

January 2020 Public Works Report

Capital Improvement Projects

Lynn R Morgan Water Treatment Facility (WTF) Expansion

Construction of the WTF expansion continues ahead of schedule and within budget. Garney Construction is pre-paring to install CMU walls at the new pre-treatment basins and work is rapidly progressing on the membrane system inside the WTF.



36 inch pipe from raw water to pre-treatment

Sustainability and Water Conservation

We received some great news over the last month. Erie has been awarded \$71,260 in grants towards Electric Vehicle (EV) charging stations and towards leasing new electric vehicles. This is more than anticipated and will greatly help in getting this equipment in place. We had a very positive and productive meeting with representatives from DOLA in December. The grant application for the Hydroturbine at the WTF looks very promising. Also:

- Public Works will be allocating over \$45,000 towards water conservation projects in partnership with Colorado WaterWise and Resource Central
- Parks & Rec will be installing 12 new smart controller clocks on town properties to best manage ET usage for specific microclimate zones
- Over 100 trees will be sold via an innovative cost-share model through the Trees Across Erie program

Lynn R. Morgan Water Treatment Facility (WTF)

Annual Daily Average Flow:

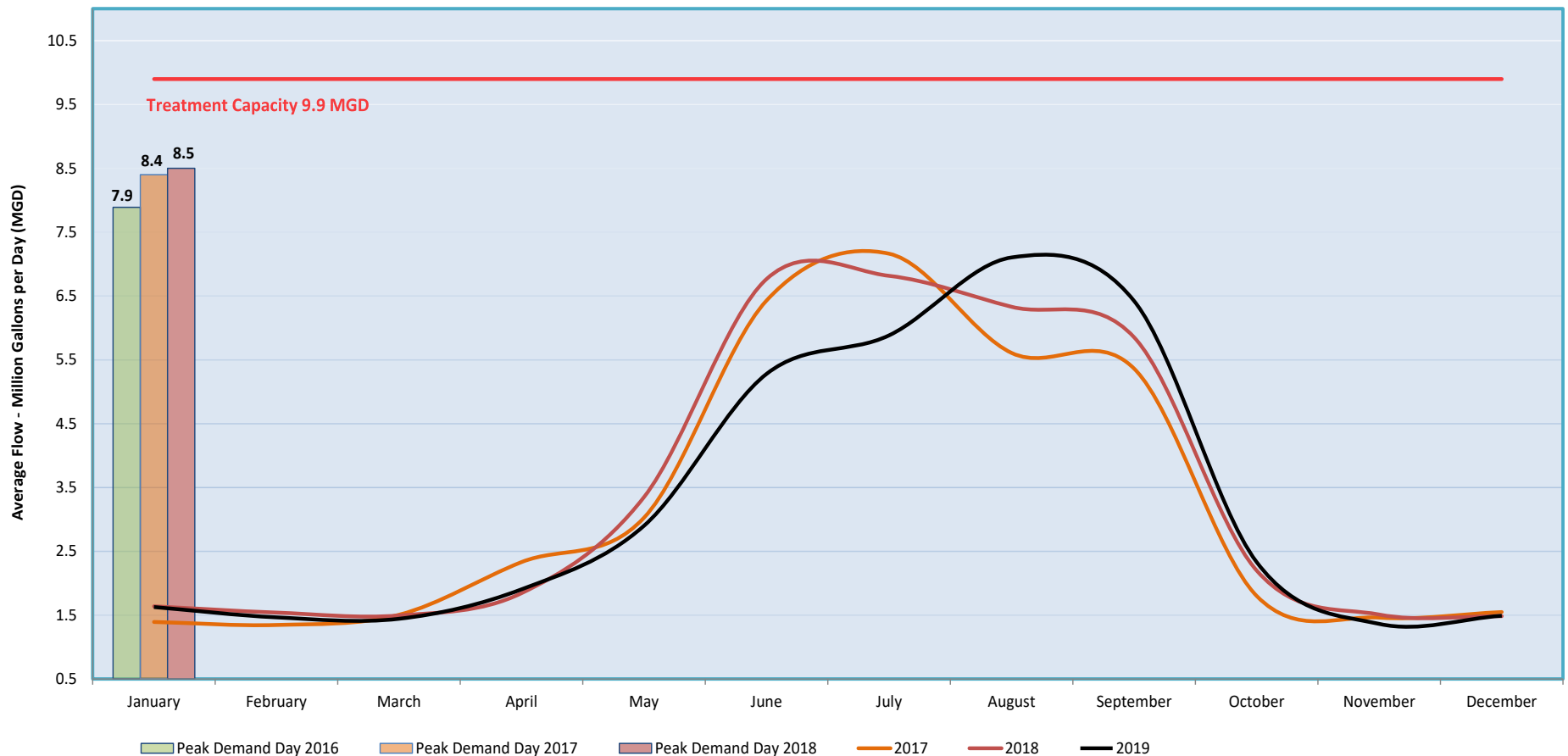
2017 - 3.3 (Million Gallons) MG

2018 – 3.4 MG

2019 – 3.3 MG

July 2017 maintains the record for the highest monthly average flows at 7.16 MG, while February 2017 had the lowest flows at 1.35 MG closely followed by November 2019 at 1.36 MG. This trend is likely due to multiple leaks identified in this period. 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. This year's water demands have been unusual, in that demands arrived much later in the summer than usual and continued later into fall.

Average Monthly Production



Annual Daily Gallons Per Capita per Day (GPCD):

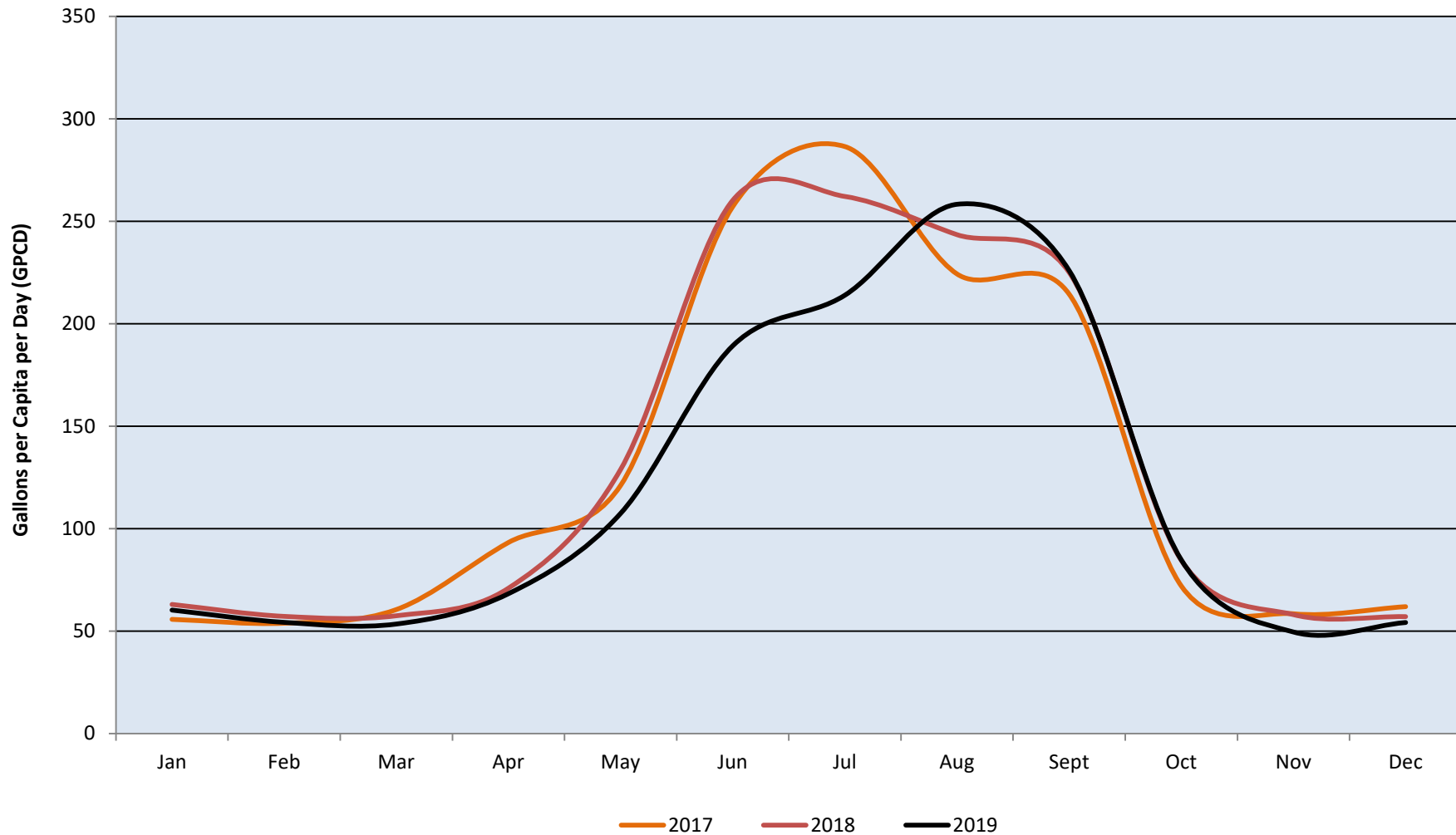
2017 - 130 GPCD

2018 – 131 GPCD

2019 – 118 GPCD

July 2017 had the highest average daily usage at 287 gallons GPCD. November 2019 had the lowest usage at 50 GPCD. This likely reflects an abrupt end to fall, the identification of leaks over the prior year and overall lower water using fixtures coming with new development. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future. Overall annual demand is down likely due general wetter and cooler summer conditions.

Average Daily Usage Per Capita



North Water Reclamation Facility

Annual Daily Average Flow:

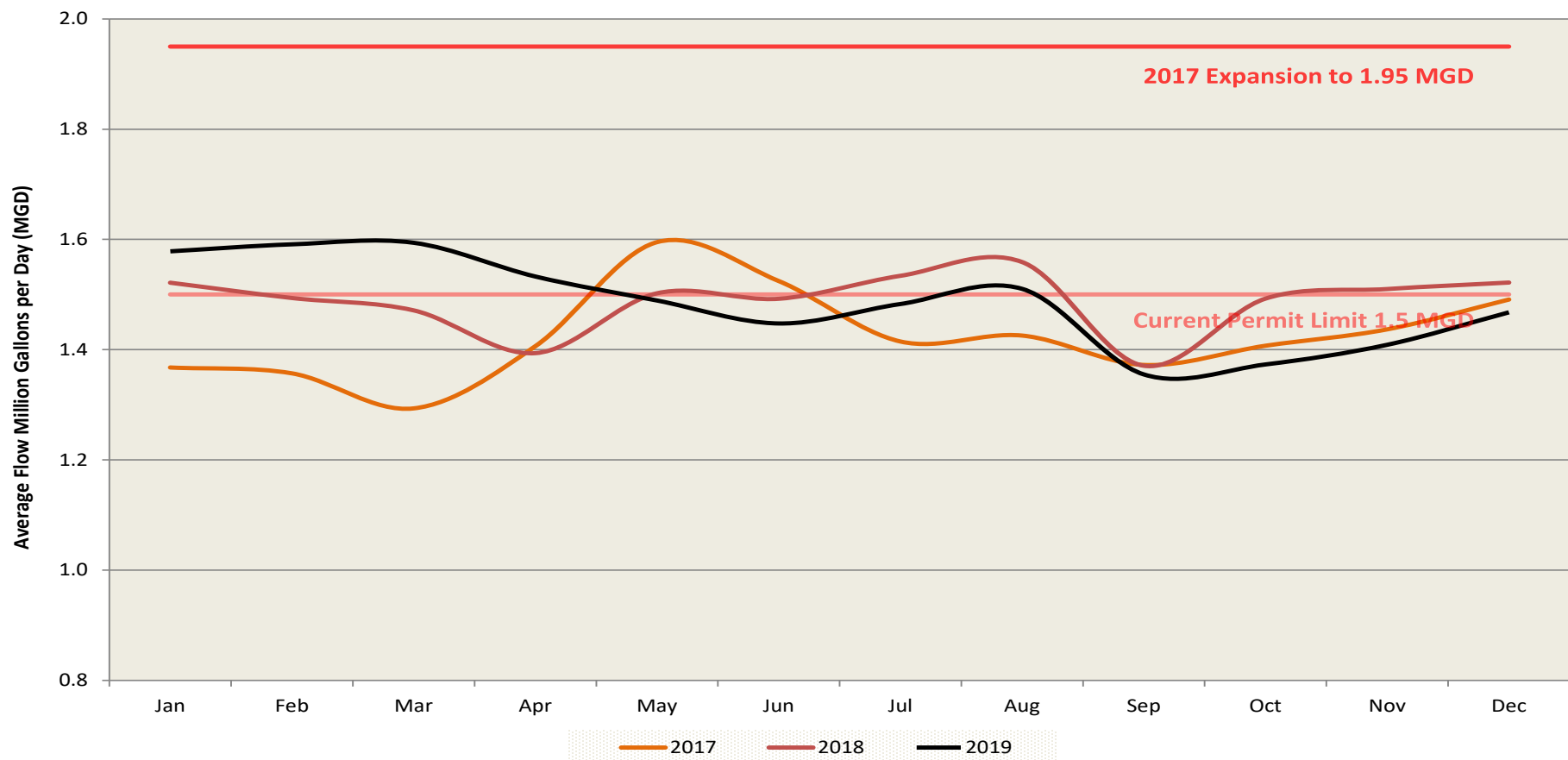
2017 - 1.42 MG

2018 – 1.49 MG

2019 - 1.49 MG

March 2017 had the lowest average flow of 1.29 million gallons per day (MGD). May 2017 set a high average monthly flow of 1.60 MGD. February and March of 2019 saw inflows of 1.59 MG. We believe this relatively flat trend is due to leaks identified in the system being repaired. CDPHE is indicating that they will not be renewing our permit until as late as 2023 or 2024, we continue to press the State to expedite this review so that our permit is in line with our approved expansions as well as correcting some incorrect permit limits. Design of the next plant expansion recently reached 60% completion with HDR Engineering. We anticipate construction with Archer Western Construction in late 2019 or early 2020 and lasting through 2021.

Average Monthly Flows



Annual Daily Gallons Per Capita per Day (GPCD):

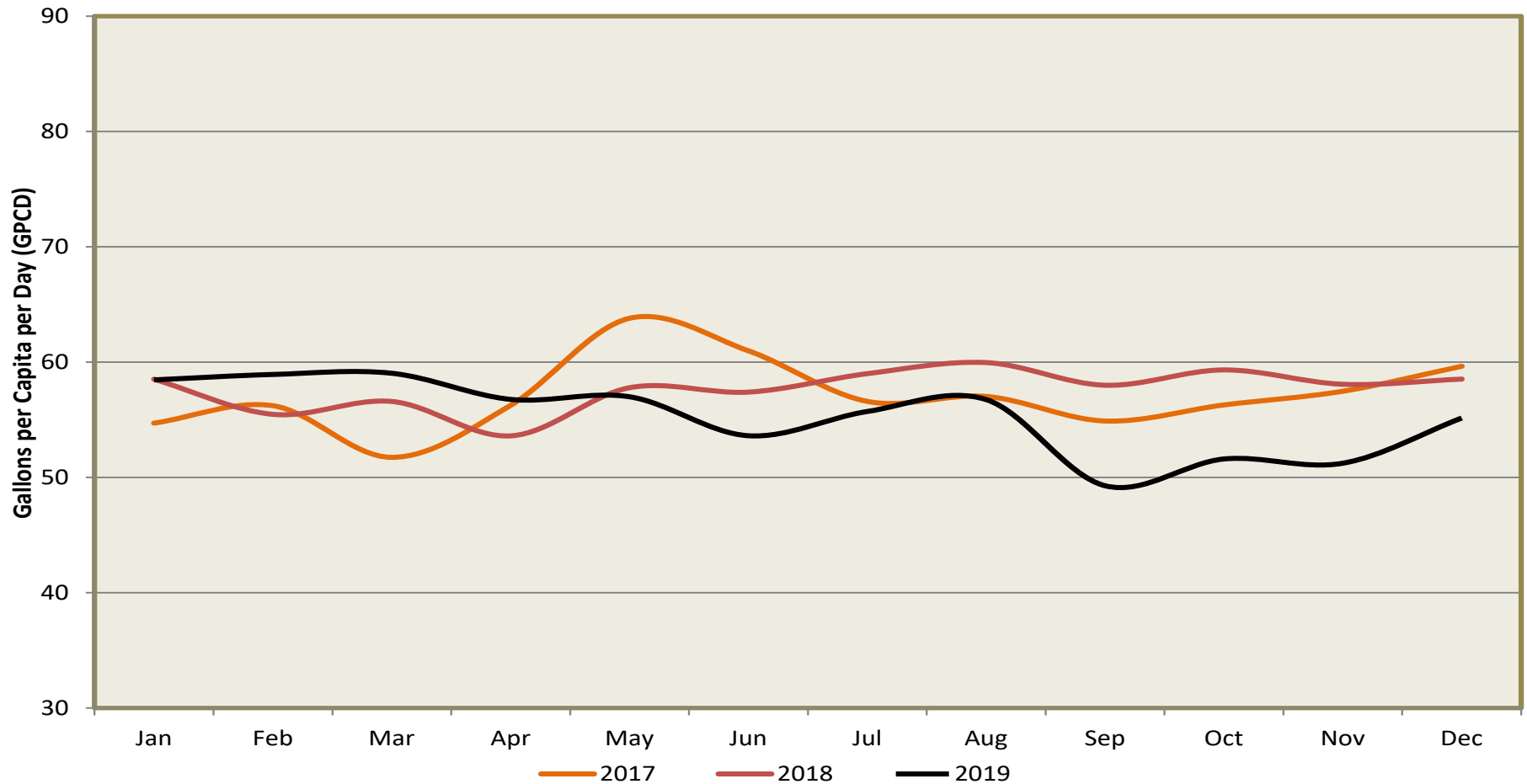
2016 - 57 GPCD

2017- 58 GPCD

2018 - 55 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. September 2019 had the lowest usage at 49 GPCD. Fall, with relatively little precipitation and dropping groundwater levels, is a good indicator of true daily flows.

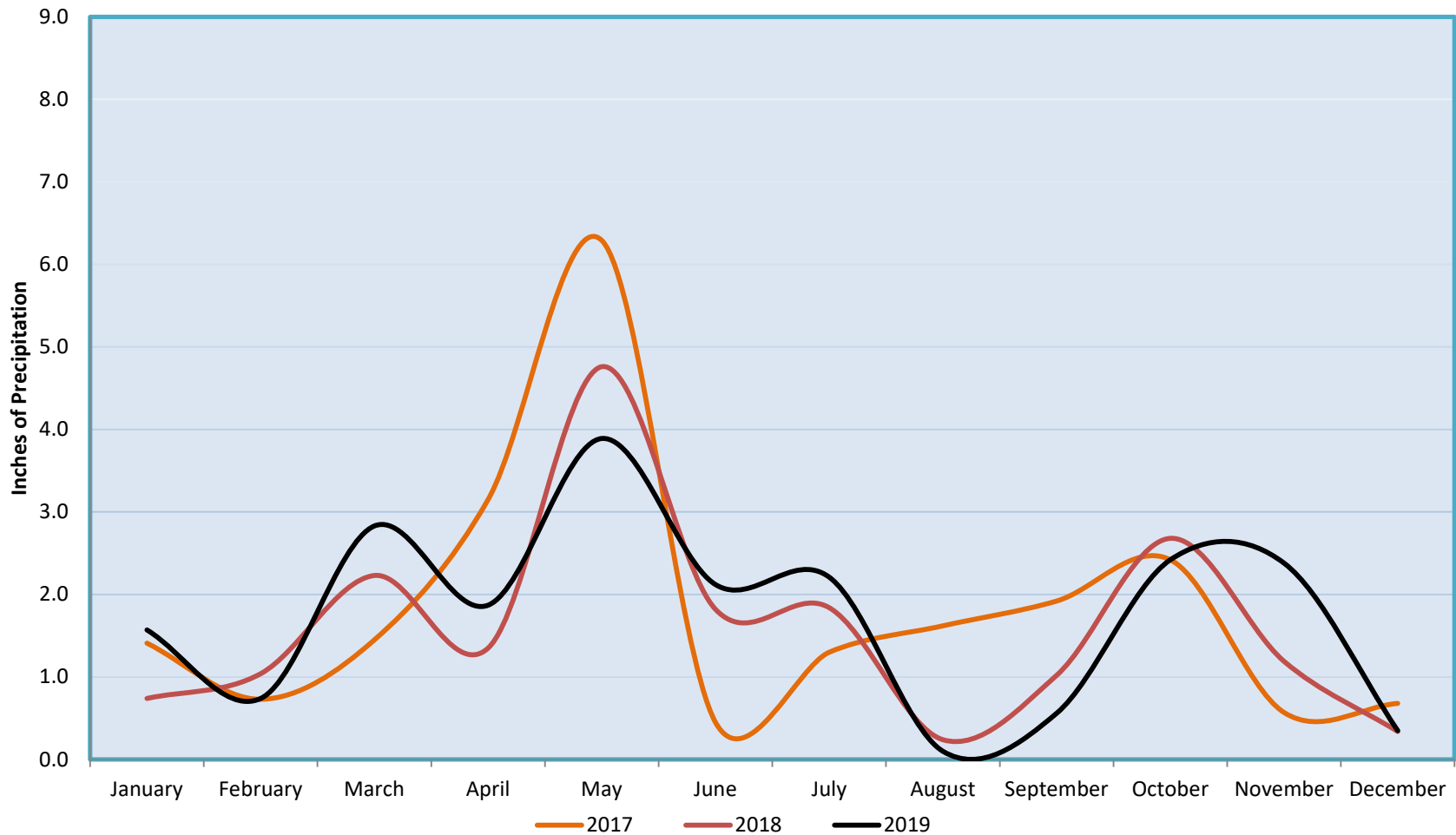
Average Daily Usage Per Capita



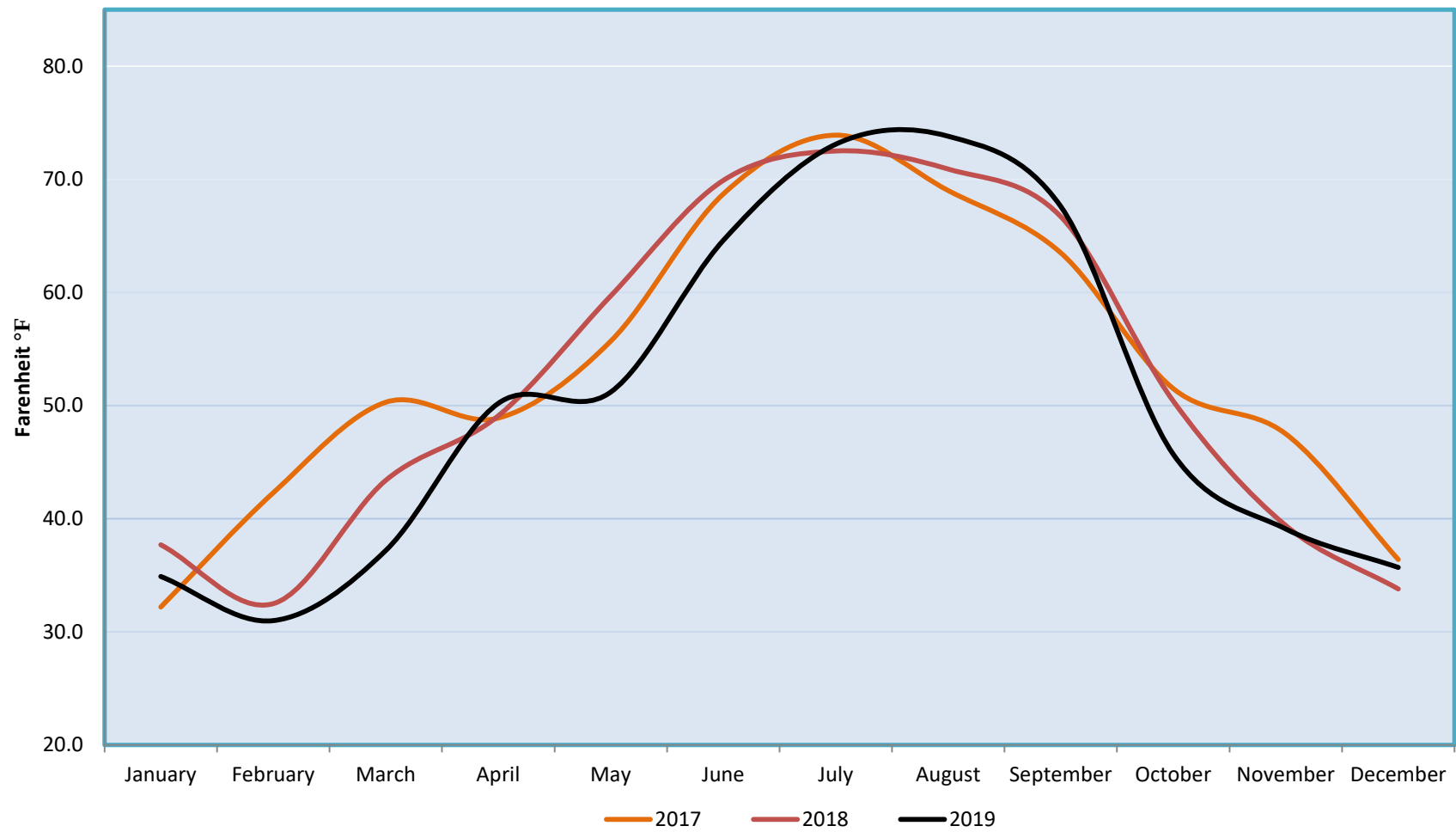
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

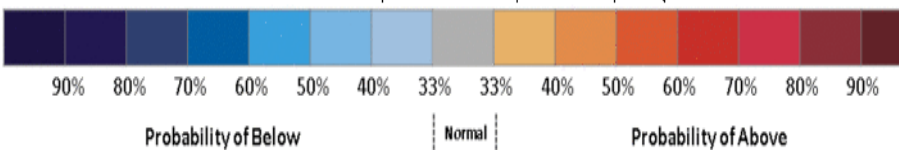
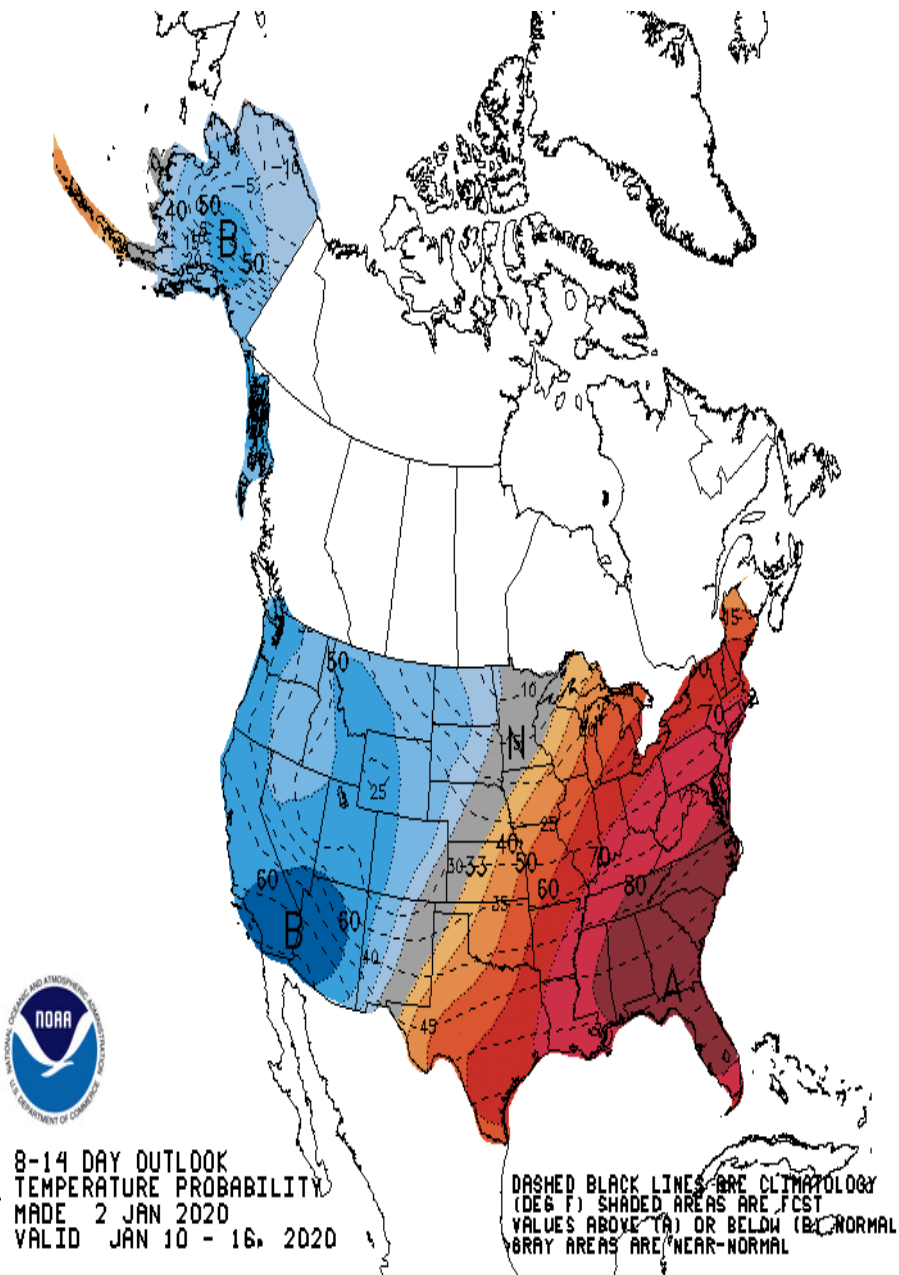
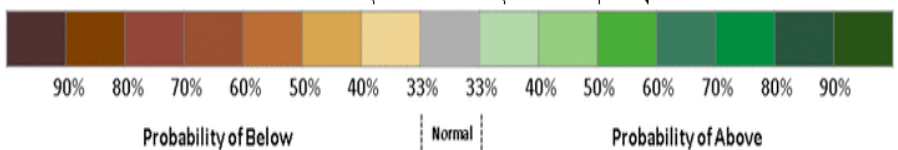
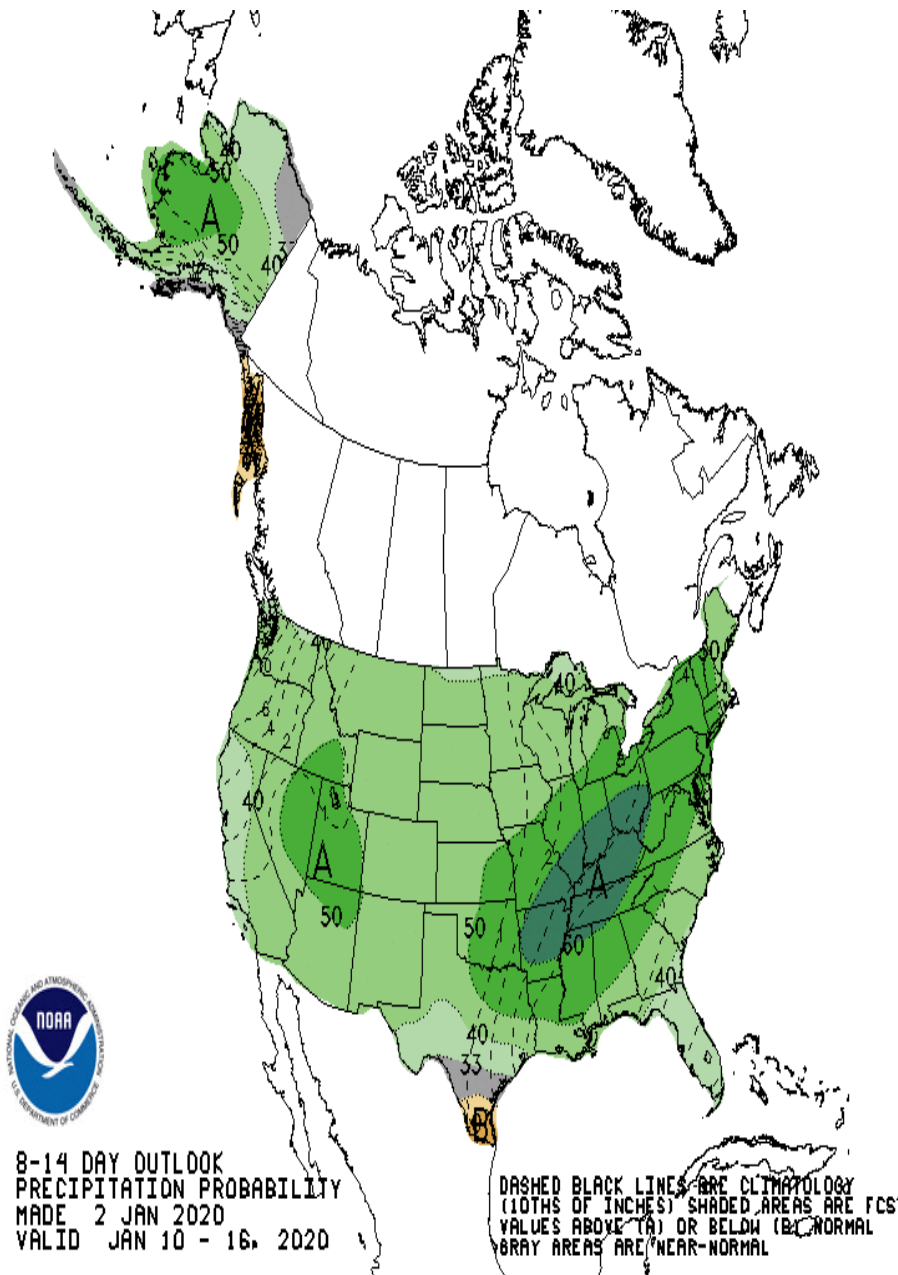
NOAA is predicting equal 40% chance of above normal precipitation and 40% chance of below normal temperatures through mid-January. Snowpack, our water supply, continues to remain strong.

Precipitation



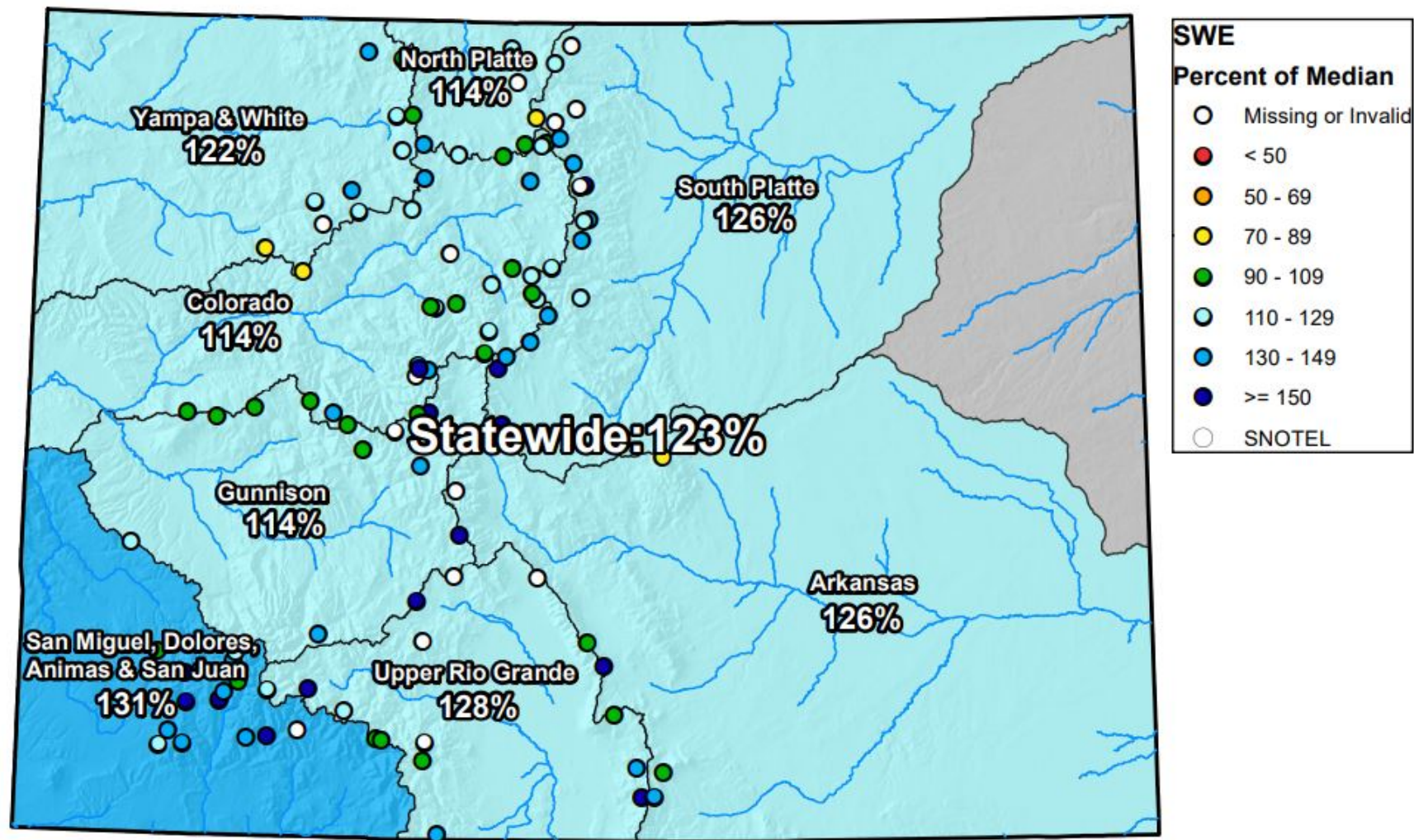
Mean Temperature





Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

Current as of Jan 02, 2020



0 25 50 100 150 200 Miles



United States Department of Agriculture

Natural Resources Conservation Service