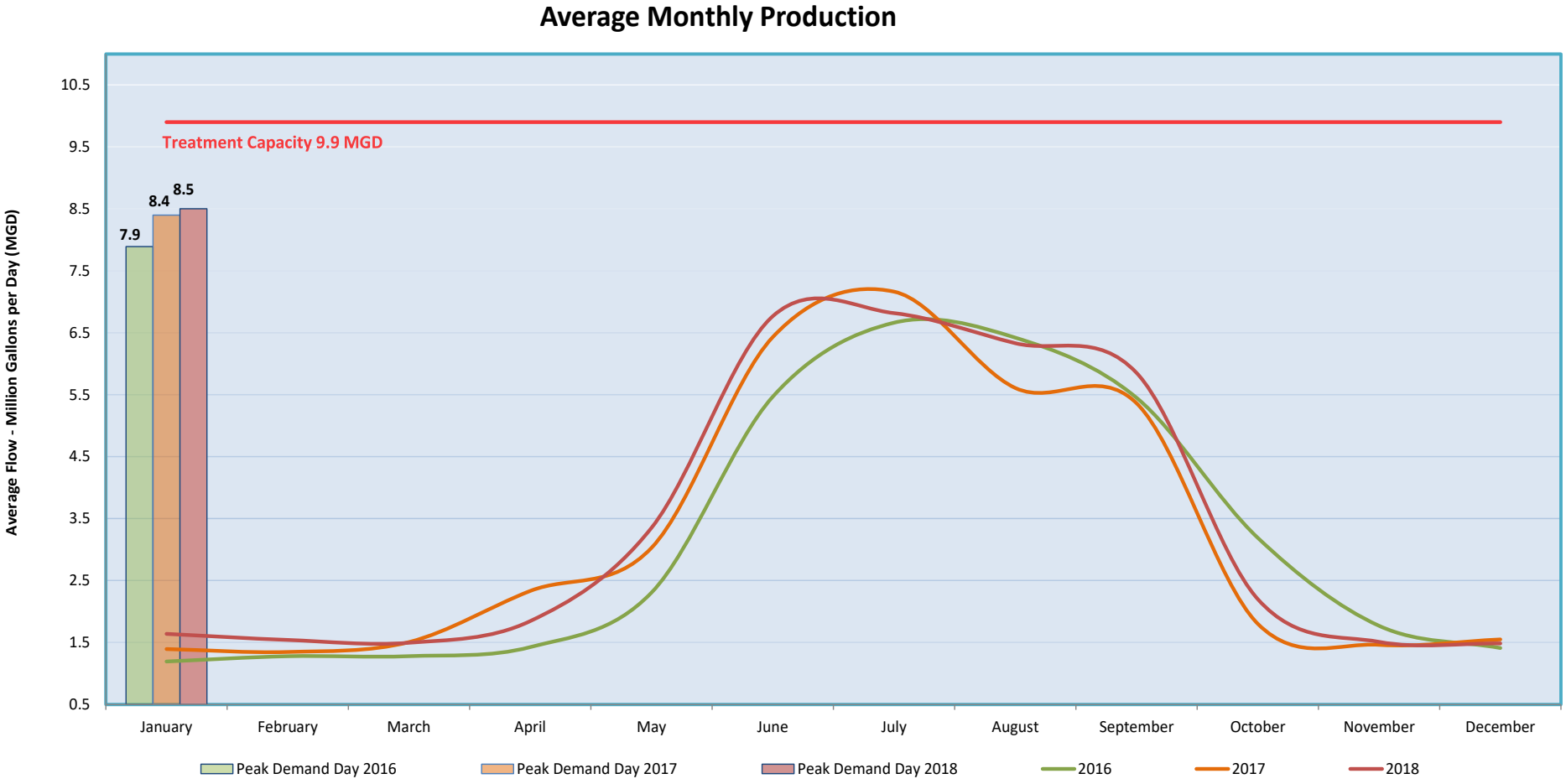
# Lynn R. Morgan Water Treatment Facility

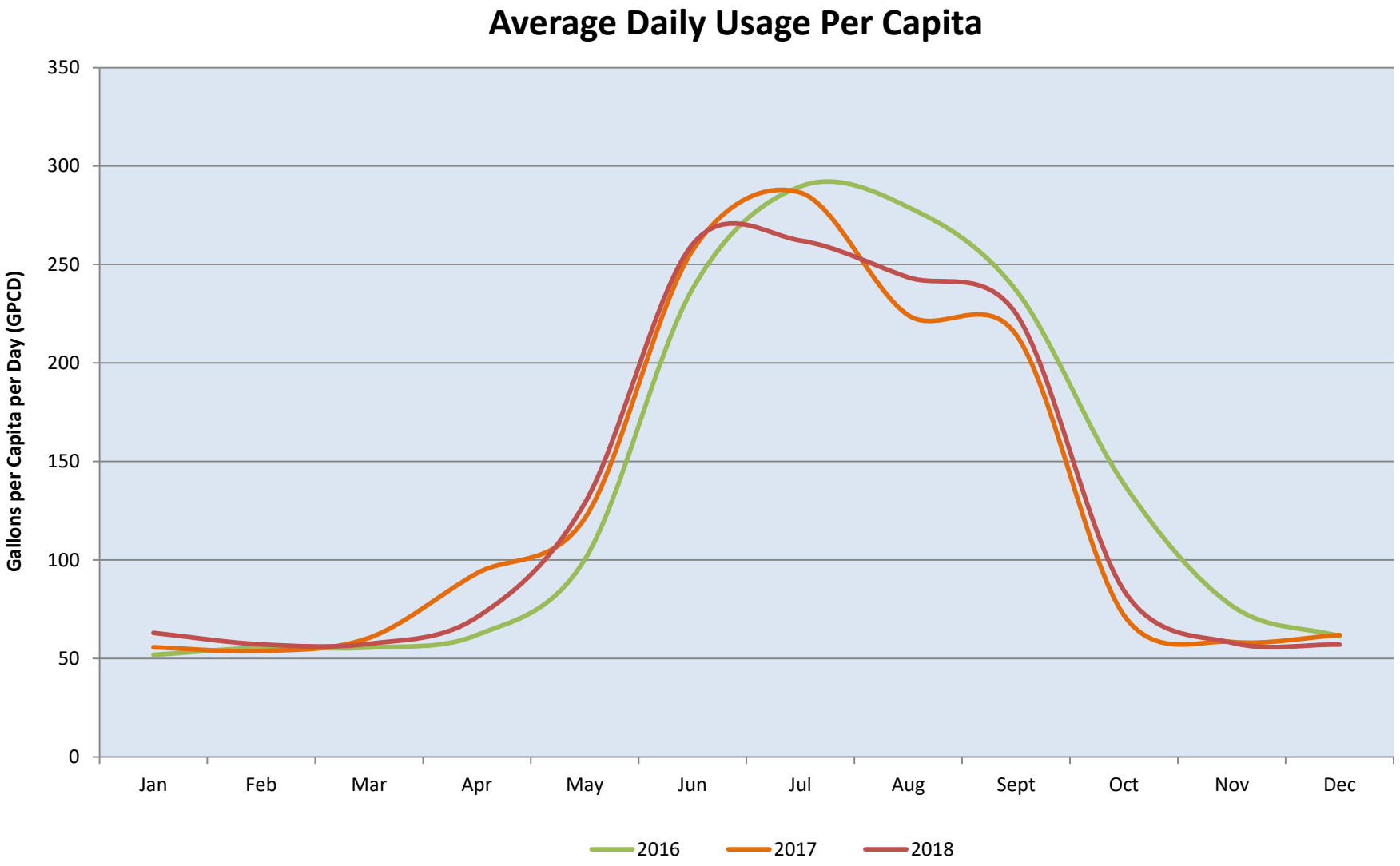
**Annual Daily Average Flow:** **2016** - 3.3 (Million Gallons) MG **2017** – 3.4 MG **2018** – 3.8 MG

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. We are at 60% designs for the current water plant expansion and through a competitive process have selected a highly regarded contractor, Garney Construction, to assist with constructability reviews, early equipment procurement and price estimating. At the end of this exercise Garney will also be eligible to provide a price guaranteed maximum price (GMP) to perform the work. We produced 1.25 billion gallons of drinking water in 2018, and met every drinking water standard. Last year we produced 1.19 billion gallons.



**Annual Daily Gallons Per Capita per Day (GPCD):** **2016** - 131 GPCD **2017** – 130 GPCD **2018** – 131 GPCD

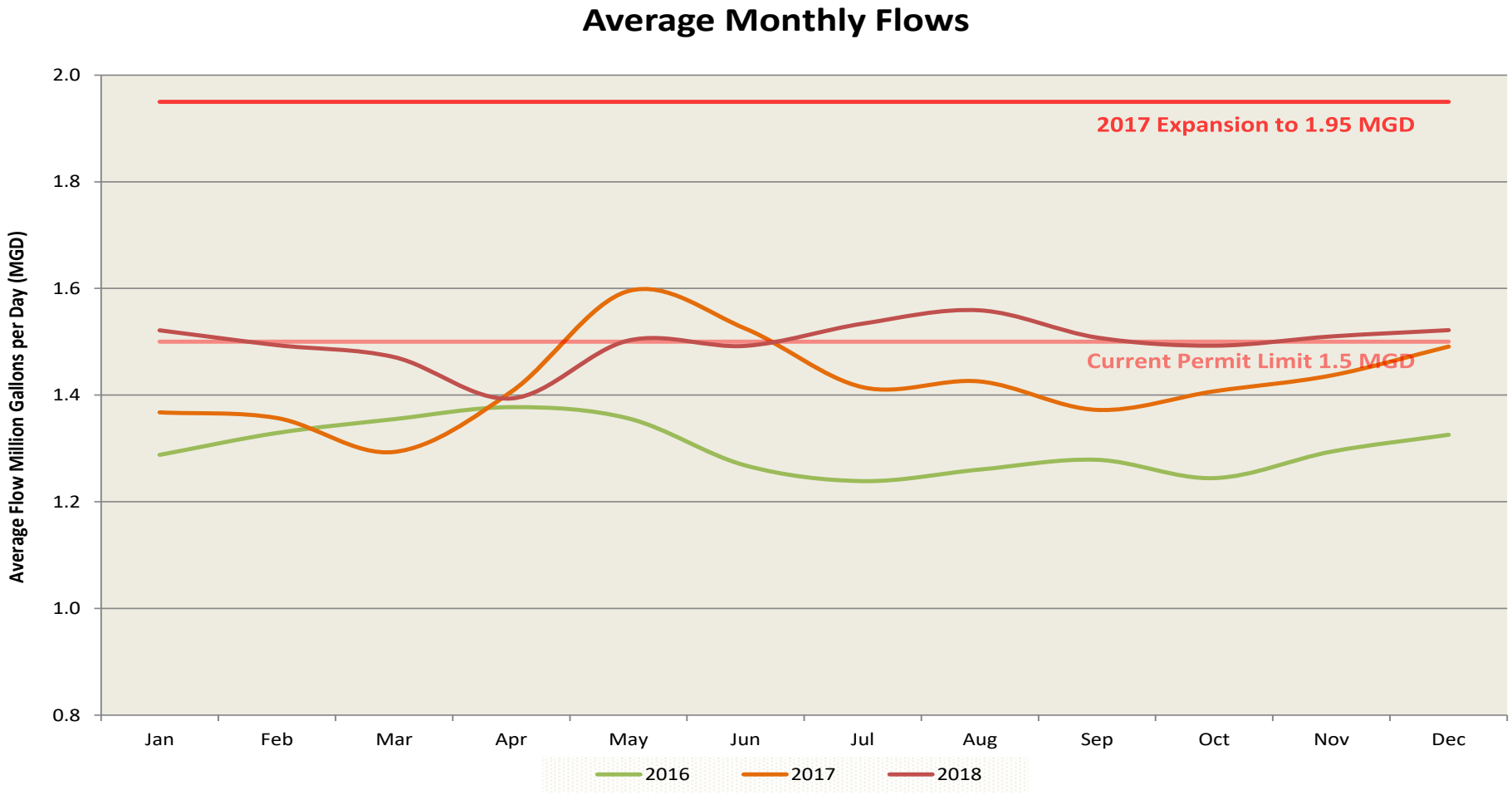
July 2016 had the highest average daily usage at 290 gallons GPCD. January 2016 had the lowest usage at 52 GPCD. A relatively wet and cool summer 2017 and 2018 kept overall average water demands down for the year. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future. Through Erie's smart irrigation controller rebate program we provided rebates for 41 units in 2018 and still have roughly half of the grants funds carrying into 2019 for this program. Our 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.



# North Water Reclamation Facility

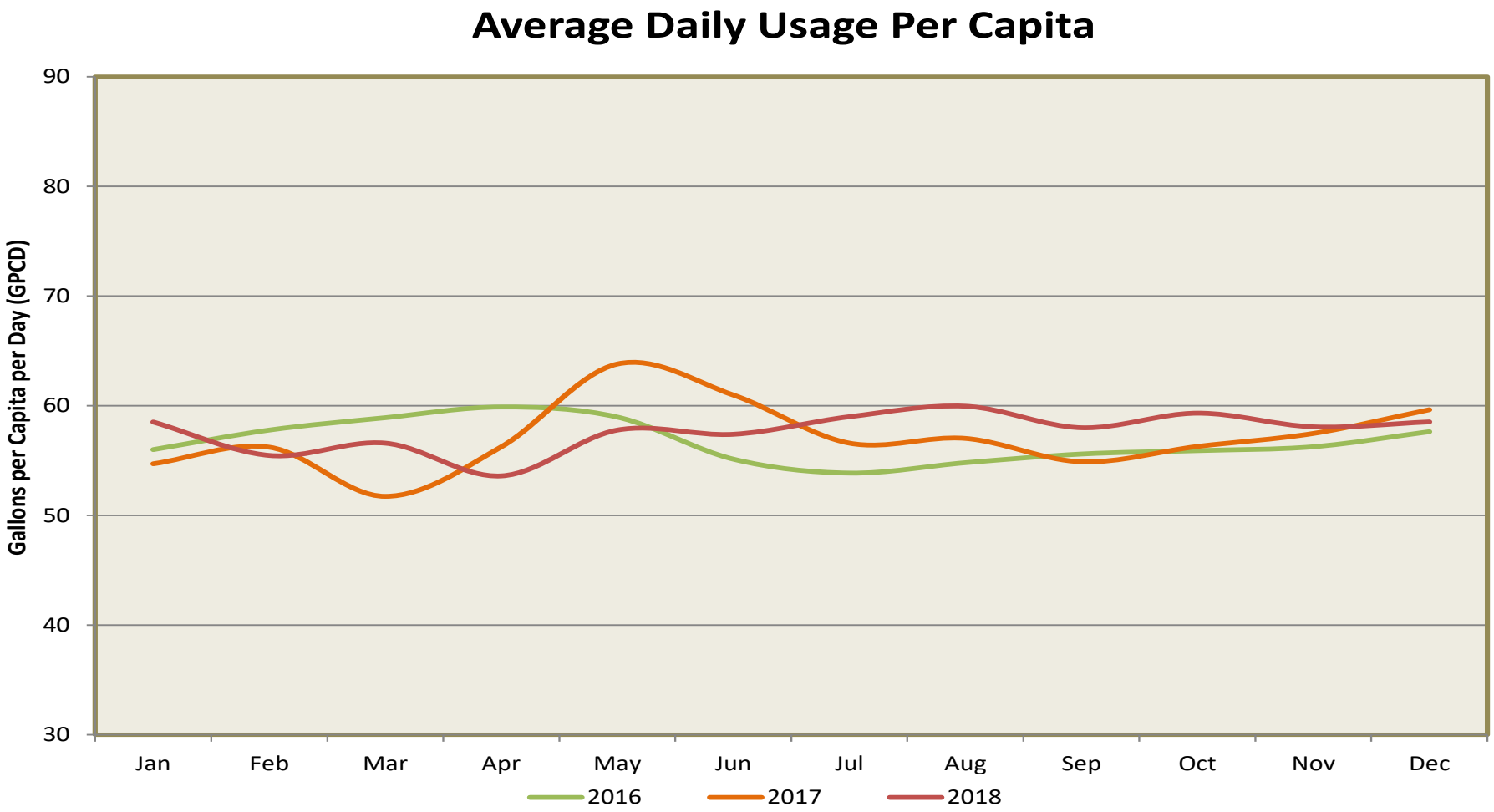
**Annual Daily Average Flow:** **2016** - 1.30 MG **2017** – 1.42 MG **2018** - 1.50 MG

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 and are currently wrapping up conceptual designs and the 20-year master plan.



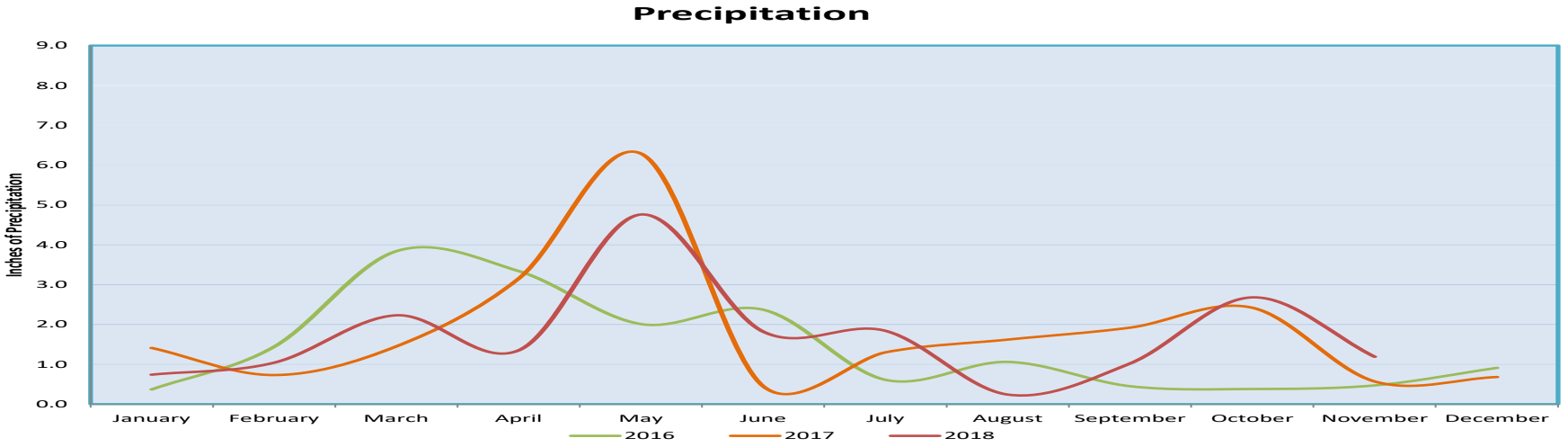
**Annual Daily Gallons Per Capita per Day (GPCD):** **2016** - 57 GPCD **2017**- 57 GPCD **2018** - 58 GPCD

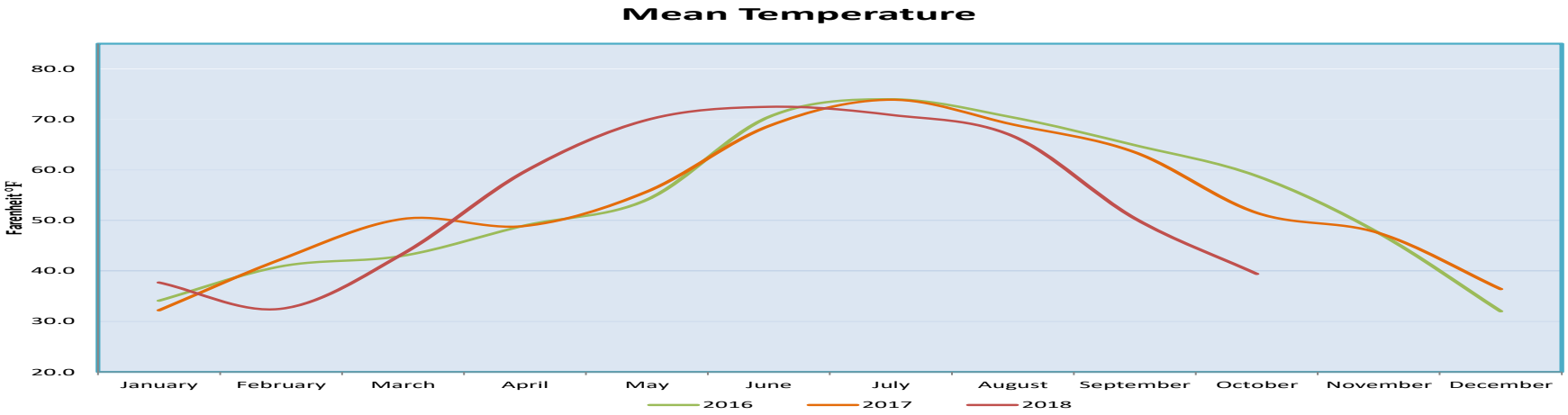
This graph depicts customer indoor water usage. May 2017 had the highest usage at 64 GPCD, primarily due to snow melt seeping into manholes after a particularly wet snow and subsequent warm weather. March 2017 had the lowest usage at 52 GPCD. Overall flows into the wastewater treatment plant are trending 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. The NWRF treated 548 million gallons of wastewater in 2018 and delivered 29.5 million gallons of reclaim water for irrigation.

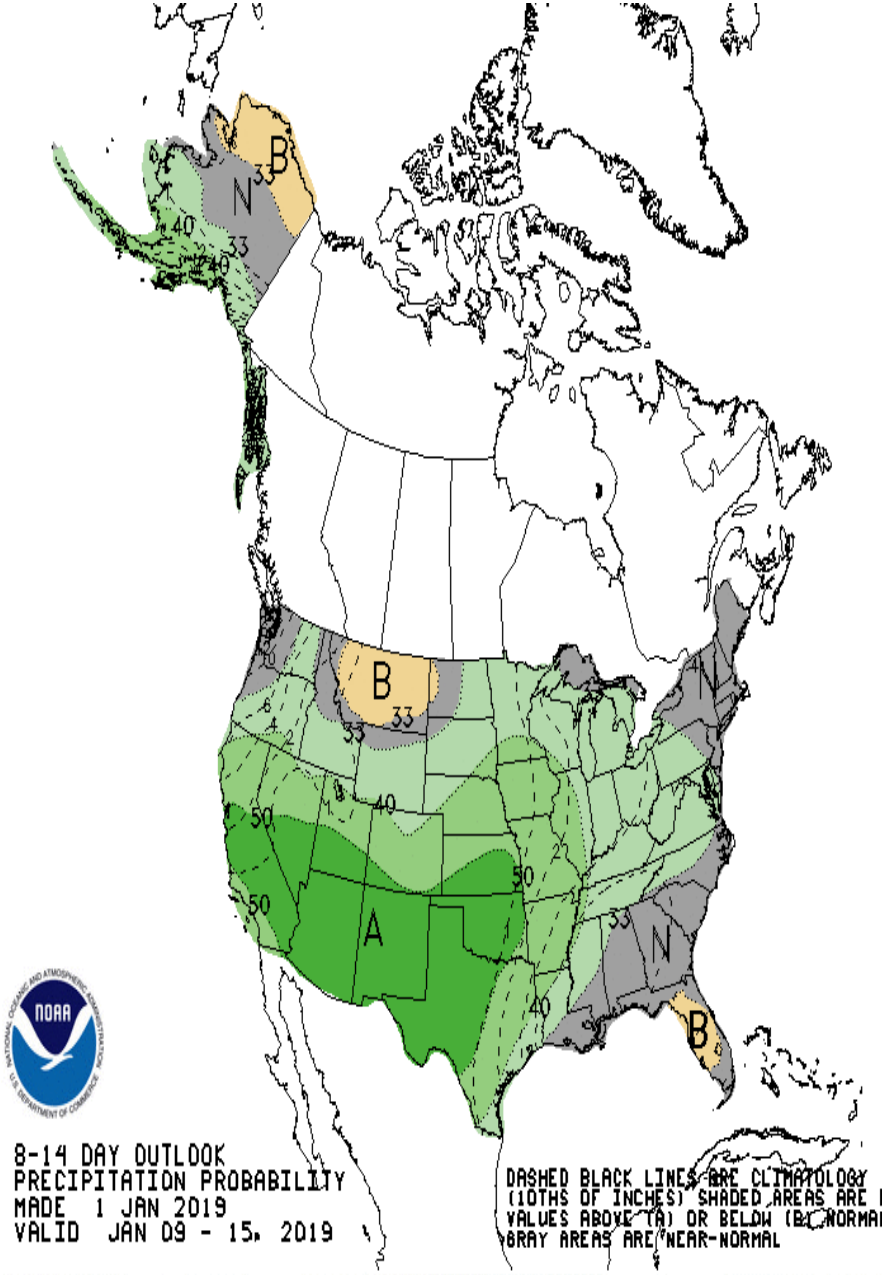


## Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

NOAA is predicting 40% above normal precipitation and 60% above normal temperatures through mid-January in our area. Precipitation and temperature charts are unchanged from the last report. As of January 2 this data was not available on NOAA's web site due to the partial government shutdown. This month the report will shift from the drought monitor to snowpack data, we will resume reporting drought information after run off. Similar to last year, the snow pack in the upper part of the state (where we get our water) is good and the southeast area is suffering. This is causing significant concern amongst water users in the west due to continually declining levels in Lake Mead and Lake Powell. This is a topic we will keep an eye on as it affects agreements between the upper states of Colorado, Wyoming, New Mexico and Utah which are required to maintain deliveries through the Colorado River to the lower states of Arizona, Nevada, and California via the 1922 Colorado Compact. Additional impacts to energy generation at these two dams could have affects on Colorado electrical costs.

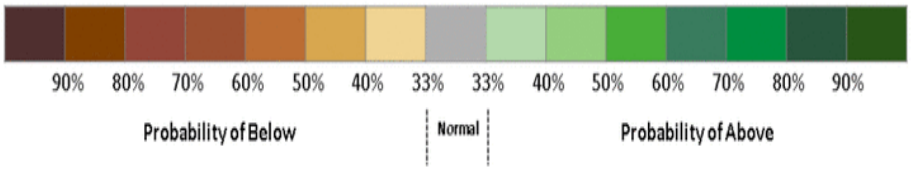


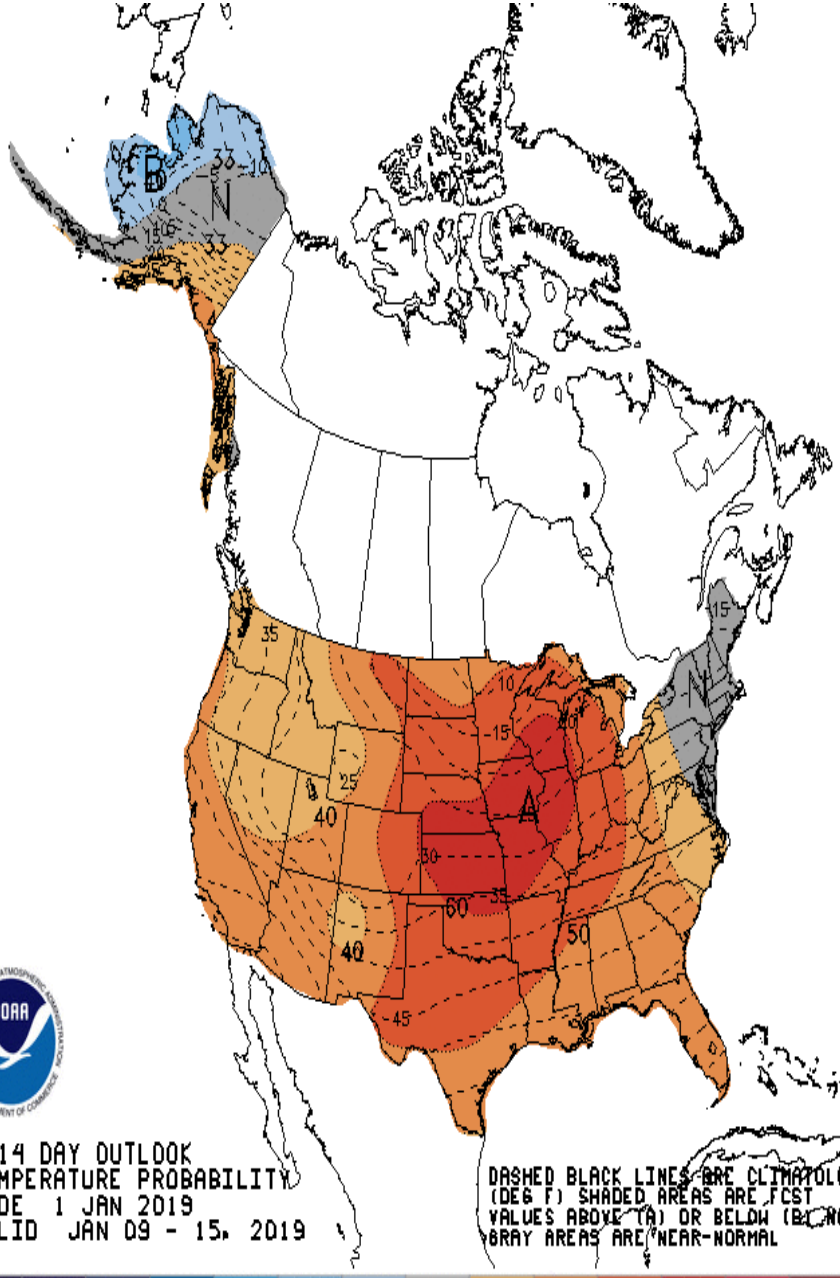






8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 1 JAN 2019
VALID JAN 09 - 15, 2019

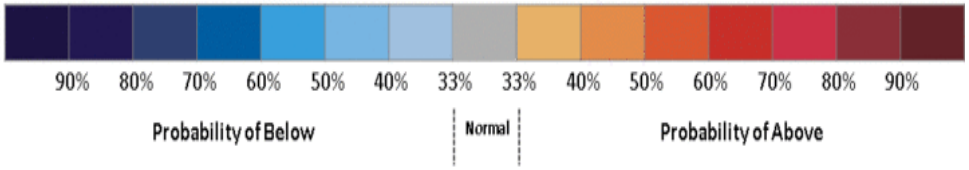
DASHED BLACK LINES ARE CLIMATOLOGY
(10THS OF INCHES) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
GRAY AREAS ARE NEAR-NORMAL



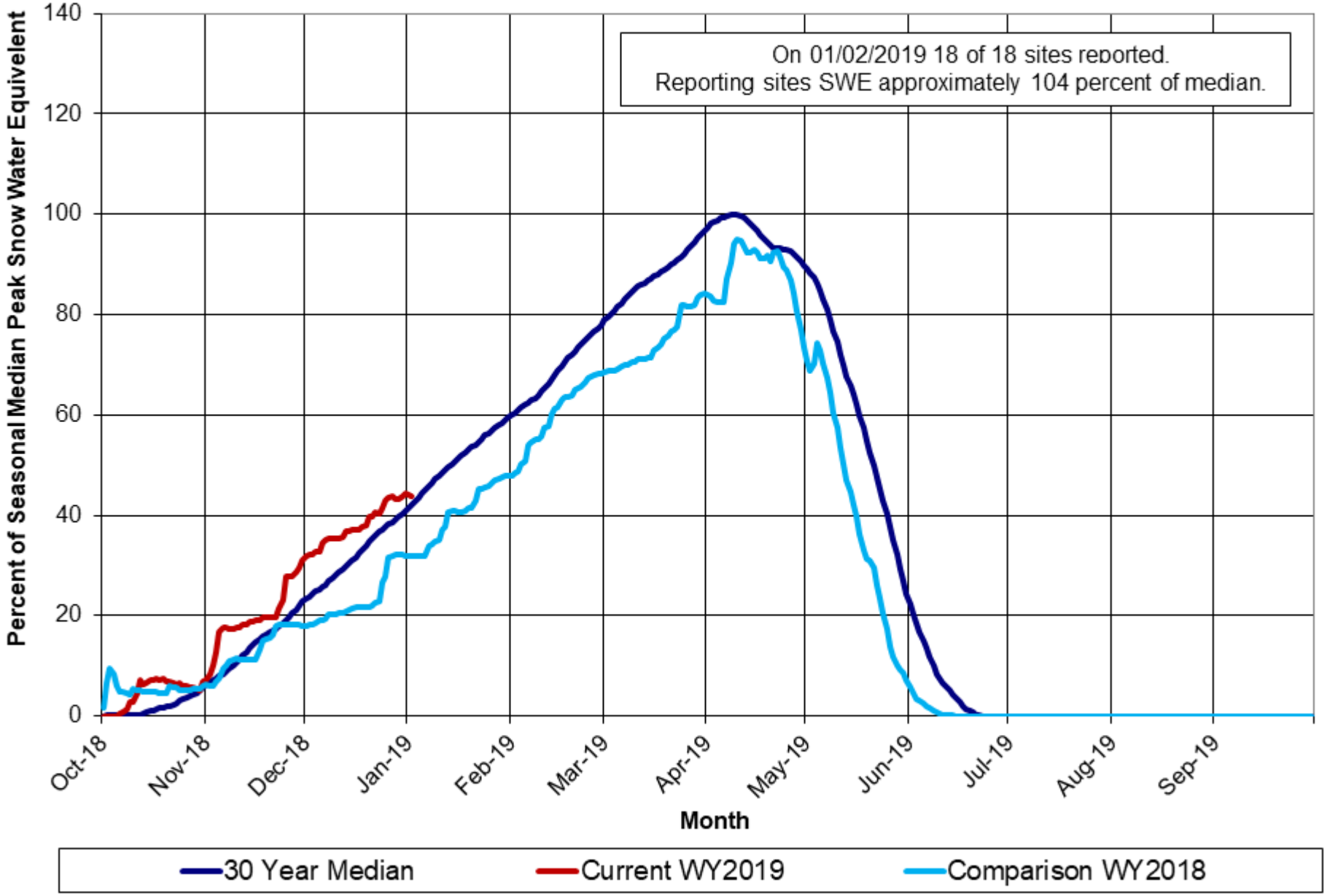

8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 1 JAN 2019
VALID JAN 09 - 15, 2019

DASHED BLACK LINES ARE CLIMATOLOGY
(DEG F) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
GRAY AREAS ARE NEAR-NORMAL



# Upper Colorado River Headwater Basin Snotel Tracking

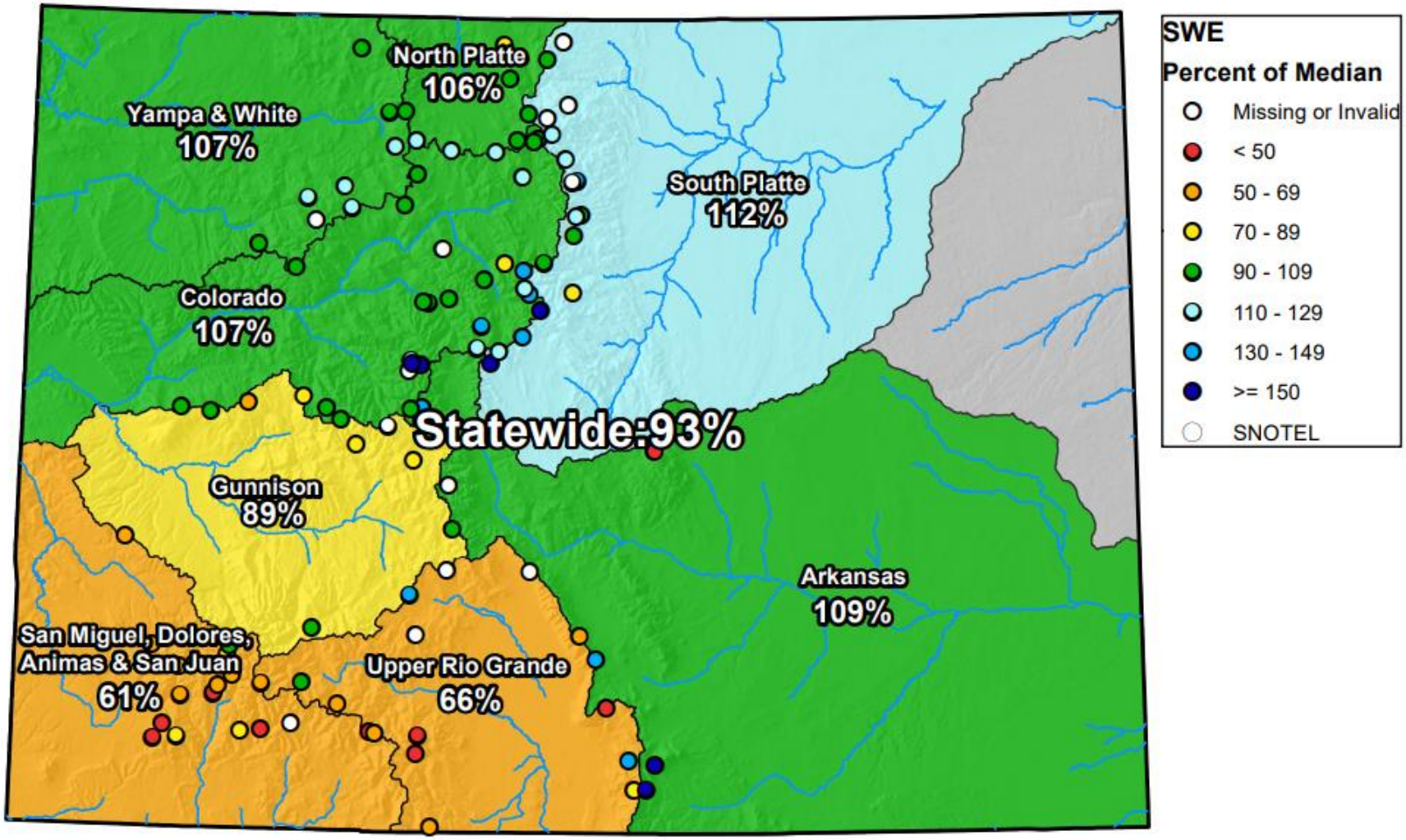
Aggregate of 18 Snotel Sites in the Upper Colorado Headwater Basin




Data Provided by the Natural Resource Conservation Service

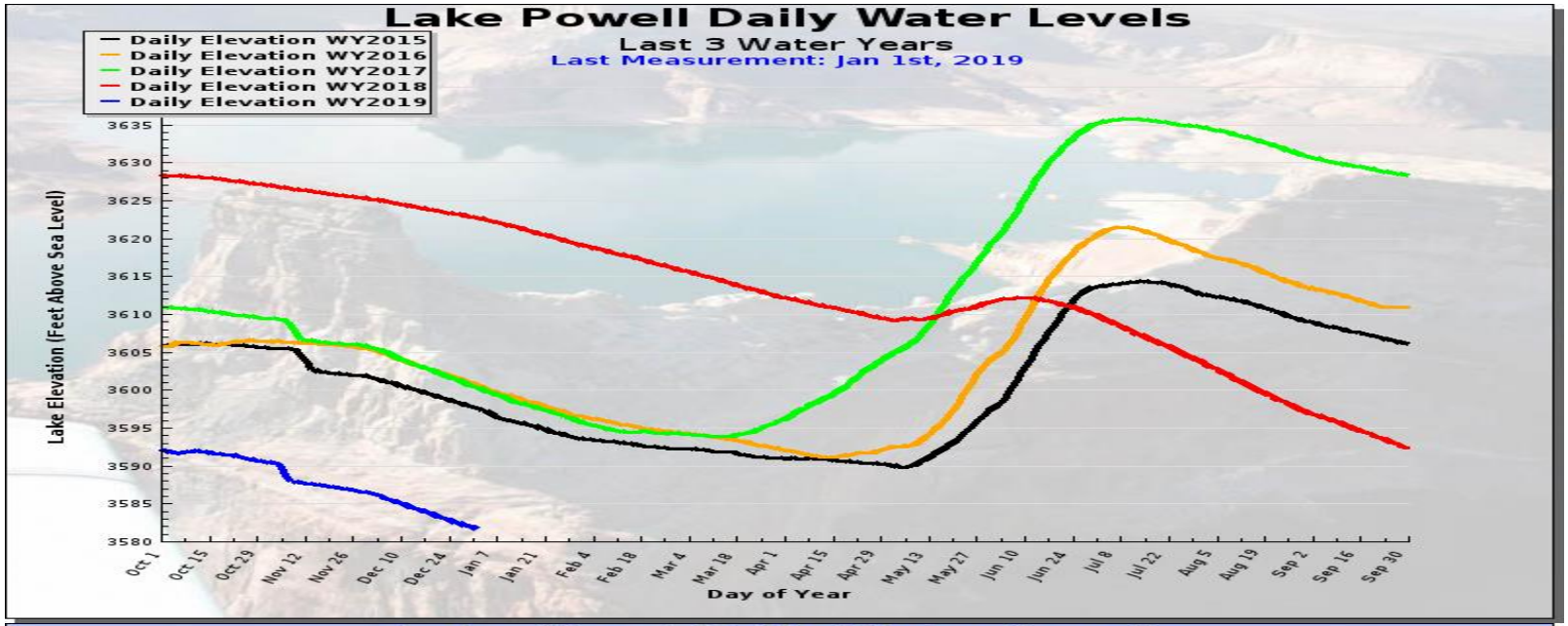
# Colorado SNOTEL Snow Water Equivalent (SWE) Update Map with Site Data

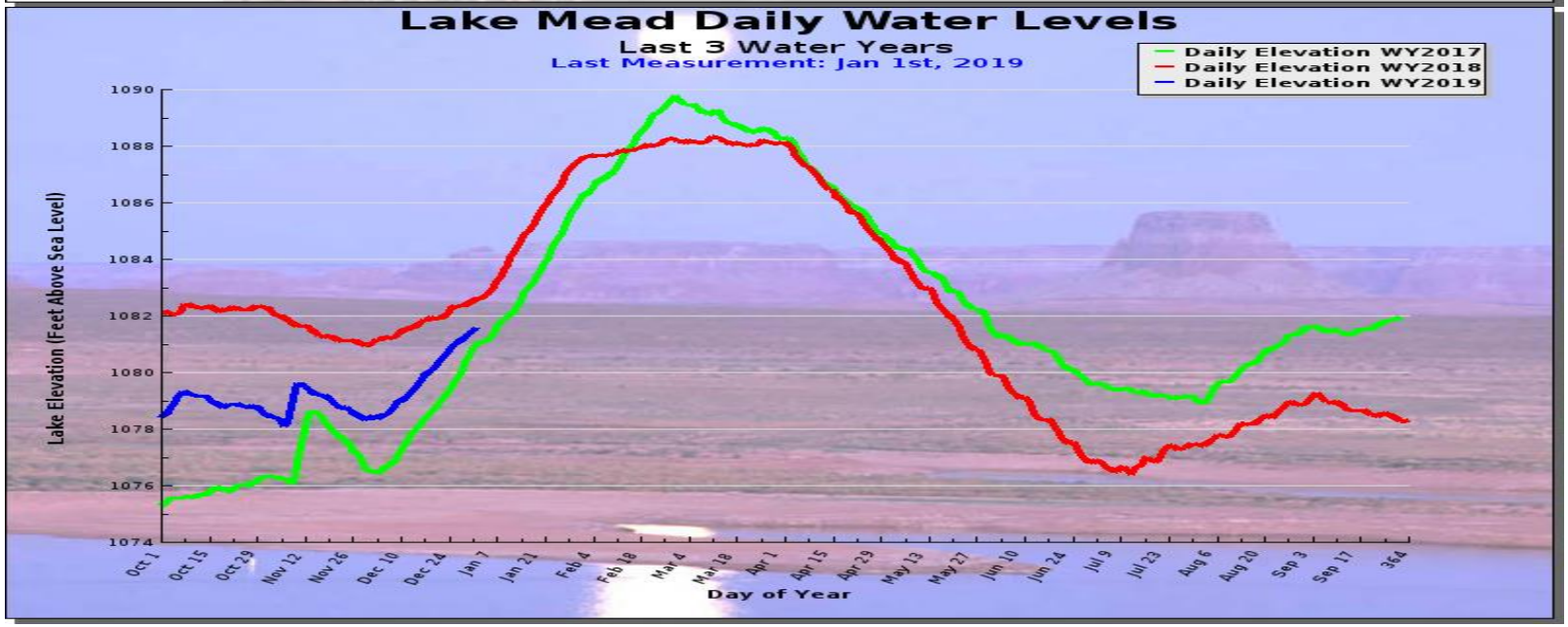
Current as of Dec 31, 2018




USDA United States Department of Agriculture

Natural Resources Conservation Service


Lake Powell Daily Water Levels
Last 3 Water Years
Last Measurement: Jan 1st, 2019
Daily Elevation WY2015
Daily Elevation WY2016
Daily Elevation WY2017
Daily Elevation WY2018
Daily Elevation WY2019
Lake Elevation (Feet Above Sea Level)
3635
3630
3625
3620
3615
3610
3605
3600
3595
3590
3585
3580
Oct 1
Oct 15
Oct 29
Nov 12
Nov 26
Dec 10
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Mar 18
Apr 1
Apr 15
Apr 29
May 13
May 27
Jun 10
Jun 24
Jul 8
Jul 22
Aug 5
Aug 19
Sep 2
Sep 16
Sep 30
Day of Year


Lake Mead Daily Water Levels
Last 3 Water Years
Last Measurement: Jan 1st, 2019
Daily Elevation WY2017
Daily Elevation WY2018
Daily Elevation WY2019
Lake Elevation (Feet Above Sea Level)
1090
1088
1086
1084
1082
1080
1078
1076
1074
Oct 1
Oct 15
Oct 29
Nov 12
Nov 26
Dec 10
Dec 24
Jan 7
Jan 21
Feb 4
Feb 18
Mar 4
Mar 18
Apr 1
Apr 15
Apr 29
May 13
May 27
Jun 10
Jun 24
Jul 9
Jul 23
Aug 6
Aug 20
Sep 3
Sep 17
364
Day of Year

## Additional Information

In October 2018 the Town was approached by the City of Idaho Springs (City) regarding the potential sale of equipment from our decomissioned South Water Reclamation Facility (SWRF). The City was in a difficult situation as their existing obsolete air blowers were regularly failing and no longer serviceable. New blowers were at least 4 months out and a failure of these blowers could result in treatment failures which could lead to permit violations, pollution to receiveing waters, impacts to downstream users and potential fines. Since the Town no longer needs this equipment at the SWRF and it would eventually degrade and fail, we acted quickly to appraise it's current value and sell one of our blowers and associated equipment to the City. Attached to this report is a letter of appreciation to the Town.

# CITY OF IDAHO SPRINGS

1711 Miner Street
P. O. Box 907
Idaho Springs, CO 80452-0907
Telephone: 303-567-4421
Fax: 303-567-4955
cis@idahospringsco.com


Todd,

I just wanted to reach out and thank you and the Town of Erie for all of your help with the replacement blower with the short timeframe we were working on. We were in a very tough situation and struggling to keep the process running effectively. With your help, the City was able to save, not only a lot of cost, but months of lead time on a replacement blower from a manufacturer which would have certainly led to an upset in the process and possible permit violations.

Please accept our sincere gratitude and appreciation for all you and the Town have done to help us out in our time of need. If there is ever anything that the City can do to assist you, please don't hesitate to ask.

The City along with JVA would also like to extend an invitation to you for lunch at Beau Jo's here in town if you have the time.

Thanks again!

Respectfully,


Dan Wolf, Superintendent/ORC
City of Idaho Springs
Water/Wastewater Department
wwsuper@idahospringsco.com
O- 303-567-4458
C- 303-815-6557