Lynn R. Morgan Water Treatment Facility

Annual Daily Average Flow:

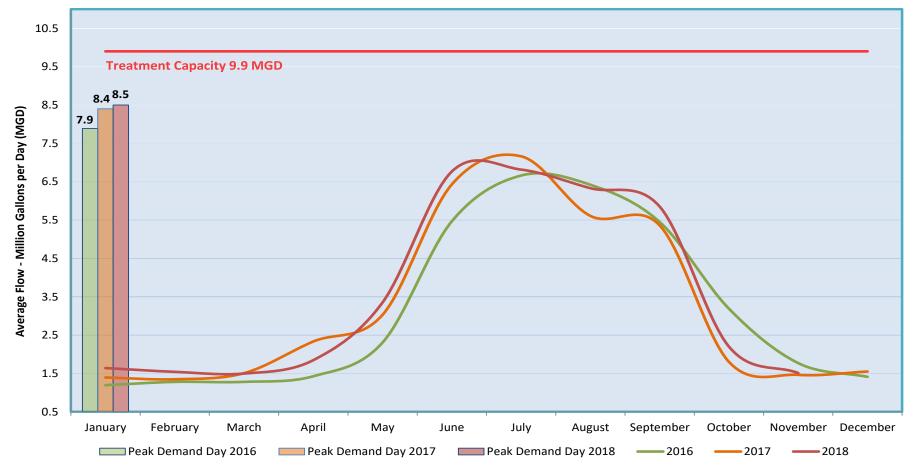
2016 - 3.3 (Million Gallons) MG

2017 – 3.4 MG

2018 (to date) – 3.8 MG

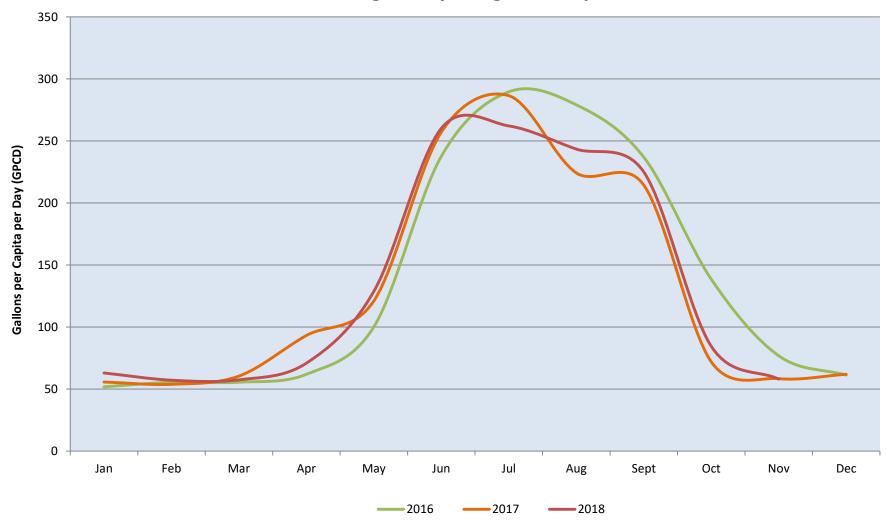
July 2017 maintains the record for the highest monthly average flows at 7.16 MG, while January 2016 had the lowest flows at 1.19 MG. Summer demands greatly affect the annual average due to outdoor irrigation. The daily peak demand (customer meter totals) of 8.45 MGD was in July of 2018 (just up over July 2017 which was 8.4 MGD). We are at 30% designs for the current water plant expansion and are performing an evaluation to bring a contractor on Board to expedite the construction process and enhance constructability efforts. Winter daily production has been averaging about 1.5 MG, which is in line with the same period last year. We believe the leaks fixed in 2018 have kept demand in check despite significant growth.

Average Monthly Production



July 2016 had the highest average daily usage at 290 gallons GPCD. January 2016 had the lowest usage at 52 GPCD. A relatively wet and cool summer 2017 and 2018 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. Worth noting, Erie's smart irrigation controller rebate program ad low flow toilet program through Resource Central, Flush for the Future, has seen high demand and all reduced-cost toilets have been claimed for the year.

Average Daily Usage Per Capita



North Water Reclamation Facility

Annual Daily Average Flow:

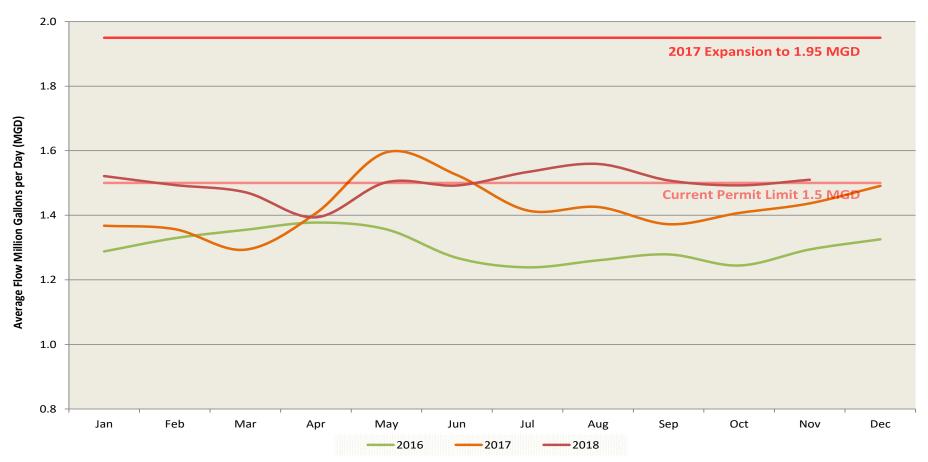
2016 - 1.30 MG

2017 – 1.42 MG

2018 (to date) - 1.50 MG

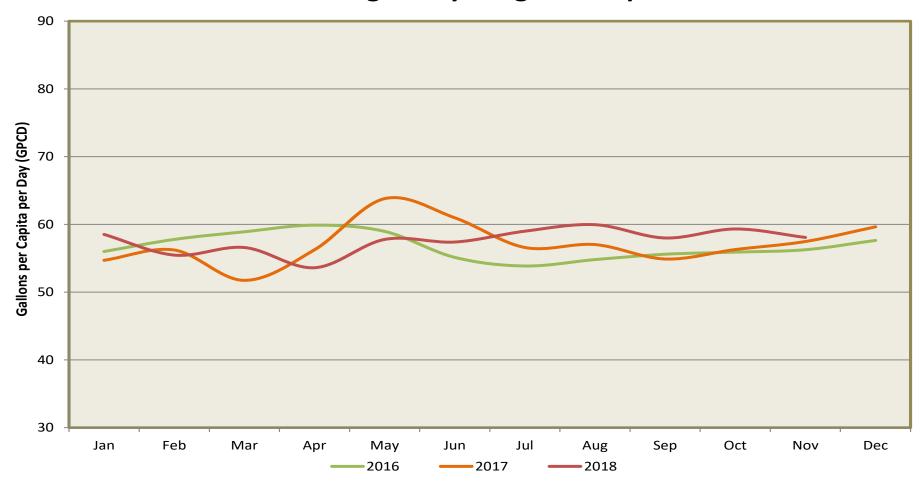
October 2016 had the lowest average flow of 1.24 million gallons per day (MGD). May 2017 set a high average monthly flow of 1.60 MGD, triggered by snowmelt and subsequent inflow into the collection system, likely through low lying manhole lids. Staff worked with consultant Leonard Rice Engineers (LRE) 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 after 2019; we are reaching out to CDPHE and asking they revisit this position. 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



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.

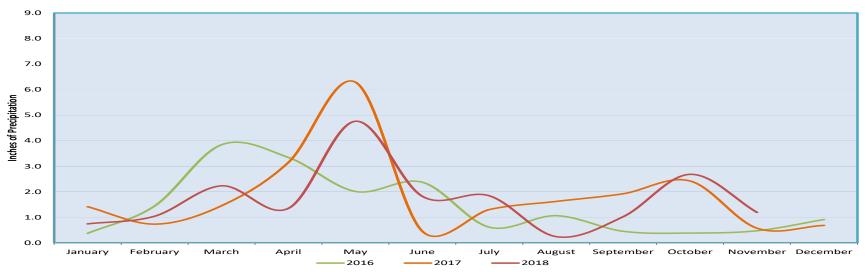
Average Daily Usage Per Capita



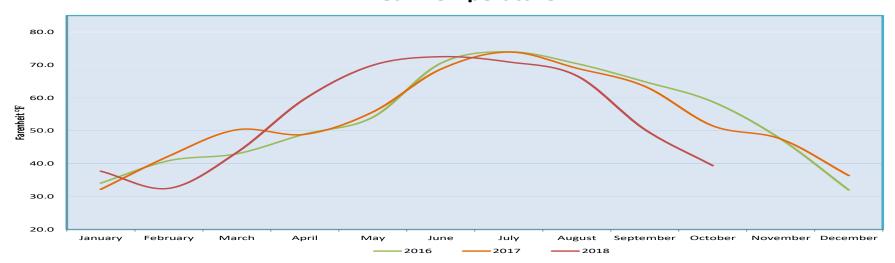
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

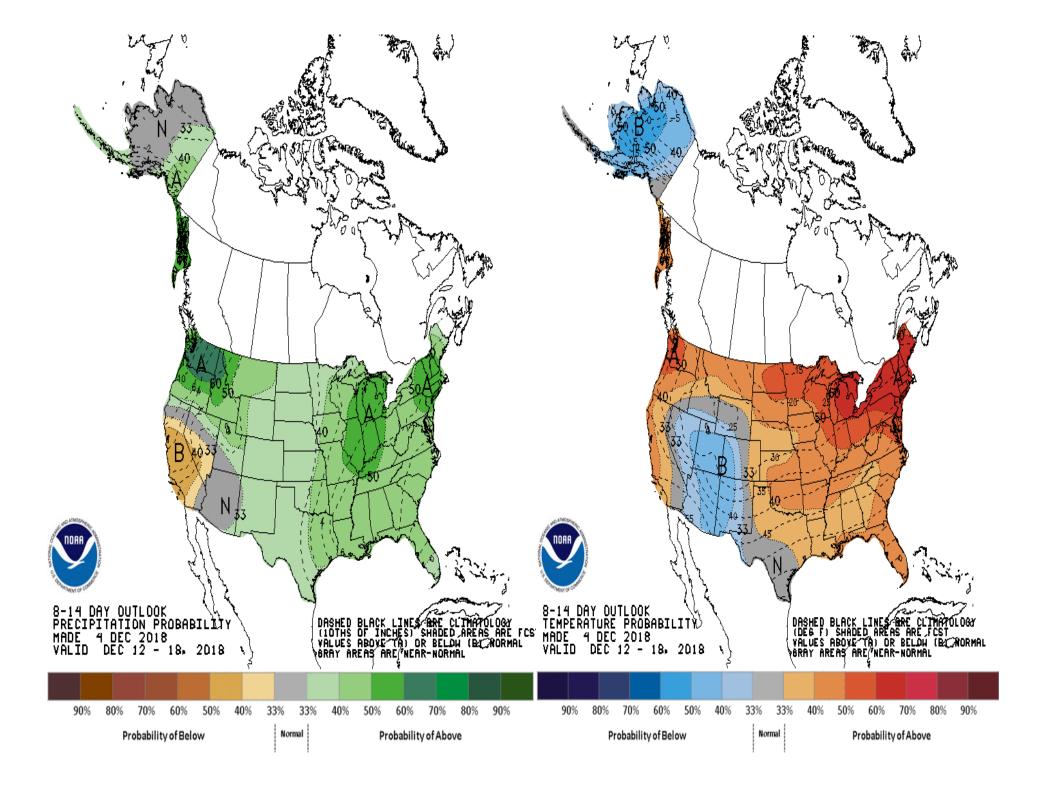
NOAA is predicting 33% above normal precipitation and equal chances of above or below normal temperatures through mid-November in our area. Drought conditions are starting to relieve somewhat statewide due to recent precipitation. As of December 4, November mean temperature data had not yet been entered into NOAA's web site. The drought monitor is essentially unchanged in the last month regionally and nationally.

Precipitation



Mean Temperature

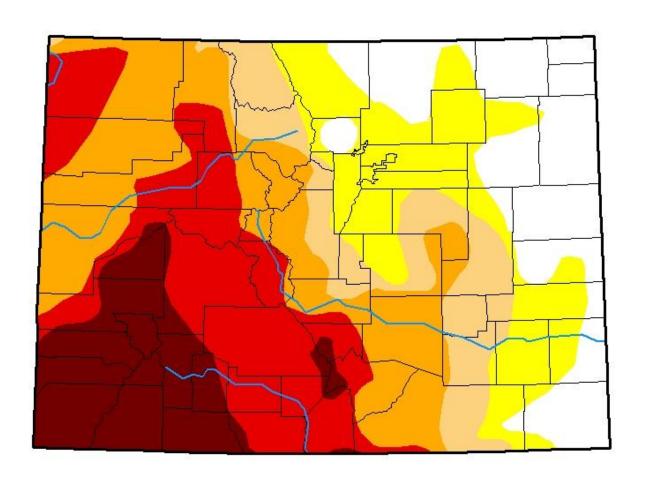




U.S. Drought Monitor Colorado

November 27, 2018

(Released Thursday, Nov. 29, 2018) Valid 7 a.m. EST



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:

Richard Heim NCEI/NOAA









http://droughtmonitor.unl.edu/

