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

**Annual Daily Average Flow:** 

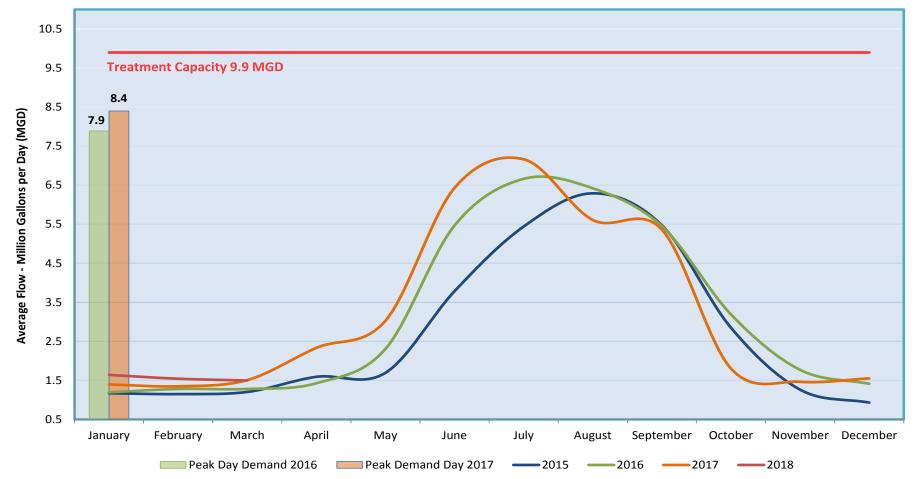
**2015** - 2.7 MG

**2016** - 3.3 MG

**2017** – 3.4 MG

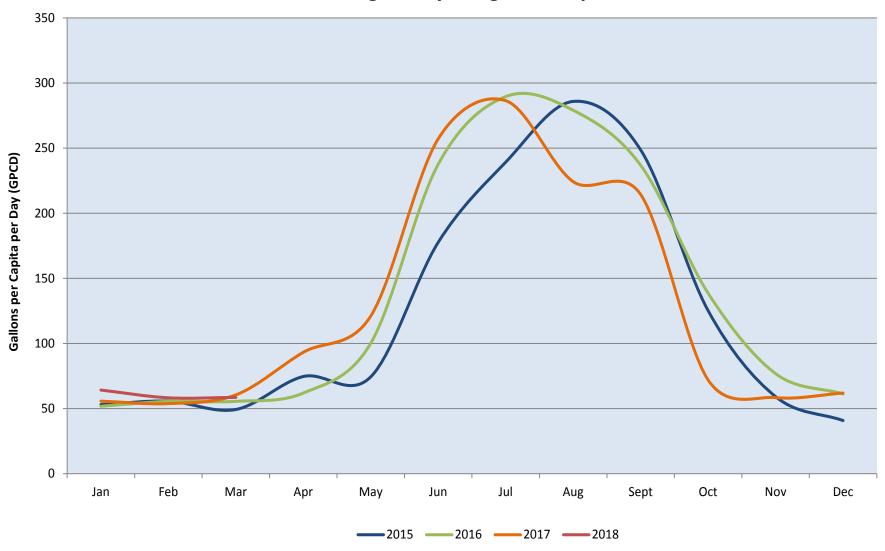
July 2017 maintains the record for the highest monthly average flows at 7.16 MG, while December 2015 had the lowest flows at 0.93 MG. Summer demands greatly affect the annual average due to outdoor irrigation. Water storage tanks in the distribution system play a key role in supplying peak overnight 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. Staff is planning to enter into design for expansion of the Water Treatment Facility in 2018, with an anticipated 2019 construction project.

## **Average Monthly Production**



July 2016 had the highest average daily usage at 290 gallons per capita per day (GPCD). December 2015 had the lowest usage at 41 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.

## **Average Daily Usage Per Capita**



## **North Water Reclamation Facility**

Annual Daily Average Flow:

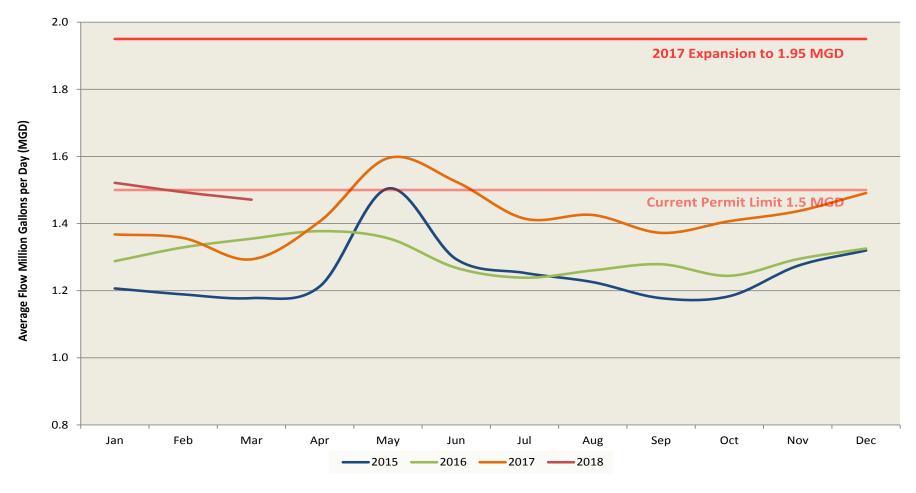
**2015** - 1.25 MG

**2016** - 1.30 MG

**2017** – 1.42 MG

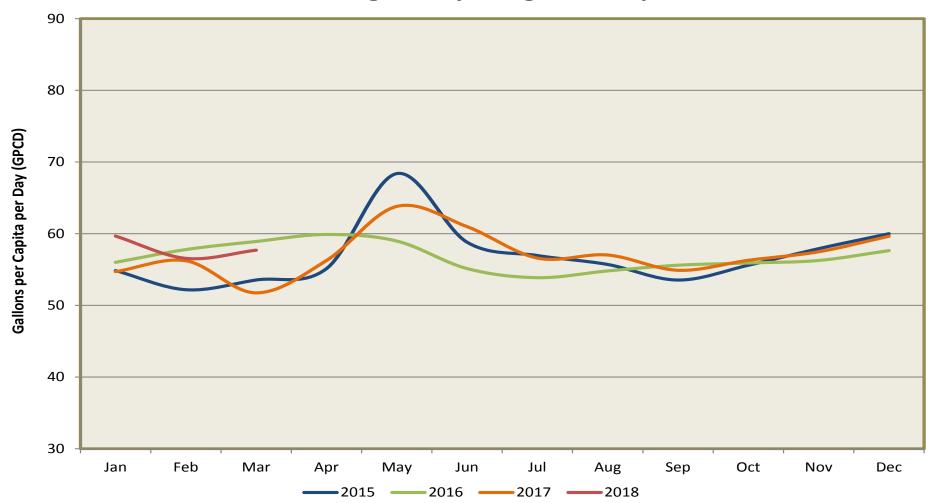
March and September of 2015 both had the lowest average flow of 1.18 million gallons per day (MGD). May 2017 set a high average monthly flow of 1.60 MGD, triggered by snowmelt and subsequent inflow into the collection system, likely through low lying manhole lids. The Engineering Division is wrapping up a collection system flow study to determine locations where these inflows exist, so they can be addressed. Staff worked with consultant Leonard Rice Engineers (LRE) and water rights counsel Paul Zilis' office to model and analyze stream flows and water quality in Boulder Creek and to request modifications to the facility permit from the Colorado Department of Public Health and Environment in the last month. 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.

## **Average Monthly Flows**



This graph depicts customer indoor water usage. May 2015 had the highest usage at 68 GPCD, primarily due to snow melt seeping into manholes after a particularly wet snow and subsequent warm weather. February 2015 and March 2017 had the lowest usage at 51 gallons. 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.

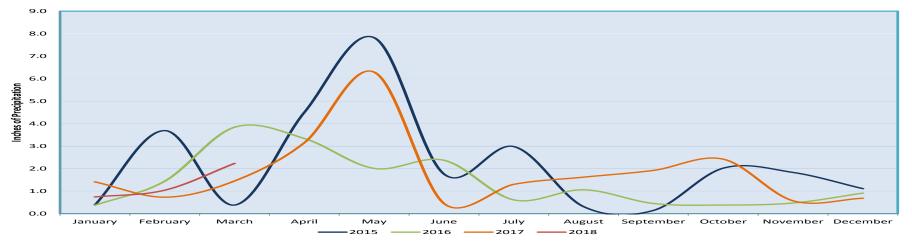
## **Average Daily Usage Per Capita**



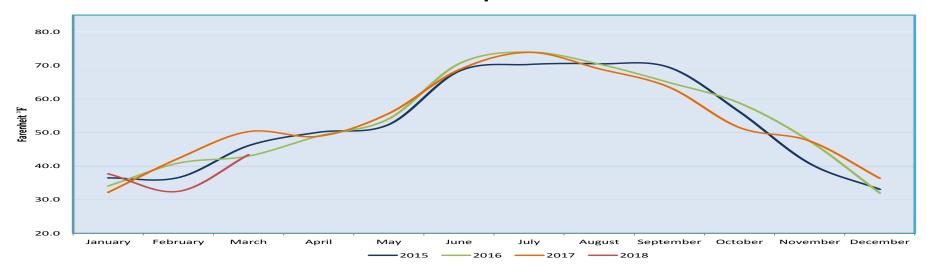
## Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

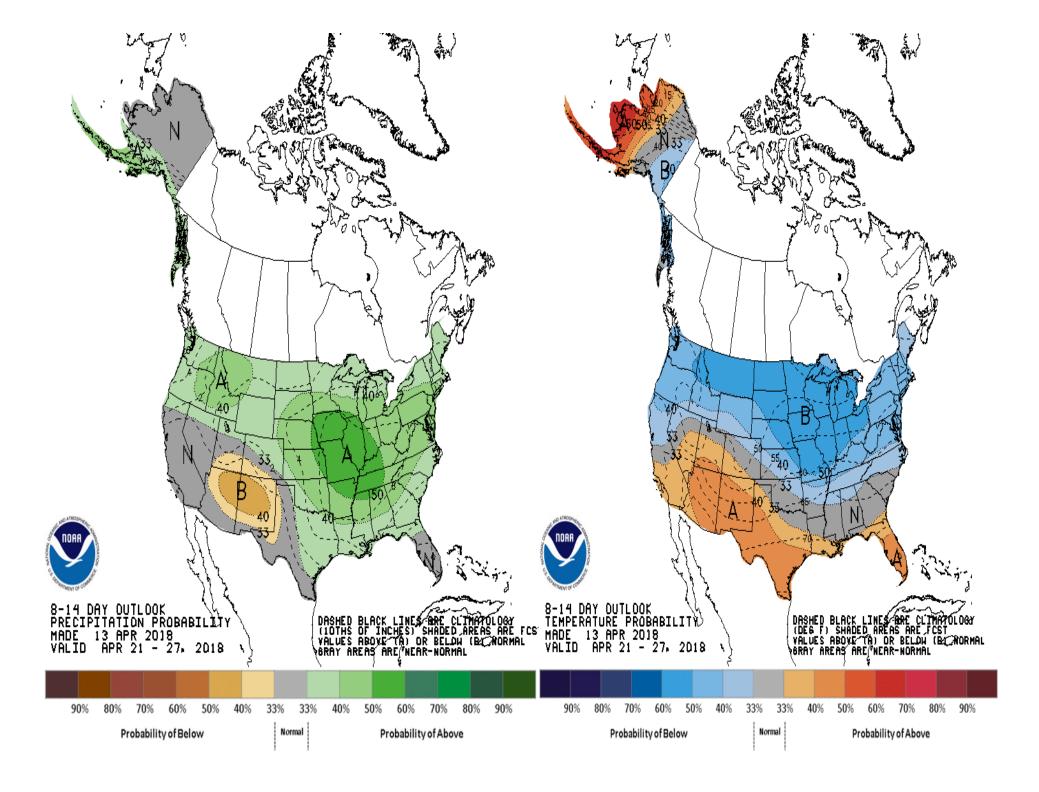
NOAA is predicting a 33% chance of above normal precipitation and normal temperatures through late April in our area. Winter snowpack in terms of Snow Water Equivalent (SWE - the amount of water per inch of snow) in the Upper Colorado Basin (the main source of supply for Erie) is currently 84% of normal, a 4% improvement since the last report. Worth noting, is the dramatic difference between the northern and southern portions of the state, essentially split at I-70. Recent spring snowstorms have improved conditions in the Upper Colorado Basin considerably. Erie is in a better position than much of the state due to carry over reservoir storage and favorable snowpack conditions in the Upper Colorado Basin.

#### Precipitation

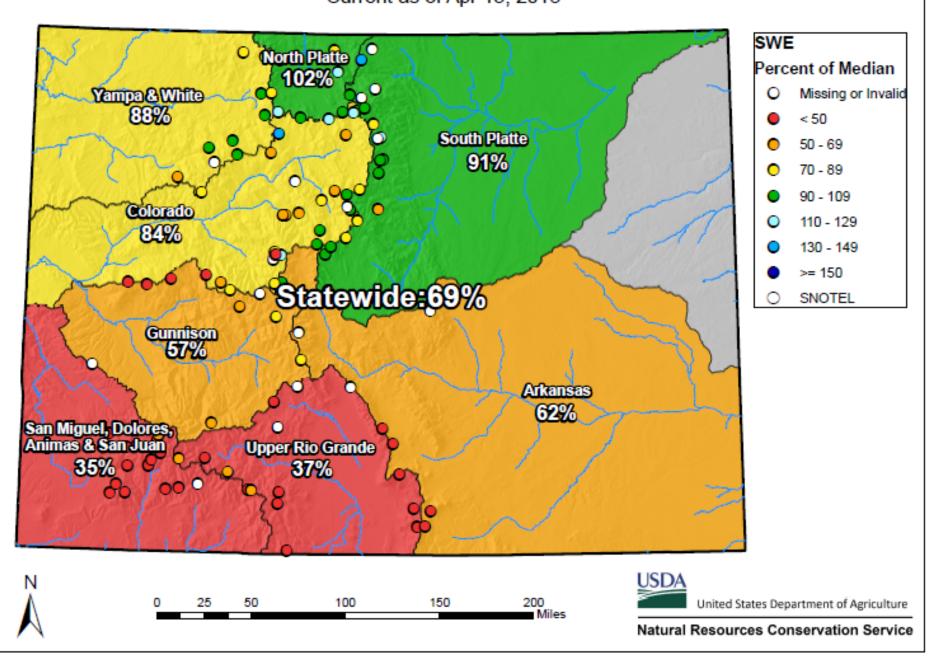


#### Mean Temperature



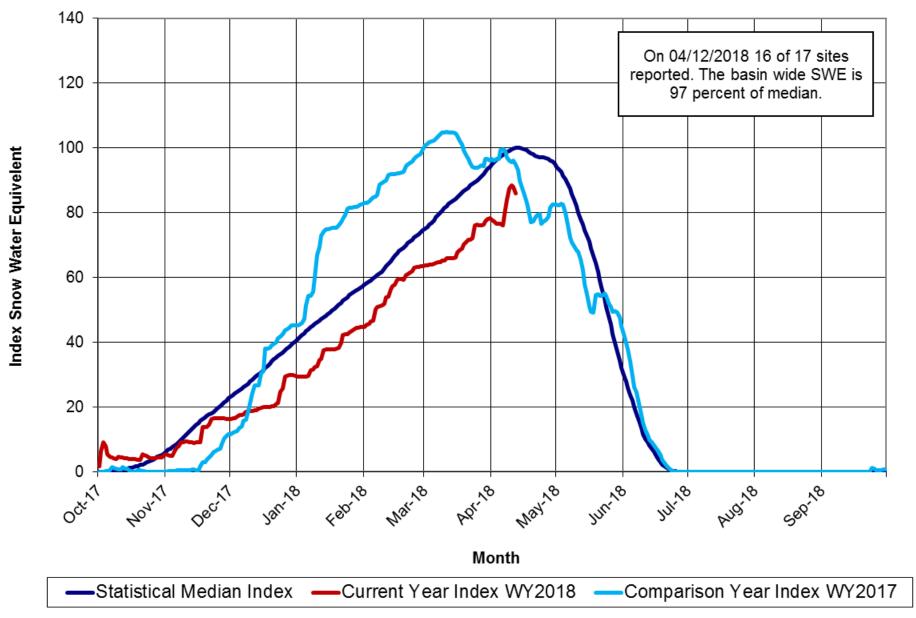


# Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data Current as of Apr 13, 2018



## Upper Colorado River Headwater Basin Snotel Tracking

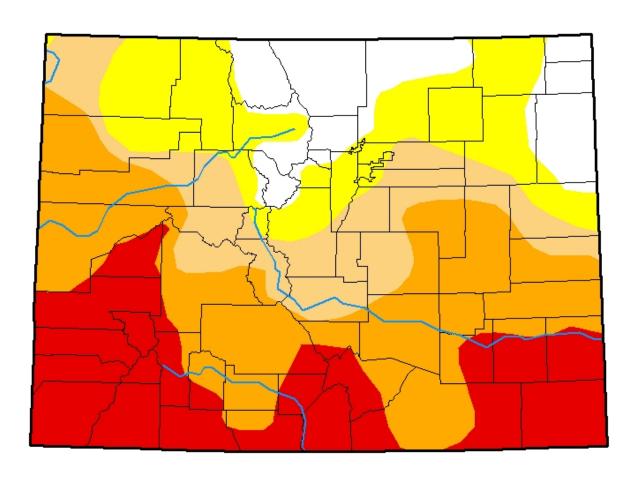
Aggregate of 17 Snotel Sites in the Upper Colorado Headwater Basin



# U.S. Drought Monitor Colorado

## April 10, 2018

(Released Thursday, Apr. 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:

David Miskus NOAA/NWS/NCEP/CPC









http://droughtmonitor.unl.edu/