



# Utah Climate and Water Report

September 1, 2021



**Lost Creek Reservoir**

**Photo by Jordan Clayton**

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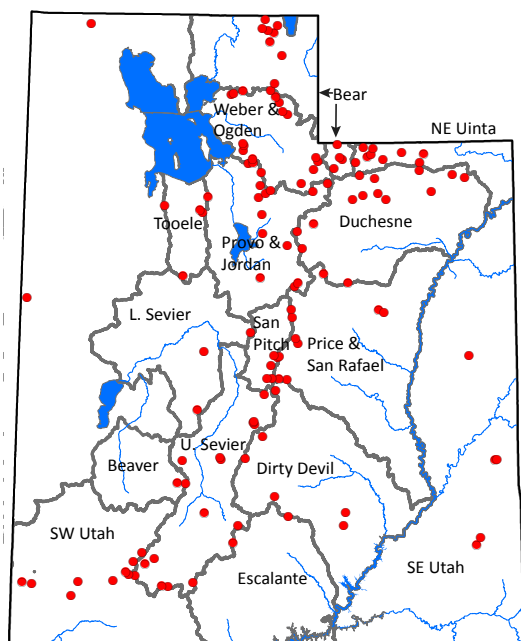
## Utah Climate and Water Report

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.



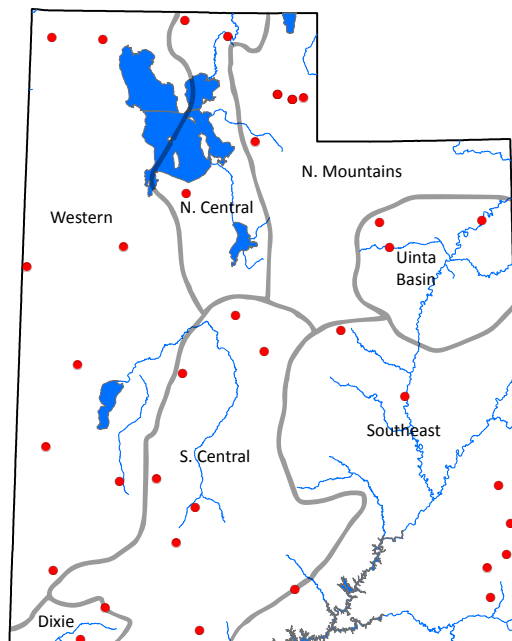
### SNOTEL

- 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

### September 1, 2021

*This report has been reorganized to better 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 (SNOWTElemetry). 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](mailto:jordan.clayton@usda.gov).*

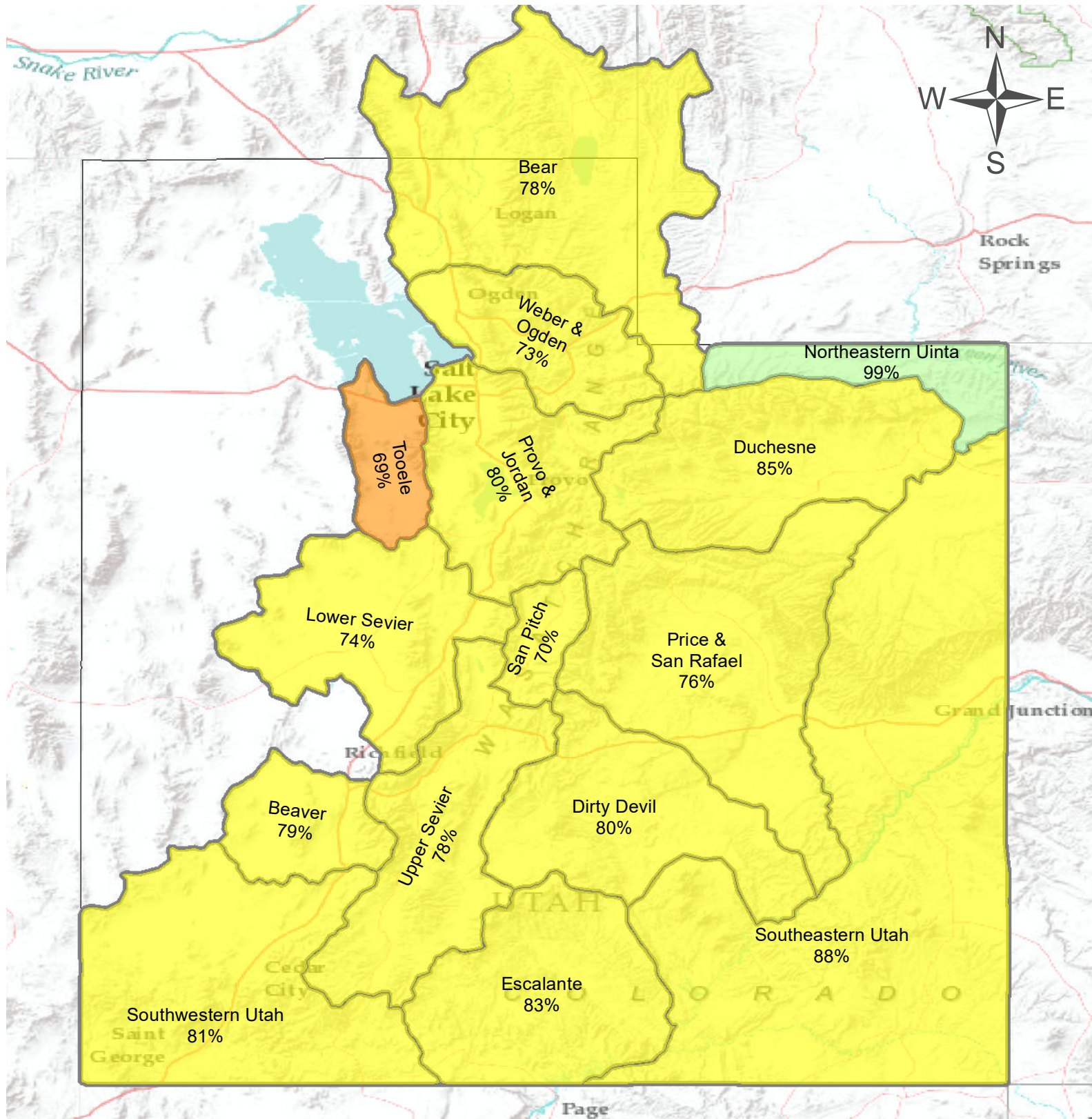
### Current Valley Conditions (SCAN)

August was similar to July in Utah's valley locations, where an unusually strong monsoon boosted our precipitation totals by an average of 1.5 inches. Most SCAN sites in the state received well above-normal precipitation, bringing the statewide water year total to 7.3 inches. With that additional rainfall, the five SCAN sites in the Sevier and San Pitch watersheds are now close to average for this time of year, with most other sites in the 70-90% of normal range. Still lagging behind are the SCAN sites in the Weber-Ogden, Beaver, and Raft basins, plus a few in far southern Utah. Soil moisture conditions at Utah's SCAN sites have correspondingly improved from the rainfall, with sites in the North Central region well above-normal and other areas closer to average for this time of year. Soil temperatures across most of the state ended August near normal. While the entire state is still experiencing severe (D2) to exceptional (D4) drought, the portion of Utah experiencing D4 is down to 24%, from 51% at the beginning of the month.

### Current Mountain Conditions (SNOTEL)

August precipitation in Utah's mountain locations was very helpful! Statewide, we received 3.7 inches of rainfall for the month, which is 214% of normal and brings the water-year-to-date precipitation up to 79% of average. As noted in last month's report, a key benefit of this late-summer rainfall is an improved likelihood of an efficient snowmelt runoff (when next winter's snowpack melts in spring 2022) due to elevated soil moisture levels. Encouragingly, soil moisture in Utah's mountains has benefitted greatly from the unusually strong monsoon season and is currently above-average at 47% of saturation (compared with just 24% at this time last year). Soils are likely to remain at roughly average moisture levels or above for rest of this water year because we are approaching the fall season when our mountain soils don't typically lose as much moisture to evapotranspiration compared with summer months. However, as noted in last month's summary, Utah's water supply conditions are still very stressed. If we combine the current precipitation deficit with last year's, we get 14.1" of additional moisture (above and beyond what we normally receive) that is needed to get us back to 'normal'. Utah's reservoir storage is currently at 49% of capacity, which is 18% lower than last year at this time, causing our Water Availability Indices (WAIs) to remain at historically-low levels (bottom 20<sup>th</sup> percentile) for 9 of Utah's 18 major basins. Particularly hard-hit are the Ogden, Provo, Weber, and Joe's Valley watersheds.





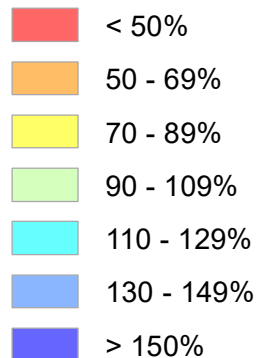
# Statewide Precipitation

As of September 1, 2021:

79% of Normal Precipitation

214% of Normal Precipitation Last Month

## % of Normal



September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
<b>Bear River</b>	<b>567</b>	<b>8.0</b>	<b>575</b>	<b>48</b>	<b>-0.2</b>	<b>15, 14, 13, 89</b>
<b>Woodruff Narrows</b>	<b>6.6</b>	<b>8.0</b>	<b>14.6</b>	<b>31</b>	<b>-1.6</b>	<b>12, 94, 88, 81</b>
<b>Little Bear</b>	<b>2.9</b>	<b>1.2</b>	<b>4.1</b>	<b>23</b>	<b>-2.2</b>	<b>13, 04, 16, 02</b>
<b>Ogden</b>	<b>26.8</b>	<b>2.0</b>	<b>28.8</b>	<b>5</b>	<b>-3.8</b>	<b>92, 00, 03, 88</b>
<b>Weber</b>	<b>64.8</b>	<b>10.9</b>	<b>75.6</b>	<b>9</b>	<b>-3.4</b>	<b>92, 13, 02, 12</b>
<b>Provo River</b>	<b>271.1</b>	<b>4.6</b>	<b>275.7</b>	<b>7</b>	<b>-3.6</b>	<b>13, 02, 04, 07</b>
<b>Western Uinta</b>	<b>143.6</b>	<b>8.0</b>	<b>151.6</b>	<b>43</b>	<b>-0.6</b>	<b>00, 91, 20, 10</b>
<b>Eastern Uinta</b>	<b>13.2</b>	<b>2.1</b>	<b>15.3</b>	<b>10</b>	<b>-3.4</b>	<b>18, 13, 14, 89</b>
<b>Blacks Fork</b>	<b>5.4</b>	<b>8.5</b>	<b>13.9</b>	<b>41</b>	<b>-0.8</b>	<b>16, 06, 03, 90</b>
<b>Price</b>	<b>19.0</b>	<b>0.5</b>	<b>19.5</b>	<b>33</b>	<b>-1.4</b>	<b>89, 13, 96, 10</b>
<b>Smiths Creek</b>	<b>5.3</b>	<b>9.3</b>	<b>14.6</b>	<b>97</b>	<b>4.0</b>	<b>98, 11, 95, 86</b>
<b>Joes Valley</b>	<b>24.3</b>	<b>1.2</b>	<b>25.5</b>	<b>5</b>	<b>-3.8</b>	<b>02, 13, 90, 92</b>
<b>Moab</b>	<b>0.8</b>	<b>0.4</b>	<b>1.2</b>	<b>40</b>	<b>-0.8</b>	<b>04, 88, 03, 07</b>
<b>Upper Sevier River</b>	<b>10.5</b>	<b>3.4</b>	<b>13.9</b>	<b>19</b>	<b>-2.6</b>	<b>90, 02, 09, 13</b>
<b>San Pitch</b>	<b>0.0</b>	<b>0.5</b>	<b>0.5</b>	<b>12</b>	<b>-3.2</b>	<b>07, 13, 02, 16</b>
<b>Lower Sevier</b>	<b>19.5</b>	<b>3.8</b>	<b>23.3</b>	<b>14</b>	<b>-3.0</b>	<b>18, 17, 92, 02</b>
<b>Beaver</b>	<b>2.8</b>	<b>1.0</b>	<b>3.8</b>	<b>14</b>	<b>-3.0</b>	<b>01, 00, 94, 18</b>
<b>Virgin River</b>	<b>30.5</b>	<b>7.5</b>	<b>38.1</b>	<b>52</b>	<b>0.2</b>	<b>20, 08, 17, 18</b>

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

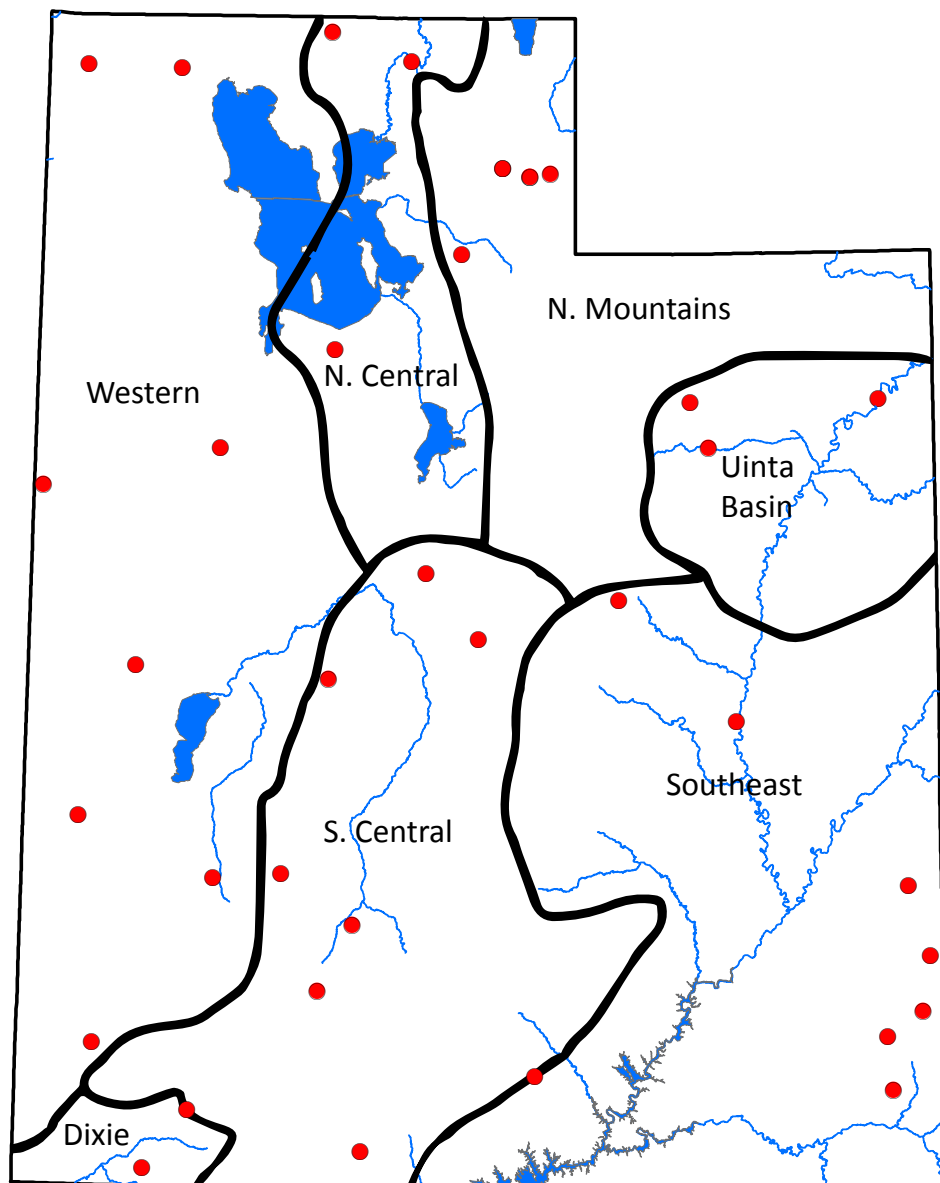
### What is a Water Availability Index?

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 SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

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

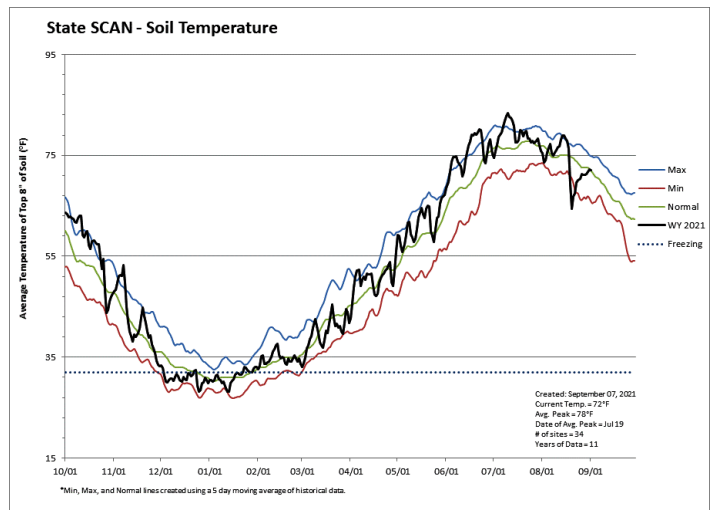
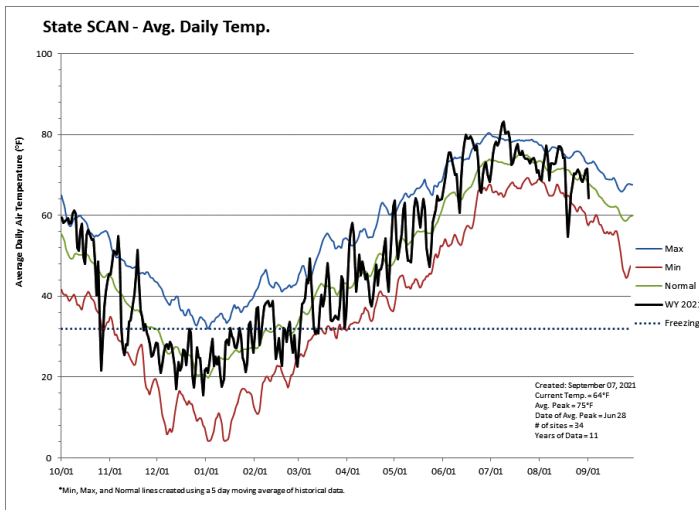
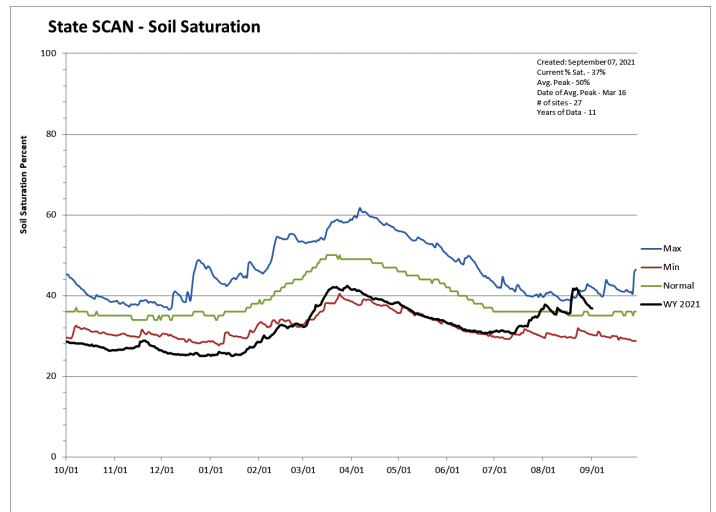
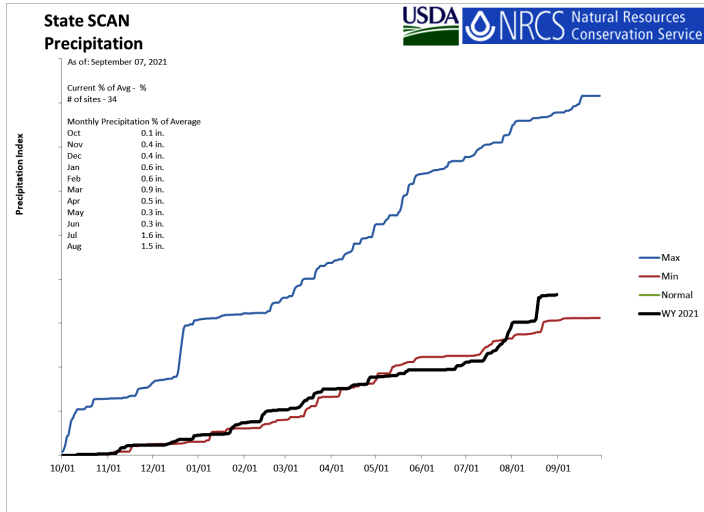
## SCAN portion of report



# Statewide SCAN

September 1, 2021

The average precipitation at SCAN sites within Utah was 1.5 inches in August, which brings the seasonal accumulation (Oct-Aug) to 7.3 inches. Soil moisture is at 37% compared to 30% last year.

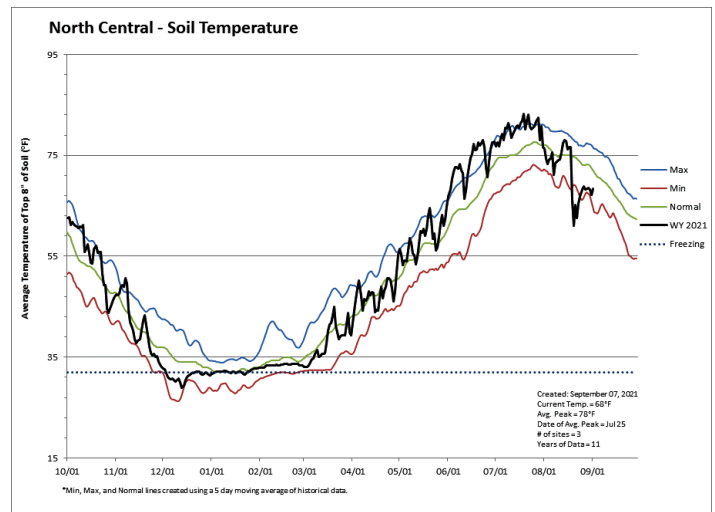
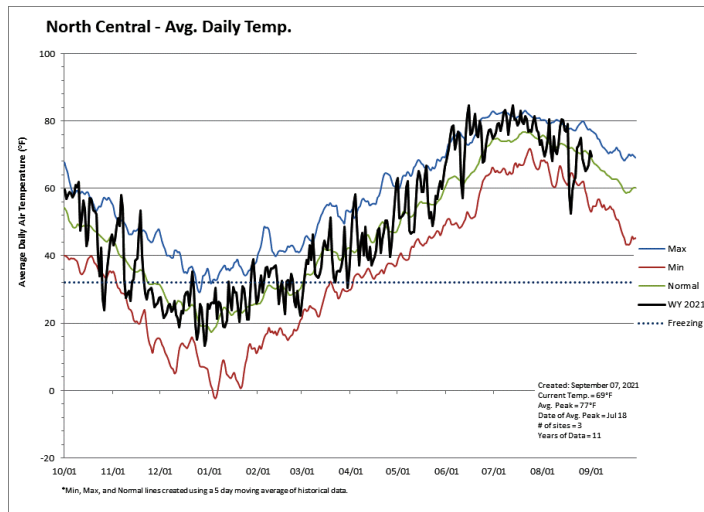
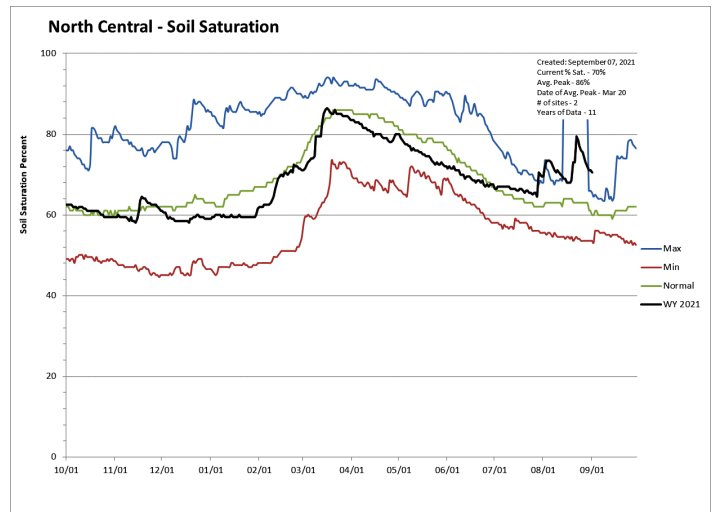
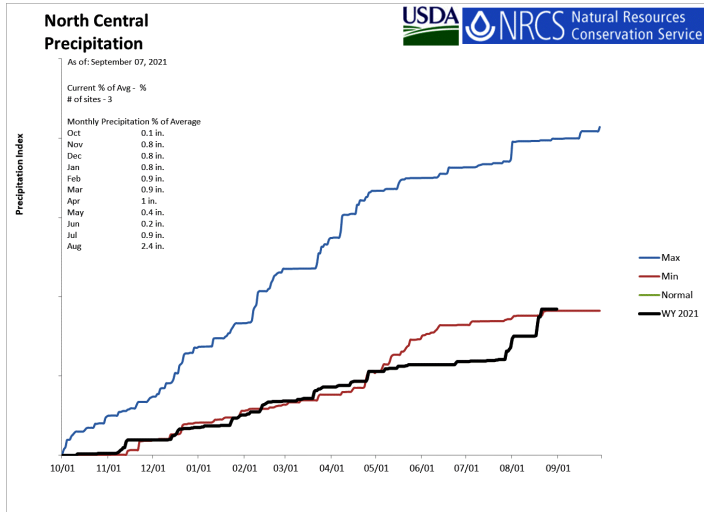




# North Central

September 1, 2021

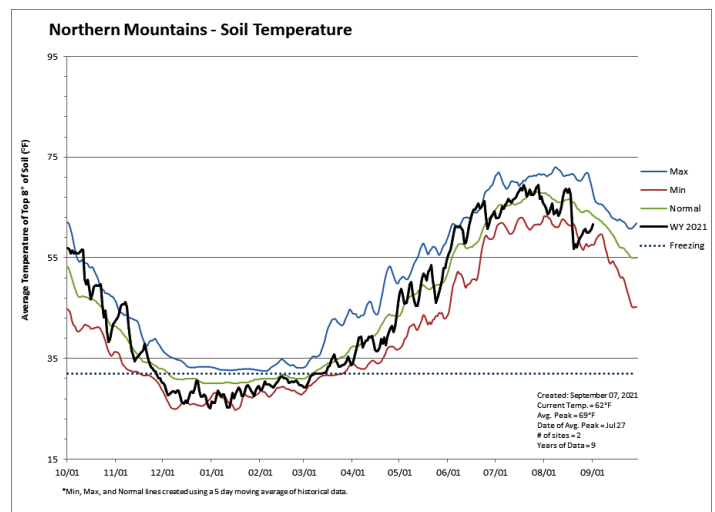
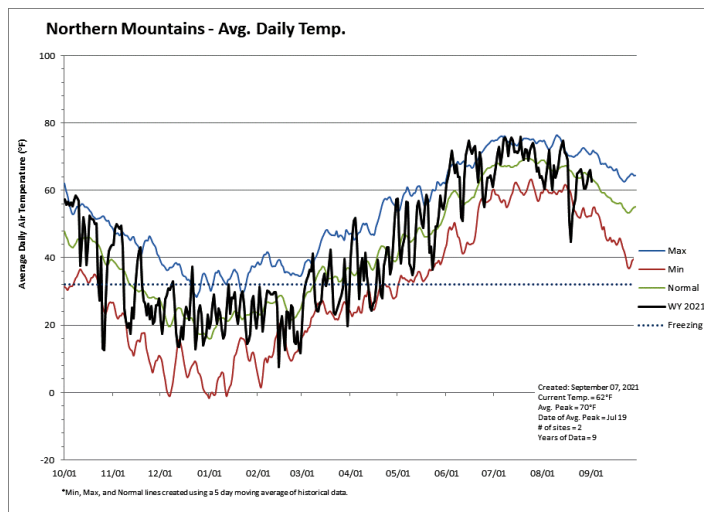
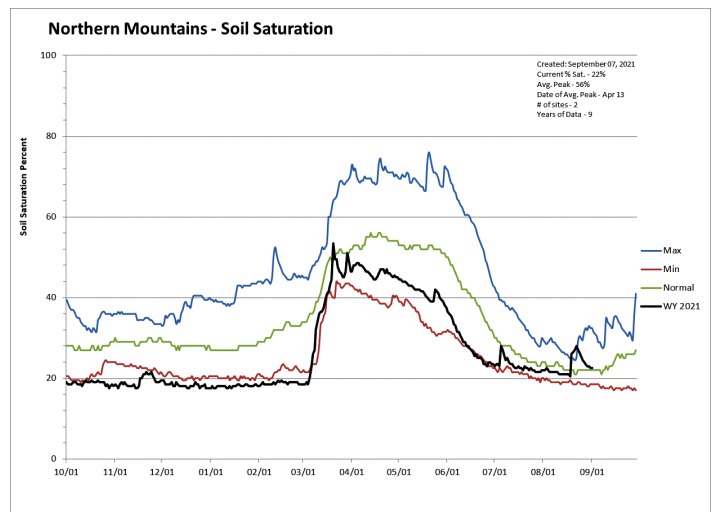
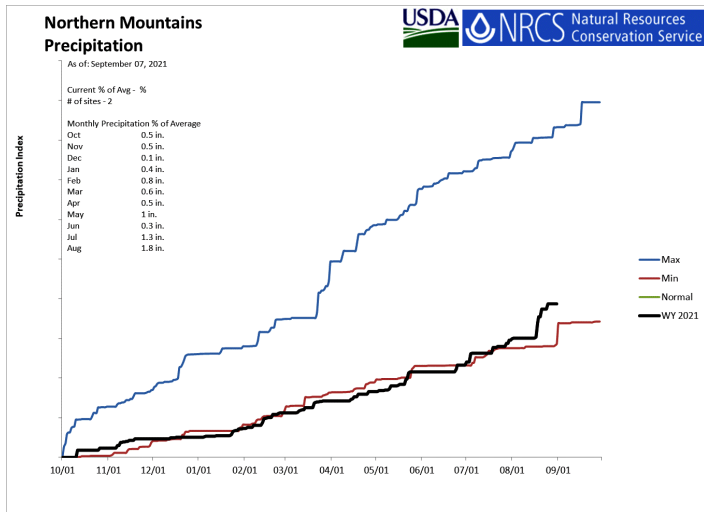
The average precipitation in August at SCAN sites within the basin was 2.4 inches, which brings the seasonal accumulation (Oct-Aug) to 9.2 inches. Soil moisture is at 71% compared to 65% last year.



# Northern Mountains

September 1, 2021

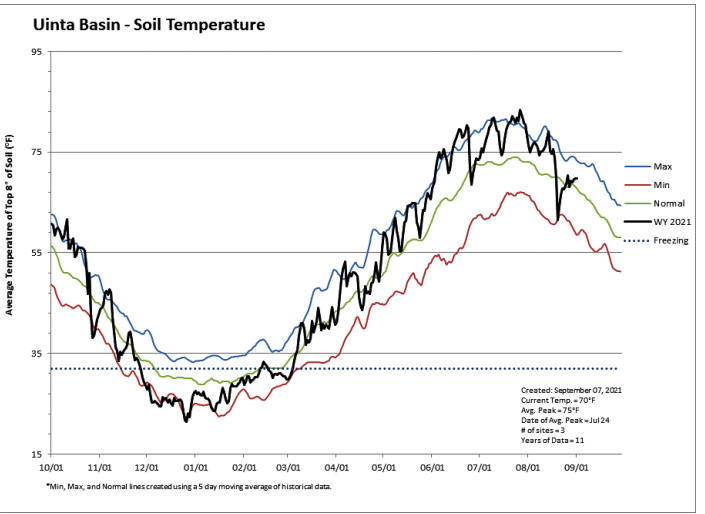
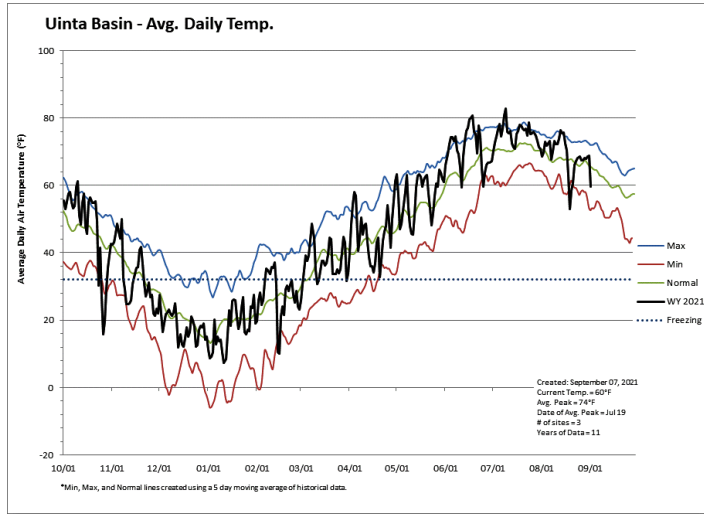
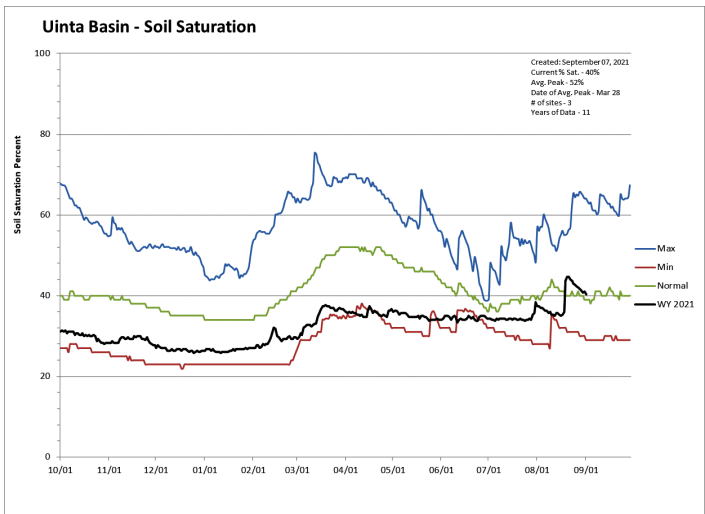
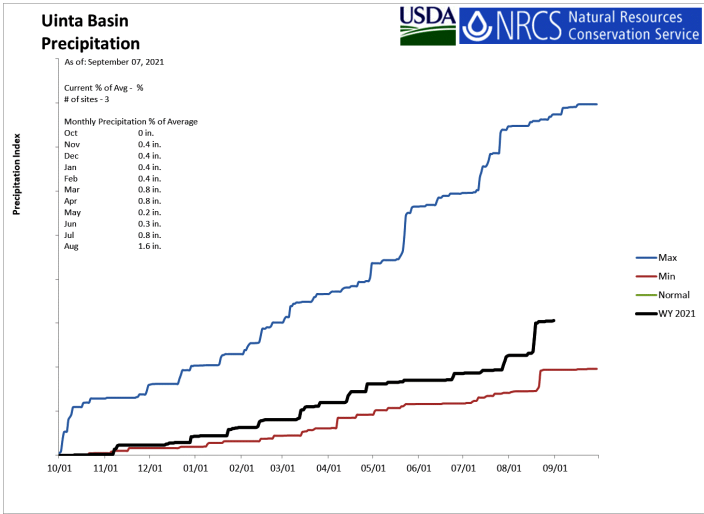
The average precipitation in August at SCAN sites within the basin was 1.8 inches, which brings the seasonal accumulation (Oct-Aug) to 7.7 inches. Soil moisture is at 23% compared to 20% last year.



# Uinta Basin

September 1, 2021

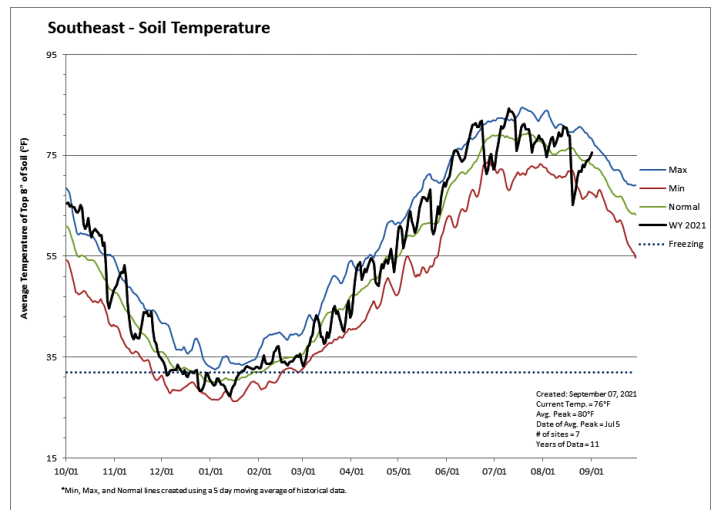
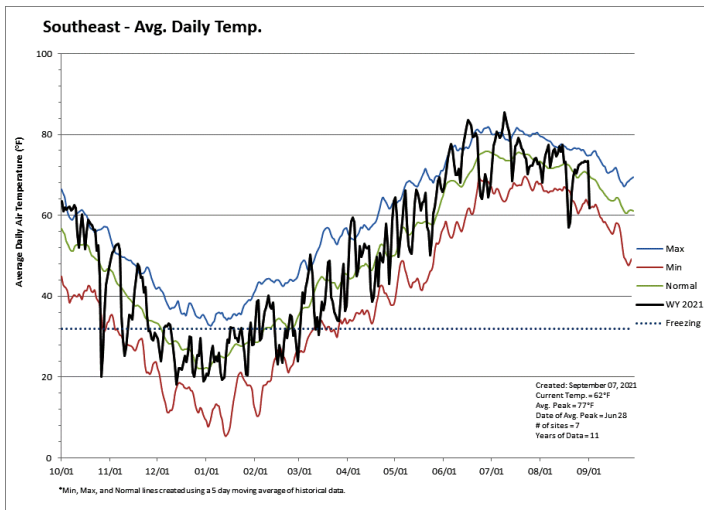
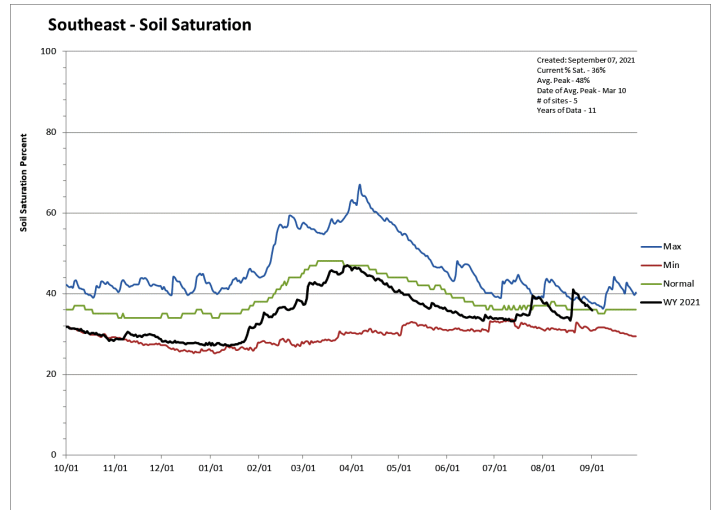
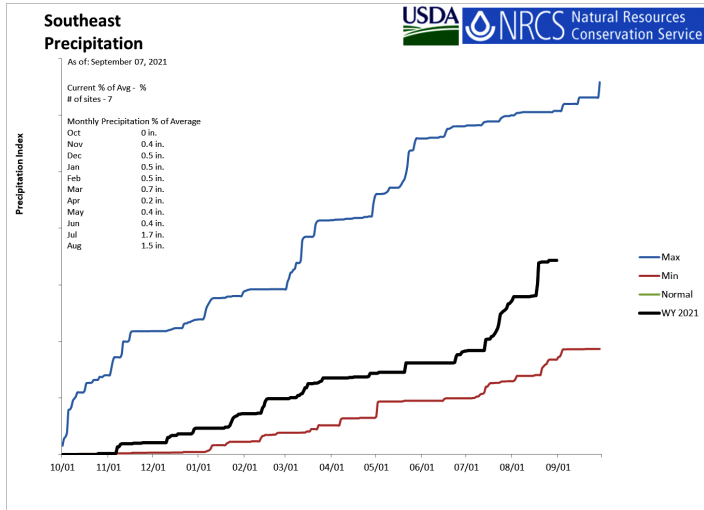
The average precipitation in August at SCAN sites within the basin was 1.6 inches, which brings the seasonal accumulation (Oct-Aug) to 6.1 inches. Soil moisture is at 41% compared to 33% last year.



# Southeast

## September 1, 2021

The average precipitation in August at SCAN sites within the basin was 1.5 inches, which brings the seasonal accumulation (Oct-Aug) to 6.9 inches. Soil moisture is at 36% compared to 33% last year.

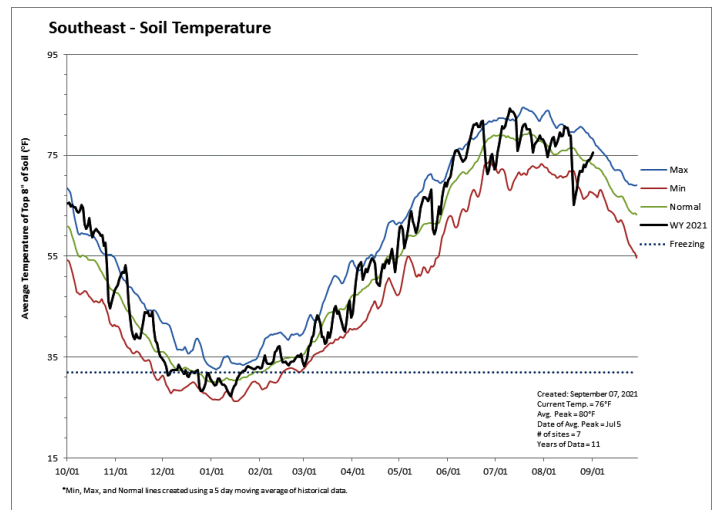
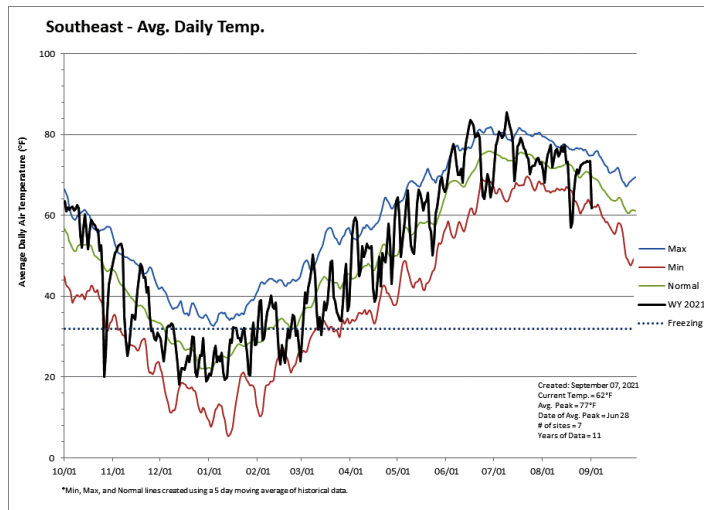
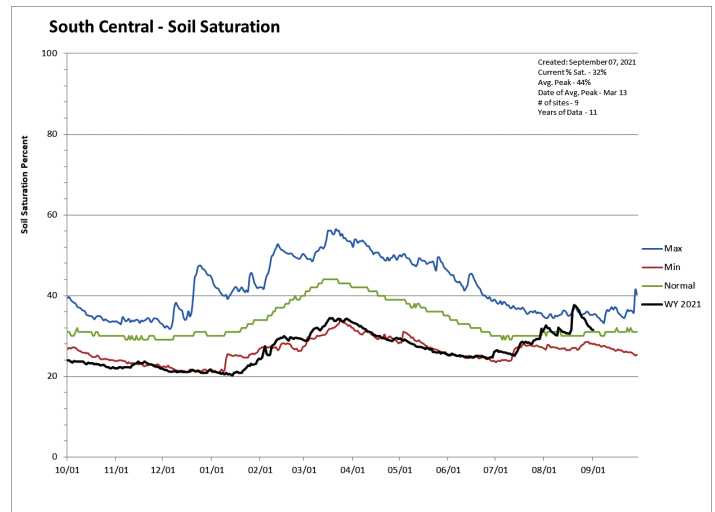
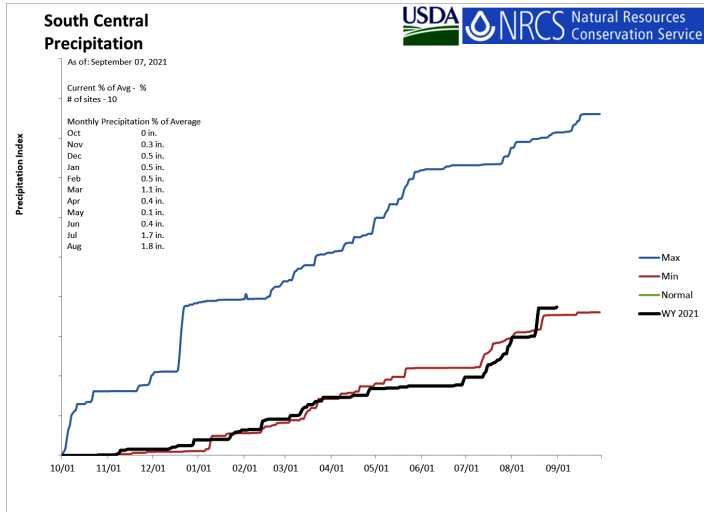




# South Central

September 1, 2021

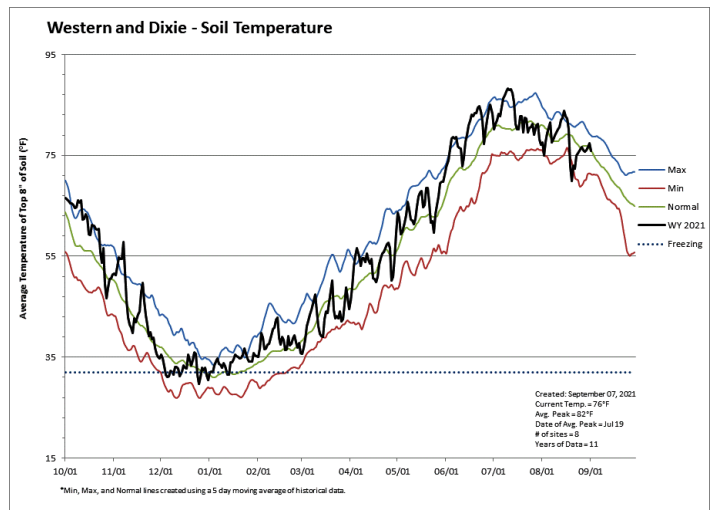
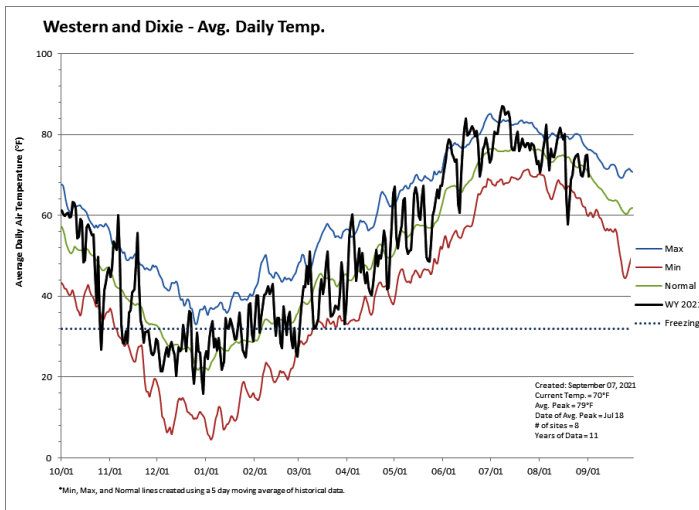
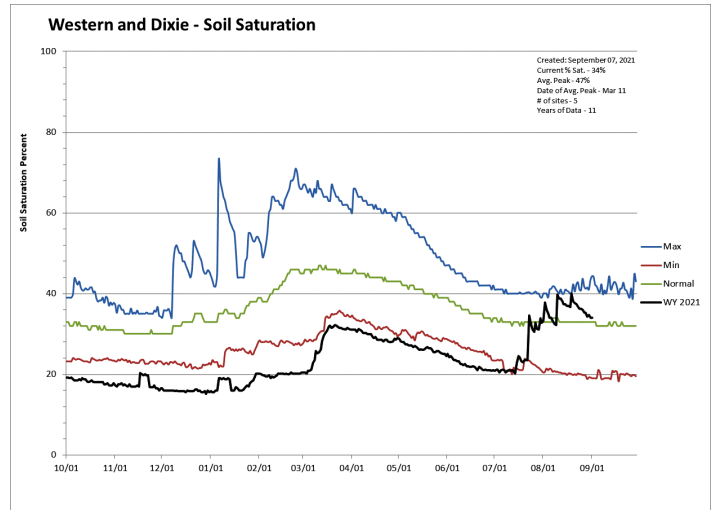
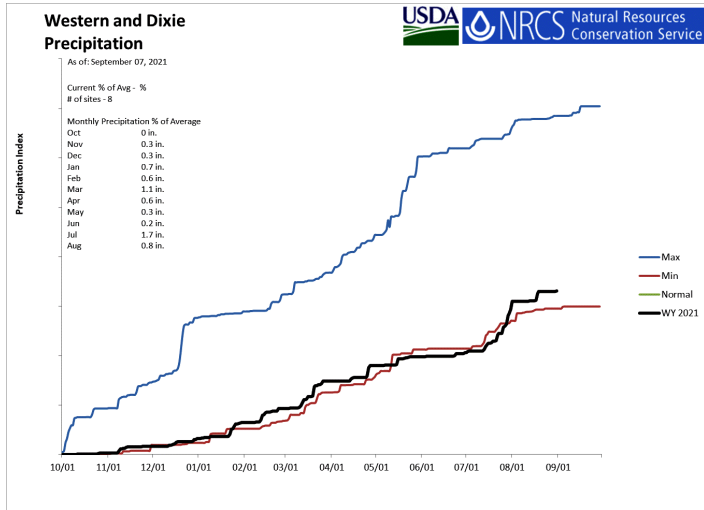
The average precipitation in August at SCAN sites within the basin was 1.8 inches, which brings the seasonal accumulation (Oct-Aug) to 7.5 inches. Soil moisture is at 32% compared to 26% last year.



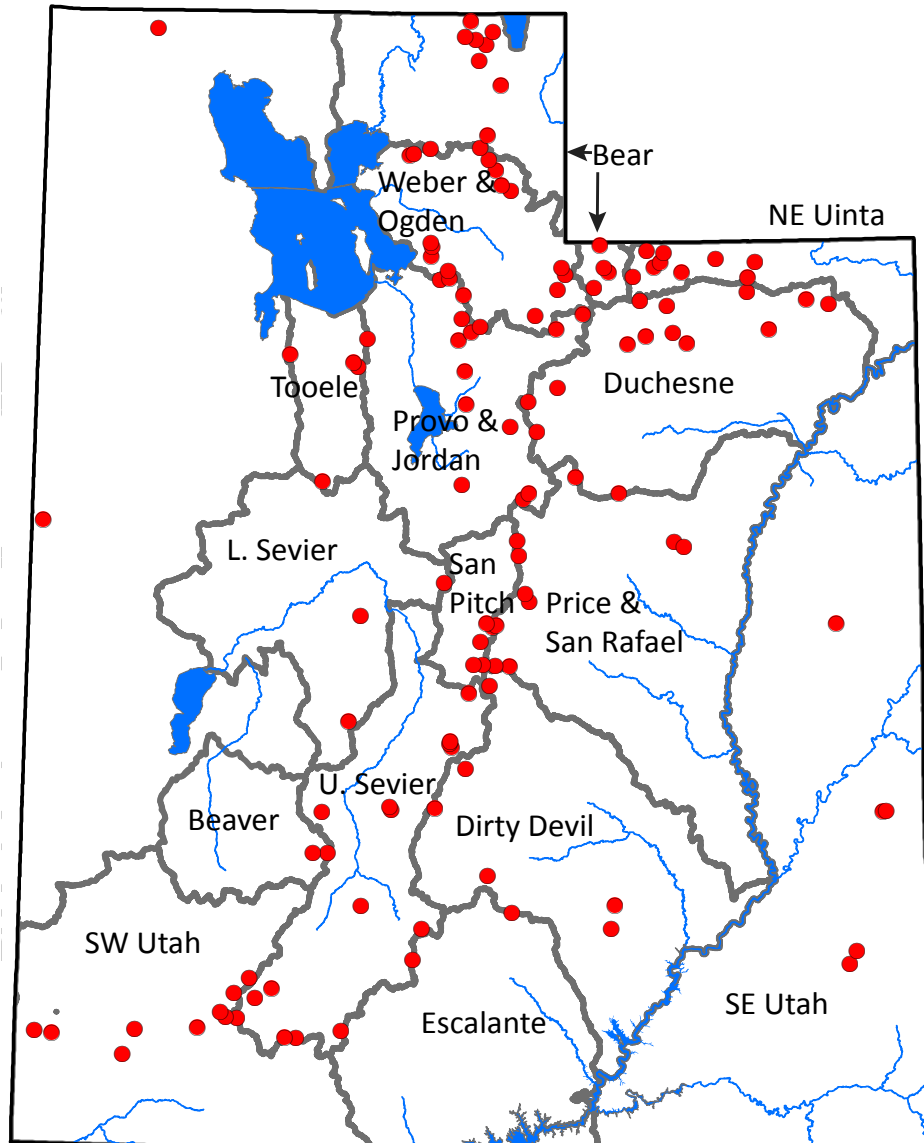
# Western and Dixie

September 1, 2021

The average precipitation in August at SCAN sites within the basin was 0.8 inches, which brings the seasonal accumulation (Oct-Aug) to 6.6 inches. Soil moisture is at 34% compared to 18% last year.



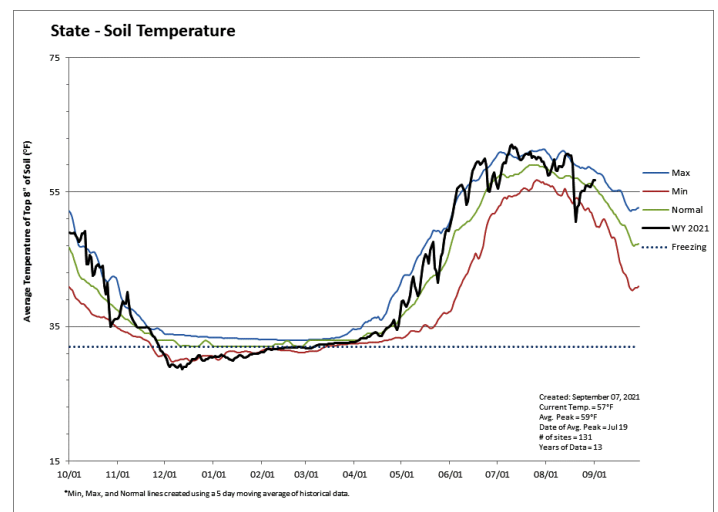
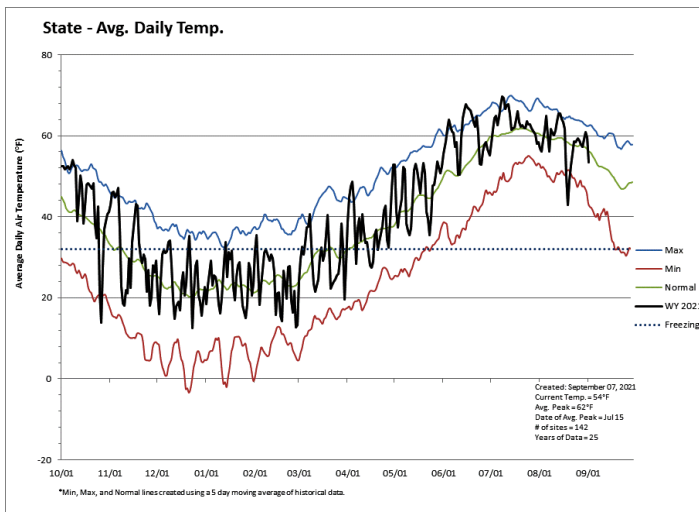
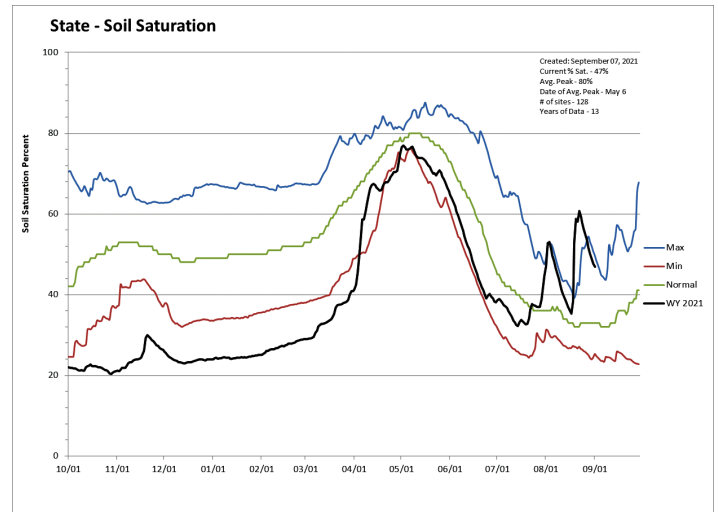
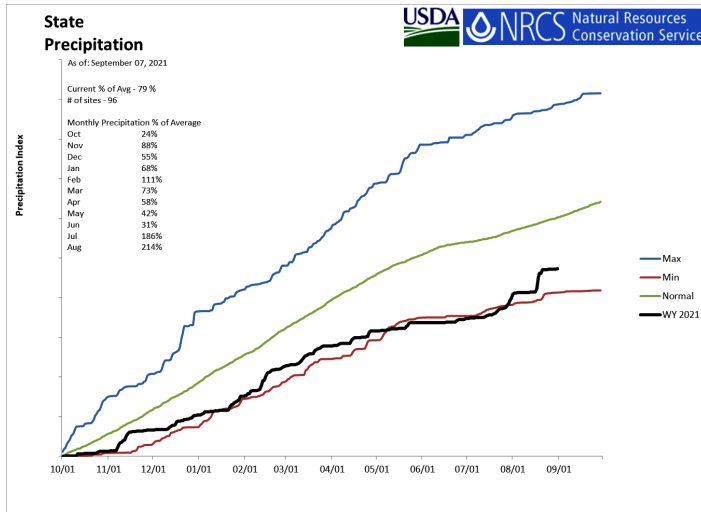
## SNOTEL portion of report



# Statewide SNOTEL

September 1, 2021

Precipitation at SNOTEL sites during August was much above average at 214%, which brings the seasonal accumulation (Oct-Aug) to 79% of average. Soil moisture is at 47% compared to 24% last year. Reservoir storage is at 49% of capacity, compared to 67% last year.

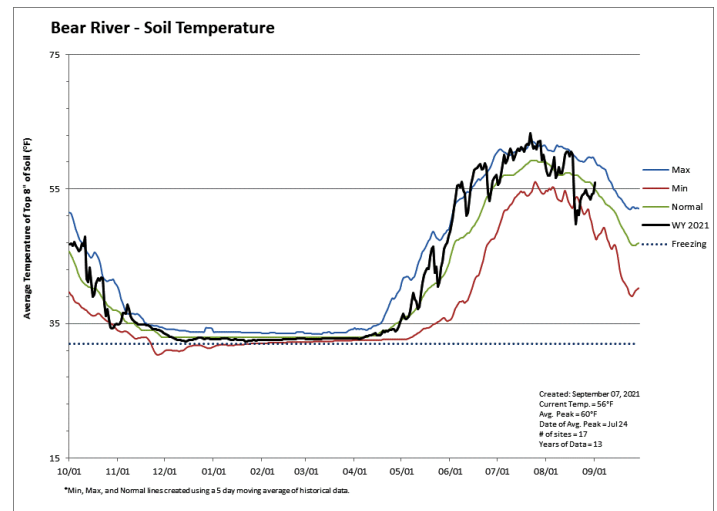
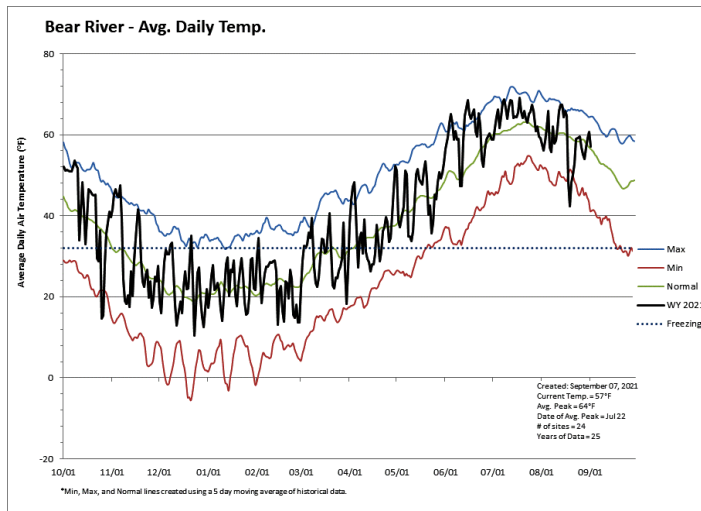
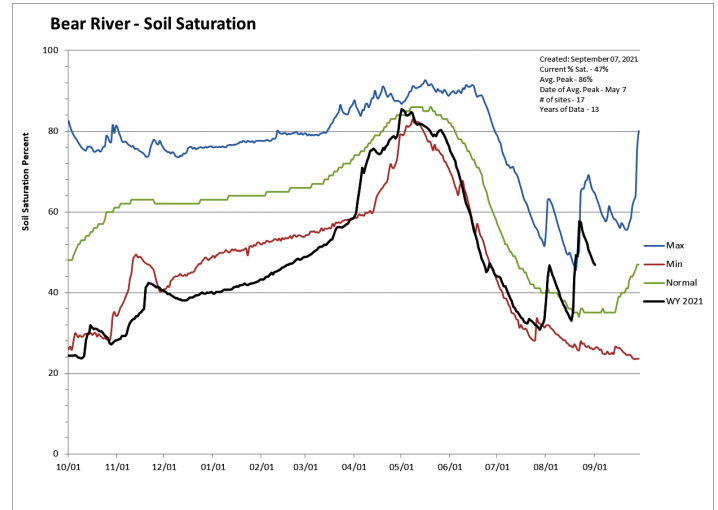
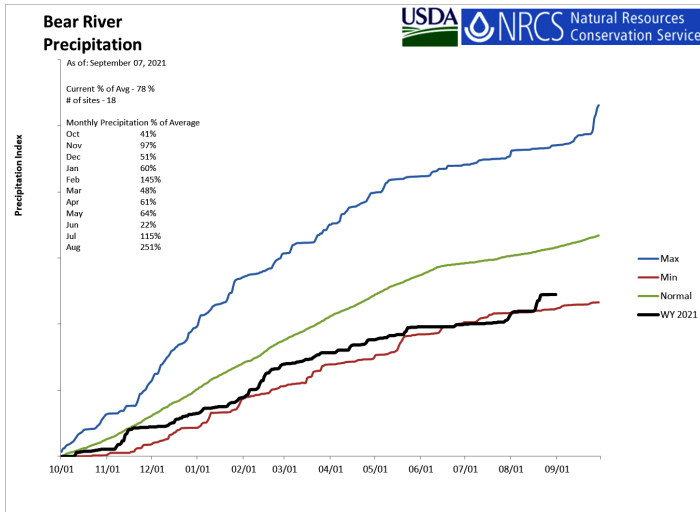




# Bear River Basin

September 1, 2021

Precipitation in August was much above average at 251%, which brings the seasonal accumulation (Oct-Aug) to 78% of average. Soil moisture is at 47% compared to 24% last year. Reservoir storage is at 42% of capacity, compared to 65% last year. The water availability index for the Bear River is 48%, 31% for Woodruff Narrows and 23% for the Little Bear.

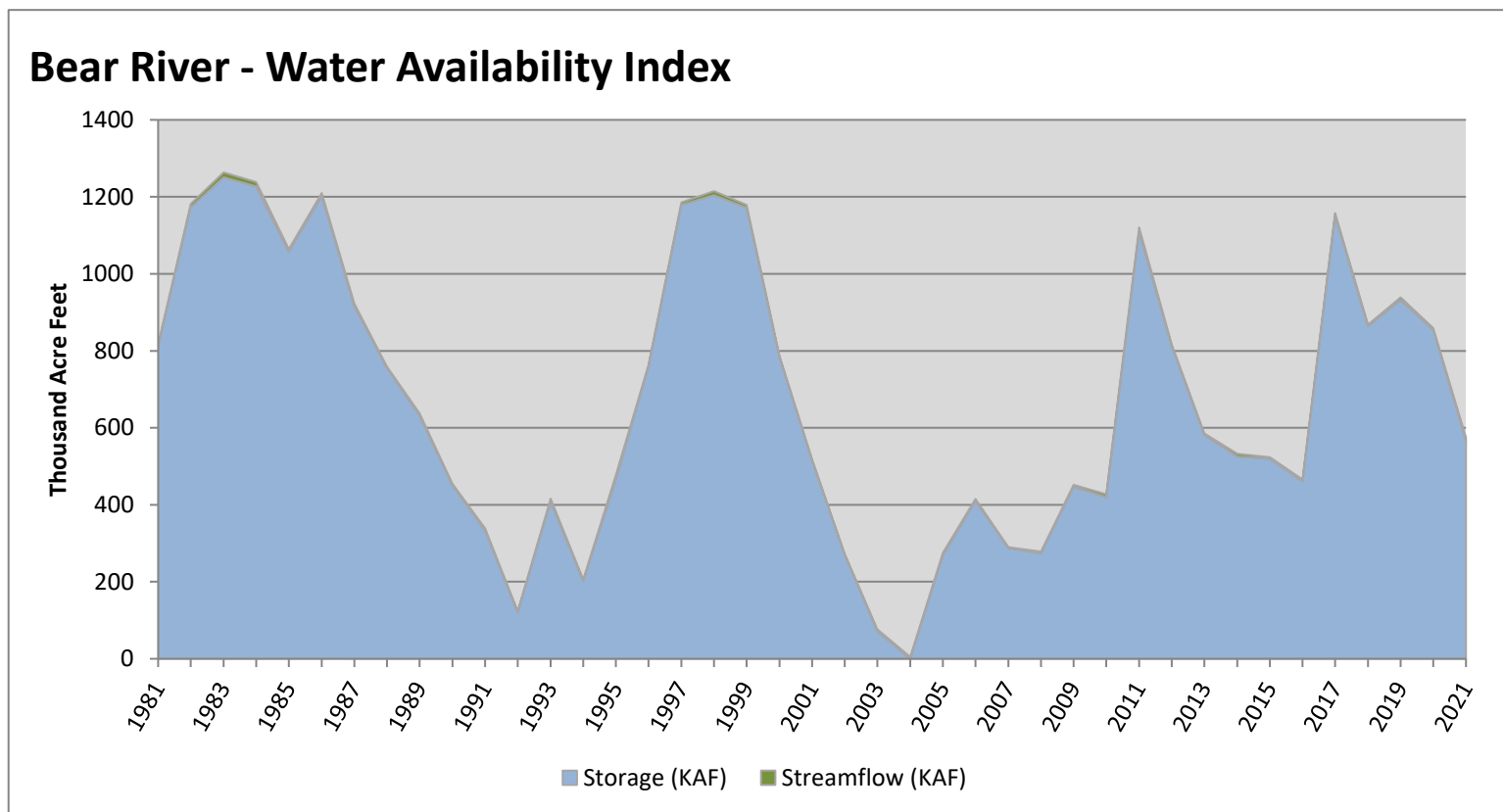


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Bear River</b>	<b>567.15</b>	<b>7.97</b>	<b>575.12</b>	<b>48</b>	<b>-0.2</b>	<b>15, 14, 13, 89</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

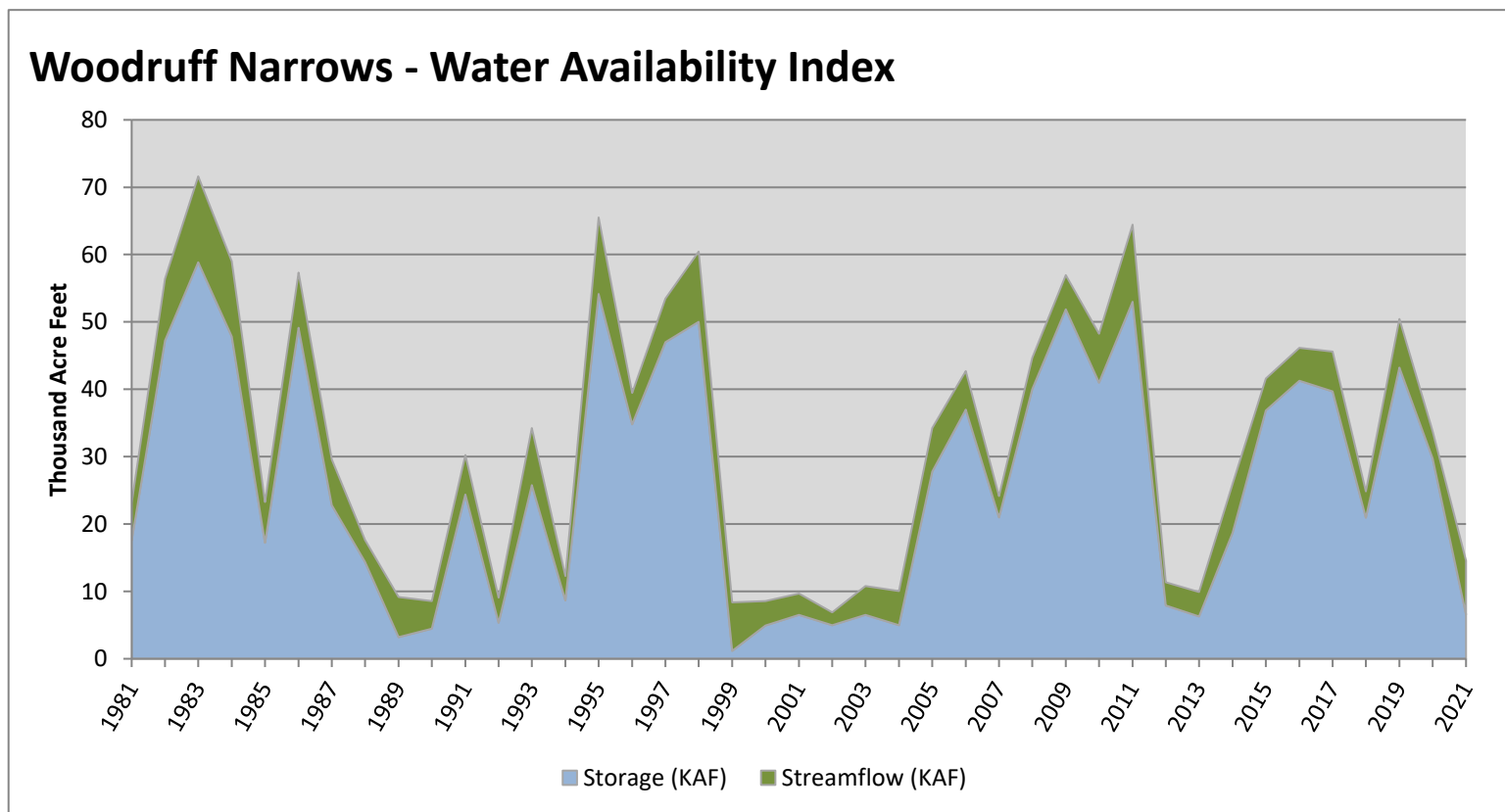


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Woodruff Narrows</b>	<b>6.58</b>	<b>7.97</b>	<b>14.55</b>	<b>31</b>	<b>-1.59</b>	<b>12, 94, 88, 81</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

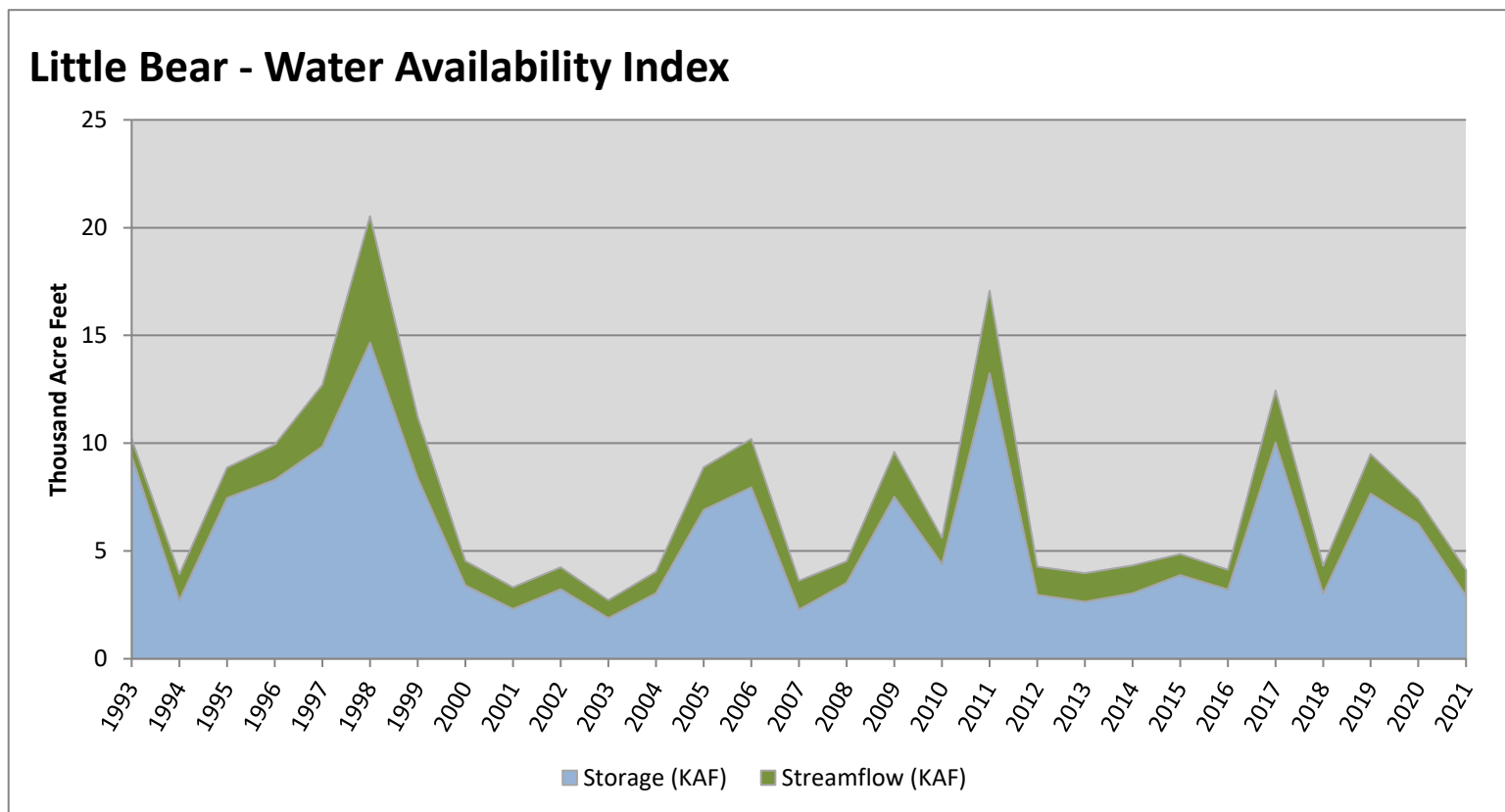


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Little Bear</b>	<b>2.93</b>	<b>1.19</b>	<b>4.12</b>	<b>23</b>	<b>-2.22</b>	<b>13, 04, 16, 02</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

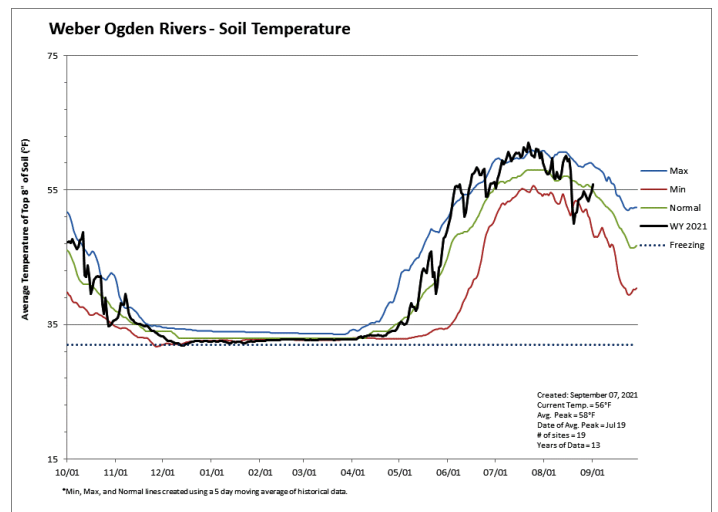
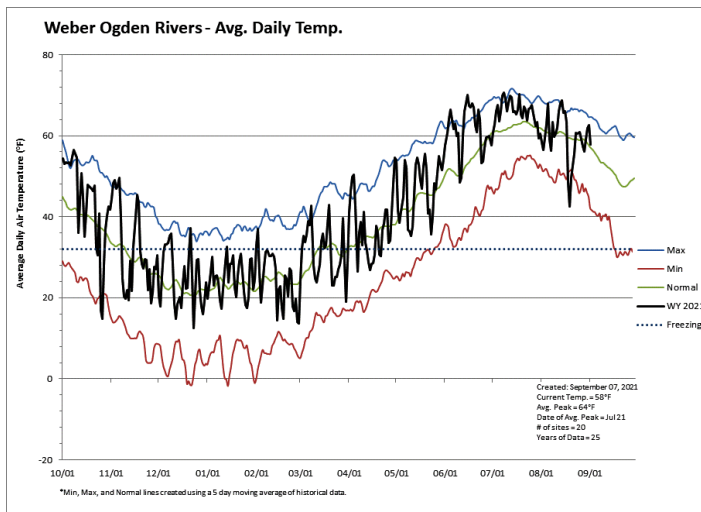
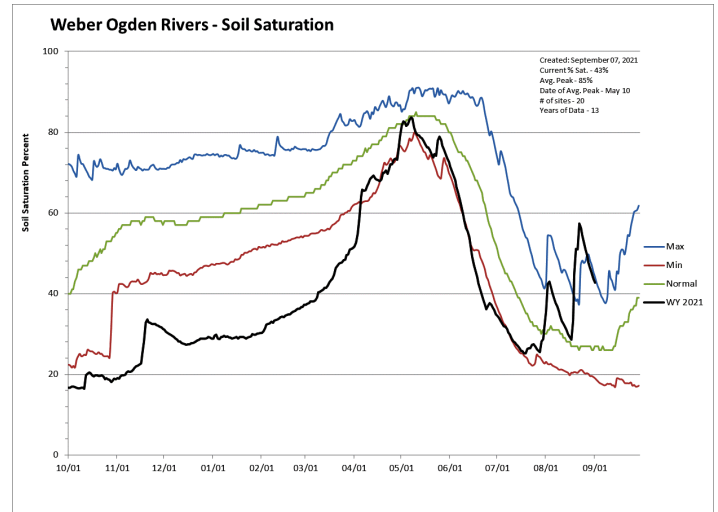
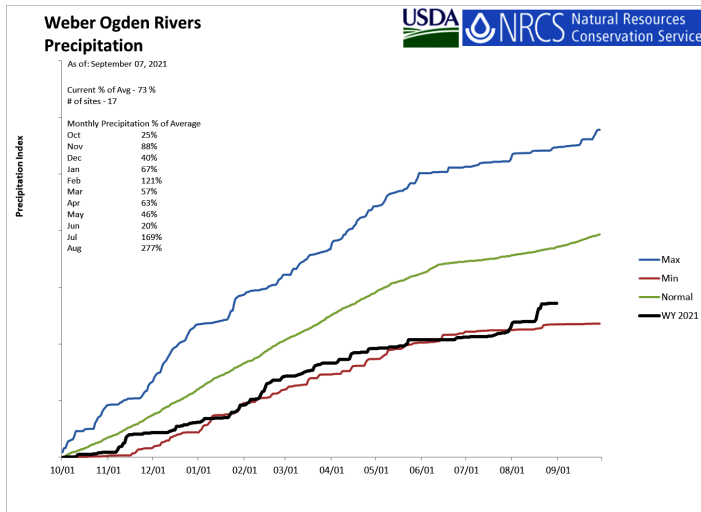




# Weber & Ogden River Basins

September 1, 2021

Precipitation in August was much above average at 276%, which brings the seasonal accumulation (Oct-Aug) to 73% of average. Soil moisture is at 43% compared to 19% last year. Reservoir storage is at 33% of capacity, compared to 61% last year. The water availability index for the Ogden River is 5% and 9% for the Weber River.

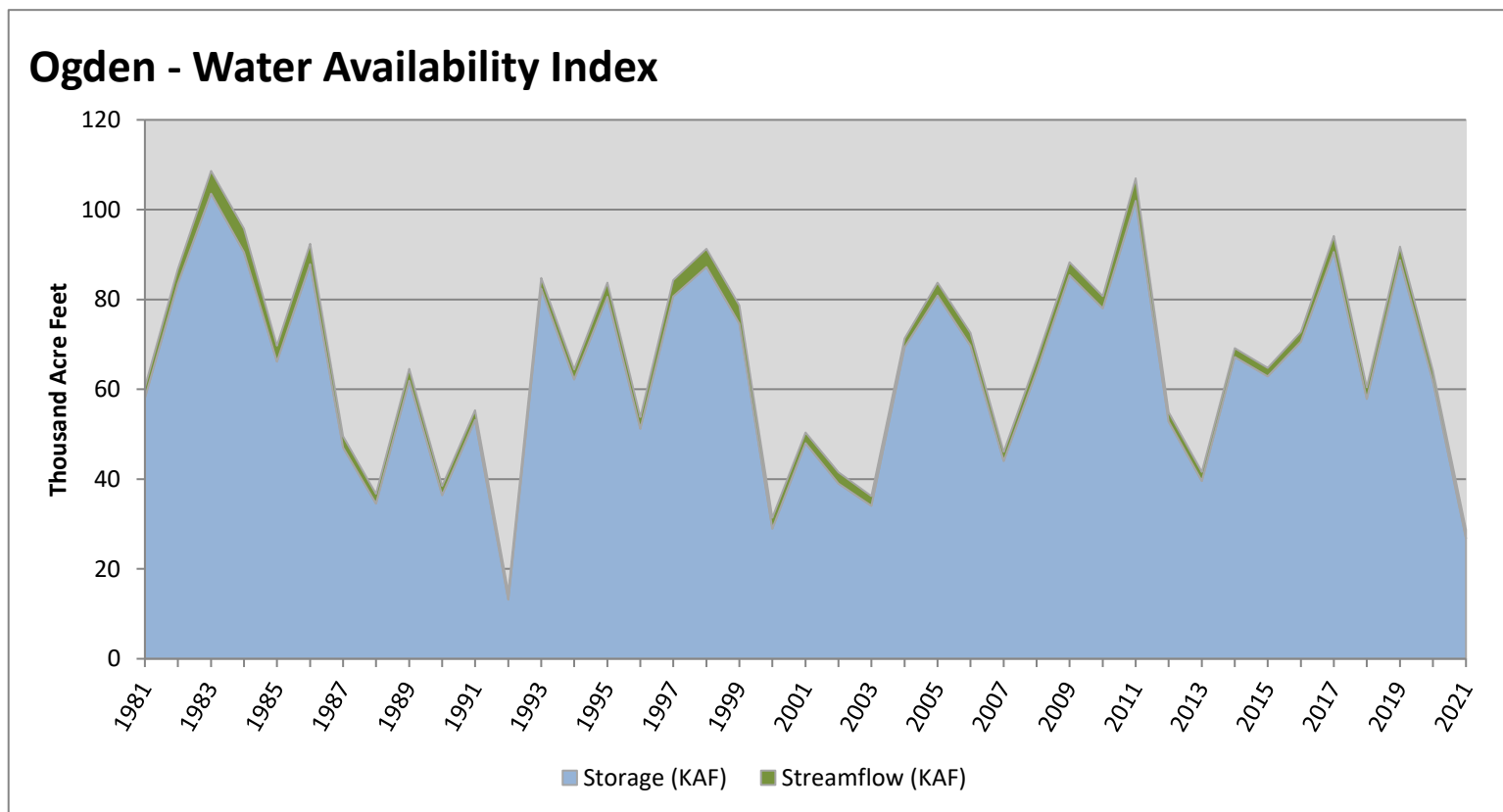


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Ogden</b>	<b>26.80</b>	<b>1.96</b>	<b>28.76</b>	<b>5</b>	<b>-3.77</b>	<b>92, 00, 03, 88</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

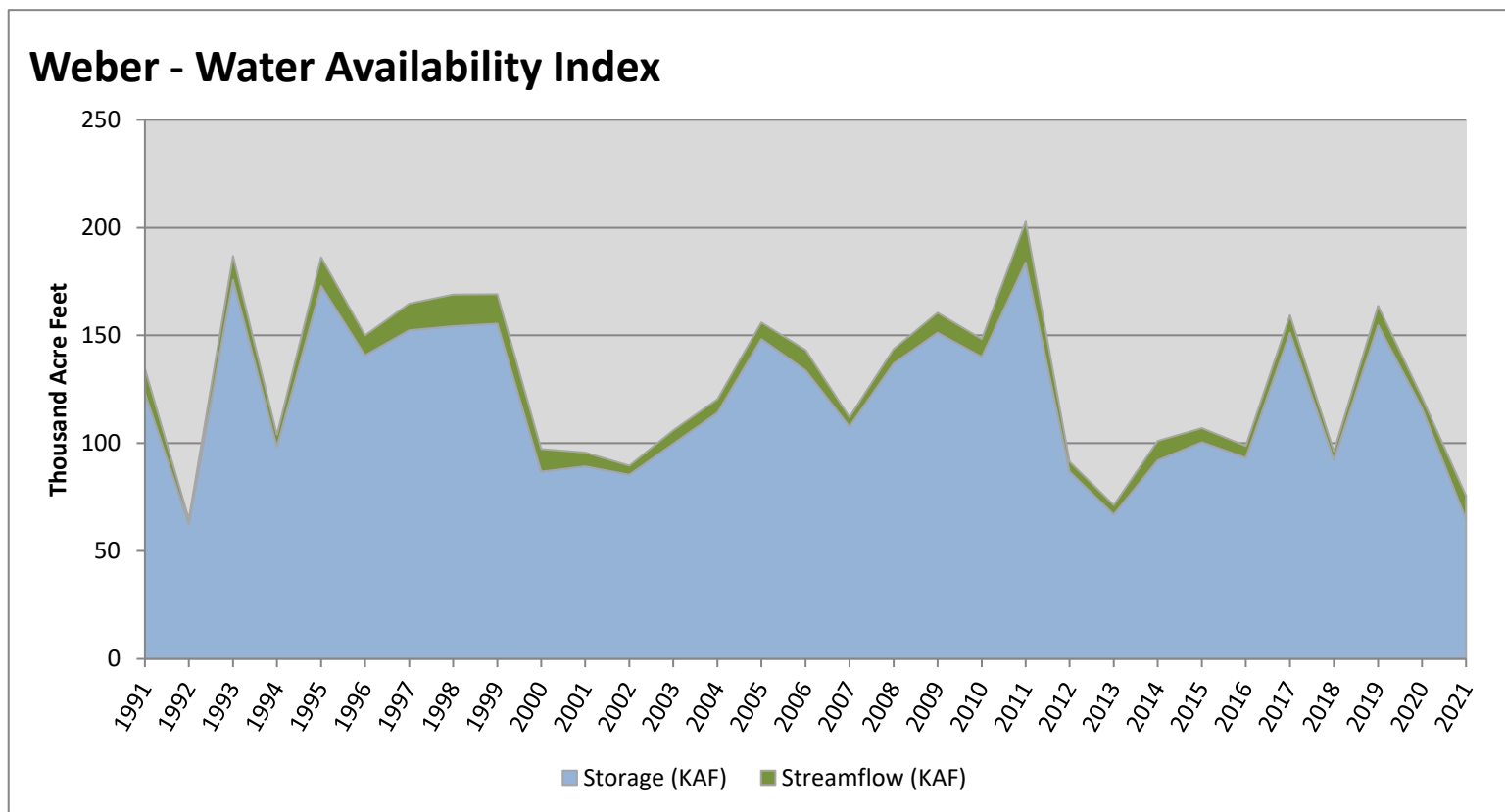


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Weber</b>	<b>64.75</b>	<b>10.88</b>	<b>75.63</b>	<b>9</b>	<b>-3.39</b>	<b>92, 13, 02, 12</b>

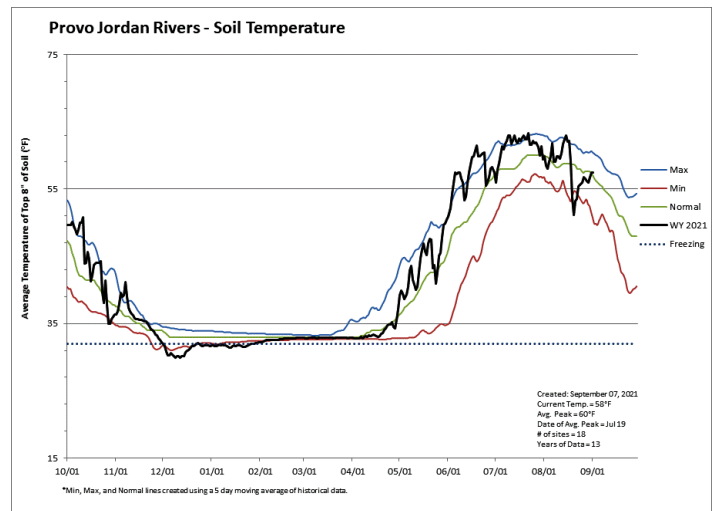
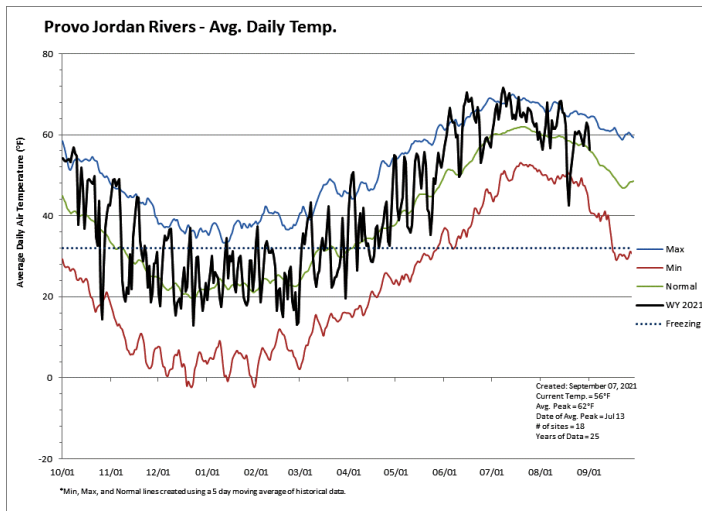
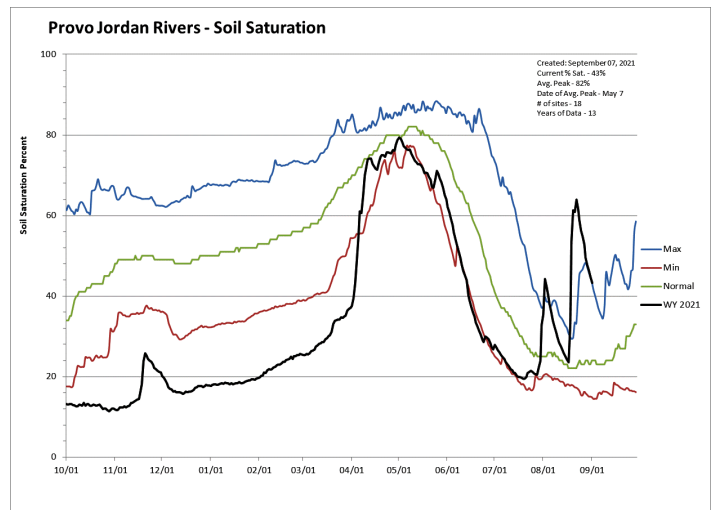
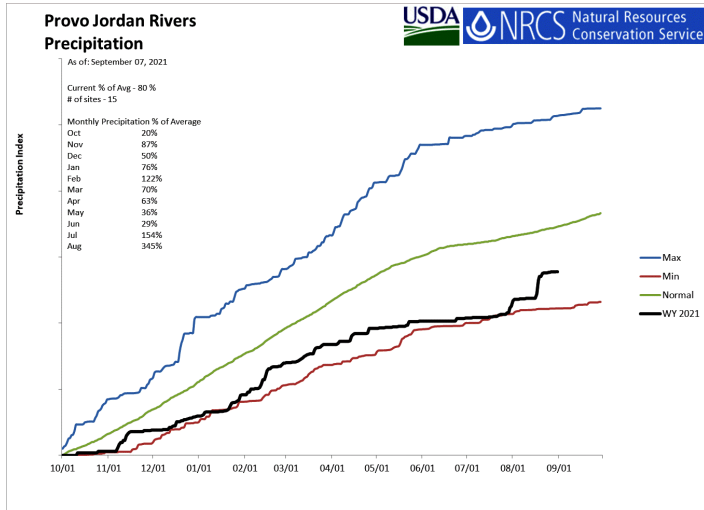
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Provo & Jordan River Basins

September 1, 2021

Precipitation in August was much above average at 349%, which brings the seasonal accumulation (Oct-Aug) to 80% of average. Soil moisture is at 44% compared to 15% last year. Reservoir storage is at 64% of capacity, compared to 79% last year. The water availability index for the Provo River is 7%.

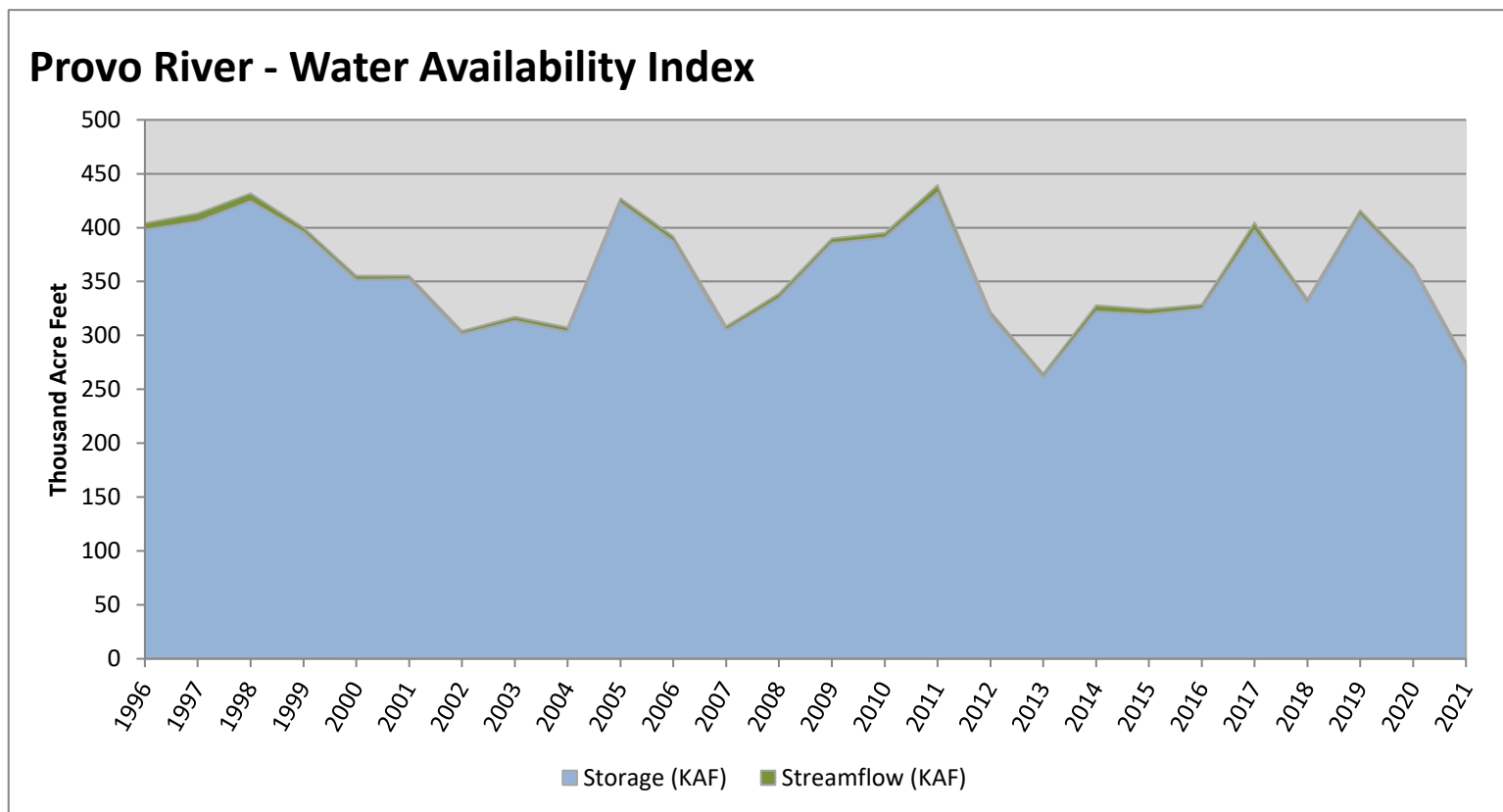


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Provo River</b>	<b>271.11</b>	<b>4.56</b>	<b>275.67</b>	<b>7</b>	<b>-3.55</b>	<b>13, 02, 04, 07</b>

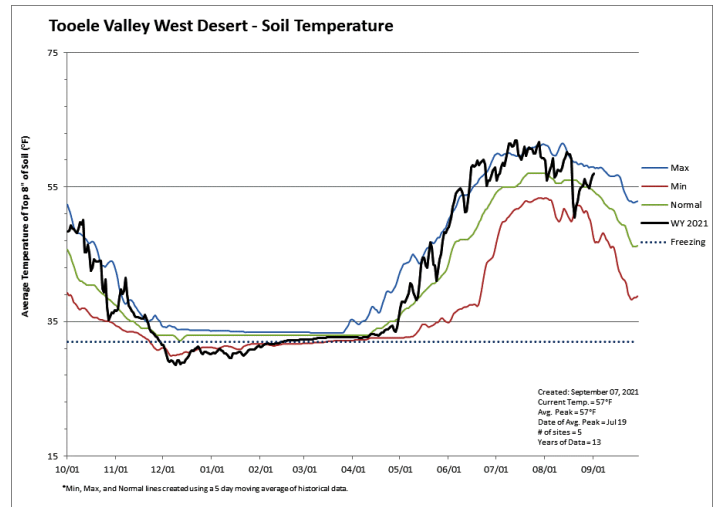
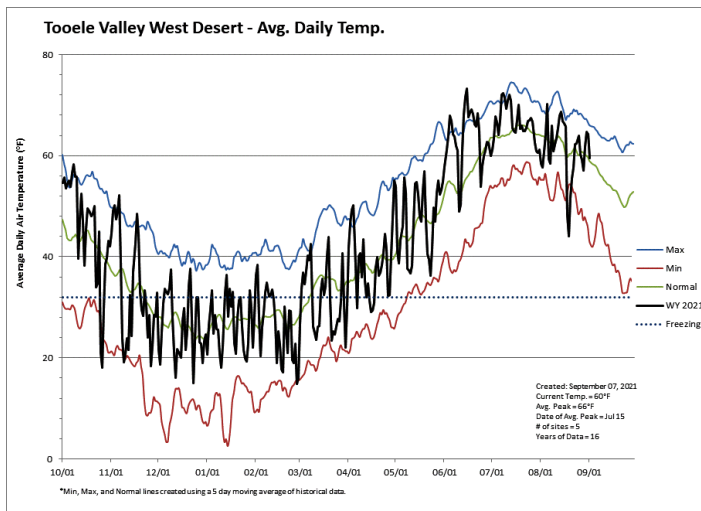
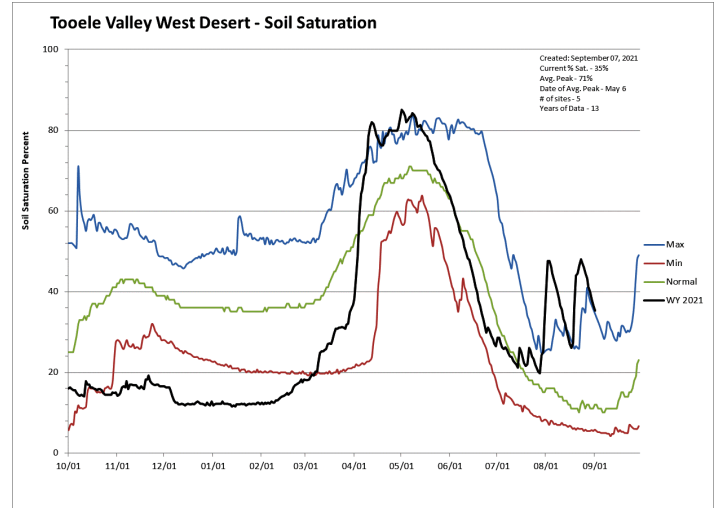
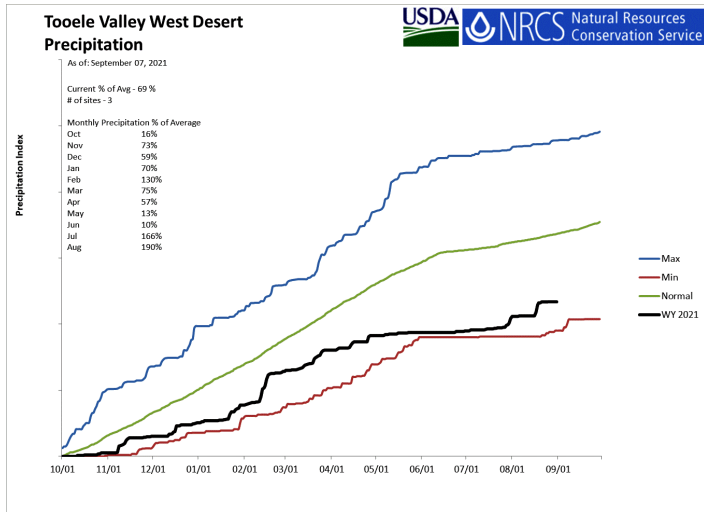
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Tooele Valley & West Desert Basins

September 1, 2021

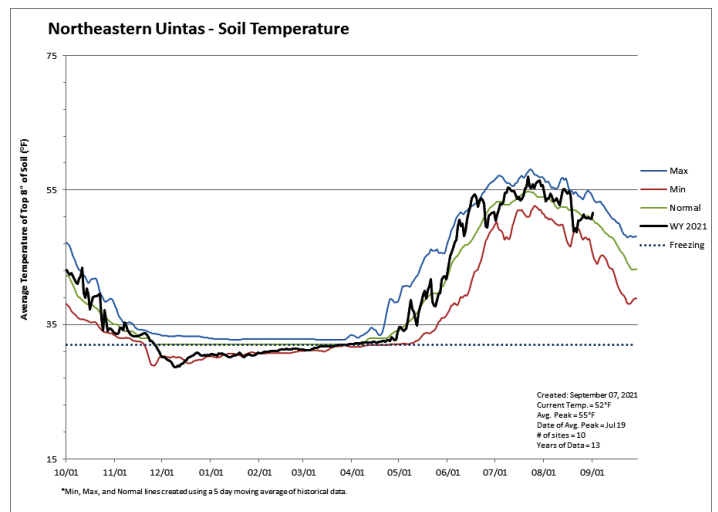
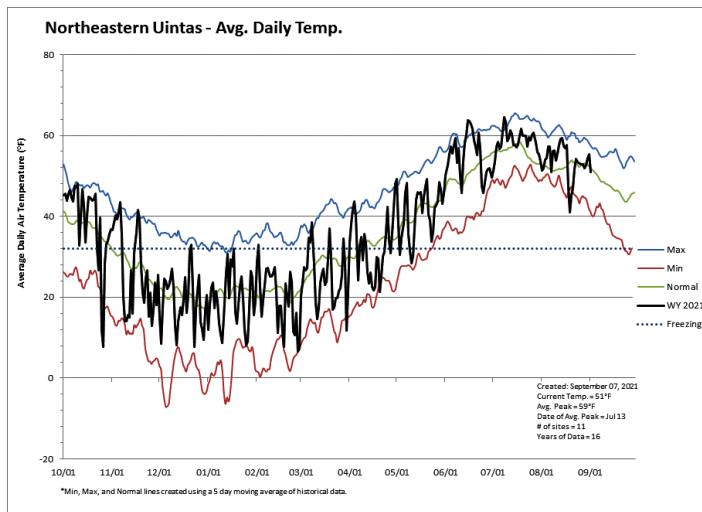
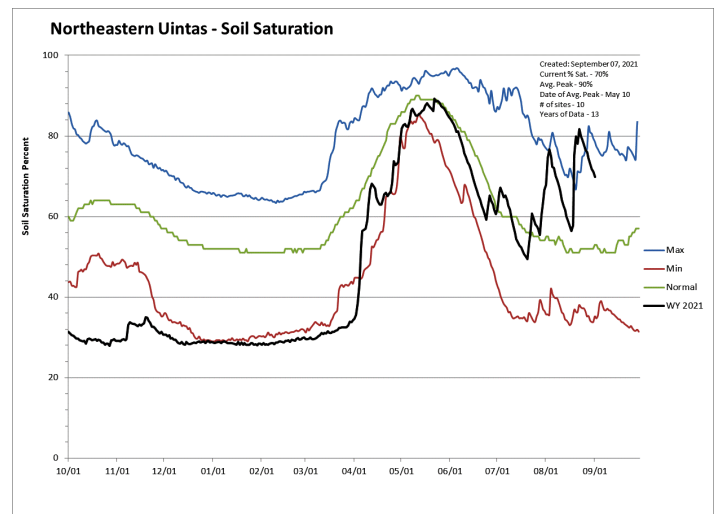
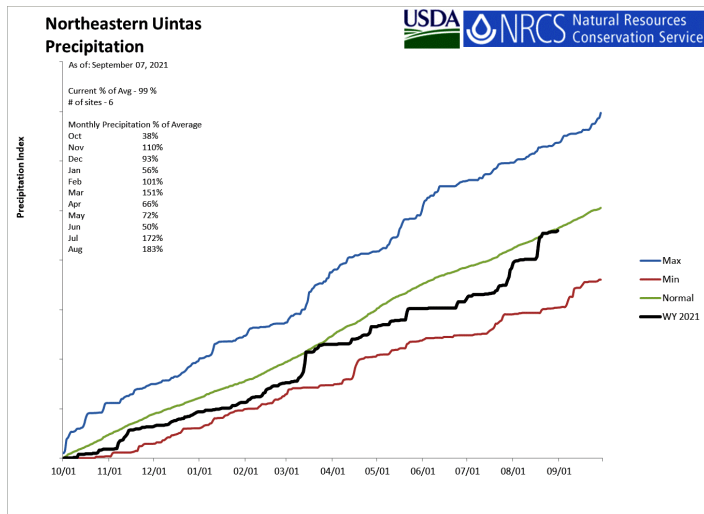
Precipitation in August was much above average at 193%, which brings the seasonal accumulation (Oct-Aug) to 69% of average. Soil moisture is at 30% compared to 12% last year. Reservoir storage is at 35% of capacity, compared to 29% last year.



# Northeastern Uinta Basin

September 1, 2021

Precipitation in August was much above average at 185%, which brings the seasonal accumulation (Oct-Aug) to 99% of average. Soil moisture is at 68% compared to 30% last year. Reservoir storage is at 80% of capacity, compared to 86% last year. The water availability index for Blacks Fork is 41% and 97% for Smiths Creek.



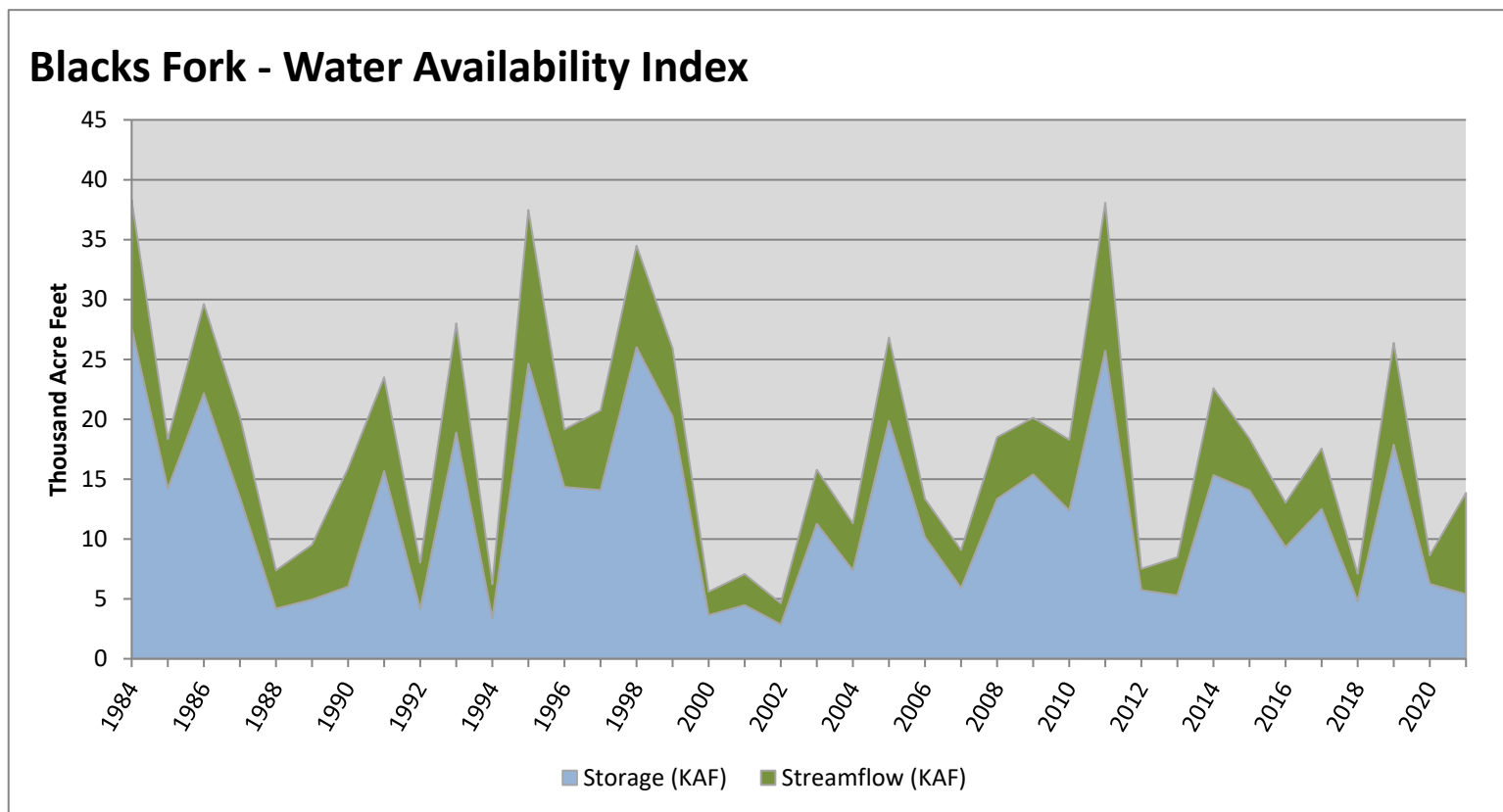


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Blacks Fork</b>	<b>5.40</b>	<b>8.45</b>	<b>13.85</b>	<b>41</b>	<b>-0.75</b>	<b>16, 06, 03, 90</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

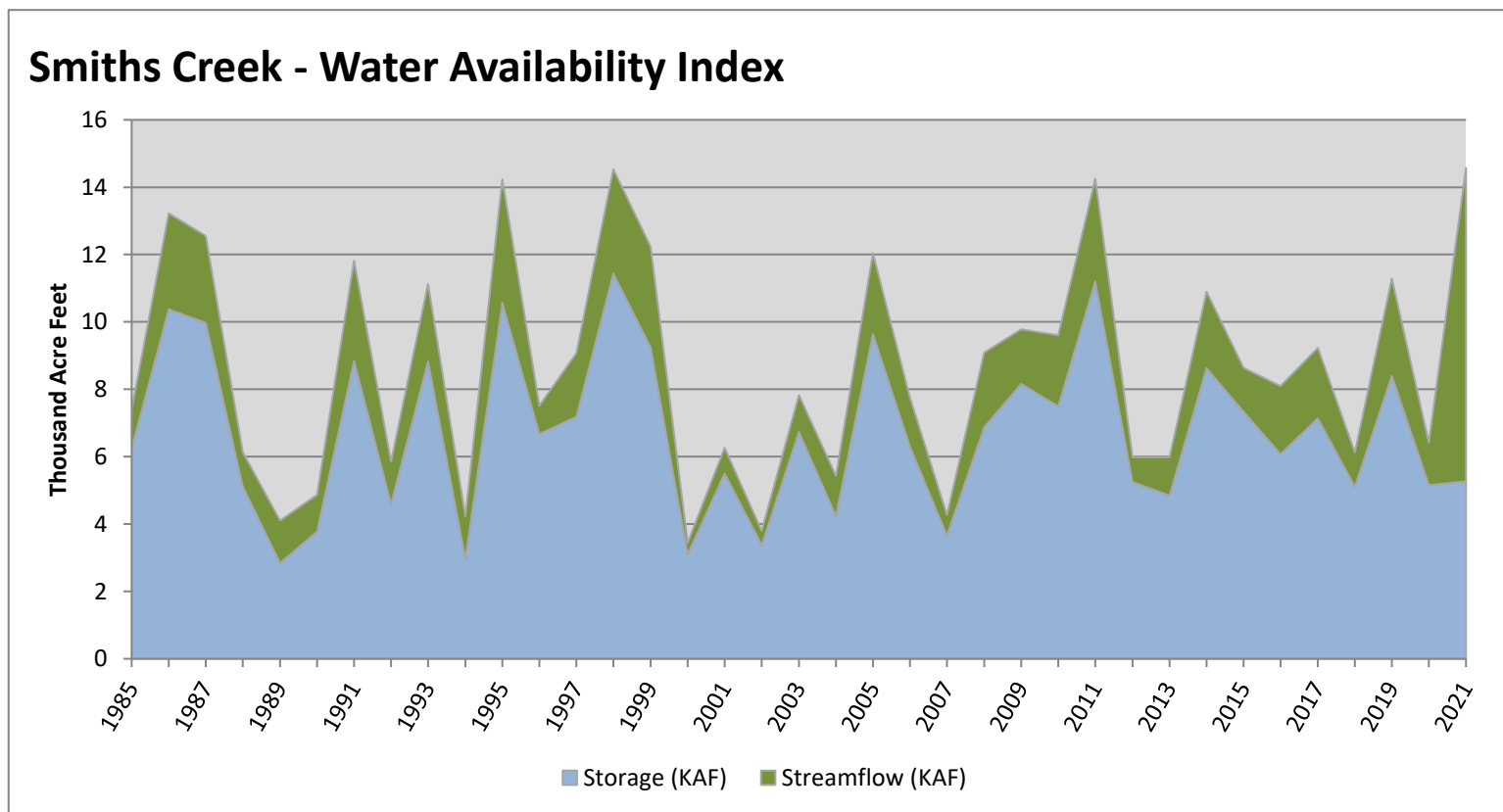


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Smiths Creek</b>	<b>5.27</b>	<b>9.30</b>	<b>14.57</b>	<b>97</b>	<b>3.95</b>	<b>98, 11, 95, 86</b>

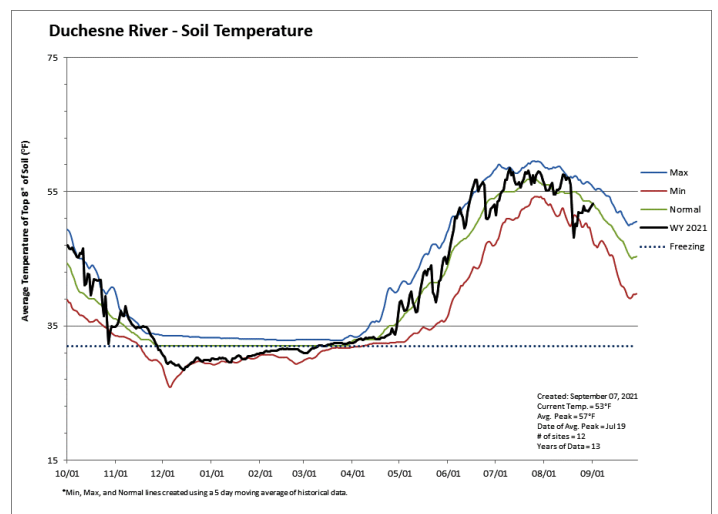
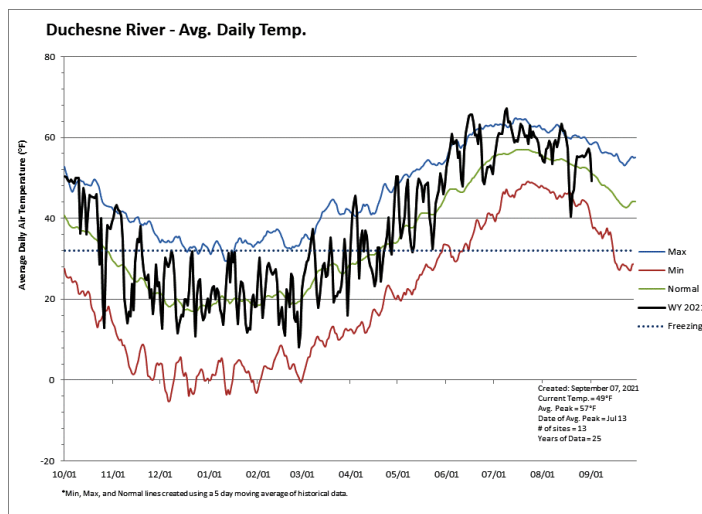
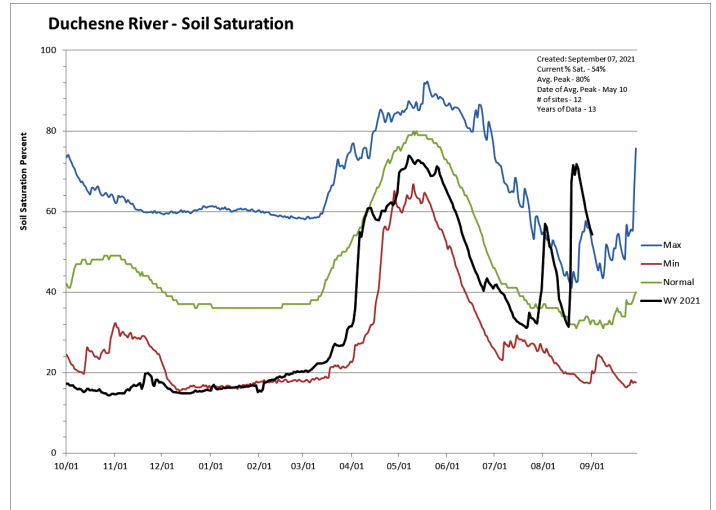
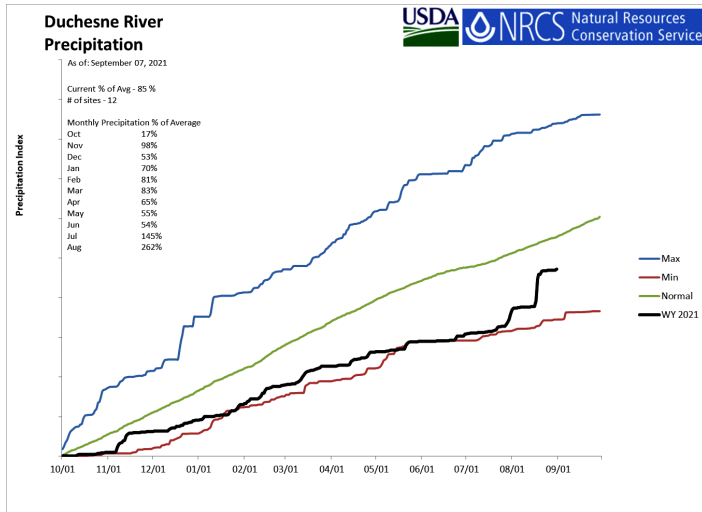
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Duchesne River Basin

September 1, 2021

Precipitation in August was much above average at 263%, which brings the seasonal accumulation (Oct-Aug) to 85% of average. Soil moisture is at 55% compared to 21% last year. Reservoir storage is at 72% of capacity, compared to 82% last year. The water availability index for the Western Uintas is 43% and 10% for the Eastern Uintas.

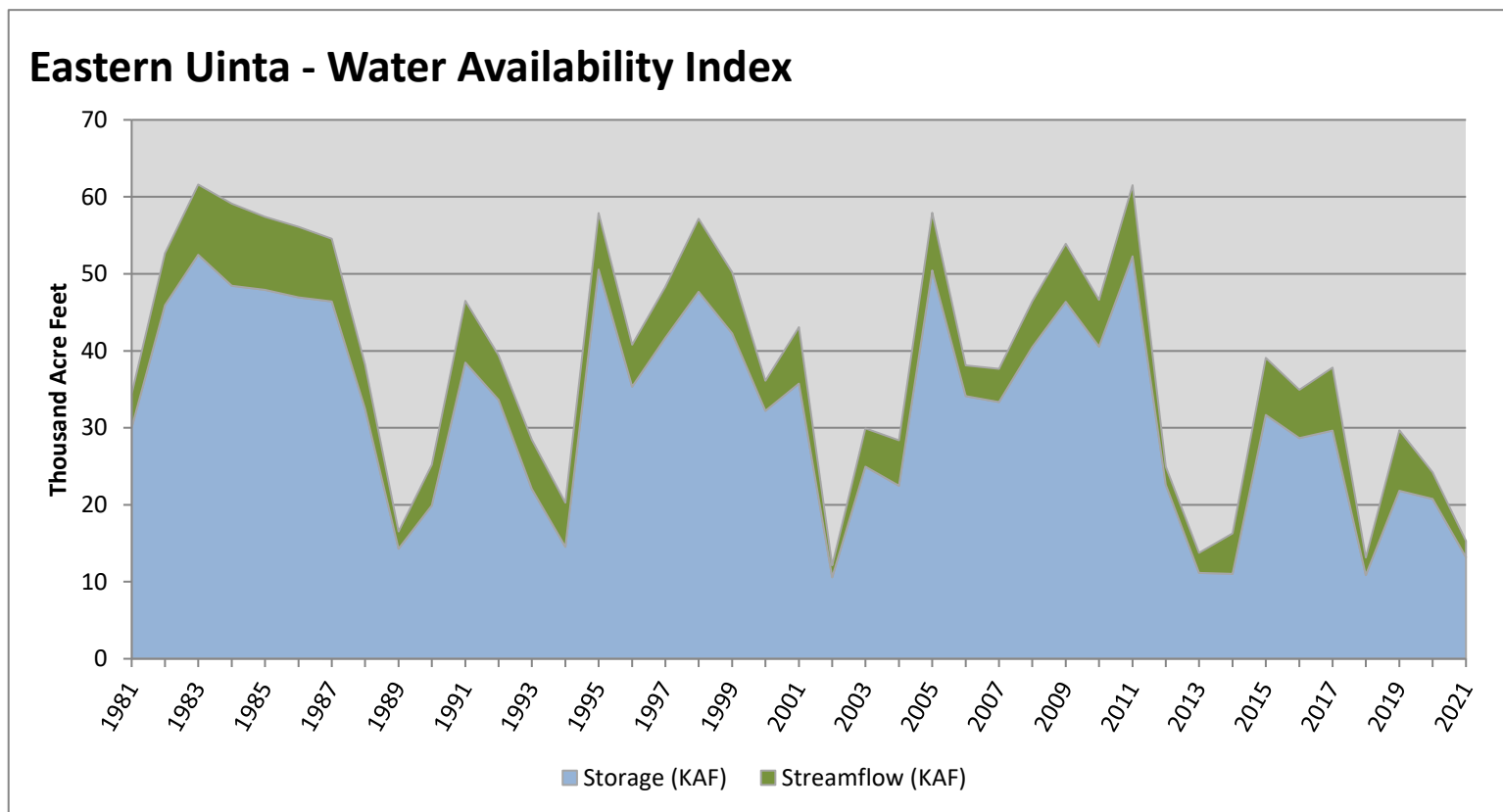


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Eastern Uinta</b>	<b>13.20</b>	<b>2.10</b>	<b>15.30</b>	<b>10</b>	<b>-3.37</b>	<b>18, 13, 14, 89</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

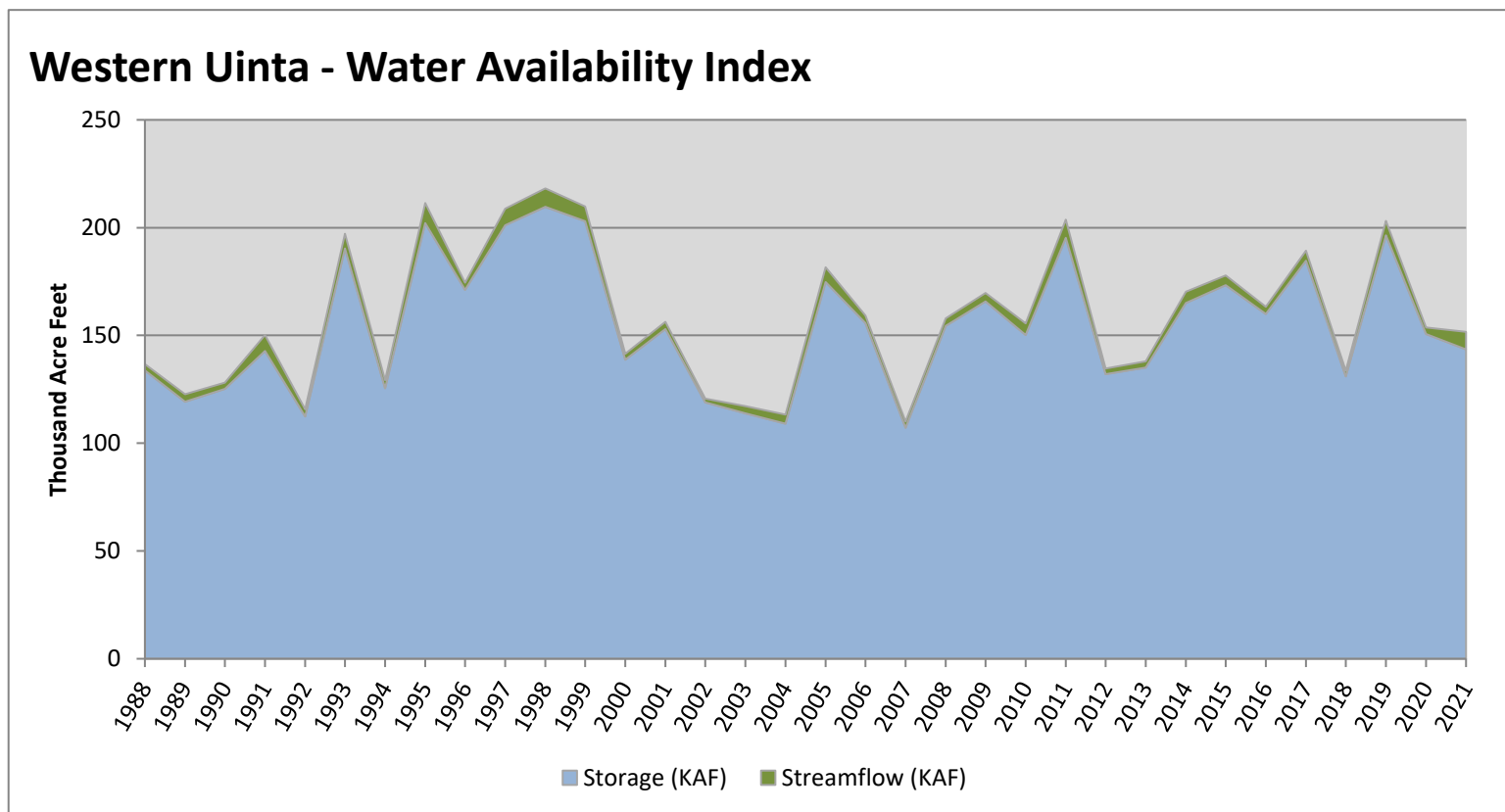


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Western Uinta</b>	<b>143.56</b>	<b>8.04</b>	<b>151.60</b>	<b>43</b>	<b>-0.6</b>	<b>00, 91, 20, 10</b>

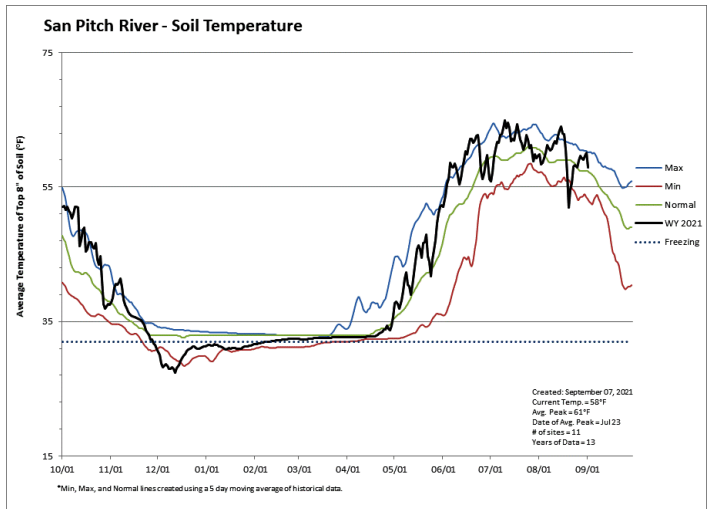
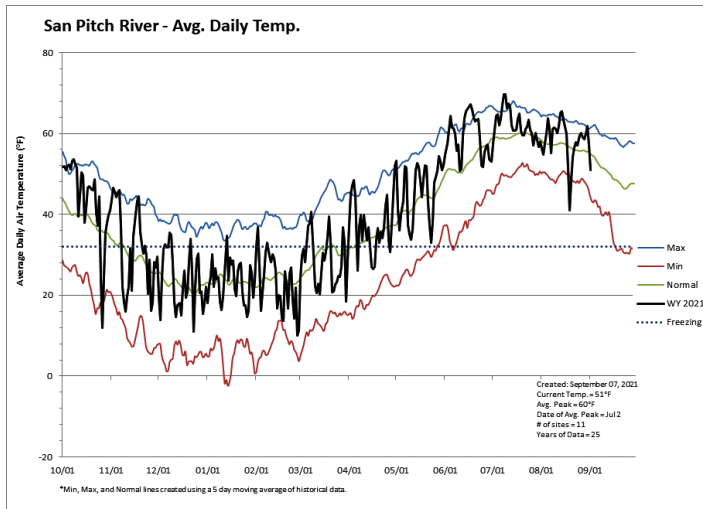
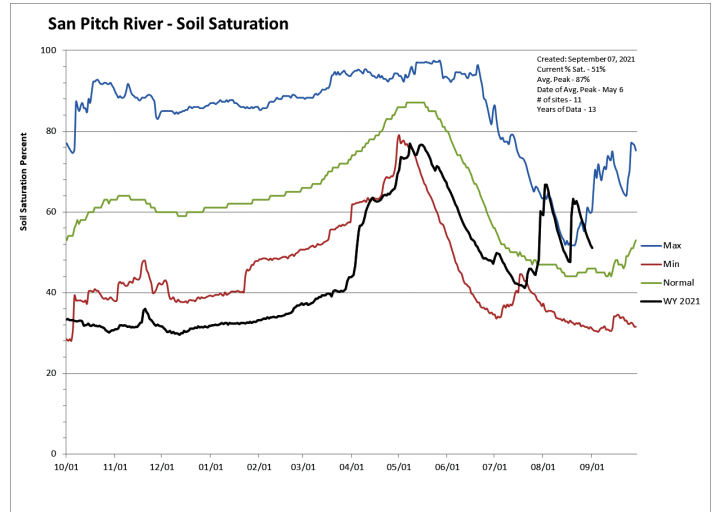
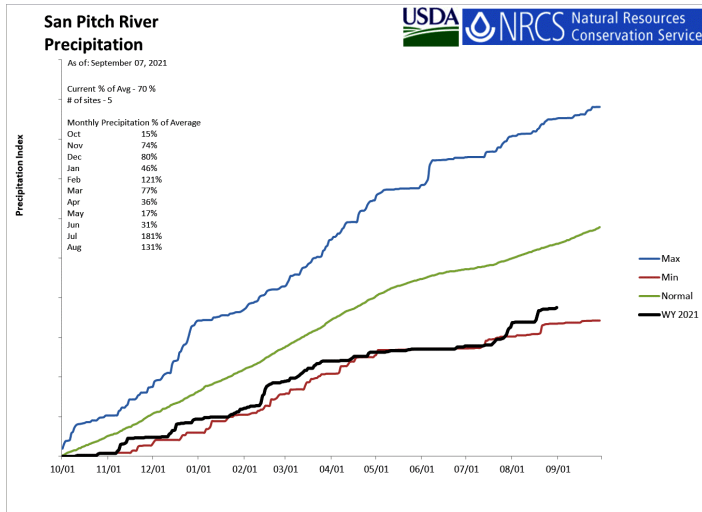
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# San Pitch River Basin

September 1, 2021

Precipitation in August was much above average at 131%, which brings the seasonal accumulation (Oct-Aug) to 70% of average. Soil Moisture is at 53% compared to 39% last year. Reservoir storage is at 0% of capacity, compared to 0% last year. The water availability index for the San Pitch is 12%.

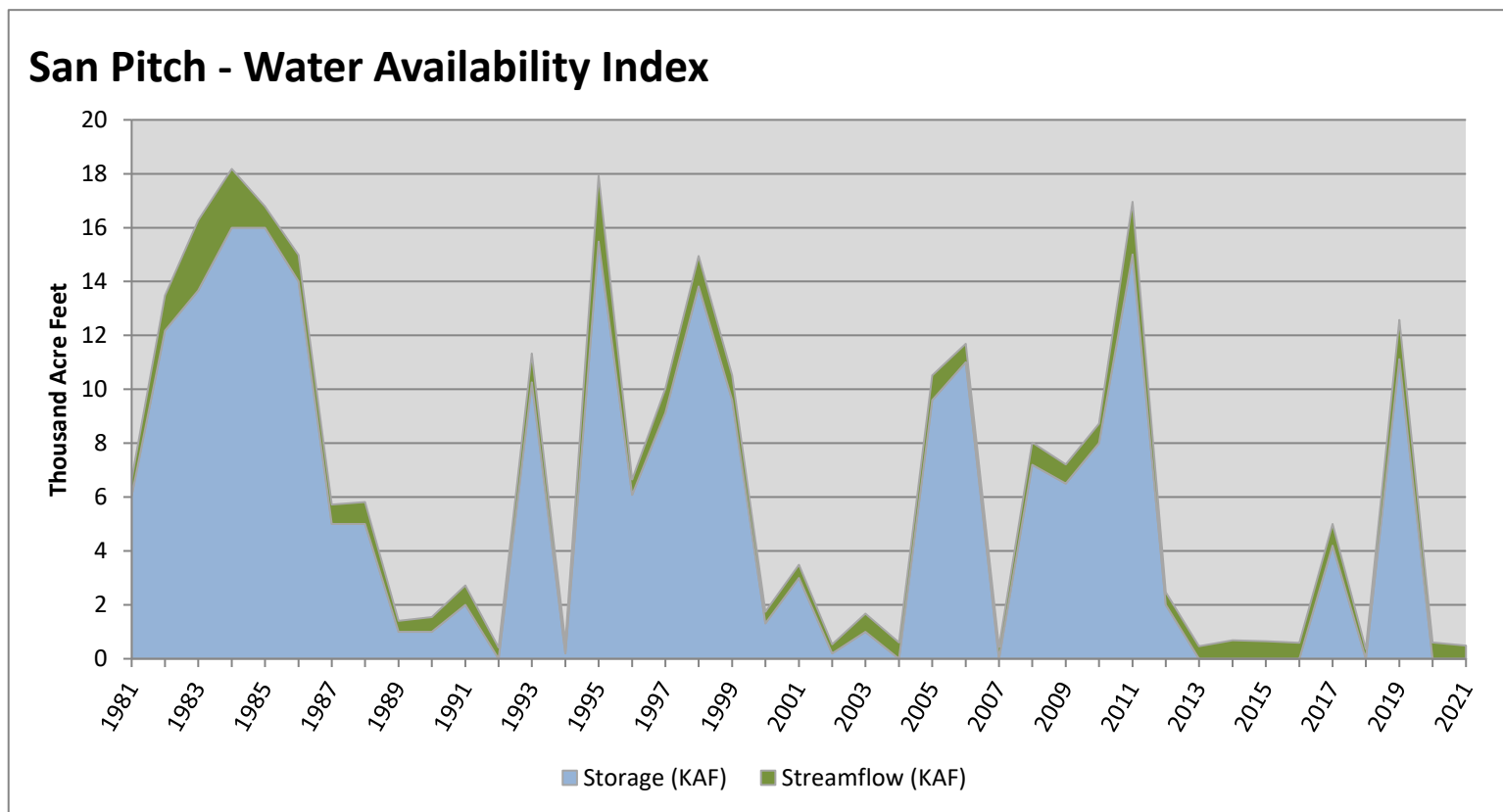


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>San Pitch</b>	<b>0.00</b>	<b>0.49</b>	<b>0.49</b>	<b>12</b>	<b>-3.17</b>	<b>07, 13, 02, 16</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

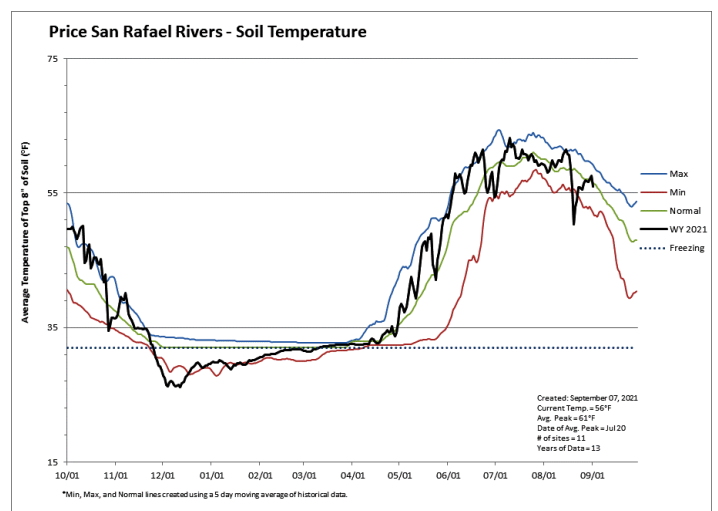
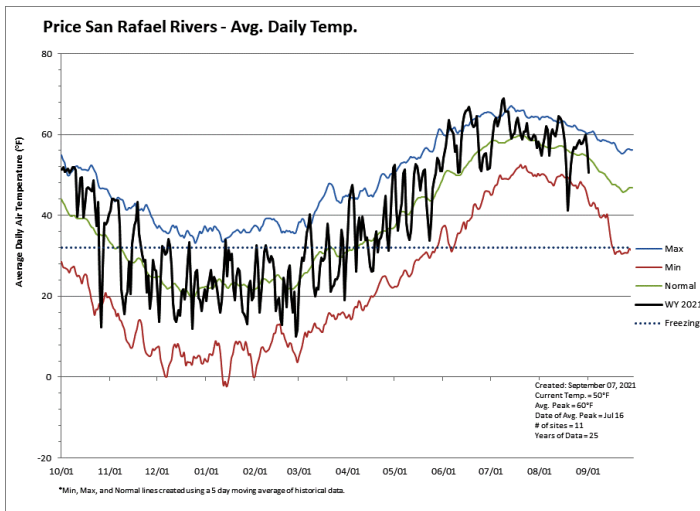
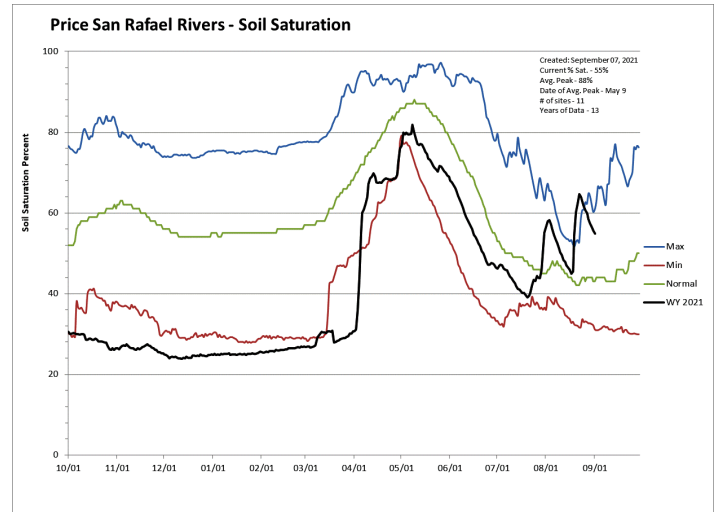
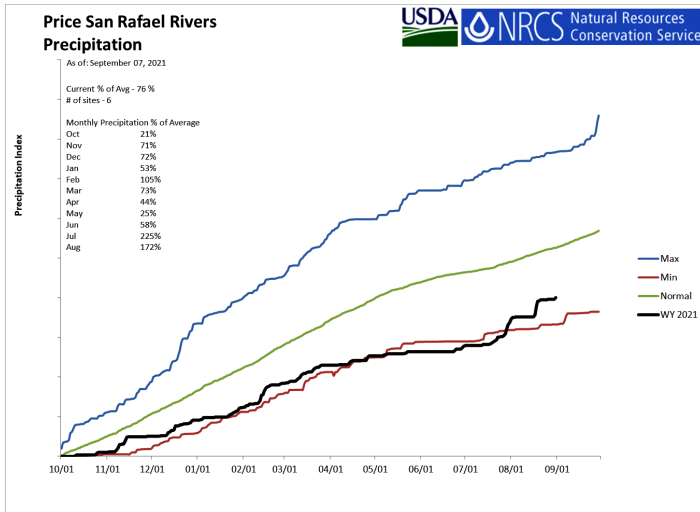




# Price & San Rafael Basins

September 1, 2021

Precipitation in August was much above average at 171%, which brings the seasonal accumulation (Oct-Aug) to 76% of average. Soil moisture is at 56% compared to 34% last year. Reservoir storage is at 28% of capacity, compared to 54% last year. The water availability index for the Price River is 33%, and 5% for Joe's Valley.

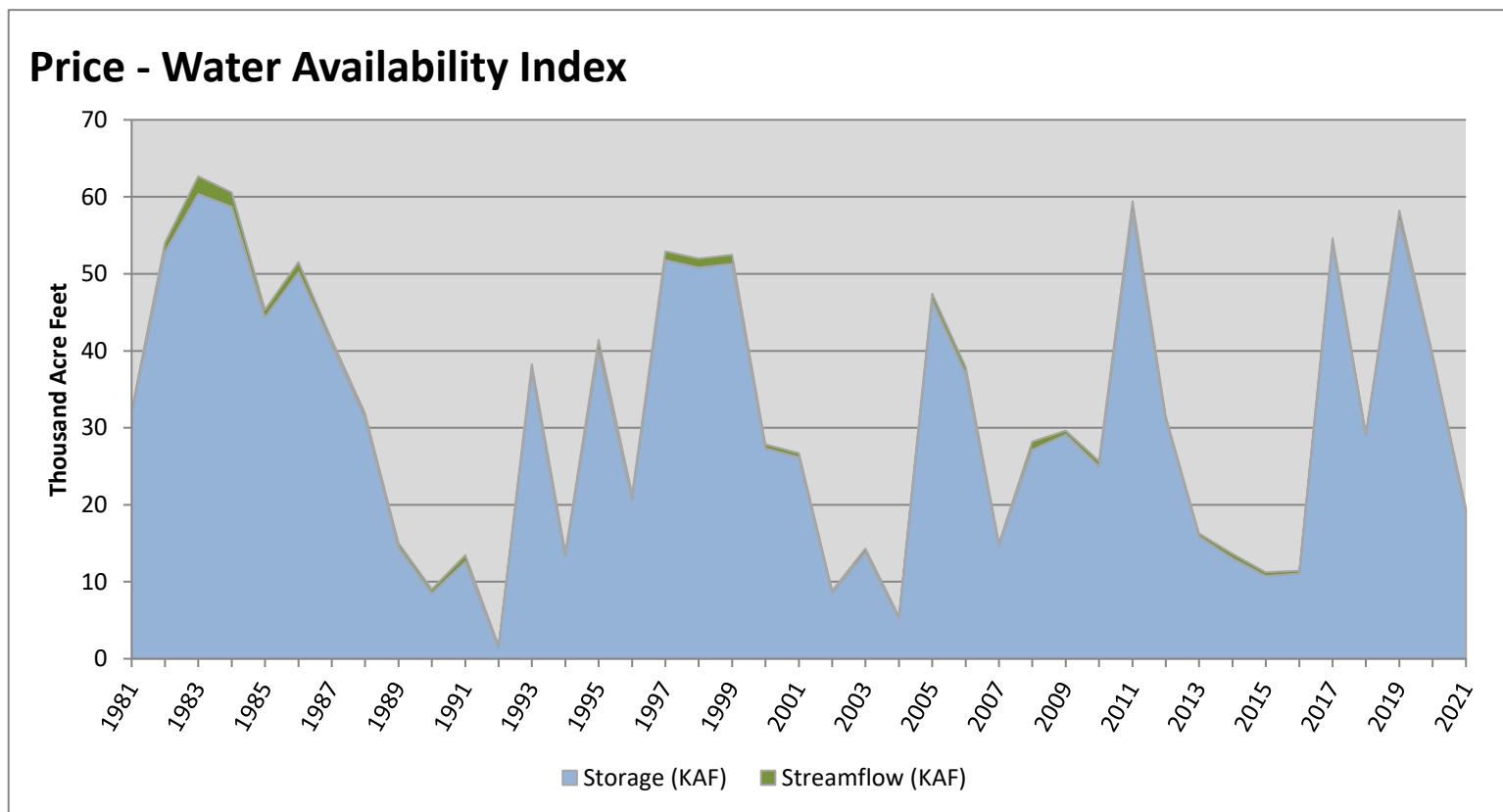


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Price</b>	<b>19.02</b>	<b>0.47</b>	<b>19.49</b>	<b>33</b>	<b>-1.39</b>	<b>89, 13, 96, 10</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

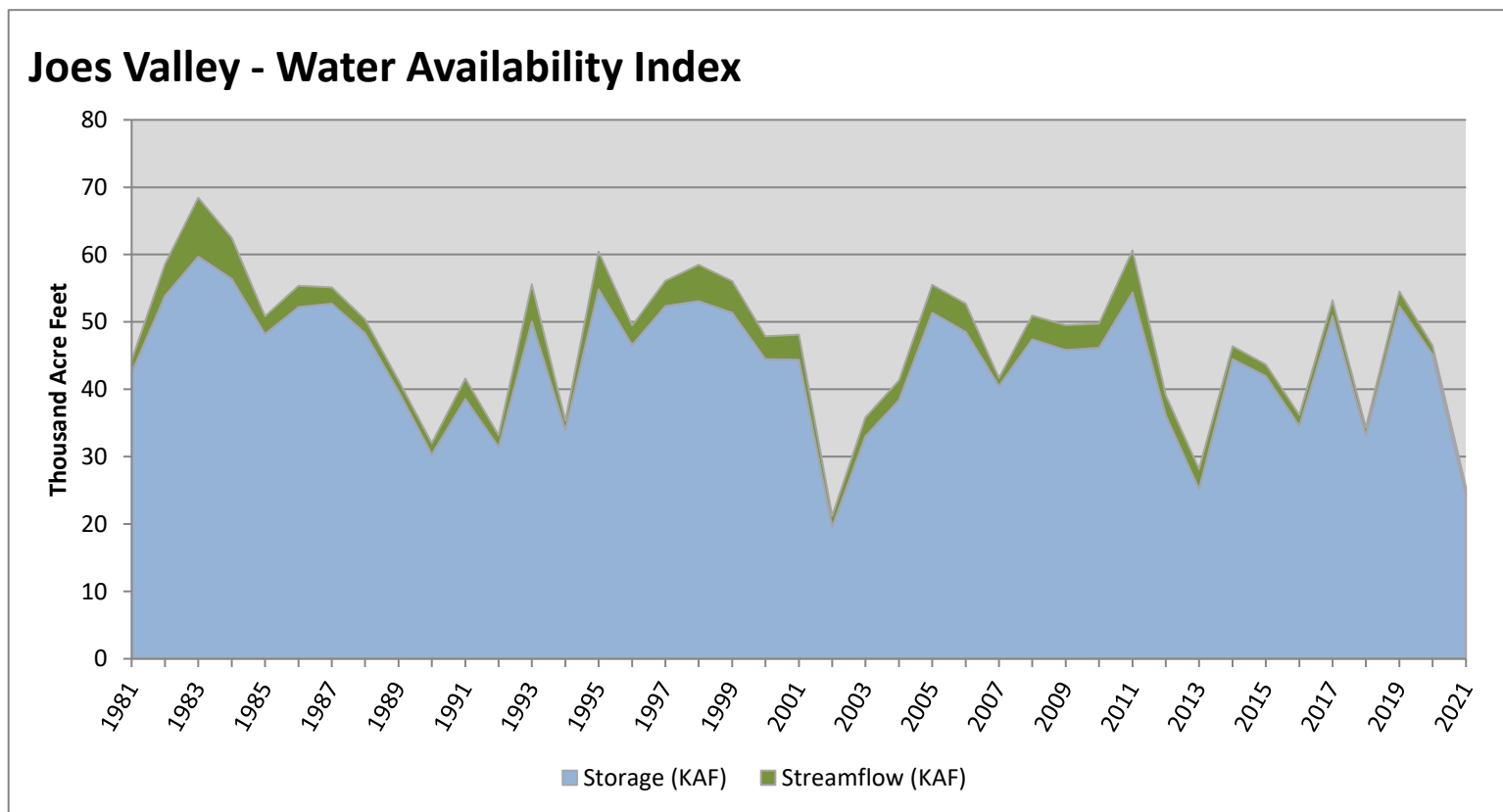


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Joes Valley</b>	<b>24.30</b>	<b>1.17</b>	<b>25.47</b>	<b>5</b>	<b>-3.77</b>	<b>02, 13, 90, 92</b>

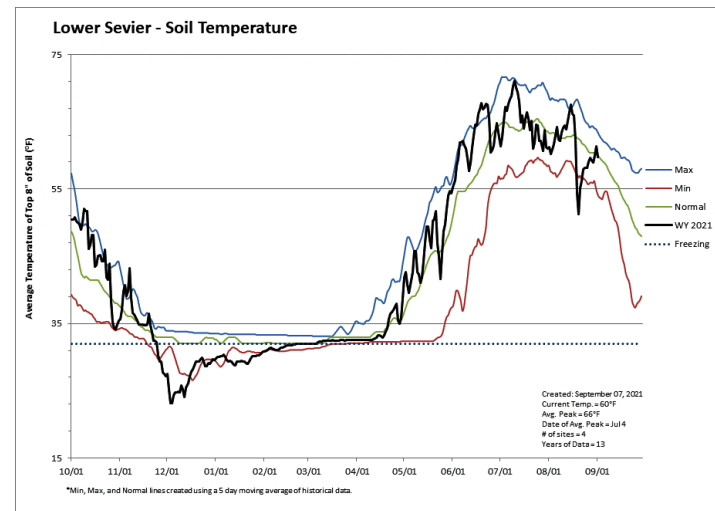
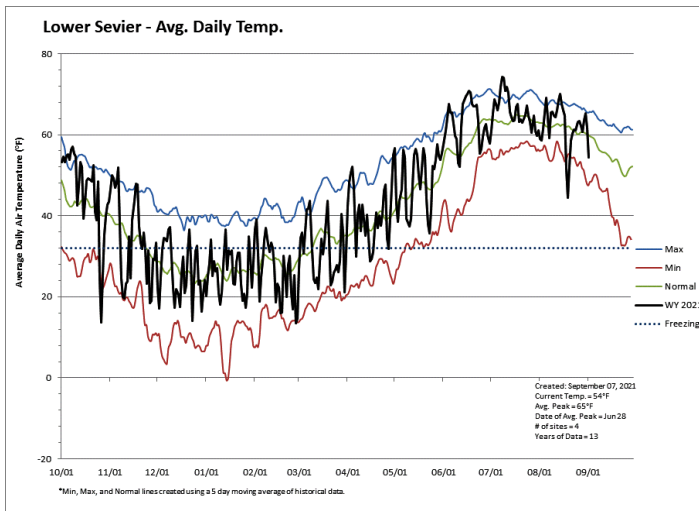
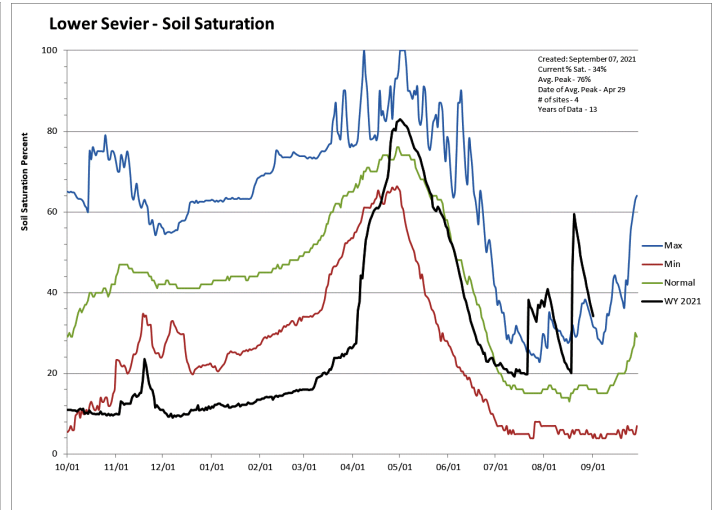
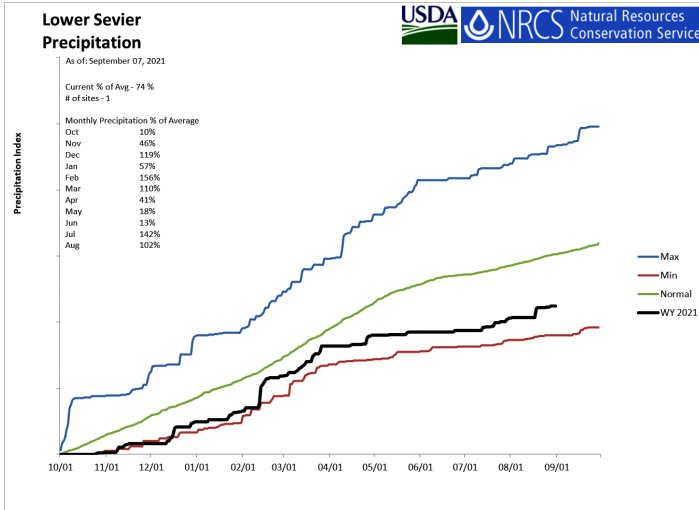
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Lower Sevier Basin

September 1, 2021

Precipitation in August was near average at 100%, which brings the seasonal accumulation (Oct-Aug) to 74% of average. Soil moisture is at 35% compared to 13% last year. Reservoir storage is at 8% of capacity, compared to 18% last year. The water availability index for the Lower Sevier is 14%.

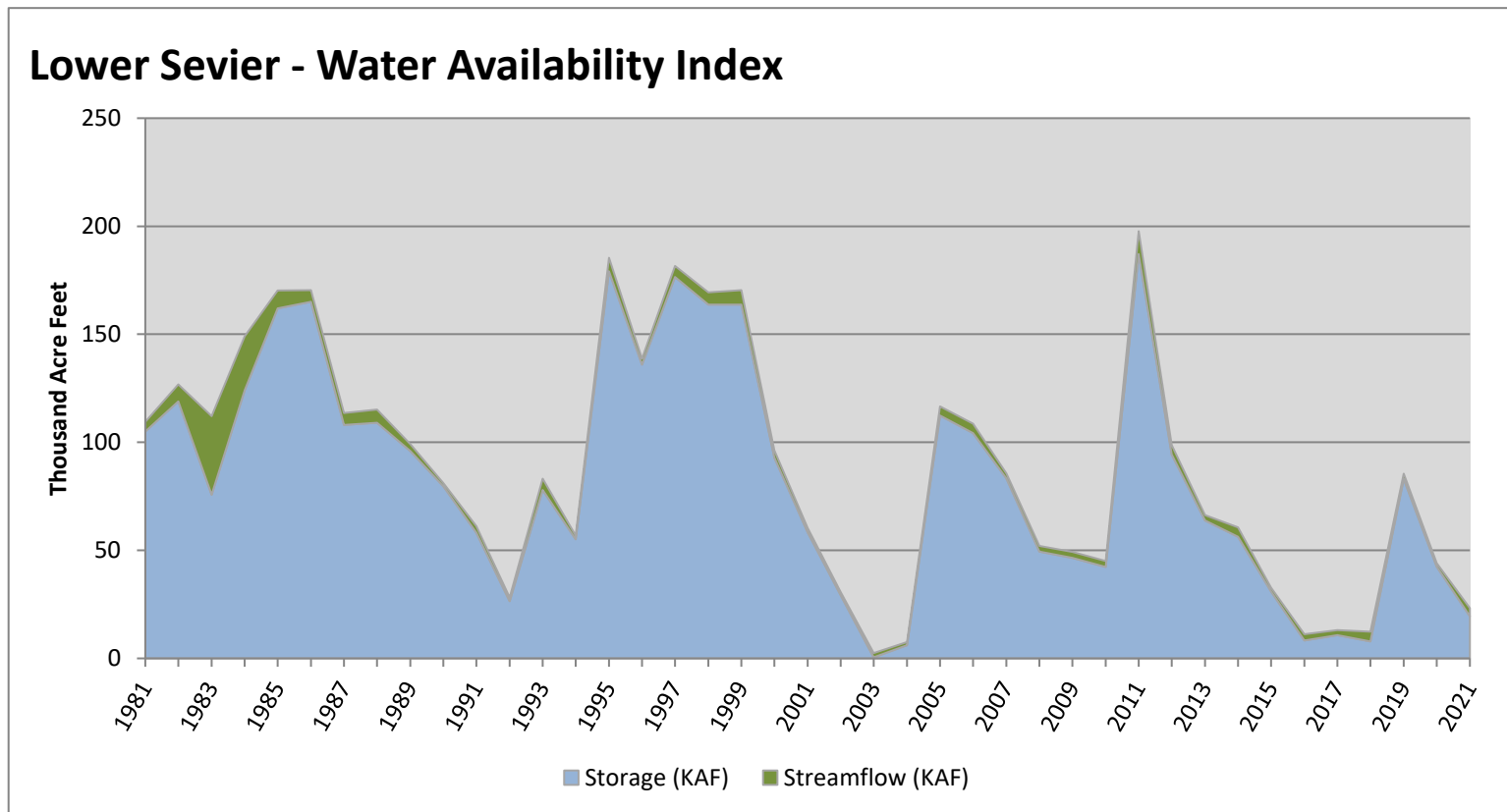


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Lower Sevier</b>	<b>19.47</b>	<b>3.83</b>	<b>23.30</b>	<b>14</b>	<b>-2.98</b>	<b>18, 17, 92, 02</b>

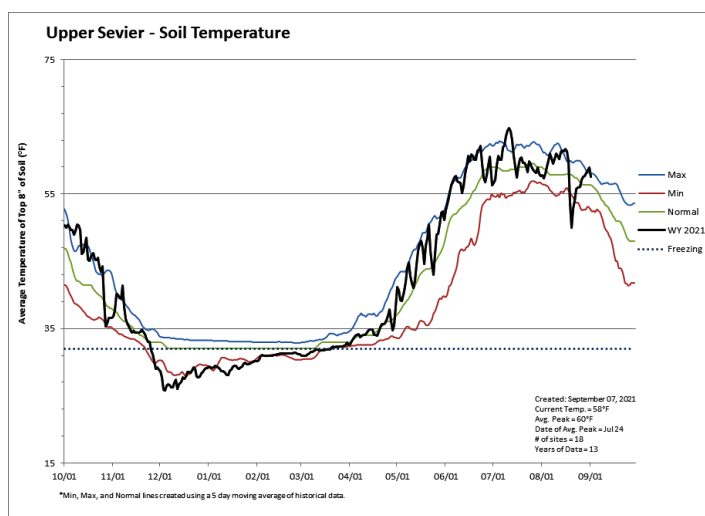
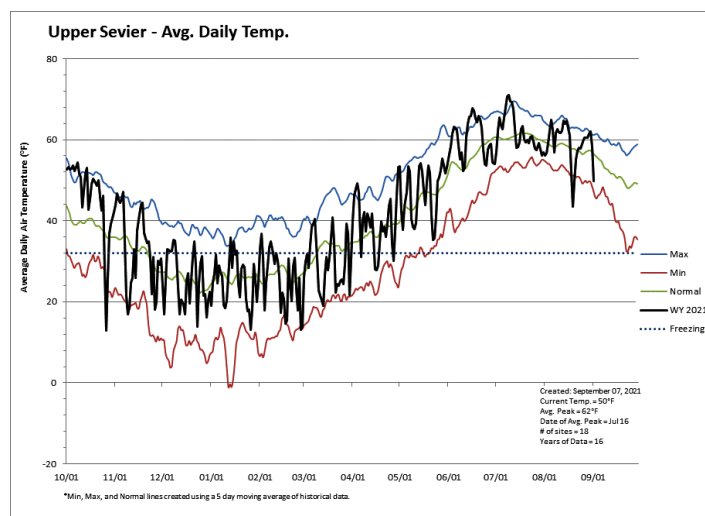
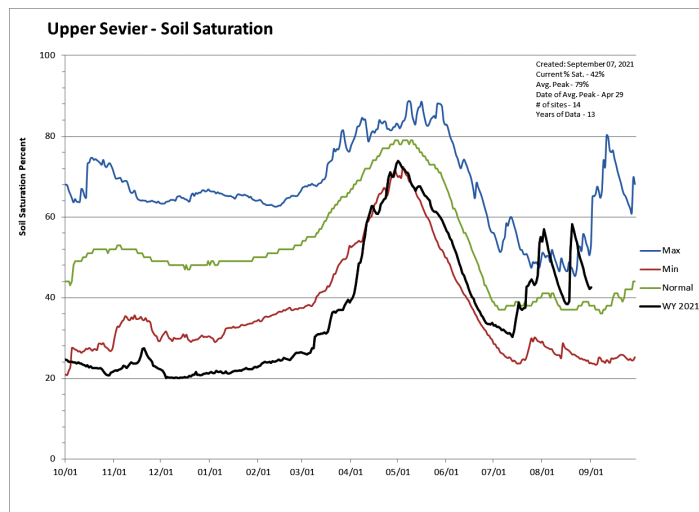
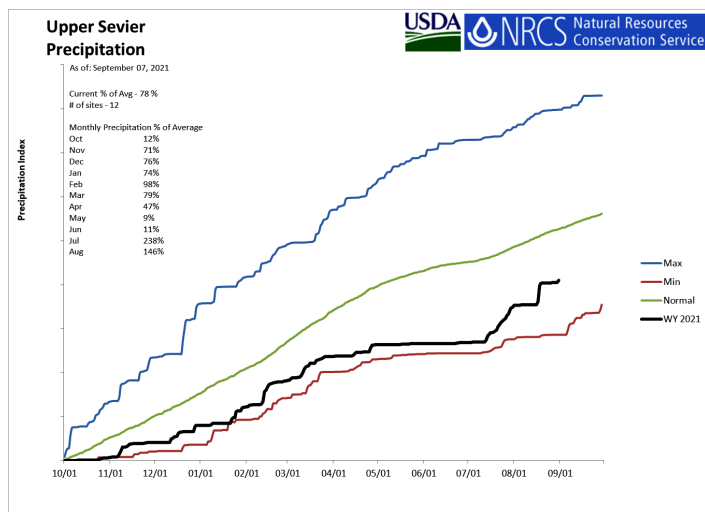
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Upper Sevier Basin

September 1, 2021

Precipitation in August was much above average at 145%, which brings the seasonal accumulation (Oct-Aug) to 78% of average. Soil moisture is at 41% compared to 27% last year. Reservoir storage is at 11% of capacity, compared to 36% last year. The water availability index for the Upper Sevier is 19%.

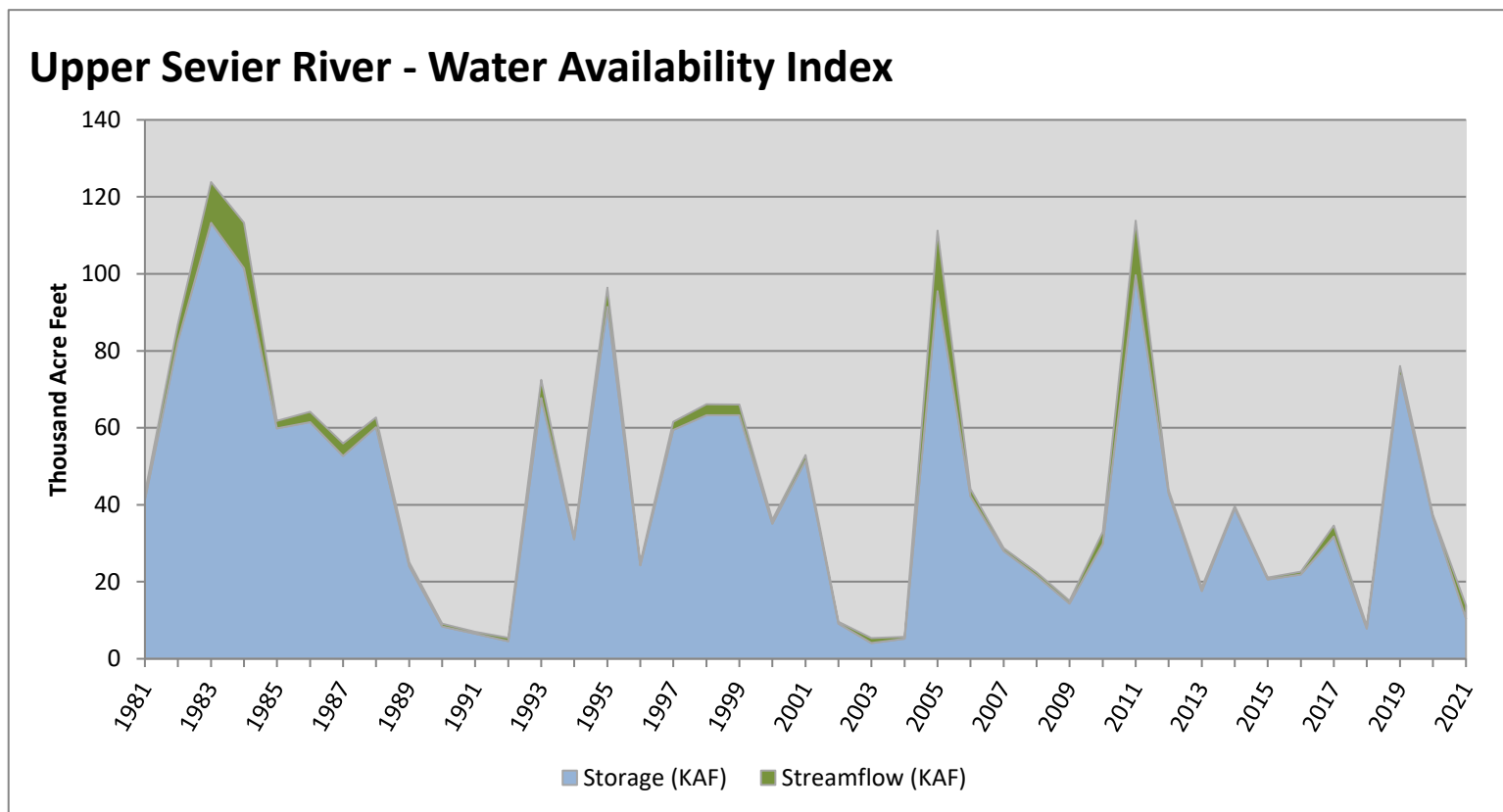


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Upper Sevier River</b>	<b>10.46</b>	<b>3.41</b>	<b>13.87</b>	<b>19</b>	<b>-2.58</b>	<b>90, 02, 09, 13</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

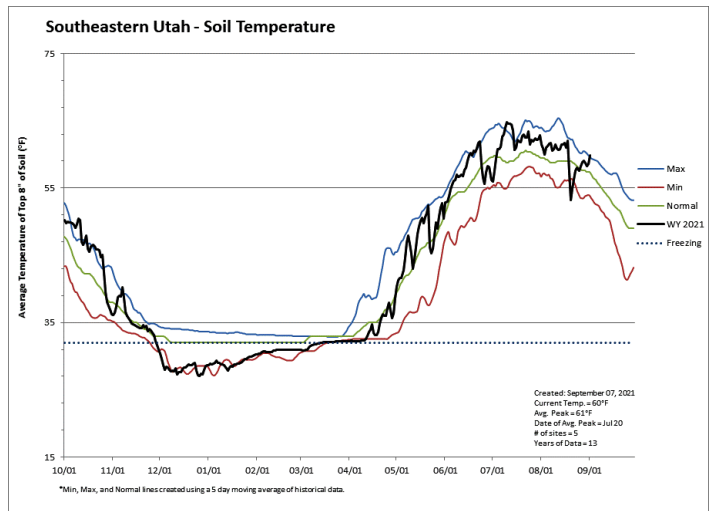
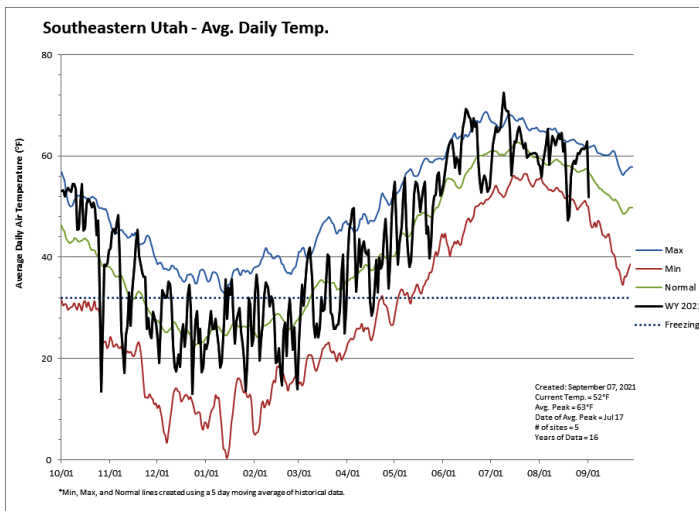
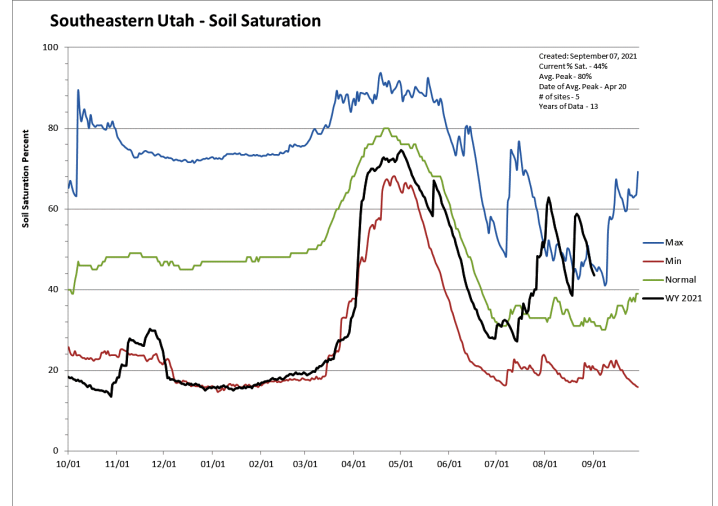
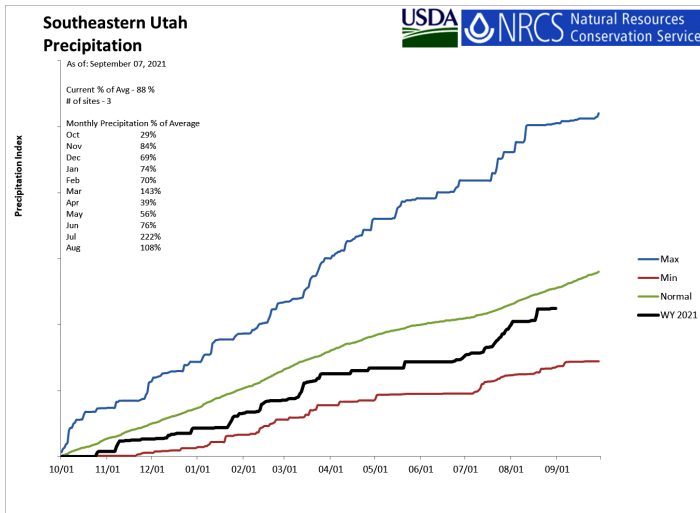




# Southeastern Utah

September 1, 2021

Precipitation in August was near average at 107%, which brings the seasonal accumulation (Oct-Aug) to 88% of average. Soil moisture is at 44% compared to 22% last year. Reservoir storage is at 34% of capacity, compared to 25% last year. The water availability index for Moab is 40%.

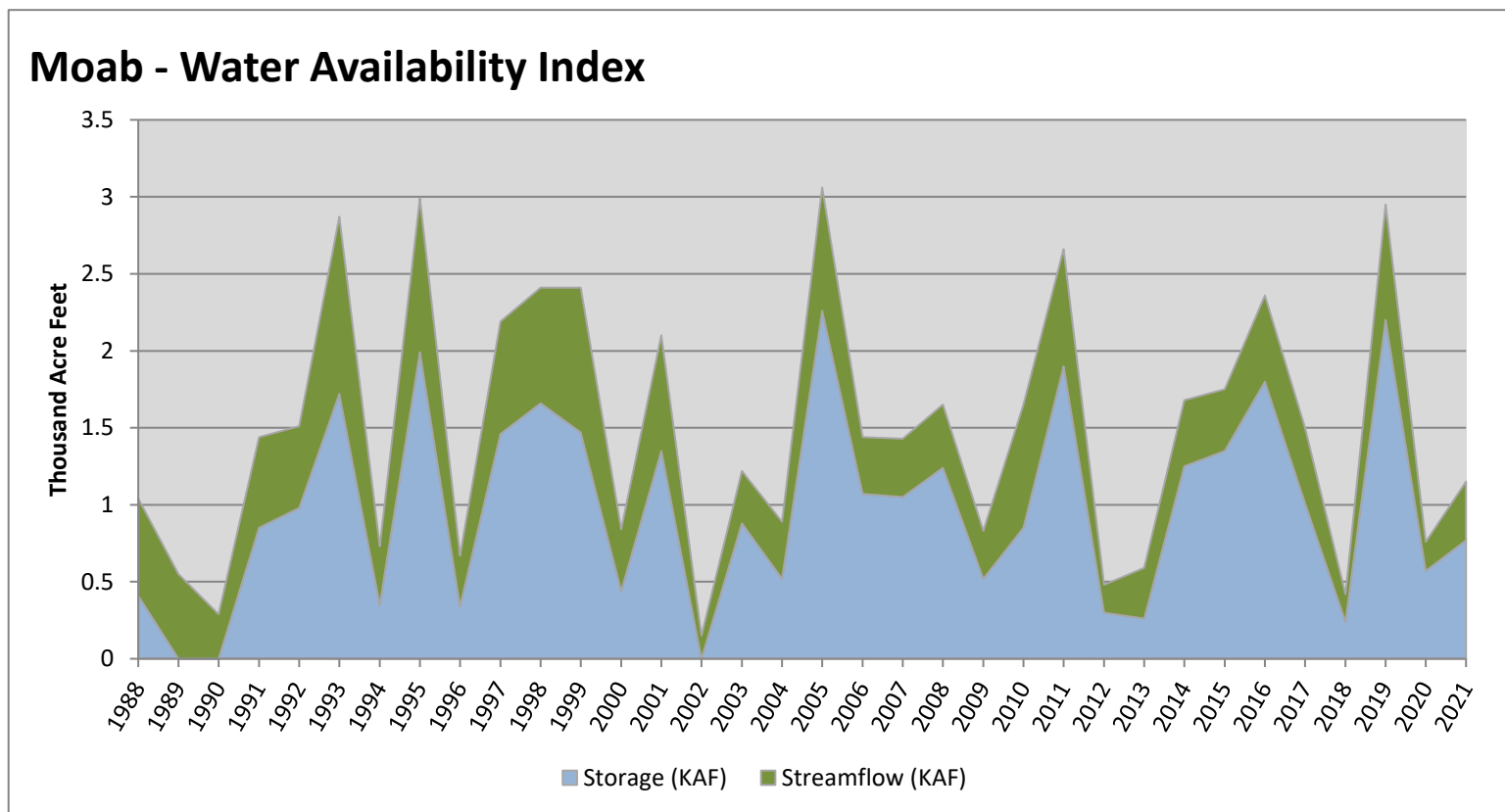


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Moab</b>	<b>0.77</b>	<b>0.38</b>	<b>1.15</b>	<b>40</b>	<b>-0.83</b>	<b>04, 88, 03, 07</b>

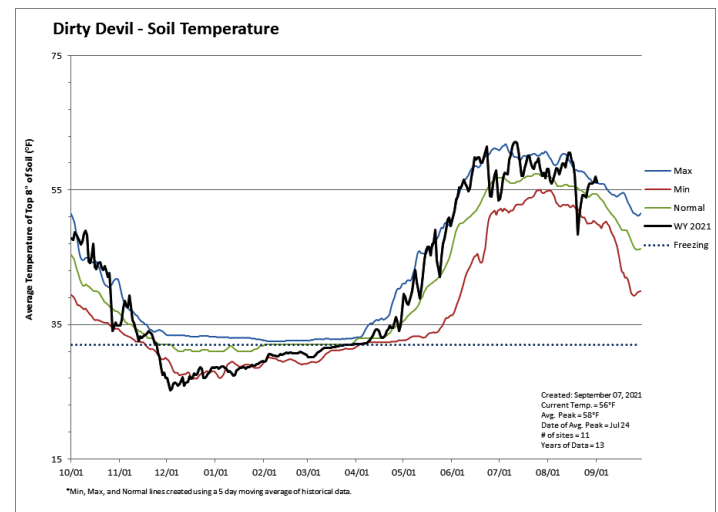
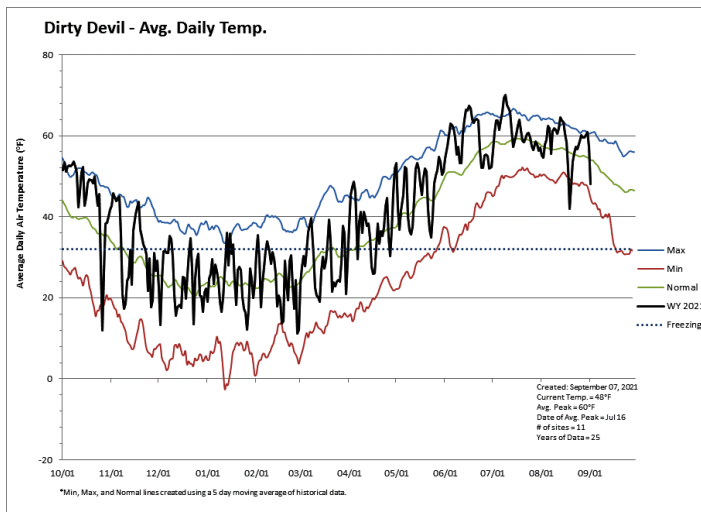
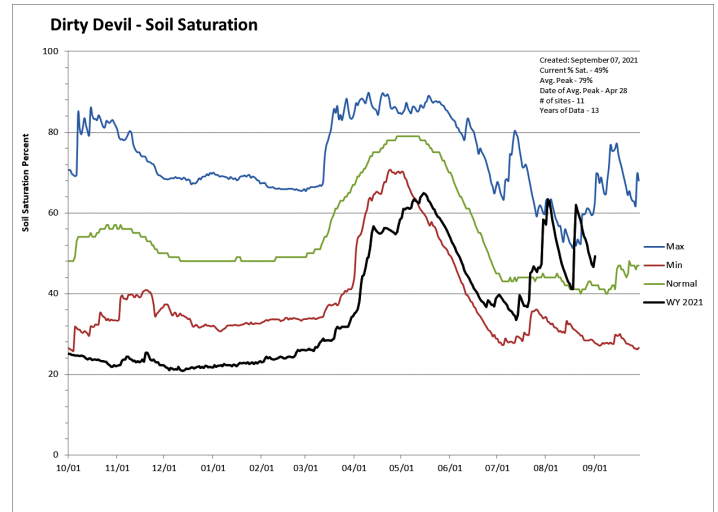
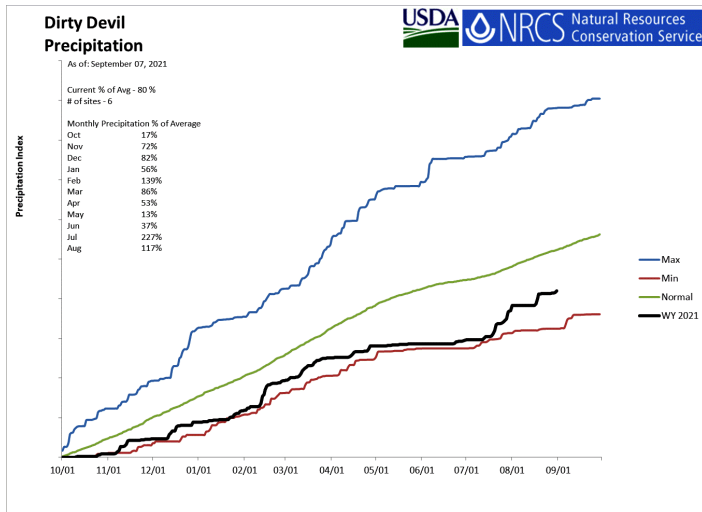
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Dirty Devil Basin

September 1, 2021

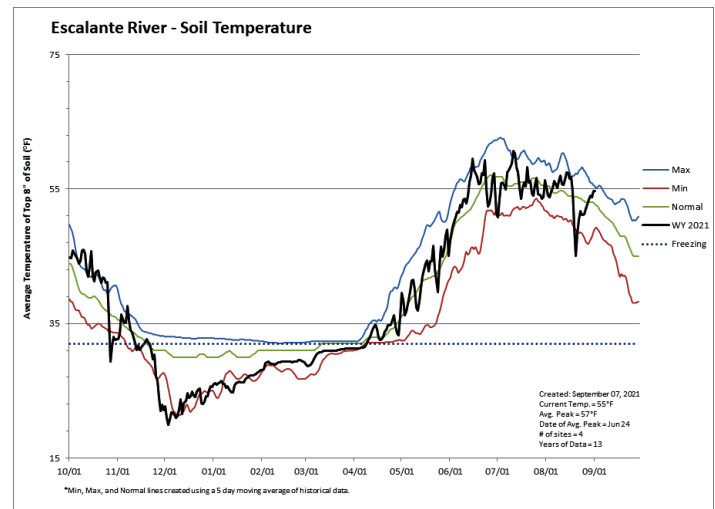
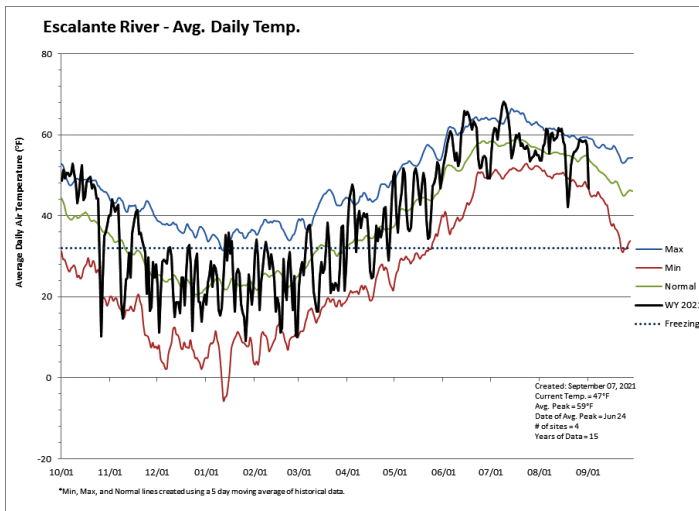
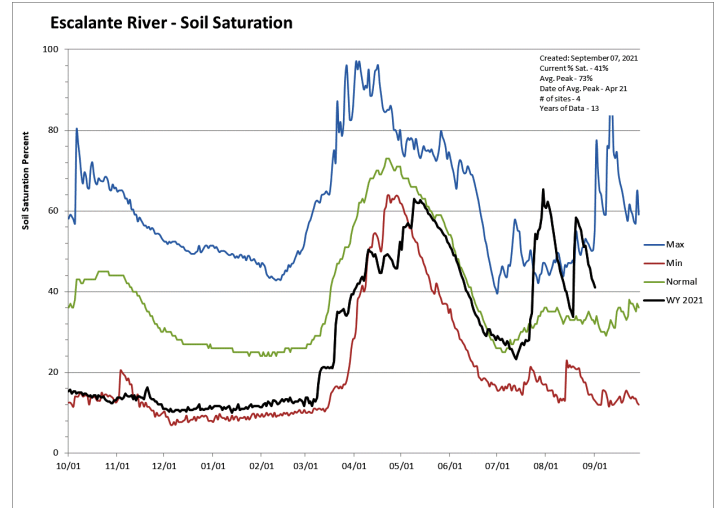
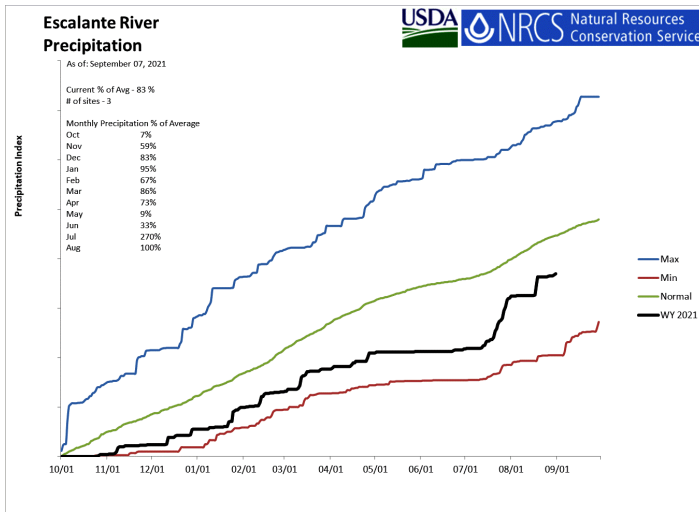
Precipitation in August was above average at 115%, which brings the seasonal accumulation (Oct-Aug) to 80% of average. Soil moisture is at 47% compared to 29% last year.



# Escalante River Basin

September 1, 2021

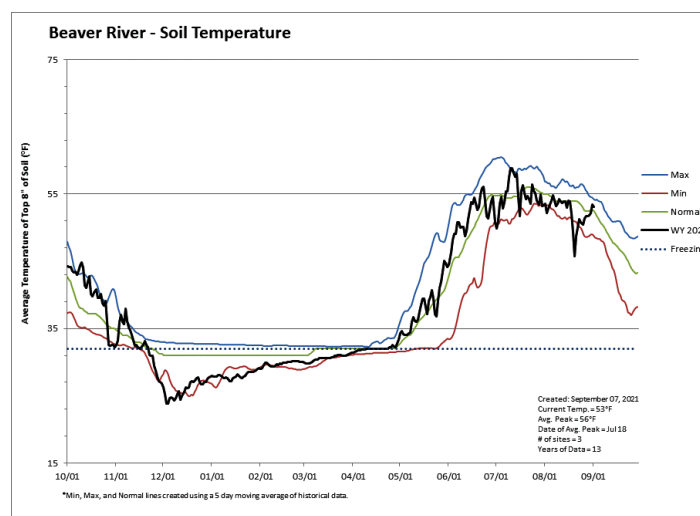
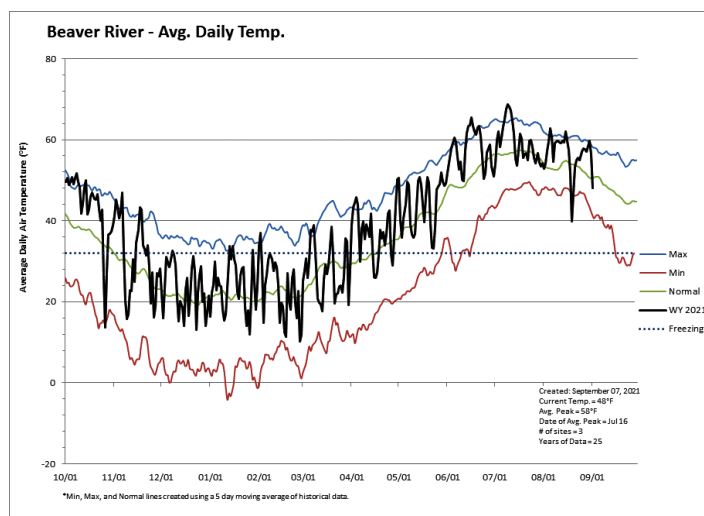
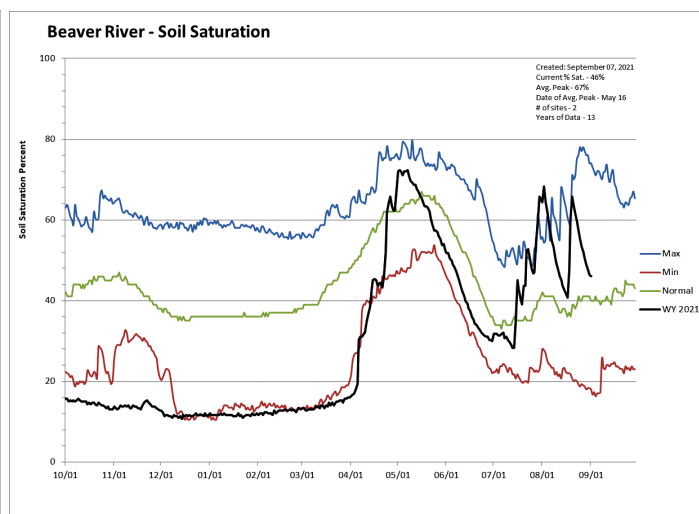
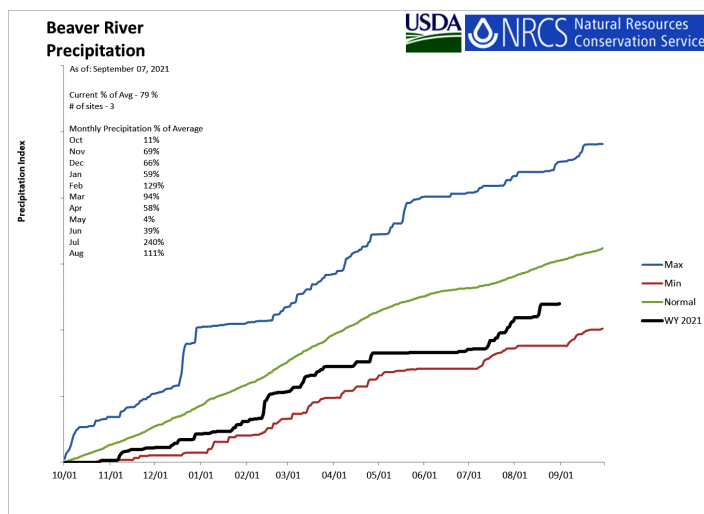
Precipitation in August was near average at 99%, which brings the seasonal accumulation (Oct-Aug) to 83% of average. Soil moisture is at 38% compared to 17% last year.



# Beaver River Basin

September 1, 2021

Precipitation in August was above average at 111%, which brings the seasonal accumulation (Oct-Aug) to 79% of average. Soil moisture is at 46% compared to 19% last year. Reservoir storage is at 12% of capacity, compared to 19% last year. The water availability index for the Beaver River is 14%.

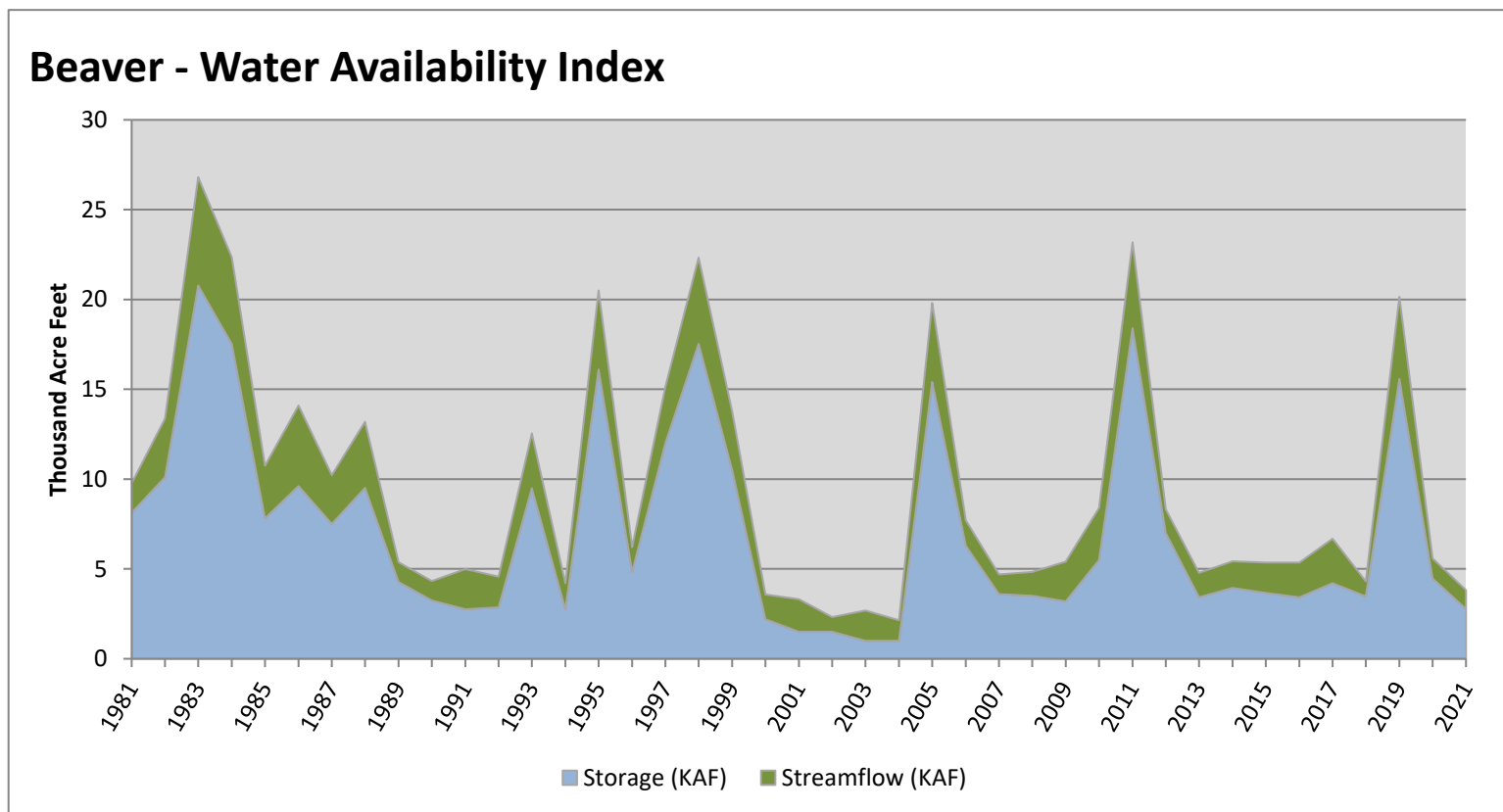


September 1, 2021

## Water Availability Index

Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Beaver</b>	<b>2.78</b>	<b>1.04</b>	<b>3.82</b>	<b>14</b>	<b>-2.98</b>	<b>01, 00, 94, 18</b>

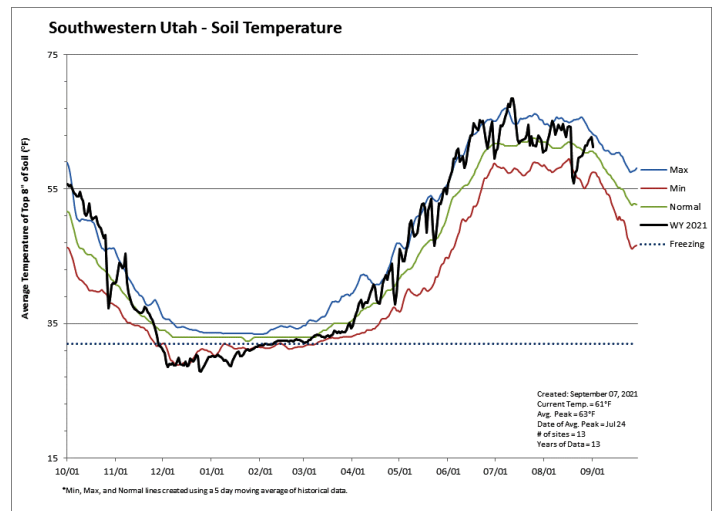
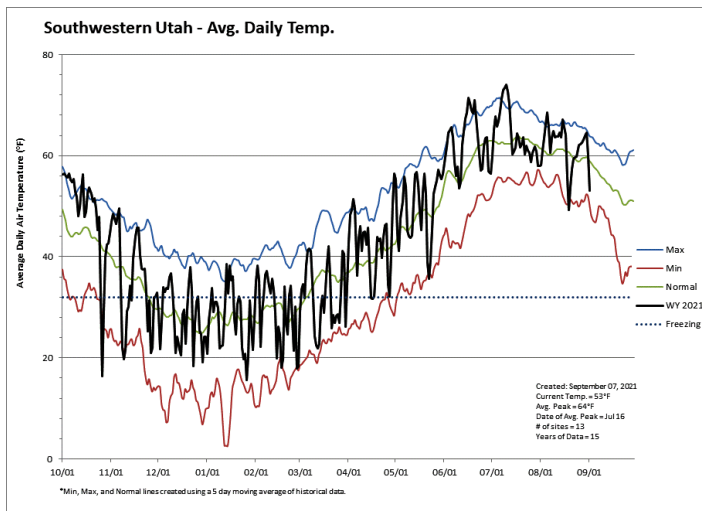
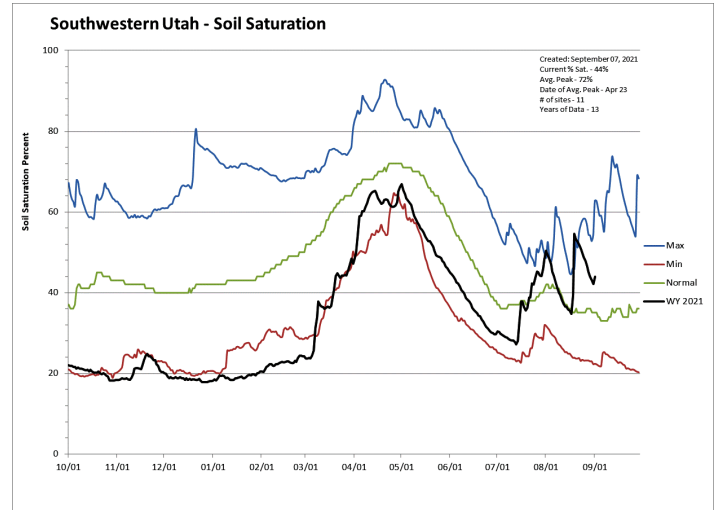
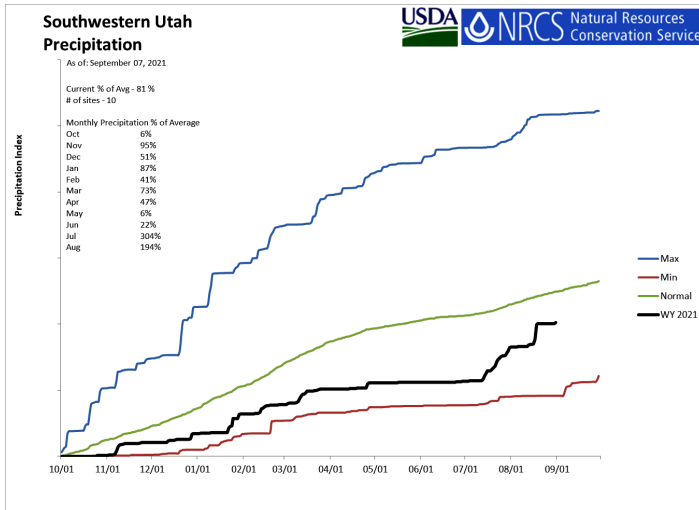
<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



# Southwestern Utah

September 1, 2021

Precipitation in August was much above average at 195%, which brings the seasonal accumulation (Oct-Aug) to 81% of average. Soil moisture is at 42% compared to 26% last year. Reservoir storage is at 31% of capacity, compared to 48% last year. The water availability index for the Virgin River is 52%.



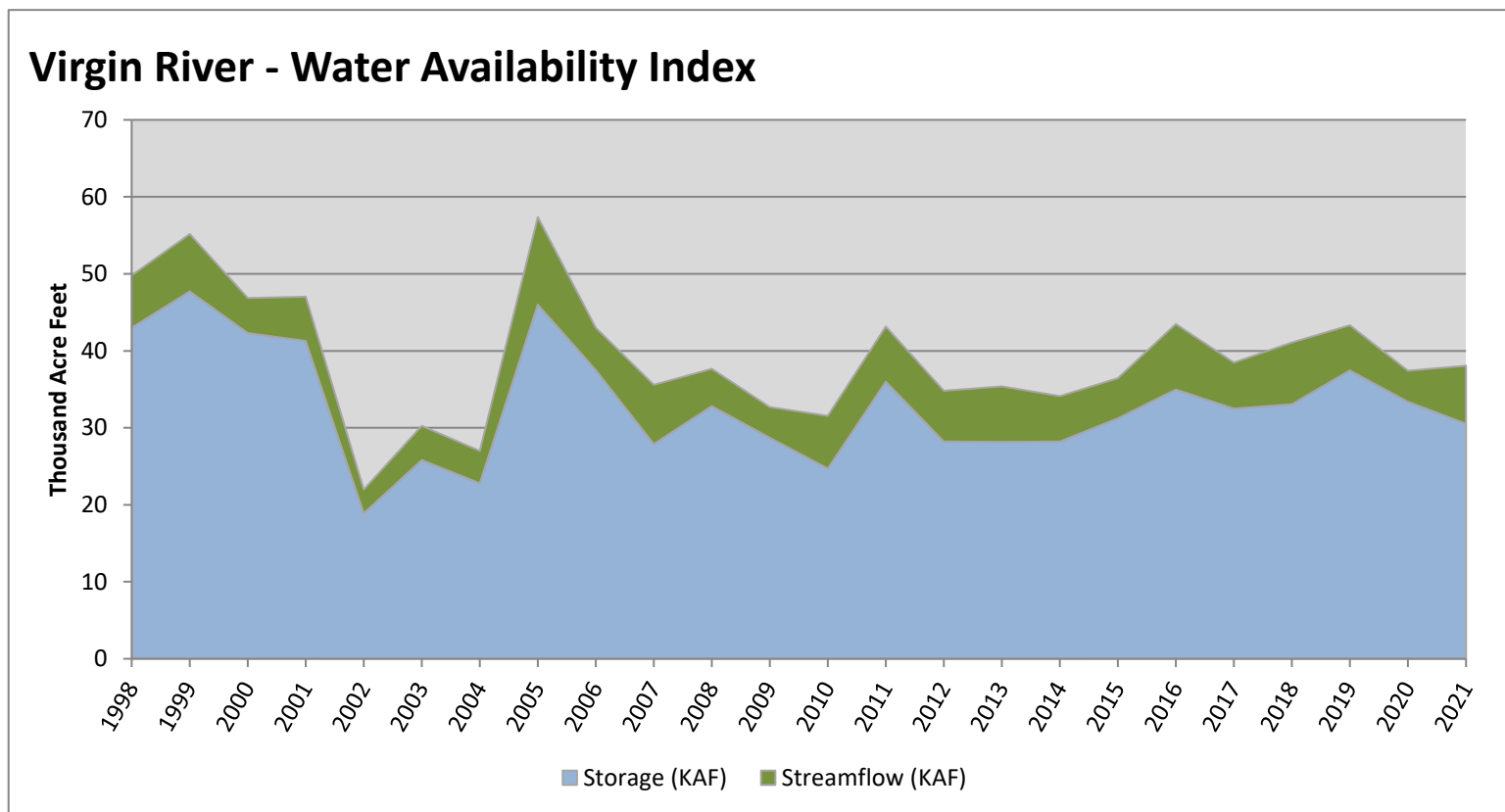


September 1, 2021

## Water Availability Index

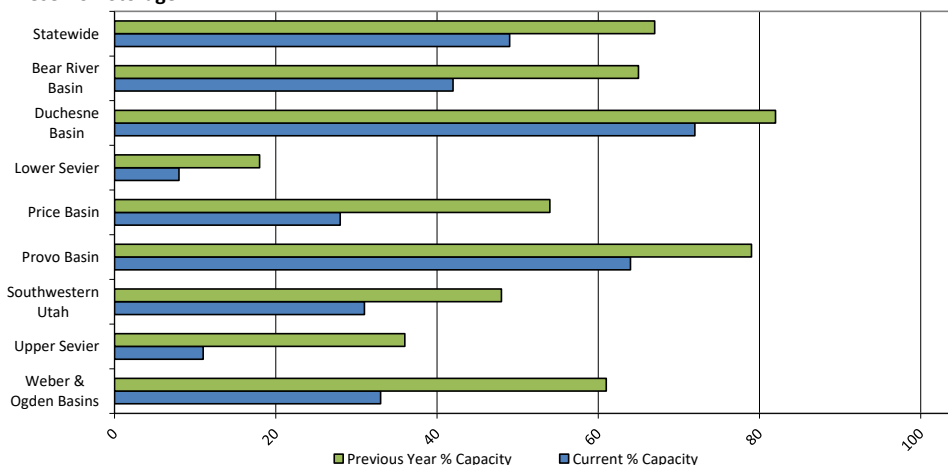
Basin or Region	Aug EOM <sup>*</sup> Storage	August Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Virgin River</b>	<b>30.54</b>	<b>7.54</b>	<b>38.08</b>	<b>52</b>	<b>0.17</b>	<b>20, 08, 17, 18</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



Reservoir Storage Summary for the end of August 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	2.8	2.5		25.7	11%	10%			
Causey Reservoir	3.3	3.2	3.4	7.1	46%	45%	48%	97%	95%
Cleveland Lake	0.7	2.6		5.4	13%	47%			
Currant Creek Reservoir	14.6	14.8	15.1	15.5	94%	96%	97%	97%	98%
Deer Creek Reservoir		105.4	105.7	149.7		70%	71%		100%
East Canyon Reservoir	22.8	33.4	34.8	49.5	46%	67%	70%	66%	96%
Echo Reservoir	10.7	24.2	33.3	73.9	14%	33%	45%	32%	73%
Grantsville Reservoir	1.3	1.0	1.0	3.3	40%	32%	30%	133%	104%
Gunlock	4.5	6.5	5.7	10.4	43%	62%	55%	79%	114%
Gunnison Reservoir	0.0	0.0	7.0	20.3	0%	0%	34%	0%	0%
Huntington North Reservoir	1.3	2.3	1.8	4.2	31%	54%	42%	75%	129%
Hyrum Reservoir	2.9	6.3	6.7	15.3	19%	41%	44%	44%	94%
Joes Valley Reservoir		45.1	45.1	61.6		73%	73%		100%
Jordanelle Reservoir	175.1	255.7	272.3	314.0	56%	81%	87%	64%	94%
Ken's Lake	0.8	0.6	1.0	2.3	34%	25%	44%	77%	56%
Kolob Reservoir	2.9	5.2		5.6	51%	92%			
Lost Creek Reservoir	9.8	15.9	13.8	22.5	43%	71%	61%	71%	115%
Lower Enterprise	1.6	1.6	0.2	2.6	60%	62%	8%	783%	800%
Miller Flat Reservoir	1.3	1.5		5.2	26%	29%			
Millsite	3.5	5.5	11.8	16.7	21%	33%	71%	30%	46%
Minersville Reservoir	2.8	4.5	7.5	23.3	12%	19%	32%	37%	60%
Moon Lake Reservoir	12.3	11.5	18.7	35.8	34%	32%	52%	66%	61%
Otter Creek Reservoir	7.9	25.2	23.8	52.5	15%	48%	45%	33%	106%
Panguitch Lake	6.0	15.8	13.6	22.3	27%	71%	61%	44%	116%
Pineview Reservoir	23.5	58.6	59.8	110.1	21%	53%	54%	39%	98%
Piute Reservoir	2.5	11.6	21.2	71.8	4%	16%	30%	12%	55%
Porcupine Reservoir	3.3	6.0	5.3	11.3	29%	53%	47%	62%	113%
Quail Creek	26.0	26.9	22.9	40.0	65%	67%	57%	114%	118%
Red Fleet Reservoir		15.9	19.0	25.7		62%	74%		84%
Rockport Reservoir	16.4	39.2	44.4	60.9	27%	64%	73%	37%	88%
Sand Hollow Reservoir	35.6	39.6		50.0	71%	79%			
Scotfield Reservoir	19.0	39.2	32.2	65.8	29%	60%	49%	59%	122%
Settlement Canyon Reservoir	0.2	0.2	0.5	1.0	19%	22%	49%	38%	45%
Sevier Bridge Reservoir	19.5	42.4	93.4	236.0	8%	18%	40%	21%	45%
Smith And Morehouse Reservoir	5.1	3.6	4.8	8.1	63%	44%	59%	106%	74%
Starvation Reservoir	102.2	120.7	130.5	164.1	62%	74%	80%	78%	93%
Stateline Reservoir	5.3	5.2	7.2	12.0	44%	43%	60%	73%	72%
Steinaker Reservoir		4.8	17.1	33.4		14%	51%		28%
Strawberry Reservoir	822.7	946.1	693.0	1105.9	74%	86%	63%	119%	137%
Upper Enterprise	0.6	3.7	1.7	10.0	6%	37%	17%	36%	213%
Upper Stillwater Reservoir	29.0	18.3	19.6	32.5	89%	56%	60%	148%	94%
Utah Lake	463.3	616.6	690.2	870.9	53%	71%	79%	67%	89%
Willard Bay	87.7	153.3	137.8	215.0	41%	71%	64%	64%	111%
Woodruff Creek	1.1	1.3	0.5	4.0	26%	32%	13%	210%	252%
Woodruff Narrows Reservoir	6.6	29.7	24.4	57.3	11%	52%	43%	27%	122%
Meeks Cabin Reservoir	5.4	6.3	13.2	32.5	17%	19%	41%	41%	47%
Bear Lake	567.2	855.1	635.5	1302.0	44%	66%	49%	89%	135%
Basin-wide Total	2487.8	3411.9	3109.6	5102.7	49%	67%	61%	80%	110%
# of reservoirs	38.0	38.0	38.0	38.0	38	38	38	38	38
# of reservoirs	42	42	42	42	42	42	42	42	42

### Reservoir Storage



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## **Utah Climate and Water Report**

**Natural Resources Conservation Service**  
**Salt Lake City, UT**

