

Lynn R. Morgan Water Treatment Facility

Annual Daily Average Flow:

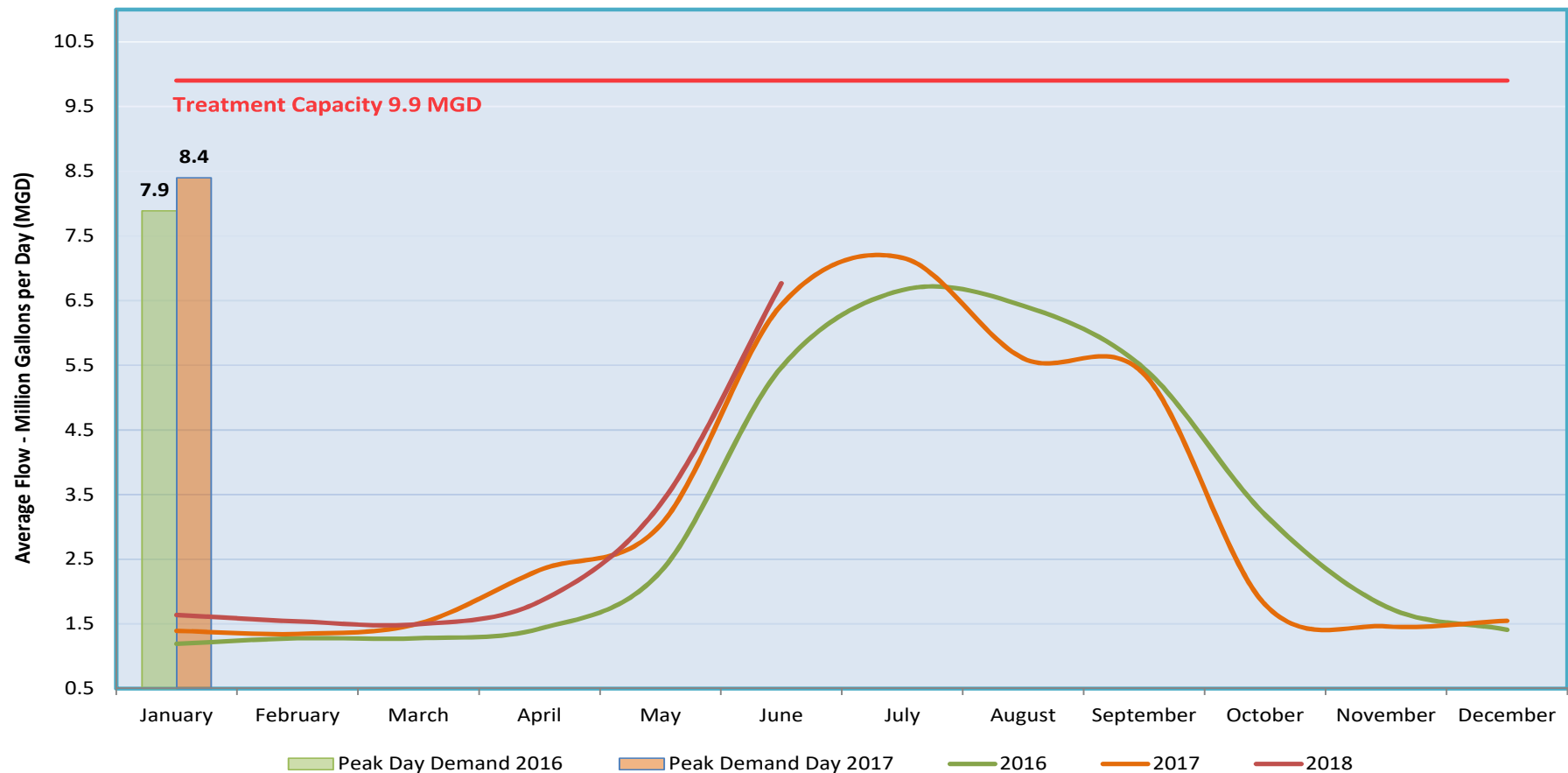
2016 - 3.3 MG

2017 – 3.4 MG

2018 (to date) – 1.5 MG

As we are now halfway through 2018 I have removed 2015 data from this report in order to de-clutter the charts. 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. 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 held a kick off meeting with Burns & McDonnell to begin preliminary design work for an expansion of the water treatment facility from 9.9 MGD to 16.5 MGD this month. A goal of completing construction no later than spring 2020 with early capacity improvements in 2019 if possible.

Average Monthly Production



Annual Daily Gallons Per Capita per Day (GPCD):

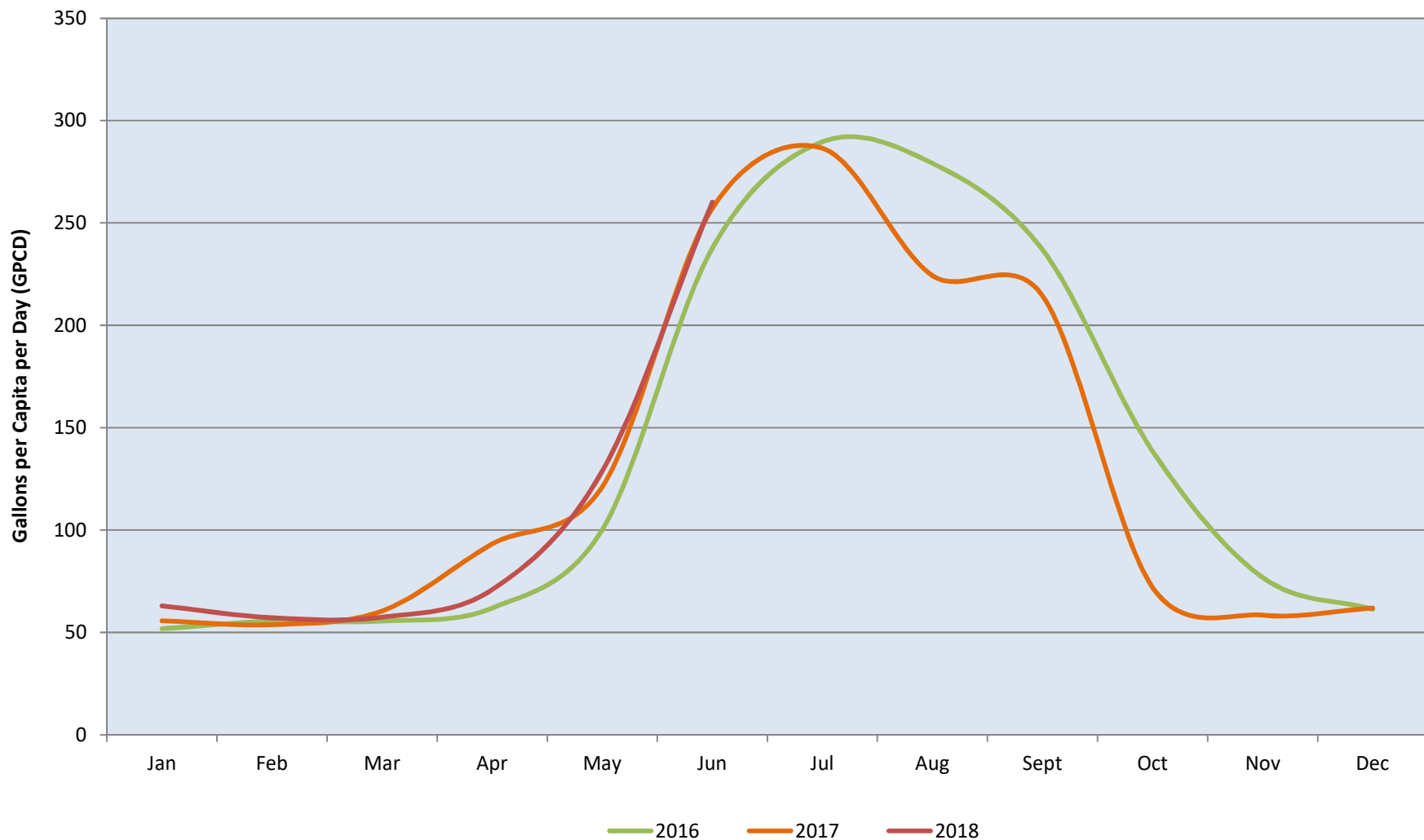
2016 - 131 GPCD

2017 – 130 GPCD

2018 (to date) – 53 GPCD

July 2017 had the highest average daily usage at 287 gallons per capita per day (GPCD). January 2016 had the lowest usage at 52 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. Demands are increasing roughly two weeks early this year due to elevated temperatures and increased irrigation.

Average Daily Usage Per Capita



North Water Reclamation Facility

Annual Daily Average Flow:

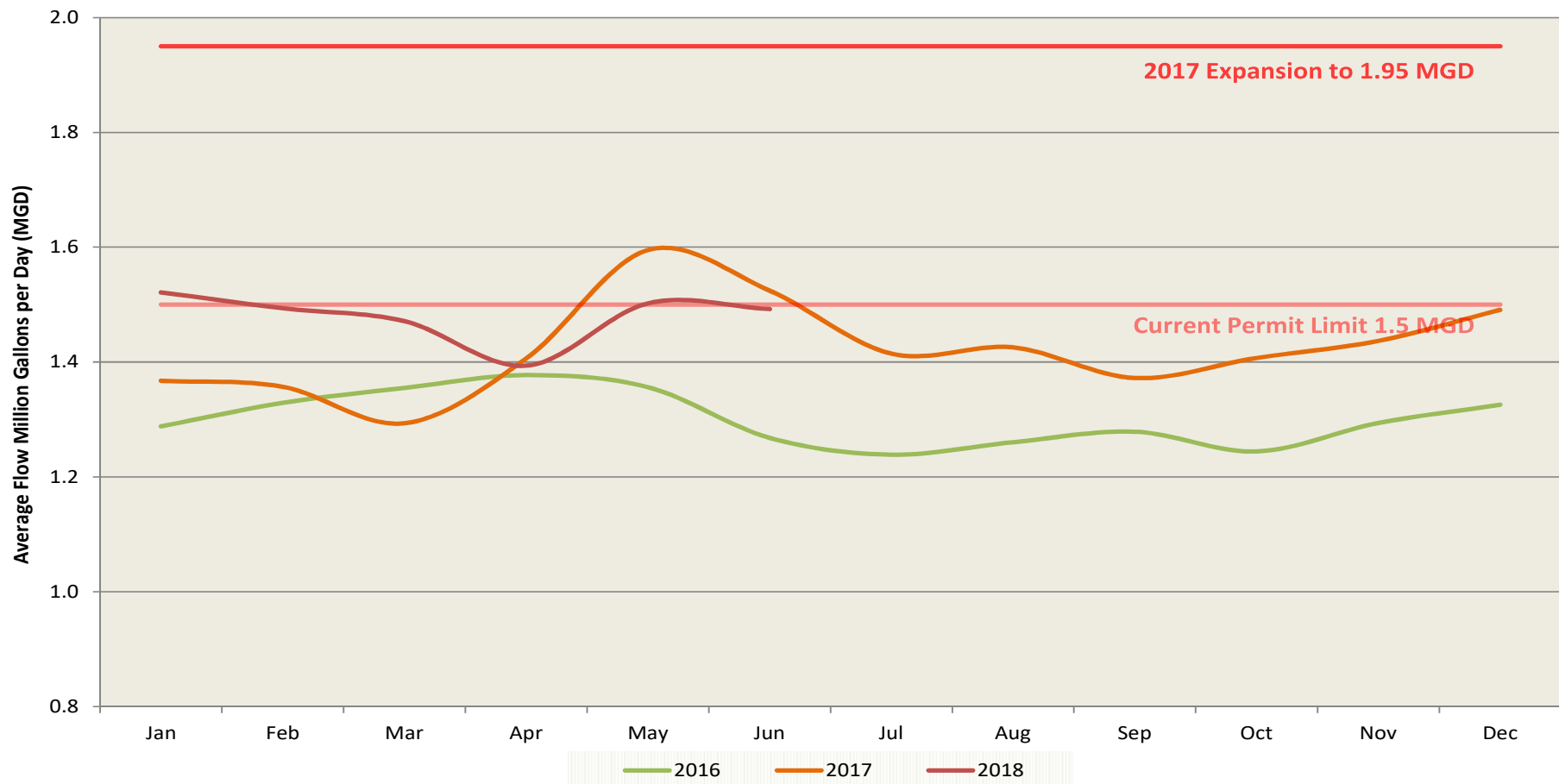
2016 - 1.30 MG

2017 – 1.42 MG

2018 (to date) - 1.48 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. 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. This month we kicked off facility master planning and preliminary design for the next NWRF expansion to roughly 3.0 MGD. We anticipate construction in 2020.

Average Monthly Flows



Annual Daily Gallons Per Capita per Day (GPCD):

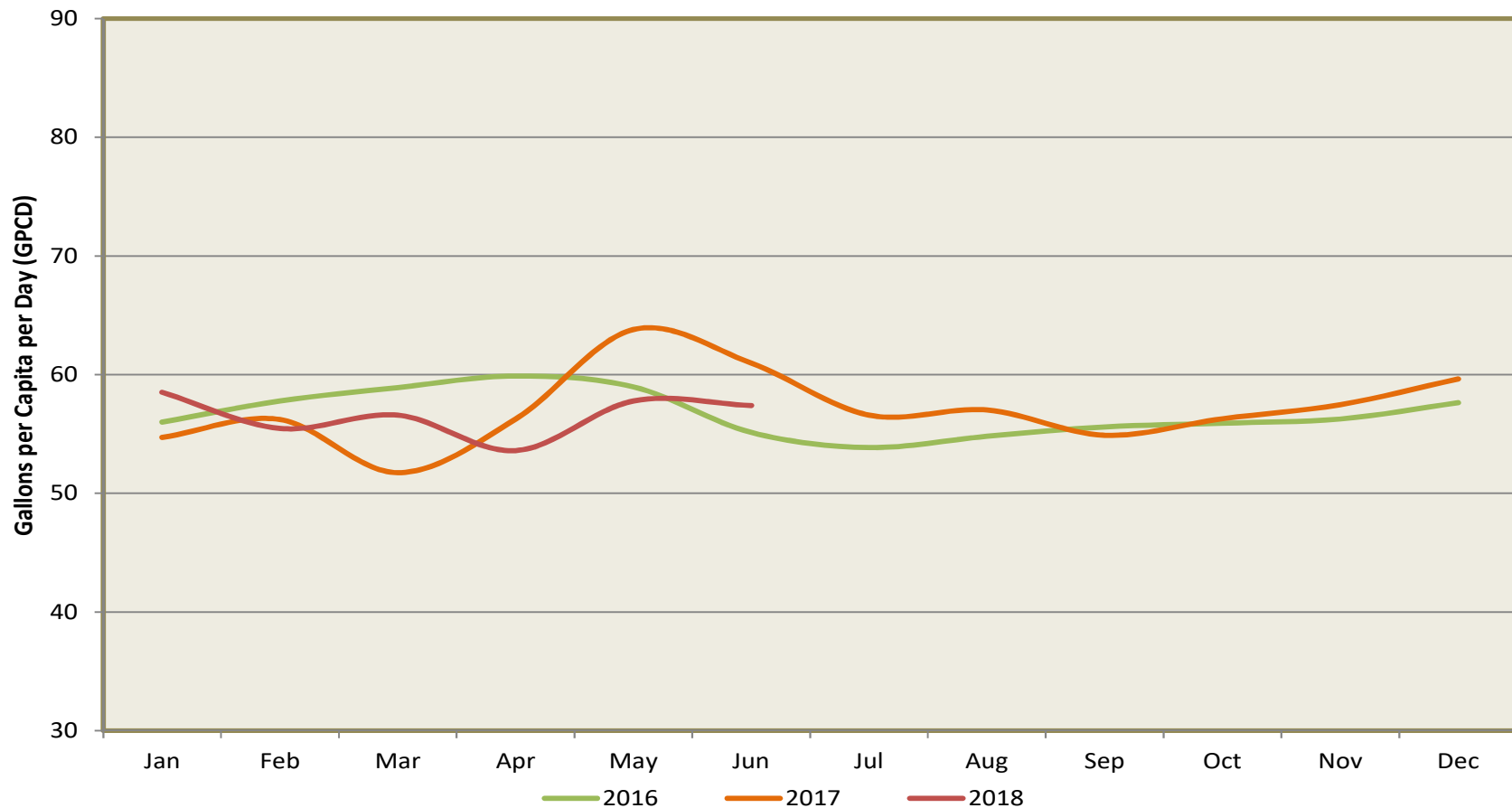
2016 - 57 GPCD

2017- 57 GPCD

2018 (to date) - 57 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. Flows to the NWRf trended up during this period due to additional flows from the water treatment facility during repairs in June.

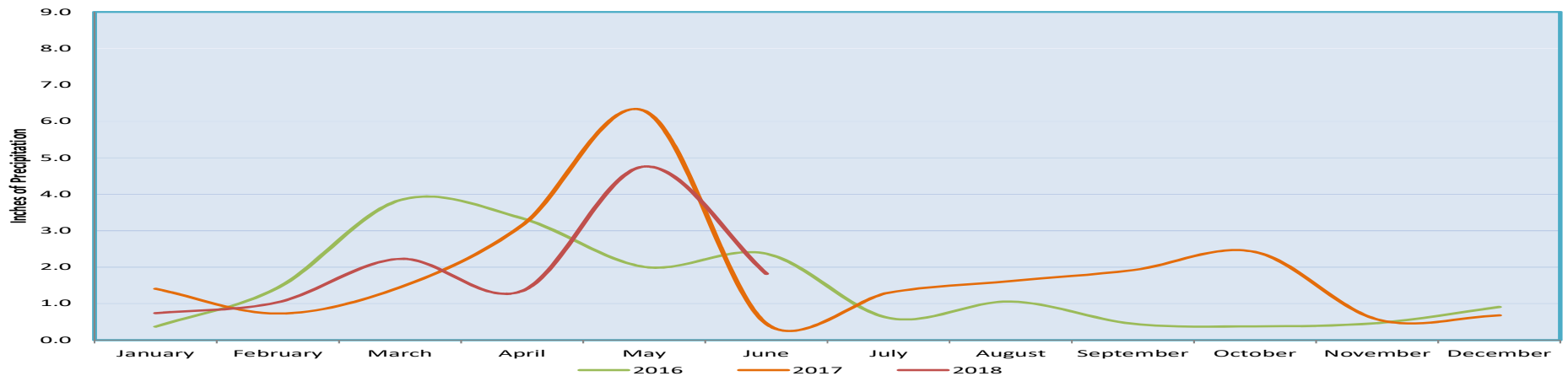
Average Daily Usage Per Capita



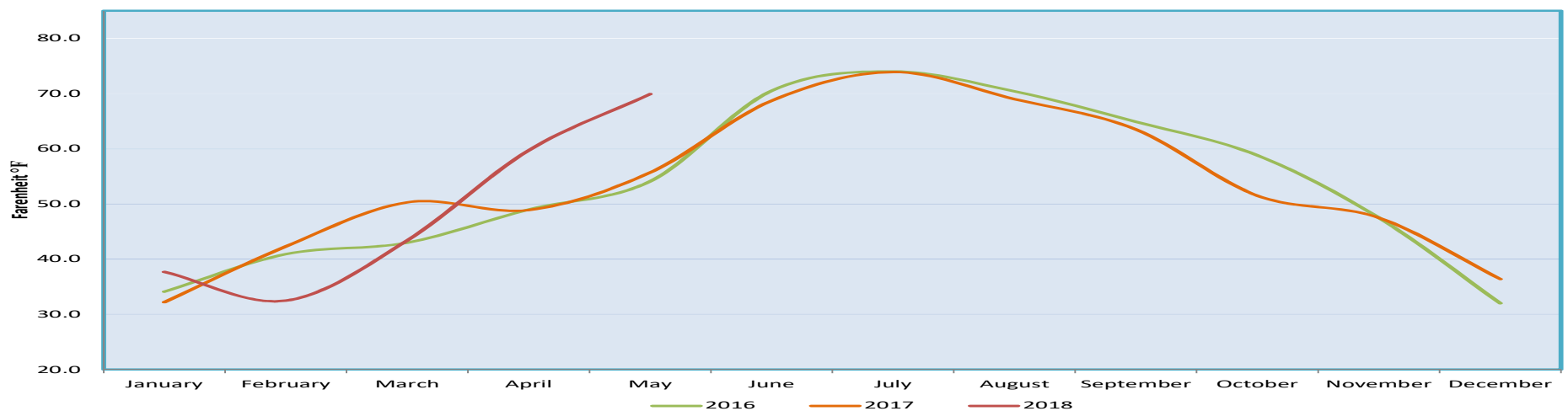
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

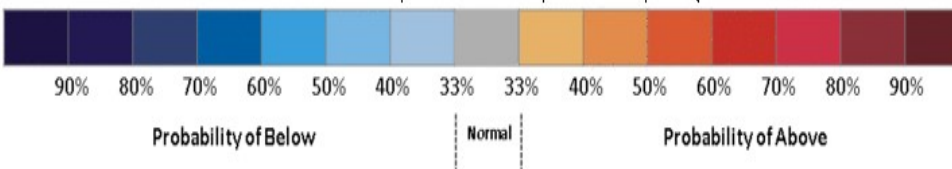
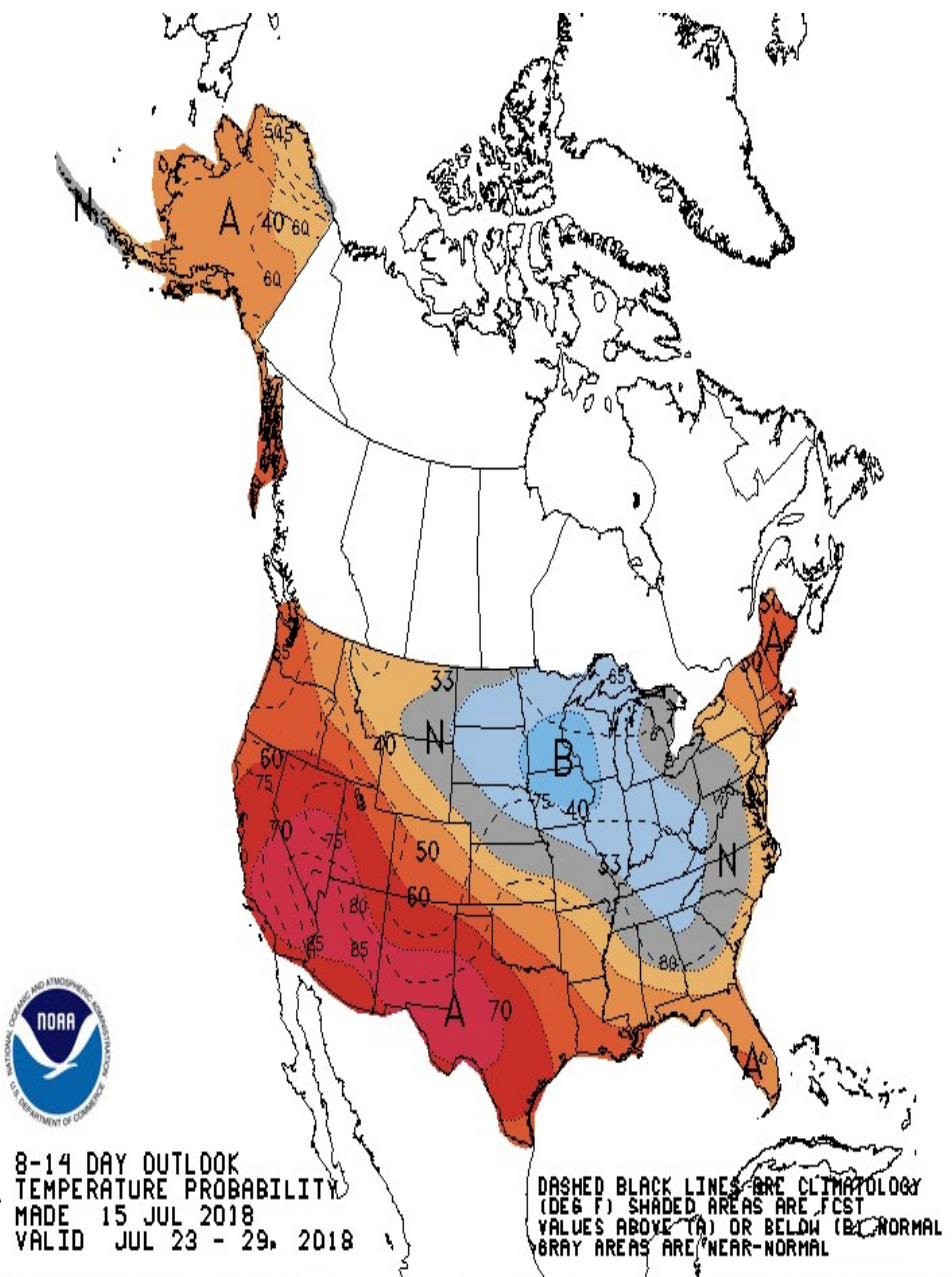
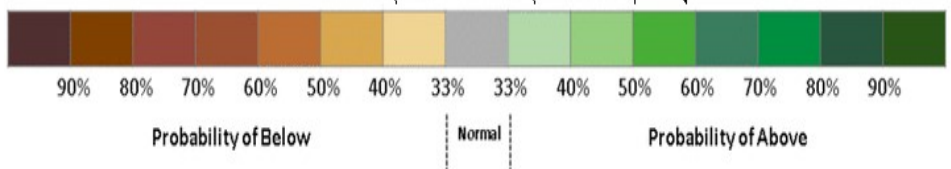
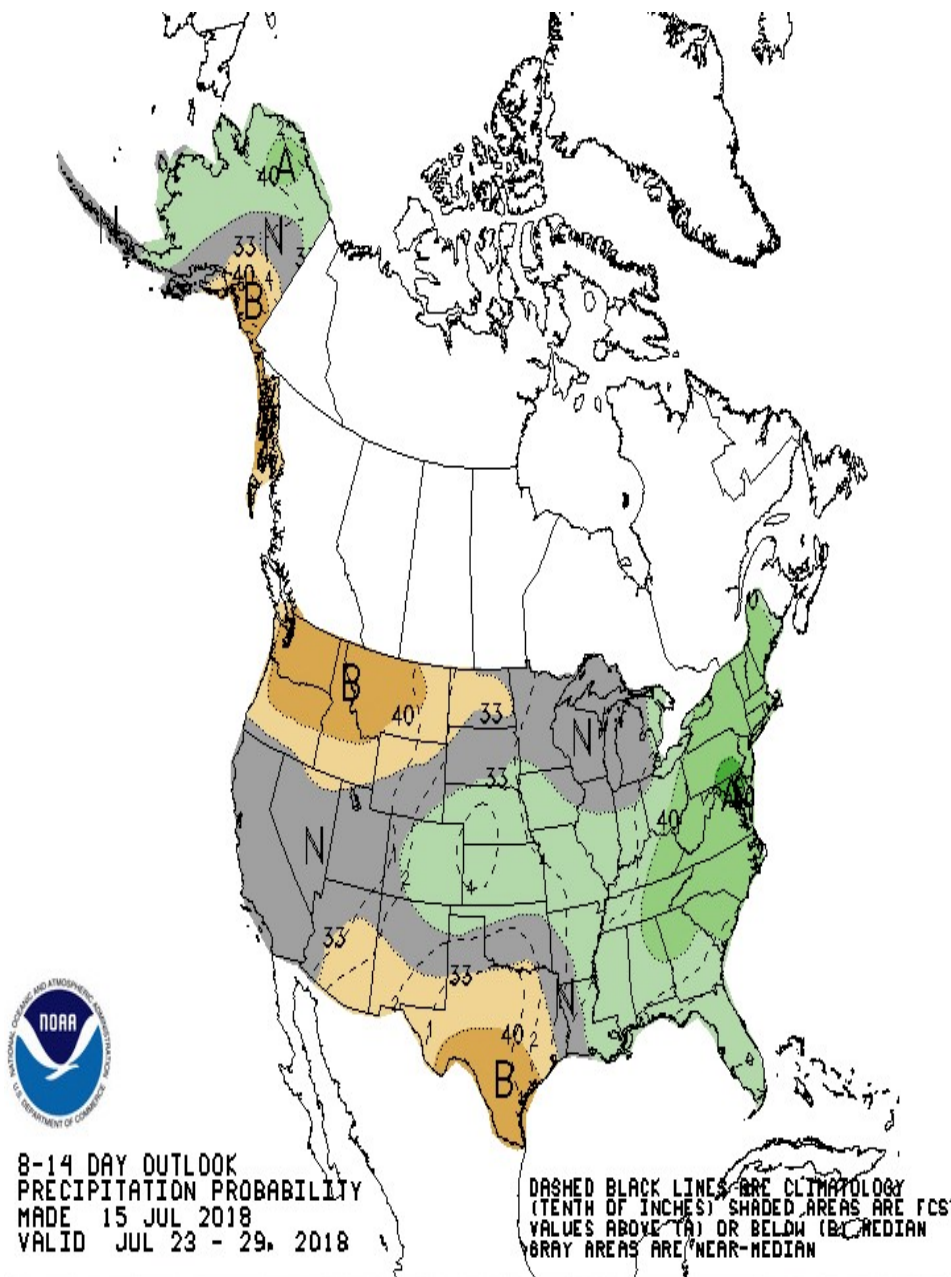
NOAA is predicting a 33% chance of above normal precipitation and a 50% chance of above normal temperatures through late July in our area. The snowpack in the Upper Colorado Basin (the main source of supply for Erie) has completely run off, we will report again on snowpack when winter begins. Erie is in a better position than much of the state in terms of summer water supply due to carry over reservoir storage. Drought conditions continued to be severe and worsening in the southern part of the state and are edging slowly towards our area. As of July 16, June mean temperature data had not yet been entered into NOAA's web site. There appears to be a trend of temperature data lagging about a month behind this year.

Precipitation



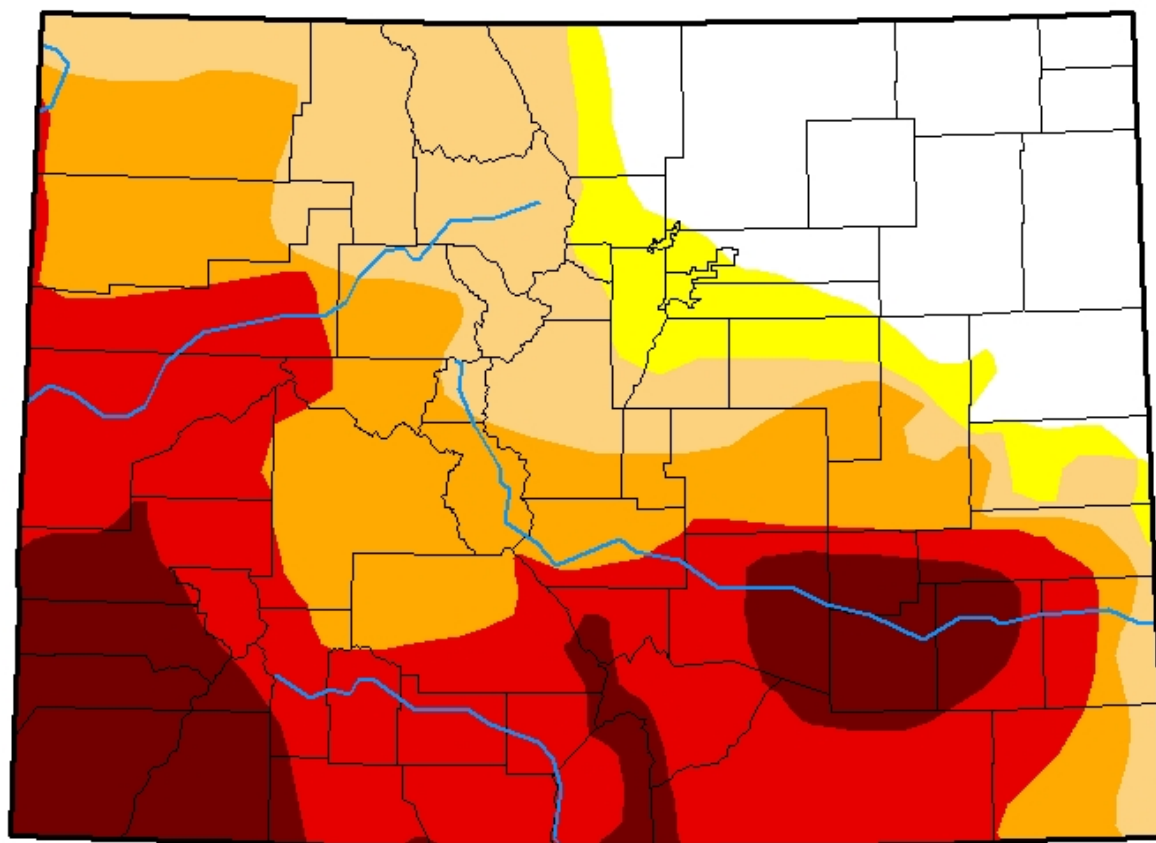
Mean Temperature





U.S. Drought Monitor Colorado

July 10, 2018
(Released Thursday, Jul. 12, 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:

Brian Fuchs
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>