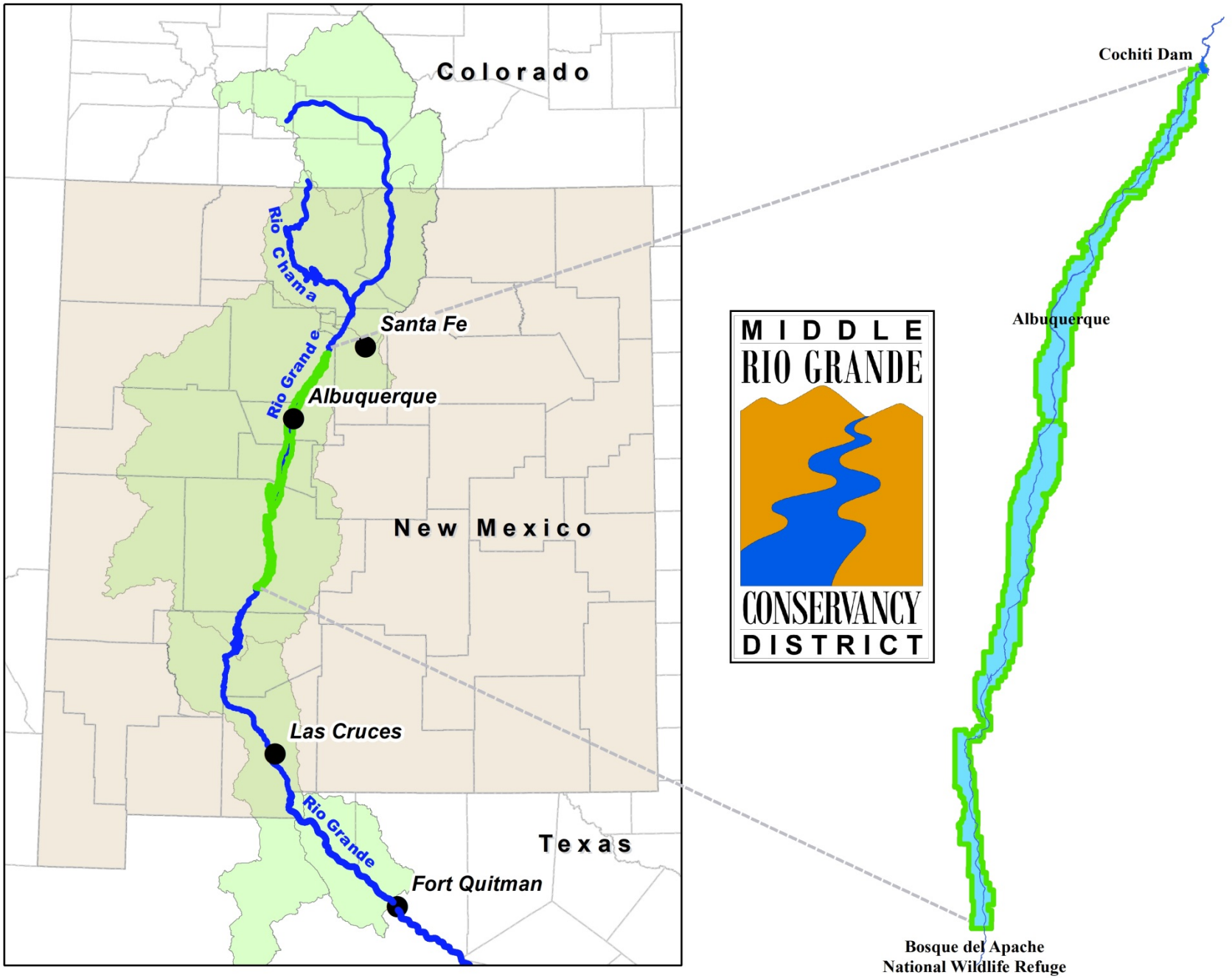
Interim Committee on Water and Natural Resources

Middle Rio Grande Conservancy District

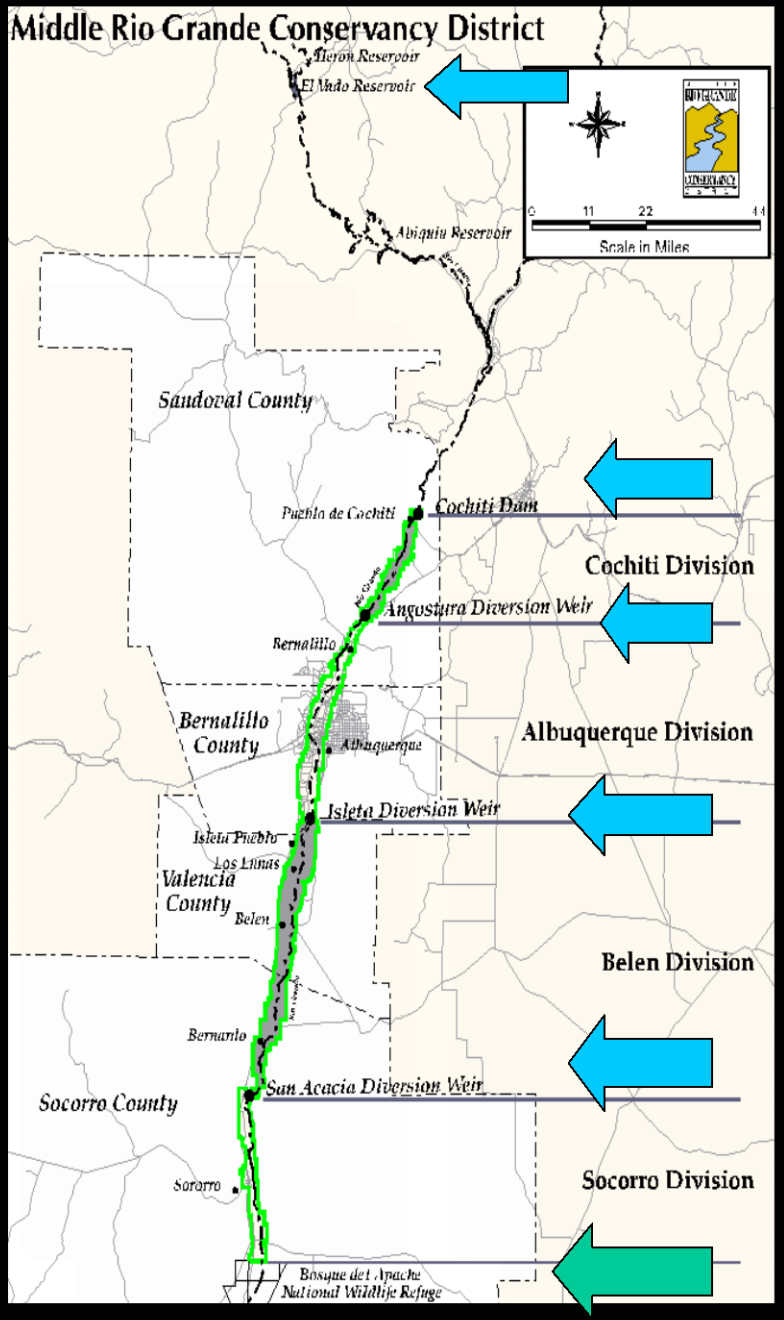
August 6, 2020

Mike A. Hamman, PE
CEO and Chief Engineer


Colorado
Rio Chama
Santa Fe
Rio Grande
Albuquerque
New Mexico
Las Cruces
Rio Grande
Texas
Fort Quitman
MIDDLE
RIO GRANDE
CONSERVANCY
DISTRICT
Cochiti Dam
Albuquerque
Bosque del Apache
National Wildlife Refuge

Water History - Middle Rio Grande

- Significant irrigation dating before 1500s with Acequias developing in early 1600s that still function today
- 1880s – high level of agricultural land development in Colorado
- Hydrologic investigation of the upper Rio Grande
- The Rio Grande Compact ratified by CO, NM, TX and Congress in 1938
- MRGCD was formed in 1923 and became fully operational by 1935



EL VADO DAM
On the Rio Chama - For water storage

COCHITI DAM

ANGOSTURA Diversion Weir

ISLETA Diversion Weir

SAN ACACIA Diversion Weir

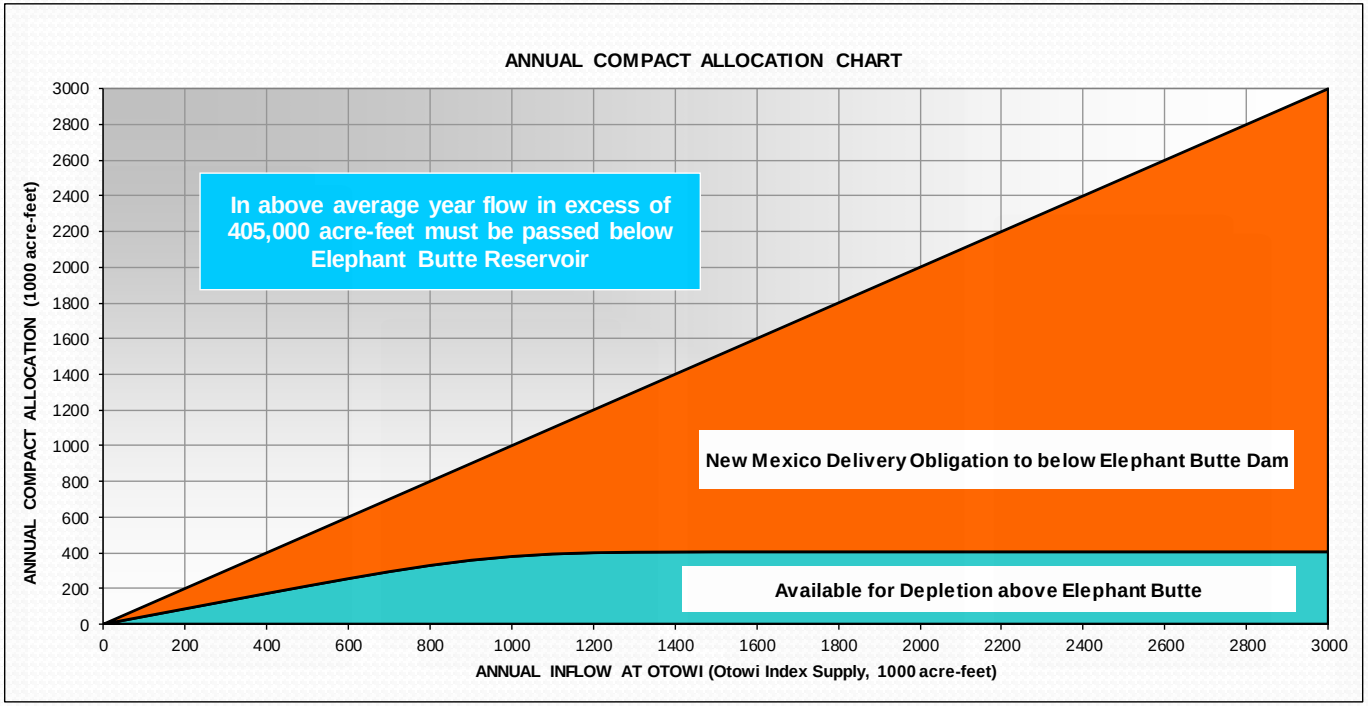
Bosque del Apache Refuge

MRGCD Facilities

El Vado Dam 1935

San Acacia 1933

Chart Showing NM Delivery under the Rio Grande Compact



Rio Grande Compact Constraints on MRG

- New Mexico's depletions are capped at 405,000 a-f and is required to deliver 50% or more below that based on the annual Rio Grande flows at Otowi gage.
- El Vado Dam is a post-Compact reservoir and its operations are constrained by Articles VI, VII and VIII.
- Under Article VII, no Rio Grande water can be stored if Elephant Butte/Caballo supply falls below 400,000 a-f
- Articles VI and VIII deal with the requirements of debit storage in CO and NM
- San Juan-Chama Project water is unconstrained

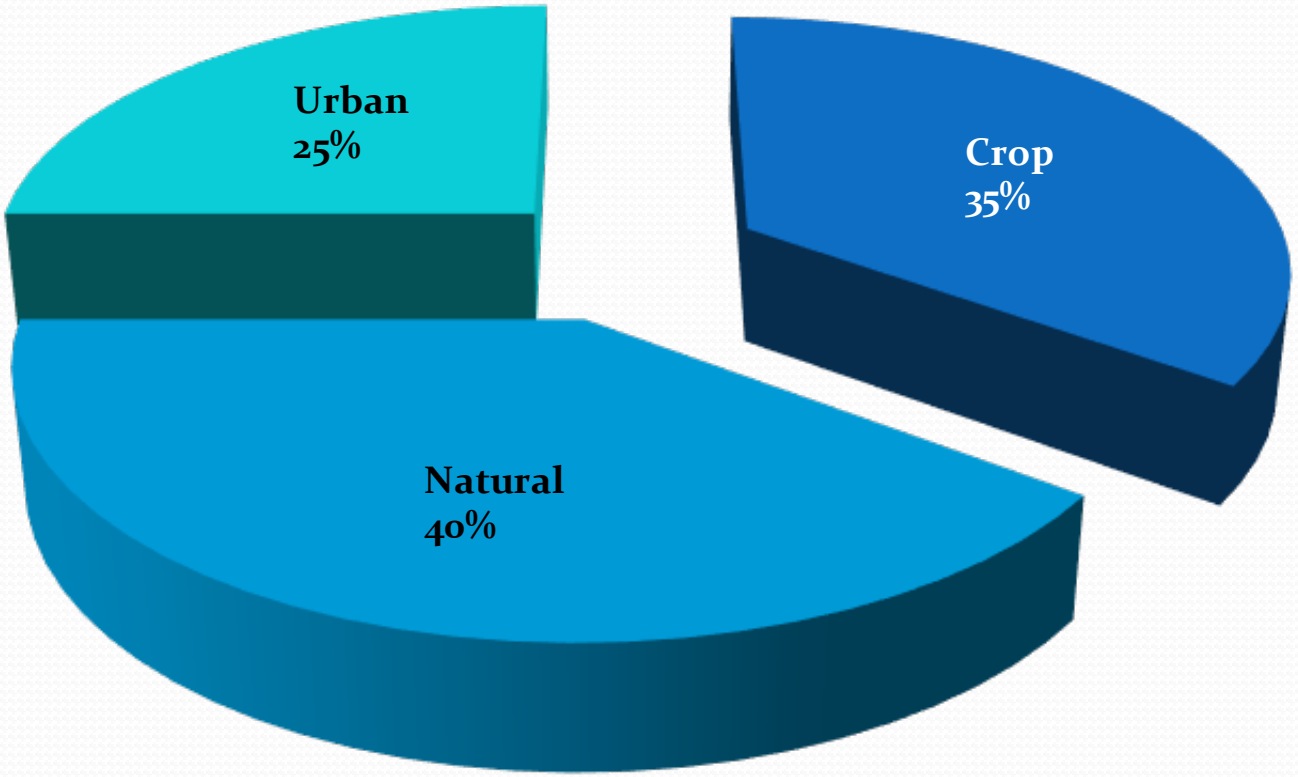
2018 to 2020 Hydrology

- In 2018 the total flow at the Otowi gage was 312,000 a-f, 39% of the annual average with a delivery of 184,000 to Elephant Butte with a small credit of 5,400 a-f. The District used all storage available from El Vado and San-Juan Chama.
- In 2019 the total at Otowi was 1.36M a-f that required 954,000 a-f delivery to EB. A hot dry summer led to District releasing 80,000 a-f to EB to make full delivery but came up 38,000 a-f short (debit) resulting in no carryover at year-end.
- 2020 – worst runoff since 1977 and could only store 38,000 debit water plus 34,000 a-f additional. Would have been completely out by July 18 except for MRG Pueblos P&P.

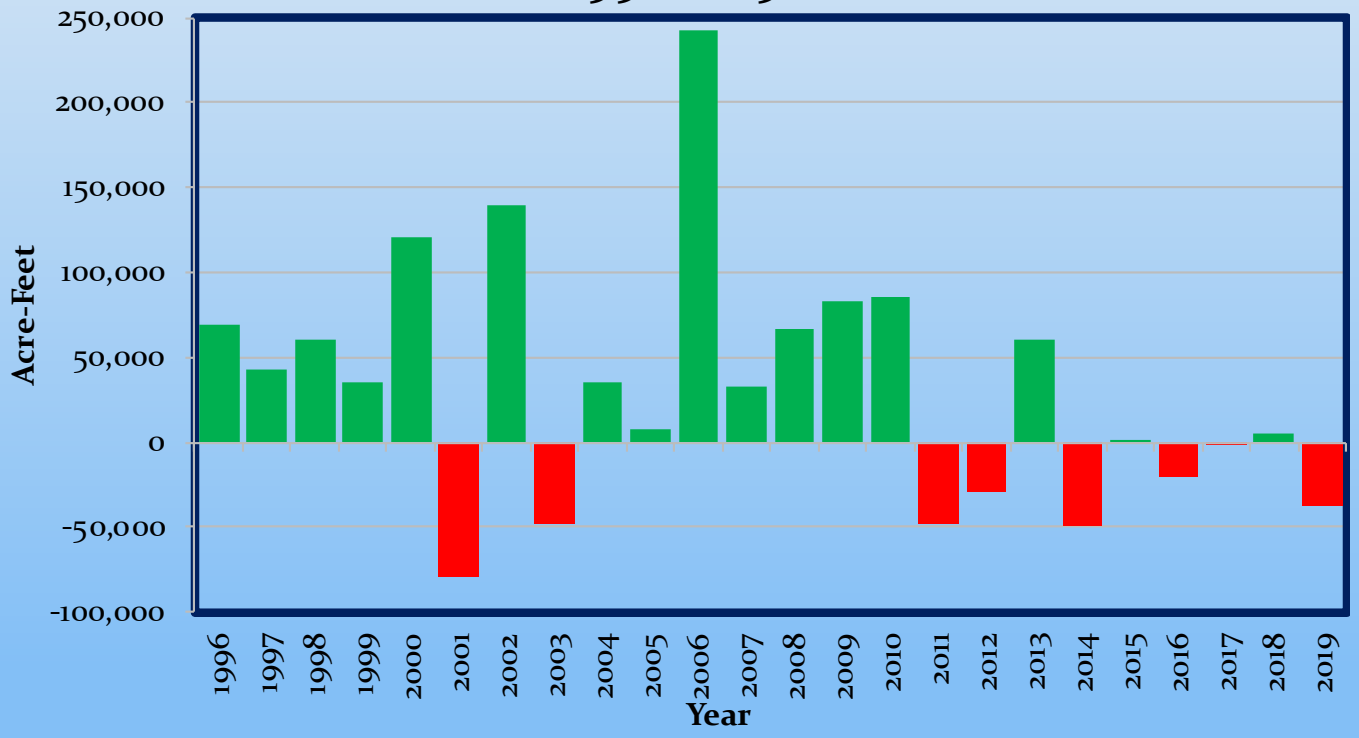
2020 Water Operations – Run-of-the River

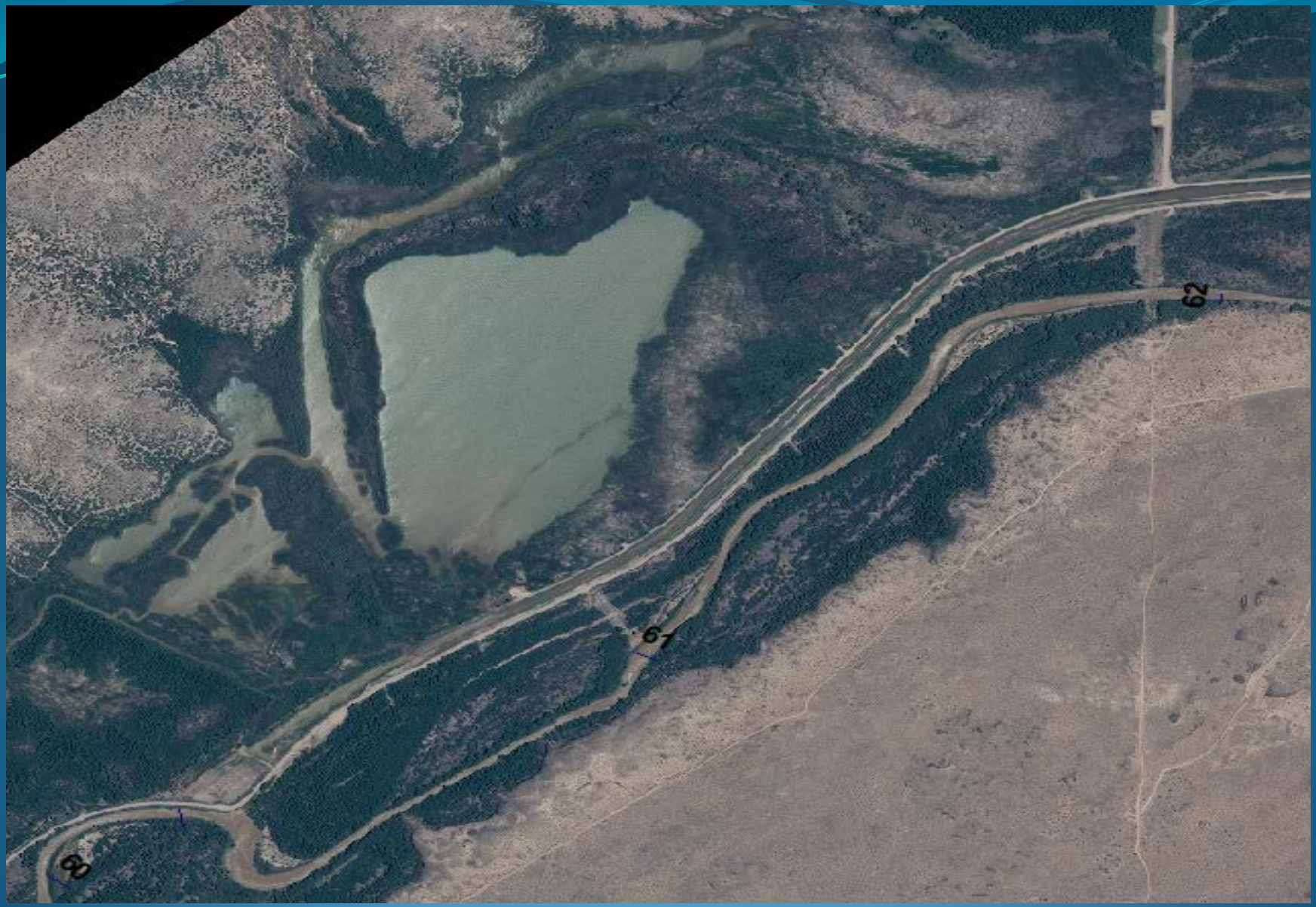
- June Forecasted Runoff at 33% at Otowi gage – 235k af
- Baseflows on the Chama and Rio Grande dropped rapidly in May and have remained historically low.
- On July 6, MRGCD requested that the NM Rio Grande Compact Commission exercise an option in Article VI of the Compact to allow a state with debit storage to use that storage by unanimous consent of the three states.
- That was granted on July 17 with conditions that NM use this water as judiciously as possible.
- To date approximately 6,000 a-f has been released with the goal to retain as much as possible while providing essential irrigation and endangered species protection to September.
- New Mexico may owe near 100,000 a-f in 2021

Estimated Middle Rio Grande Water Depletion



NM RG Compact Annual Over/Under Delivery 1996-2019





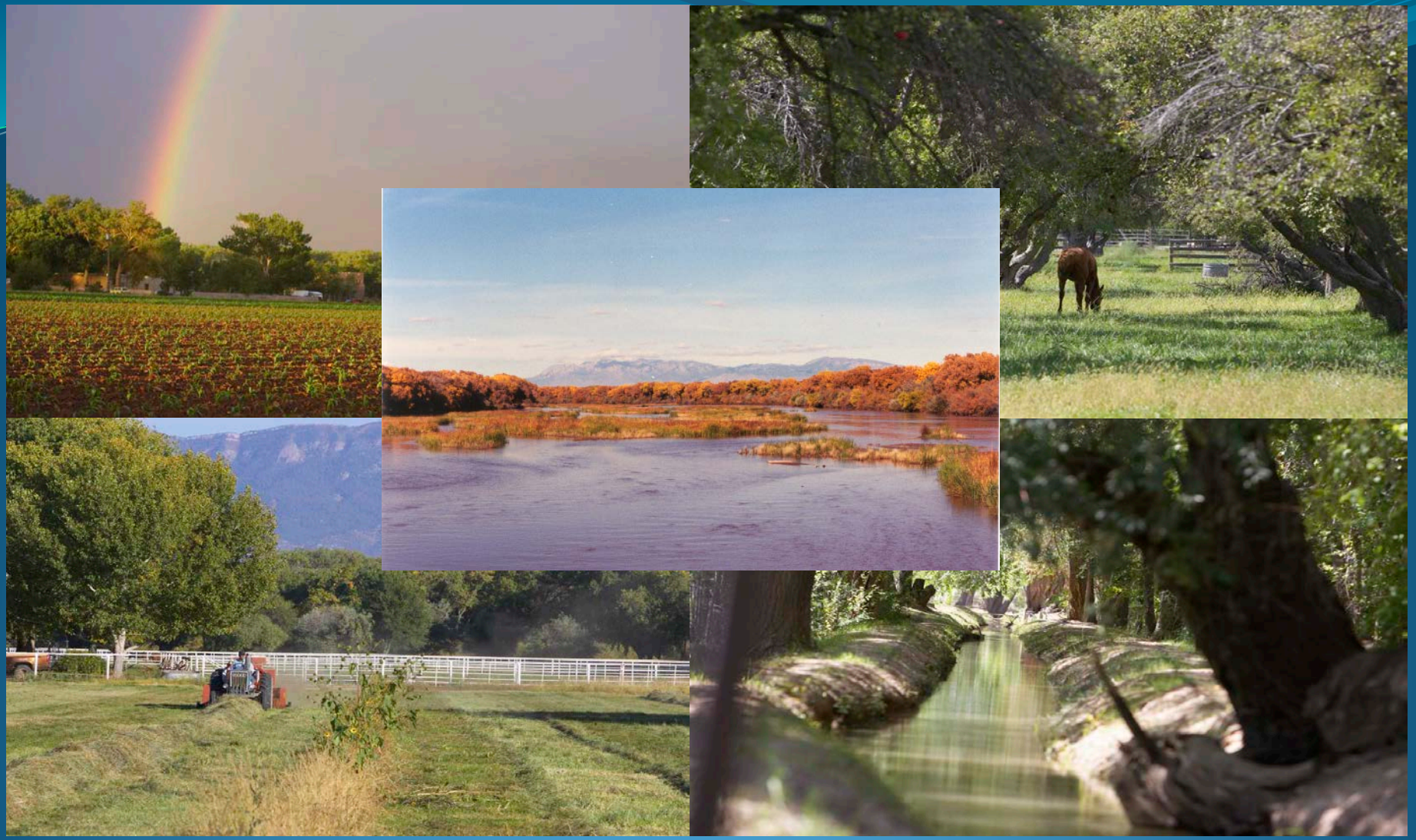
Imagery Date: June 14th, 2019

Partnership with NMISC and OSE

The MRGCD works closely with the ISC and OSE in key areas:

- The ISC and MRGCD are partners with the Bureau of Reclamation in the implementation of the 2016 Biological Opinion.
- The agencies coordinate water operations, habitat and drainage projects to meet both ESA flow needs along with meeting RG Compact deliveries to Elephant Butte.
- The District coordinates with OSE on pre-1907 water rights transfers in order to properly manage District water bank.

The MRGCD supports the NMISC funding requests for the middle and lower Rio Grande projects as they are crucial for balancing irrigation and ecological needs with RG Compact issues.



Middle Rio Grande Conservancy District
Keeping the Valley Green