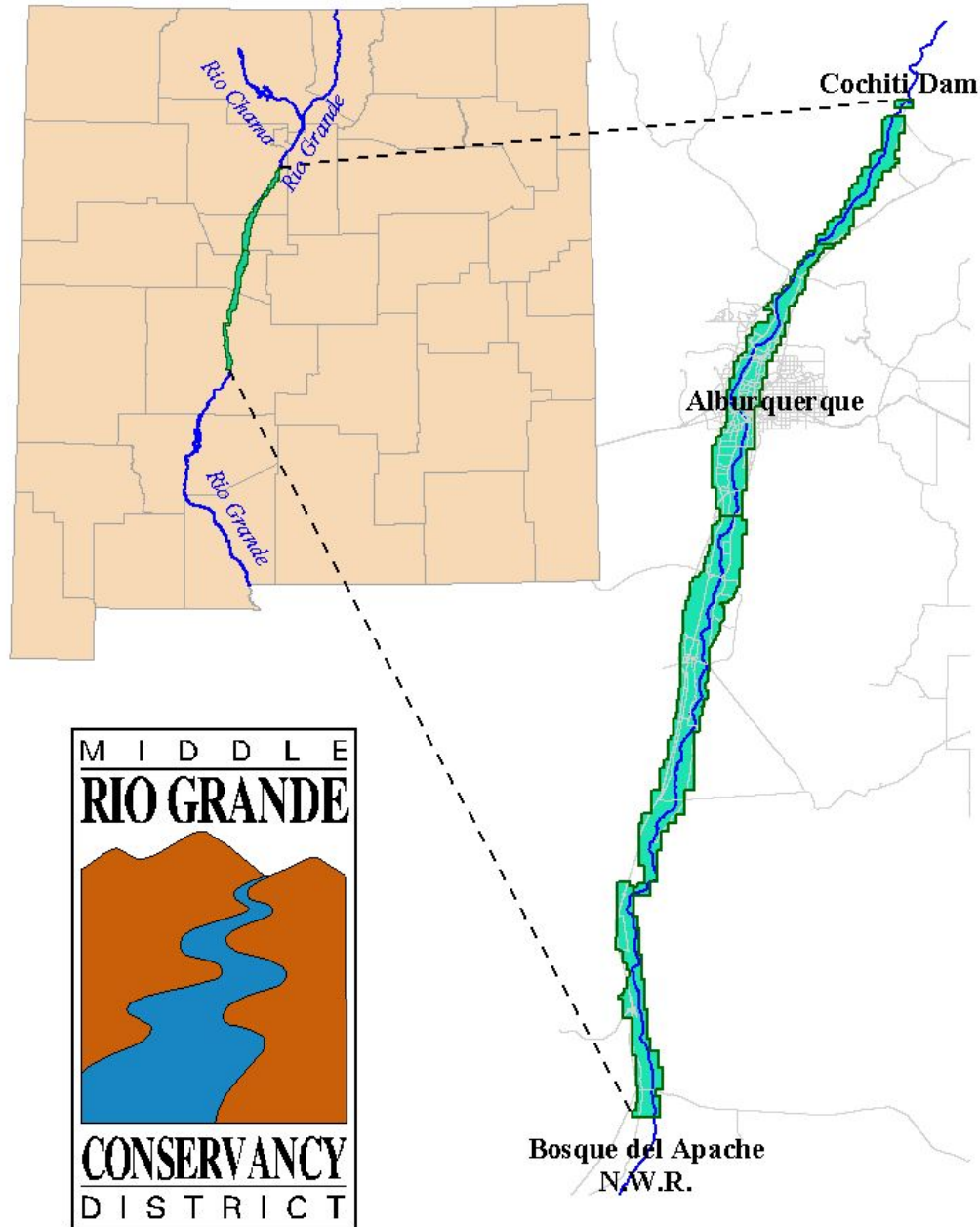


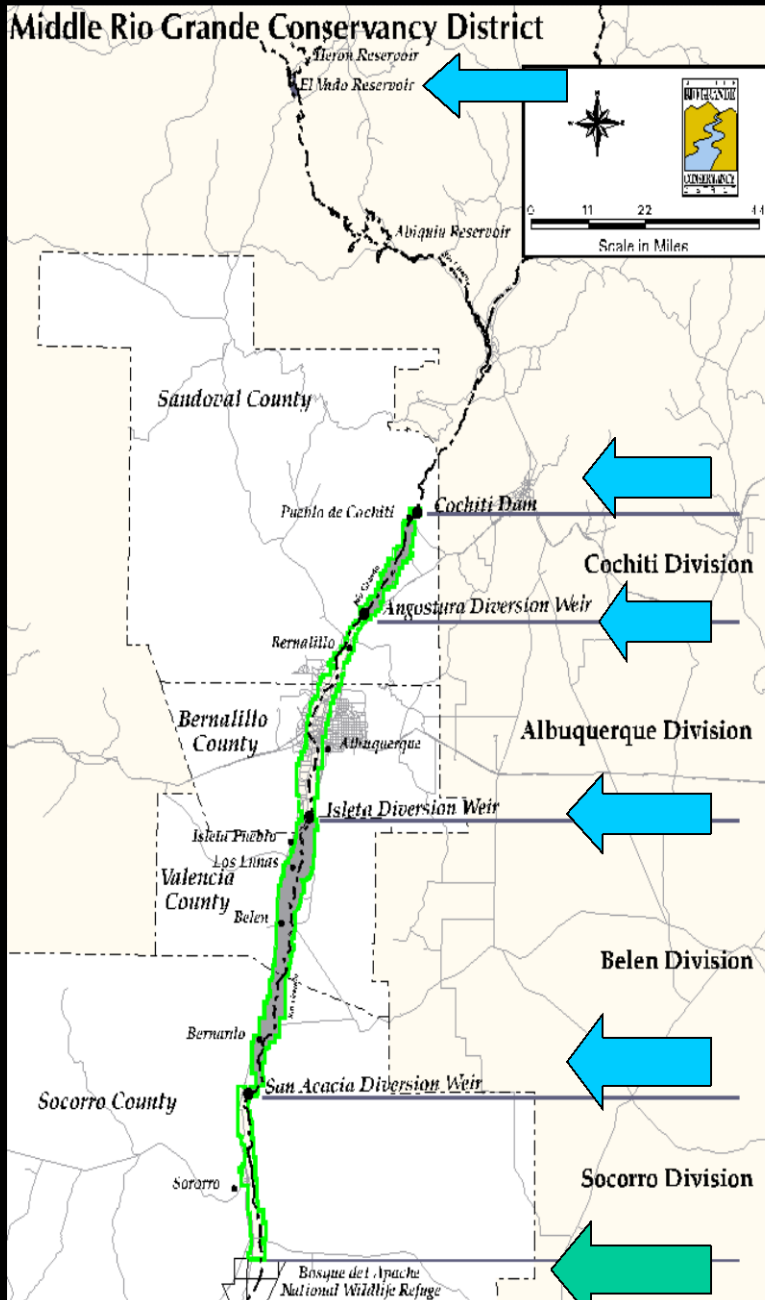
Interim Committee on Water and Natural Resources

Middle Rio Grande Conservancy District

November 5, 2015
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

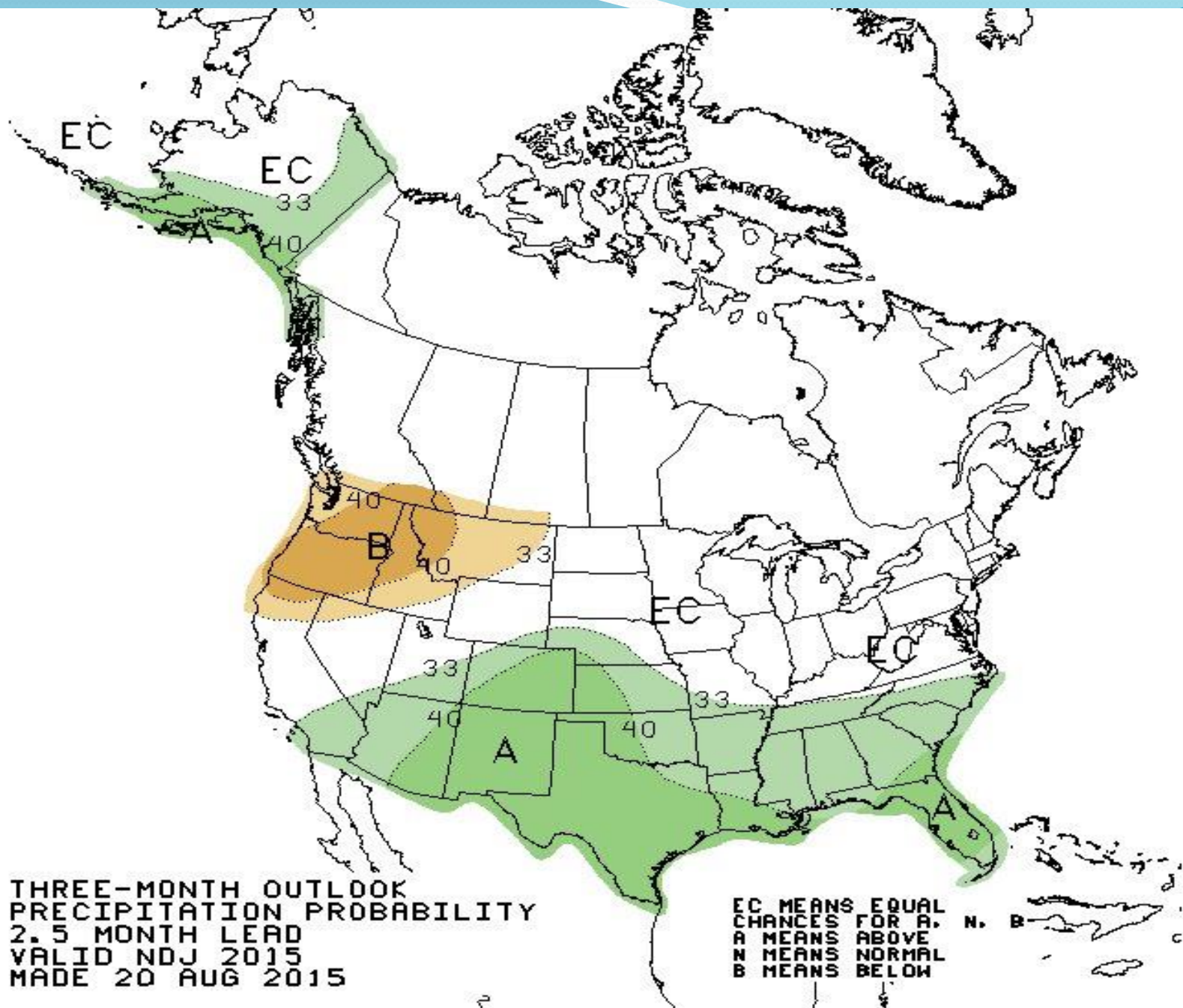
Bosque del Apache Refuge

2010 to 2015 Hydrology

- Five years of below average to much below average annual flows at the Otowi gage. 2015 May 1 forecast: 320,000 acre-feet, 44% of 30-year average.
- Rio Grande basin has been in Article VII storage restrictions for most of this period. District has stored allocated relinquishment credit from NM Rio Grande Compact credits at El Vado.
- District exhausted San Juan-Chama supplies in 2013
- San Juan-Chama shortages in 2014 and 2015.
- 2015: Out of Art VII two months = 82,000 af @ El Vado

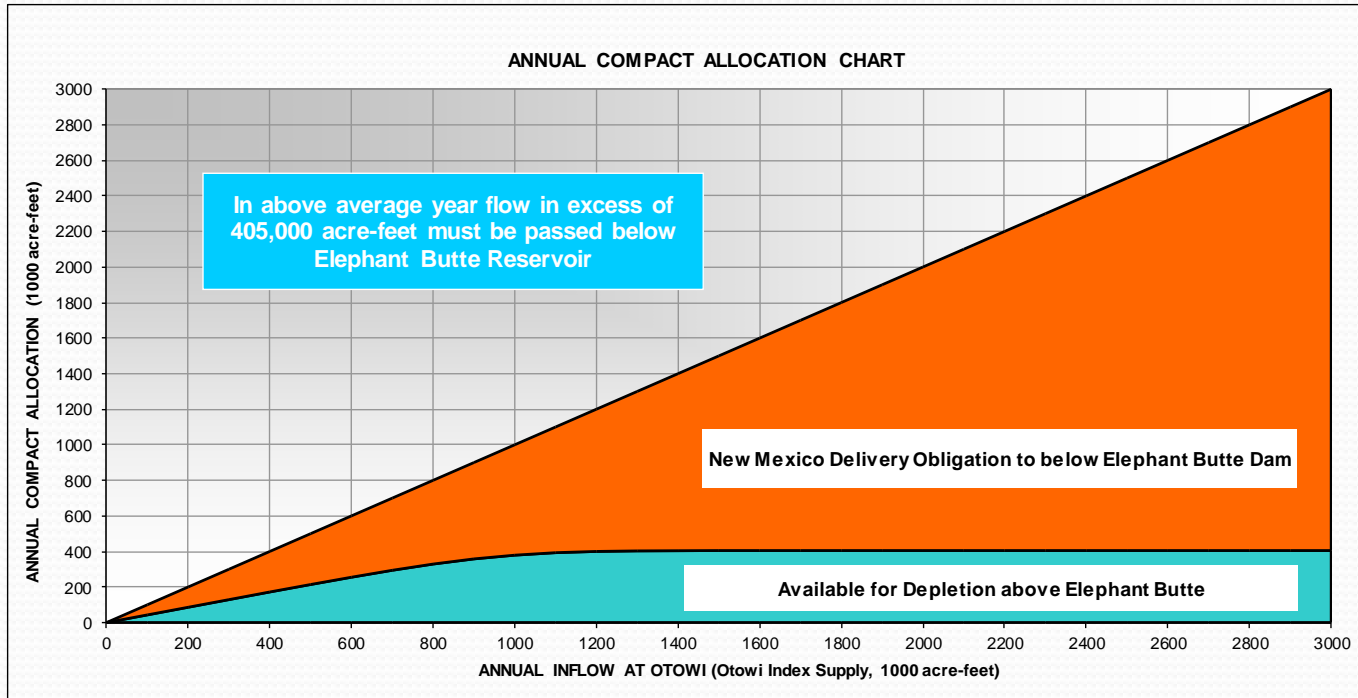
Water Operations – Run-of-the River

- May Forecasted Runoff at 50% inflow to El Vado- 106k af
 - Actual runoff was 88% - 185k af
- May Forecasted Runoff at 44% at Otowi gage – 320k af
 - Actual runoff was 68% -492k af
- NWS seasonal outlook modeling calls for average temperatures and above average precipitation from November through next April in NM and southern CO
- Long-term: Implementation of Decision Support System (DSS) and more automated structures will be added and integrated into the operational network



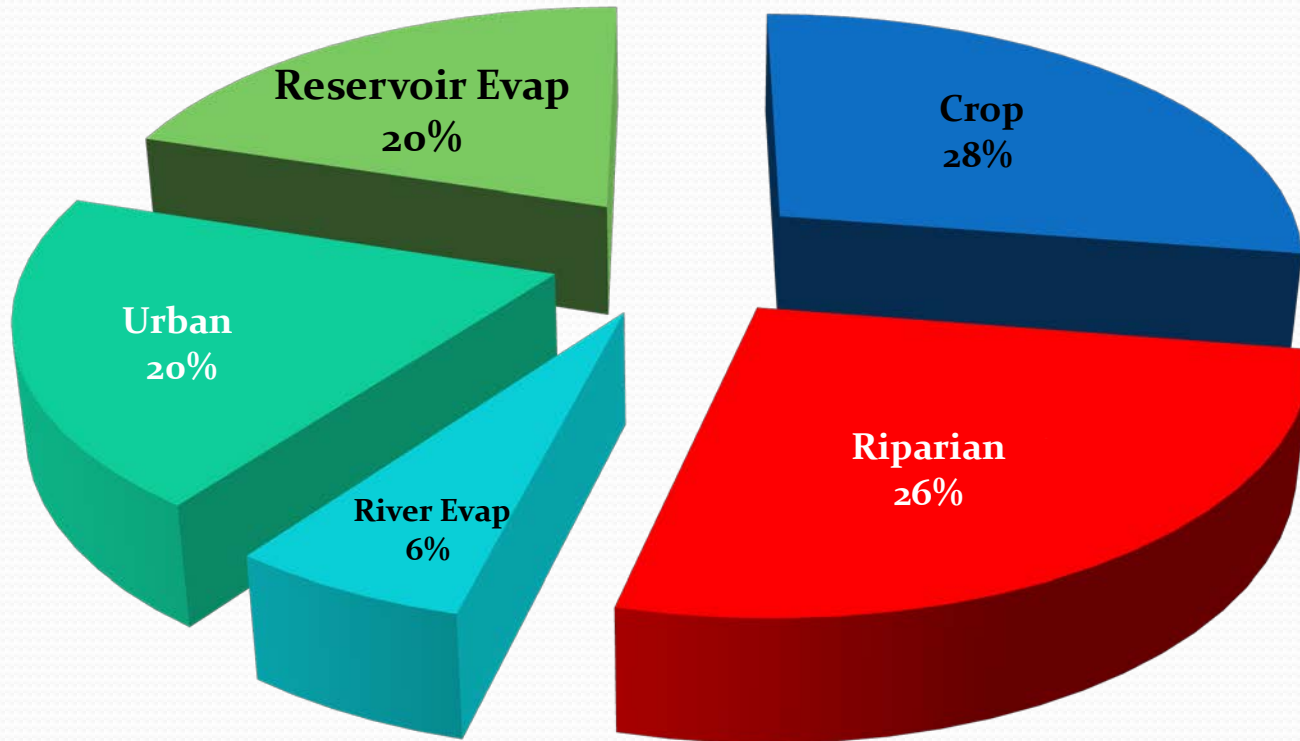
THREE-MONTH OUTLOOK
 PRECIPITATION PROBABILITY
 2.5 MONTH LEAD
 VALID NDJ 2015
 MADE 20 AUG 2015

Chart Showing NM Delivery under the Rio Grande Compact



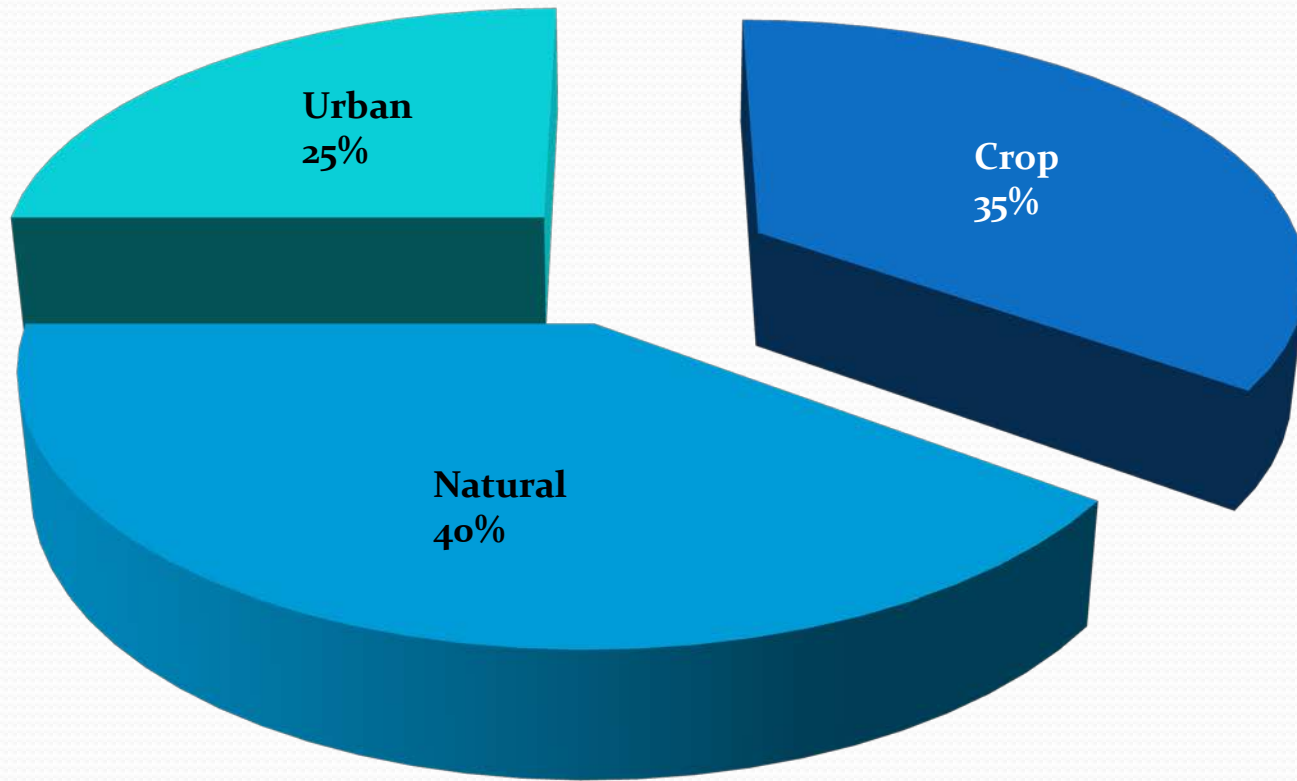
MIRG water consumption is effectively capped. If one user needs more water, it must come through reduction in some other use. The MIRG has to live within its means, and doing so means doing more with less.

Estimated Depletion in the MRG



Estimated Middle Rio Grande Water Depletion

(Cochiti to EB Reservoir)



Total Estimated depletion: 400,000 Acre-feet

MRGCD Priorities

- Meet irrigation demands while improving service and increasing system efficiencies: Board Policy is to achieve a minimum efficiency of one hour per acre at the turnout District-wide.
- Operate in a manner that helps to keep New Mexico out of debit status to the Rio Grande Compact.
- Improve and expand inter-governmental partnerships.
- Comply with ESA through application of offsetting commitments and conservation measures in concert with all other agencies' actions to move toward recovery through adaptive management processes.
- Develop five to ten-year capital improvement plan and review and update policies and procedures.

Partnership with NMISC and OSE

- The MRGCD works closely with the ISC and OSE in a number of key areas:
 - 1) The ISC and MRGCD have submitted our portion of the MRG ESA Biological Assessment and are co-leads in negotiating the new Biological Opinion.
 - 2) Coordinate water operations, habitat and drainage projects to meet both ESA flow needs along with meeting RG Compact deliveries to Elephant Butte for the Rio Grande Project.
 - 3) Coordinate with OSE on pre-1907 water rights transfers in order to properly manage water bank use.
- MRGCD supports the NMISC budget requests for MRG ESA and other activities!

ESA Considerations

- 2003 BO requires prescriptive targets that dictate a flowing river through June 15 and managing federal supplemental water for a minimum of 100 cfs at Albuquerque and slowing rate of river drying with minimum bypasses at diversion dams: Up to 60,000 ac-ft of supplemental water.
- MRGCD commitments include river flow management to assist with spawn and recruitment flows while minimizing river drying later in irrigation season and a minimum of \$650,000 annually for science and infrastructure.
- Final Draft BA submitted to the FWS on August 28th; 2016 BO is place by March 1, the start of the irrigation season.

Other Factors

- Evaluate/pursue reauthorization of federal reservoirs
- Rebalance the river's structure with focus on developing appropriate habitat for the available hydrologic regimes; increase edge and refugia areas
- Assure that the new BiOp will be implementable particularly from a water management perspective given that it may be sometime before Article VII restrictions on El Vado storage are not in effect
- Resolution of current litigation and minimizing future suits that consume scarce resources and stress important relationships

MRG Levee Task Force - Update

- The Task Force has not met this year but we are trying to schedule a meeting prior to years end.
- MRG Levee Update
 - San Acacia Levee – Phase 1 and 2 at a cost of \$17.4M is 58% complete and Phase 2B was awarded in September at a cost of \$15.8M. Upon completion of all phases, 7.3 miles will protect the low areas around Socorro.
 - Bernalillo to Belen – Currently in study phase and if local cost share can be secured, target date is 1-2018.
 - Bernalillo Levee – Corps has determined that this levee does not meet certification for Flood Insurance Program. Studies are proceeding with ESCAFCA and MRGCD.

MRG Levee Task Force - Update

- Albuquerque Levees – The Corps has determined that these levee systems do not meet current criteria and will need reconstruction. No funding has been identified for feasibility studies to date.
- Montano Levee – The local sponsor is the City of Albuquerque and studies show that it is not currently economically justified to seek federal funds to continue this project beyond \$2.1M so the project is suspended.

The MRGCD will continue to act as local sponsor but cannot solely share the cost-share load and we are grateful for the Water Trust Board Grants in the amount of \$4.5M to assist with the San Acacia Levee as well as funds appropriated to NMISC.



Questions??