

INTERIM WATER AND NATURAL RESOURCES COMMITTEE

THE STATUS OF THE STATES' WATERS



PRESENTED BY

JOHN R. D'ANTONIO JR., PE, STATE ENGINEER

ROLF SCHMIDT-PETERSEN, INTERSTATE STREAM COMMISSION DIRECTOR

AUGUST 6, 2020

AGENDA OVERVIEW

- **NM OSE/ISC Essential Services**
- **Indian Water Right Settlements**
- **OSE/ISC Water Planning**
- **Drought Outlook and Statewide Water Administration**
- **Rio Grande**
- **Rio Chama**
- **Rio Grande Compact Emergency Storage Release**
- **Middle Rio Grande**
- **Lower Rio Grande Water Conservation Pilot Program**
- **Pecos River**
- **Other Basins**
- **Colorado River Basin**
- **Agency Trust Funds Insolvency**

NMOSE/NMISC ESSENTIAL SERVICES

- **Water supply identified as critical component to public health and safety**
- **7 district offices continue to provide essential services**
 - **Domestic well and well driller permits**
 - **Water masters and support staff**
 - **Enforcement of illegal diversions and over-diversions**
- **ISC operations for Costilla Creek dam tender and Los Lunas Silvery Minnow Refugium**
- **219 of 266 FTE teleworking full or part-time**

INDIAN WATER RIGHT SETTLEMENTS

INDIAN WATER RIGHT SETTLEMENTS

- **Aamodt** –The construction of the Pojoaque Regional Water System for the Pueblos of Nambé, Pojoaque, Tesuque and San Ildefonso and Santa Fe County is the basis for the settlement of the Pueblos’ water rights claims and the end of the adjudication. The original cost sharing between the parties was amended in the 2019 Aamodt 611(g) Agreement to provide the additional federal, State and local funding required.
 - Initial construction has begun
 - Funding: State cost share is \$104.5M under the 611(g) Agreement with no further indexing
 - \$57.5M has been appropriated and \$47.0M is still needed.

INDIAN WATER RIGHT SETTLEMENTS

- Recognized the Navajo Nation Claim within the San Juan Basin in New Mexico and apportionment on the Colorado River.
- Currently being implemented through the construction of the Navajo-Gallup Water Supply Project.
- One of the largest rural water supply projects in the West, bringing in \$1.3 billion in federal dollars.

INDIAN WATER RIGHT SETTLEMENTS

- Critical drinking water supply to Indian and Non-Indian communities in western New Mexico.
- The state has met the cost share obligation of \$50.0M and has also provided several million dollars in capital outlay funding for non-Indian ditch rehabilitation in the area.

INDIAN WATER RIGHT SETTLEMENTS

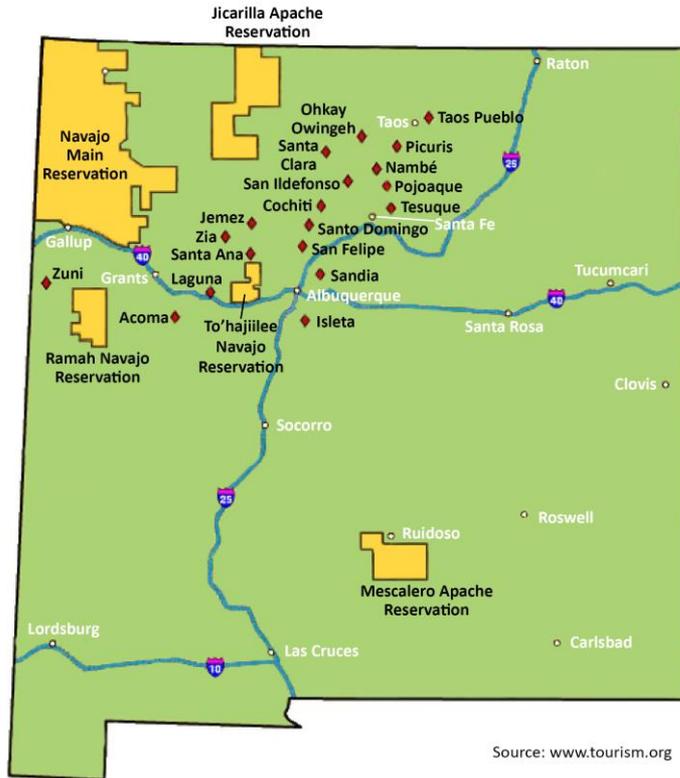
- **Taos** –Taos Pueblo Water Rights Settlement Agreement between Taos Pueblo, the State, the Taos Valley Acequia Association, the Town of Taos, El Prado Water and Sanitation District and the 12 Taos area MDWCAs
- Provides funding for new production wells and other water infrastructure improvements and mitigation mechanisms to offset surface water depletion effects of groundwater pumping in the basin (“Mutual Benefits Projects”).
- The State is working with the parties to implement the Mutual Benefits Projects.
- The State has met its cost share obligations of \$20.05M.

INDIAN WATER RIGHT NEGOTIATIONS

The State is in settlement negotiations with 8 Pueblos, Tribes and Nations in 6 adjudications.

- **Ohkay Owingeh** – water rights claims on the Santa Cruz, Truchas and Chama
- **Jemez and Zia** – water rights claims on the Rio Jemez
- **Acoma and Laguna (and Navajo Nation)** –water rights claims on the Rio San Jose
- **Zuni and Navajo Nation** – water rights claims on the Zuni River
- **Ute Mountain Utes** – claims to the San Juan River in New Mexico

Pueblos and Reservations in New Mexico



Four Tribal Nations

Jicarilla Apache	Navajo Nation
Mescalero Apache	Fort Sill Apache

Nineteen Pueblos

Acoma	Taos
Cochiti	Sandia
Pojoaque	Santa Ana
Isleta	Santa Clara
Jemez	Santa Domingo
Laguna	San Felipe
Nambe	San Ildefonso
Ohkay Owingeh	Tesuque
Picuris	Zia
Zuni	

OSE/ISC WATER PLANNING

OSE/ISC WATER PLANNING PROGRAM BUDGET

- **In FY20 the governor recommended the legislature provide the ISC \$750K to begin the development of a 50-year water plan.**

(OSE/ISC requested \$750K from the legislature for 2 additional staff positions for FY21 to scope and begin development of a 50-year water plan in FY21; no funding or staffing was appropriated.)

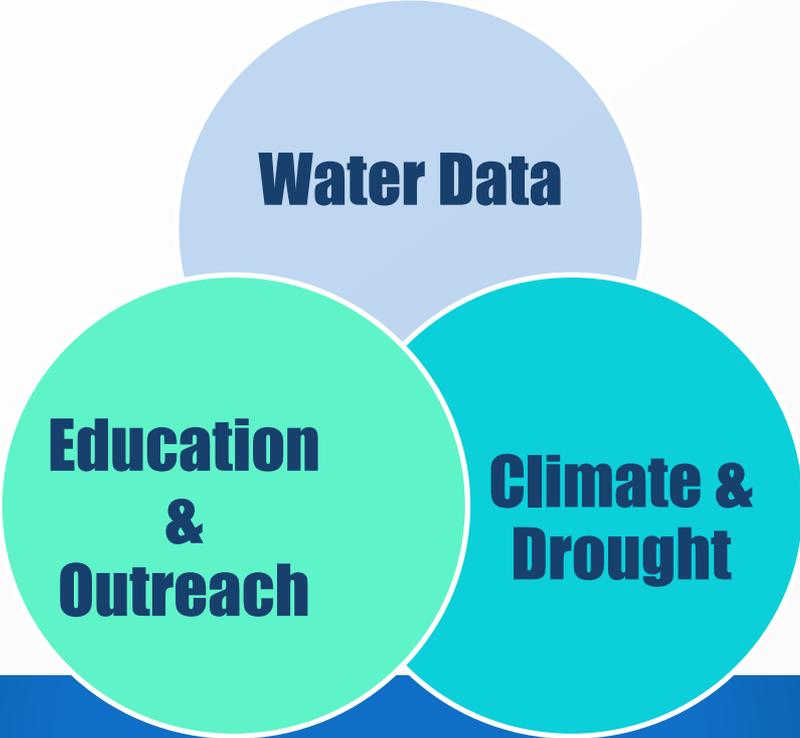
OSE/ISC WATER PLANNING PROGRAM BUDGET

- **FY21 funding reality and hiring freeze**

(FY21 OSE/ISC Water Planning Program budget is \$350K funded by IWCF and is not able to hire for the 1 existing staff position; in total the program has 2 positions.)

OSE/ISC FY21 WATER PLANNING PROGRAM INTERAGENCY ENGAGEMENT/COORDINATION/PRIORITIES

HOT TOPICS IN WATER PLANNING



OSE/ISC FY21 WATER PLANNING PROGRAM INTERAGENCY ENGAGEMENT/COORDINATION/PRIORITIES

ENGAGEMENT/COORDINATION

- **State Water Planning/50-year Water Plan Conceptualization**
- **2019 HB 651 Water Data Act**
- **2019 HB 266 Forest And Watershed Advisory Board**
- **Water and Climate Expert Advisory Committee**
- **Governor's Climate Change Task Force**
- **Rio Grande Basin Study**
- **Drought Task Force**
- **Education and Outreach**

OSE/ISC FY21 WATER PLANNING PROGRAM INTERAGENCY ENGAGEMENT/COORDINATION/PRIORITIES

FY21 PRIORITIES

- **Program Planning**
- **Regional Water Planning**
- **State Water Planning/50-year Water Plan
Conceptualization**
- **Total FY21 Budget \$350K (IWCF)**

DROUGHT OUTLOOK AND STATEWIDE WATER ADMINISTRATION

**FALLOWED LAND IN
LOWER RIO GRANDE BASIN**



STATEWIDE DROUGHT

DROUGHT TASK FORCE

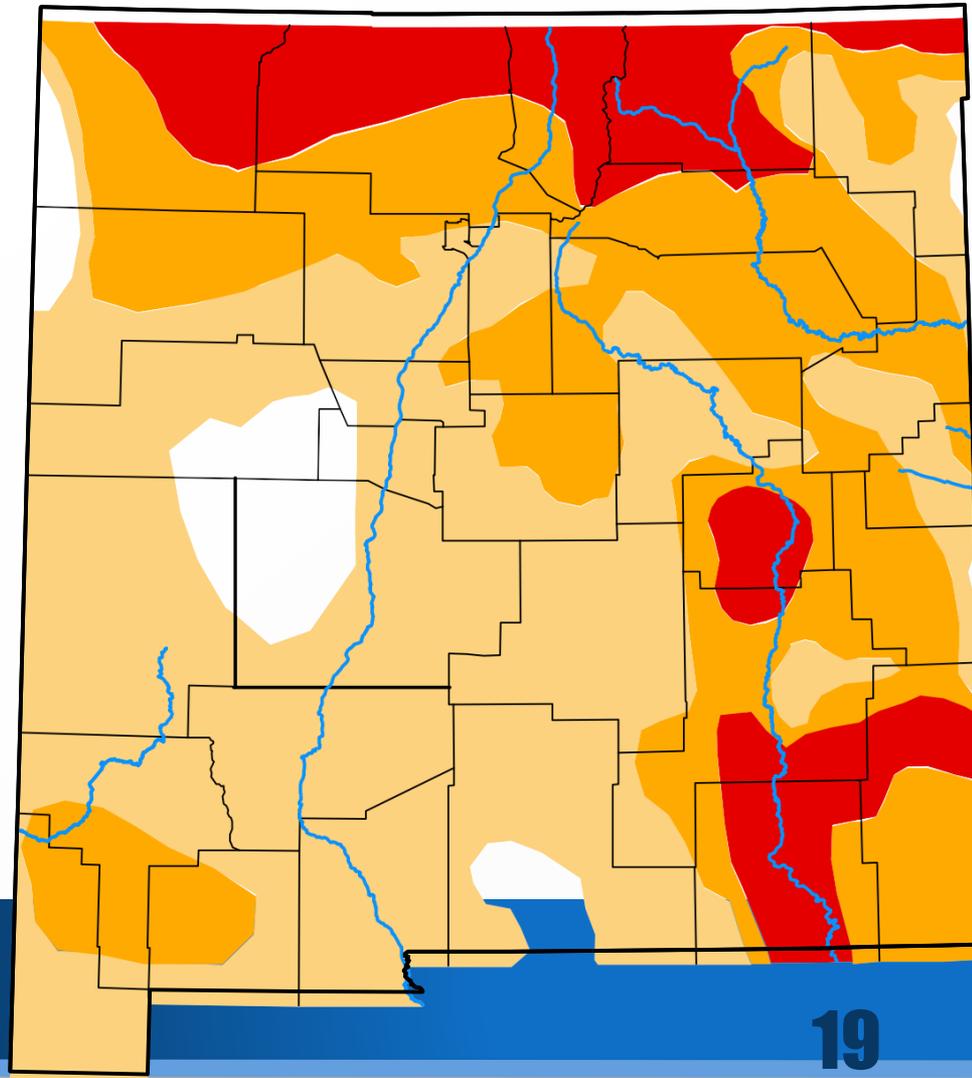
- The Drought Task Force last meeting occurred in late 2018.
- State is not yet at 50% D2 (severe drought). When and if that occurs, drought task force will be initiated.
- The rains last week provided some relief to selected areas. Many areas did not see significant rain.
- La Nina forecast for Winter 2020-2021 – a greater likelihood of drier than average conditions.



FALLOWED LAND IN TULAROSA BASIN

U.S. Drought Monitor New Mexico

July 28, 2020
(Released Thursday, Jul. 30, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	94.11	45.60	13.81	0.00
Last Week <i>07-21-2020</i>	0.00	100.00	94.09	42.21	11.85	0.00
3 Months Ago <i>04-28-2020</i>	56.24	43.76	26.22	13.43	0.00	0.00
Start of Calendar Year <i>12-31-2019</i>	52.86	47.14	28.33	15.26	0.00	0.00
Start of Water Year <i>10-01-2019</i>	37.27	62.73	29.82	6.81	0.00	0.00
One Year Ago <i>07-30-2019</i>	69.82	30.18	8.74	0.00	0.00	0.00

Intensity:

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

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

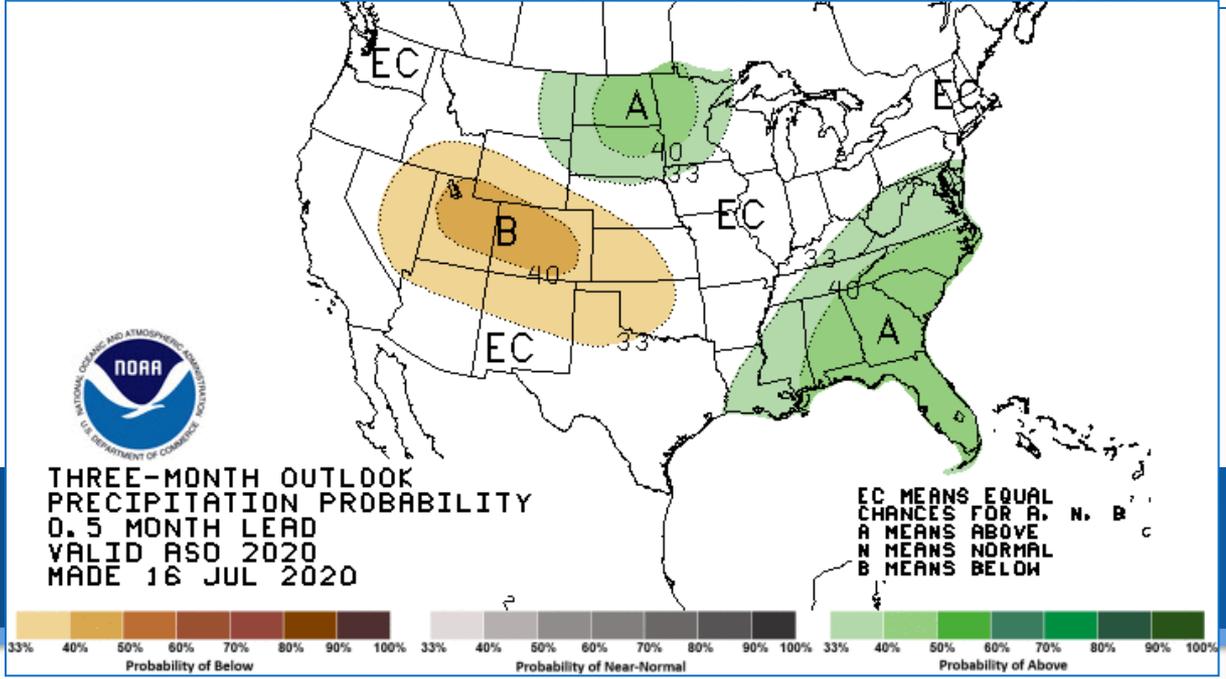
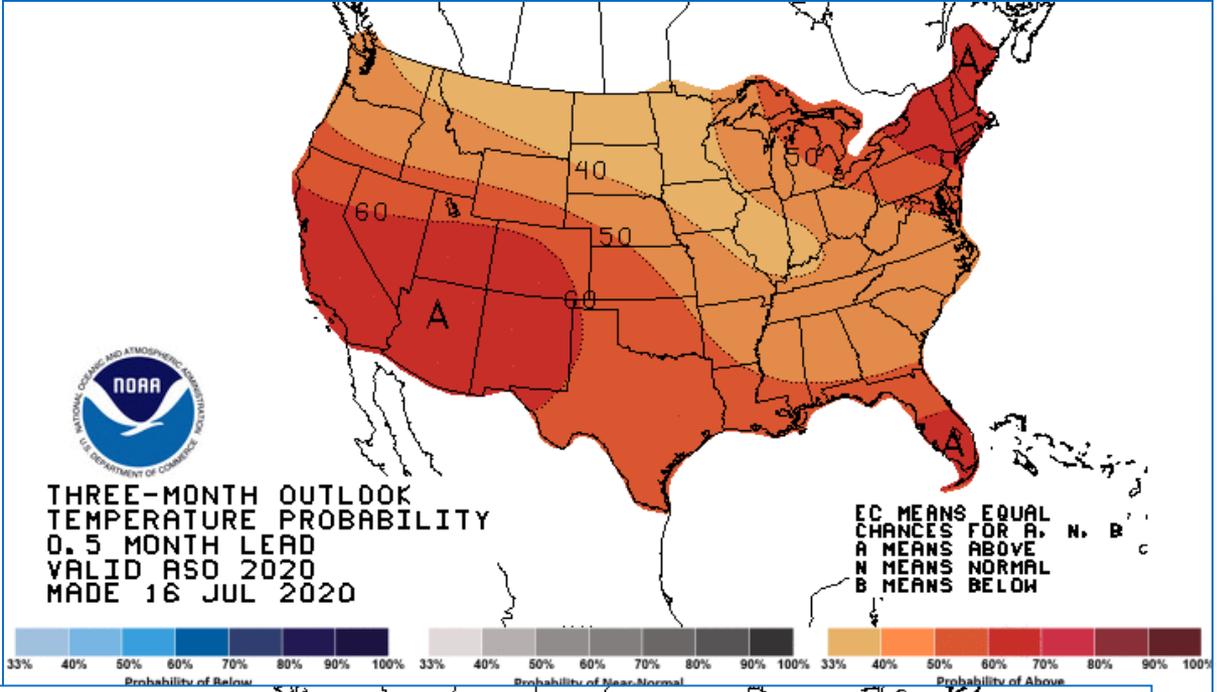
Richard Heim
NCEI/NOAA



RESERVOIR STORAGE VOLUMES IN NEW MEXICO JULY 2020

RESERVOIR	CURRENT	LAST YEAR	AVERAGE	PREVIOUS MONTH
NAVAJO	1289	1501	1448	1370
CONCHAS	100	178	201	110
UTE	164	176	201	157
SANTA ROSA	7	71	58	4
SUMNER	11	24	22	11
BRANTLEY	22	25	24	29
HERON	110	170	340	128
EL VADO	46	114	149	61
ABIQUIU	54	62	176	76
ELEPHANT BUTTE	183	551	1277	322
CABALLO	59	48	105	67

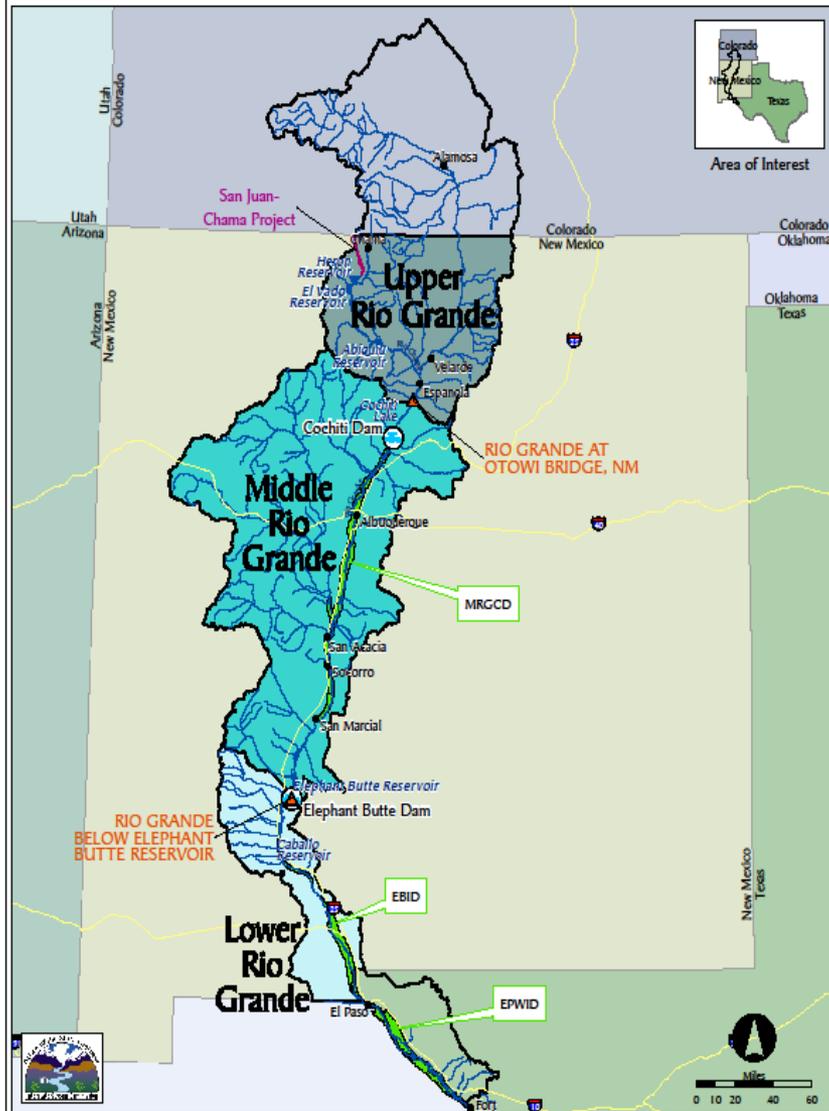
Units are in Thousands of Acre Feet



RIO GRANDE

RIO GRANDE BASIN

The Rio Grande Compact

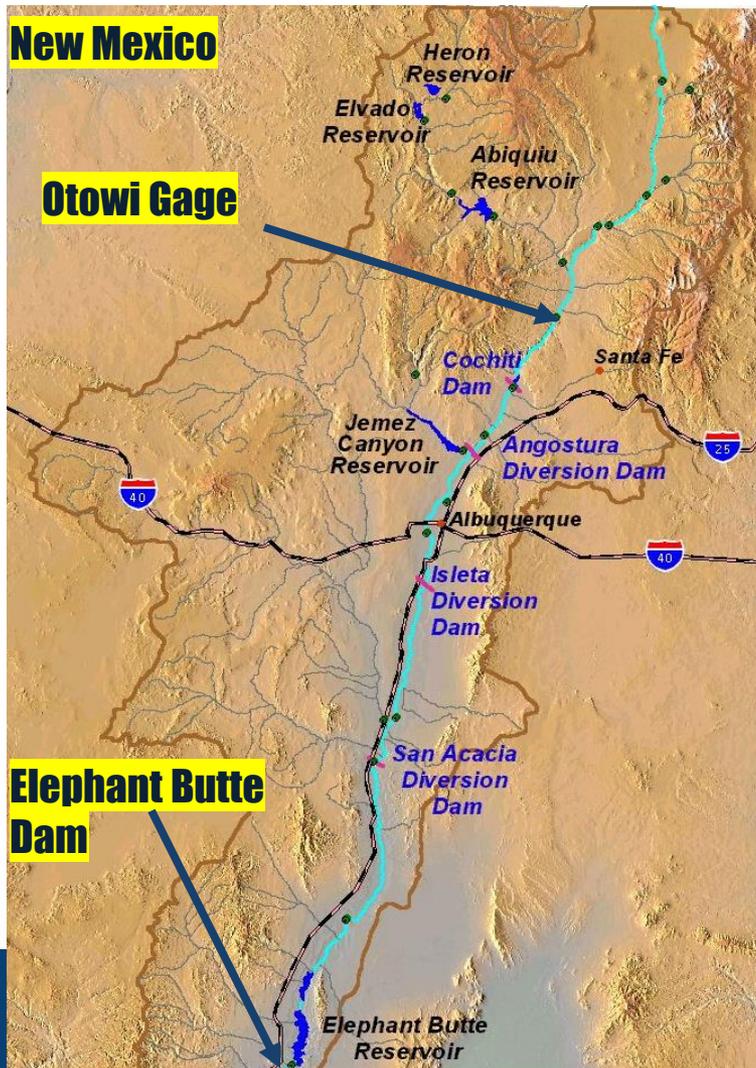


- So dry that the State Engineer Water Master had to curtail diversions by Acequias with water rights dating back to 1600.
- So little direct flow water in middle valley that the river would have been dry, naturally, upstream of Albuquerque.

UPPER RIO GRANDE, MIDDLE RIO GRANDE & SAN JUAN CHAMA PROJECT

Colorado

New Mexico



Otowi Gage

Elephant Butte Dam



RIO CHAMA

RIO CHAMA ADMINISTRATION 2020

- **The Acequia Nortenas (AN) acequias and all other acequias in the Upper Chama Basin went into strict administration starting July 16th**
 - All ditches in the Lower Chama Basin were required to shutoff except for the three senior acequias (Salazar, Hernandez, and Chamita).
 - Available water for diversions going forward will be determined by the daily average flow at the USGS La Puente gage minus the transit loss for July of 13.4 cfs plus any measureable rain events (local inflow) above Abiquiu Reservoir.
 - The Rio Chama Watermaster will be in contact with the acequias each morning/evening to notify them of any available flow for diversion.

RIO CHAMA ADMINISTRATION 2020

- **After MRGCD runs out of their supply the water remaining in the Rio Chama will be available native flow**
 - Prior and Paramount (P&P) water for the six (6) Middle Rio Grande Pueblos
 - A supplemental release of San Juan Chama water by the Bureau of Reclamation (B of R) for Endangered Species in the Middle Rio Grande
 - San Juan Chama water for the City of Santa Fe.

RIO CHAMA

2020 RCAA ALTERNATIVE ADMINISTRATION ROTATION SCHEDULE

Available Flow=Average Daily Reading at USGS La Puente Gage - Set Transit Loss*+ Any Local Inflow Measured Above Abiquiu Reservoir

Ditch Name	Group	Priority	Schedule	Diversion (cfs)
CHAMITA (PUEBLO)	Senior		On @ Monday, 7 AM Off @ Thursday, 7 AM	Available Flow
HERNANDEZ	Senior	1600	On @ Thursday, 7 AM Off @ Monday, 7 AM	Available Flow
CHAMITA (NON PUEBLO)		1600		
SALAZAR		1600		
CHILI		1715	ON @ Monday, 7 AM OFF @ Tuesday, 7 AM	When water is available
RIO DE CHAMA		1724		
MARTINEZ Y DURANES		1724		
MANZANARES y MONTOYA		1724		
GONZALES		1724	ON @ Tuesday, 7 AM OFF @ Wednesday, 7 AM	When water is available
LA PUENTE		1724		
QUINTANA		1724		
VALENTINE MARTINEZ		1724		
TIERRA AZUL		1724		
MARIANO		1724	ON @ Wednesday, 7 AM OFF @ Thursday, 7 AM	When water is available
FERRAN		1724		
JV MARTINEZ		1735		
JP GONZALES		1735		
ABEYTA TRUJILLO		1735		

*** Set transit losses of 13.4 cfs for July, 12.5 cfs for August, 8.5 cfs for September, or 3.6 cfs for October.**

RIO GRANDE COMPACT EMERGENCY STORAGE RELEASE

RIO GRANDE COMPACT DEBIT WATER OPERATIONS

New Mexico has an accrued debit (under delivery to Elephant Butte) for 2020 of 38,800 Acre-feet.

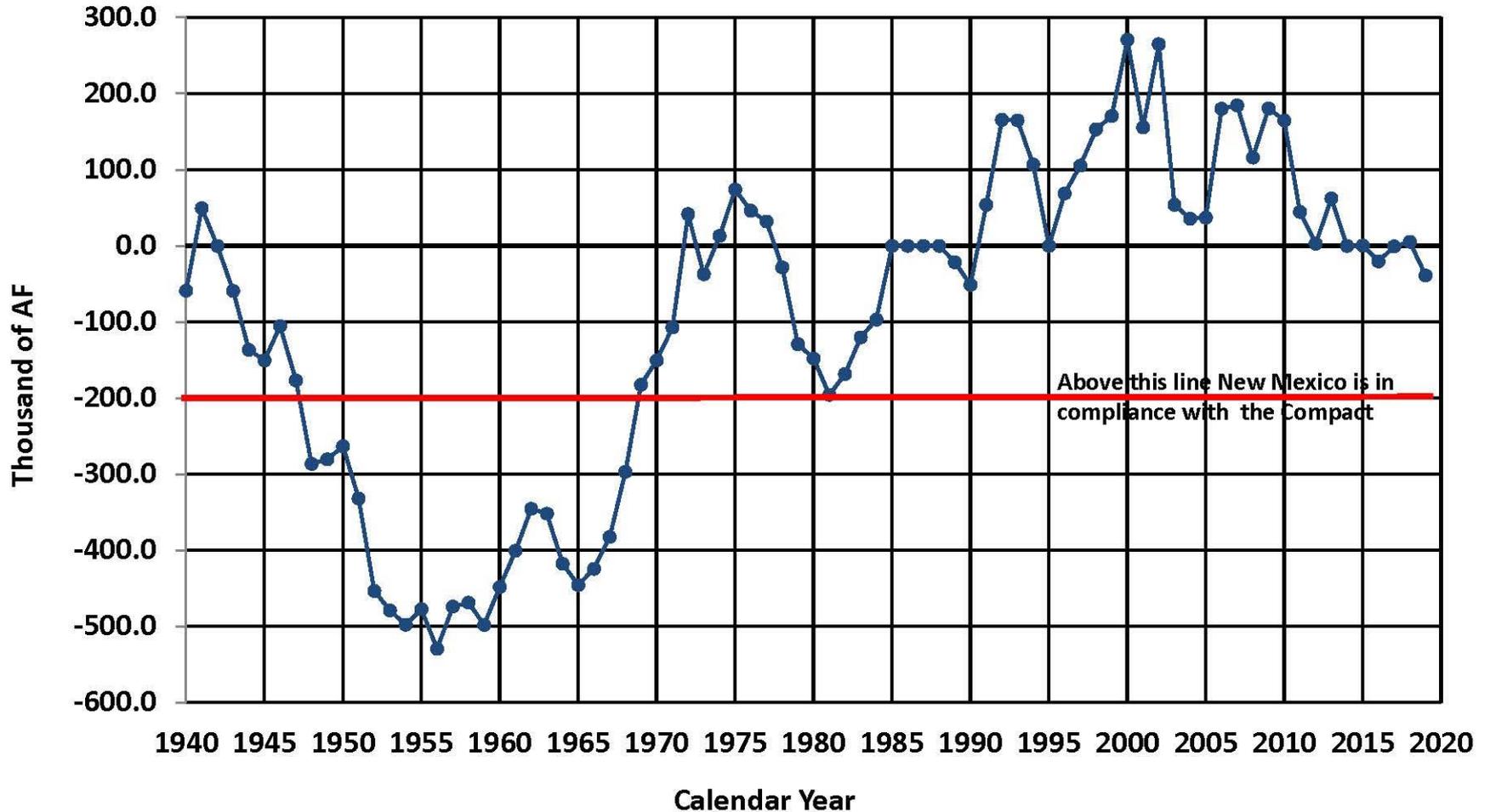
Under article vi of the compact-

- New Mexico must retain water in storage to the extent of its accrued debit
- The compact commission by unanimous action may authorize the release from storage of any amount of water which is then being held by reason of accrued debit of Colorado or New Mexico.

RIO GRANDE COMPACT DEBIT WATER OPERATIONS

- **Water was retained in storage in El Vado and Nichols and McClure reservoirs to the extent of the accrued debit as the MRGCD and City of Santa Fe conducted storage operations last spring.**

Rio Grande Compact Cumulative Departures 1940 to 2019



Note: The Compact Commission has not approved annual accounting since 2011. Values in the chart since that time are those calculated and proposed by the New Mexico Engineer Adviser as described in annual reports to the Compact Commission

RIO GRANDE COMPACT DEBIT WATER OPERATIONS

- **MRGCD Requested, thru NM Compact Commissioner John D'Antonio, emergency release of debit water retained in El Vado Reservoir due to extreme drought conditions.**

RIO GRANDE COMPACT DEBIT WATER OPERATIONS

- **To prevent potentially significant economic harm to MRG farmers and to sustain habitat for endangered species.**
- **The commissioners of Colorado and Texas agreed to the release.**
- **The state engineer issued order no. 189 directing how the debit water could be used.**

STATE ENGINEERS DEBIT CREDIT ORDER #189

OFFICE OF THE STATE ENGINEER STATE OF NEW MEXICO

IN THE MATTER OF THE NEED FOR EMERGENCY)

ADMINISTRATIVE ACTION IN THE ADMINISTRATION)

OF RELEASED RIO GRANDE COMPACT DEBIT WATER)

ORDER NO. 189

ORDER IMPLEMENTING THE EMERGENCY RELEASE OF APPROXIMATELY 38,000 ACRE-FEET OF WATER NEW MEXICO RETAINED PURSUANT TO ARTICLE VI OF THE RIO GRANDE COMPACT

WHEREAS, DUE TO EXTREME DROUGHT CONDITIONS IN THE RIO GRANDE BASIN THERE CURRENTLY IS INSUFFICIENT FLOW OF NATIVE RIO GRANDE WATER TO SATISFY THE NEEDS OF ALL SURFACE WATER USERS, INCLUDING MIDDLE RIO GRANDE VALLEY FARMERS, PUEBLOS, ACEQUIAS, AND THE CRITICAL HABITAT NEEDS OF LISTED ENDANGERED SPECIES.

WHEREAS, ARTICLE VI OF THE RIO GRANDE COMPACT (COMPACT) STATES IN RELEVANT PART:

IN THE CASE OF NEW MEXICO, THE ACCRUED DEBIT SHALL NOT EXCEED 200,000 ACRE-FEET AT ANY TIME, EXCEPT AS SUCH DEBIT MAY BE CAUSED BY HOLDOVER STORAGE OF WATER IN RESERVOIRS CONSTRUCTED AFTER 1929 IN THE DRAINAGE BASIN OF THE RIO GRANDE BETWEEN LOBATOS AND SAN MARCIAL. WITHIN THE PHYSICAL LIMITATIONS OF STORAGE CAPACITY IN SUCH RESERVOIRS, NEW MEXICO SHALL RETAIN WATER IN STORAGE AT ALL TIMES TO THE EXTENT OF ITS ACCRUED DEBIT.

WHEREAS, IN EARLY 2020, NEW MEXICO RETAINED APPROXIMATELY 38,000 ACRE-FEET OF WATER IN STORAGE TO THE EXTENT OF ITS CURRENT ACCRUED DEBIT IN ACCORDANCE WITH ARTICLE VI OF THE COMPACT.

WHEREAS, ARTICLE VI STATES FURTHER: "THE COMMISSION BY UNANIMOUS ACTION MAY AUTHORIZE THE RELEASE FROM STORAGE OF ANY AMOUNT OF WATER WHICH IS THEN BEING HELD IN STORAGE BY REASON OF ACCRUED DEBITS OF COLORADO OR NEW MEXICO; PROVIDED, THAT SUCH WATER SHALL BE REPLACED AT THE FIRST OPPORTUNITY THEREAFTER."

WHEREAS, ON MONDAY JULY 6, 2020 THE NEW MEXICO RIO GRANDE COMPACT ENGINEER ADVISOR AND LEGAL ADVISOR REACHED OUT VIA EMAIL TO THEIR RESPECTIVE COUNTERPARTS IN TEXAS AND COLORADO, REQUESTING THEY CONSULT WITH THEIR COMPACT COMMISSIONERS AND LEGAL ADVISORS TO CONSIDER AN EMERGENCY RELEASE OF APPROXIMATELY 38,000 ACRE-FEET OF WATER NEW MEXICO HAS RETAINED IN STORAGE TO THE EXTENT OF NEW MEXICO'S CURRENT DEBIT IN ACCORDANCE WITH ARTICLE VI OF THE RIO GRANDE COMPACT.

WHEREAS, ON JULY 16, 2020 THE COMPACT COMMISSIONER FOR THE STATE OF TEXAS CONSENTED WITH CONDITIONS TO THE RELEASE OF STORED DEBIT WATER AND THE COMPACT COMMISSIONER FOR THE STATE OF

EFFECTIVE DATE: THIS ORDER SHALL BECOME EFFECTIVE UPON THE SIGNATURE OF THE STATE ENGINEER.

WITNESS MY HAND AND OFFICIAL SEAL OF MY OFFICE THIS 17 DAY OF JULY, 2020.



John R. D'Antonio, Jr., PE
State Engineer

RIO GRANDE COMPACT DEBIT OPERATIONS

- **Debit water has been released since the third week in July is expected to last through labor day, if not longer.**

RIO GRANDE COMPACT DEBIT OPERATIONS

- **It is being used to:**
 - **Provide a minimum amount of irrigation water to MRGCD farmers to reduce economic harm to them;**
 - **Sustain wet habitat for the endangered Rio Grande silvery minnow;**

RIO GRANDE COMPACT DEBIT OPERATIONS

- **Preserve the recreational and aesthetic benefits of the Rio Grande for citizens;**
- **Assist water users upstream of the middle valley on the Rio Chama and on the Rio Grande downstream of Ohkay Owingeh.**

DROUGHT MEASURES AND WATER ADMINISTRATION IN THE MRGCD

- **Emergency Release of Rio Grande Compact Debit Water:**
 - 38,000 acre-feet stored at El Vado Reservoir;
 - Released during dry periods;
 - Average of 300 cfs released per day with A maximum rate of release of 400 cfs per day for the Middle Rio Grande.



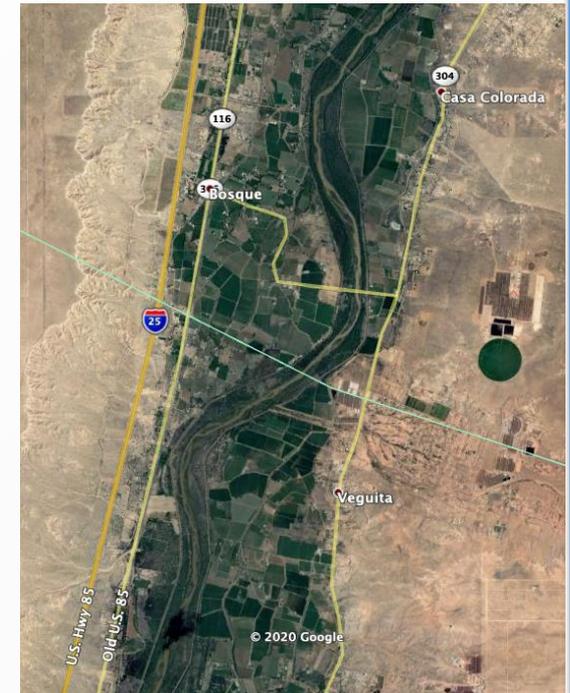
RIO GRANDE COMPACT DEBIT OPERATIONS

- **This reduces the amount of water that might reach Elephant Butte Reservoir in 2020, slightly reducing Rio Grande project supply for 2021, and may put New Mexico further into accrued debit under the compact in 2021.**

MIDDLE RIO GRANDE

DROUGHT MEASURES AND WATER ADMINISTRATION IN THE MRGCD

- Prior and paramount (P&P) lands are delivered water first.
- Curtailment of water bank users began in May.



DROUGHT MEASURES AND WATER ADMINISTRATION IN THE MRGCD

- **Currently rotating water delivery for irrigation to lands east and west of the Rio Grande:**
 - **In the Belen reach:**
 - 5 days on the east side;
 - 10 days of the west side (5 days for irrigation and for 5 days water is sent down to Socorro).

DROUGHT MEASURES AND WATER ADMINISTRATION IN THE MRGCD

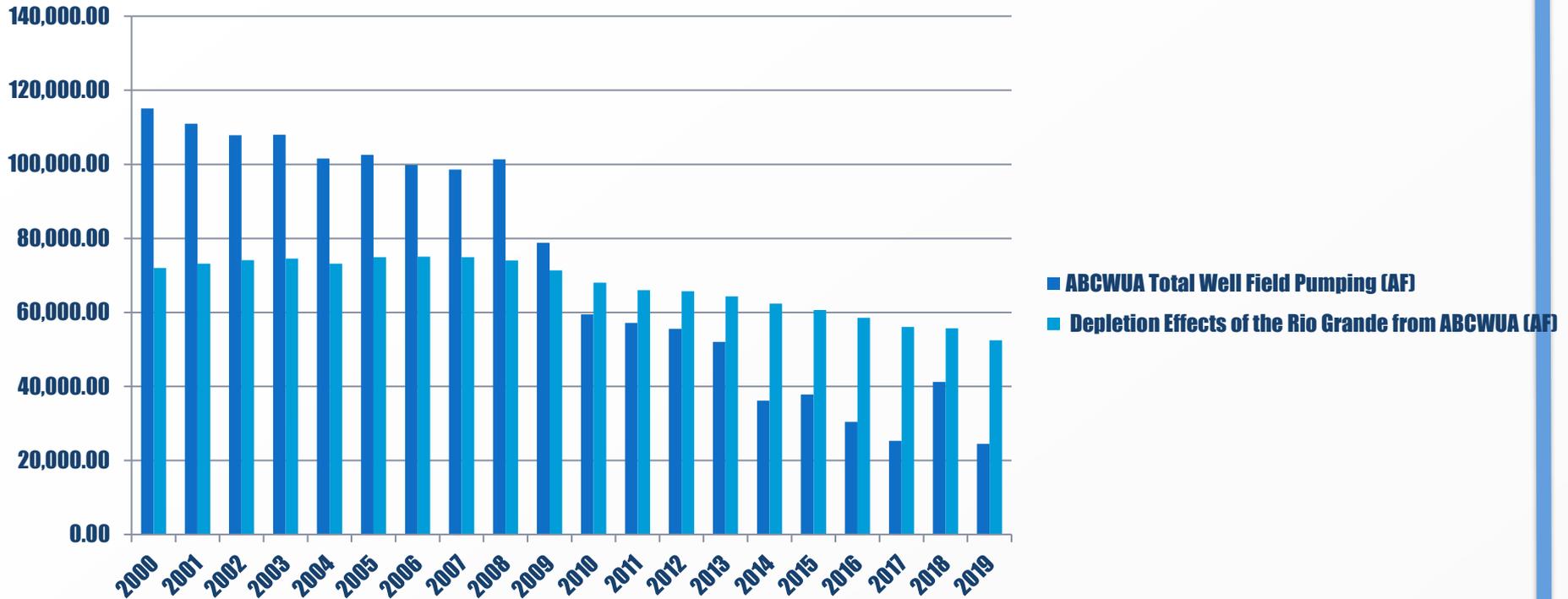
- **In the Socorro Reach:**
 - 5 days on the east side;
 - 5 days on the west side.
- **All Non P&P diversions shall cease on September 8th (or sooner if water is not available or sufficient rains offset the need for releases).**

ALBUQUERQUE WATER UTILITY AUTHORITY (ABCWUA)

- **OSE administers conditions of permit**
 - Groundwater pumping
 - Surface water diversion
 - Offset depletion accounting
 - USR permits inject SW into aquifer storage for later GW pumping
 - In drought conditions ABCWUA curtails or reduce SW increase GW

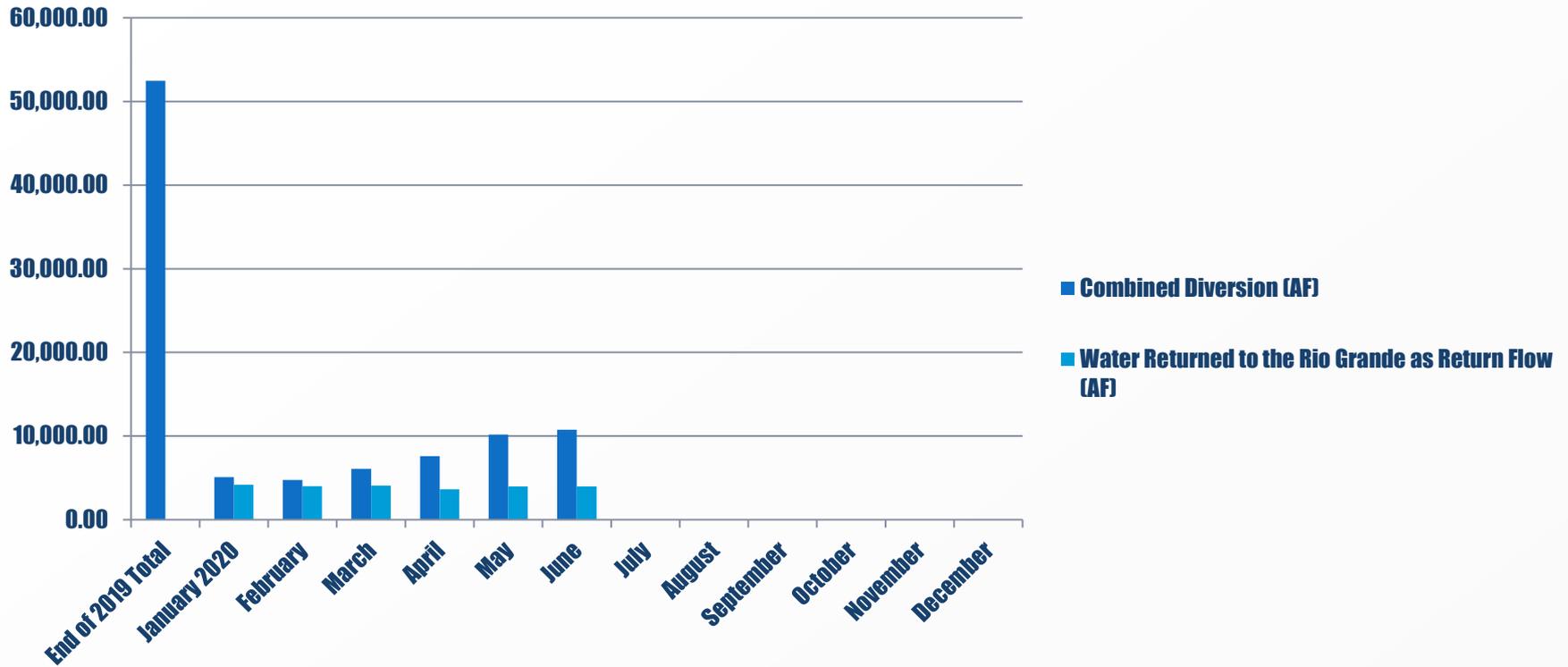
SINCE 2000, ABCWUA HAS DECREASED BOTH PUMPING AND IMPACTS TO THE RIO GRANDE CONSERVING SURFACE WATER

ANNUAL DIVERSIONS AND EFFECTS ON THE RIO GRANDE VS. ABCWUA WELL DIVERSIONS



ABCWUA REPORTS MONTHLY GROUNDWATER PUMPING AND WATER RETURNED TO THE RIO GRANDE

THIS CHART PRESENTS THE 2019 PUMPING COMPARED TO THIS YEAR'S DEMAND.



LOWER RIO GRANDE WATER CONSERVATION PILOT PROGRAM

LRG WATER SUPPLY

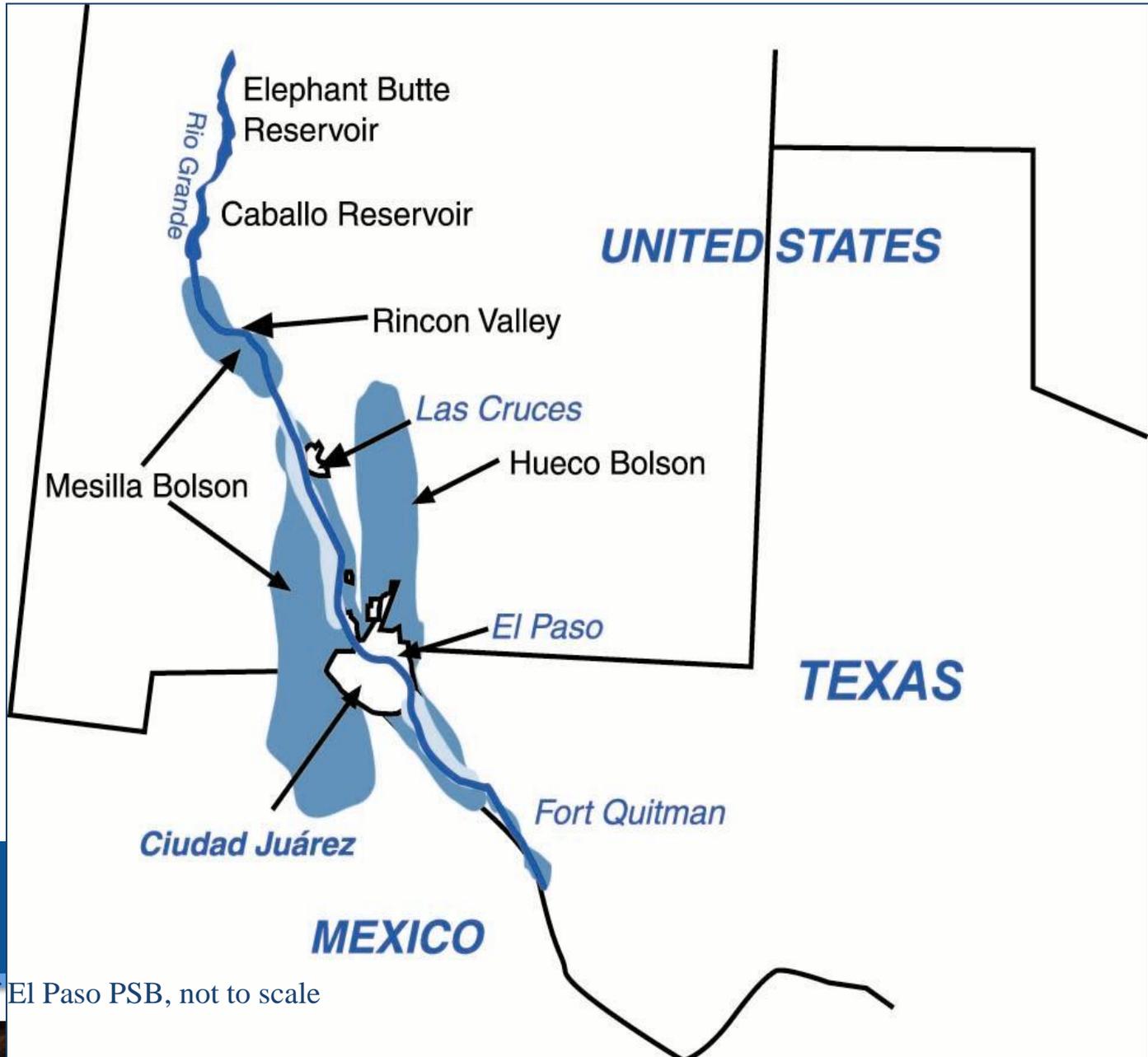
- **2020 ALLOCATIONS:**

- EBID - 191,432 AF
- EP1 - 354,663 AF
- Releases are expected to end approximately September 22.

- **2021 ALLOCATION:**

- EBID Carryover: - 0 AF
- EP1 Carryover: – approximately 80,000 AF

LOWER RIO GRANDE AND UNDERLYING GROUNDWATER BASINS



Source: City of El Paso PSB, not to scale

LOWER RIO GRANDE WATER CONSERVATION PILOT PROGRAM

- **FY2021 regular session the state legislature appropriated seed money to fund and establish a pilot water conservation program in the Lower Rio Grande:**
 - \$17,000,000 for the NMISC to develop and fund a water management pilot project for the Lower Rio Grande for fiscal years 2020 through 2023.
 - No more than two million dollars (\$2,000,000) from this appropriation may be expended for startup costs in fiscal years 2020 and 2021.

LOWER RIO GRANDE WATER CONSERVATION PILOT PROGRAM

- No more than five million dollars (\$5,000,000) from this appropriation may be expended in each fiscal year from fiscal years 2021 through 2023. Local entities shall be responsible for cost-share contributions beginning in fiscal year 2021.
- **FY2021 Special session (June 2020) of the state legislature reduced the \$17M to \$7M.**

LOWER RIO GRANDE WATER CONSERVATION PILOT PROGRAM

- **NMISC Work Plan Elements:**
 - Determine resources needed to plan, implement, administer and verify results of various water management actions in the LRG
 - Develop economic and market information required to effectively implement initial management actions
 - Establish a test process for fallowing irrigated lands

LOWER RIO GRANDE WATER CONSERVATION PILOT PROGRAM

- Develop hydrological studies to evaluate how effectively different management actions reduce consumption, promote aquifer health and improve surface water deliveries
- Explore best practices in water conservation governance and operations with a focus on groundwater conservation – work to establish an entity to manage a longer-term program

LOWER RIO GRANDE WATER CONSERVATION AND FOLLOWING PILOT PROGRAM

• PURPOSE

- **Short term** - to establish a test process for reducing groundwater pumping by fallowing irrigated land
- **Long term** – develop and test water management actions that promote aquifer health, and set up an independent entity for long-term program management

LOWER RIO GRANDE WATER CONSERVATION AND FOLLOWING PILOT PROGRAM

- **Implementation To Date**
 - Internal and External Working Groups
 - Steering Committee
 - Legal
 - Hydrology
 - Agriculture

LOWER RIO GRANDE WATER CONSERVATION AND FOLLOWING PILOT PROGRAM

- **Assessment of other regional following programs for comparison**
- **Preparation to advertise requests for proposals**
 - Broader public outreach to begin early to mid-August
 - Goal is to advertise for RFP by late August

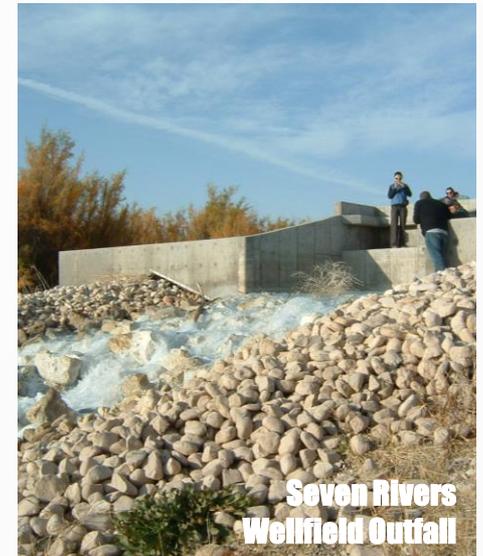
PECOS RIVER

PECOS RIVER BASIN



PECOS AUGMENTATION PUMPING FOR THE 2021 IRRIGATION SEASON

- Pumping of state-owned Pecos basin wellfields is likely for the 2021 irrigation season.
 - If significant pumping is required, additional funds *up to \$1.5 million* will be necessary to meet the terms of the 2003 Pecos Settlement Agreement.



PECOS AUGMENTATION PUMPING FOR THE 2021 IRRIGATION SEASON

- The settlement requires the state to augment supplies for the Carlsbad Irrigation District under certain conditions.
 - Outlook for 2021 is not good given current drought conditions and dwindling reservoir supplies.

Seven Rivers
Wellhead Outfall

OTHER BASINS

GALLINAS RIVER



GALLINAS AT LA LIENDRE MAY 2020

GALLINAS RIVER

Rotation schedule:

- The 2020 rotation schedule will apply for flows between 4 and 20 cubic feet per second cfs.
- Measured at the USGS Montezuma Gage.
- The 2020 irrigation season rotation schedule started on **May 23, 2020** and will end **October 31, 2020**.

GALLINAS RIVER

- The OSE will administer direct diversions to acequias based on the project diversion requirements (PDR) of **3.077** acre-feet per acre per year.
- Available river flow will be determined by the **8:00 A.M.** Reading at USGS Montezuma gage.

GALLINAS RIVER

- The Water Master will adjust the Weir at Storrie Lake to satisfy senior user needs and provide residual flow (including storm events) to Storrie Project Water Users Association .
- The Water Master will modify available flow to all users, based on field observations of beneficial use and data collected by OSE staff.
- Scheduled days may be traded among users, with all rotations starting/stopping at 8:00 A.M.
- The rotation schedule will suspend at flows below 4 cfs and greater than 20 cfs. The rotation schedule resumes at flows between 4 and 20 cfs, with no schedule changes.

GALLINAS RIVER

City of Las Vegas (COLV) Rotation Notes:

- The COLV may divert **all available flow less than 4 cfs.**
- The COLV may divert a flow of **1.5 cfs** for flow from **4 to less than 7 cfs**, with no rotation.
- The COLV may divert a flow of **3.5 cfs** for flow from **7 to less than 10 cfs**, on A **3-day schedule (3 days on, 3 days off)**.

GALLINAS RIVER

City of Las Vegas (COLV) Rotation

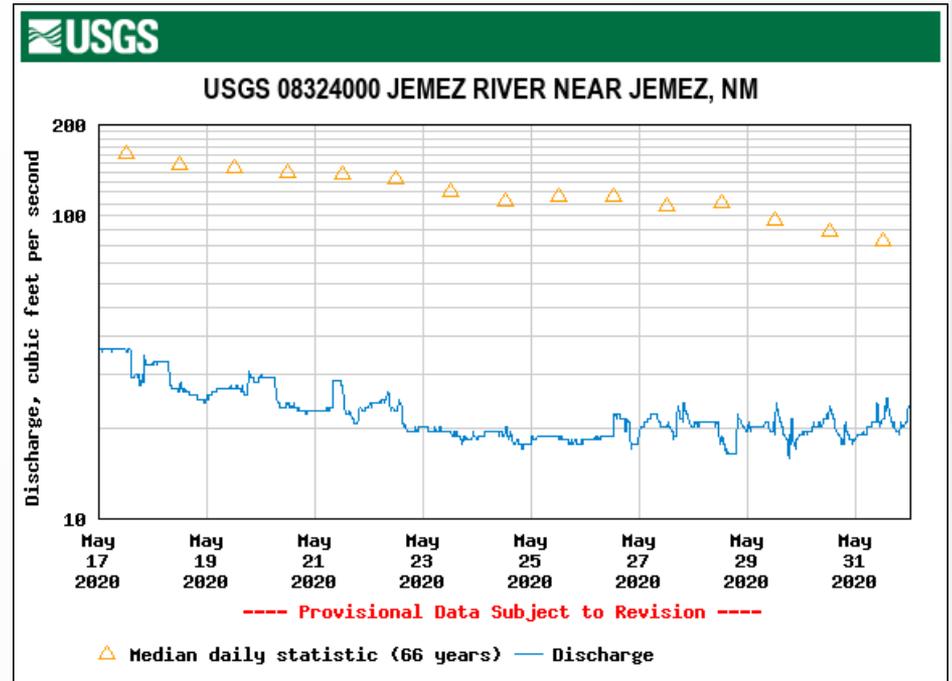
Notes:

- The COLV may divert a flow of **4.5 cfs** for flow from **10 to less than 15 cfs**, on a **3-day schedule (3 days on, 3 days off)**.
- The water master will administer flows in the river **between 15 cfs and 20 cfs** based upon senior water right availability and demand. Administration shall be at the sole discretion of the water master.

JEMEZ RIVER

2020 IRRIGATION ROTATION SCHEDULE ALONG THE JEMEZ RIVER

- July 2, 1996, an agreement between the United States, Pueblo of Jemez, and the pueblo of Zia and the Association (Jemez River Basin Water Users Association).
- This is in place until a decision can be made in the case of united state vs. Abousleman No. Civ. 83-1041 sc.
- Low stream flow will trigger the agreement; cubic feet per second (cfs) between 15-20 for consecutive days.
- Cfs measured at the USGS stream g08324000 Jemez River near Jemez.



2020 IRRIGATION ROTATION SCHEDULE ALONG THE JEMEZ RIVER

- **Weekly Irrigation Rotation Schedules A, B, C, D And E:**
 - **Schedule A :** Pueblos 6 Days, JRBWUA 1 Day
 - **Schedule B:** Pueblos 5 Days, JRBWUA 2 Days
 - **Schedule C:** Pueblos 4 Days, JRBWUA 3 Days
 - **Schedule D:** Unlimited Irrigation
 - **Schedule E:** Pueblos 7 Days, JRBWUA 0 Day

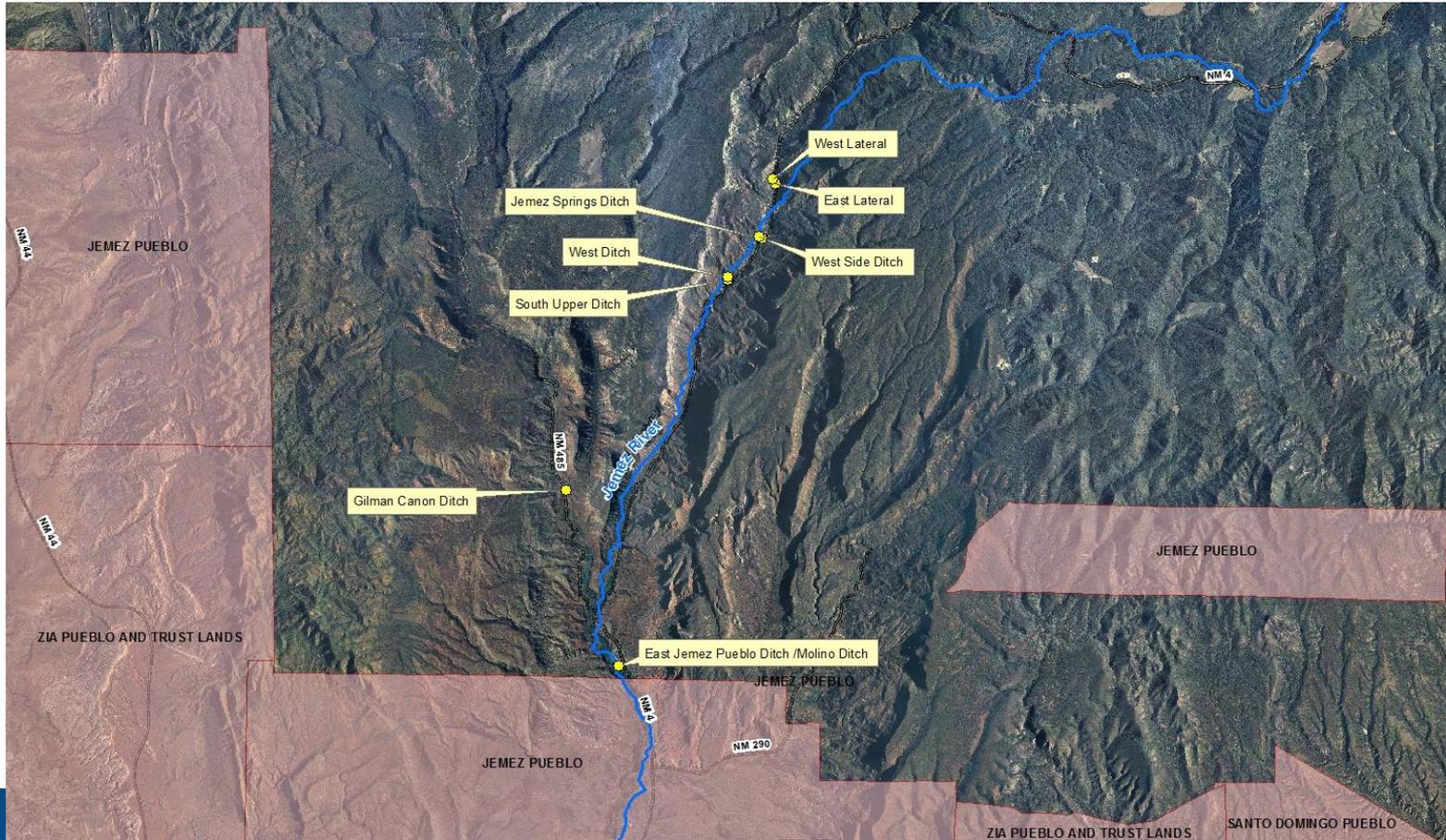
2020 IRRIGATION ROTATION SCHEDULE ALONG THE JEMEZ RIVER

- The *first* implementation of the irrigation rotation schedule was performed in the Summer of 2000. The irrigation rotation schedule had been issued an additional seven (7) years:
 - 2001 (Schedule A)
 - 2002 (Schedule A)
 - 2003 (Schedule A)
 - 2004 (Schedule A)
 - 2018 (Schedule A)
 - 2019 (Schedule A)
 - Present – 2020 (Schedule A) / on June 1, 2020, the Governor of the Jemez pueblo, David Toledo, filed A letter of notification with the Office of the State Engineer, initiating the 2020 irrigation rotation schedule.

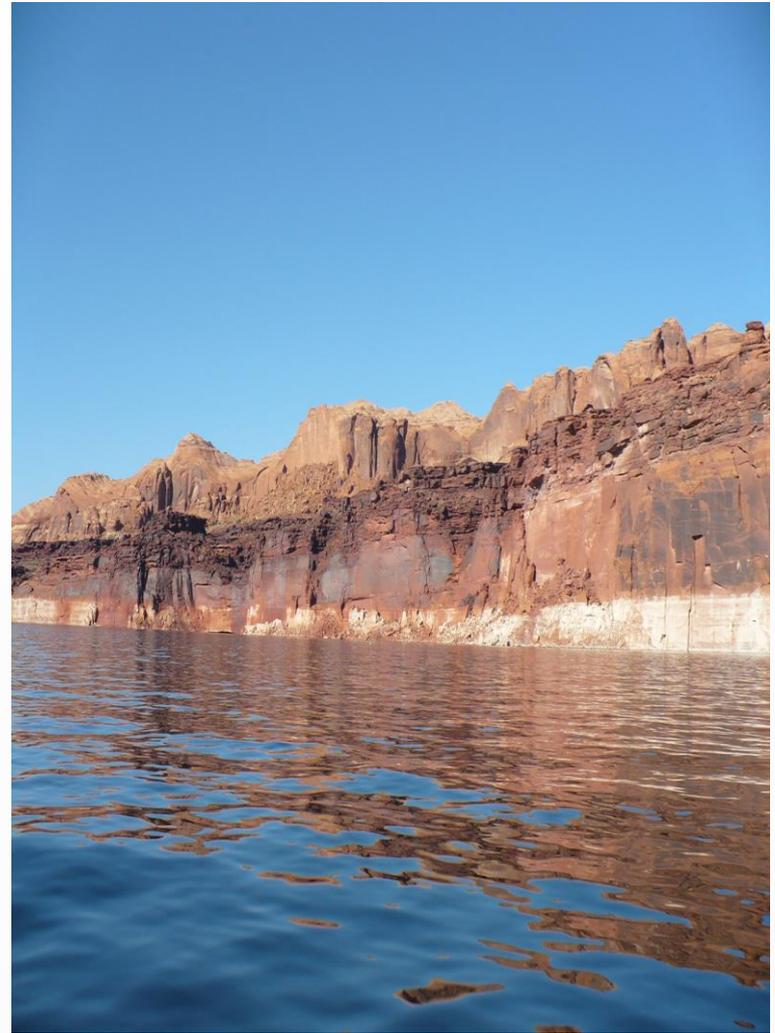
2020 IRRIGATION ROTATION SCHEDULE ALONG THE JEMEZ RIVER

- **Eight (8) ditches/laterals are associated with the rotation schedule:**
 - East Jemez Pueblo Ditch /Molino Ditch
 - Gilman Ditch
 - South Upper Ditch
 - West Ditch
 - West Side Ditch
 - Jemez Springs Ditch
 - East Lateral
 - West Lateral
- **The association has been compliant since the filing of the letter on June 1, 2020.**

2020 IRRIGATION ROTATION SCHEDULE ALONG THE JEMEZ RIVER – EIGHT (8) DITCHES/LATERALS ARE ASSOCIATED WITH THE ROTATION SCHEDULE



COLORADO RIVER BASIN



PHYSIOGRAPHIC FEATURES OF NM

- In arid-semiarid, desert region
- Water is the most precious resource
- Most streams are ephemeral; only a handful perennial (e.g., Rio Grande and San Juan)
- Groundwater is a major source of water supply



SAN JUAN BASIN



NAVAJO GALLUP WATER SUPPLY PROJECT

- **The Navajo-Gallup Water Supply Project is a major infrastructure project that will convey a reliable municipal and industrial water supply from the San Juan River to the eastern section of the Navajo Nation, southwestern portion of the Jicarilla Apache Nation, and the city of Gallup.**

NAVAJO GALLUP WATER SUPPLY PROJECT

- **These areas currently rely on a rapidly depleting groundwater supply that is of poor quality and inadequate to meet the current and future demands.**
- **The project consists of two separate pipeline systems which together will include approximately 280 miles of pipeline, multiple pumping plants, and two water treatment plants.**

NAVAJO GALLUP WATER SUPPLY PROJECT

- **The two pipelines will ultimately delivery of 37,764 acre-feet of water annually.**
 - The project's eastern branch (Cutter Lateral) will divert approximately 4,645 acre-feet of water annually with no return flow to the San Juan River.
 - The project's western branch will divert the remaining 33,119 acre-feet of water with an anticipated average annual return flow of 1,871 acre-feet.

THE SAN JUAN RECOVERY IMPLEMENTATION PROGRAM (SAN JUAN RIP)

- The San Juan RIP was established to recover the Colorado pikeminnow and the razorback sucker while allowing water development and management activities to continue in the San Juan River Basin of Colorado, New Mexico, and Utah.
 - The Program is showing progress, but that progress is slow, in part because the fish are very long lived
 - All New Mexico water users, including the San Juan Chama Project water users, receive endangered species compliance through the San Juan RIP.

THE SAN JUAN RECOVERY IMPLEMENTATION PROGRAM (SAN JUAN RIP)

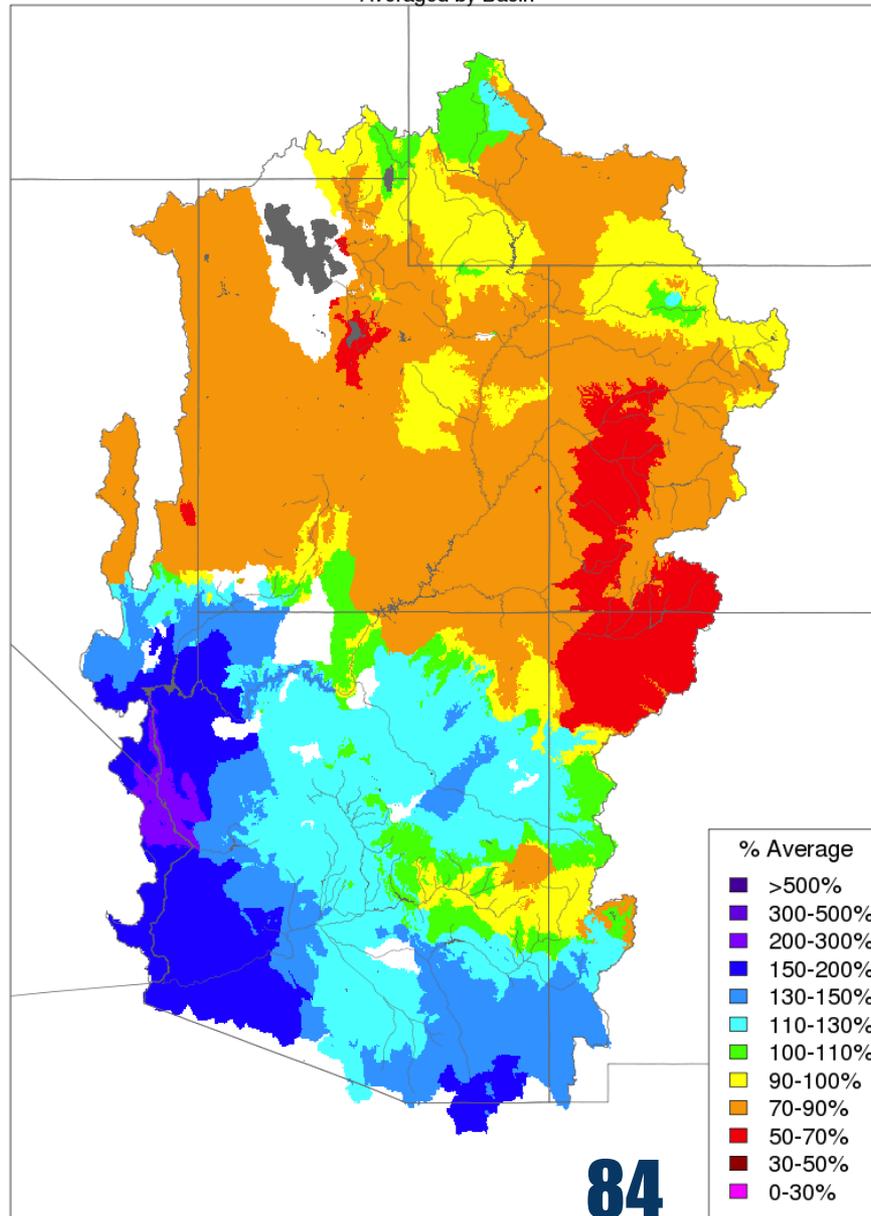
- **The San Juan RIP has historically received annual funding (currently about \$2.9 M/year) through Reclamation from hydropower revenues as well as direct capital appropriations from the federal government, Colorado, and New Mexico.**
- **The annual funding appropriation is in question through 2023.**

THE SAN JUAN RECOVERY IMPLEMENTATION PROGRAM (SAN JUAN RIP)

- **The San Juan RIP ends in 2023.** Reclamation and WAPA's hydropower funding White Paper indicates that significantly less funding will be available to the SJRIP in the future. Participants disagree with parts of the analysis and have begun discussions of what happens after 2023.

Water Year Precipitation, October 2019 - June 2020

Averaged by Basin



84

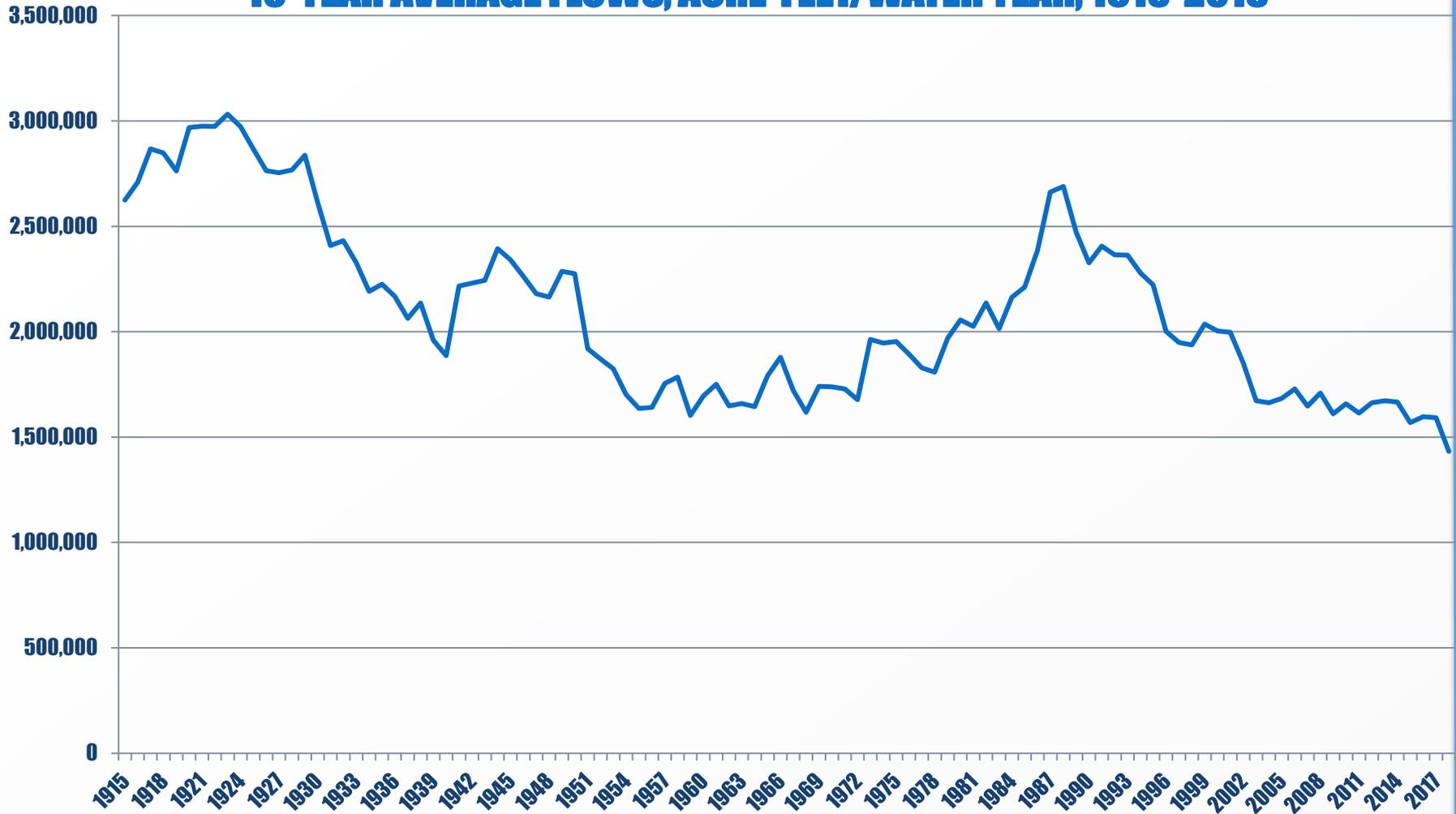
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

COLORADO RIVER BASIN

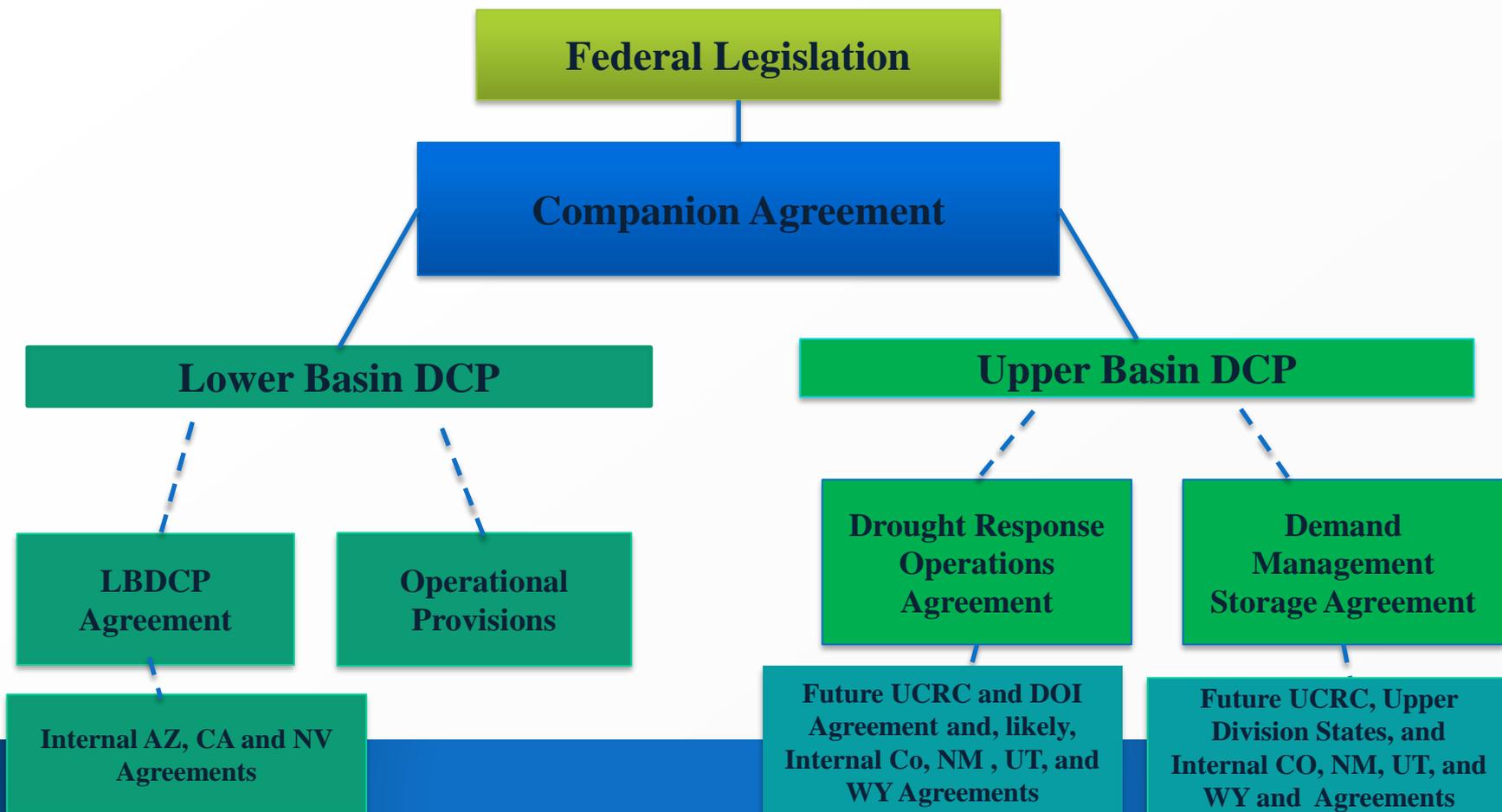
- **COLORADO RIVER DROUGHT CONTINGENCY EFFORTS**
 - DEMAND MANAGEMENT IN THE UPPER BASIN
 - STRATEGIC WATER RESERVE IMPLEMENTATION
 - POTENTIAL LEASE WITH JICARILLA APACHE NATION (NMISC AND TNC)
- **SAN JUAN RECOVERY IMPLEMENTATION PROGRAM**
- **NAVAJO GALLUP WATER SUPPLY PROJECT**
 - CUTTER LATERAL
 - SAN JUAN LATERAL

SAN JUAN RIVER NATURAL FLOWS

10-YEAR AVERAGE FLOWS, ACRE-FEET/WATER YEAR, 1915-2018



COLORADO RIVER BASIN DROUGHT CONTINGENCY PLANS (DCPS)



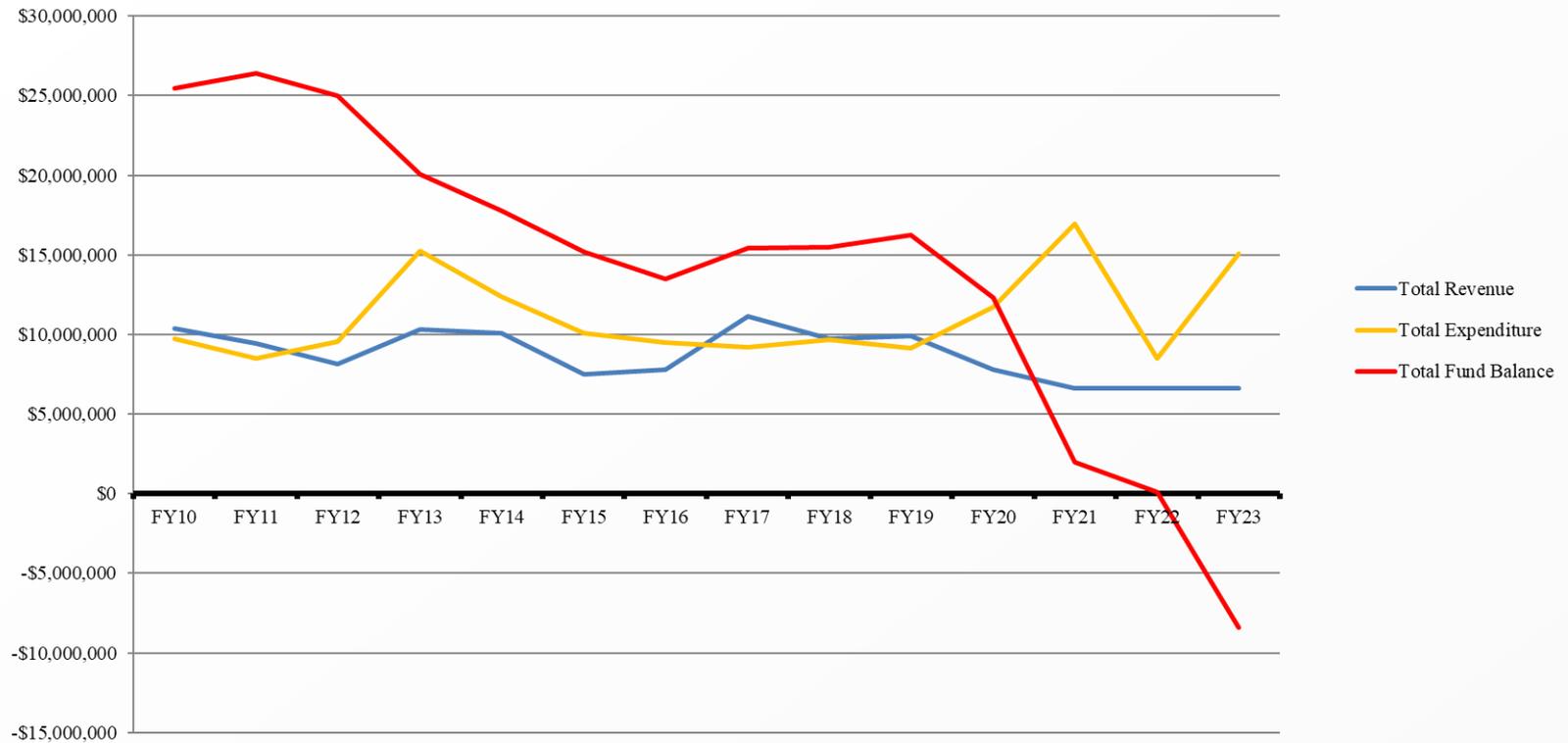
AGENCY TRUST FUNDS' INSOLVENCY

IMPROVEMENT OF THE RIO GRANDE INCOME FUND (328)

	O	P	Q	R	S	T	U	V	W
1									
2	IMPROVEMENT OF THE RIO GRANDE INCOME FUND (328)								
3		ACTUAL	ACTUAL	ACTUAL	ACTUAL	Estimate	Projected		
4		FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
5	BEGINNING BALANCE	\$6,502,230	\$6,574,787	\$9,012,226	\$9,112,726	\$9,887,723	\$8,325,647	\$7,211,347	(\$490,653)
6	REVENUE								
7	Permanent Fund	\$1,495,407	\$1,414,189	\$1,523,935	\$1,556,253	\$1,556,192	\$1,300,000	\$1,300,000	\$1,300,000
8	Interest/Loans								
9	Lease Income	\$90,505	\$1,443,926	\$587,020	\$221,008	\$156,664	\$150,000	\$150,000	\$150,000
10	Investment Income (Loss)	\$35,837	\$277,493	\$289,259	\$479,910	\$225,068	\$200,000	\$200,000	\$200,000
11	Miscellaneous			\$42,741					
12	TOTAL REVENUE	\$1,621,749	\$3,135,608	\$2,442,955	\$2,257,171	\$1,937,924	\$1,650,000	\$1,650,000	\$1,650,000
13									
14	EXPENDITURES								
15	Specials & BAR Authority								
16	Operating Budget	\$1,549,191	\$698,168	\$2,342,455	\$1,482,174	\$2,500,000	\$1,764,300	\$8,352,000	\$1,764,300
17	Forestry Fund					\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
18	TOTAL EXPENDITURES	\$1,549,191	\$698,168	\$2,342,455	\$1,482,174	\$3,500,000	\$2,764,300	\$9,352,000	\$2,764,300
19	ADJUSTED BALANCE	\$6,574,788	\$9,012,226	\$9,112,726	\$9,887,723	\$8,325,647	\$7,211,347	(\$490,653)	(\$1,604,953)

IRRIGATION WORKS CONSTRUCTION FUND

Irrigation Works Construction Fund
Revenues, Expenditures and Fund Balance Since 2010

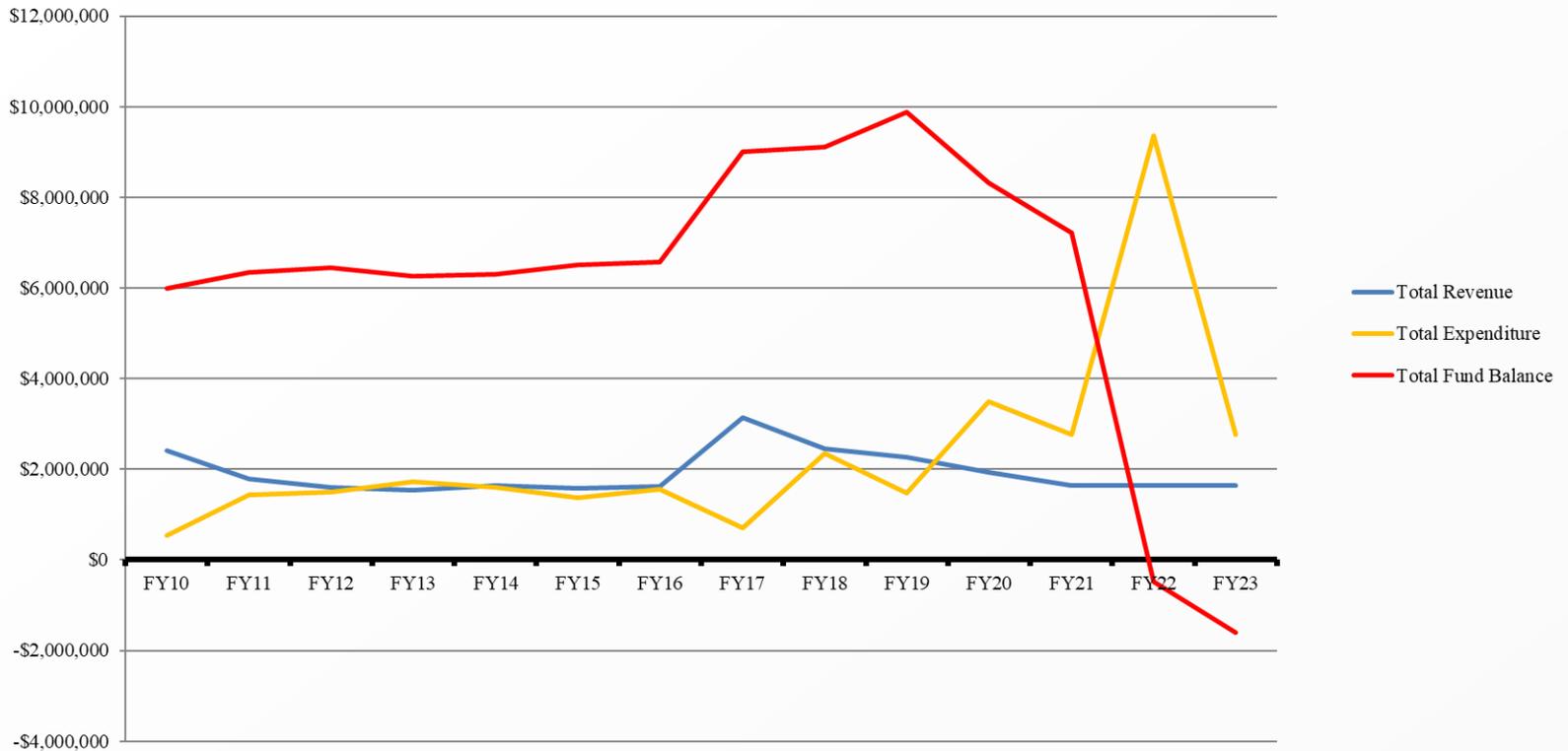


IRRIGATION WORKS CONSTRUCTION FUND (326)

	B	C	D	E	F	G	H	I	J
1									
2	IRRIGATION WORKS CONSTRUCTION FUND (326)								
3		ACTUAL	ACTUAL	ACTUAL	ACTUAL	Estimate	Projected		
4		FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
5	BEGINNING BALANCE	\$15,207,005	\$13,509,420	\$15,418,005	\$15,496,439	\$16,248,298	\$12,301,375	\$1,978,675	\$93,675
6	REVENUE								
7	Permanent Fund	\$6,633,195	\$6,320,881	\$6,664,822	\$6,968,489	\$6,968,761	\$5,800,000	\$5,800,000	\$5,800,000
8	Interest/Loans	\$23,408	\$36,108	\$23,397	\$19,059	\$17,457	\$15,000	\$15,000	\$15,000
9	Lease Income	\$747,611	\$2,968,259	\$1,640,000	\$988,106	\$808,139	\$750,000	\$750,000	\$750,000
10	Investment Income (Loss)	\$342,433	\$1,787,009	\$1,430,320	\$1,798,600	\$3,220	\$0	\$0	\$0
11	Miscellaneous	\$35,800			\$128,709	\$5,500	\$50,000	\$50,000	\$50,000
12	Adjustments								
13	TOTAL REVENUE	\$7,782,447	\$11,112,257	\$9,758,539	\$9,902,963	\$7,803,077	\$6,615,000	\$6,615,000	\$6,615,000
14									
15	EXPENDITURES								
16	Specials & BAR Authority					\$750,000	\$1,850,000		
17	Operating Budget	\$9,480,032	\$9,203,672	\$9,680,105	\$9,151,104	\$10,000,000	\$11,587,700	\$5,000,000	\$11,587,700
18	Forestry Fund					\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
19	Acequia Fund						\$2,500,000	\$2,500,000	\$2,500,000
20	TOTAL EXPENDITURES	\$9,480,032	\$9,203,672	\$9,680,105	\$9,151,104	\$11,750,000	\$16,937,700	\$8,500,000	\$15,087,700
21	ADJUSTED BALANCE	\$13,509,420	\$15,418,005	\$15,496,439	\$16,248,298	\$12,301,375	\$1,978,675	\$93,675	(\$8,379,025)

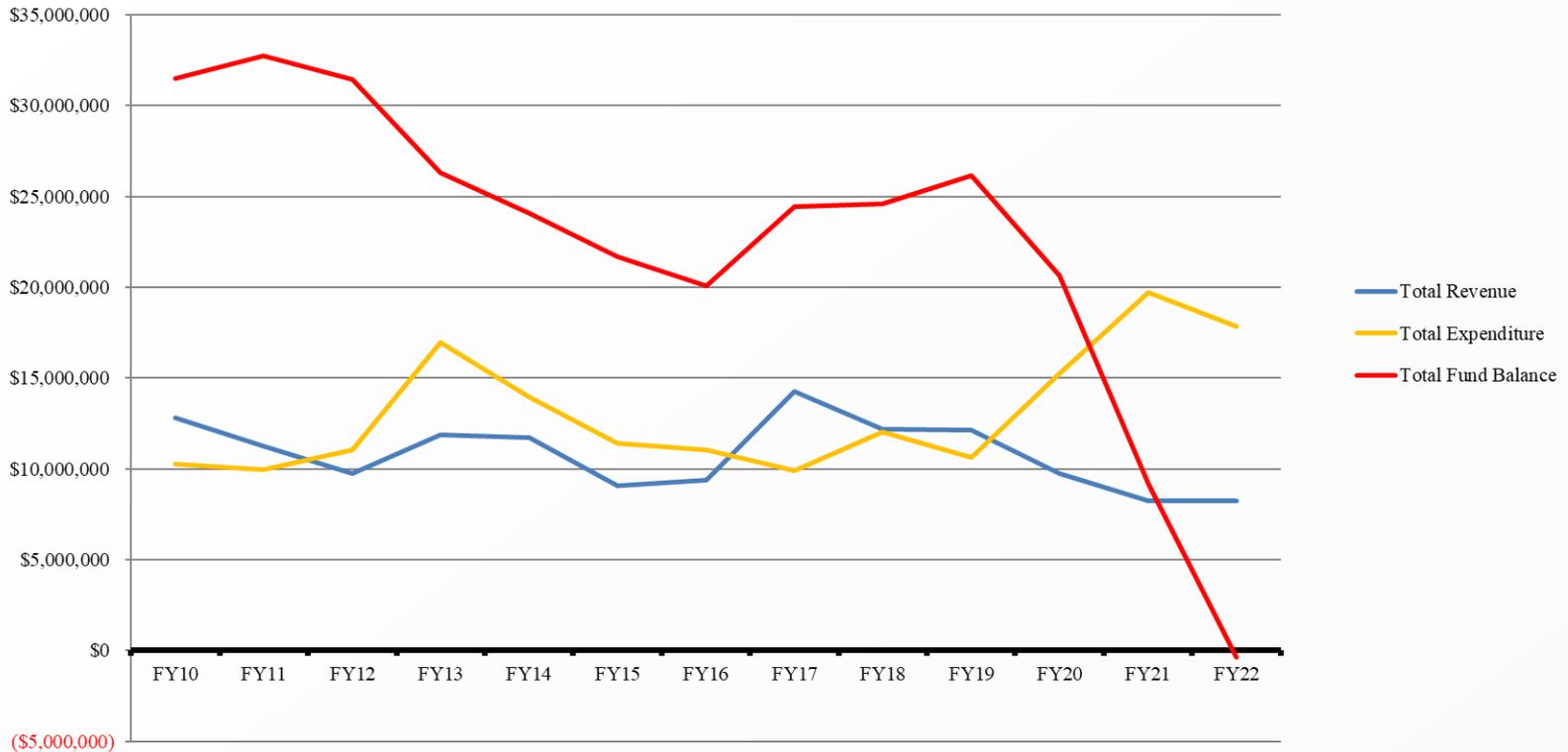
IMPROVEMENT OF THE RIO GRANDE FUND

Improvement of the Rio Grande Fund Revenues, Expenditures and Fund Balance Since 2010



OSE TRUST FUNDS COMBINED

**OSE Trust Funds Combined
Revenues, Expenditures and Fund Balance Since 2010**



5 YEAR PLAN REDUCTION TO OSE TRUST FUNDS 2019

Legislated 5-Year Plan to Reduce OSE Reliance on Trust Funds Contained in 2019 General Appropriations Act:

22 On or before October 1, 2019, the office of the state engineer shall present to the legislature a
 23 five-year plan, covering a period beginning in fiscal year 2021, to reduce expenditures from the trust
 24 funds for operations by replacing it with general fund revenue and to address the long-term solvency of
 25 the irrigation works construction fund and the improvement of Rio Grande income fund, to include a plan

HAFC/H 2 AND 3, aa - Page 76

Item	General Fund	Other State Funds	Intrnl Svc Funds/Inter-Agency Trnsf	Federal Funds	Total/Target
------	--------------	-------------------	-------------------------------------	---------------	--------------

1 to engage and support beneficiaries including but not limited to acequias, community ditches and other
 2 partners.

5-Year \$9M General Fund Replacement Plan with \$1M Replacement First Year and \$2M Per Year Thereafter

FY 20 OPERATING BUDGET						
<i>Funding Source:</i>	WRAP	ISC	LAP	PS	<i>Total:</i>	<i>Net swap:</i>
Irrigation Works Construction Fund	1,845	7,195	2,548	809	12,397	
Improvement to the Rio Grande Fund	148	1,885	539	200	2,771	
General Fund	11,993	1,658	2,040	3,546	19,237	
Water Master	666				666	
Emergency Drought Water Agreement		668			668	
Game Protection Fund		182			182	
Misc.		125			125	
Strategic Water Reserve		743			743	
Arizona Water Settlement		1,107			1,107	
Water Project Fund			2,238		2,238	
	14,651	13,564	7,364	4,555	40,134	

GF Replacement Plan Year 1 - FY21 (Based on FY20 OpBud Levels)						
<i>Funding Source:</i>	WRAP	ISC	LAP	PS	<i>Total:</i>	<i>Net swap:</i>
Irrigation Works Construction Fund	1,845	7,195	2,548	-	11,587	(809)
Improvement to the Rio Grande Fund	148	1,885	539	-	2,571	(200)
General Fund	11,993	1,658	2,040	4,555	20,246	1,009
Water Master	666				666	-
Emergency Drought Water Agreement		668			668	-
Game Protection Fund		182			182	-
Misc.		125			125	-
Strategic Water Reserve		743			743	-
Arizona Water Settlement		1,107			1,107	-
Water Project Fund			2,238		2,238	-
	14,651	13,564	7,364	4,555	40,134	-

GF Replacement Plan Year 2 - FY22						
<i>Funding Source:</i>	WRAP	ISC	LAP	PS	<i>Total:</i>	<i>Net swap:</i>
Irrigation Works Construction Fund	1,845	7,195	1,087		10,126	(2,270)
Improvement to the Rio Grande Fund	148	1,885			2,033	(739)
General Fund	11,993	1,658	4,040	4,555	22,246	3,009
Water Master	666	-	-	-	666	-
Emergency Drought Water Agreement	-	668	-	-	668	-
Game Protection Fund	-	182	-	-	182	-
Misc.	-	125	-	-	125	-
Strategic Water Reserve	-	743	-	-	743	-
Arizona Water Settlement	-	1,107	-	-	1,107	-
Water Project Fund	-	-	2,238	-	2,238	-
	14,651	13,564	7,364	4,555	40,134	-

GF Replacement Plan Year 3 - FY23						
<i>Funding Source:</i>	WRAP	ISC	LAP	PS	<i>Total:</i>	<i>Net swap:</i>
Irrigation Works Construction Fund	931	7,195	-	-	8,126	(4,270)
Improvement to the Rio Grande Fund	148	1,885	-	-	2,033	(739)
General Fund	12,906	1,658	5,126	4,555	24,246	5,009
Water Master	666	-	-	-	666	-
Emergency Drought Water Agreement	-	668	-	-	668	-
Game Protection Fund	-	182	-	-	182	-
Misc.	-	125	-	-	125	-
Strategic Water Reserve	-	743	-	-	743	-
Arizona Water Settlement	-	1,107	-	-	1,107	-
Water Project Fund	-	-	2,238	-	2,238	-
	14,651	13,564	7,364	4,555	40,134	-

5-Year \$9M General Fund Replacement Plan with \$1M Replacement First Year and \$2M Per Year Thereafter

GF Replacement Plan Year 4 - FY24

<i>Funding Source:</i>	WRAP	ISC	LAP	PS	Total:	Net swap:
Irrigation Works Construction Fund	-	6,274	-	-	6,274	(6,123)
Improvement to the Rio Grande Fund	-	1,885	-	-	1,885	(886)
General Fund	13,985	2,580	5,126	4,555	26,246	7,009
Water Master	666	-	-	-	666	-
Emergency Drought Water Agreement	-	668	-	-	668	-
Game Protection Fund	-	182	-	-	182	-
Misc.	-	125	-	-	125	-
Strategic Water Reserve	-	743	-	-	743	-
Arizona Water Settlement	-	1,107	-	-	1,107	-
Water Project Fund	-	-	2,238	-	2,238	-
	14,651	13,564	7,364	4,555	40,134	-

GF Replacement Plan Year 5 - FY25

<i>Funding Source:</i>	WRAP	ISC	LAP	PS	Total:	Net swap:
Irrigation Works Construction Fund	-	4,274	-	-	4,274	(8,123)
Improvement to the Rio Grande Fund	-	1,885	-	-	1,885	(886)
General Fund	13,985	4,580	5,126	4,555	28,246	9,009
Water Master	666	-	-	-	666	-
Emergency Drought Water Agreement	-	668	-	-	668	-
Game Protection Fund	-	182	-	-	182	-
Misc.	-	125	-	-	125	-
Strategic Water Reserve	-	743	-	-	743	-
Arizona Water Settlement	-	1,107	-	-	1,107	-
Water Project Fund	-	-	2,238	-	2,238	-
	14,651	13,564	7,364	4,555	40,134	-

QUESTIONS?

