## **Lynn R. Morgan Water Treatment Facility**

**Annual Daily Average Flow:** 

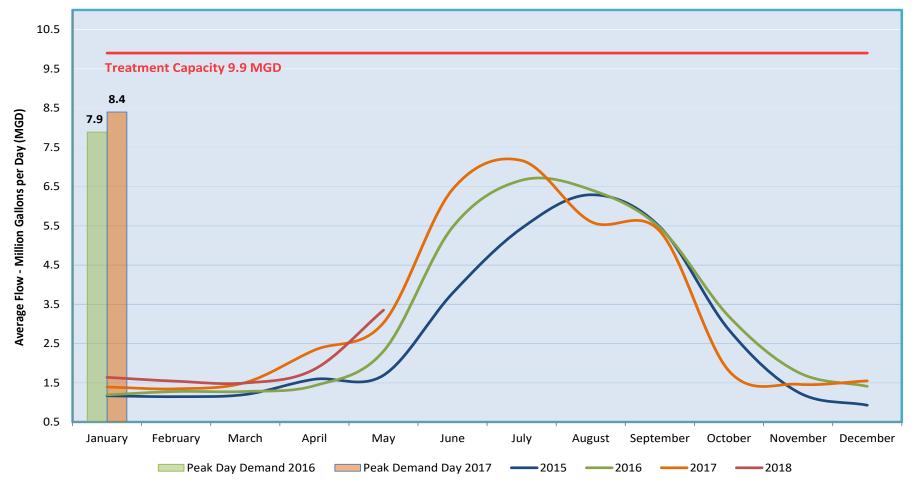
**2015** - 2.7 MG

**2016** - 3.3 MG

**2017** – 3.4 MG

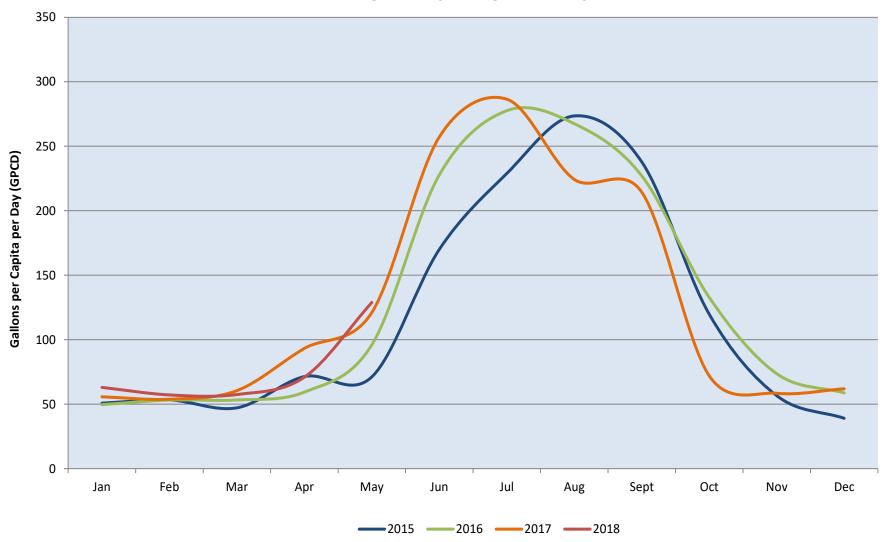
July 2017 maintains the record for the highest monthly average flows at 7.16 MG, while December 2015 had the lowest flows at 0.93 MG. Summer demands greatly affect the annual average due to outdoor irrigation. Water storage tanks in the distribution system play a key role in supplying peak overnight 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. Burns & McDonnell will begin preliminary design work for an expansion of the water treatment facility from 9.9 MGD to 16.5 MGD this month.

# **Average Monthly Production**



July 2017 had the highest average daily usage at 287 gallons per capita per day (GPCD). December 2015 had the lowest usage at 39 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:

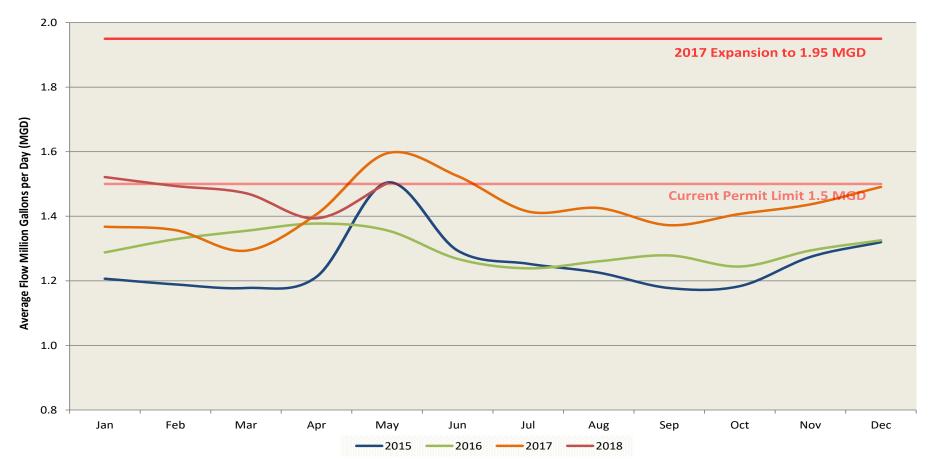
**2015** - 1.25 MG

**2016** - 1.30 MG

**2017** – 1.42 MG

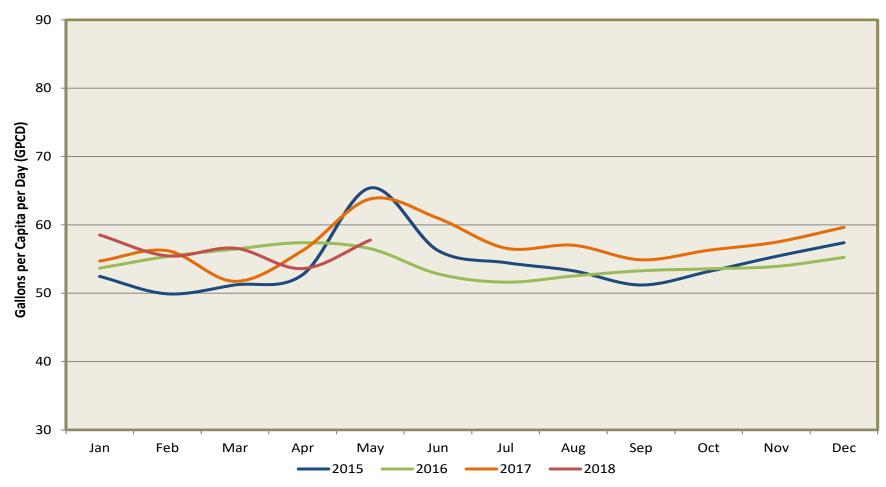
March and September of 2015 both had the lowest average flow of 1.18 million gallons per day (MGD). May 2017 set a high average monthly flow of 1.60 MGD, triggered by snowmelt and subsequent inflow into the collection system, likely through low lying manhole lids. Staff worked with consultant Leonard 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 will begin facility master planning and preliminary design for the next NWRF expansion to roughly 3.0 MGD. We anticipate construction in 2020.

### **Average Monthly Flows**



This graph depicts customer indoor water usage. May 2015 had the highest usage at 65 GPCD, primarily due to snow melt seeping into manholes after a particularly wet snow and subsequent warm weather. February 2015 had the lowest usage at 50 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 and wet weather in May.

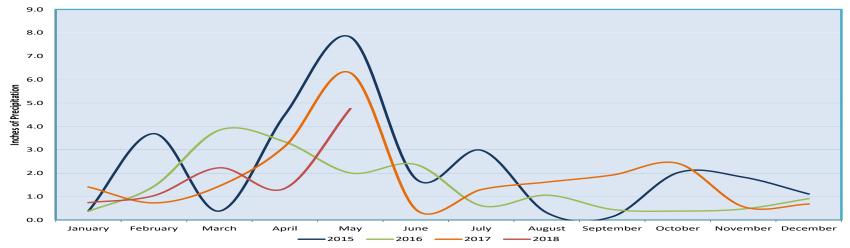
# **Average Daily Usage Per Capita**



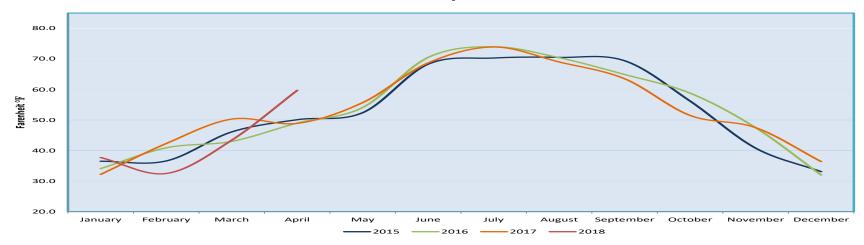
# Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

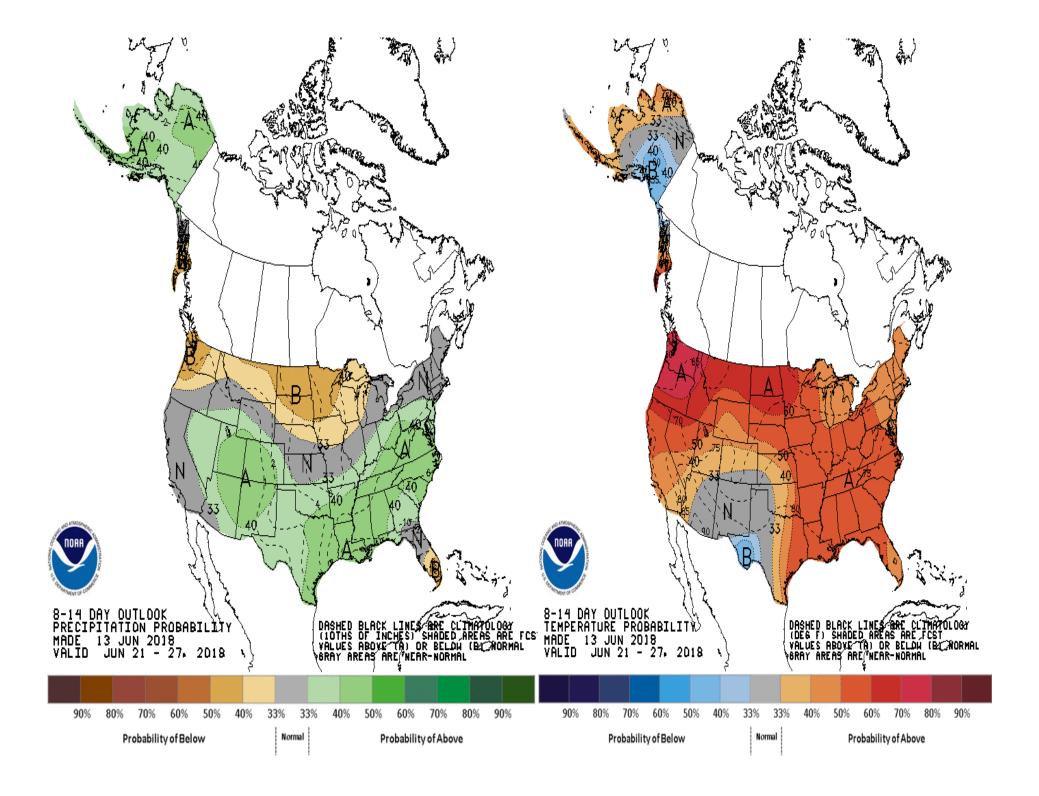
NOAA is predicting a 40% chance of above normal precipitation and a 33% chance of above normal temperatures through late June in our area. Winter snowpack in terms of Snow Water Equivalent (SWE - the amount of water per inch of snow) in the Upper Colorado Basin (the main source of supply for Erie) is currently 14% of normal for this date due spring runoff shifting early by about two weeks. Erie is in a very good position than much of the state due to carry over reservoir storage and favorable snowpack conditions in the Upper Colorado Basin throughout winter. Drought conditions moved in a favorable direction for our area in the last month and continued to be severe in the south. As of June 14, May mean temperature data had not yet been entered into NOAA's web site.

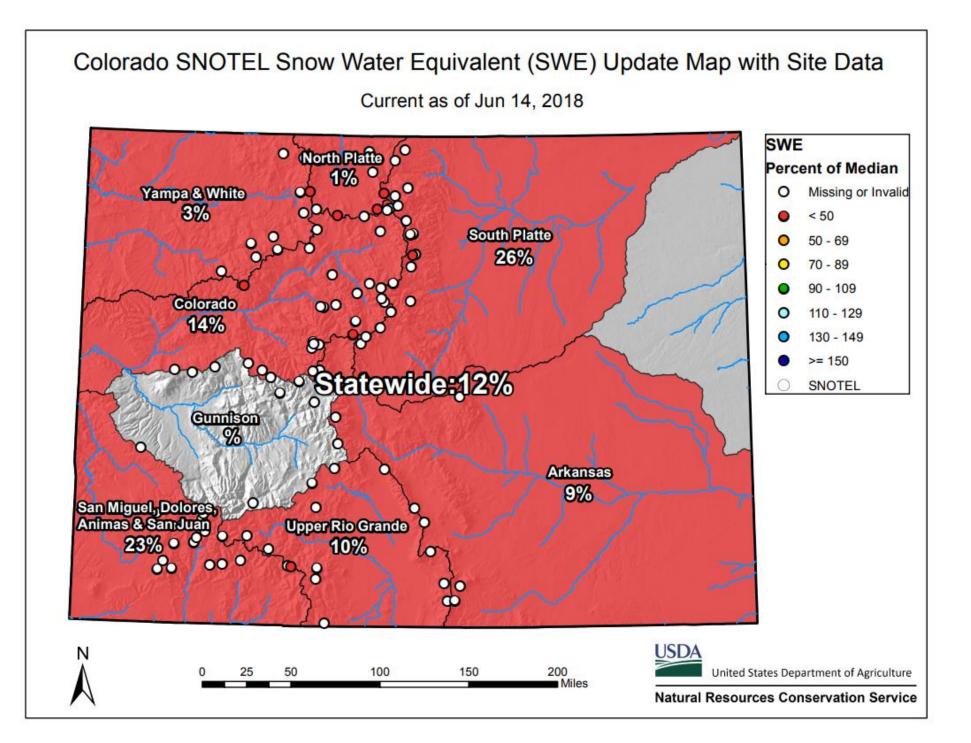
#### Precipitation



#### **Mean Temperature**

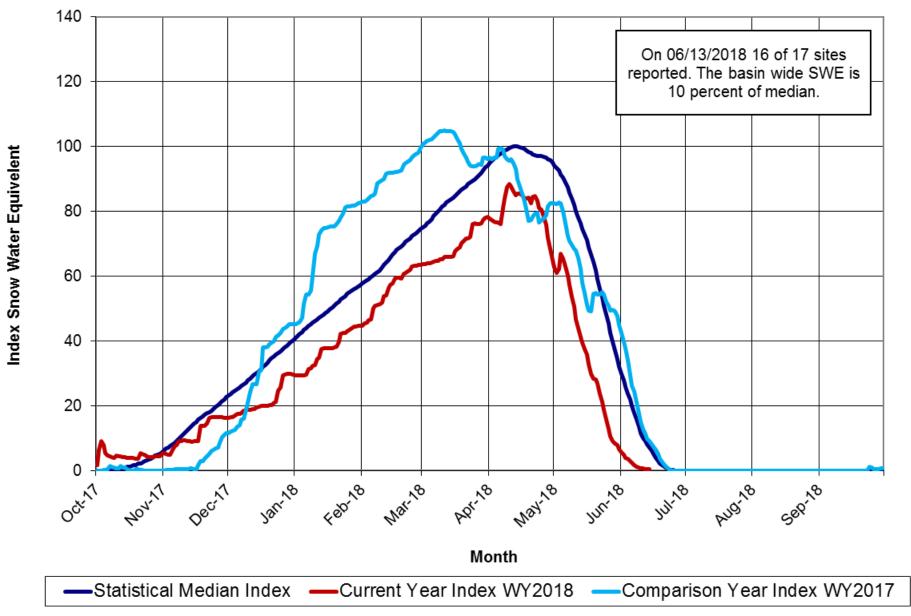






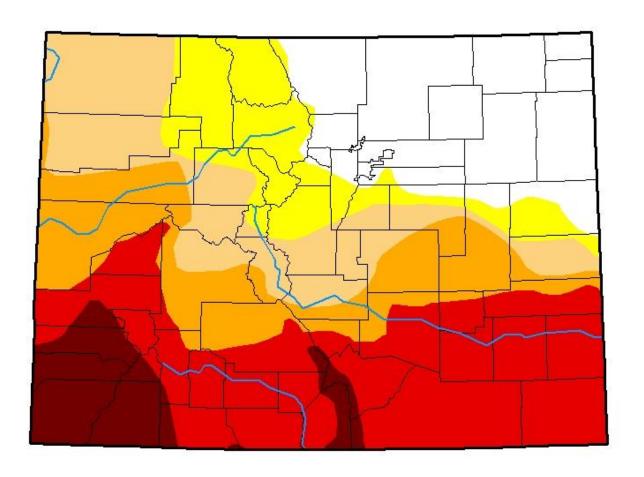
# Upper Colorado River Headwater Basin Snotel Tracking

Aggregate of 17 Snotel Sites in the Upper Colorado Headwater Basin



# U.S. Drought Monitor Colorado

June 12, 2018 (Released Thursday, Jun. 14, 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/