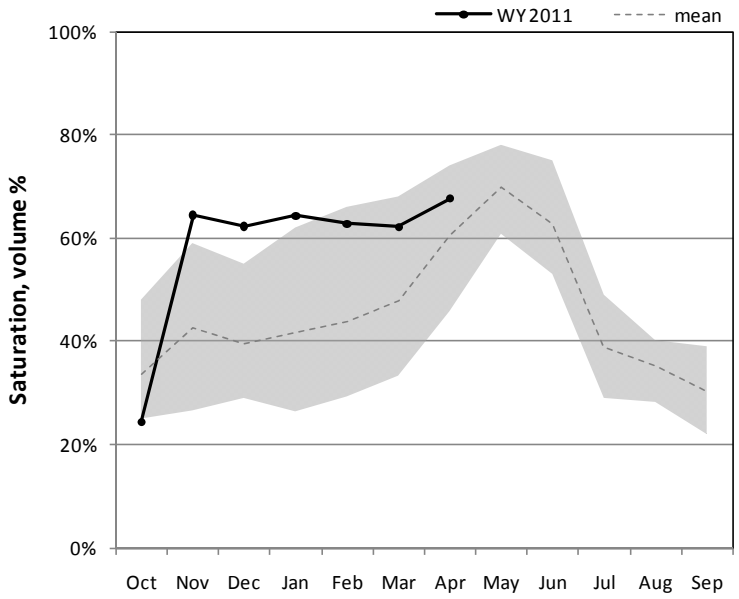
# Sevier and Beaver River Basins
## April 1, 2011

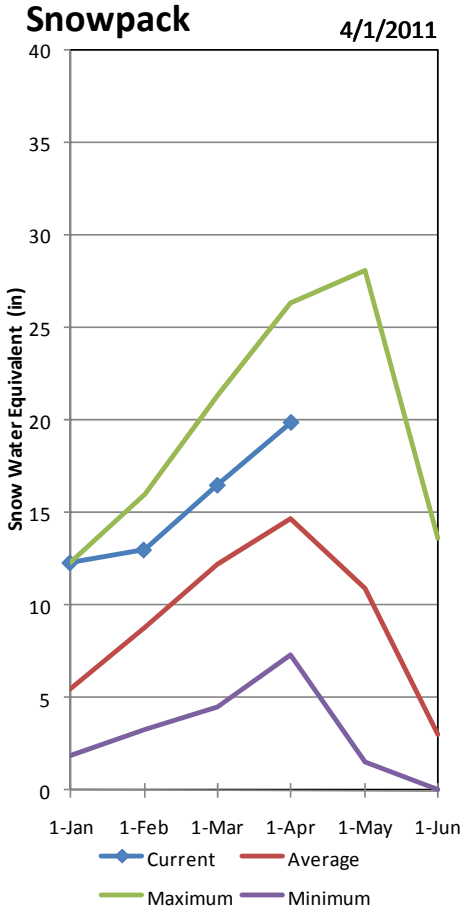
Snowpack on the Sevier River Basin is much above normal at 132% of average, 3% less than last month and 121% more than last year. Individual sites range from 96% at Gooseberry RS to 251% of average at Harris Flat. Precipitation during March was near average at 107% of normal, bringing the seasonal accumulation (Oct-Mar) to 152% of average. Soil moisture estimates in runoff producing areas are at 68% of saturation in the upper 2 feet of soil compared to 46% last year. Streamflow forecasts range from 126% to 273% of average. Reservoir storage is at 70% of capacity, 14% more than last year. Surface Water Supply Indices are: Upper Sevier 95%, Lower Sevier 81% and Beaver 86%. Water supply conditions are much above average on the Sevier and the Beaver River watersheds.

### Sevier / Beaver River Soil Moisture

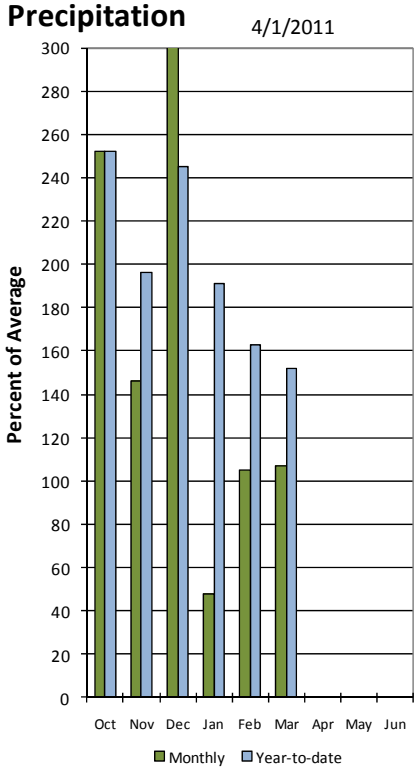



*Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.*

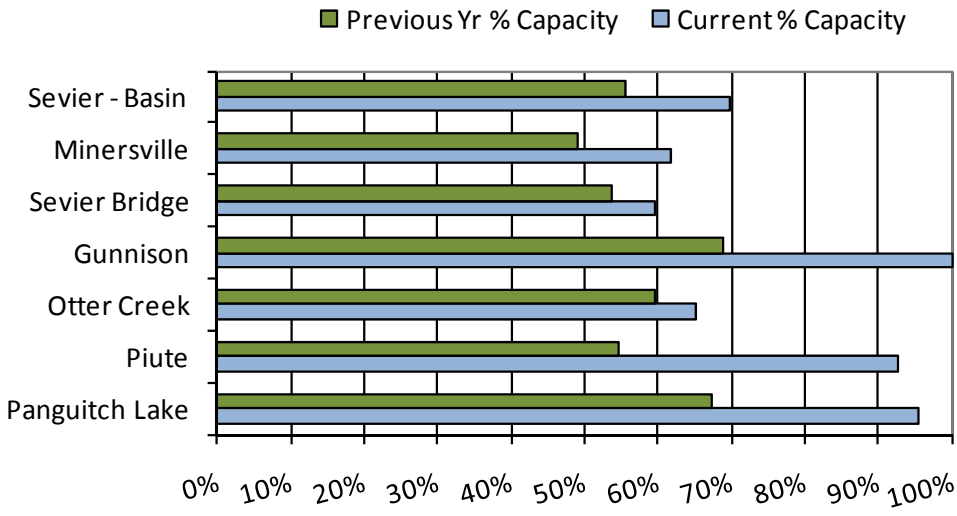
### Sevier River Snowpack



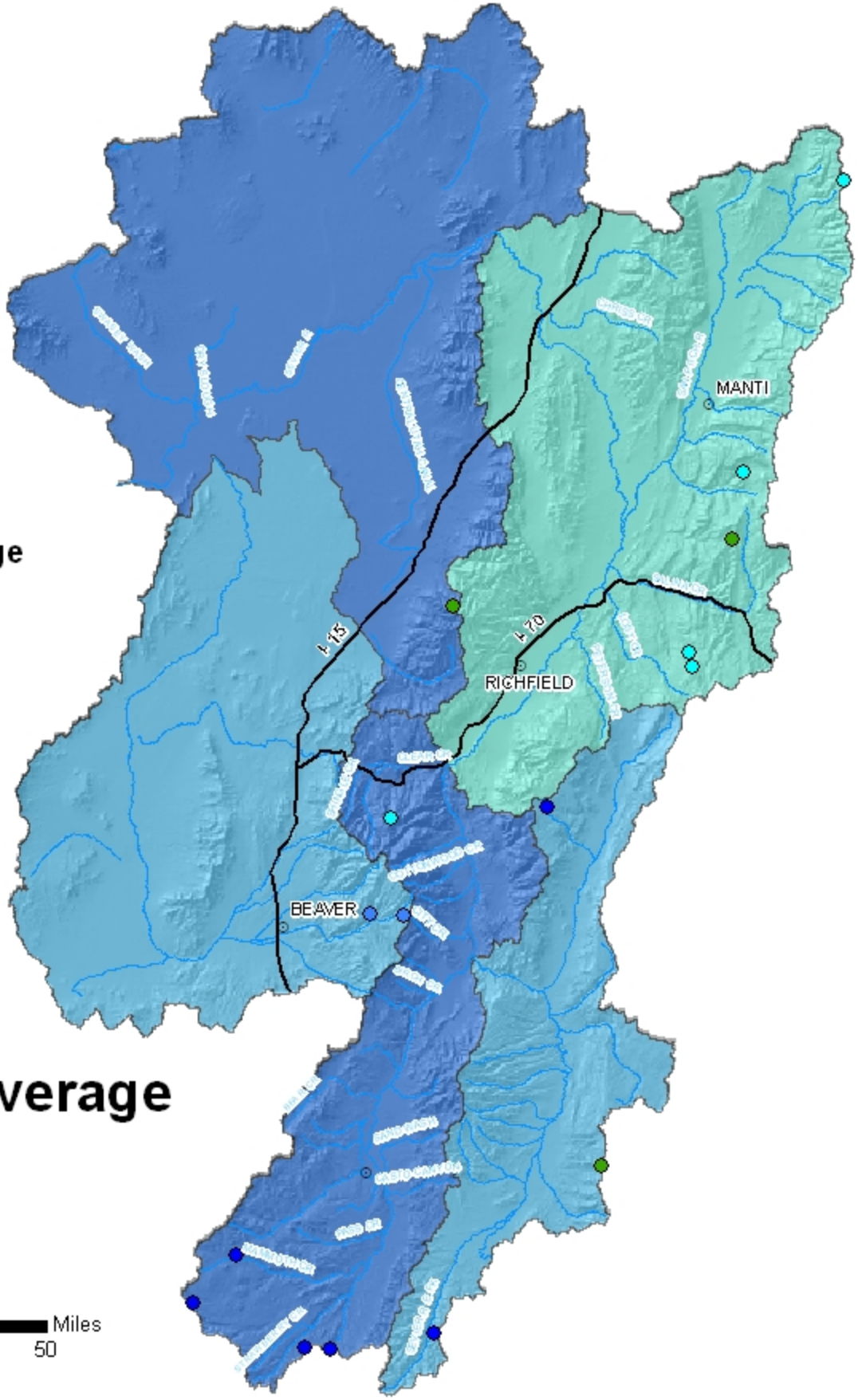

### Sevier River Precipitation




### April Sevier River Reservoir Storage



# Sevier & Beaver Basins




**Snotel % of Average**

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

**Watershed % of Average**

- 0
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >150%

## Basinwide Average 136%

0 5 10 20 30 40 50 Miles

*Provisional Data Subject to Revision*

SEVIER & BEAVER RIVER BASINS as of April 1, 2011

## SEVIER & BEAVER RIVER BASINS
### Streamflow Forecasts - April 1, 2011

| Forecast Point | Forecast Period | <<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | 50% (% AVG.) | 30% (1000AF) | 10% (1000AF) | 30-Yr Avg. (1000AF) |
|---|---|---|---|---|---|---|---|---|
| Mammoth Ck nr Hatch | APR-JUL | 18.0 | 32 | 49 | 191 | 66 | 80 | 26 |
| Sevier R at Hatch | APR-JUL | 91 | 102 | 110 | 200 | 118 | 129 | 55 |
| Sevier R nr Kingston | APR-JUL | 61 | 78 | 90 | 273 | 102 | 119 | 33 |
| EF Sevier R nr Kingston | APR-JUL | 31 | 42 | 50 | 143 | 58 | 69 | 35 |
| Sevier R bl Piute Dam | APR-JUL | 92 | 120 | 140 | 212 | 160 | 188 | 66 |
| Clear Ck ab Diversions nr Sevier | APR-JUL | 24 | 29 | 32 | 146 | 35 | 40 | 22 |
| Salina Ck nr Emery | APR-JUL | 12.70 | 15.60 | 17.50 | 194 | 19.40 | 22.00 | 9.00 |
| Salina Ck at Salina | APR-JUL | 19.9 | 32 | 41 | 208 | 52 | 70 | 19.7 |
| Manti Ck Blw Dugway Ck Nr Manti | APR-JUL | 16.6 | 20 | 23 | 126 | 26 | 30 | 18.3 |
| Sevier R nr Gunnison | APR-JUL | 154 | 182 | 200 | 189 | 220 | 245 | 106 |
| Chicken Ck nr Levan | APR-JUL | 6.20 | 8.10 | 9.50 | 211 | 11.10 | 13.81 | 4.50 |
| Oak Creek nr Oak City | APR-JUL | 2.50 | 2.90 | 3.30 | 199 | 3.70 | 4.30 | 1.66 |
| Beaver R nr Beaver | APR-JUL | 32 | 40 | 45 | 167 | 50 | 58 | 27 |
| Minersville Res Inflow | APR-JUL | 16.9 | 25 | 32 | 193 | 40 | 54 | 16.6 |

## SEVIER & BEAVER RIVER BASINS
### Reservoir Storage (1000 AF) - End of March

| Reservoir | Usable Capacity | *** Usable Storage *** This Year | Last Year | Avg |
|---|---|---|---|---|
| GUNNISON | 20.3 | 20.3 | 14.0 | 16.3 |
| MINERSVILLE (RkyFd) | 23.3 | 14.4 | 11.4 | 17.9 |
| OTTER CREEK | 52.5 | 34.2 | 31.3 | 43.5 |
| PIUTE | 71.8 | 66.5 | 39.2 | 58.5 |
| SEVIER BRIDGE | 236.0 | 140.5 | 126.5 | 189.7 |
| PANGUITCH LAKE | 22.3 | 21.3 | 15.0 | 152.9 |

## SEVIER & BEAVER RIVER BASINS
### Watershed Snowpack Analysis - April 1, 2011

| Watershed | Number of Data Sites | This Year as % of Last Yr | Average |
|---|---|---|---|
| UPPER SEVIER RIVER | 8 | 112 | 157 |
| EAST FORK SEVIER RIVER | 3 | 106 | 144 |
| SOUTH FORK SEVIER RIVER | 5 | 118 | 164 |
| LOWER SEVIER RIVER | 6 | 134 | 113 |
| BEAVER RIVER | 2 | 120 | 140 |
| SEVIER & BEAVER RIVER BAS | 16 | 120 | 136 |

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

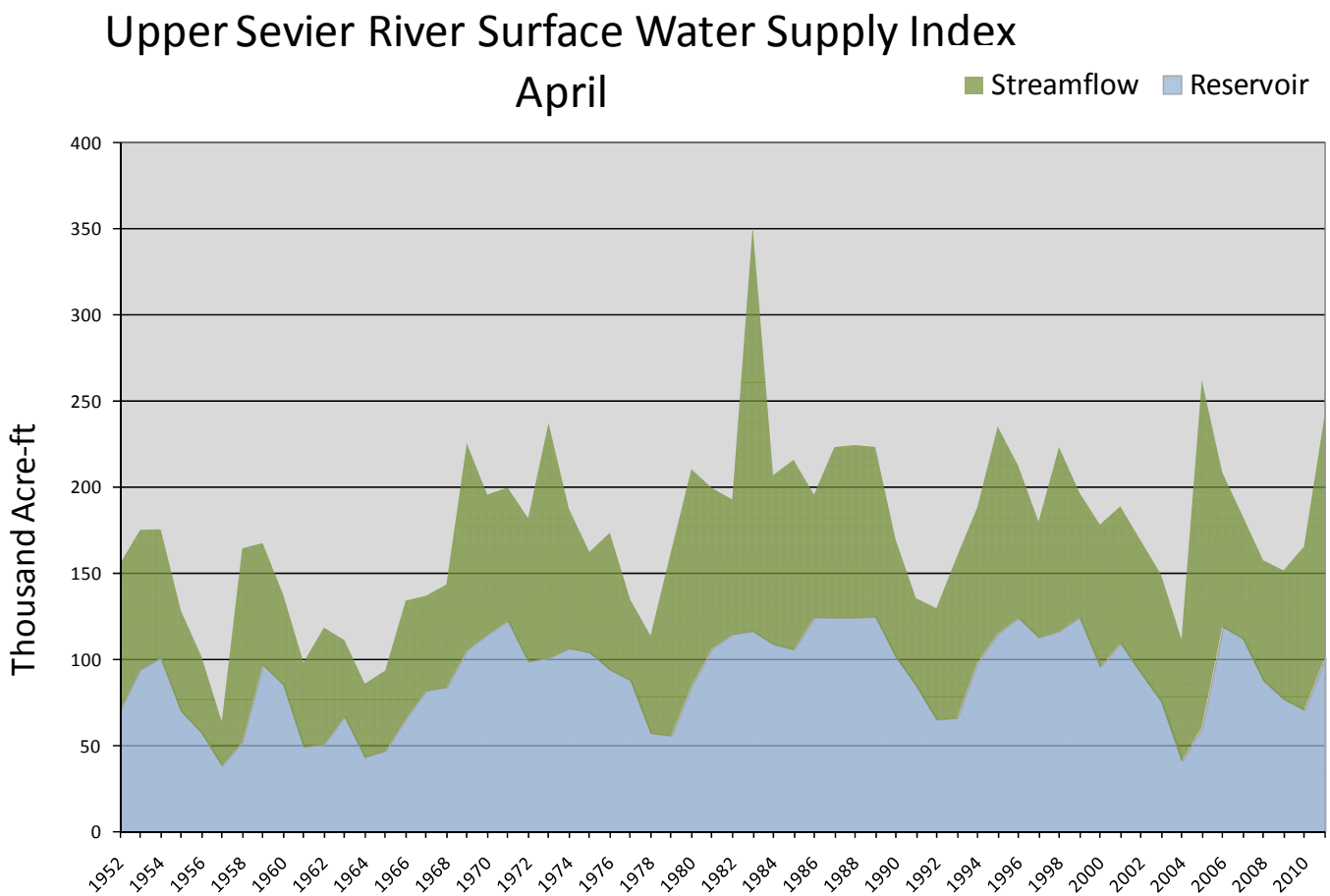
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.
(3) - Median value used in place of average.

*April 1, 2011*

# Upper Sevier Surface Water Supply Index

| Basin or Region | March EOM* Piute & Otter Creek Reservoir | April-July Forecast Inflow to Piute Reservoir | Reservoir + Streamflow | SWSI# | Percentile | Years with similar SWSI |
|---|---|---|---|---|---|---|
| | *KAF^* | *KAF* | *KAF* | | *%* | |
| **Upper Sevier** | **100.7** | **104** | **241** | **3.76** | **95** | **95,73,05,83** |

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

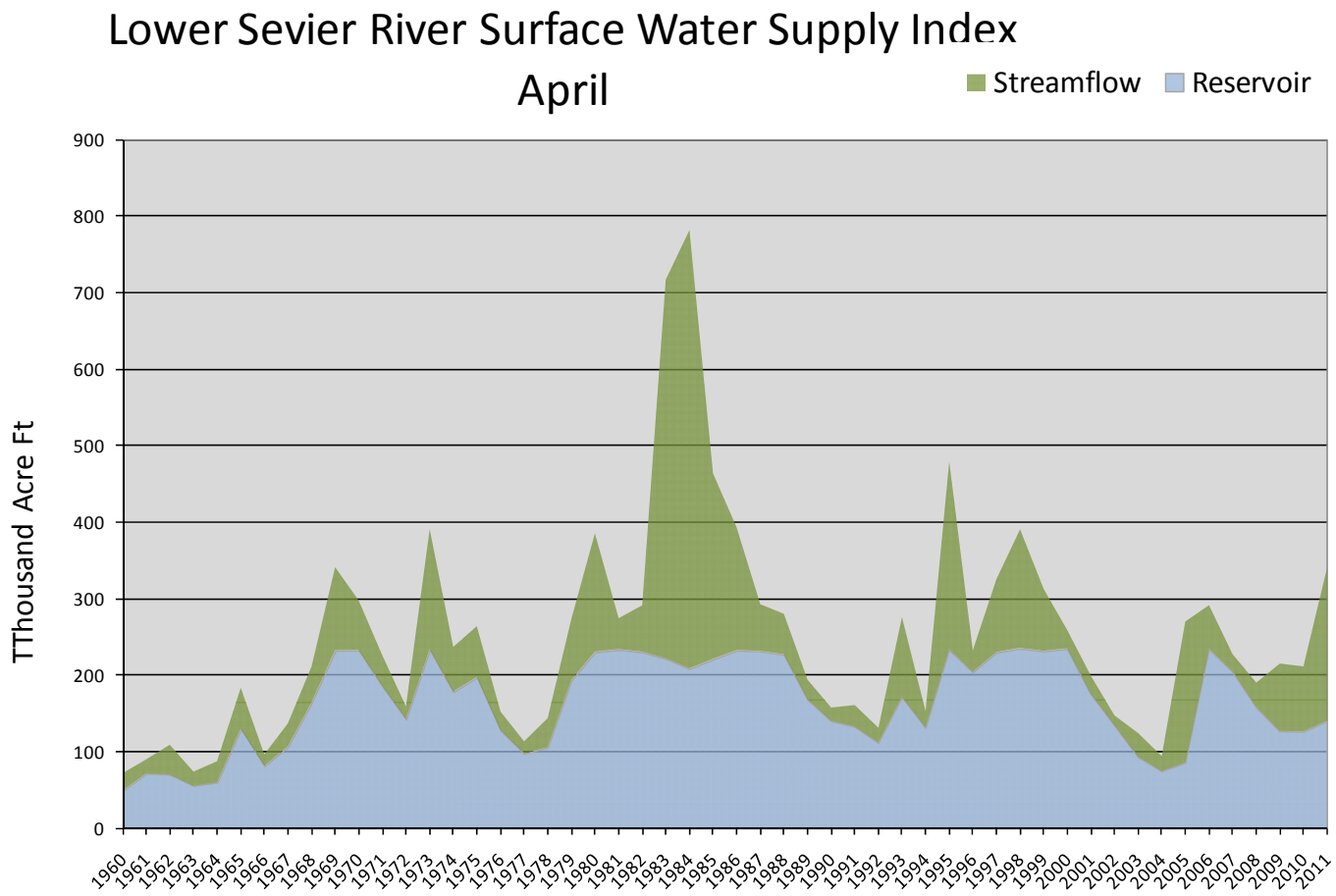


*April 1, 2011*

# Lower Sevier Surface Water Supply Index

| Basin or Region | March EOM* Sevier Bridge Reservoir | April-July Forecast Inflow to Sevier Bridge Reservoir | Reservoir + Streamflow | SWSI# | Percentile | Years with similar SWSI |
|---|---|---|---|---|---|---|
| | *KAF^* | *KAF* | *KAF* | | *%* | |
| **Lower Sevier** | **140.5** | **200** | **341** | **2.59** | **81** | **99,97,69,80** |

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

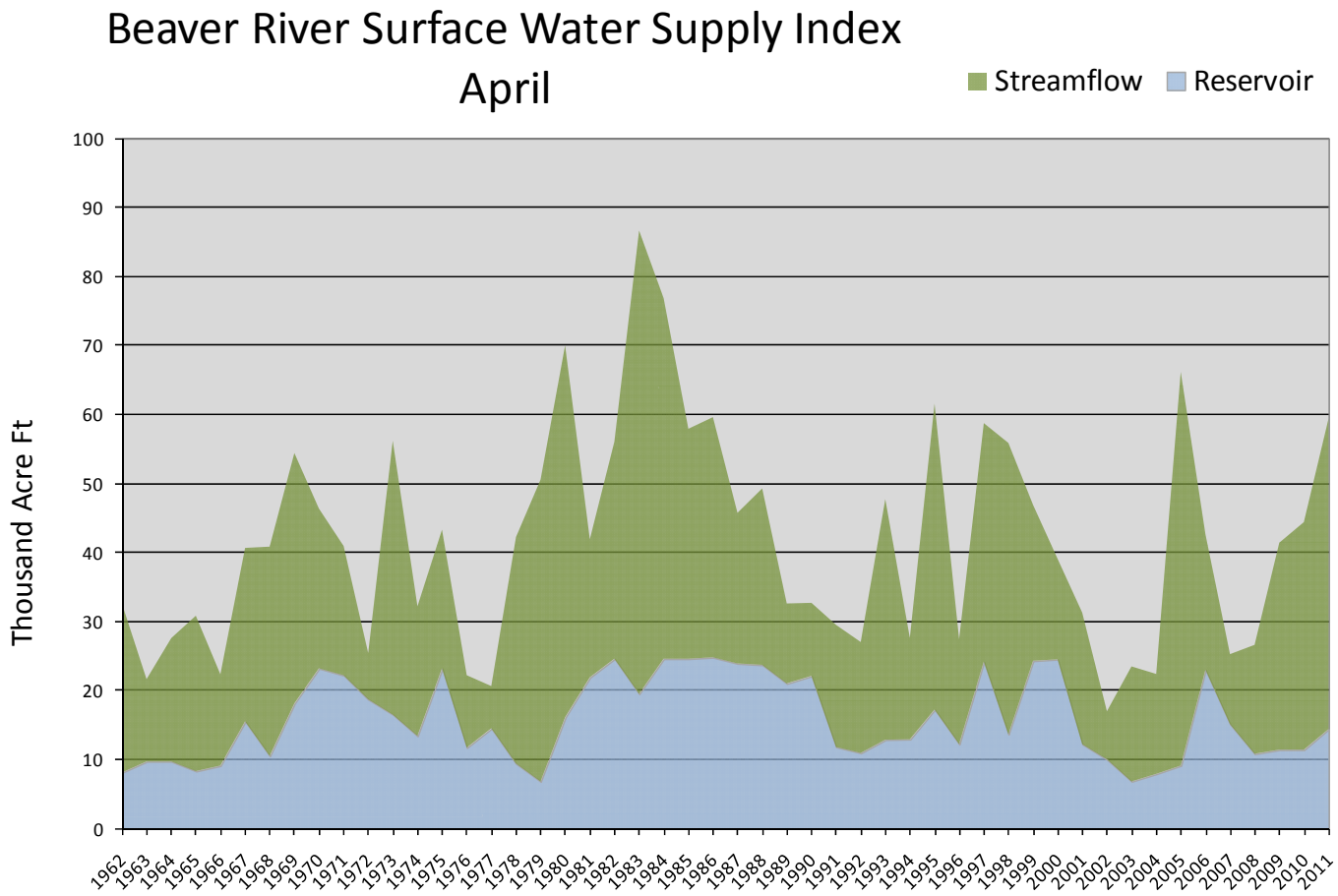


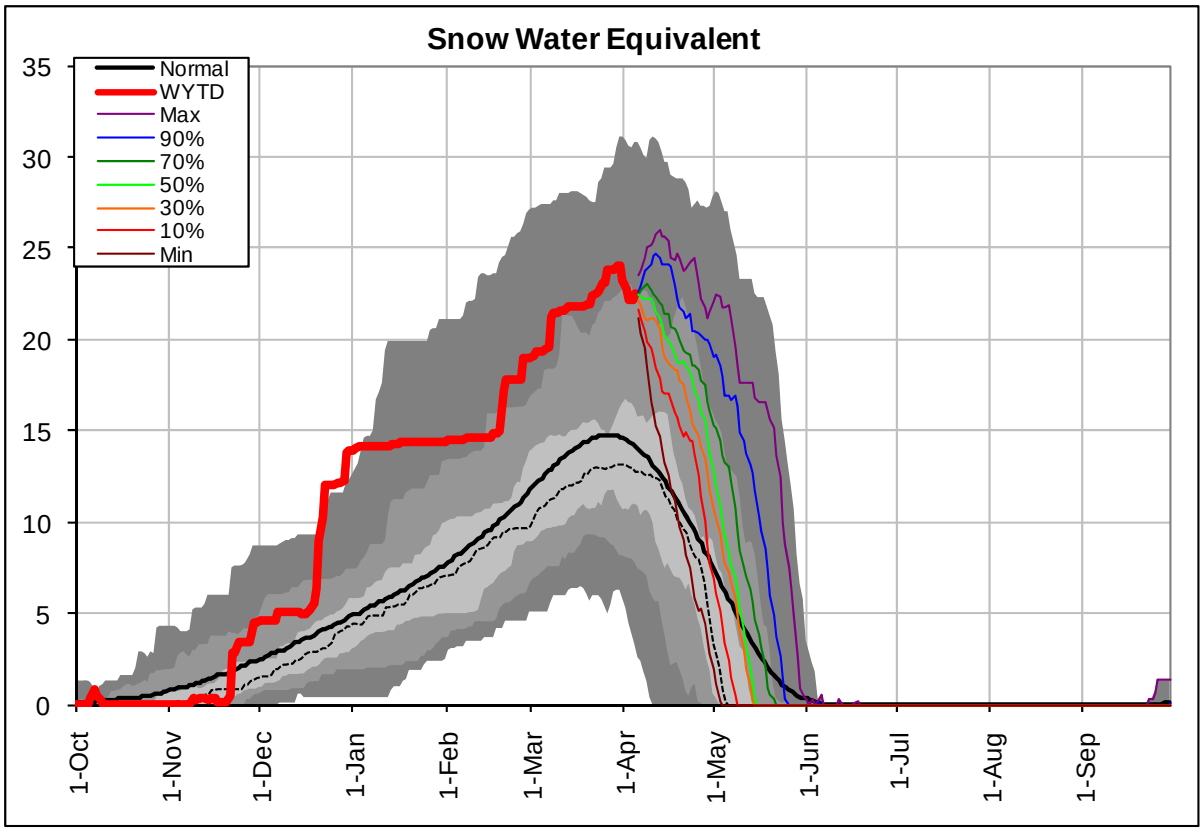
*April 1, 2011*

# Beaver Surface Water Supply Index

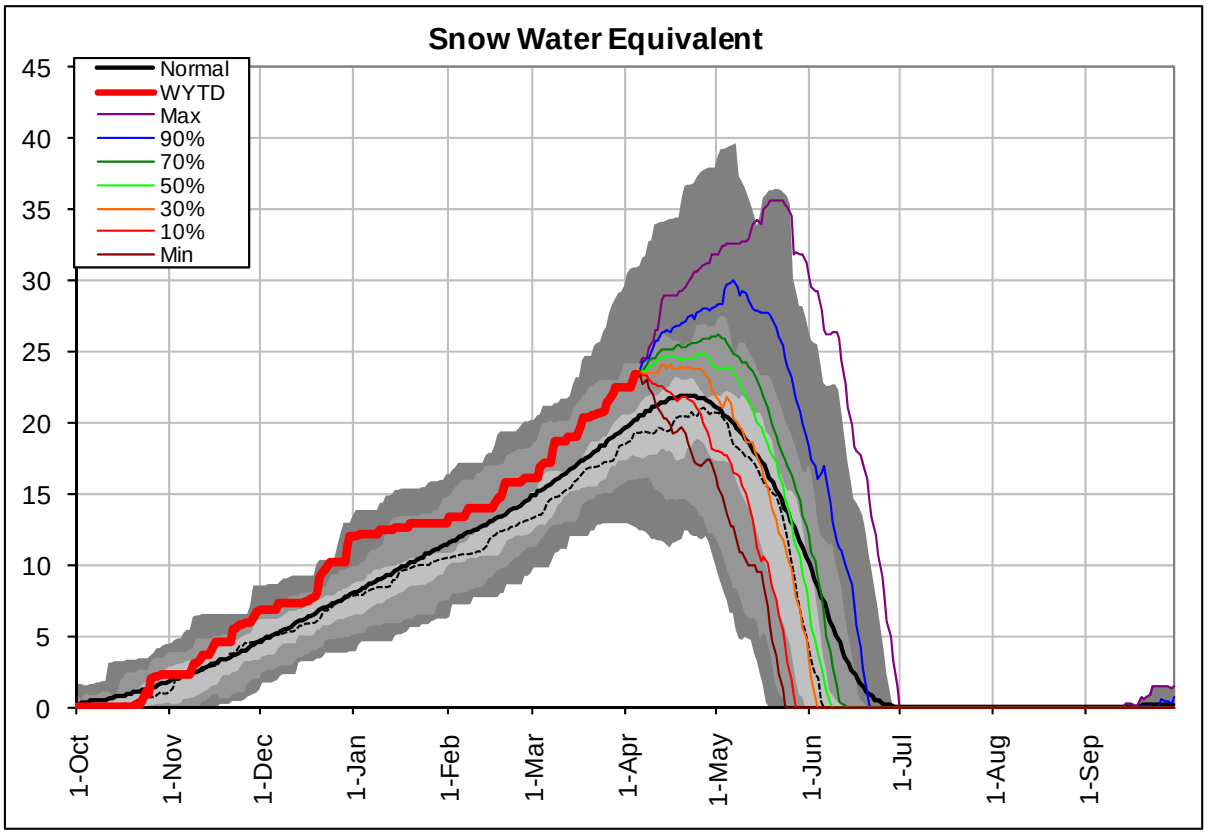
| Basin or Region | March EOM* Minersville Reservoir | April-July forecast Beaver River at Beaver | Reservoir + Streamflow | SWSI# | Percentile | Years with similar SWSI |
|---|---|---|---|---|---|---|
| | *KAF^* | *KAF* | *KAF* | | *%* | |
| **Beaver** | **14.4** | **45.0** | **59.4** | **3.02** | **86** | **85,97,86,95** |

**EOM, end of month; # SWSI, Surface Water Supply Index; ^KAF, thousand acre-feet.*

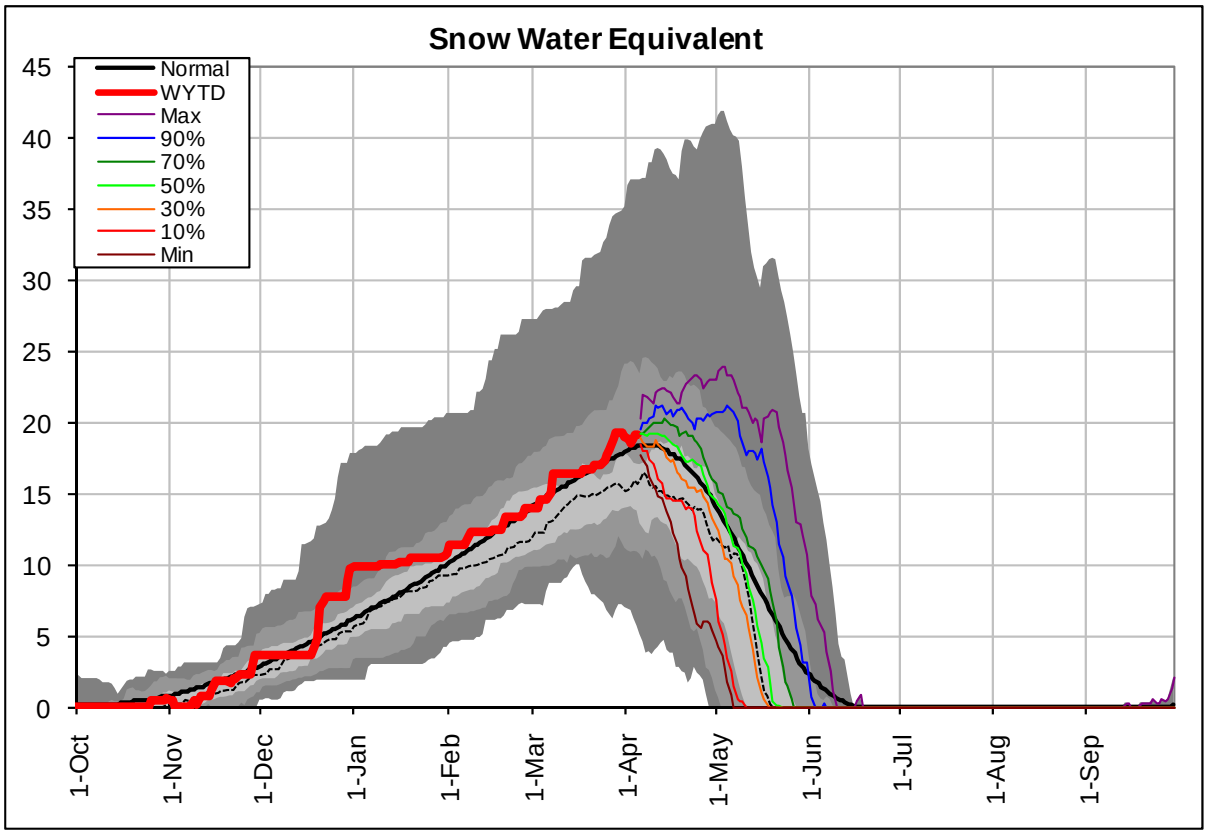




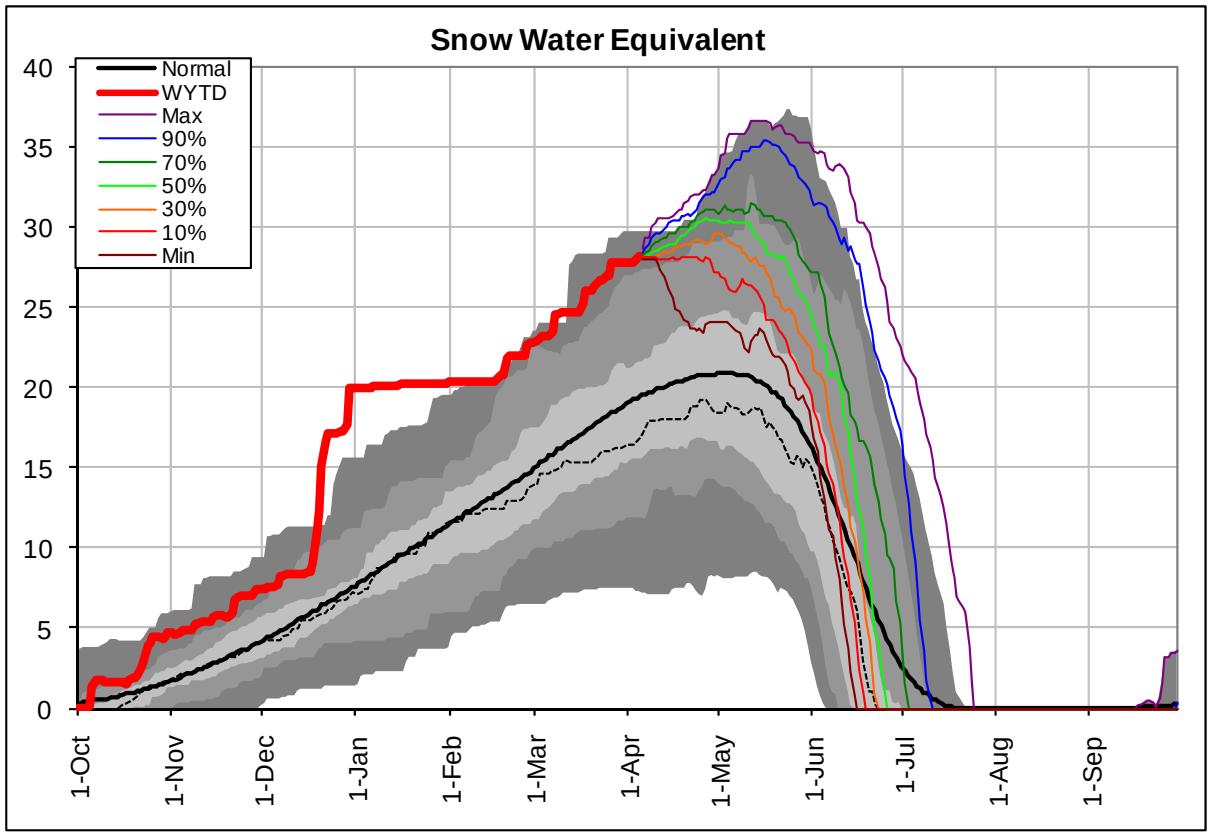

Castle Valley SNOTEL




Farnsworth Lake SNOTEL




Pickle Keg Spring SNOTEL




Big Flat SNOTEL