

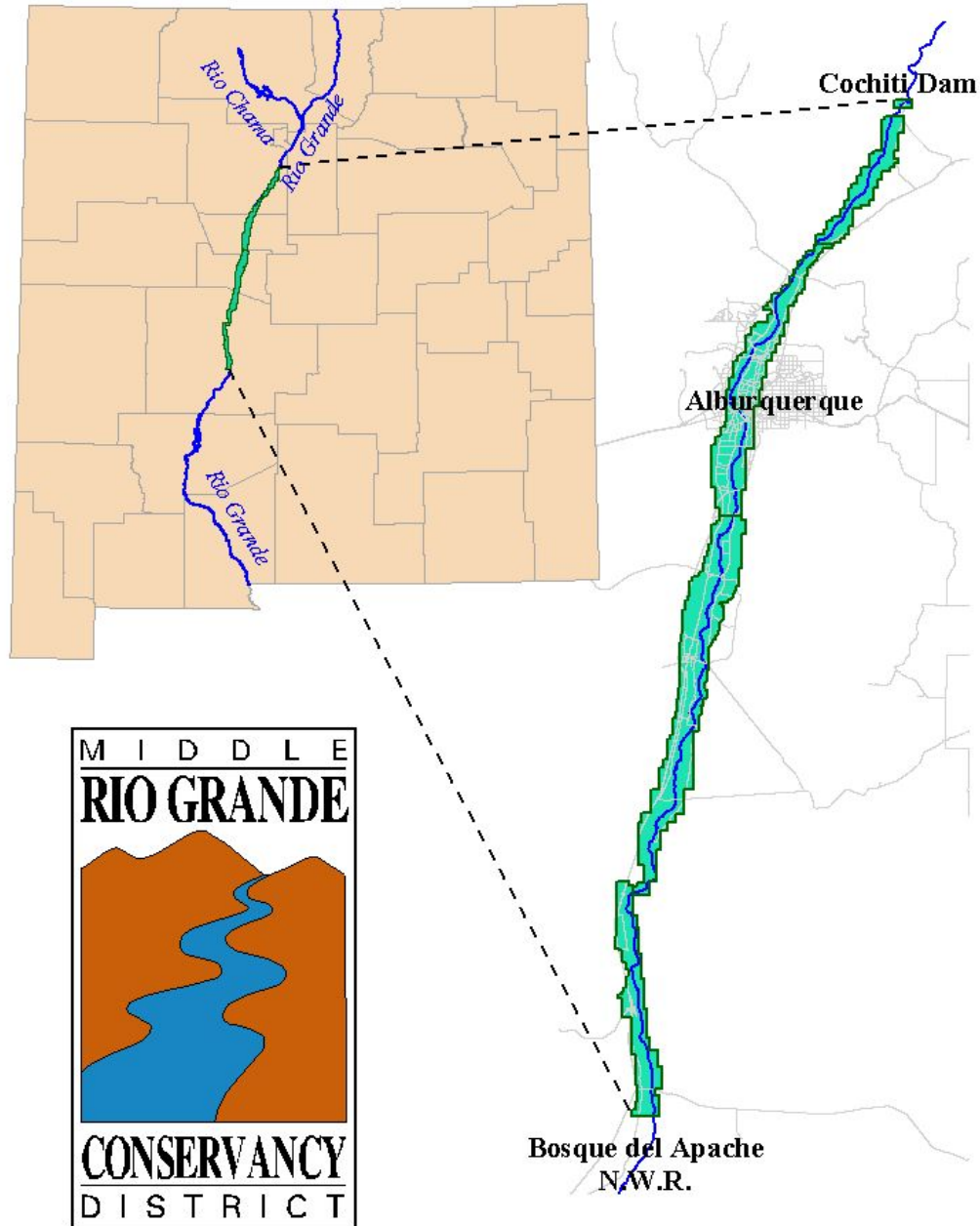
# Interim Committee on Water and Natural Resources

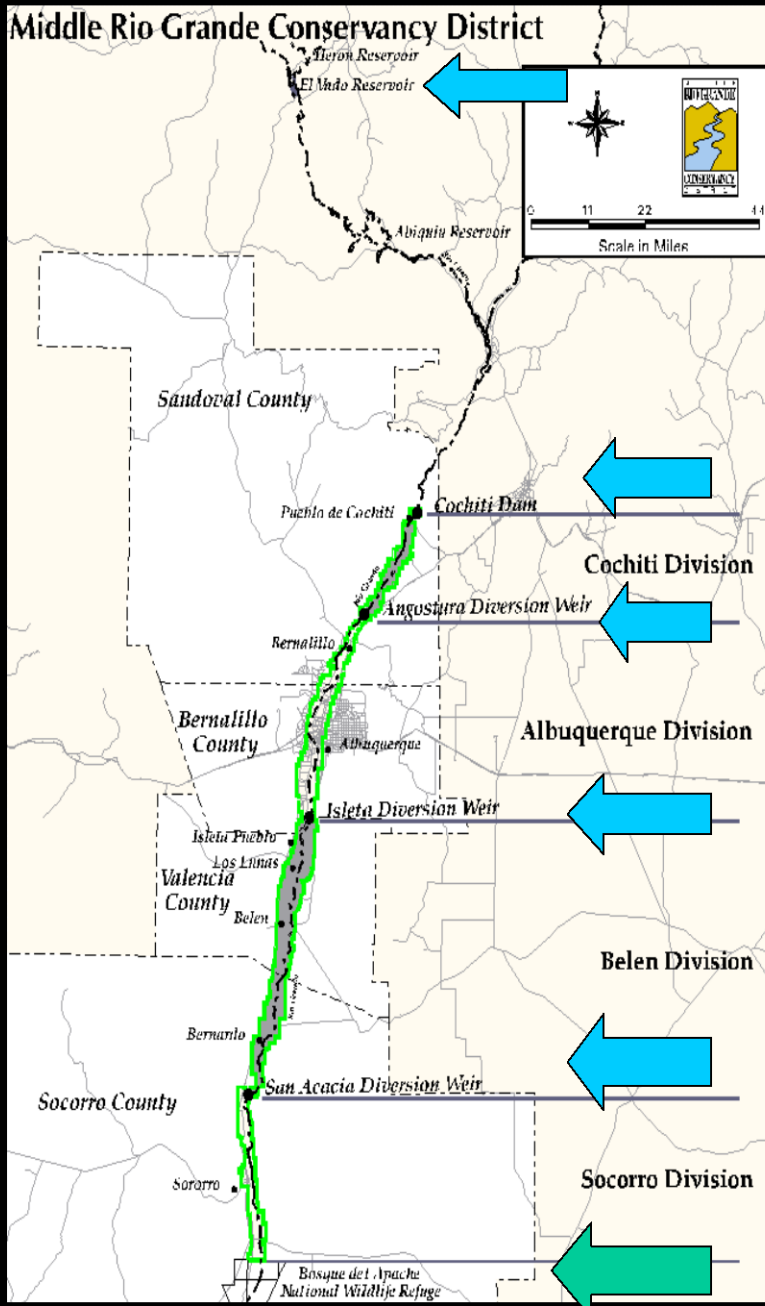
Middle Rio Grande Conservancy District

October 2, 2018

Mike A. Hamman, PE  
CEO and Chief Engineer

# New Mexico





**EL VADO DAM**  
On the Rio Chama - For water storage

**COCHITI DAM**

**ANGOSTURA Diversion Weir**

**ISLETA Diversion Weir**

**SAN ACACIA Diversion Weir**

**Bosque del Apache Refuge**

# El Vado Dam near Chama, NM





# 2017 Hydrology

- In 2017, natural inflows to the Otowi gage exceed 1.2 M a-f making 2017 the first significantly above average water year since 2005.
- In 2017, the District stored 114,000 a-f of RG water, carrying over nearly 40,000 a-f into 2018
- High flow years increase the annual delivery obligation to Texas, often causing NM to run an accrued debit
- The District released 39,200 a-f storage from El Vado to Elephant Butte, Oct-Dec 2017, specifically to reduce potential NM RG Compact debit for the year.

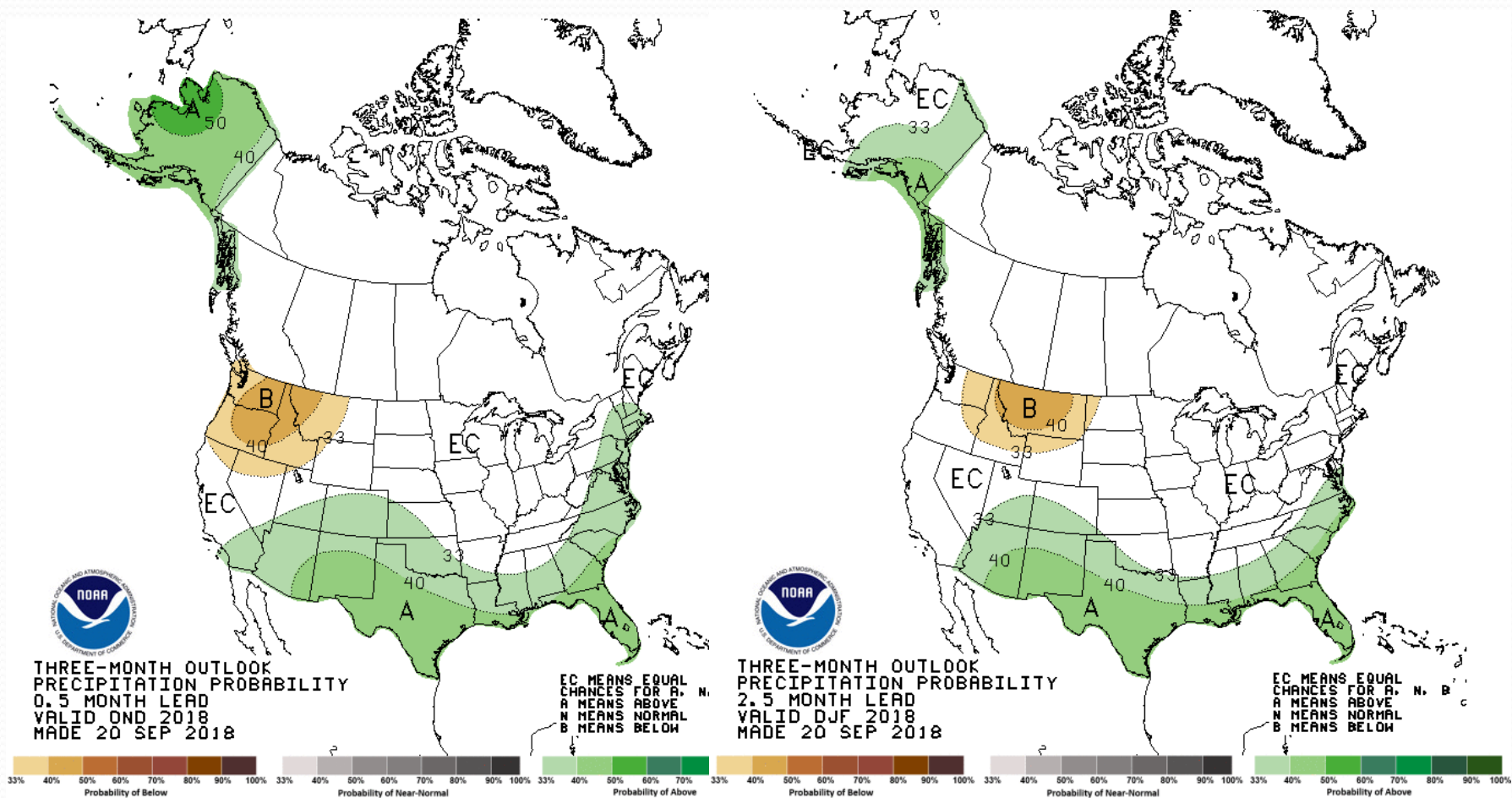
# 2018 Hydrology

- The spring runoff was one of the lowest since 1956 with natural flow at **127,000 a-f** March to July following a year that was one of the highest in the last decade.
- With this meager runoff, the District had to start releasing reservoir water in late April to supplement runoff that ordinarily would not occur until late June or early July in a normal year.
- All supplemental storage in upstream reservoirs has been released and it is estimated that about **300,000 a-f** will be diverted in 2018.
- New Mexico ISC estimates that Rio Grande Compact deliveries to Elephant Butte will be in compliance and will likely not be far from zero debit or credit.

# 2019 Outlook for the MRG

- The District will start the year with near zero in storage and with Article VII in effect, storage of Rio Grande is only limited to relinquished credit of **20,000 a-f**.
- The District may have up to **20,900 a-f** of SJ-C contract water if there is an above average runoff.
- The Department of Interior will store about 22,000 a-f of Rio Grande at El Vado to protect water use for 8,846 acres of the six MRG Pueblo Prior and Paramount lands.
- The National Weather Service is predicting a much improved degree of fall, winter and spring precipitation in the Rio Grande and San Juan basins as a result of a trending El Niño pattern.

# NWS Precipitation Outlook





# District-wide Flooding Impacts

- Severe flooding off adjacent lands to the west of the Belen Highline Canal occurred on September 29, 2017, June 3<sup>th</sup>, 2018, and July 5<sup>th</sup>, 2018 damaging farms, several homes, and closing I-25 on two occasions.
- Another storm dumped 3 plus inches above San Antonio on July 15, 2018 damaging a canal, several homes, Highway 380, a railroad bridge and over 400 acres of farmland.
- The Town of Bernalillo is very vulnerable and has had several damaging flood events this season.
- The District has been sued three times under “inverse condemnation” claims and we expect additional suits.

# NM116 & Olive





# Canal Breach at Belen



# Flooding Remediation Recommendations

- The MRGCD is not an upland flood control agency but is a willing partner to work with Counties, State and federal agencies to plan for a long-term solution to flooding concerns in the urbanizing areas.
- Flood retention dams and conveyance channels to the Rio Grande need to be constructed as has occurred in Bernalillo and Sandoval counties in urbanized areas.
- A joint-agency effort with bonding authority or the formation of a flood control authority may now be necessary to address flooding potential long-term.





Middle Rio Grande Conservancy District  
Keeping the Valley Green