April 2019 Public Works Report

Capital Improvement Projects

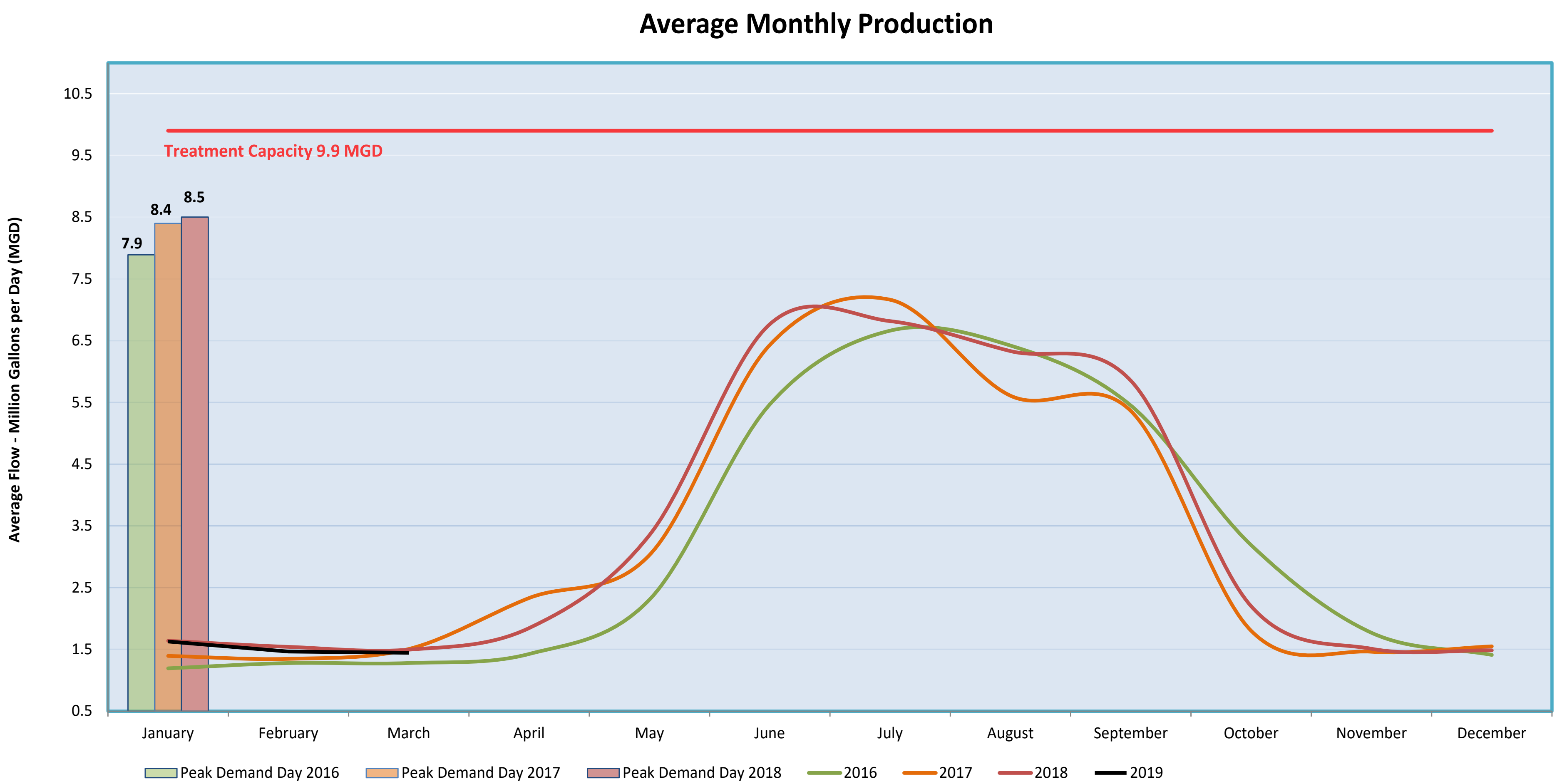
Erie Parkway Bridge Replacement

Progress continues on this project with contractor SEMA Construction and construction management from RockSol Consulting Group. Currently SEMA is working on the new road alignment to the bridge. Girders (crossbeams) will be placed April 22nd – 24th, weather permitting. This will be a significant operation with very large, heavy equipment. We continue to estimate that this project will be complete by late fall. The project is on schedule and within budget.

Lynn R. Morgan Water Treatment Facility

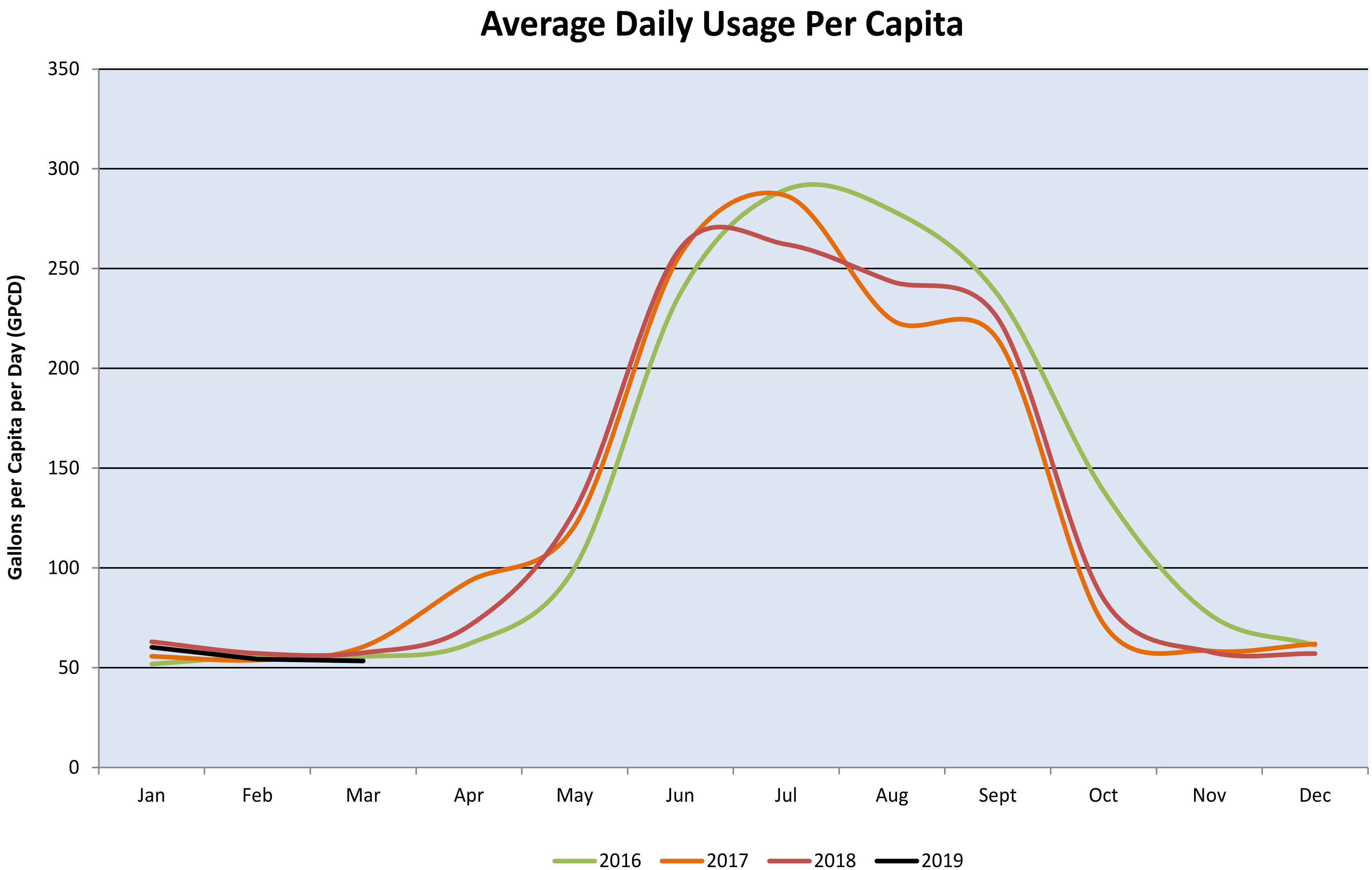
<u>Annual Daily Average Flow:</u> **2016** - 3.3 (Million Gallons) MG **2017** – 3.4 MG **2018** – 3.4 MG

July 2017 maintains the record for the highest monthly average flows at 7.16 MG, while January 2016 had the lowest flows at 1.19 MG. Summer demands greatly affect the annual average due to outdoor irrigation. The daily peak demand (customer meter totals) of 8.45 MGD was in July of 2018. We are at 90% design for the current water plant expansion with engineer Burns and McDonnell and Garney Construction as Construction Manager at Risk (CMAR) for this project. We anticipate Garney will provide a Guaranteed Maximum Price (GMP) by the end of the month and the Town will have the option to award the project to Garney or bid it out.



Annual Daily Gallons Per Capita per Day (GPCD): **2016** - 131 GPCD **2017** – 130 GPCD **2018** – 131 GPCD

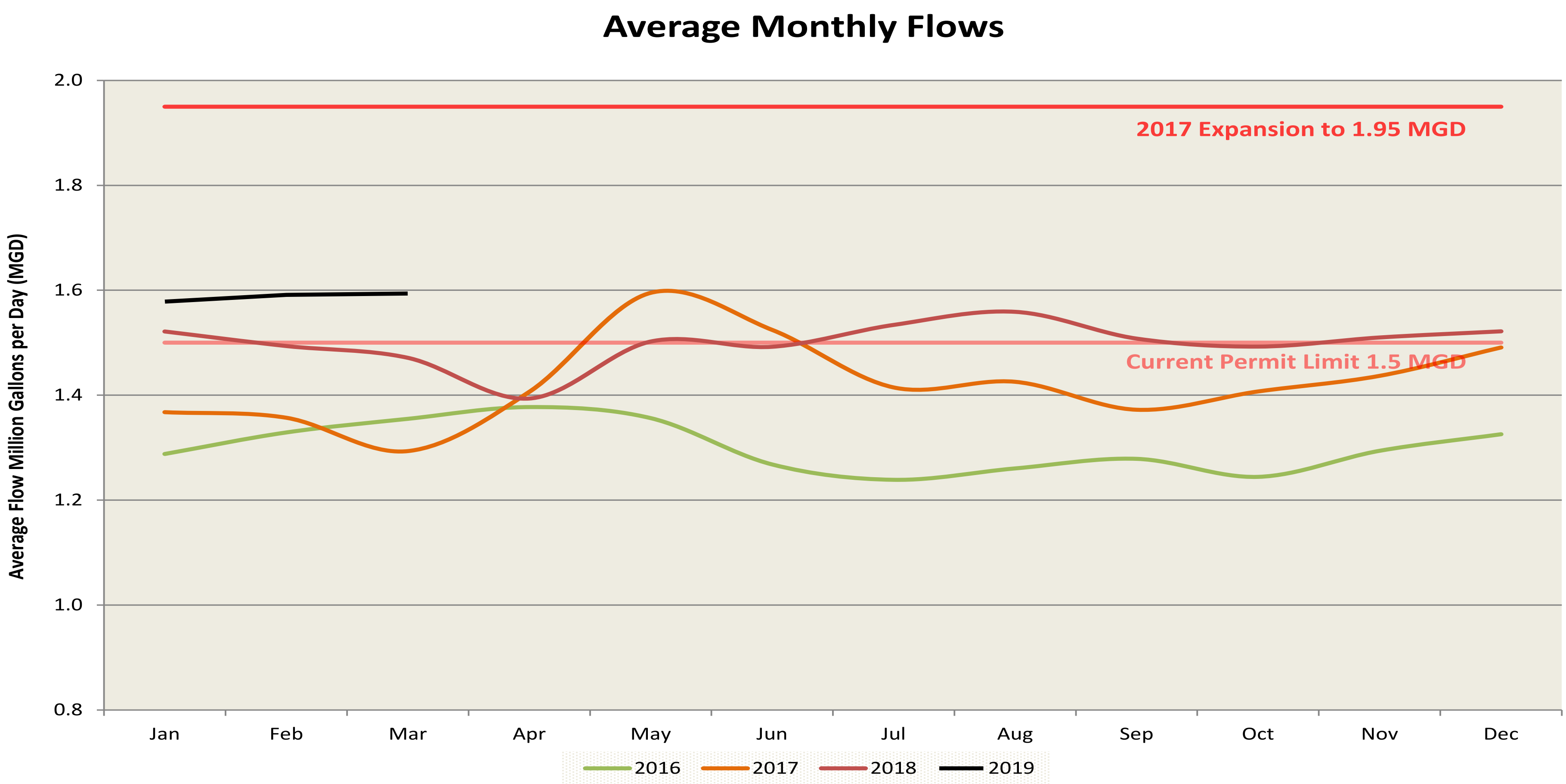
July 2016 had the highest average daily usage at 290 gallons GPCD. January 2016 had the lowest usage at 52 GPCD. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future. Worth noting, Erie's smart irrigation controller rebate program and low flow toilet program through Resource Central, Flush for the Future, will continue in 2019.



North Water Reclamation Facility

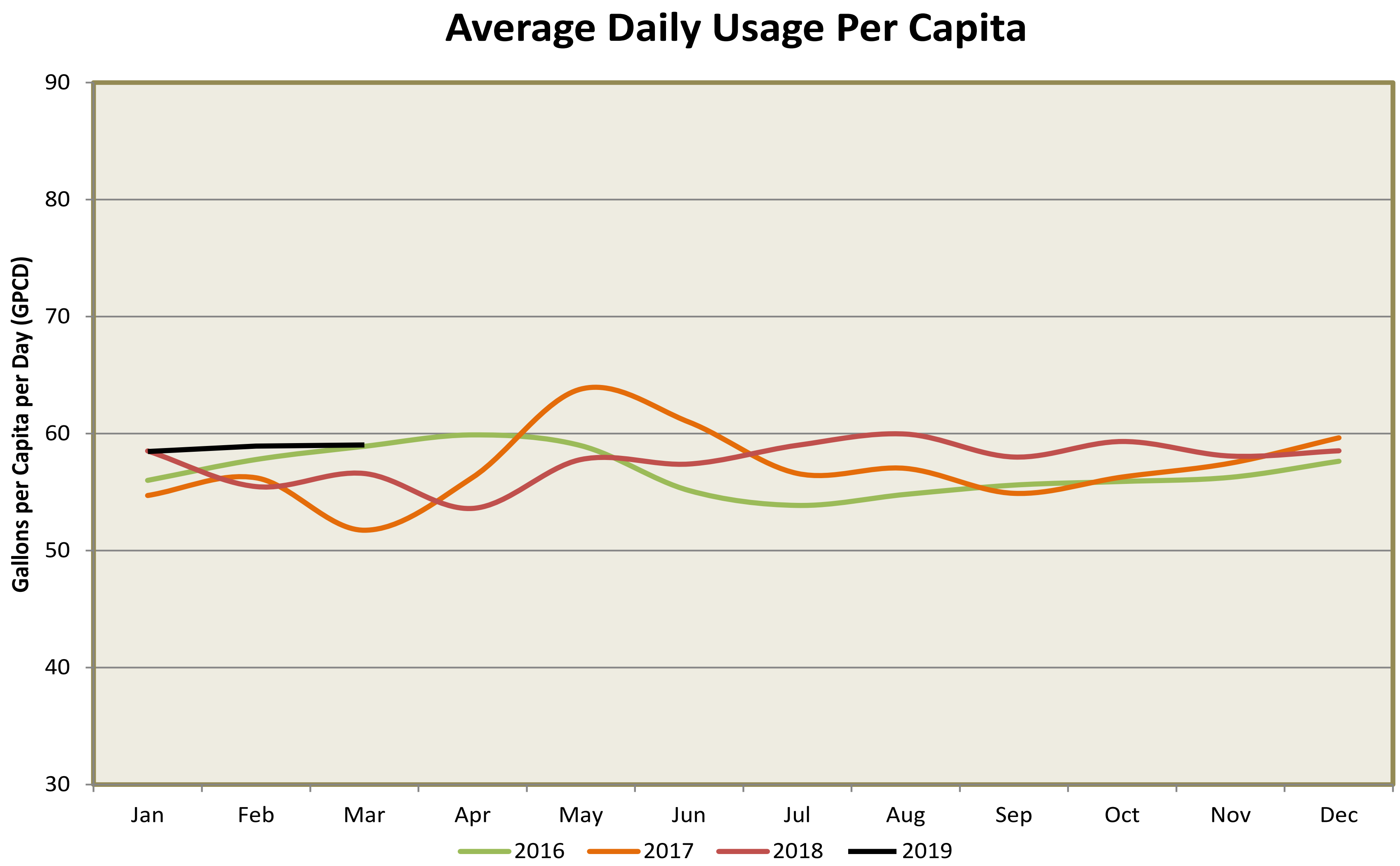
Annual Daily Average Flow: **2016** - 1.30 MG **2017** – 1.42 MG **2018** - 1.50 MG

October 2016 had the lowest average flow of 1.24 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. Inflows are up slightly this winter for the same reason and due to relatively frequent snowfall. 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 2018. 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 after 2019; we are reaching out to CDPHE and asking they revisit this position. Design is underway with HDR engineering, we will look to engage a CMAR at roughly 30% design. We anticipate construction in late 2019 or early 2020.



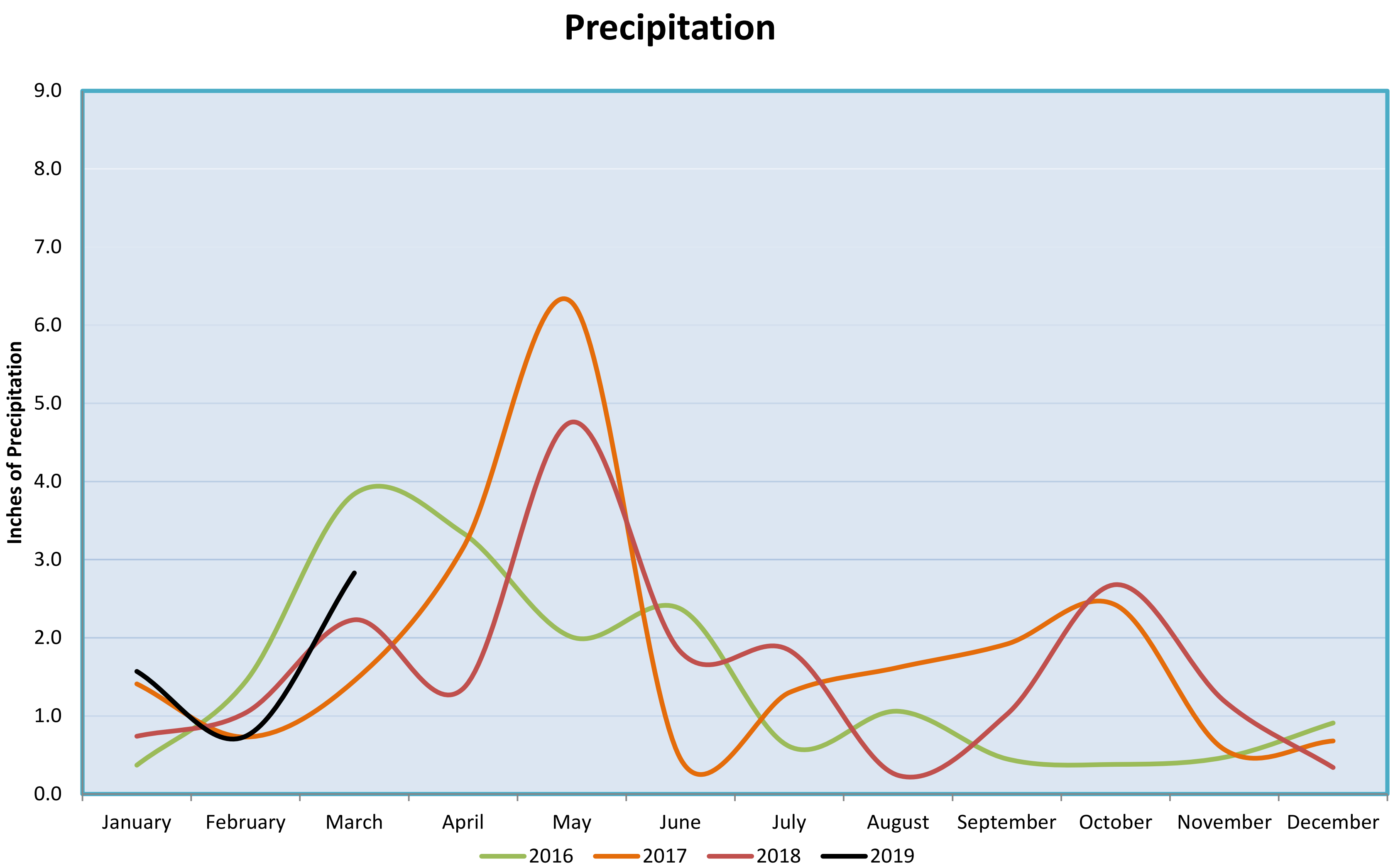
Annual Daily Gallons Per Capita per Day (GPCD): **2016** - 57 GPCD **2017-** 57 GPCD **2018** - 58 GPCD

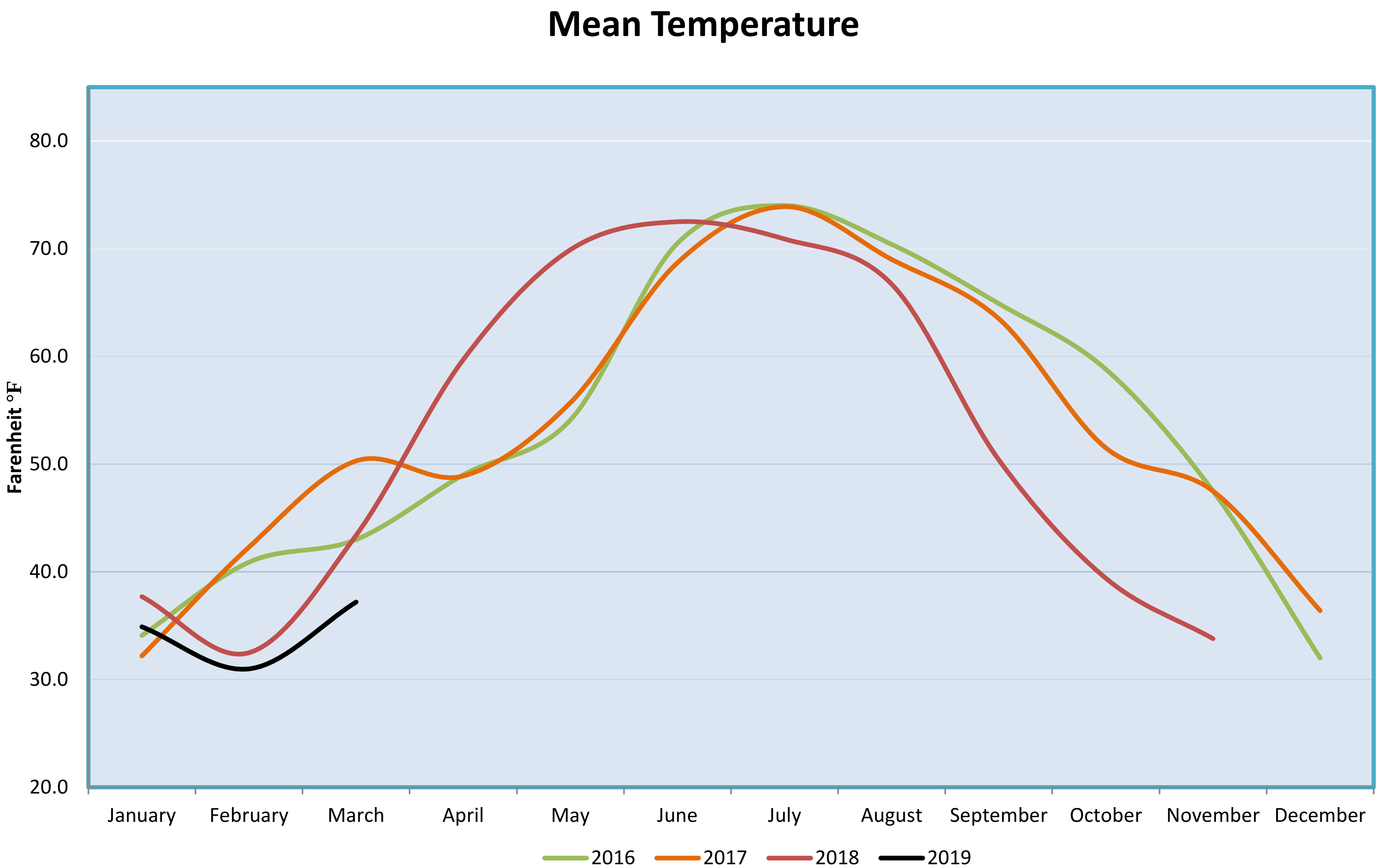
This graph depicts customer indoor water usage. May 2017 had the highest usage at 64 GPCD, primarily due to snow melt seeping into manholes after a particularly wet snow and subsequent warm weather. March 2017 had the lowest usage at 52 GPCD. Overall flows into the wastewater treatment plant are trending 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.



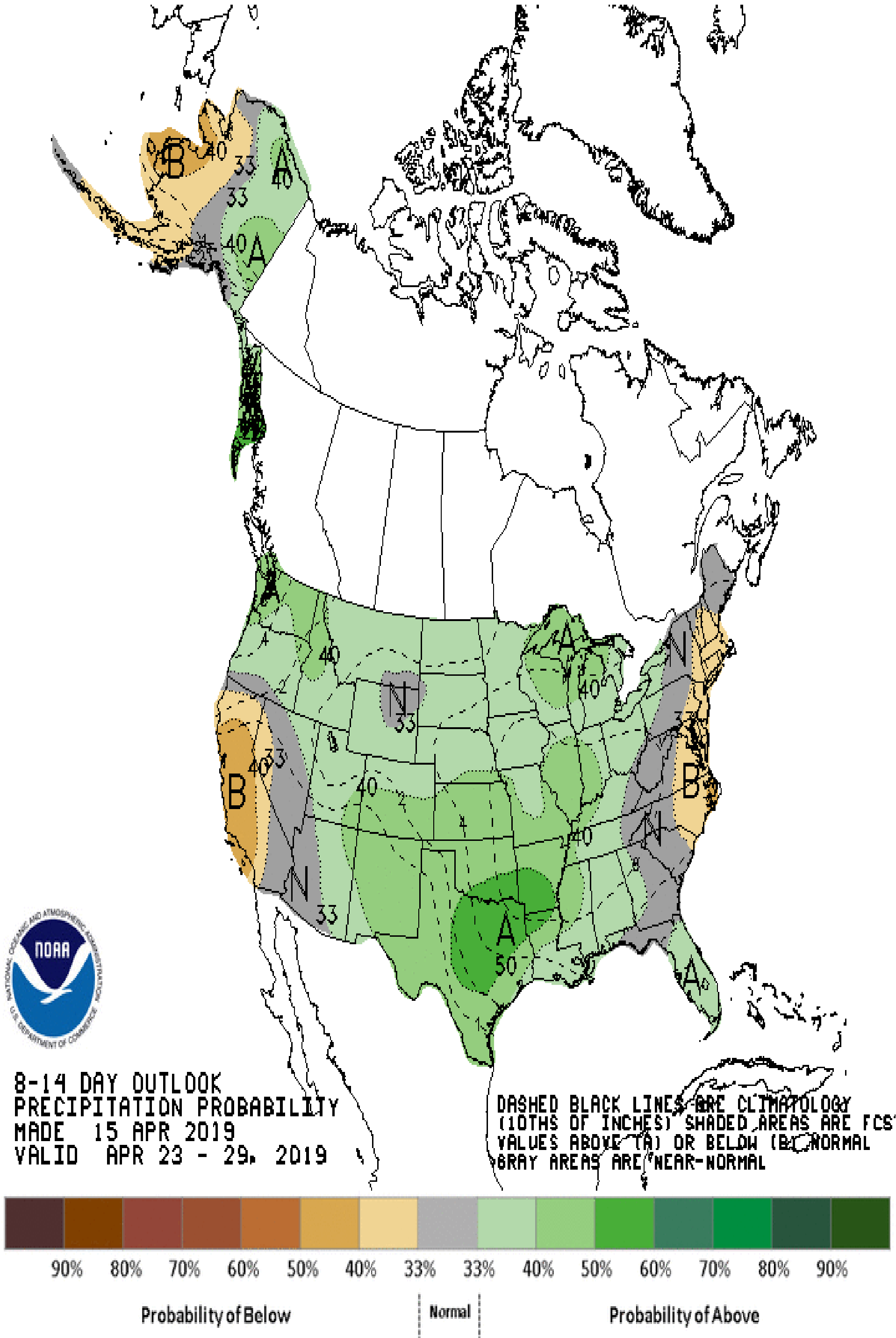
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

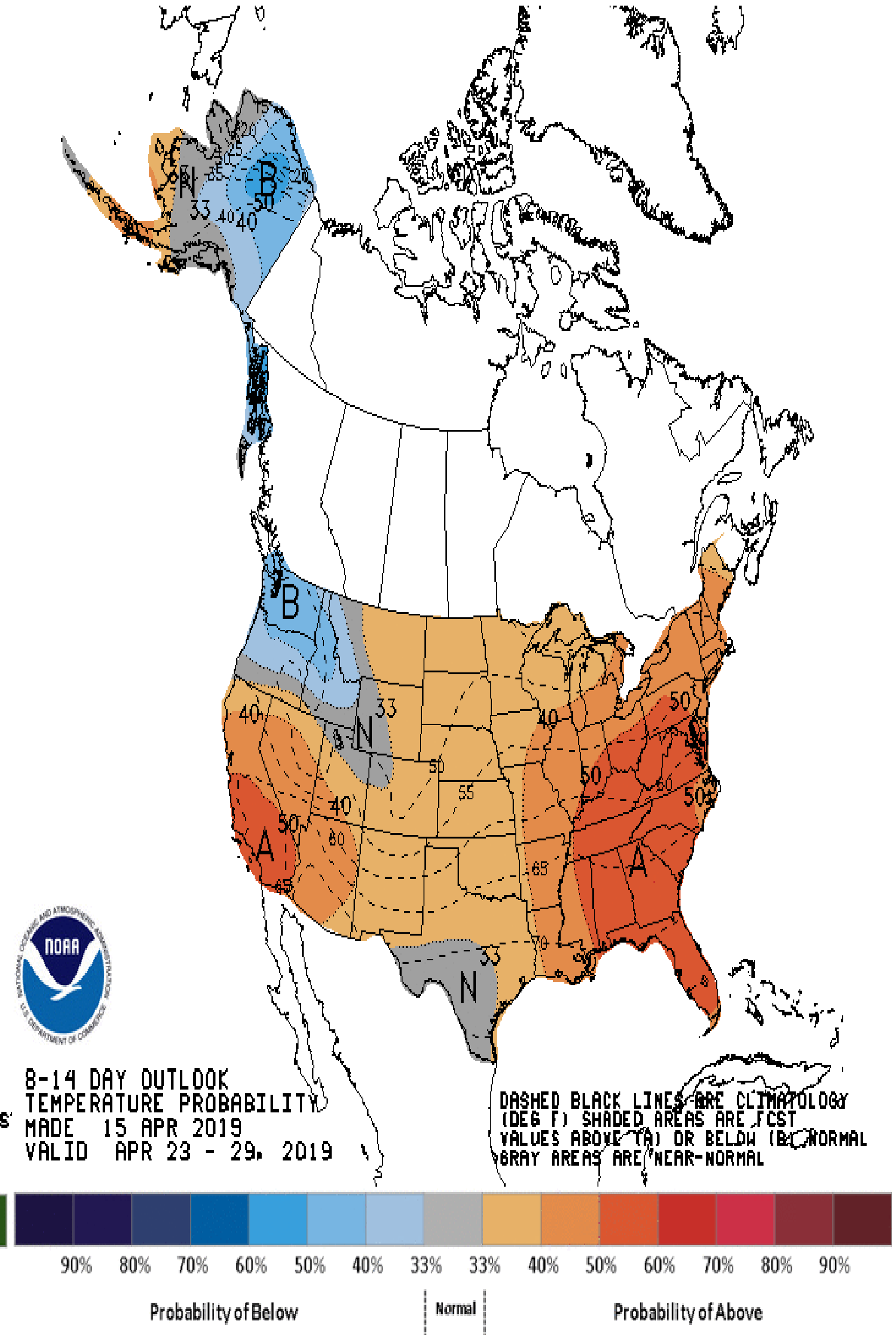
NOAA is predicting 33% above normal precipitation and 40% above normal temperatures (last month's prediction was 60% below) through late April in our area. The snow pack in the upper part of the state (where we get our water) continues to be well above average and the southeast area of the State continues it's rebound from last years drought. This is great news for the 7 States (and Mexico) which rely on the Colorado River.





Mean Temperature
80.0
70.0
60.0
50.0
40.0
30.0
20.0
Farenheit °F
January
February
March
April
May
June
July
August
September
October
November
December
2016
2017
2018
2019


8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 15 APR 2019
VALID APR 23 - 29, 2019
DASHED BLACK LINES ARE CLIMATOLOGY
(10THS OF INCHES) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
GRAY AREAS ARE NEAR-NORMAL
90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%
Probability of Below
Normal
Probability of Above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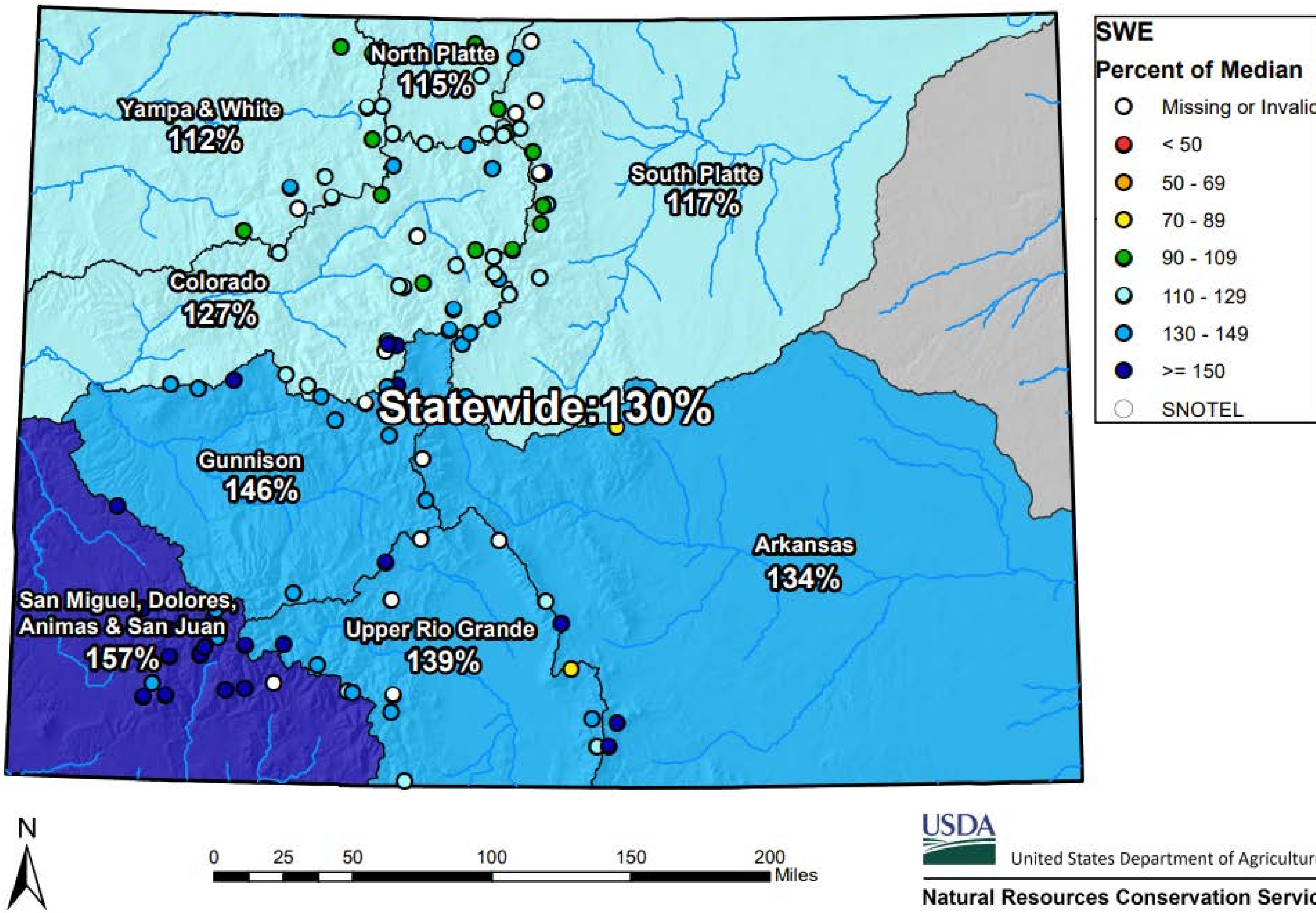
Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

Current as of Apr 12, 2019



USDA United States Department of Agriculture

Natural Resources Conservation Service