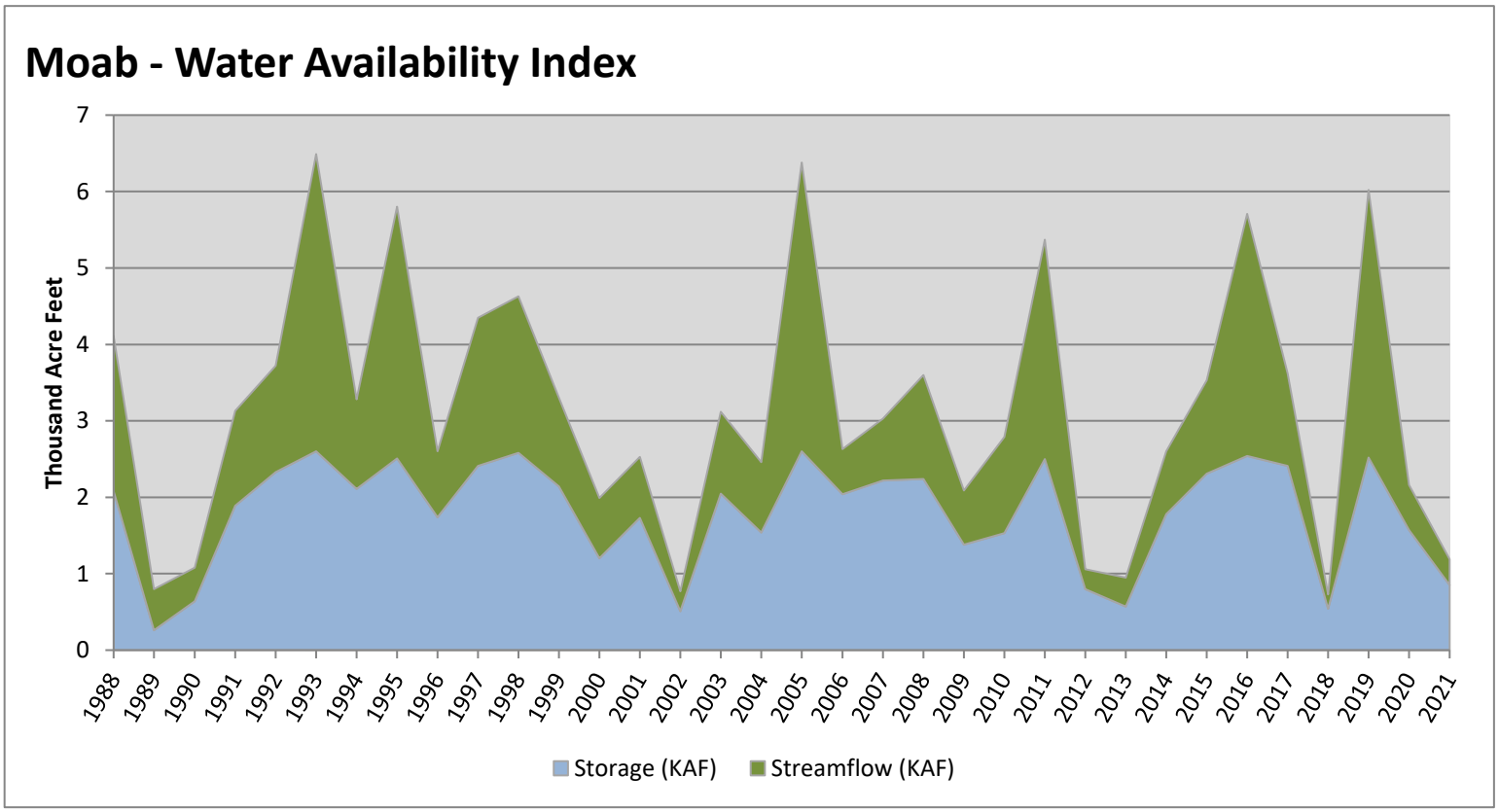
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Moab	**0.85**	**0.34**	**1.19**	**20**	**-2.5**	**12, 90, 00, 09**

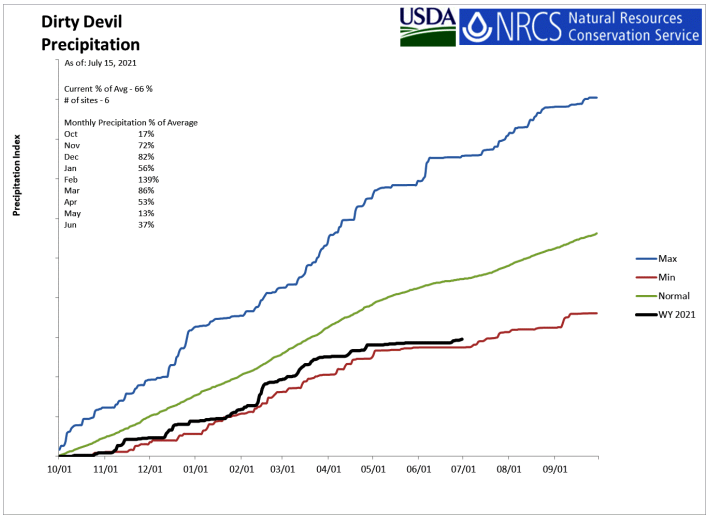
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

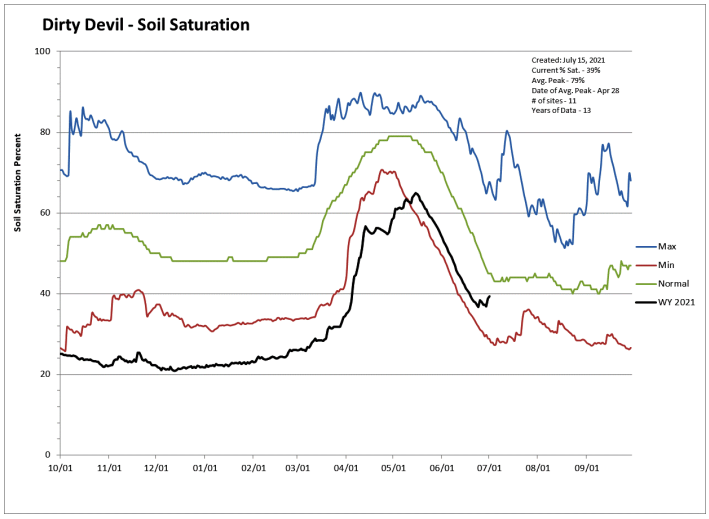


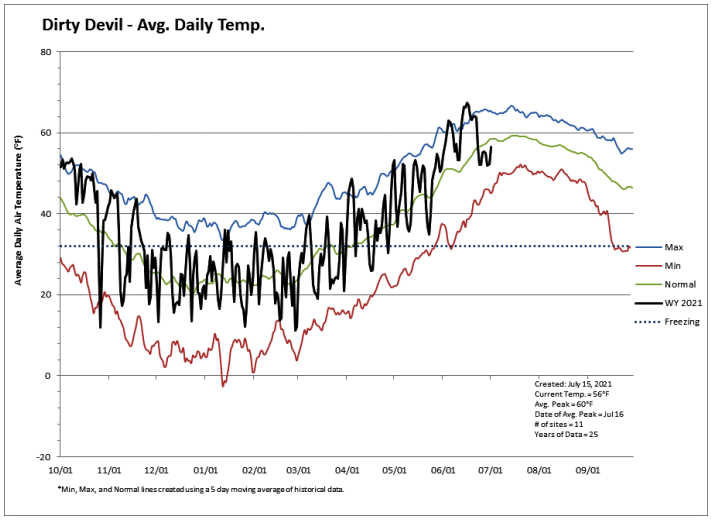
Dirty Devil Basin

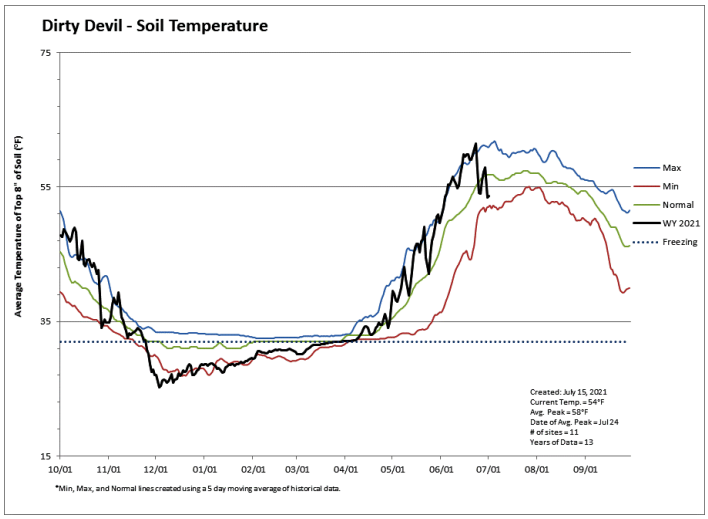
July 1, 2021

Precipitation in June was much below average at 37%, which brings the seasonal accumulation (Oct-Jun) to 66% of average. Soil moisture is at 38% compared to 40% last year.







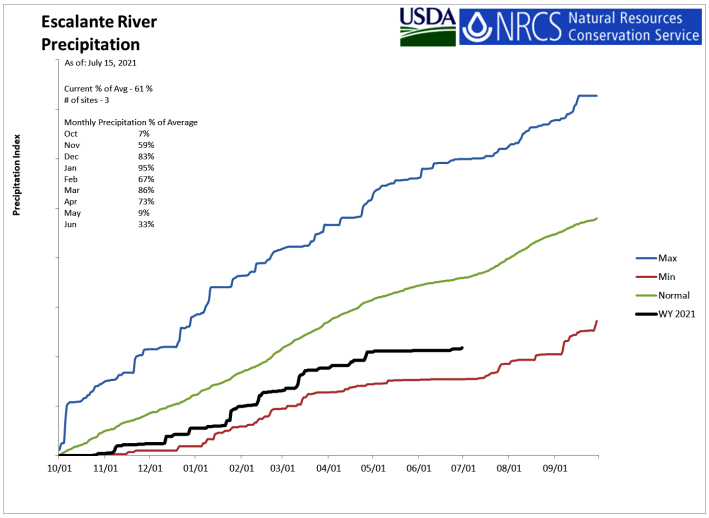


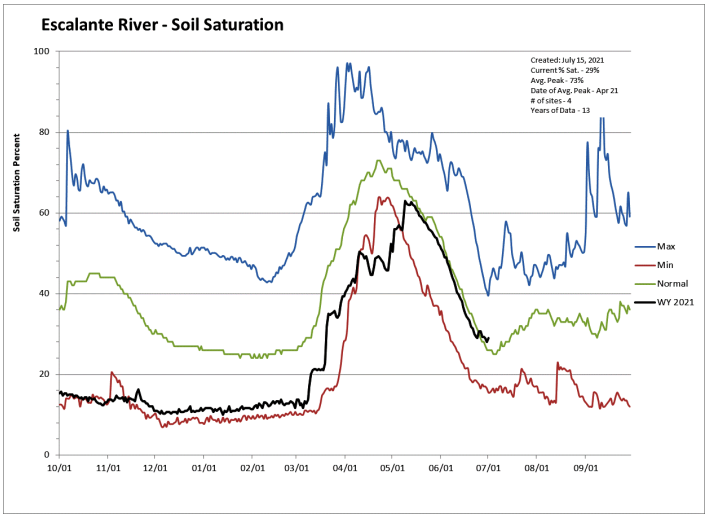
SNOTEL Data

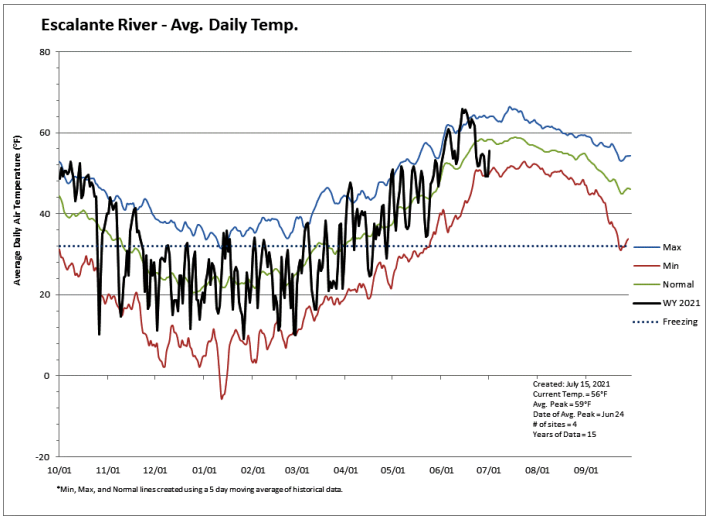
Escalante River Basin

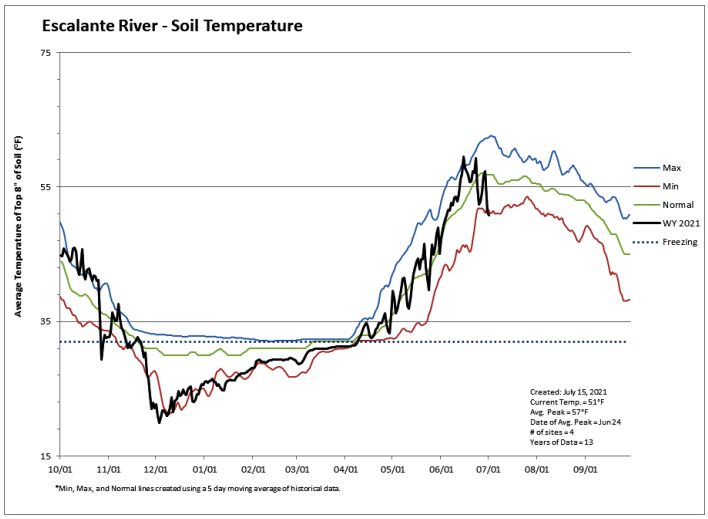
July 1, 2021

Precipitation in June was much below average at 32%, which brings the seasonal accumulation (Oct-Jun) to 61% of average. Soil moisture is at 29% compared to 22% last year.







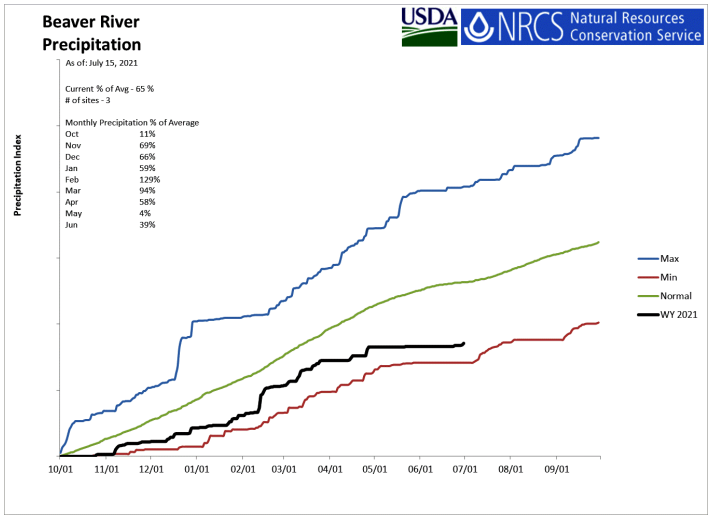


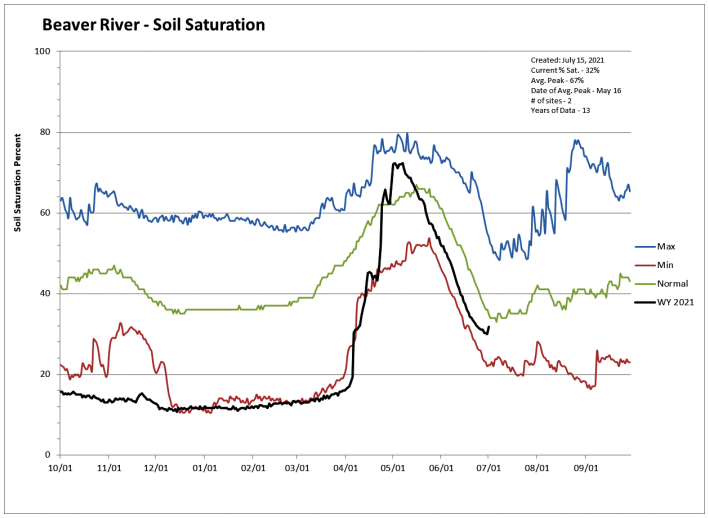
SNOTEL Data

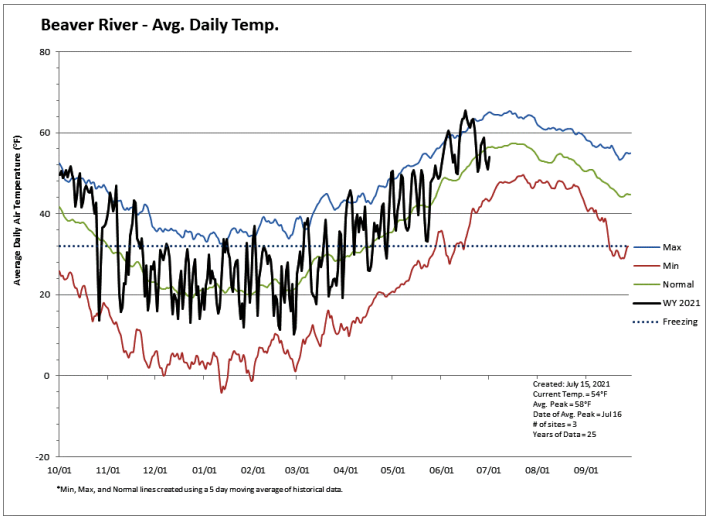
Beaver River Basin

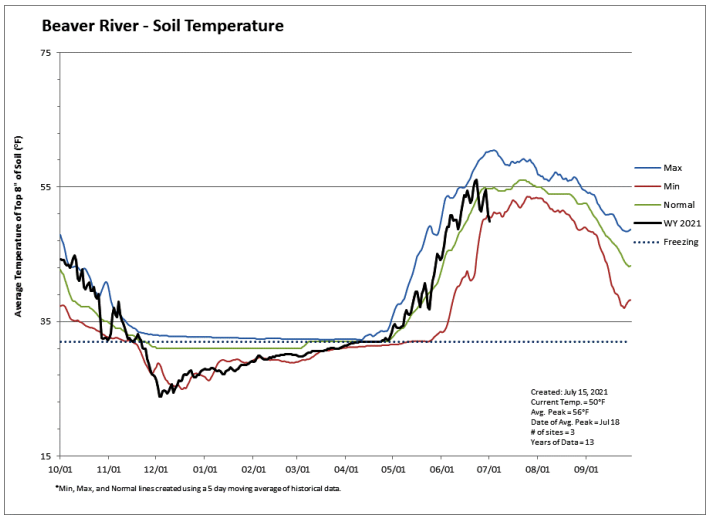
July 1, 2021

Precipitation in June was much below average at 38%, which brings the seasonal accumulation (Oct-Jun) to 65% of average. Soil moisture is at 30% compared to 34% last year. Reservoir storage is at 21% of capacity, compared to 56% last year. The water availability index for the Beaver River is 2%.









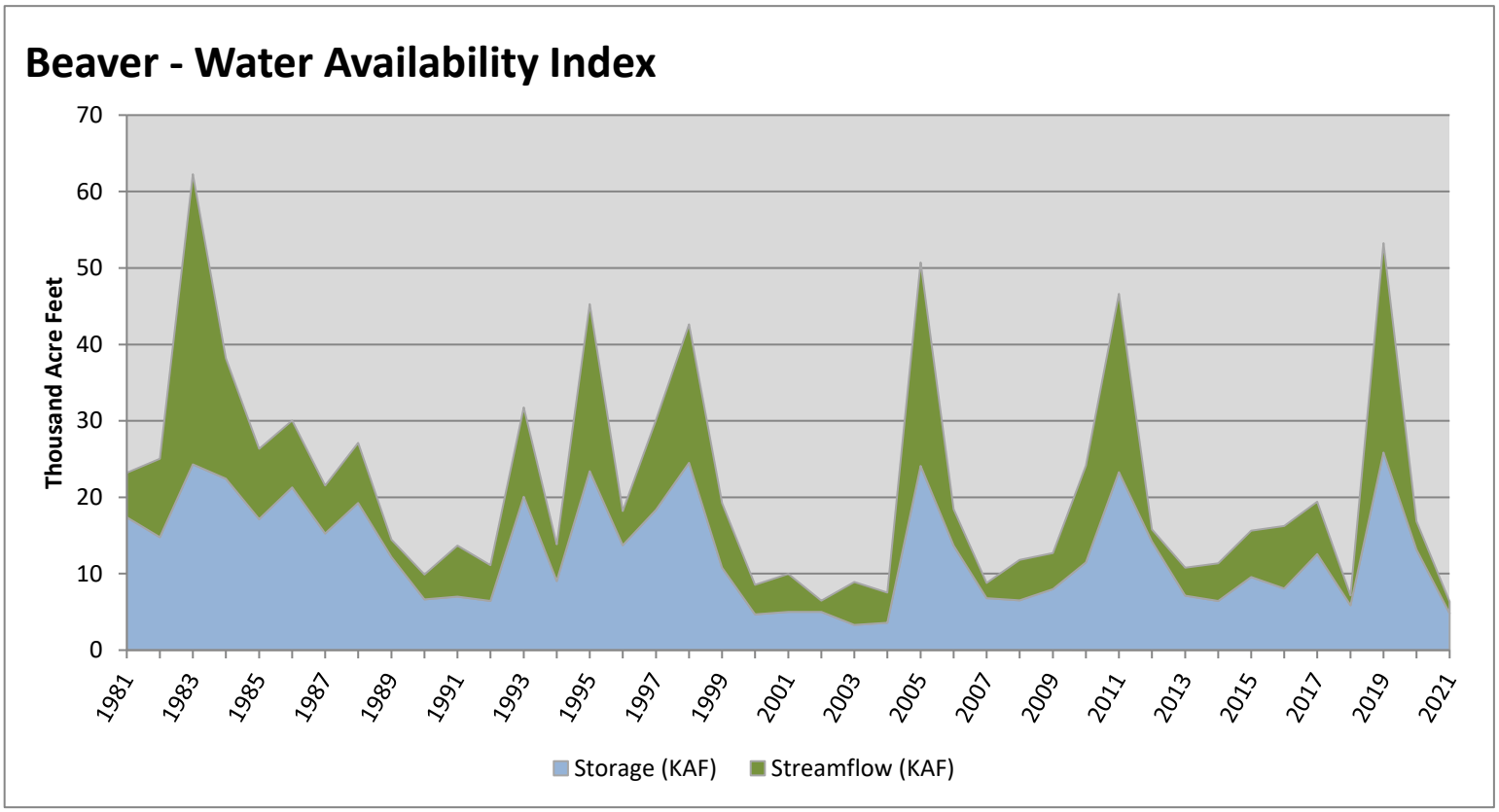
SNOTEL Data

July 1, 2021

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Beaver	**4.81**	**1.53**	**6.34**	**2**	**-3.97**	**02, 18, 04, 00**

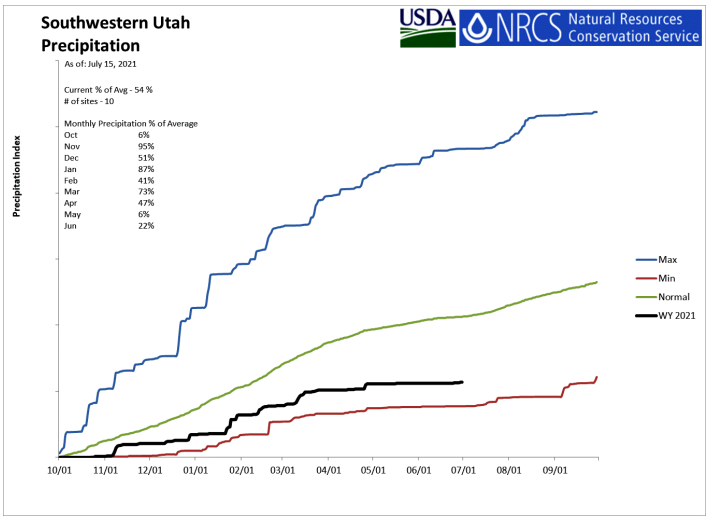
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

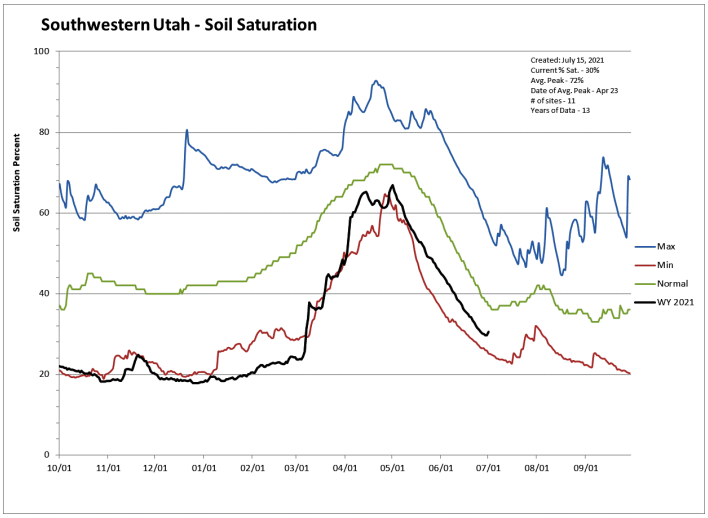


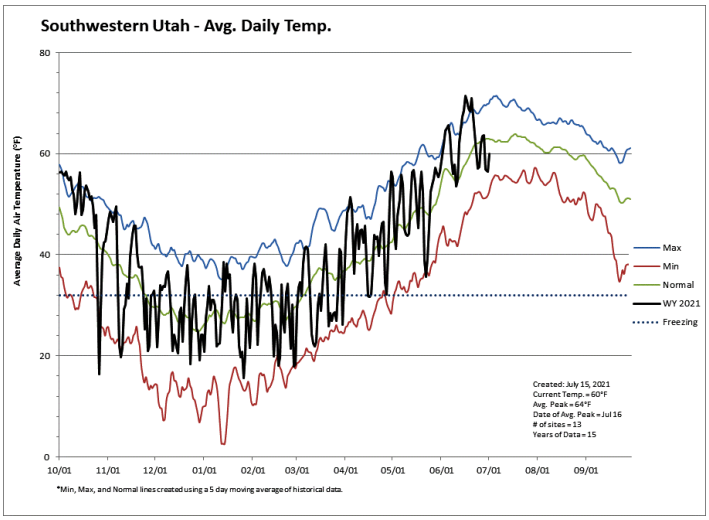
Southwestern Utah

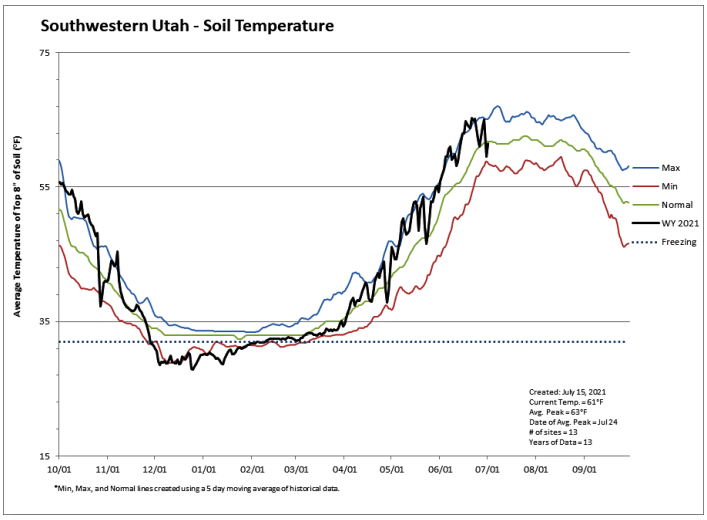
July 1, 2021

Precipitation in June was much below average at 23%, which brings the seasonal accumulation (Oct-Jun) to 54% of average. Soil moisture is at 30% compared to 33% last year. Reservoir storage is at 34% of capacity, compared to 53% last year. The water availability index for the Virgin River is 32%.







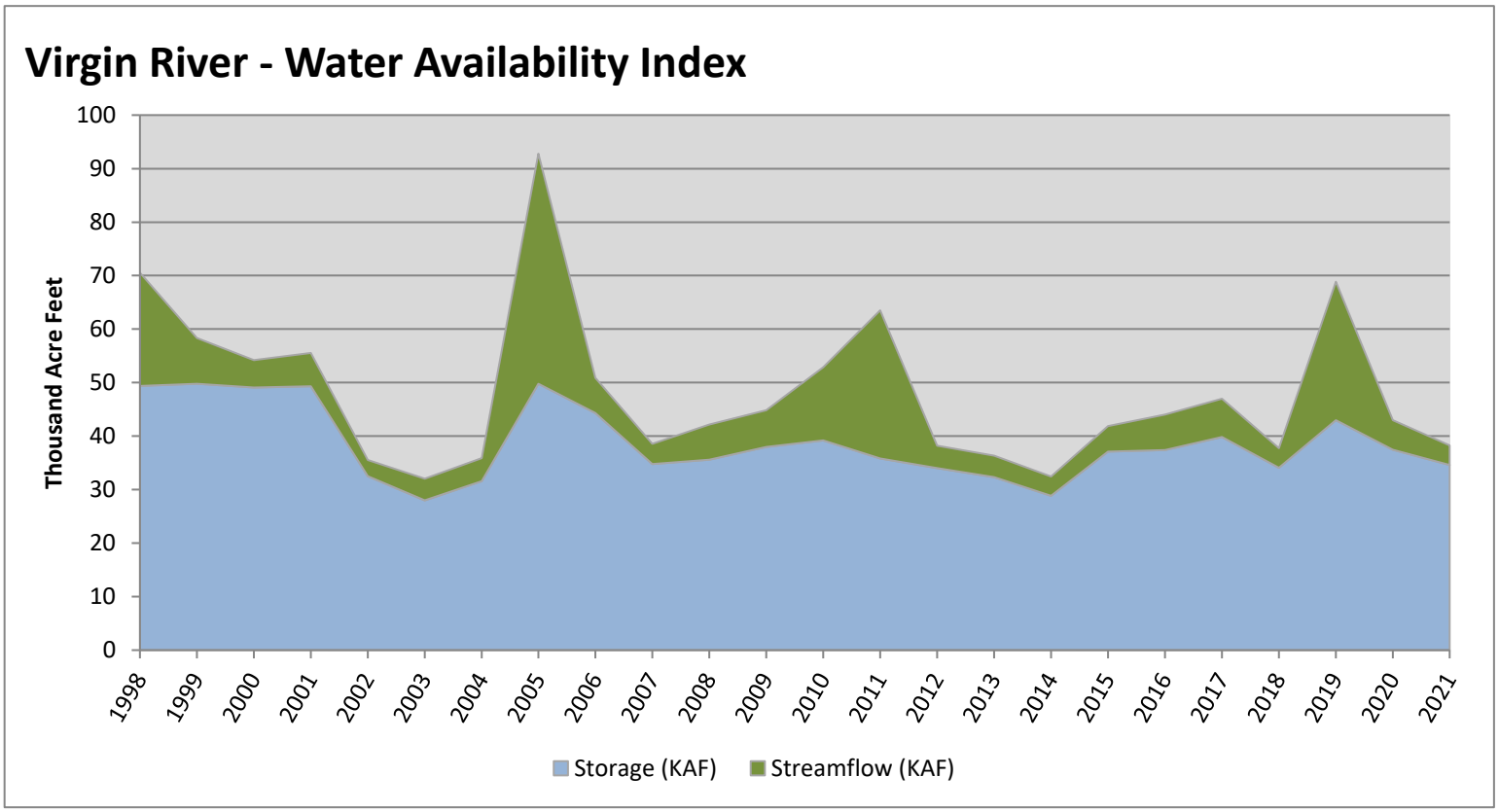


July 1, 2021

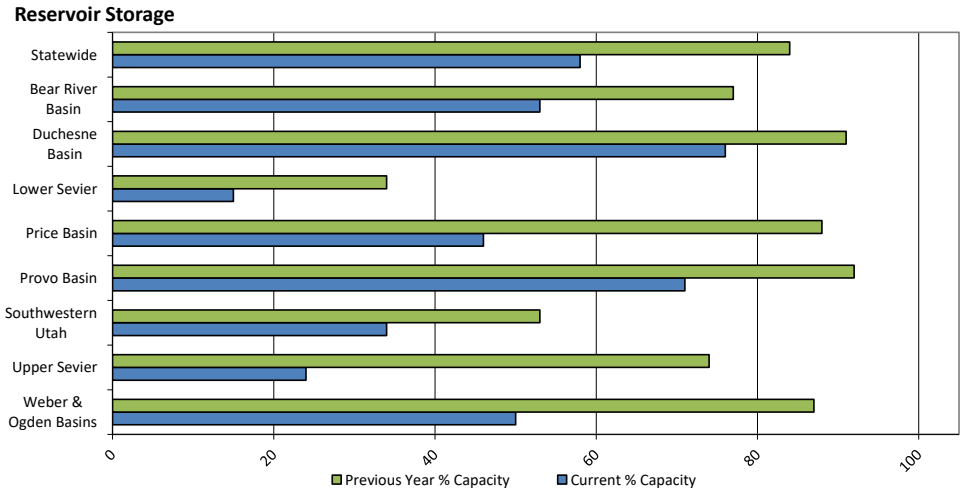
Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Virgin River	**34.59**	**3.68**	**38.27**	**32**	**-1.5**	**18, 12, 07, 15**

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Reservoir Storage Summary for the end of June 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Big Sand Wash Reservoir	7.7	23.2		25.7	30%	90%			
Causey Reservoir	6.0	7.0	6.7	7.1	85%	99%	94%	90%	105%
Cleveland Lake	2.0	5.0		5.4	37%	93%			
Currant Creek Reservoir	15.1	14.6	15.2	15.5	98%	94%	98%	100%	96%
Deer Creek Reservoir	105.8	148.3	136.2	149.7	71%	99%	91%	78%	109%
East Canyon Reservoir	32.8	46.6	45.9	49.5	66%	94%	93%	71%	102%
Echo Reservoir	23.9	59.4	64.4	73.9	32%	80%	87%	37%	92%
Grantsville Reservoir	1.8	2.2	2.4	3.3	54%	66%	73%	75%	91%
Gunlock	4.7	8.3	7.3	10.4	45%	80%	70%	64%	114%
Gunnison Reservoir	0.0	5.2	14.2	20.3	0%	26%	70%	0%	36%
Huntington North Reservoir	1.6	3.2	3.4	4.2	37%	77%	81%	46%	95%
Hyrum Reservoir	8.6	13.4	13.1	15.3	56%	87%	86%	66%	102%
Joes Valley Reservoir	34.2	58.9	56.8	61.6	56%	96%	92%	60%	104%
Jordanelle Reservoir	218.4	301.8	296.7	314.0	70%	96%	94%	74%	102%
Ken's Lake	0.9	1.6	1.9	2.3	37%	68%	83%	44%	82%
Kolob Reservoir	2.9	5.6		5.6	52%	99%			
Lost Creek Reservoir	14.0	21.1	18.2	22.5	62%	94%	81%	77%	116%
Lower Enterprise	1.4	0.5	1.1	2.6	54%	19%	42%	127%	45%
Miller Flat Reservoir	1.5	4.5		5.2	30%	87%			
Millsite	5.3	11.7	15.7	16.7	32%	70%	94%	34%	75%
Minersville Reservoir	4.8	13.2	13.5	23.3	21%	56%	58%	36%	97%
Moon Lake Reservoir	6.0	37.3	33.6	35.8	17%	104%	94%	18%	111%
Otter Creek Reservoir	13.6	44.2	36.4	52.5	26%	84%	69%	37%	121%
Panguitch Lake	15.8	23.9	16.2	22.3	71%	107%	73%	97%	147%
Pineview Reservoir	46.0	92.1	93.0	110.1	42%	84%	84%	49%	99%
Piute Reservoir	5.9	40.3	45.0	71.8	8%	56%	63%	13%	90%
Porcupine Reservoir	5.7	12.7	10.6	11.3	50%	112%	94%	54%	120%
Quail Creek	29.9	29.1	29.0	40.0	75%	73%	73%	103%	101%
Red Fleet Reservoir	15.0	22.2	23.4	25.7	58%	86%	91%	64%	95%
Rockport Reservoir	25.9	59.2	56.9	60.9	42%	97%	93%	45%	104%
Sand Hollow Reservoir	37.9	48.4		50.0	76%	97%			
Scofield Reservoir	27.6	56.5	48.2	65.8	42%	86%	73%	57%	117%
Settlement Canyon Reservoir	0.3	0.5	0.8	1.0	28%	52%	82%	34%	64%
Sevier Bridge Reservoir	34.8	81.0	148.5	236.0	15%	34%	63%	23%	55%
Smith And Morehouse Reservoir	4.6	8.2	7.5	8.1	56%	102%	93%	61%	110%
Starvation Reservoir	131.3	155.2	153.2	164.1	80%	95%	93%	86%	101%
Stateline Reservoir	7.2	13.2	11.3	12.0	60%	110%	94%	64%	117%
Steinaker Reservoir	7.4	17.7	28.3	33.4	22%	53%	85%	26%	62%
Strawberry Reservoir	869.8	1002.9	727.7	1105.9	79%	91%	66%	120%	138%
Upper Enterprise	1.2	4.0	3.7	10.0	12%	40%	37%	32%	108%
Upper Stillwater Reservoir	26.5	29.9	28.9	32.5	82%	92%	89%	92%	104%
Utah Lake	530.8	787.4	834.5	870.9	61%	90%	96%	64%	94%
Willard Bay	120.9	183.0	160.4	215.0	56%	85%	75%	75%	114%
Woodruff Creek	0.6	1.6	3.1	4.0	14%	40%	78%	18%	52%
Woodruff Narrows Reservoir	7.3	34.9	30.8	57.3	13%	61%	54%	24%	113%
Meeks Cabin Reservoir	10.1	26.6	24.9	32.5	31%	82%	77%	41%	107%
Bear Lake	710.7	1006.8	738.2	1302.0	55%	77%	57%	96%	136%
Basin-wide Total	3134.1	4487.7	4006.8	5373.1	58%	84%	75%	78%	112%
# of reservoirs	42.0	42.0	42.0	42.0	42	42	42	42	42
# of reservoirs	42	42	42	42	42	42	42	42	42



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Utah Climate and Water Report

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