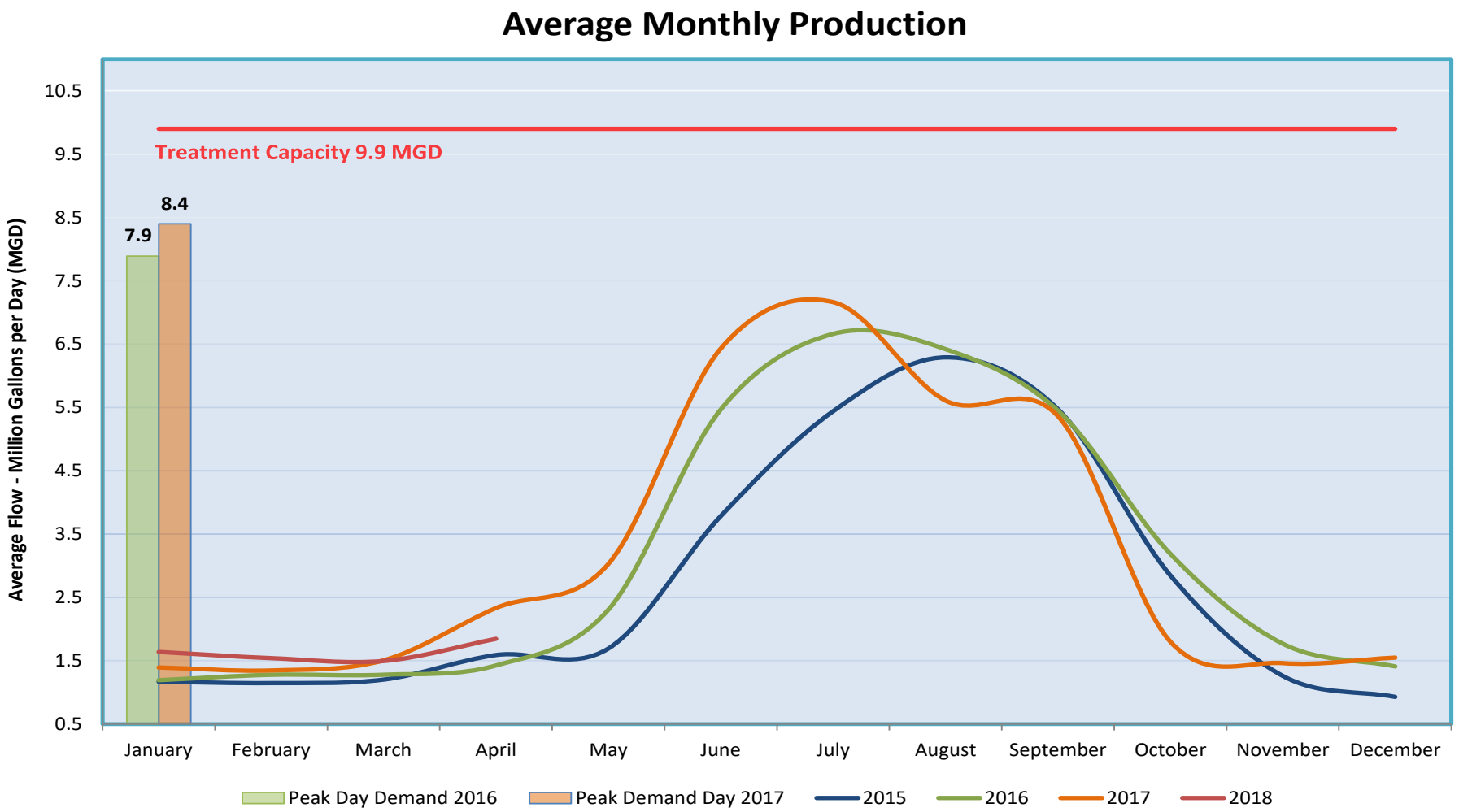
Lynn R. Morgan Water Treatment Facility

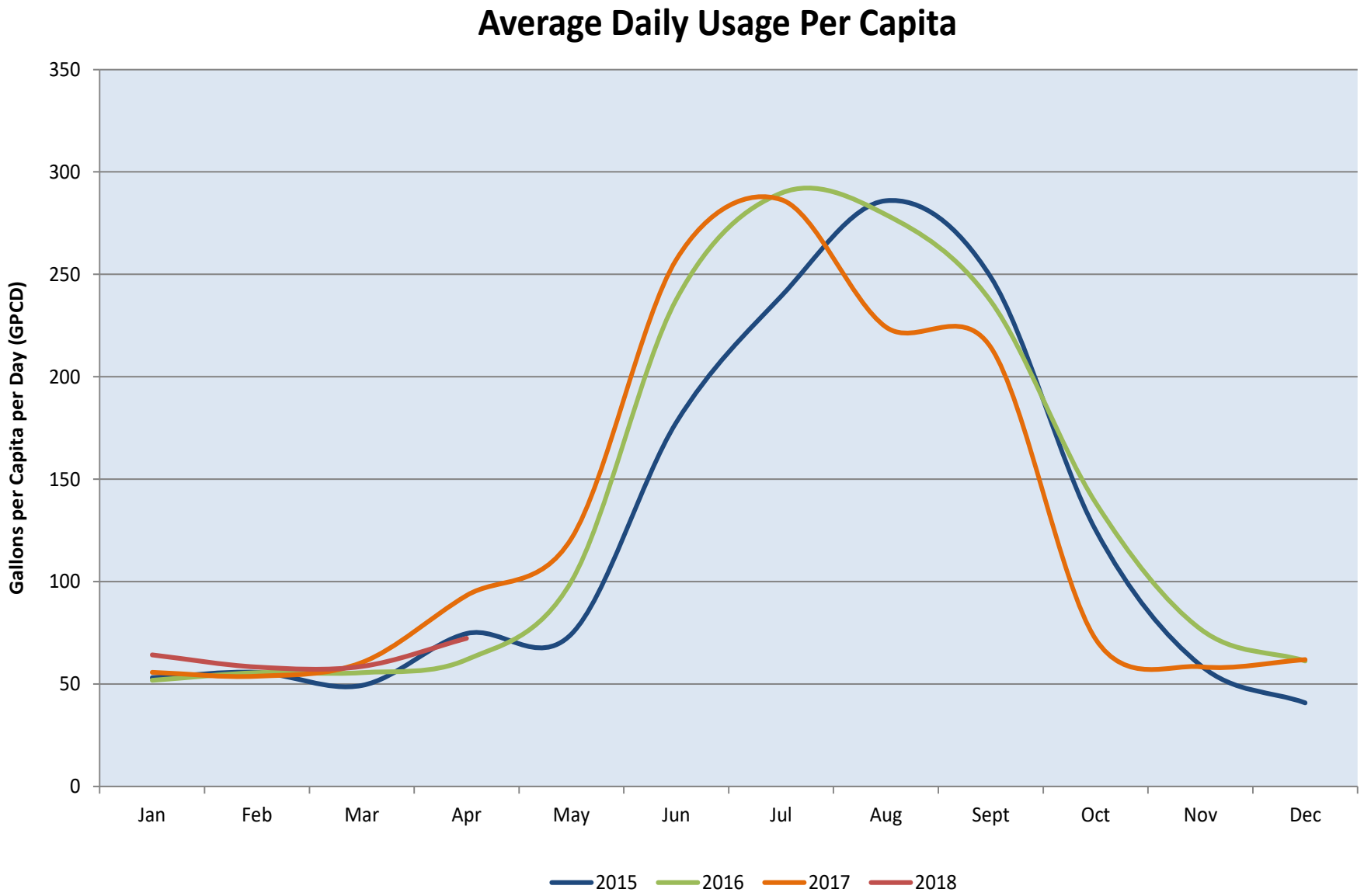
Annual Daily Average Flow: **2015** - 2.7 MG **2016** - 3.3 MG **2017** – 3.4 MG

July 2017 maintains the record for the highest monthly average flows at 7.16 MG, while December 2015 had the lowest flows at 0.93 MG. Summer demands greatly affect the annual average due to outdoor irrigation. Water storage tanks in the distribution system play a key role in supplying peak overnight irrigation demands, fire flow storage and are refilled in the daytime when demands decrease. The daily peak demand (customer meter totals) of 8.4 MGD was in July of 2017. This equates to a 0.5 MG increase in daily peak demand over the prior year. Staff has reviewed proposals for engineering design for expansion of the Water Treatment Facility, we plan to bring a contract request to the Board in June.



Annual Daily Gallons Per Capita per Day (GPCD): **2015** - 124 GPCD **2016** - 137 GPCD **2017** – 130 GPCD

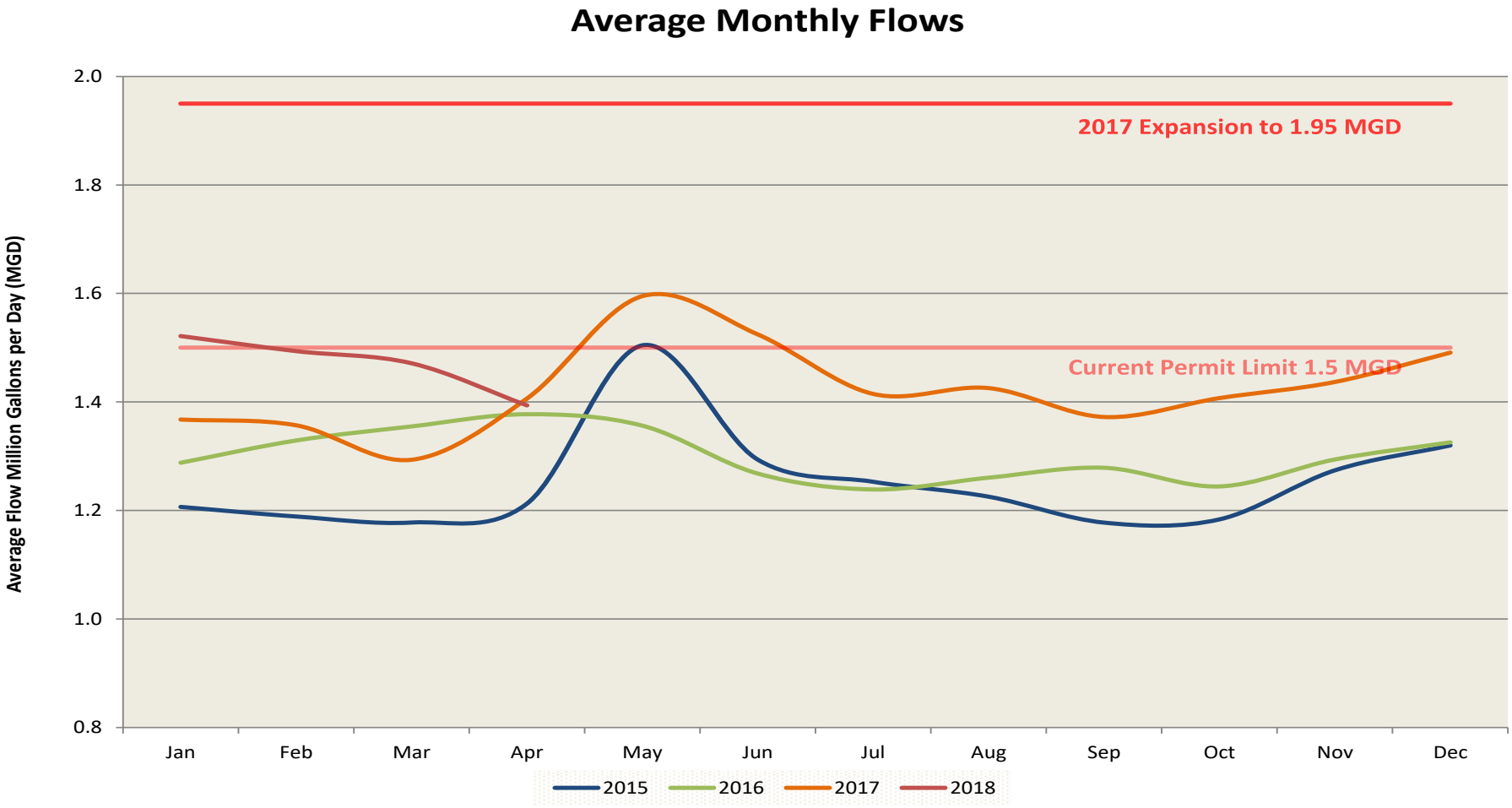
July 2016 had the highest average daily usage at 290 gallons per capita per day (GPCD). December 2015 had the lowest usage at 41 GPCD. A relatively wet and cool summer 2017 kept overall average water demands down for the year. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future.



North Water Reclamation Facility

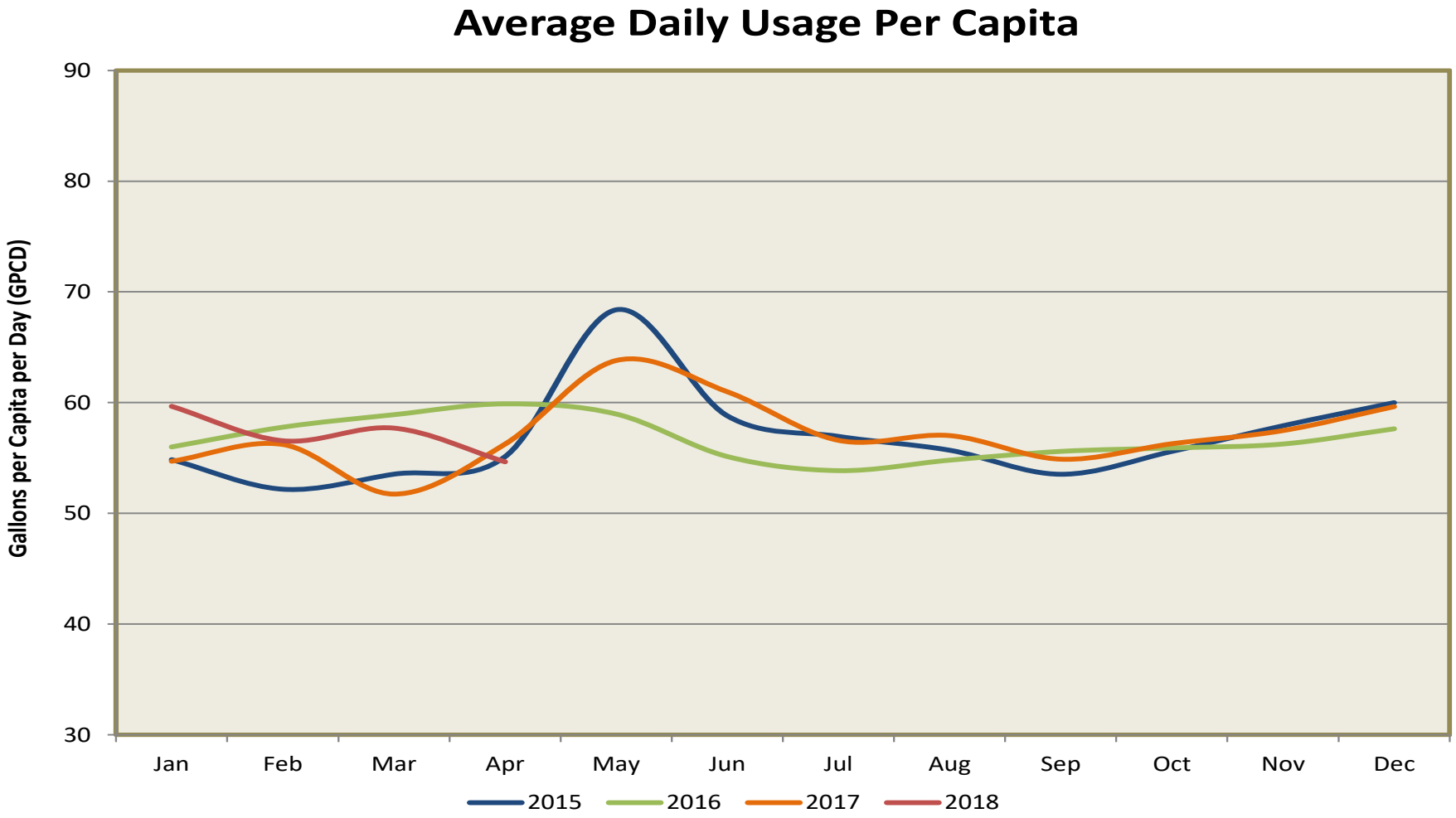
Annual Daily Average Flow: **2015** - 1.25 MG **2016** - 1.30 MG **2017** – 1.42 MG

March and September of 2015 both had the lowest average flow of 1.18 million gallons per day (MGD). May 2017 set a high average monthly flow of 1.60 MGD, triggered by snowmelt and subsequent inflow into the collection system, likely through low lying manhole lids. The Engineering Division completed a collection system flow study to determine locations where these inflows exist. O&M staff are ordering various manhole inserts to determine which ones would function best in keeping inflows out, while not interfering with maintenance. Staff worked with consultant Leonard Rice Engineers (LRE) and submitted a request for modifications to the facility permit from the Colorado Department of Public Health and Environment (CDPHE) in April. The end result of this effort will be a permit at 1.95 MGD and more appropriate discharge limits than in the current or proposed permit. CDPHE has indicated that they will not process this request until early 2019 due to staffing and budget issues.



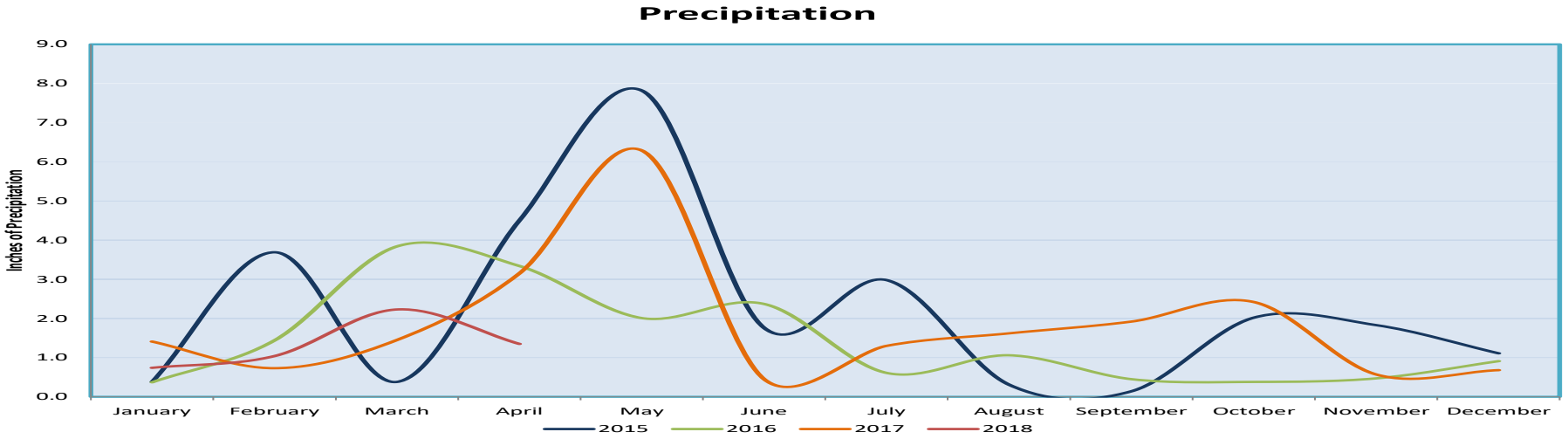
Annual Daily Gallons Per Capita per Day (GPCD): **2015** - 57 GPCD **2016** - 57 GPCD **2017-** 57 GPCD

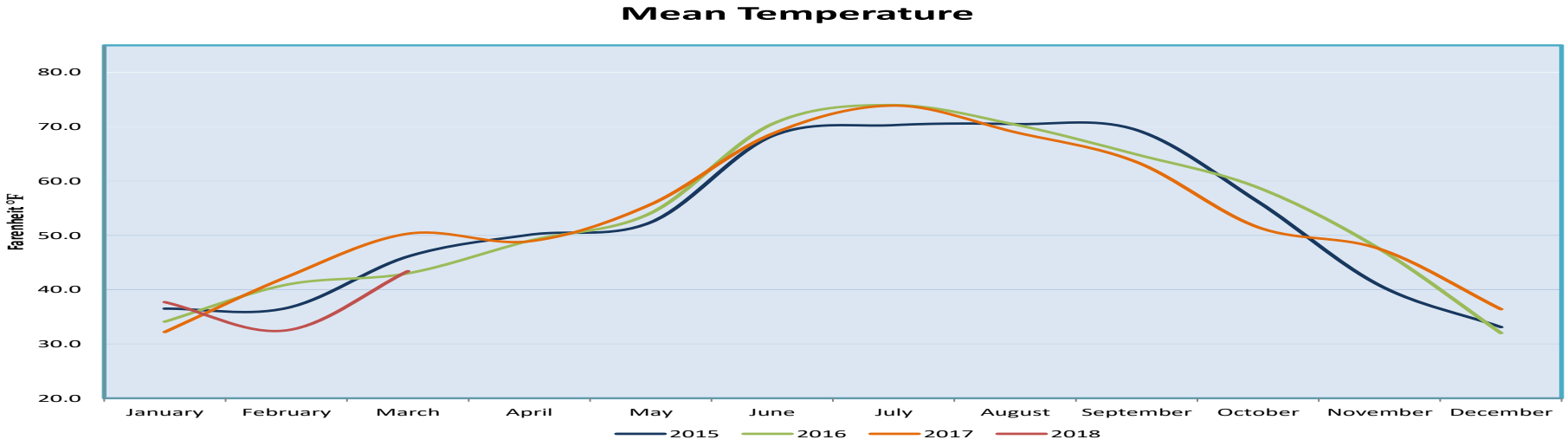
This graph depicts customer indoor water usage. May 2015 had the highest usage at 68 GPCD, primarily due to snow melt seeping into manholes after a particularly wet snow and subsequent warm weather. February 2015 and March 2017 had the lowest usage at 51 gallons. Overall flows into the wastewater treatment plant are trending upward over this period, however per capita demands remain relatively flat on an annual basis. Fall, with relatively little precipitation and dropping groundwater levels, is a good indicator of true daily usage. Worth noting in this graph is the impact of several large leaks repaired at the Water Treatment Facility. Since these leaks were pumped into the sewer system during repairs, the significant decrease in flows at the NWRF in April is related to those leaks. The reduction in demand as a result of those repairs is roughly 160 acre feet per year, or enough water to serve roughly 300 dwelling units.

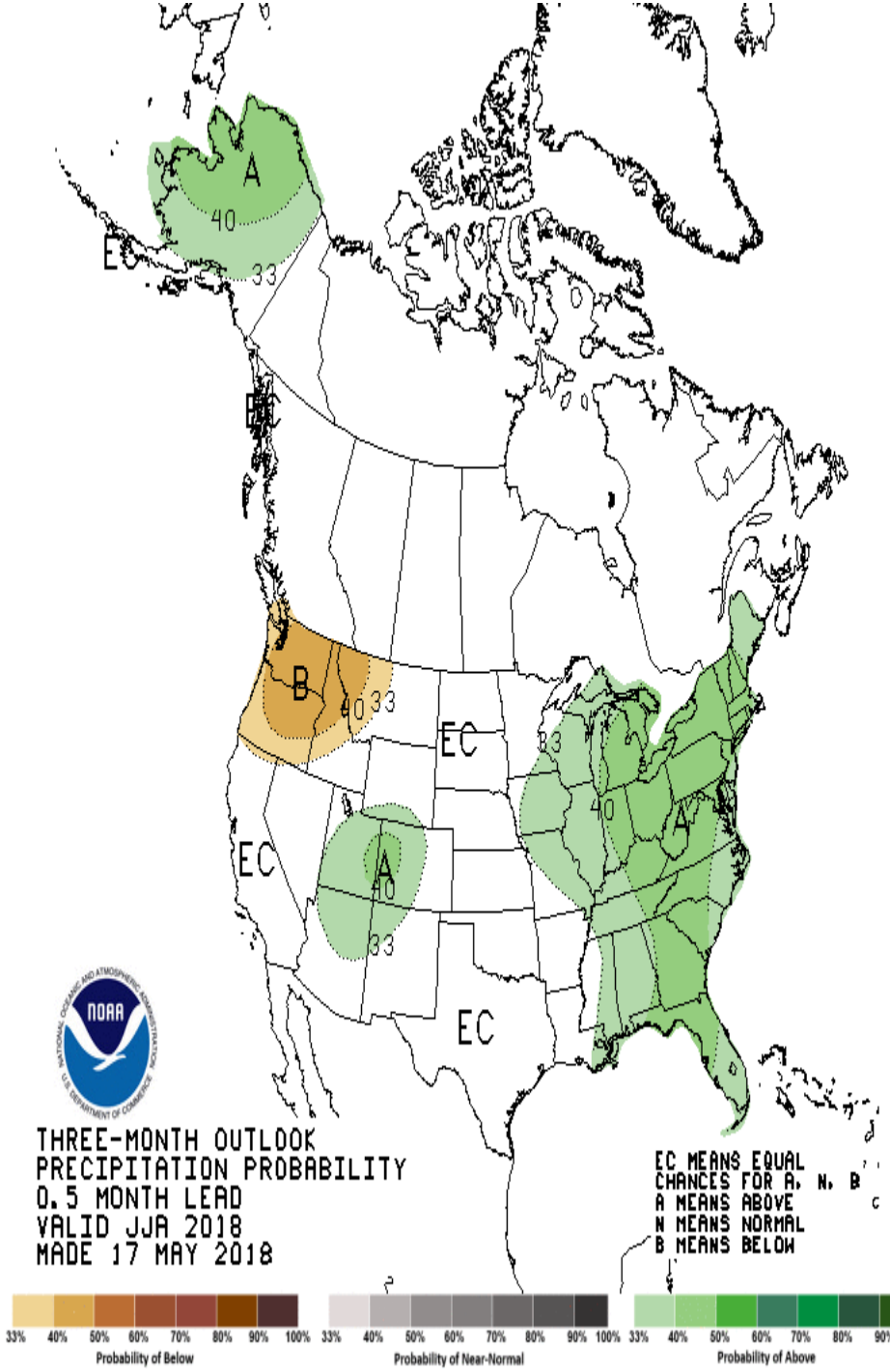


Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

NOAA is predicting a 33% chance of above normal precipitation and a 33% chance of above normal temperatures through the end of May in our area. Winter snowpack in terms of Snow Water Equivalent (SWE - the amount of water per inch of snow) in the Upper Colorado Basin (the main source of supply for Erie) is currently 41% of normal for this date. As the graphs below depict, runoff is coming earlier this year. Worth noting, is the dramatic difference between the northern and southern portions of the state, essentially split at I-70. Erie is in a very good position than much of the state due to carry over reservoir storage and favorable snowpack conditions in the Upper Colorado Basin throughout winter. As of May 25, April mean temperature data had not yet been entered into NOAA's web site.



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THREE-MONTH OUTLOOK
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VALID JJA 2018
MADE 17 MAY 2018
EC MEANS EQUAL CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW
33% 40% 50% 60% 70% 80% 90% 100%
Probability of Below
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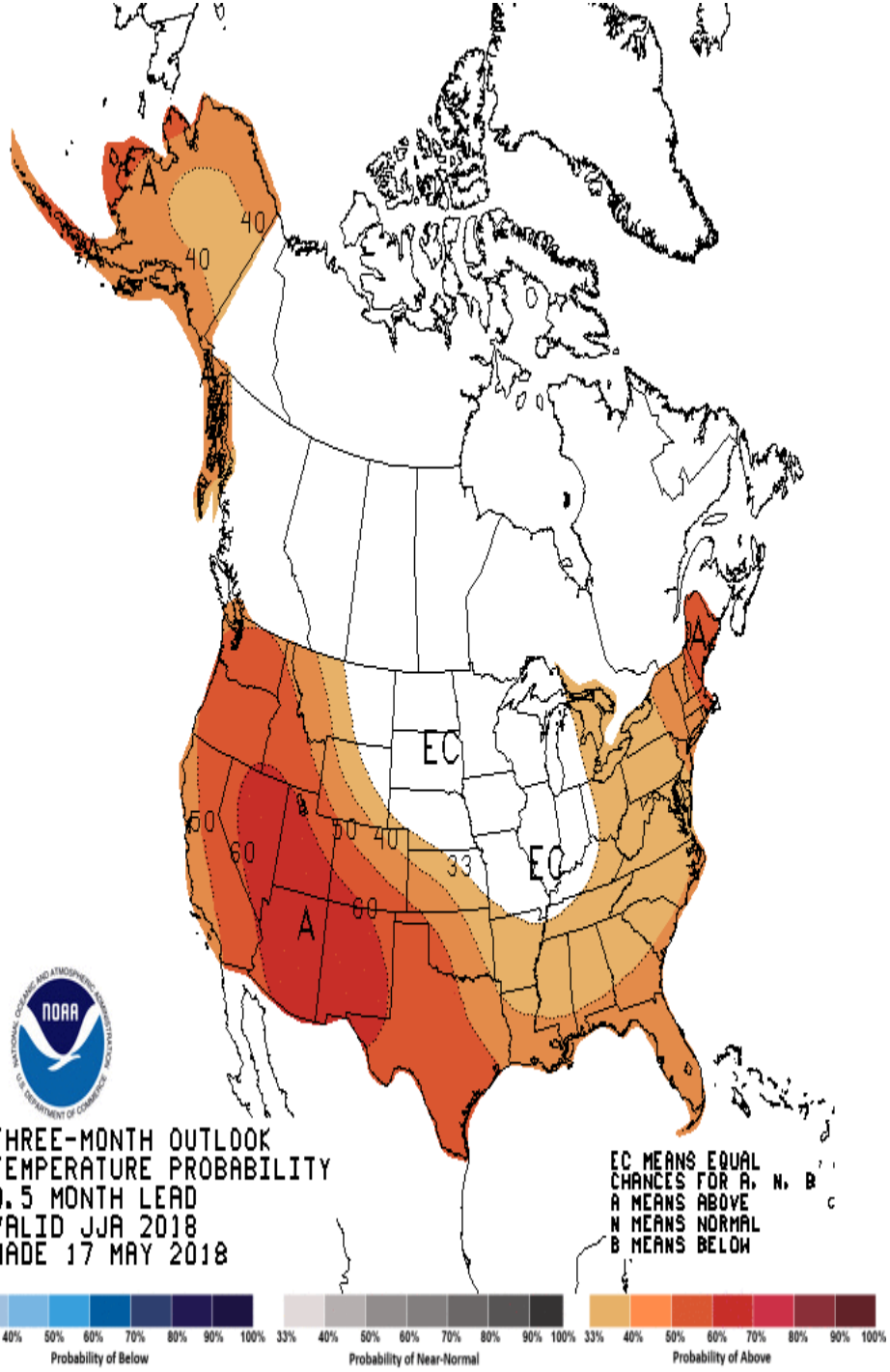
Probability of Near-Normal
33% 40% 50% 60% 70% 80% 90% 100%
Probability of Above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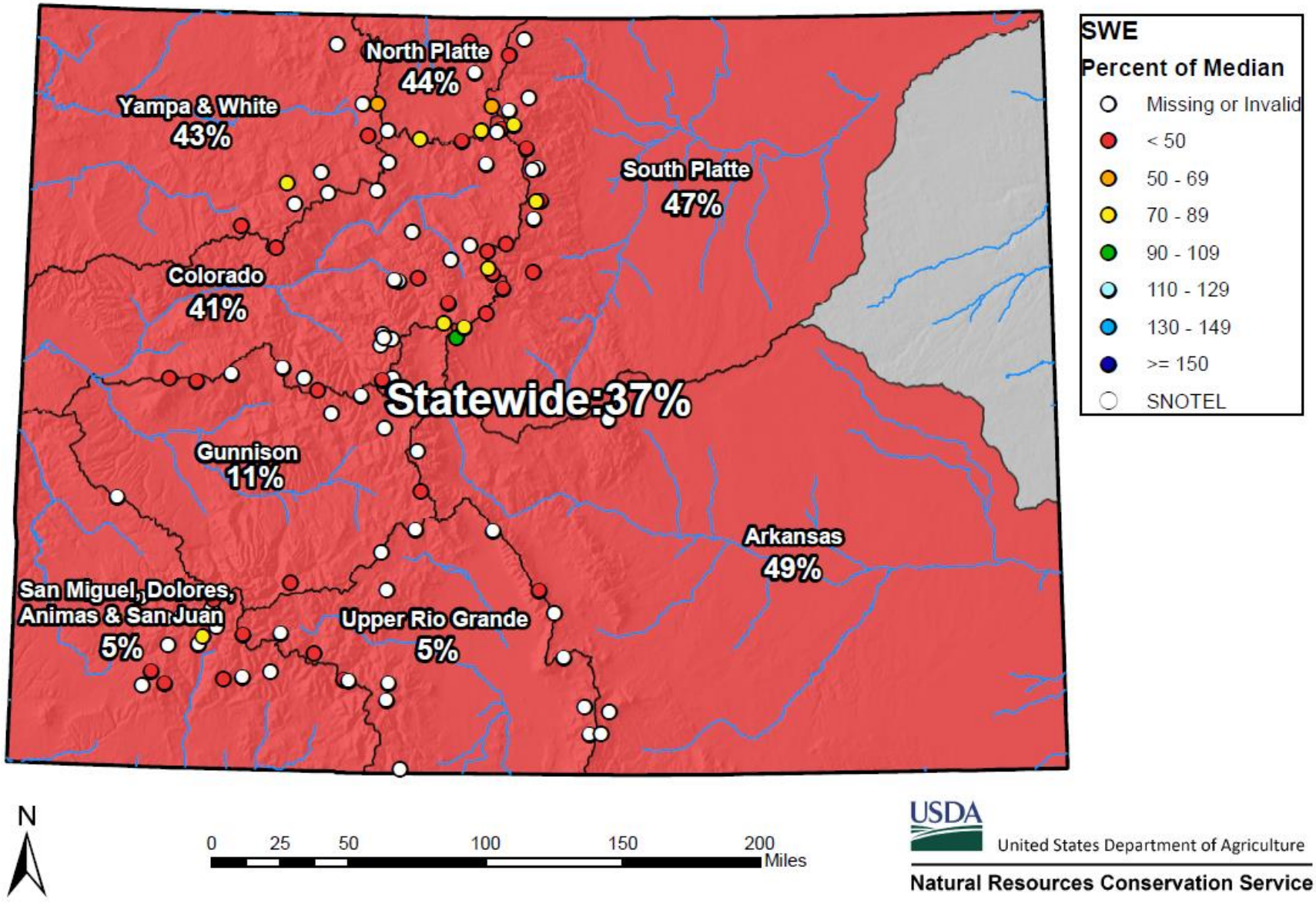
Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

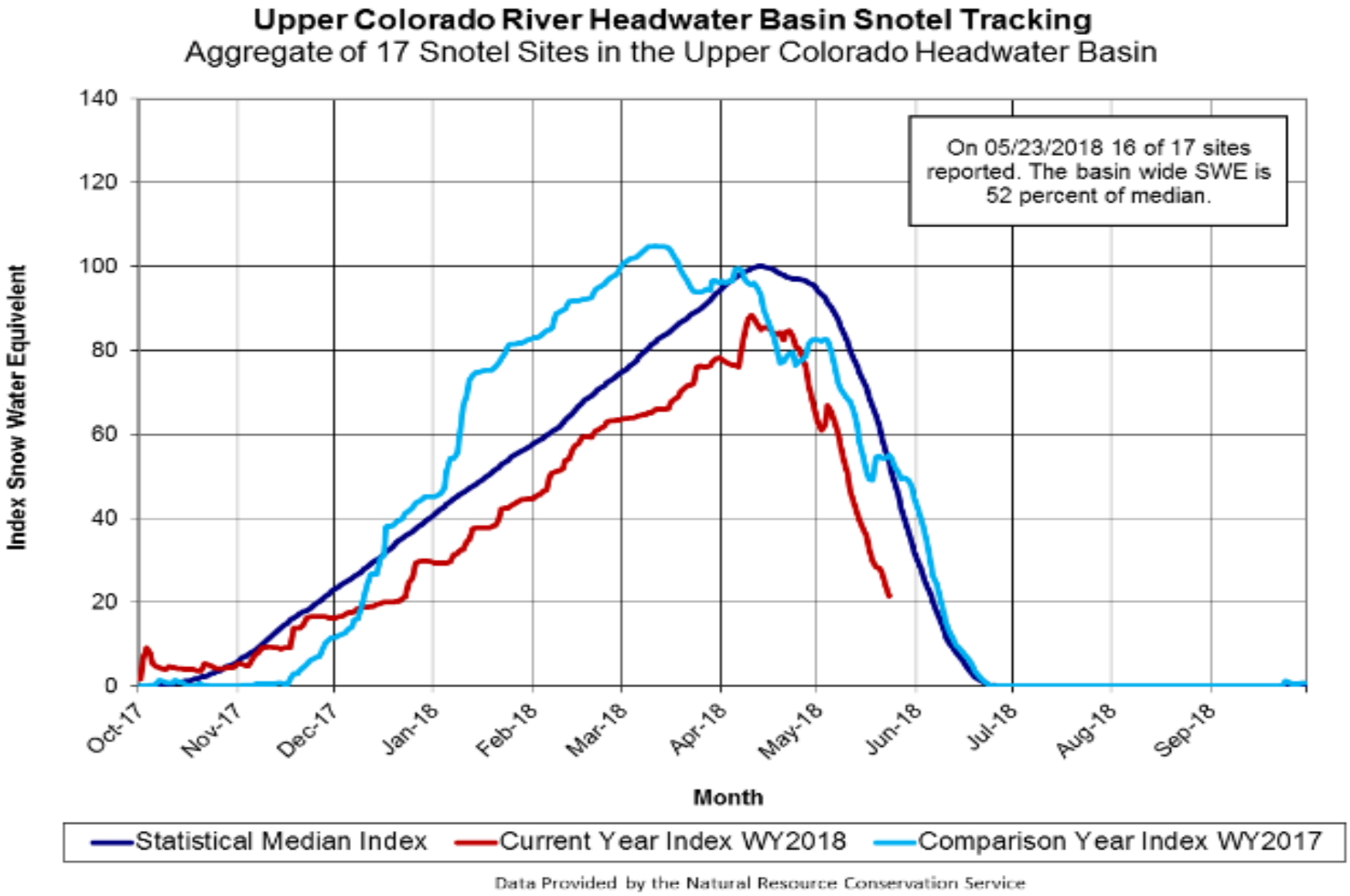
Current as of May 25, 2018



USDA United States Department of Agriculture

Natural Resources Conservation Service

Upper Colorado



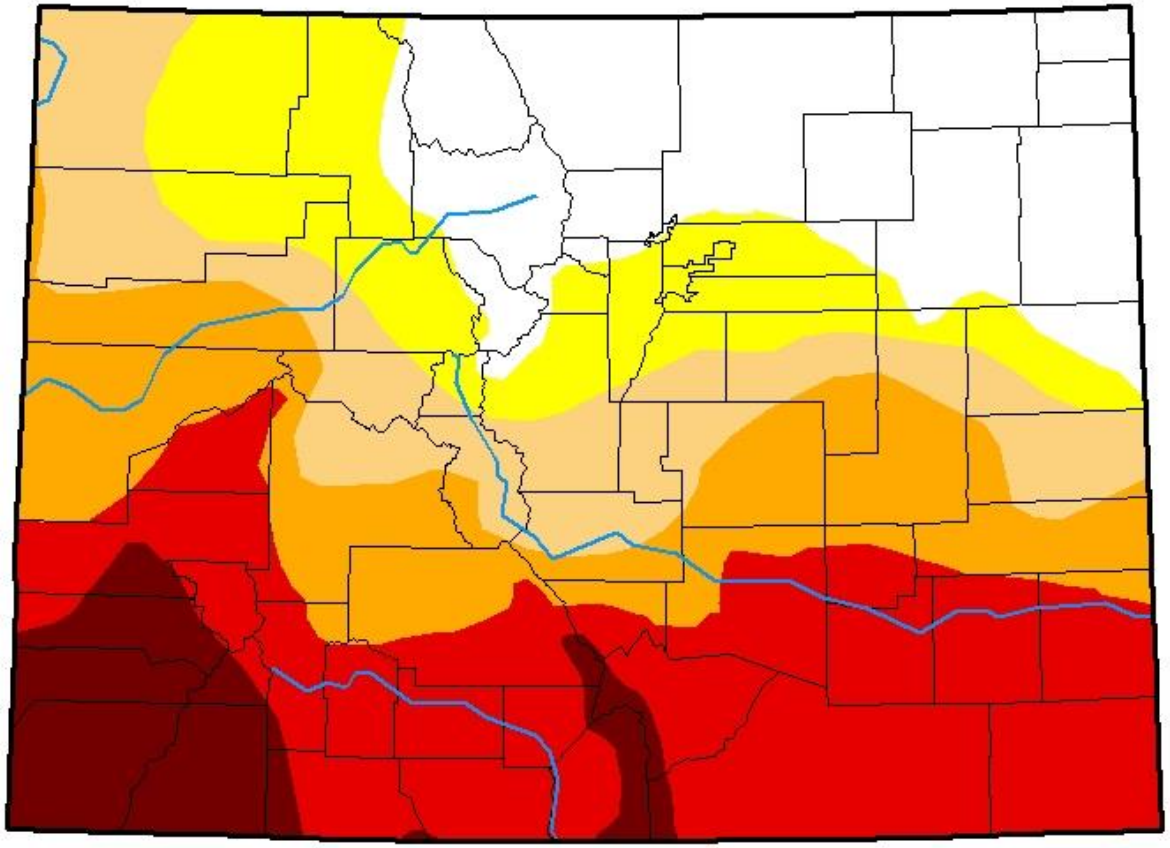
U.S. Drought Monitor

Colorado

May 22, 2018

(Released Thursday, May. 24, 2018)

Valid 8 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Eric Luebehusen
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/