

Lynn R. Morgan Water Treatment Facility

Annual Daily Average Flow:

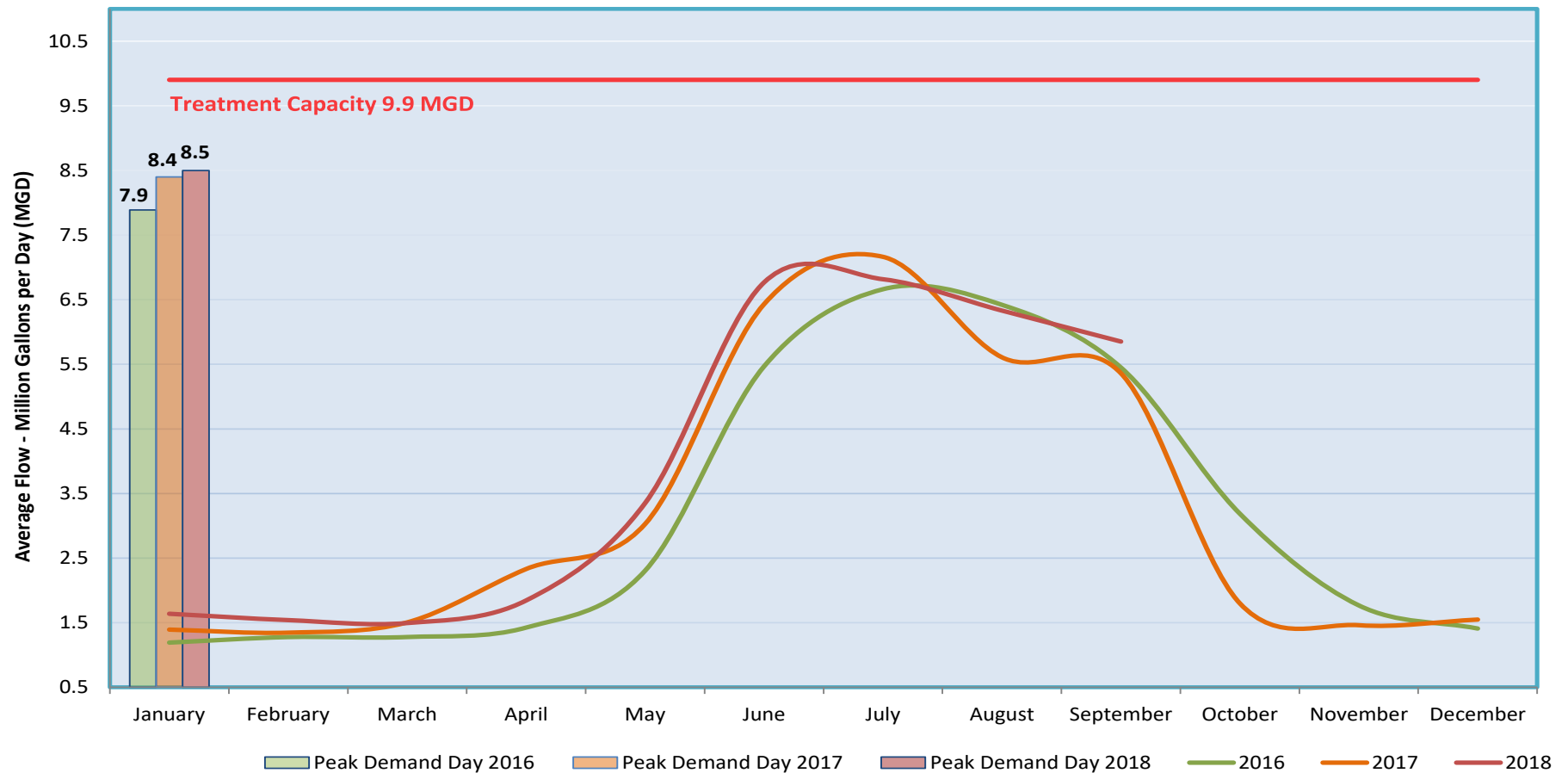
2016 - 3.3 MG

2017 – 3.4 MG

2018 (to date) – 4.0 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 (just up over July 2017 which was 8.4 MGD). Design continues with Burns & McDonnell for an expansion of the water treatment facility from 9.9 MGD to 16.5 MGD, we received 30% designs in September as well as a draft feasibility study for a hydroelectric turbine which could generate roughly \$60,000 worth of electricity per year. We received a matching \$15,000 grant for the feasibility study from Colorado Water Resources and Power Development Authority. Upon full review of the study staff may recommend the Board approve funds for the design of this turbine vault.

Average Monthly Production



Annual Daily Gallons Per Capita per Day (GPCD):

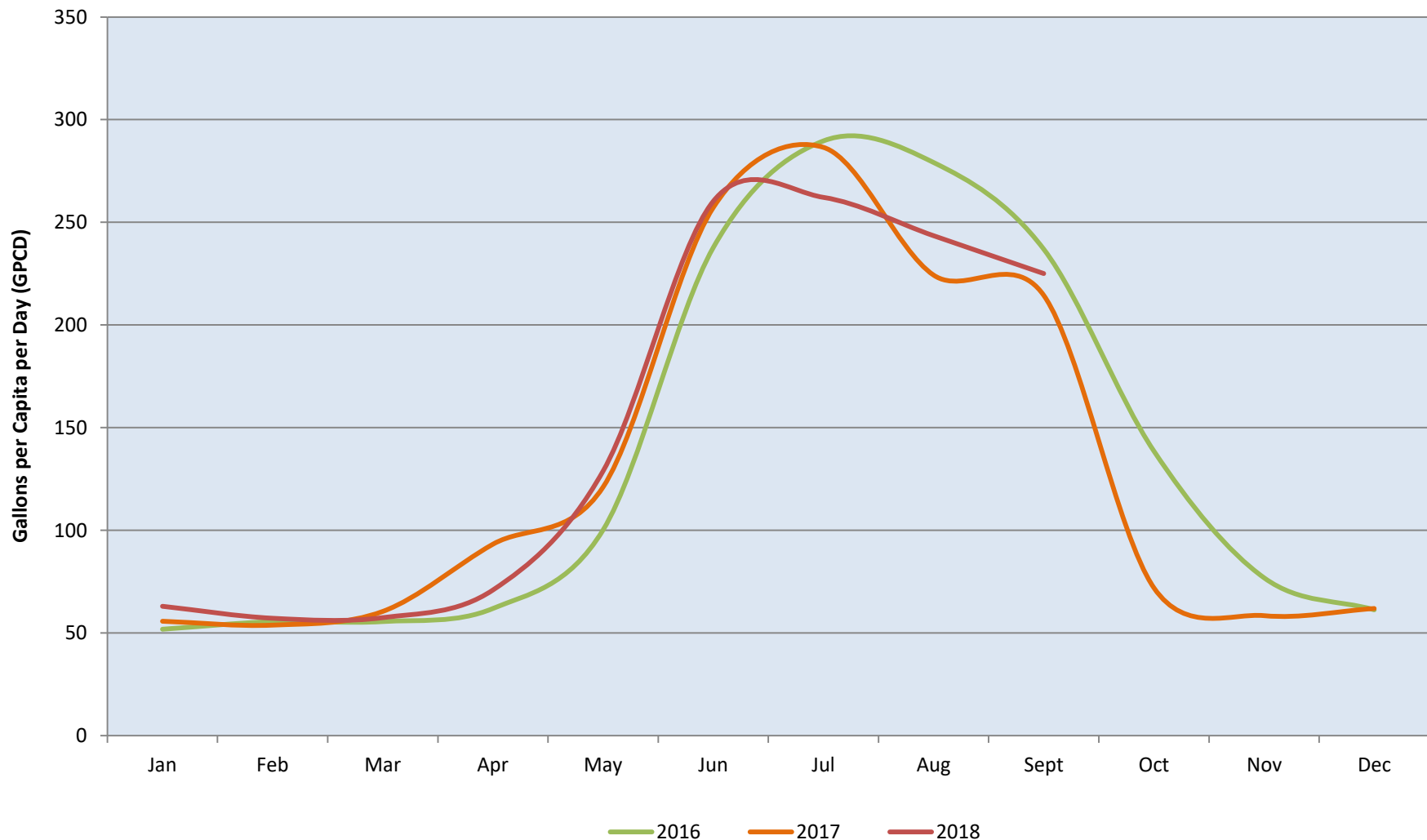
2016 - 131 GPCD

2017 – 130 GPCD

2018 (to date) – 152 GPCD

July 2016 had the highest average daily usage at 290 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, 2018 is showing a similar pattern. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future. Generally lower temperatures and a longer rainy season has kept water demands down this summer compared to the two prior years.

Average Daily Usage Per Capita



North Water Reclamation Facility

Annual Daily Average Flow:

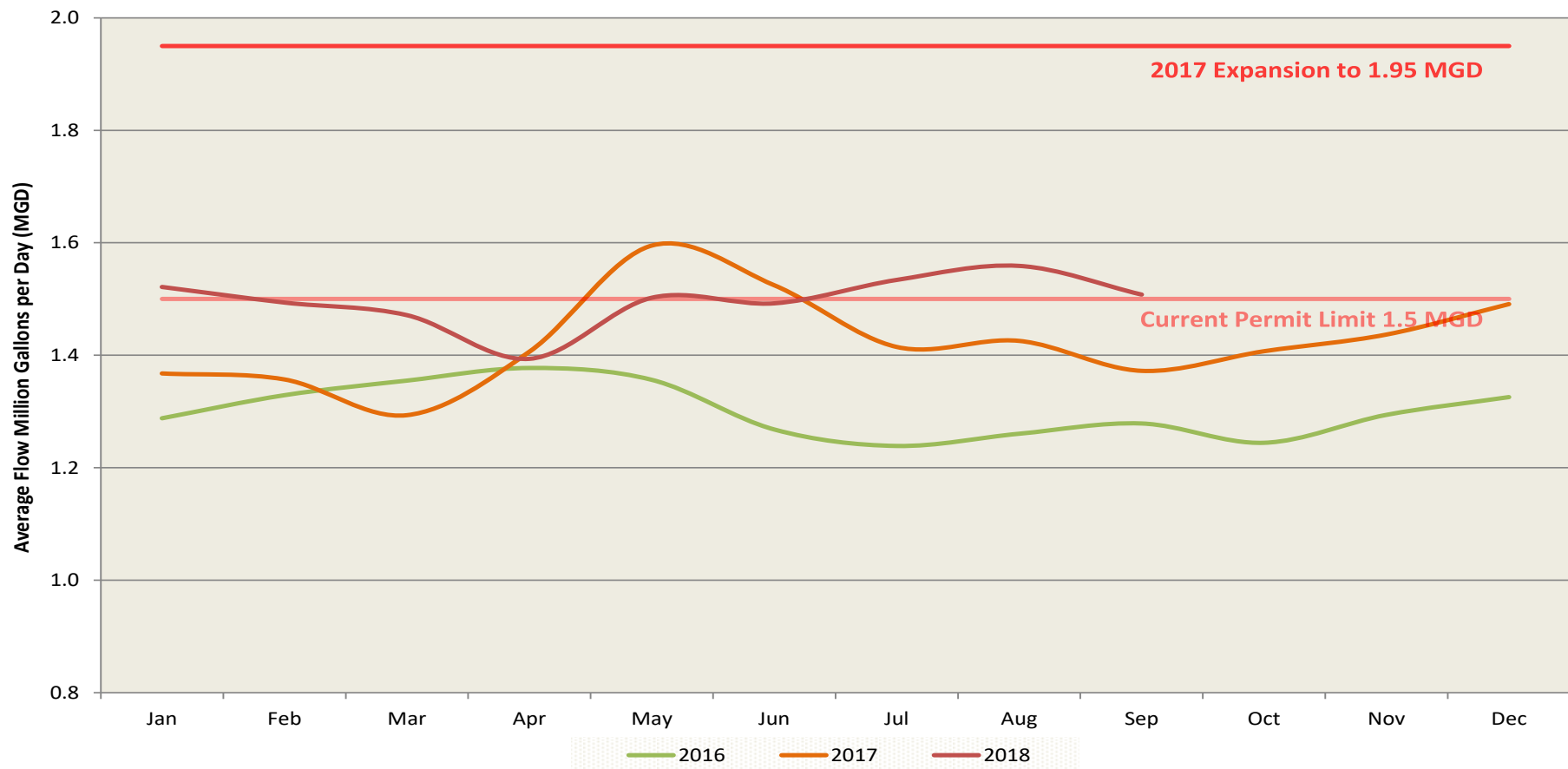
2016 - 1.30 MG

2017 – 1.42 MG

2018 (to date) - 1.50 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. 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. We continue working with HDR Inc. on facility master planning and preliminary design for the next NWRF expansion to roughly 3.0 MGD. We anticipate construction in late 2019 or early 2020.

Average Monthly Flows



Annual Daily Gallons Per Capita per Day (GPCD):

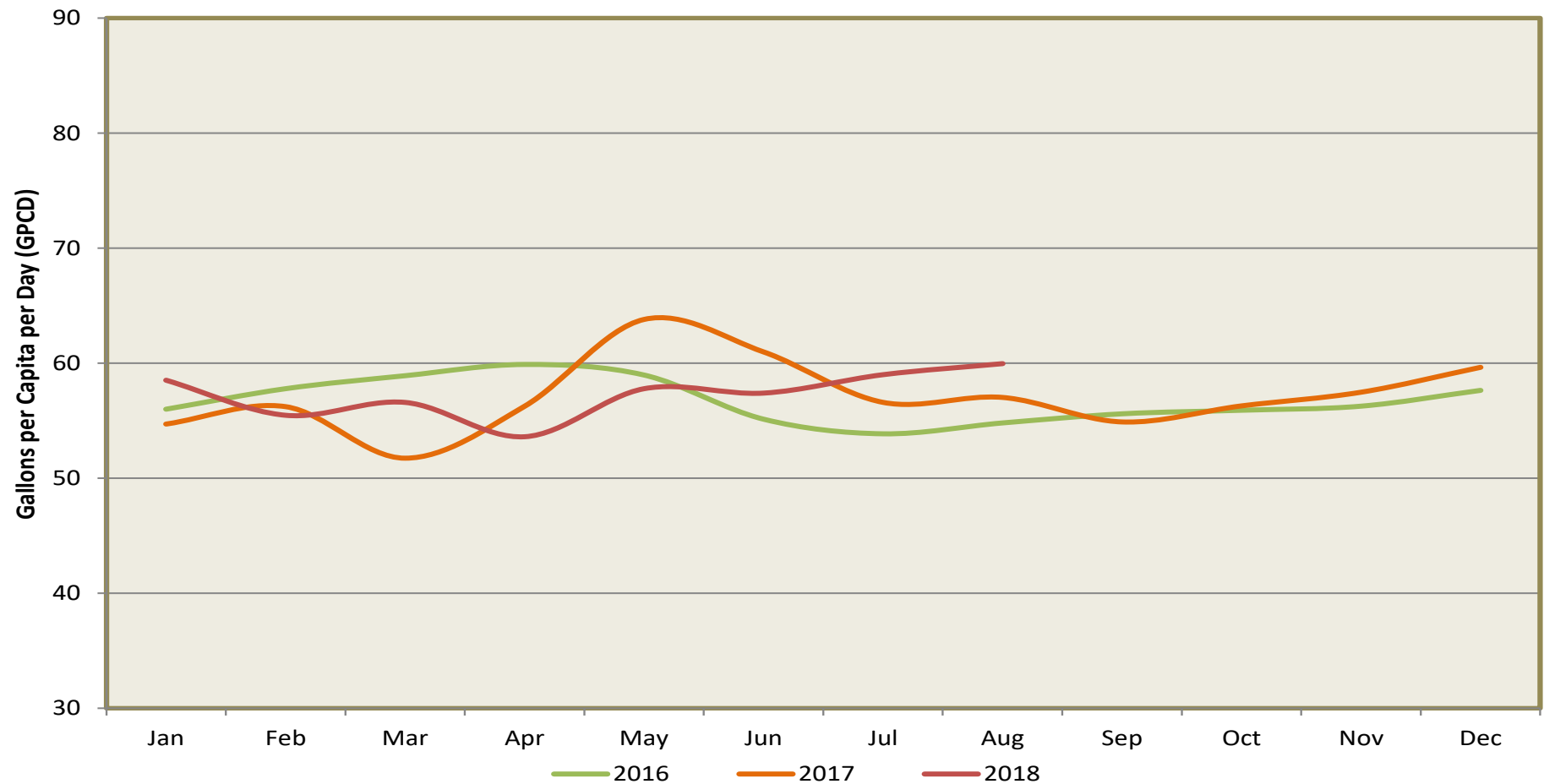
2016 - 57 GPCD

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 presumably due to significant hail events, higher groundwater levels in inflow.

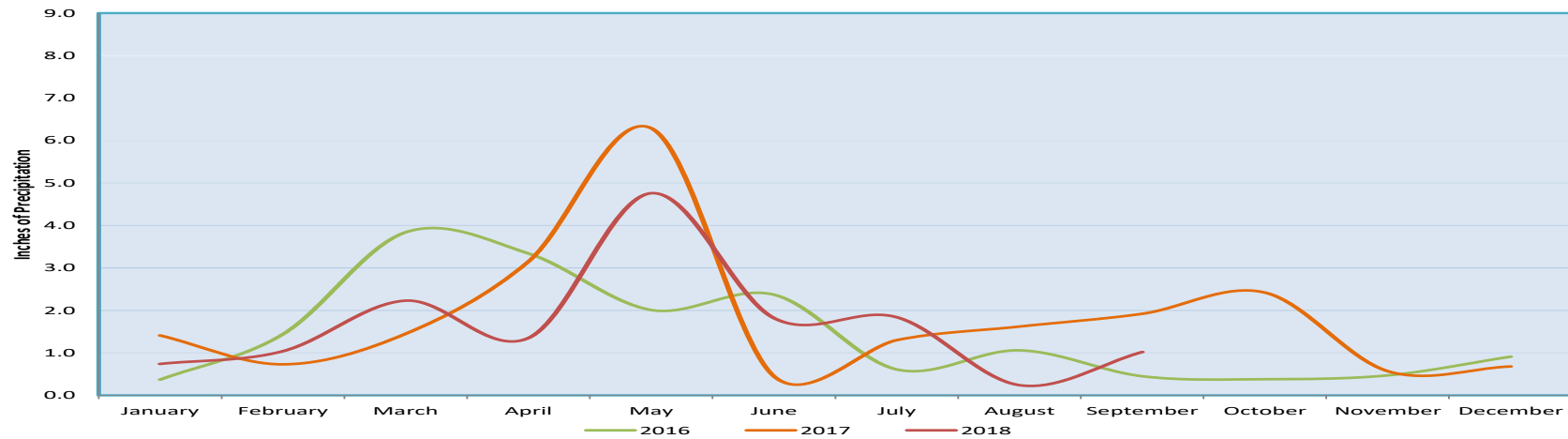
Average Daily Usage Per Capita



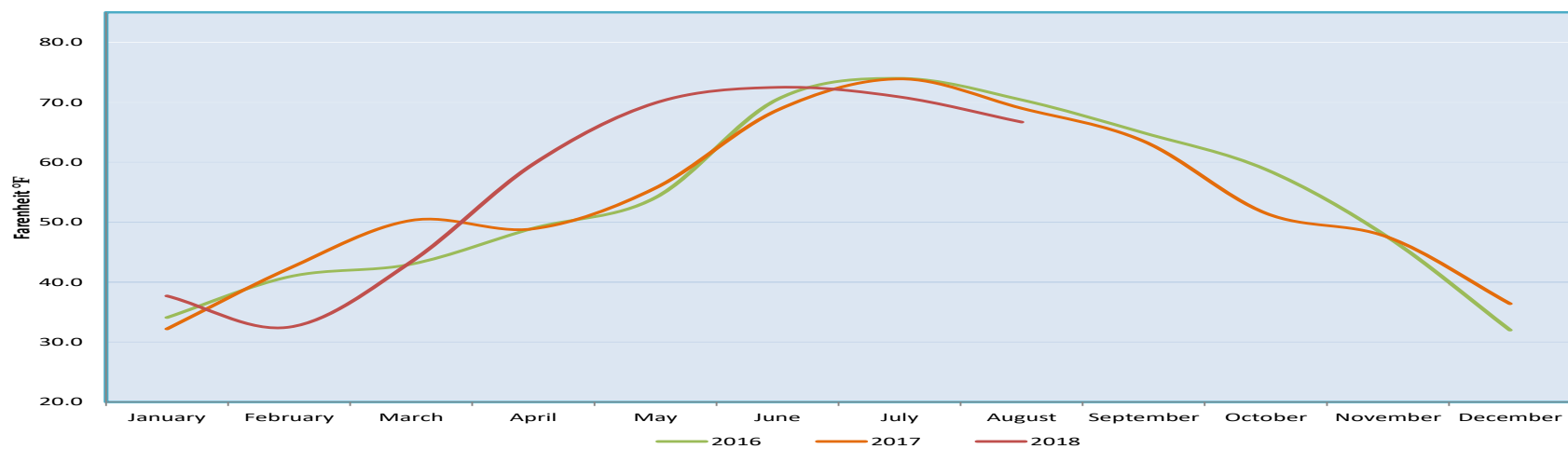
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

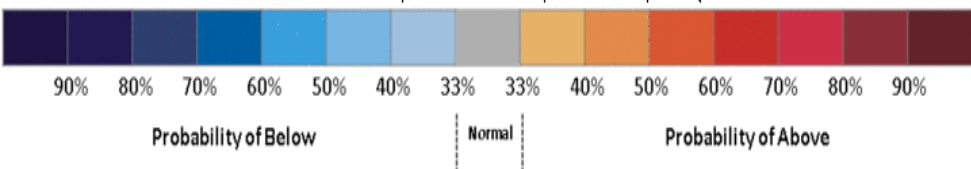
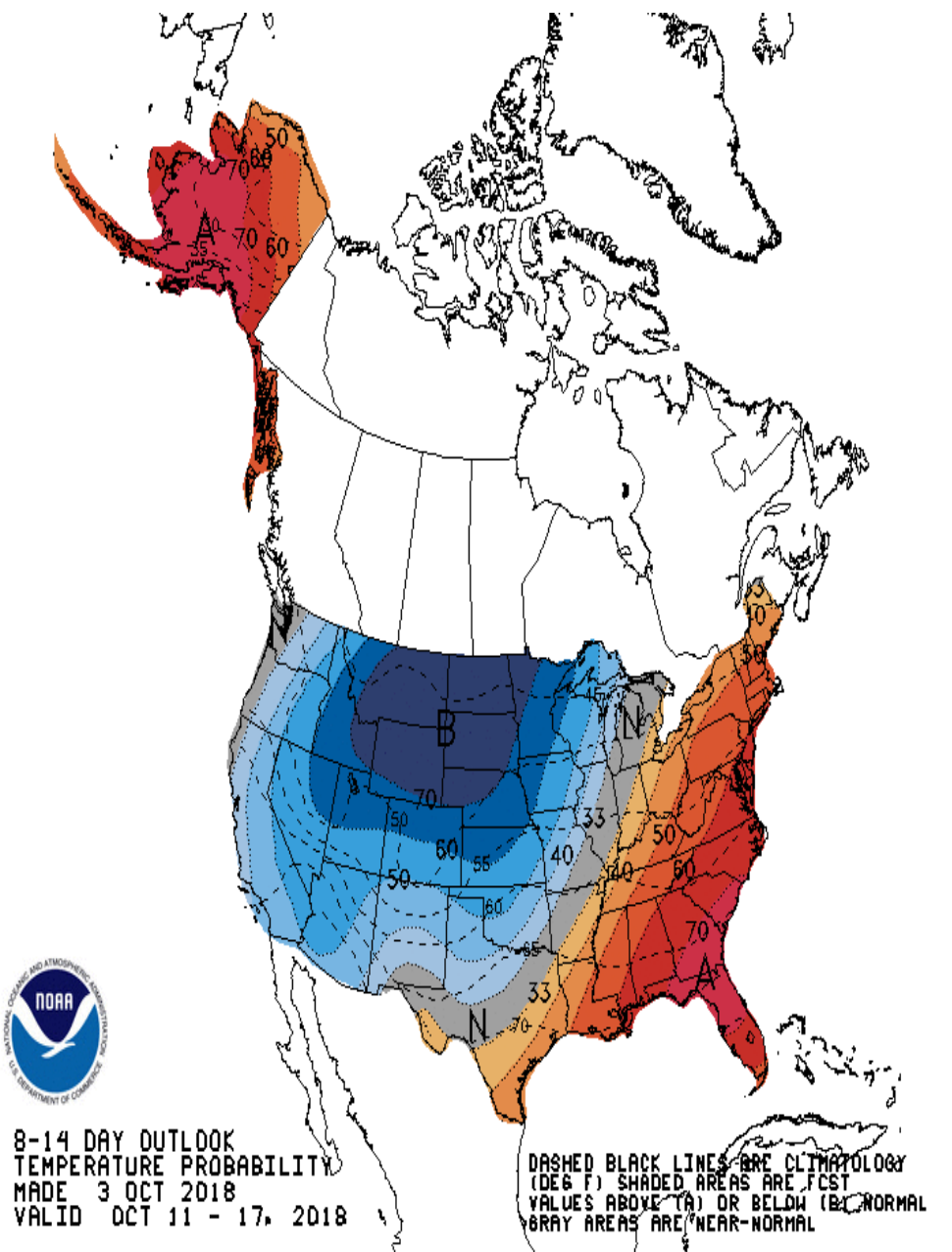
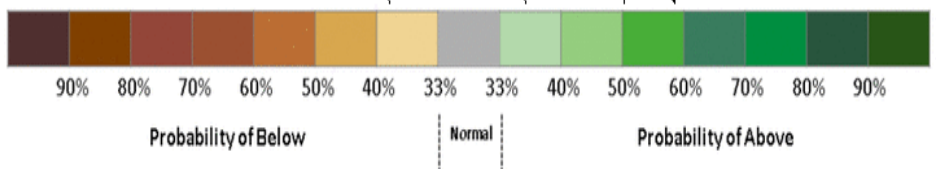
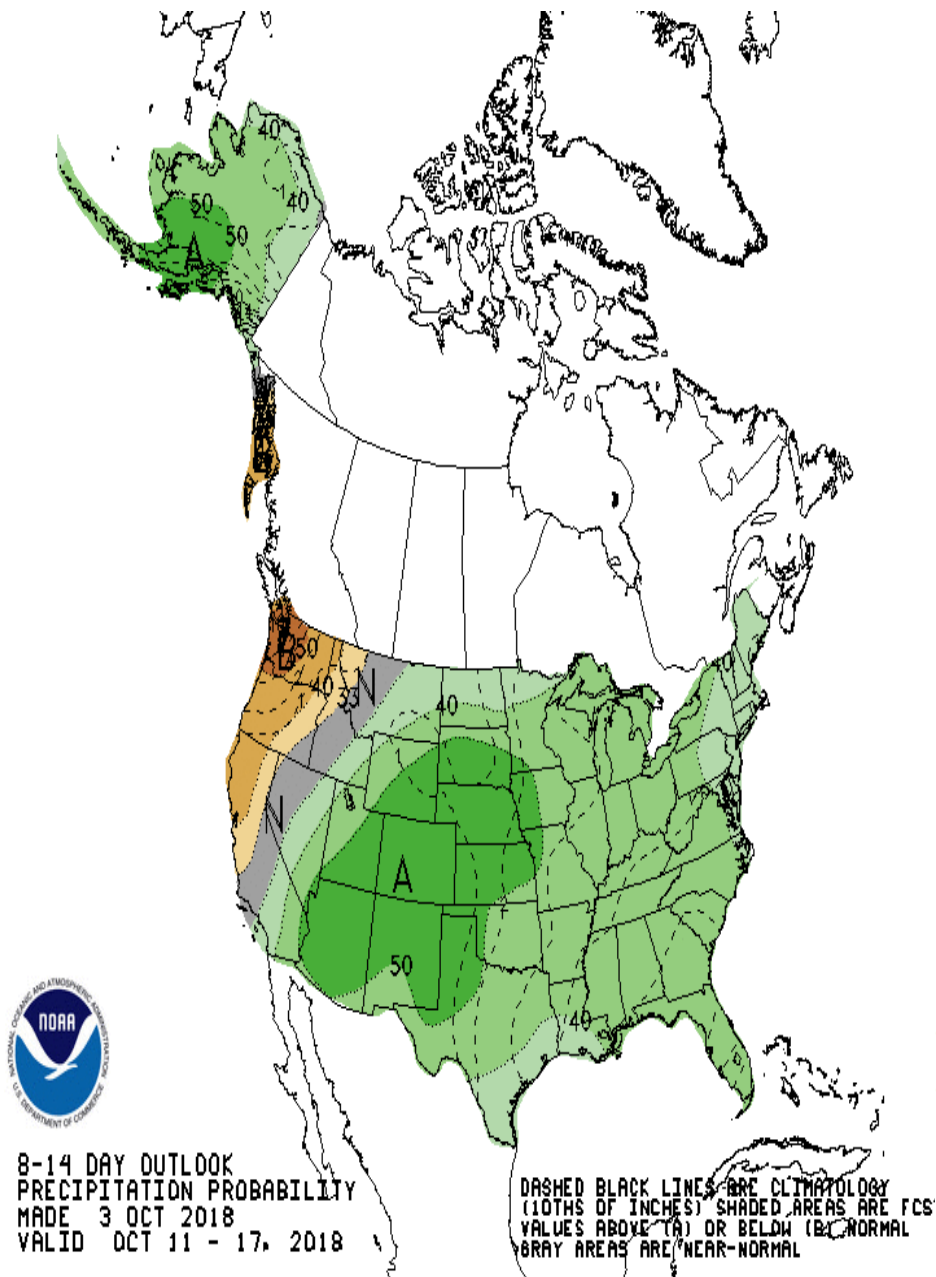
NOAA is predicting 50% probability of above normal precipitation and a 60% chance of below normal temperatures through mid-October in our area. Erie is in a better position than much of the state in terms of summer water supply due to carry over reservoir storage. Drought conditions increased somewhat in the two weeks, worth noting is the national map showing the most intense drought in the Four Corners region. As of October 3, September mean temperature data had not yet been entered into NOAA's web site.

Precipitation



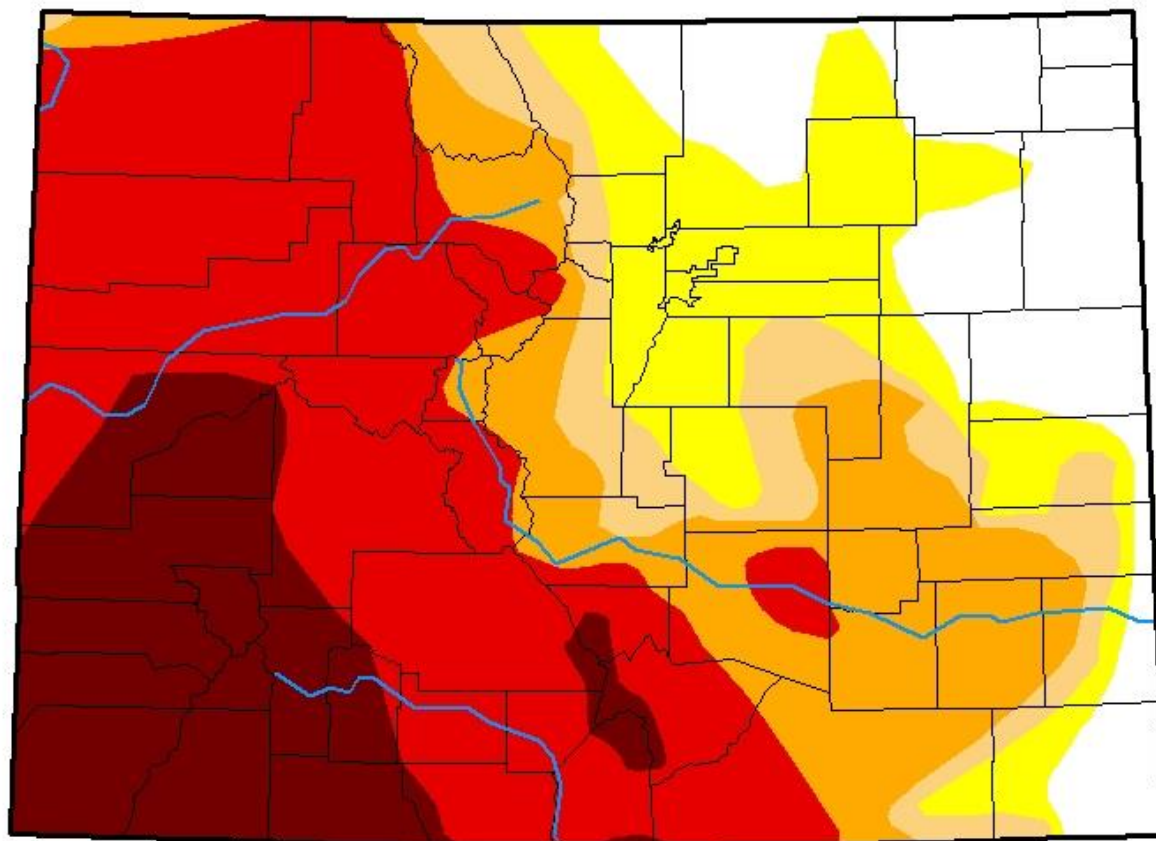
Mean Temperature





U.S. Drought Monitor Colorado

September 25, 2018
(Released Thursday, Sep. 27, 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:

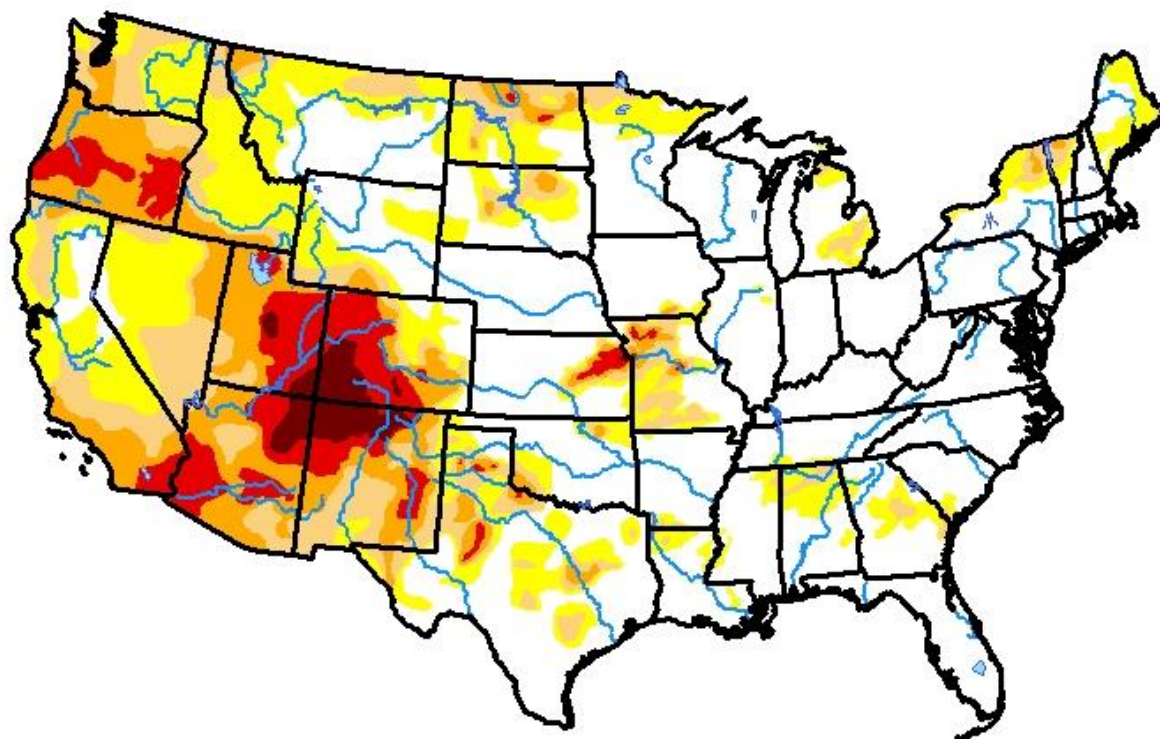
Jessica Blunden
NCEI/NOAA



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

U.S. Drought Monitor Continental U.S. (CONUS)

September 25, 2018
(Released Thursday, Sep. 27, 2018)
Valid 8 a.m. EDT



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