September 2019 Public Works Report

Capital Improvement Projects

Erie Parkway Bridge Replacement

This project continues to be on track for October completion, as long as weather continues to cooperate. The project is currently on schedule with some minor delays, and within budget. The road on the north side is under construction as is the demo of the old bridge and road. There will be **overnight milling** work on **Sunday September 22nd**, it is much safer to perform this work overnight when traffic is at a minimum. We have a **Grand Opening** planned for **October 28th from 2 pm to 3 pm**.

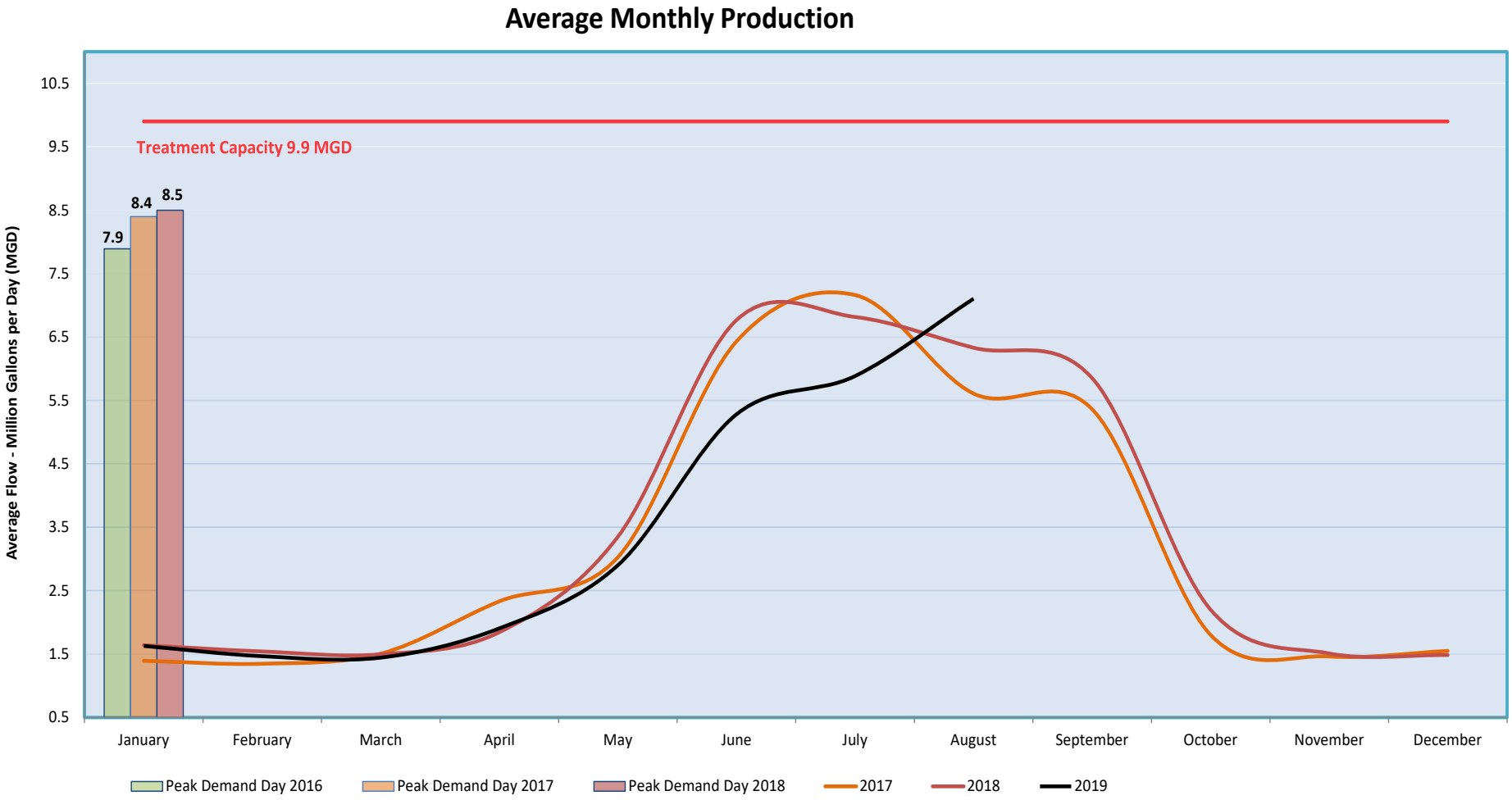
Lynn R Morgan Water Treatment Facility (WTF) Expansion

Construction of the WTF expansion continues ahead of schedule and within budget. Garney Construction is wrapping up the concrete pours for the walls of the pretreatment building.

Lynn R. Morgan Water Treatment Facility (WTF)

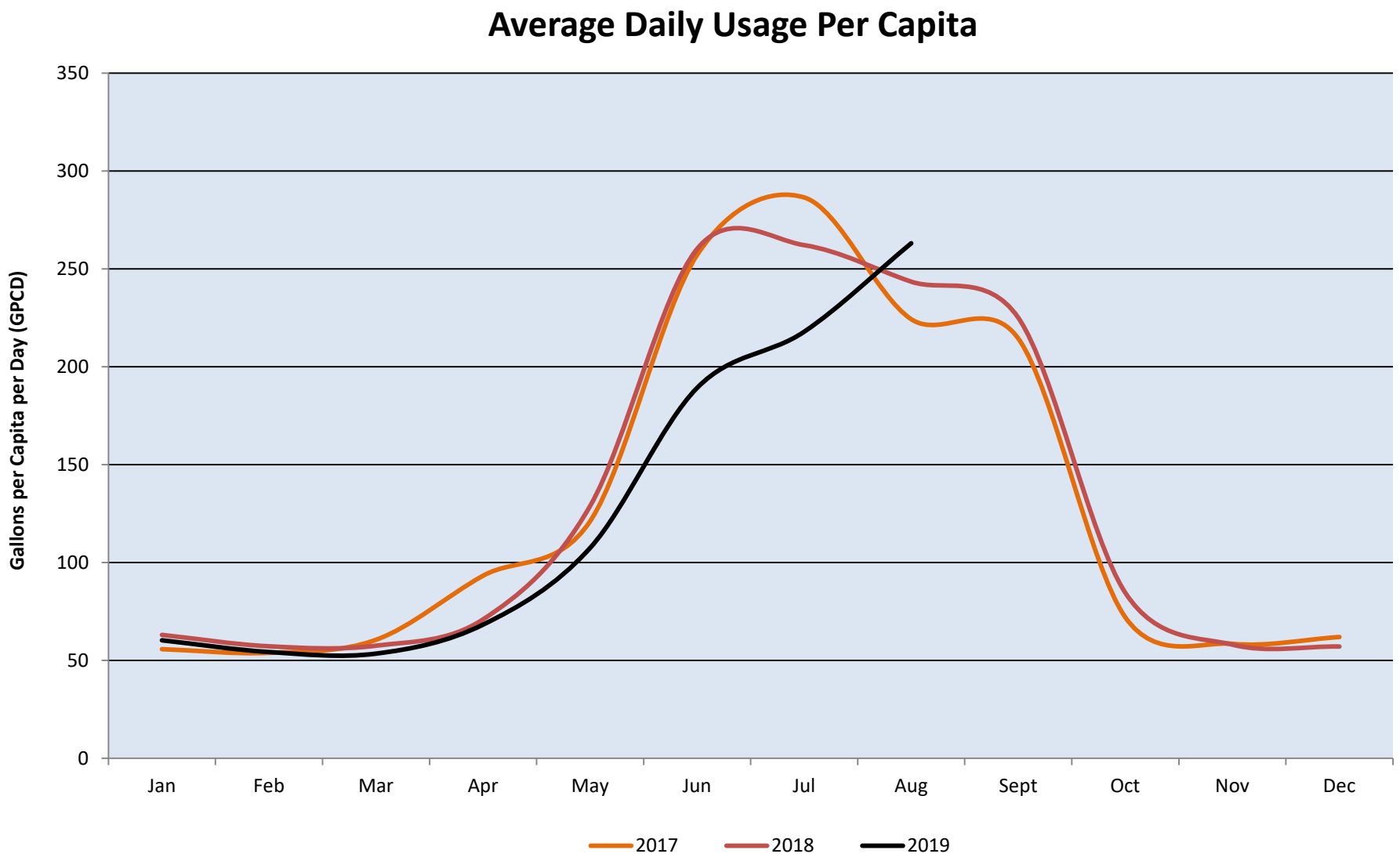
Annual Daily Average Flow: **2016** - 3.3 (Million Gallons) MG **2017** – 3.4 MG **2018** – 3.4 MG

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. This year's water demands have been unusual in that demands are arriving much later in the summer than usual.



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

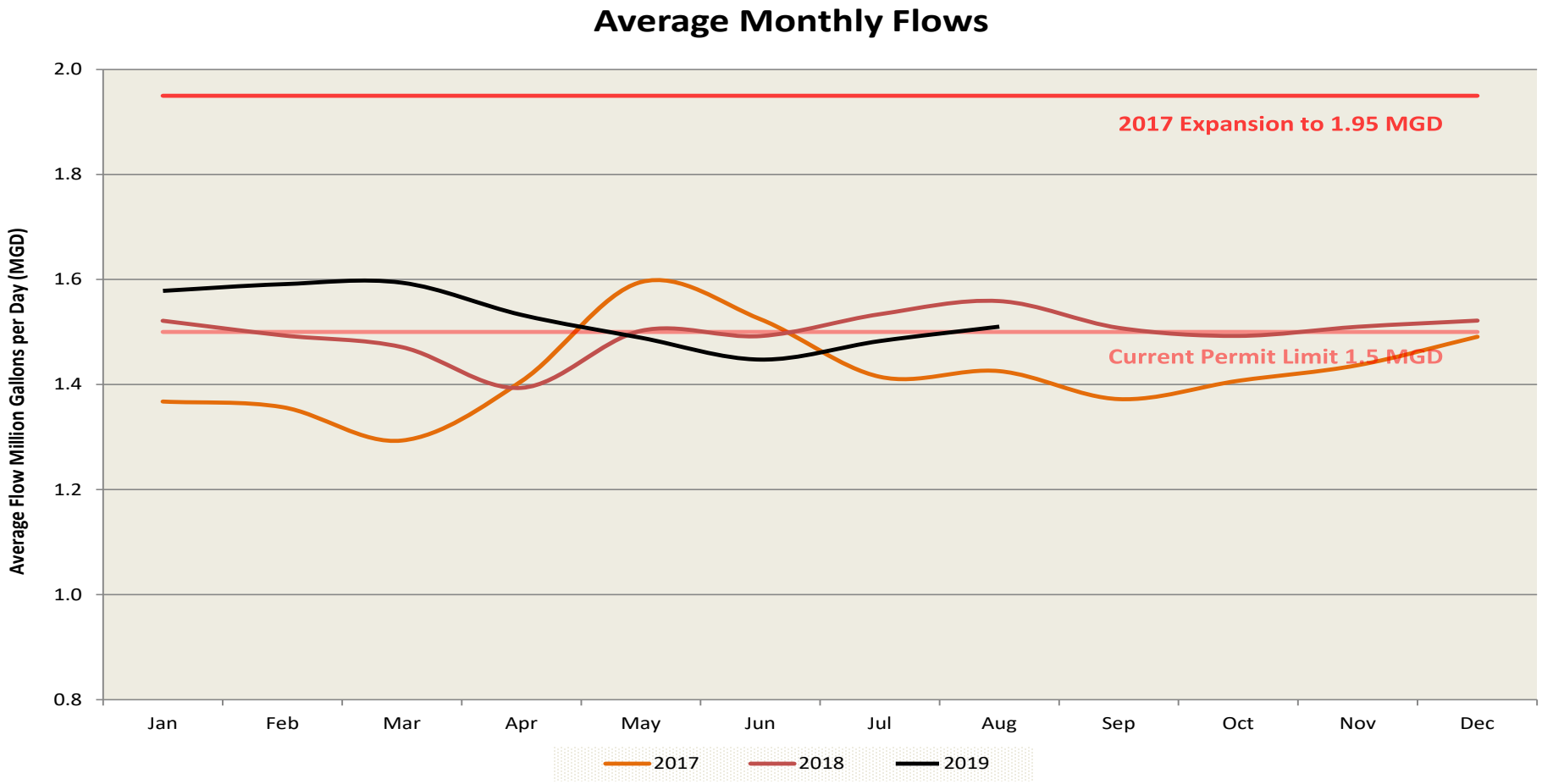
Water demands are off to a slow start this irrigation season due to generally cool and wet conditions. July 2016 had the highest average daily usage at 290 gallons GPCD. January 2016 had the lowest usage at 52 GPCD. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future.



North Water Reclamation Facility

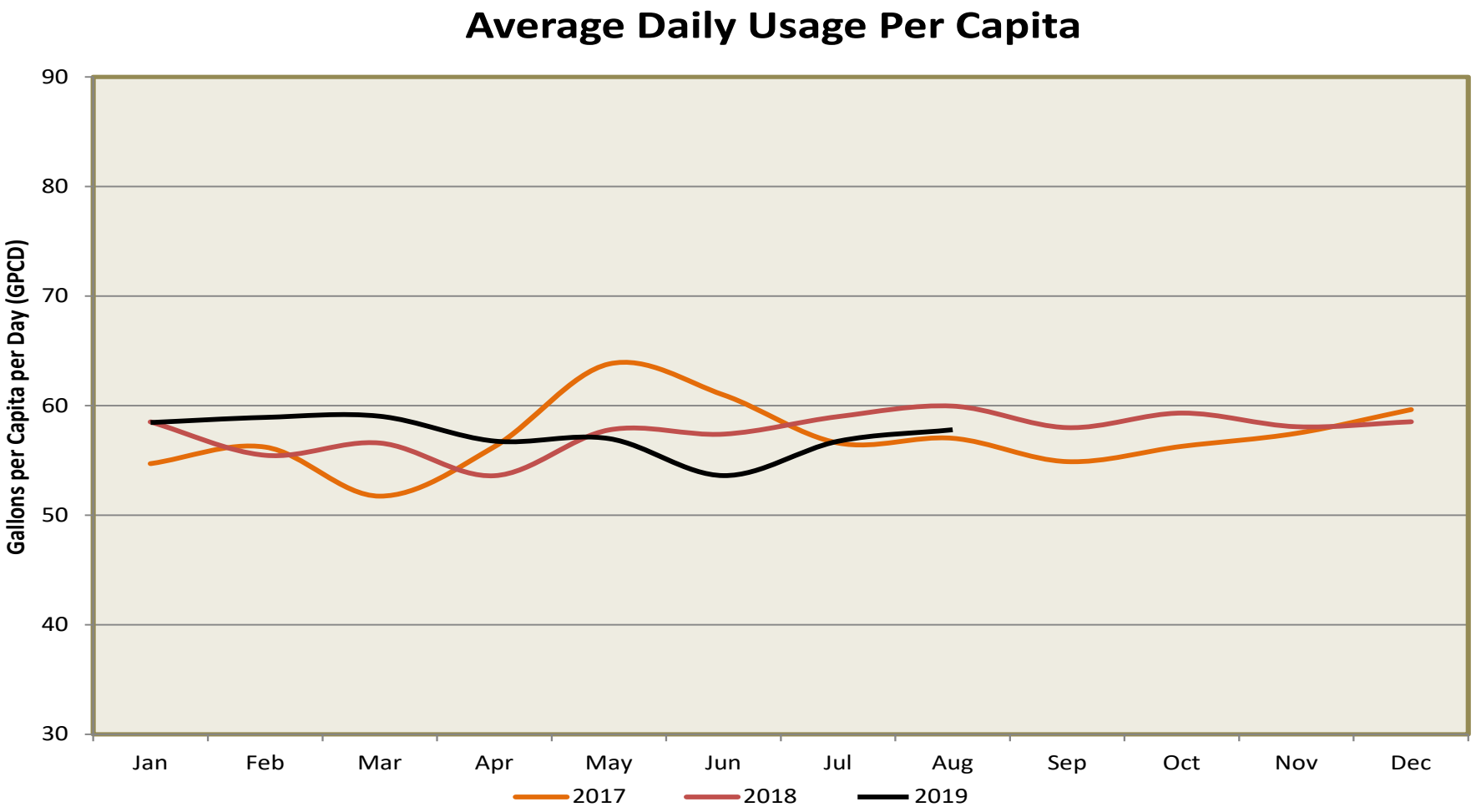
Annual Daily Average Flow: **2016** - 1.30 MG **2017** – 1.42 MG **2018** - 1.50 MG

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 2018. 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 now indicated that they will not process this request until as late as 2023 or 2024, we continue to press the State to expedite this review. Design of the next plant expansion continues with HDR Engineering, and we joined HDR recently to discuss the timing of design review and construction timing by CDPHE on September 26th. We anticipate construction in late 2019 or early 2020 and lasting through 2021.



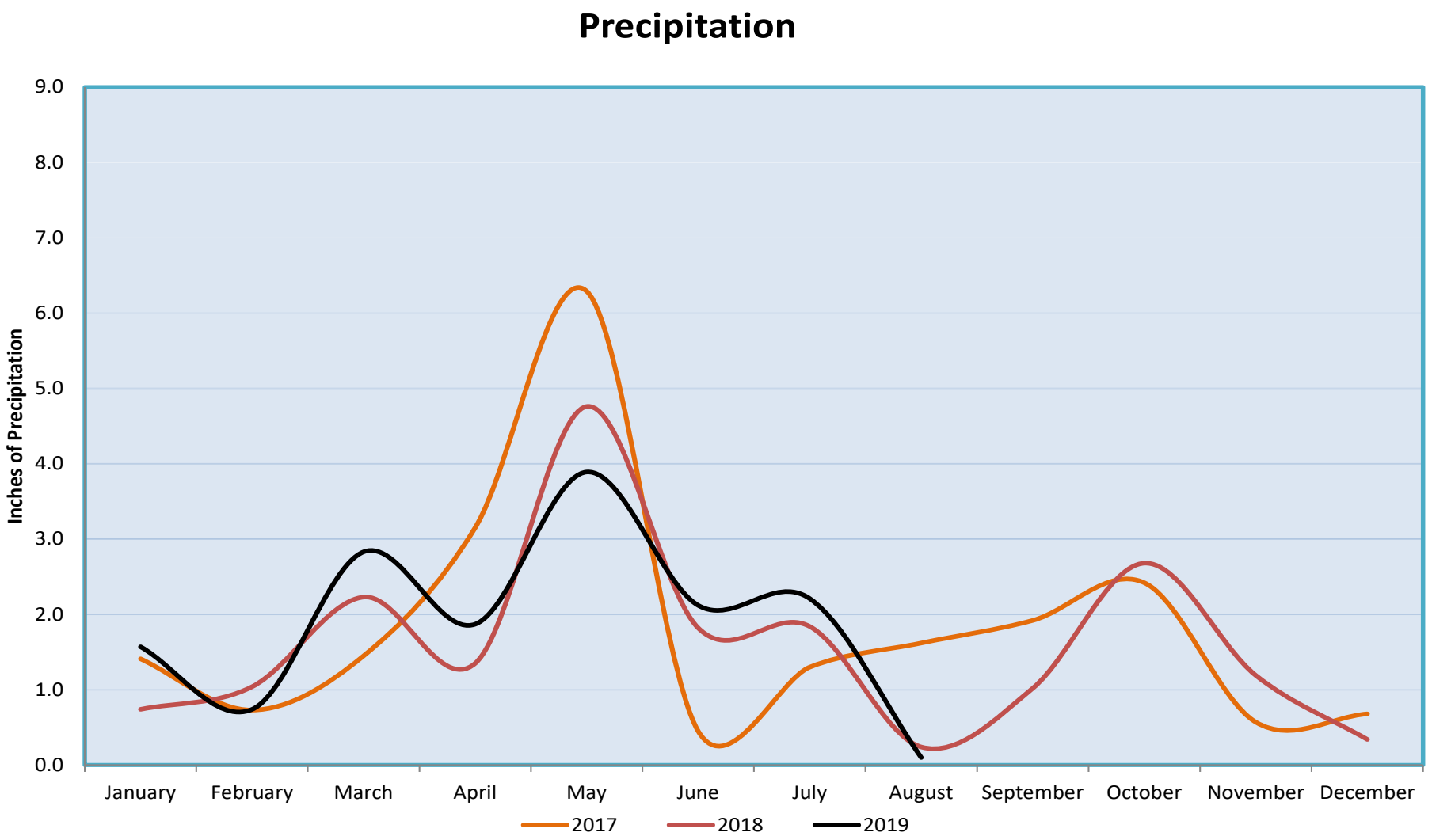
Annual Daily Gallons Per Capita per Day (GPCD): **2016** - 57 GPCD **2017-** 57 GPCD **2018** - 58 GPCD

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. Since we had fewer heavy snowfall events this May our inflows and infiltration was lower overall. Recent wet weather shows flows trending slightly up but still low overall. March 2017 had the lowest usage at 52 GPCD. Fall, with relatively little precipitation and dropping groundwater levels, is a good indicator of true daily flows.

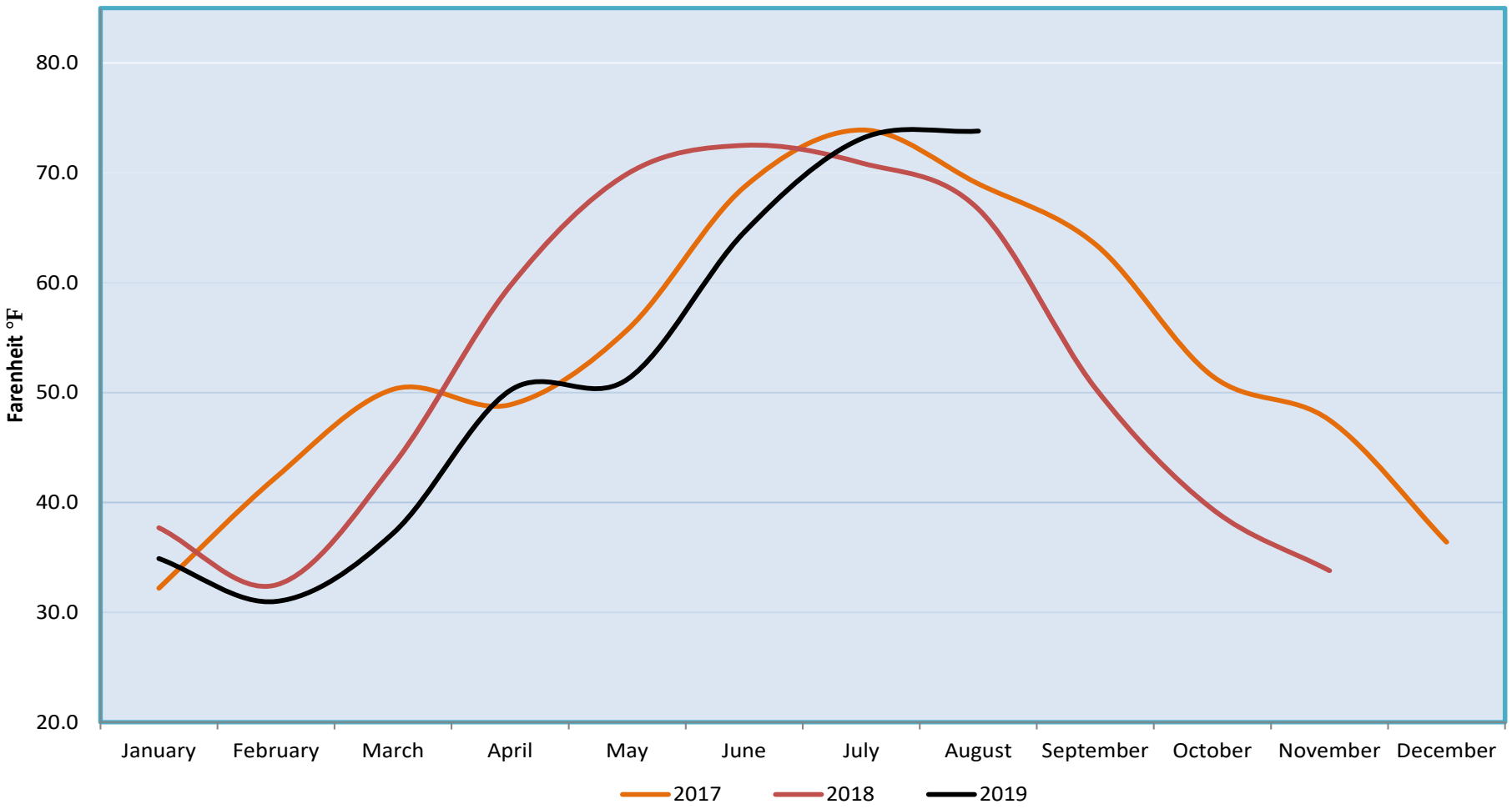


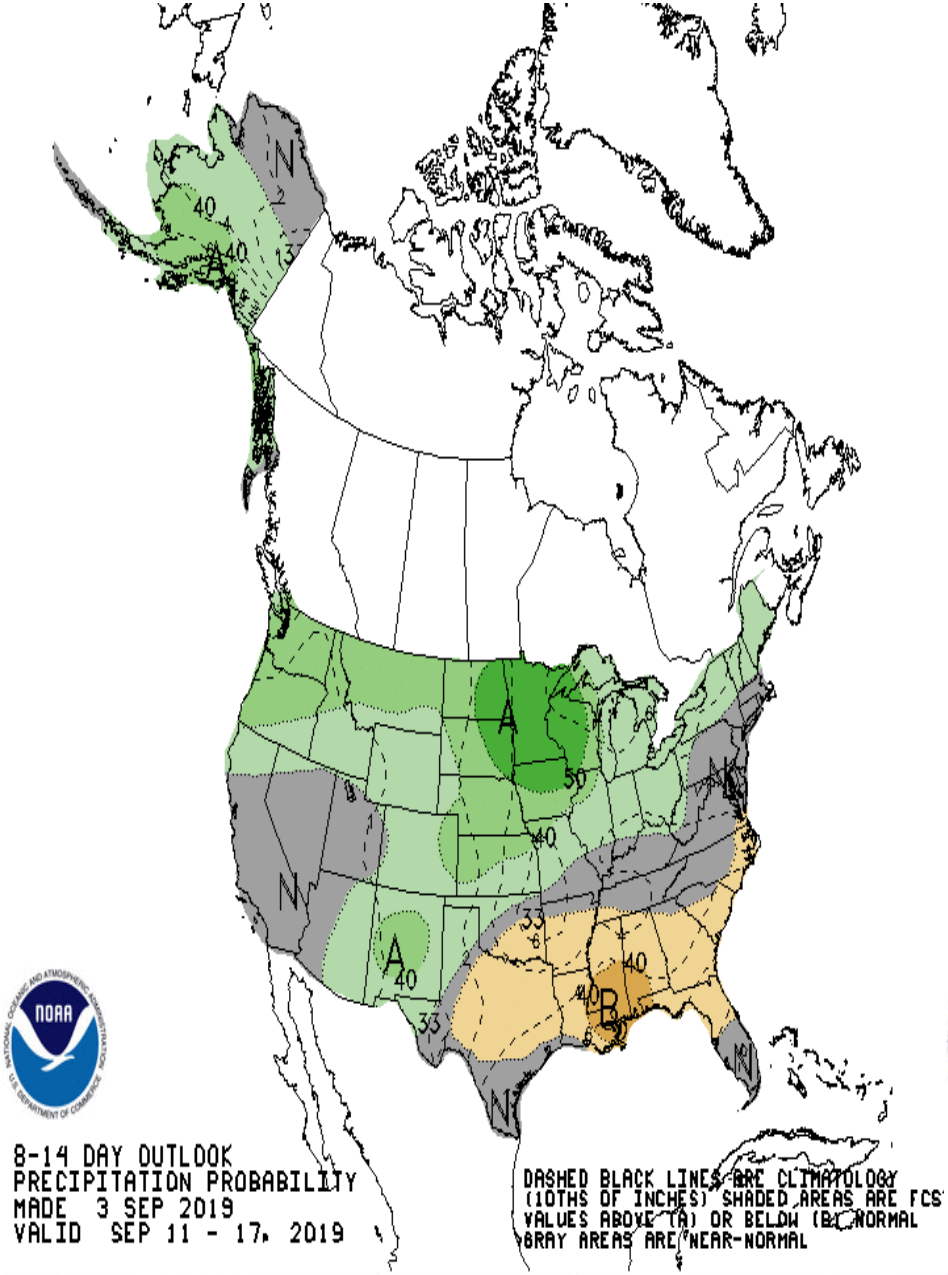
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

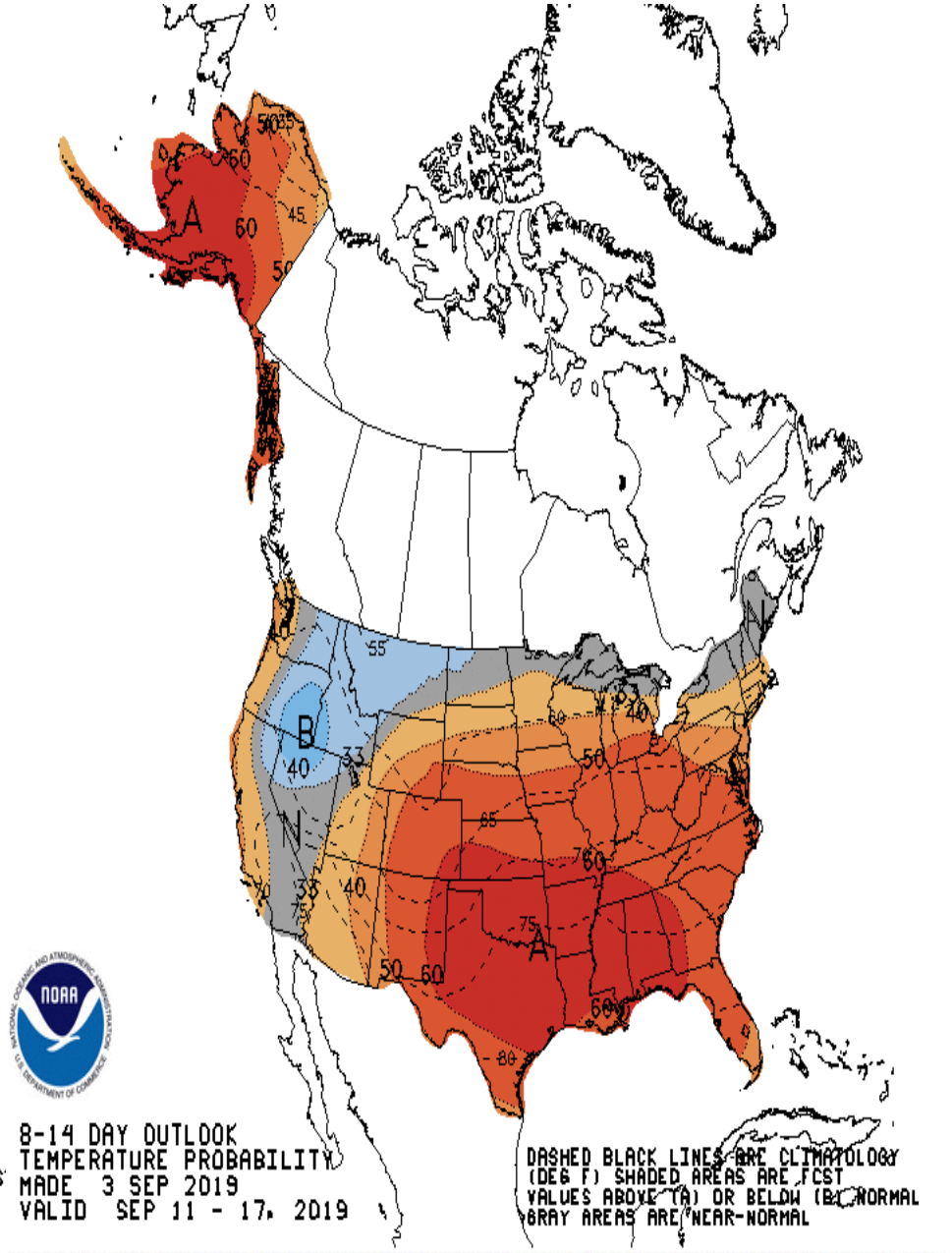
NOAA is predicting 33% chance of above normal precipitation and 60% chance of above normal temperatures, through mid-month. Worrth noting only 0.1 inches of of rain was recorded in Boulder in August. This ties for the second lowest August precipitation in 126 years of records. Drought conditions continue to be very good for this time of year.



Mean Temperature




8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 3 SEP 2019
VALID SEP 11 - 17, 2019
DASHED BLACK LINES ARE CLIMATOLOGY
(10THS OF INCHES) SHADED AREAS ARE FCS
VALUES ABOVE (A) OR BELOW (B) NORMAL
GRAY AREAS ARE NEAR-NORMAL
90% 80% 70% 60% 50% 40% 33% 33% 40% 50% 60% 70% 80% 90%
Probability of Below
Normal
Probability of Above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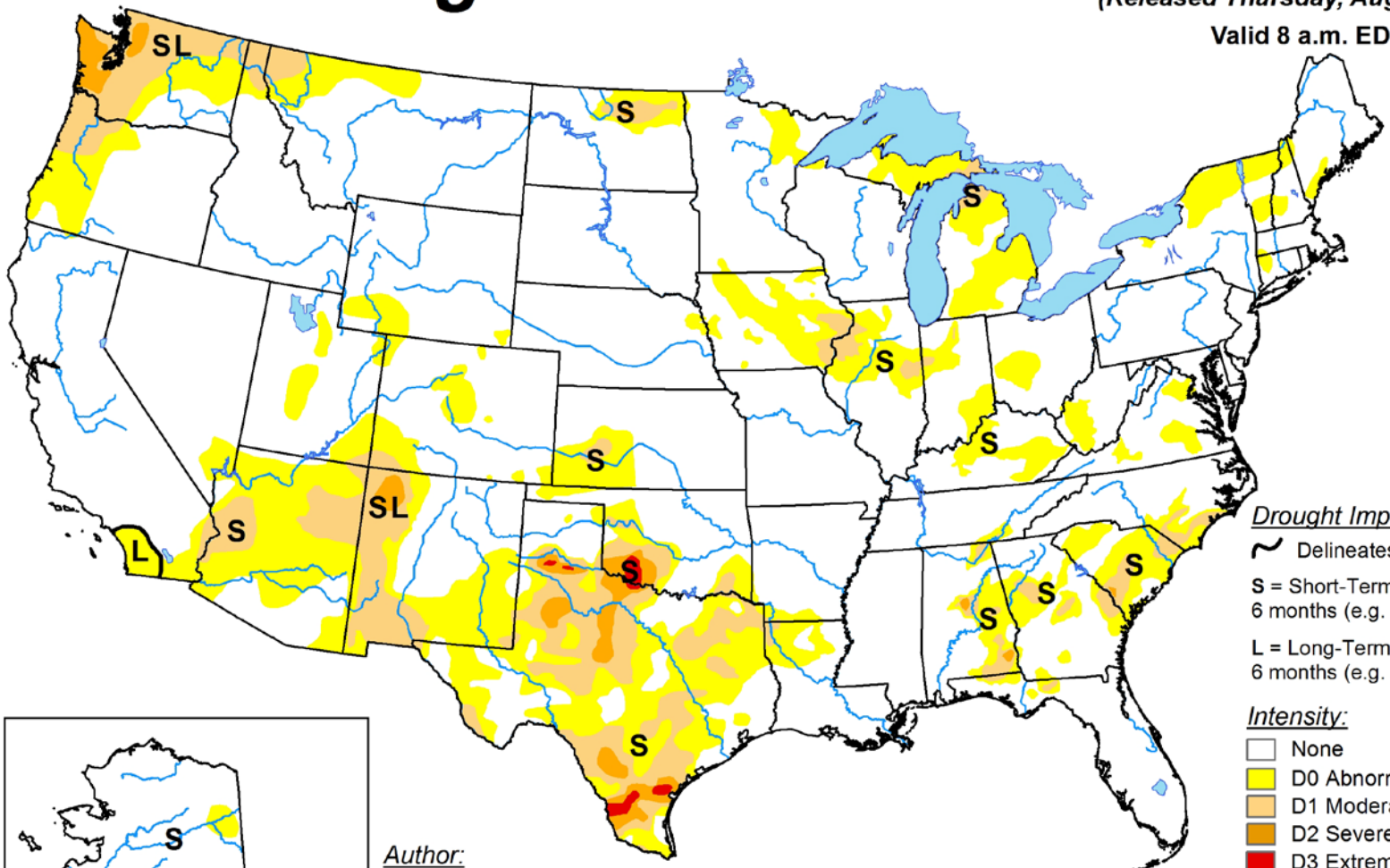
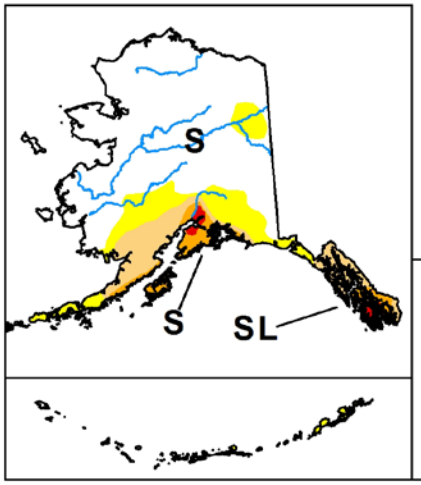
U.S. Drought Monitor

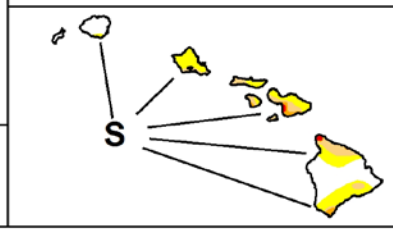
August 27, 2019

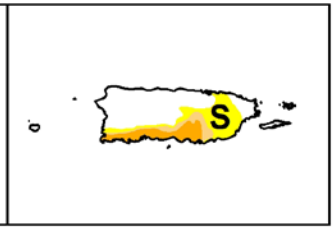
(Released Thursday, Aug. 29, 2019)

Valid 8 a.m. EDT









Drought Impact Types:

Delineates dominant impacts

S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Author:
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NCEI/NOAA

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

droughtmonitor.unl.edu