BUREAU OF RECLAMATION

Calendar Year 2025 Report to the Rio Grande Compact Commission

Interior Region 7: Upper Colorado Basin

Mission Statements

The U.S. Department of the Interior protects and manages the Nation’s natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Calendar Year 2025 Report to the Rio Grande Compact Commission

Interior Region 7: Upper Colorado Basin

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Cover Photo: Upstream view Elephant Butte Dam with the Northern Lights, (Reclamation, November 2025)

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Acronyms

ABCWUA ..... Albuquerque Bernalillo County Water Utility Authority
ac-ft ..... acre-feet
AIS ..... Aquatic Invasive Species
ANWR ..... Alamosa National Wildlife Refuge
AOP ..... Rio Grande Annual Operating Plan
BdA ..... Bosque del Apache National Wildlife Refuge
BIA ..... Bureau of Indian Affairs
BLM ..... Bureau of Land Management
BWHA ..... Blanca Wildlife Habitat Area
CADSWES ..... Center for Advanced Decision Support for Water and Environmental Systems
CBD ..... San Luis Valley Project-Closed Basin Division
cfs ..... cubic feet per second
Collaborative Program ..... MRG Endangered Species Collaborative Program
Compact ..... Rio Grande Compact of 1938
CP&G ..... Comprehensive Plan and Guide
CPUE ..... Catch-Per-Unit-Effort
CPW ..... Colorado Parks and Wildlife
cuckoo ..... Western Yellow-billed Cuckoo
CWA ..... Clean Water Act
Delta Channel ..... San Marcial Delta Water Conveyance Channel Project
D.N.M. ..... District Court of New Mexico
DMI ..... Data Management Interface
DOI ..... U.S. Department of the Interior
EBID ..... Elephant Butte Irrigation District
EDW ..... Emergency Drought Water
EIS ..... Environment Impact Statement
EPCWID ..... El Paso County Water Improvement District No. 1
EPWSD ..... El Prado Water and Sanitation District
ESA ..... Endangered Species Act
ET ..... Evapotranspiration
EWLP ..... Environmental Water Leasing Program
flycatcher ..... Southwestern Willow Flycatcher
HCCRD ..... Hudspeth County Conservation and Reclamation District No. 1
HDB ..... Hydrologic Database
HydroMet ..... Hydrologic and Meteorological Monitoring Stations
IBWC ..... International Boundary and Water Commission
IDD ..... Isleta Diversion Dam
JPL ..... NASA's Jet Propulsion Laboratory
jumping mouse ..... New Mexico Meadow Jumping Mouse
kWhr ..... kilowatt-hour
LFCC ..... Low Flow Conveyance Channel
LiDAR ..... Light Detection and Ranging
LSARI ..... Lower San Acacia Reach Project
MDWCA ..... Mutual Domestic Water Consumer Association

MF-OWHM ..... MODFLOW One-Water Hydrologic Flow Model
MODFLOW ..... Modular Three-Dimensional Finite-Difference Groundwater Flow Model
MRG..... Middle Rio Grande
MRG BO ..... 2016 Middle Rio Grande Biological Opinion
MRGP ..... Middle Rio Grande Project
MRGCD ..... Middle Rio Grande Conservancy District
NAA ..... Native American Affairs
NASA..... National Aeronautics and Space Administration
NCAR..... National Center for Atmospheric Research
NMDGF ..... New Mexico Department of Game and Fish
NMISC ..... New Mexico Interstate Stream Commission
NRCS ..... Natural Resources Conservation Service
O&M ..... Operation and Maintenance
P&P ..... Prior and Paramount
PVID ..... Pojoaque Valley Irrigation District
Reclamation..... Bureau of Reclamation
RGP..... Rio Grande Project
RGP BO ..... Rio Grande Project Biological Opinion
RGSM ..... Rio Grande Silvery Minnow
RGTIHM..... Rio Grande Transboundary Integrated Hydrologic Model
Rio Chiquito ..... Acequia Madre del Rio Chiquito/Acequia del Monte del Rio Chiquito
RM ..... River Mile
RR-SWA ..... City of Rio Rancho
RWS..... Regional Water System
S&T..... Science and Technology Program
SADD..... San Acacia Diversion Dam
Santa Fe..... City of Santa Fe
SCOTUS ..... Supreme Court of the United States
SECURE ..... Science and Engineering to Comprehensively Understand and Responsibly Enhance Water Act
SJCP..... San Juan-Chama Project
SWA..... State Wildlife Area
SWFL ..... Southwestern Willow Flycatcher
Title XVI..... Title XVI of P.L. 102-575, Water Reclamation and Reuse Program
TRGWM ..... Transboundary Rio Grande Watershed Model
URGWOM..... Upper Rio Grande Water Operations Model
USACE..... U.S. Army Corps of Engineers
USFWS ..... U.S. Fish and Wildlife Service
USGS ..... U.S. Geological Survey
WaterSMART ..... DOI’s Sustain and Manage America's Resources for Tomorrow Program

Introduction

The Bureau of Reclamation (Reclamation) is responsible for operation, maintenance, and oversight of four projects on the mainstem of the Rio Grande and its upper basin tributaries. These projects are the San Luis Valley Project, the San Juan-Chama Project (SJCP), the Middle Rio Grande Project (MRGP), and the Rio Grande Project (RGP).

The San Luis Valley Project in Colorado consists of two divisions: the Conejos Division, which includes Platoro Dam and Reservoir, supplies water for approximately 81,000 acres within the Conejos Water Conservancy District; and the Closed Basin Division (CBD), a groundwater salvage project located near Alamosa, Colorado, which pumps water from the shallow, unconfined aquifer primarily to assist Colorado in meeting its commitment under the Rio Grande Compact (Compact) of 1938.

The SJCP consists of a system of diversion structures, tunnels, and channels for transbasin movement of water from the San Juan River Basin to the Rio Grande Basin as a component of the Colorado River Storage Project. The transbasin water stored in Heron Reservoir supplies water for municipal, domestic, industrial, recreation, fish and wildlife purposes, and supplemental water for irrigation. Another part of the SJCP is the Pojoaque Tributary Unit including Nambé Falls Dam. The Pojoaque Tributary Unit supplies water for approximately 2,800 irrigated acres in the Pojoaque Valley.

The MRGP consists of El Vado Dam and Reservoir, Angostura, Isleta, and San Acacia Diversion Dams, the Low Flow Conveyance Channel (LFCC). It supplies water to 50,000 – 70,000 acres of land within the Middle Rio Grande Conservancy District (MRGCD) and includes irrigated lands of the Six Middle Rio Grande Pueblos (Pueblo de Cochiti, Santo Domingo Tribe, Pueblo of San Felipe, Santa Ana Pueblo, Pueblo of Sandia, and Pueblo of Isleta). Additionally, the MRGP maintains valley drainage and provides flood protection to over one million people. The MRGP also includes ongoing maintenance by Reclamation of 260 miles of the Rio Grande channel from Velarde, New Mexico to Caballo Reservoir, to support delivery of water through the MRG Valley, where the natural hydrological effects of the river's flow create some of the highest sediment loads in the world, directly supporting New Mexico's Compact commitments.

The RGP includes Elephant Butte and Caballo Reservoirs, and Percha, Leasburg, and Mesilla Diversion Dams. It stretches from the lower Rio Grande Valley of southern New Mexico to Fort Quitman, Texas. The RGP provides agricultural water supply for approximately 178,000 acres of land within the Elephant Butte Irrigation District (EBID) in New Mexico and the El Paso County Water Improvement District No. 1 (EPCWID) in Texas. Water is also supplied for diversion to the Republic of Mexico by the United States Section of the International Boundary and Water Commission (IBWC), according to the terms of the Convention of 1906 between the United States and the Republic of Mexico. Drainage waters from the RGP provides a supplemental supply for approximately 18,000 acres of land within the Hudspeth County Conservation and Reclamation District No. 1 (HCCRD) in Texas. Elephant Butte Dam also generates hydroelectric power that is marketed by the Western Area Power Administration.

San Luis Valley Project, Colorado

There are two divisions within the San Luis Valley Project (see Figure 1): the Conejos Division and CBD.

The Conejos Division facilities include Platoro Dam and Reservoir, which are operated and maintained by the Conejos Water Conservancy District, and which regulate the water supply for up to 81,000 acres of irrigated land.

The CBD salvages shallow groundwater in San Luis Valley's Closed Basin. The salvaged water is delivered to the Rio Grande to help meet Colorado's water delivery requirements in accordance with the Compact and the Convention of 1906, a treaty with the Republic of Mexico. This project also conveys water to the Alamosa National Wildlife Refuge (ANWR), the Bureau of Land Management's Blanca Wildlife Habitat Area (BWHA), and the San Luis Lakes State Wildlife Area (SWA). Reclamation operates the project under the guidance of the San Luis Valley's CBD Operating Committee.

Conejos Division

Platoro Operations

Platoro Reservoir began 2025 at an elevation of 9,999.55 ft (30,652 ac-ft). The maximum elevation for the year was 10,002.33 ft (32,647 ac-ft) on June 7. The reservoir ended the year at 9,989.35 ft (23,847 ac-ft), which was the minimum for the year. Article VII[1] restrictions were in effect for the entire year.

2026 Platoro Outlook

The March 2026 Natural Resources Conservation Service (NRCS) most probable forecast for Platoro Reservoir inflow from April to July is for 34,000 ac-ft (67 percent of median). Given current RGP storage, it is expected that Article VII restrictions will remain in place throughout 2026.

[1] Refers to the Rio Grande Compact of 1938, Article VII; see the Article VII section under Rio Grande Project.

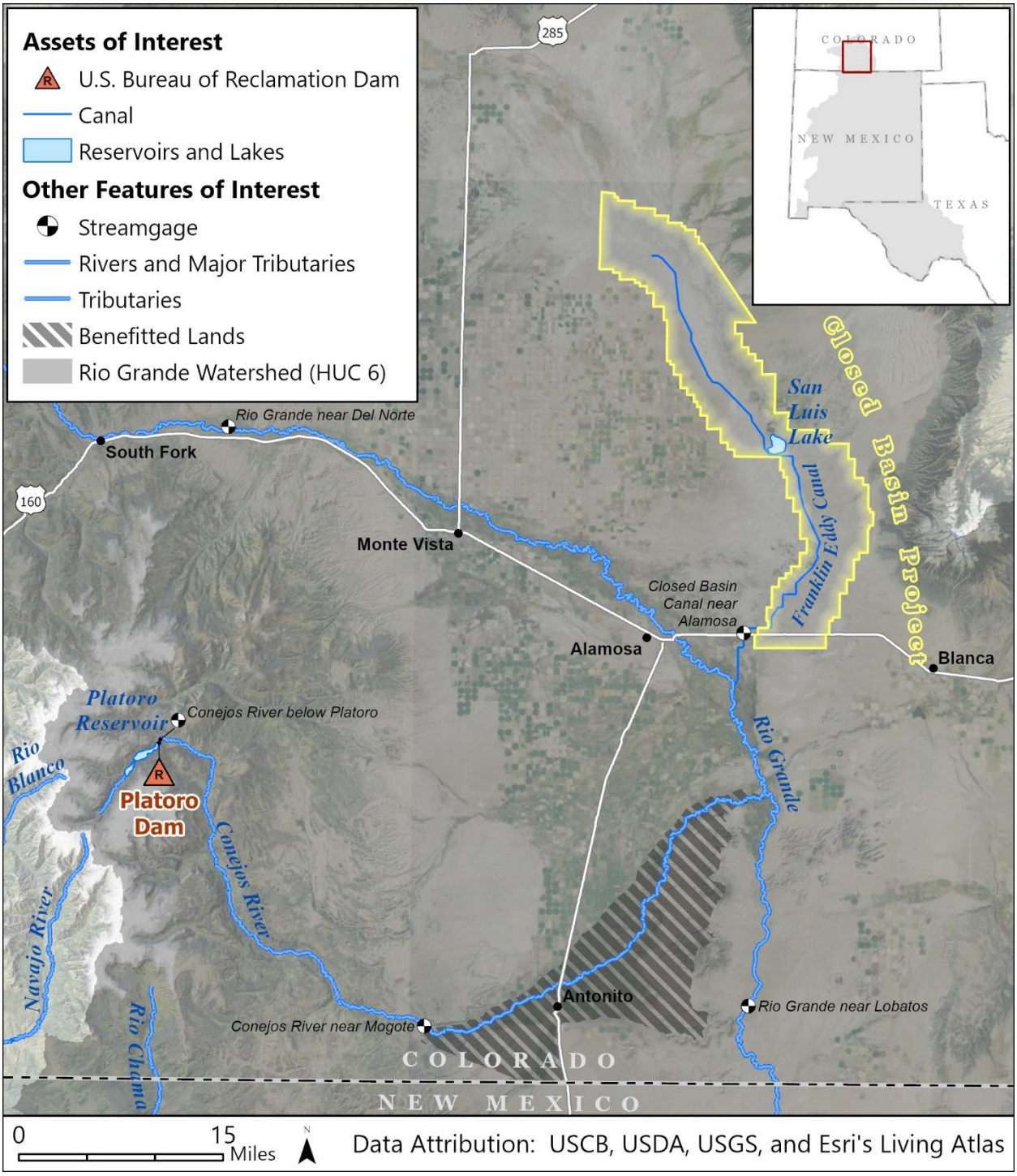

Figure 1. Map of the San Luis Valley Project in Colorado

Platoro Dam Facility Review and Safety of Dams Program

Platoro Dam has no significant dam safety-related operation and maintenance (O&M) issues and has a Facility Reliability Rating of 100 which is considered "good". A Periodic Facility Review for Platoro Dam was completed in July 2025.

Closed Basin Division

Operations

The CBD continues to supply Compact and mitigation water deliveries. The San Luis Valley remains in a long-term drought. Since 2002, some areas of the water table in the unconfined aquifer have dropped significantly. CBD salvage wells are operated to minimize aquifer impacts outside of the project area. Salvage wells that were turned off at the recommendation of the Operating Committee remain off while nearby water levels are monitored.

Deliveries by the CBD included deliveries to the Rio Grande, BWHA, ANWR, and the San Luis Lakes SWA. In 2025 the CBD produced 11,054 ac-ft. Of that, total creditable Compact water[1] delivered to the Rio Grande was 7,662 ac-ft. This included 7,128 ac-ft delivered at the CBD canal outlet, 509 ac-ft of exchanges with Bureau of Land Management (BLM), and a 25 ac-ft exchange with Colorado Parks and Wildlife (CPW) delivered to the San Luis Lakes SWA. The ANWR was owed a total mitigation amount of 2,592 ac-ft. Of this total, 2,342 ac-ft was delivered to the ANWR, while 250 ac-ft was delivered to the BWHA through an exchange between U.S. Fish and Wildlife Service (USFWS) and BLM. Table 1 reports total production and Compact deliveries in 2025 and the four preceding years. Table 2 shows total water accounting by delivery location and month.

Table 1: CBD Deliveries 2021-2025[2]

Year	Total CBD Production	Delivered at CBD Canal Outlet	Delivered by Exchange[3]	Total Creditable Delivery
2025	11,054	7,128	534	7,662
2024	11,360	7,357	622	7,979
2023	11,004	7,440	162	7,602
2022	11,673	8,110	166	8,276
2021	11,600	7,777	462	8,239

[1] Refers to the Rio Grande Compact of 1938, Article III.
[2] Units are ac-ft.
[3] CBD water delivered to BWHA or San Luis Lakes SWA in exchange for other water sources delivered upstream to the Rio Grande.

Table 2: 2025 CBD Water Accounting[1]

Month	BWHA CH03 Sta. 730+00	BWHA CH04 Sta. 798+60	BWHA Total[2]	Parshall Flume Total Passing	Parshall Flume Creditable	ANWR CH01 Chicago Turnout	ANWR CH02 Mum Turnout	ANWR Pumping Plant	ANWR Total	RG Flume Less Delivery	Creditable Delivery	Non Creditable Delivery	Total CDB Production
Jan	0	0	0	902	902	0	0	0	0	902	902	0	902
Feb	0	22	22	775	775	26	26	0	52	723	723	0	797
Mar	41	111	152	852	852	272	281	0	553	299	299	0	1004
Apr	82	75	157	712	712	58	51	0	109	603	603	0	869
May	0	0	0	868	868	0	0	0	0	868	868	0	868
Jun	0	0	0	797	797	0	0	0	0	797	797	0	797
Jul	213	223	436	442	442	0	0	0	0	442	442	0	878
Aug	244	194	438	518	518	127	209	0	336	182	182	0	956
Sep	223	116	339	648	648	297	224	0	521	127	127	0	987
Oct	15	0	15	960	960	283	272	0	555	405	405	0	975
Nov	0	0	0	978	978	109	107	0	216	762	762	0	978
Dec	0	0	0	1018	1018	0	0	0	0	1018	1018	0	1018
Annual	818	741	1,559	9,470	9,470	1,172	1,170	0	2,342	7,128	7,128	0	11,029

Water Quality

The Compact specifies that creditable water delivered to the Rio Grande cannot exceed 350 parts per million total dissolved solids based on a 10-day average. Reclamation monitors the water quality of CBD salvage wells, the Rio Grande, San Luis Lake, Head Lake, and the conveyance channel with 1,246 samples collected during 2025. All 2025 water deliveries met these water-quality standards.

Maintenance

Routine preventive maintenance and repair activities continue at all observation and salvage wells, lateral-line valves, canal structures, pumping plants, and canal and lateral access roads. In 2025, 10 new pumps were installed, and 18 salvage wells were rehabilitated.

[1] Units are ac-ft. CBD Production is 11,029 + 25 ac-ft of delivery to CPW, bringing the total to 11,054 ac-ft.
[2] Delivery to BWHA includes 71 ac-ft exchange of Shaw Reservoir water released from Continental Reservoir, 800 ac-ft of mitigation water, 178 ac-ft exchange CPW Beaver Park Reservoir, 260 ac-ft exchange of water released from Shaw Reservoir, and 250 ac-ft mitigation water transfer from ANWR.

San Juan-Chama Project, Colorado and New Mexico

The SJCP diverts water at three diversion dams from the upper tributaries of the San Juan River in Colorado through the Azotea Tunnel to Heron Reservoir in New Mexico, ultimately for use in the Rio Grande Basin of New Mexico and providing water for municipal, domestic, and industrial use (see Figure 2). In addition, supplemental irrigation water is provided to the MRGCD and the Pojoaque Valley Irrigation District (PVID) by offsetting the depletion to Rio Grande flow caused by PVID's water storage. The Compact requires this transbasin water from the SJCP to be accounted for separately from native Rio Grande flow.

San Juan-Chama Project Accounting

Reclamation is responsible for water contracts and water accounting for the SJCP. SJCP accounting for 2025 is provided to the Rio Grande Compact Commission in the *2025 Water Accounting Report*. Reclamation continued to use Microsoft Excel to create the Water Accounting Report by mining accounting data from Reclamation's hydrologic database (HDB), Reclamation's database of record. The data are computed and recorded in RiverWare and sent to HDB via a Data Management Interface (DMI).

Heron Dam and Reservoir Operations

Diversions into the Azotea Tunnel began on February 24. Flow tapered off dramatically in the summer, and diversions ceased July 9 to meet required bypass flows to the San Juan River. A large storm allowed diversions to resume from September 12 to 15, and another in October allowed diversions to again resume from October 11 to November 12. The total volume measured at the Azotea Tunnel outlet was 45,507 ac-ft. The 10-year average of Azotea Tunnel outflow decreased this year from 92,267 ac-ft for the period 2015 through 2024 to 87,761 ac-ft for the period 2016 through 2025 (see Table 3).

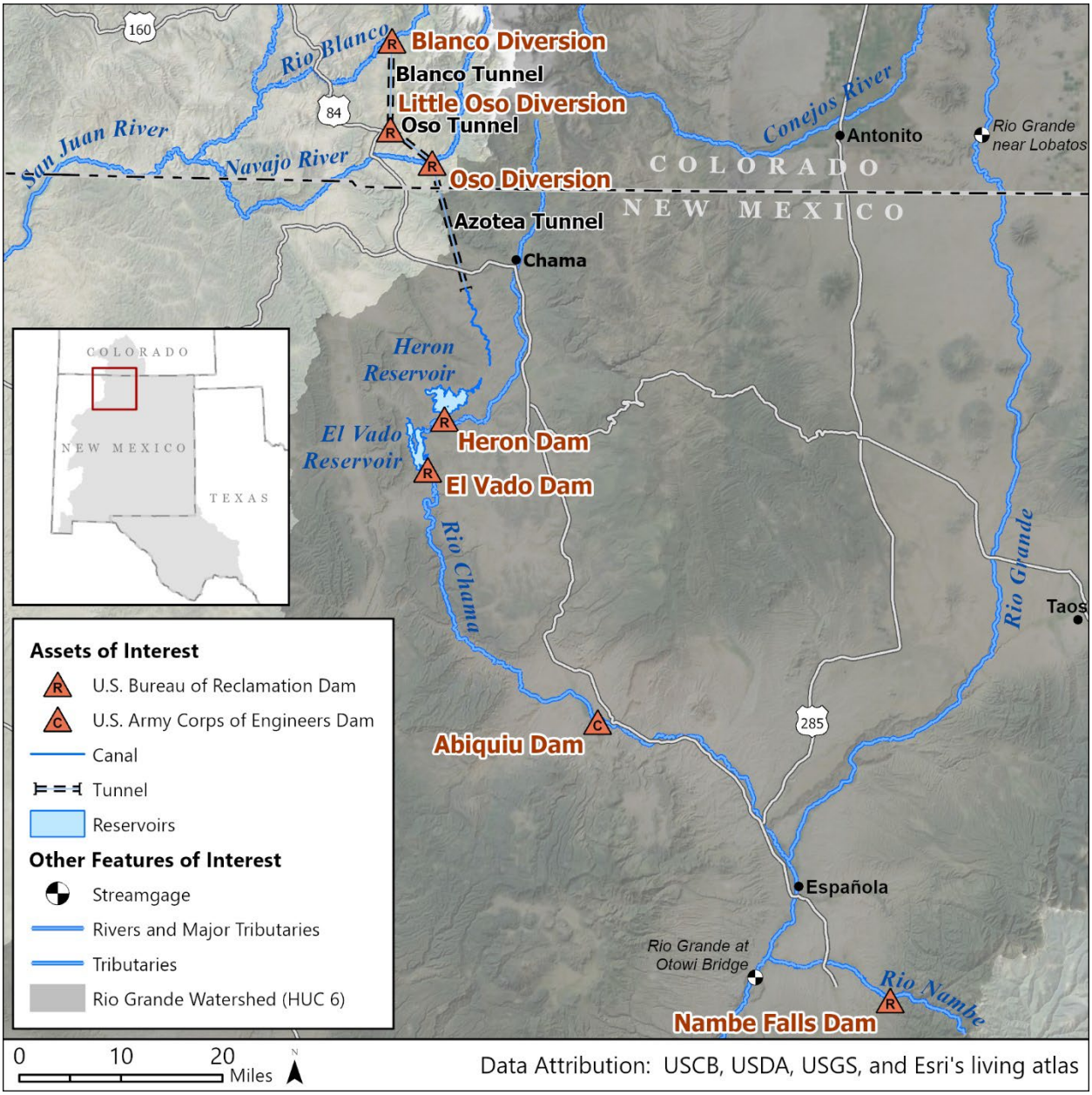

Figure 2: Map of the San Juan-Chama Project in Colorado and New Mexico

Table 3: SJCP Diversions Through Azotea Tunnel 2016-2025[1]

Month	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	10-Year Total
Jan	109	0	0	0	0	0	0	0	0	0	109
Feb	1,917	1,488	0	0	9	0	0	0	0	100	3,514
Mar	6,489	16,839	1,598	1,036	1,644	816	2,172	204	1,211	1,830	33,839
Apr	13,687	32,628	12,869	24,049	10,605	13,446	17,079	23,661	16,167	9,416	173,607
May	27,940	45,326	15,616	33,926	26,972	24,778	29,871	59,441	21,483	13,090	298,443
Jun	35,427	46,227	2,636	56,925	7,866	17,907	6,550	47,357	22,854	10,776	254,525
Jul	3,535	10,617	152	26,285	876	2,439	4,556	10,903	5,754	81	65,198
Aug	3,681	4,809	7	5,841	159	627	4,707	592	5,682	2	26,107
Sep	1,271	1,806	0	208	83	116	848	37	686	576	5,631
Oct	253	2,413	1,216	0	0	0	2,151	0	314	9,279	15,626
Nov	0	279	283	0	0	0	0	0	0	357	919
Dec	0	90	0	0	0	0	0	0	0	0	90
Annual	94,309	162,522	34,377	148,270	48,214	60,129	67,934	142,195	74,151	45,507	877,608

Heron Reservoir began 2025 at an elevation of 7,096.37 ft (65,006 ac-ft). The maximum elevation for the year was reached on June 12 at 7,104.85 ft (79,926 ac-ft). Heron Reservoir ended the year at elevation 7,064.22 ft (27,407 ac-ft), which was the minimum for the year.

The first 2025 allocation of 9,500 ac-ft was made in May, with subsequent allocations in June and July. Historic rainfall from the remnants of tropical storms Priscilla and Raymond contributed to the largest diversion on record for the month of October, allowing a subsequent allocation of 7,500 ac-ft in November, bringing the total allocation to 37,500 ac-ft.

The SJCP contractors' 2025 and waivered 2024 allocations were delivered as shown in Table 4 for a total delivery of 75,631 ac-ft. The remaining 2025 allocations are being held in Heron according to waivers, which grant an extension of the delivery date into 2026.

[1] Units in ac-ft.

Note that some contractors lease their allocation to Reclamation, which shows up as an internal transfer within Heron and not a release from the individual contractor's account.

Table 4: 2024 SJCP Water Released by Contractor from Heron Reservoir[1]

SJCP Contractor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MRGCD	0	0	0	0	0	4,374	421	0	0	0	0	1,845	6,640
Santa Fe	0	0	0	0	0	0	0	0	3,913	0	0	0	3,913
Santa Fe County	0	0	0	0	0	0	0	0	0	0	0	146	146
Cochiti	0	0	0	0	0	0	0	0	0	0	0	899	899
ABCWUA	4,672	1,957	0	1,091	3,876	2,918	8,089	12,030	1,700	3,184	2,703	12,409	54,629
Pojoaque Unit	0	0	0	0	0	0	0	0	0	0	0	402	402
Taos	0	0	0	0	0	0	0	0	0	0	0	123	123
Los Alamos County	0	0	0	0	0	0	0	0	0	0	0	469	469
Española	0	0	0	0	0	0	0	0	0	0	0	390	390
Taos Ski Valley	0	0	0	0	0	0	0	0	0	0	0	5	5
Los Lunas	0	0	0	0	0	0	0	60	140	0	0	0	200
Bernalillo	0	0	0	0	0	0	0	200	200	0	0	0	400
Belen	0	0	0	0	0	0	0	0	200	0	0	39	239
Red River	0	0	0	0	0	0	0	0	0	0	0	0	0
Jicarilla Apache	0	0	0	0	0	0	0	0	600	0	0	0	600
Ohkay Owingeh	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclamation	0	0	0	0	0	0	0	0	0	0	0	0	0
El Prado	0	794	1,485	0	506	842	1,360	1,589	0	0	0	0	6,576
Taos Pueblo	0	0	0	0	0	0	0	0	0	0	0	0	0
Aamodt Settlement	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,672	2,750	1,485	1,091	4,382	8,135	9,870	13,879	6,754	3,184	2,703	16,726	75,631

[1] Units in ac-ft.

Table 5 presents actual monthly Heron water operations in 2025.

Table 5: 2025 SJCP Monthly Water Operations at Heron Reservoir[1]

Month	Rio Grande Inflow	SJCP Inflow	Rio Grande Outflow	SJCP Outflow	SJCP Loss	Rio Grande Content	SJCP Content	Total Content
Dec 2024	-	-	-	-	-	343	64,856	65,199
Jan	106	0	40	4,672	239	416	59,938	60,354
Feb	200	100	36	2,750	256	580	57,031	57,611
Mar	1,884	1,830	35	1,485	2,151	2,429	55,225	57,654
Apr	9,582	9,397	567	1,091	9,937	11,444	53,594	65,038
May	13,111	13,064	46	4,382	13,845	24,509	48,431	72,940
Jun	10,734	10,755	52	8,135	11,547	35,190	39,505	74,695
Jul	355	81	671	9,870	1,079	34,875	28,636	63,511
Aug	563	2	673	13,879	776	34,765	13,983	48,748
Sep	737	576	398	6,754	912	35,104	6,894	41,998
Oct	9,160	9,261	38	3,184	9,484	44,226	3,486	47,712
Nov	561	357	264	2,703	588	44,523	552	45,075
Dec	95	0	606	16,726	430	44,012	-16,605	27,407
Sub-Total	47,088	45,423	3,426	75,631	-	-	-	-
Adjustment[2]	-	-	-	-	-	(350)	-	-
Annual	-	92,511	-	79,057	51,244	43,662	-16,255	-

All daily operations decisions were made using provisional data available at the time of the decision. For that reason, reservoir data in the final accounting model, which uses Compact-approved data, may differ from reservoir data used to make daily operational decisions. Therefore, the dates mentioned above may differ slightly from those found using final 2025 data.

Pojoaque Tributary Unit: Nambé Falls Dam and Reservoir

Operations at Nambé Falls Reservoir consist of non-irrigation and irrigation season activities. During non-irrigation season (November – April), all inflow in excess of the bypass requirement of 0.5 cfs is typically stored until an elevation of 6,825.60 ft is reached. An uncontrolled spill begins at the top of the spillway crest (6,826.60 ft). During irrigation season (May – October), water is stored and released on demand to meet downstream requirements.

Nambé Falls Reservoir began 2025 at an elevation of 6,823.56 ft (1,488 ac-ft). The reservoir filled on March 16 and remained full and spilling until April 11, when an irrigation release began. It refilled on May 13 and subsequently remained full and spilling until July 4. The

[1] Units in ac-ft; content is end of month.
[2] 350 ac-ft of native Rio Grande water is annually retained in Heron to cover water use by New Mexico State Parks's facilities under water rights file No. 1545.

maximum elevation was 6,826.78 ft (1,651 ac-ft) on June 24. The peak outflow was 34 cfs on May 14. The minimum elevation of 6,815.56 ft (1,133 ac-ft) was reached on August 21. The reservoir ended 2025 at elevation 6,823.72 ft (1,496 ac-ft).

The Nambé Falls depletion for the year, which is the amount that Rio Grande flow is decreased as a result of reservoir storage, was 956 ac-ft at Otowi (976 ac-ft from Heron). In addition, a deficit of 182 ac-ft has been carried over from previous years, bringing the total depletion to 1,139 ac-ft (1,161 ac-ft from Heron). A release of 402 ac-ft from Heron Reservoir was made in 2025. No additional water was available to be released in 2025 to cover the remaining deficit, therefore 743 ac-ft will need to be released to Otowi (759 ac-ft from Heron) in 2026 or in subsequent years, as supply is available.

Table 6 shows all SJCP water at Otowi, and includes a summary of Nambé Falls use above Otowi and the Pojoaque Unit return-flow credit used to calculate depletions during 2025. A summary of 2025 Nambé Falls Reservoir operations is provided in Table 7.

Table 6: 2025 SJCP Water at Otowi[1]

Month	Release from Heron	Heron Release Stored in El Vado	Release from El Vado	Total Below El Vado	Release from or Storage in Abiquiu	Transit Losses	Nambé Falls Use Above Otowi	Return Flow Credit Pojoaque Unit	SJCP Water at Otowi
Jan	4,672	0	1,616	6,288	6,568	185	42	23	12,651
Feb	2,750	0	2,695	5,445	-971	100	115	26	4,285
Mar	1,485	0	4,536	6,021	-5,503	71	104	22	365
Apr	1,091	28	0	1,063	1,433	34	10	21	2,472
May	4,382	0	959	5,341	-356	104	355	56	4,583
Jun	8,135	304	0	7,831	1,188	167	21	28	8,859
Jul	9,870	0	143	10,013	-5,844	148	34	26	4,013
Aug	13,879	3,701	0	10,178	-6,318	147	311	66	3,468
Sep	6,754	0	347	7,101	-4,616	100	213	54	2,226
Oct	3,184	158	0	3,026	-2,817	35	81	33	126
Nov	2,703	0	245	2,948	-902	51	65	29	1,960
Dec	16,726	15,486	0	1,240	3,464	56	25	32	4,654
Annual	75,631	19,677	10,541	66,495	-14,674	1,198	1,376	415	49,662

[1] Units in ac-ft.

Table 7: 2025 SJCP Monthly Water Operations at Nambé Falls Reservoir[1]

Month	Inflow	Outflow Bypassed	Outflow Storage Release Operational	Outflow Storage Release Irrigation	Reservoir Losses	Total Outflow + Losses	Content
Dec 2024	370	311	0	9	3	324	1,489
Jan	296	235	0	54	19	308	1,476
Feb	216	100	0	22	3	125	1,567
Mar	288	183	0	16	13	211	1,645
Apr	484	453	0	326	26	805	1,323
May	1,365	1,007	0	32	4	1,042	1,646
Jun	857	829	0	26	7	862	1,642
Jul	465	431	0	372	0	802	1,305
Aug	659	346	0	246	0	593	1,370
Sep	653	437	0	87	5	529	1,494
Oct	497	407	0	56	15	478	1,513
Nov	364	297	0	77	6	379	1,498
Dec	313	286	0	26	3	314	1,496
Annual	6,457	5,011	0	1,340	101	6,448	-

All daily operations decisions were made using provisional data available at the time of the decision. Because of this, reservoir data in the final accounting model, which uses Compact-approved data, may differ from reservoir data used to make daily operational decisions. Therefore, the dates mentioned above may differ from those found using final 2025 data.

2026 San Juan-Chama Project Outlook

On January 1, 2026, the allocable SJCP water in Heron Reservoir was 0 ac-ft, and the contractors were notified that there would be no initial allocation. Allocations must leave sufficient water in SJCP storage to cover both the dead pool and anticipated reservoir evaporation from January 1 until runoff begins in the spring. Water scarcity was contemplated in the San Juan-Chama Project Authorization (P.L. 87-483), and all SJCP water contracts state that "when the actual available water supply may be less than the estimated firm yield, [contractors] shall share in the available water supply in the ratio that the above allocation bears to the firm yield." Subsequent allocations are made monthly beginning in April. Allocations continue monthly until December, unless a full allocation is made earlier. The March 2026 NRCS' most probable forecast for the Rio Blanco and the Navajo River at the diversion are for 26,000 and 31,000 ac-ft (54 percent and 55 percent of median), respectively, and Reclamation anticipates that will result in allocation shortages.

[1] Units are in ac-ft; Content for End of Month.

Facility Review and Safety of Dams Program

Nambé Falls Dam

There are no significant dam safety-related O&M issues associated with Nambé Falls Dam and it has a Facility Reliability Rating of 93 which is considered "good". There is currently one incomplete Safety of Dams recommendation and three incomplete Category 2 O&M recommendations for Nambé Falls Dam. To address the Safety of Dams recommendation, Reclamation initiated a seismic hazard study in 2021, Reclamation is re-evaluating the schedule for completion. A Periodic Facility Review for Nambé Falls Dam was completed in July 2025. In May 2025, Reclamation's Elephant Butte Rope Access Team completed concrete repairs along the spillway. In October 2025, a significant increase in leaking from the gate valves began when the operator shut the gates for the end of the irrigation season. Reclamation repaired the valve by mid-November.

Heron Dam

There are no significant dam safety related O&M issues associated with Heron Dam. The current Facility Reliability Rating for Heron Dam is 92, which is considered "good". An Annual Site Inspection was completed for Heron Dam in February 2025. In July 2025, Reclamation conducted an Emergency Action Plan Tabletop Exercise for Heron Dam and El Vado Dam.

Major Construction Projects

Blanco Repairs

Blanco Diversion Dam (Blanco) diverts approximately 49 percent of the total annual diversions for the SJCP from NM's apportionment of Upper Colorado River Compact water for use in the Middle Rio Grande. Blanco was constructed in the late 1960s through the early 1970s and is reaching the end of its useful life cycle. The facility is experiencing a high level of alkali-silica reaction and freeze/thaw damage in the concrete, the gates need to be refurbished or replaced, and the debris management systems need upgrading. This Blanco Repairs Project consists of removal and replacement of concrete from the retaining walls, spillway, sluiceway, and entrance apron, removal and refurbishing of the tunnel radial gate, removal and replacement of existing sluice and slide gates, operators, and controls. Reclamation will also install a bypass pipeline, sluiceway, new hand railings, security fencing, and video surveillance systems, and improve the sediment management through the diversion dam. This project will improve the structure's resiliency to weather changes and lead to improved downstream aquatic habitats. In 2025, Reclamation continued work on the project designs and began NEPA and other compliance processes. In 2026, Reclamation expects to award a contract for final engineering designs, drawings, and specifications, assistance in system analysis of sediment-management options, and finalize the project scope, schedule, and budget. Reclamation expects to achieve substantial completion on the Blanco Repairs Project in 2030.

Oso Repairs

Oso Diversion Dam (Oso) diverts approximately 48 percent of the total annual diversions for the SJCP from NM's apportionment of Upper Colorado River Compact water for use in the Middle

Rio Grande. Like Blanco, Oso was constructed in the late 1960s through the early 1970s and is reaching the end of its useful life cycle. The facility is experiencing a high level of alkali-silica reaction and freeze/thaw damage in the concrete, the gates need to be refurbished or replaced, and the debris management systems need upgrading. The Oso Repairs Project consists of removal and replacement of concrete from the retaining walls, spillway, sluiceway, and entrance apron, removal and refurbishing the tunnel radial gate, removal and replacement of existing sluice and slide gates, operators, and controls. Reclamation will also install new hand railings, security fencing, and video surveillance systems, and improve the bypass roadway structure. This project will improve the structures resiliency to weather changes and lead to improved downstream aquatic habitats and improvements in aquatic species genetic diversity from the improved sediment management and river connectivity through the diversion dam. In 2025, Reclamation finalized the Value Planning report and began project planning. In 2026, Reclamation expects to develop the design goals through collaboration with stakeholders, begin NEPA and other compliance processes, and determine an initial schedule and budget. Reclamation expects to achieve substantial completion on the Oso Repairs Project in 2033.

Azotea Portal and Drop Structures Repairs

The Azotea Tunnel portal and drop structures (Azotea) were also constructed in the late 1960s through the early 1970s and have reached the end of their useful life cycle. These facilities are experiencing erosion and a high level of alkali-silica reaction and freeze/thaw damage in the concrete and need rehabilitation to comply with current civil-engineering practices and Reclamation and Department of Interior design and safety requirements for water-transportation systems. This repair project consists of removal and replacement of concrete at the portal and four drop structures, installing a new access vault to improve O&M on the flume valves, replacing existing subsurface drains along the cover flume, and installing hand railing and access ladders to improve safety. In 2025, Reclamation completed the NEPA and other compliance processes and solicited the construction contract. In 2026, Reclamation expects to award the construction contract, issue a Notice to Proceed, and complete approximately 80 percent of the construction activities. Reclamation expects to achieve substantial completion on the Azotea Repairs Project in 2027.

Middle Rio Grande Project, New Mexico

The MRGP consists of El Vado Dam and Reservoir; three low-hazard diversion dams (Angostura, Isleta, and San Acacia); over 1,000 miles of canals, laterals, and drains; 260 miles of the Rio Grande channel; 57 miles of LFCC; and Reclamation's River Maintenance program from Velarde, NM, to Caballo Reservoir (see Figure 3). The MRGP delivers water for irrigation, maintains valley drainage, and provides flood protection. The MRGCD has O&M responsibility for the entire project between the outlet works at Cochiti Dam and the southern extent of the MRGCD's benefitted area at Bosque del Apache National Wildlife Refuge (BdA), including all conveyance features, the LFCC within the MRGCD boundaries, and the three diversion dams. Reclamation owns and administers the storage permit, lands, and right-of-way activities of the El Vado area. Upon completion of title transfer in 2021, MRGCD assumed ownership of all MRGP lands and facilities south of the Pueblo of Isleta except for the LFCC.

El Vado Dam and Reservoir Operations

El Vado Reservoir began 2025 at an elevation of 6,809.78 ft (16,121 ac-ft) and ended the year at 6,819.52 ft (24,715 ac-ft). The maximum elevation for the year was 6,820.55 ft (25,725 ac-ft) on October 12, and the minimum elevation was 6,809.65 ft (16,026 ac-ft) on February 26.

Beginning-of-year storage was entirely SJCP water: 12,509 ac-ft ABQWUA, 2,295 ac-ft MRGCD, 1,262 ac-ft City of Santa Fe. Storage for Prior and Paramount (P&P) lands of the Six MRG Pueblos began on January 1, 2025. Water for P&P lands was again retained in both El Vado and Abiquiu Reservoirs, and combined storage reached the target of 32,668 ac-ft on May 16, 2025. Limited calls for P&P releases were made in July and August, and the remainder of P&P storage was released for delivery to Elephant Butte Reservoir in December. Reclamation did not store any native water for MRGCD or for any other purpose during the year due to both Compact restrictions and the reservoir elevation restriction.[1] MRGCD operated using the natural flow of the Rio Chama and Rio Grande as well as their 2025 SJCP allocation, and a small amount of SJCP water from previous years and from depletions offsets.

End-of-year storage was also entirely SJCP water: 16,585 ac-ft for ABCWUA, 1,841 ac-ft for MRGCD, 5,057 ac-ft for the City of Santa Fe, and 1,232 ac-ft for other SJCP Contractors. Table 8 provides a summary of monthly operations and water accounting for El Vado Reservoir.

On October 21, 2024, with construction on hold, an evaluation began to allow some storage in the reservoir. This "first fill" operation was completed in three stages including hold periods to evaluate the performance of the dam. The first two phases were completed in 2024, and the reservoir elevation was restricted to 6,810 ft (16,297 ac-ft) at the beginning of 2025. A third and final stage was conducted in May 2025, which successfully brought the reservoir to a new restriction elevation, 6,820 ft (25,185 ac-ft).

[1] See El Vado Dam Safety of Dams Project Section below.

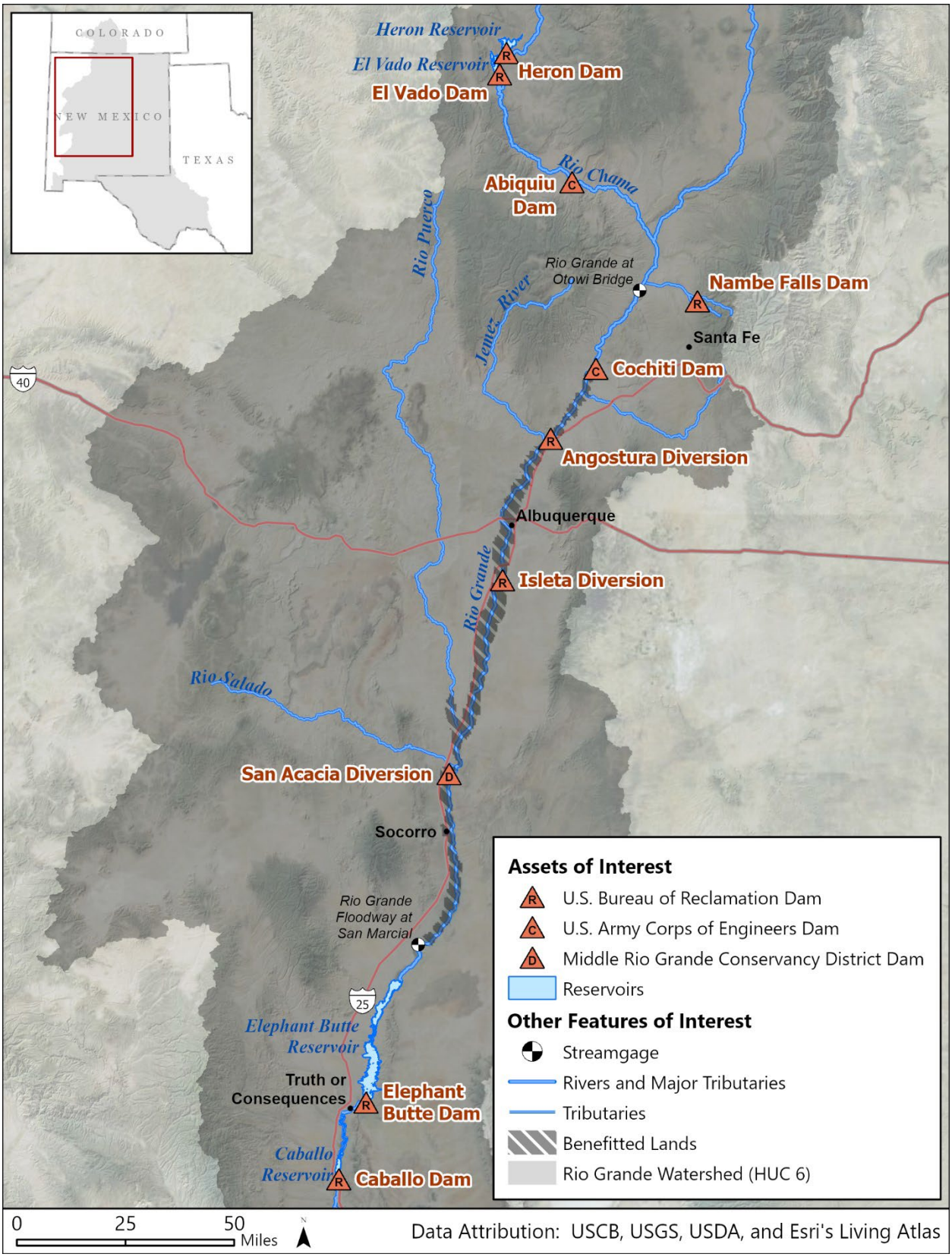

Figure 3: Map of the Middle Rio Grande Project in New Mexico

Table 8: 2025 Reservoir Operations for El Vado Dam[1]

Month	Rio Grande Inflow	SJCP Inflow	Rio Grande Outflow	SJCP Outflow	Rio Grande Losses	SJCP Losses	Rio Grande Content	SJCP Content	Total Content
Dec 2024	2,621	3,876	2,624	4,229	-2	-87	0	16,076	16,076
Jan	1,838	4,672	190	6,288	-2	4	1,650	14,456	16,106
Feb	2,807	2,750	160	5,445	0	6	4,296	11,756	16,052
Mar	6,377	1,485	952	6,021	4	51	9,718	7,169	16,887
Apr	28,550	1,091	20,252	1,063	55	57	17,961	7,140	25,101
May	26,108	4,382	25,107	5,341	43	59	18,919	6,121	25,040
Jun	7,855	8,135	7,717	7,831	99	48	18,957	6,377	25,334
Jul	2,019	9,870	2,469	10,013	-42	61	18,548	6,174	24,722
Aug	1,667	13,879	4,414	10,178	97	68	15,704	9,806	25,510
Sep	3,033	6,754	3,019	7,101	133	30	15,586	9,429	25,014
Oct	5,647	3,184	5,713	3,026	117	47	15,403	9,539	24,942
Nov	4,030	2,703	3,976	2,948	118	17	15,339	9,277	24,616
Dec	4,557	16,726	19,637	2,327	37	-816	223	24,492	24,715
Annual	94,488	75,631	93,606	67,582	659	-368	-	-	-

All daily operations decisions were made using provisional data available at the time of the decision. For that reason, reservoir data in the final accounting model, which uses Compact-approved data, may differ from reservoir data used to make daily operational decisions. Therefore, the information mentioned above may differ from those found using final 2025 data.

Prior and Paramount Operations

Reclamation typically retains native water in El Vado Reservoir for use on the P&P acreage of the Six MRG Pueblos when natural Rio Grande flows may not meet irrigation demand. Due to storage limitations at El Vado during construction, Reclamation and MRGCD entered into an agreement in December 2024 (the Abiquiu Storage Agreement) with the ABCWUA for the storage of native Rio Grande water in Abiquiu Reservoir until the completion of Safety of Dams related construction at El Vado Dam. The Abiquiu Storage Agreement was approved by USACE on February 11, 2025. With the completion of the first fill operation at El Vado in 2025, P&P storage occurred at both El Vado and Abiquiu Reservoirs during the year.

The Bureau of Indian Affairs' (BIA) call for P&P in 2025 was 32,668 ac-ft. Retention of native water for P&P began at El Vado on January 1, 2025, and continued at Abiquiu Reservoir beginning on April 14. Maximum combined storage of 32,668 ac-ft (19,466 ac-ft at El Vado and 13,202 ac-ft at Abiquiu) was reached on May 16, 2025. The entire volume was stored when Article VII[2] restrictions were in effect.

Calls for the release of P&P water were made during the irrigation season to supplement natural flows. Releases from Abiquiu occurred from July 11-18 and from July 28-August 1 totaling

[1] Units are in ac-ft.
[2] See the Article VII Restrictions section under Rio Grande Project.

1,285 ac-ft. Releases from El Vado occurred from August 4-24 totaling 2,509 ac-ft (3,794 ac-ft combined release). Evaporation losses were 1,698 ac-ft at El Vado and 1,252 ac-ft at Abiquiu (2,950 ac-ft combined losses). The remaining volume, 15,339 ac-ft from El Vado and 10,664 ac-ft from Abiquiu (26,003 ac-ft combined), was released to Elephant Butte Reservoir from December 1 to 16.

Emergency Drought Water

Under Article VII[1] of the Compact, when New Mexico relinquishes Accrued Credit Water to Texas and Texas accepts that relinquishment, New Mexico may store a like amount in upstream post-Compact reservoirs when Article VII storage restrictions are in effect. New Mexico has allocated this water through a series of Emergency Drought Water (EDW) agreements with Reclamation, MRGCD, and others. Under a 2016 multi-party EDW Agreement, MRGCD agreed to jointly manage Reclamation's EDW allocation for the sole purpose of Endangered Species Act (ESA) compliance.

The following EDW amounts remain available to the MRGP for capture and storage at El Vado in the future: 19,000 ac-ft for Reclamation and 53,767 ac-ft for MRGCD. In 2016, the United States assigned 5,000 ac-ft of Reclamation's remaining allocated EDW to the ABCWUA as repayment for water released during the early 2000s pursuant to the Supplemental Order in litigation titled *Rio Grande Silvery Minnow v. United States*. No EDW was stored in El Vado during 2025.

Compact Debit Water

Under Article VI[2], native water in El Vado Reservoir for the MRGP may be retained to the extent of New Mexico's accrued debit. As noted above, there was no native water in storage at El Vado at the beginning of the year. Because of construction at El Vado, native water normally stored there was stored in Abiquiu Reservoir. No Compact Debit water was stored in El Vado during 2025.

Because of a sediment plug in the Rio Chama below Abiquiu Dam, 1,548 ac-ft of P&P water stored in 2024, along with 2,144 ac-ft of incidental native water storage in Abiquiu on December 31, 2024, became Compact Debit water on January 1, 2025. On the same day, the Texas Commissioner called for the release of Compact Debit water. A total volume of 3,692 ac-ft was released from January 3 to 6, 2025.

2026 Middle Rio Grande Project Outlook

The March 2026 NRCS most probable forecast for March to July flow for the Rio Grande at Otowi is 195,000 ac-ft (35 percent of median) and for El Vado Reservoir inflow is 70,000 ac-ft (38 percent of median). This forecast is volumetrically like 2025, compared to the observed March to July volume at Otowi, excluding SJCP flows and adjusted for upstream storage, was 185,260 ac-ft (33 percent of median) and El Vado's March to July native inflow was 72,261 ac-ft

[1] See the Article VII Restrictions section under Rio Grande Project.
[2] Refers to the Rio Grande Compact of 1938, Article VI.

(39 percent of median). MRGCD irrigation demand should be met by natural flow through April or May. After that, water supply to the MRG Valley will be variable and dependent on rain from the monsoon season.

El Vado Dam Facility Review and Safety of Dams Program

There are two significant dam safety-related O&M issues associated with El Vado Dam and it has a Facility Reliability Rating of 58 which is considered "poor". The "poor" rating is due to the incomplete Safety of Dams recommendation which results in a 2023 Dam Safety Priority Rating of 2, denoting an "Urgent Priority." The current El Vado Dam, Safety of Dams Project, see section below, and resulting modifications will address the outstanding incomplete Safety of Dams recommendations and several other O&M recommendations. An Annual Site Inspection was completed for El Vado Dam in February 2025. In July 2025, Reclamation conducted an Emergency Action Plan Tabletop Exercise for Heron Dam and El Vado Dam.

Debris periodically clogged or reduced flow through the outlet works during spring runoff in 2024. The debris had to be physically removed from the intake to allow unrestricted releases. In 2025, Reclamation installed a buoy (see Figure 4) and after the first fill test maintained a higher reservoir elevation to minimize debris clogging to the outlet works. There was no debris clogging that impacted releases in 2025. Following the "first fill" operation in 2025, Reclamation can now operate the reservoir up to 6,820 ft (~25,200 ac-ft).

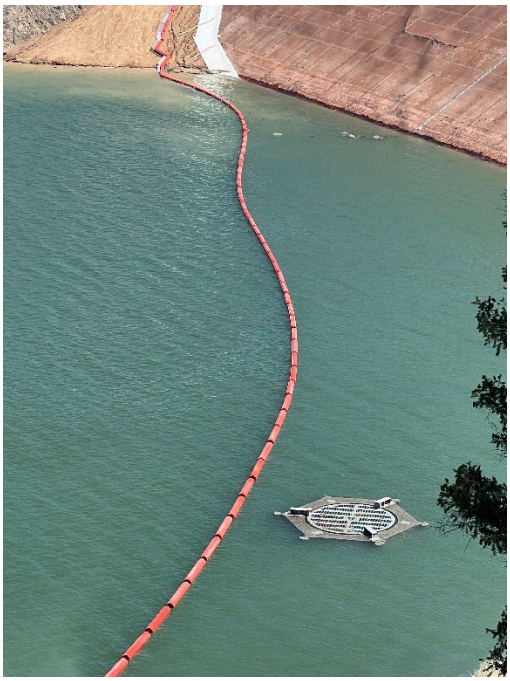

Figure 4. Photo of buoy installed upstream of the El Vado outlet works viewed from the right abutment (Reclamation, 2025).

El Vado Dam, Safety of Dams Project

The current construction project at El Vado Dam was prompted in response to the Safety of Dams recommendations to reduce the unacceptable amount of risk that has formed with the aging of the dam. The dam was constructed by MRGCD in the 1930's, when steel was economically the best option for the dam's face plate.

The steel face plate is unique, which carries its own set of challenges when determining the appropriate corrections for El Vado Dam, but the site selected for the dam also brought a unique challenge: the left abutment of the dam sits atop a historic landslide that settled here. The site has been stabilized for a very long time, but the large boulders and rocks that settled have created fissures and crevasses which, despite extensive grouting and excavation, have left space for seepage. Combined with a severely aged and degrading face plate, an unsustainable amount of seepage has percolated, raising risk concerns above a tolerable threshold.

Planned actions to address the Safety of Dams recommendations are split into two separate projects. The first is a seepage-reduction project, and the other is a spillway-replacement project. The seepage-reduction proposal originally entailed placing grout behind the steel faceplate, performing remedial foundation grouting, and installing a geomembrane liner over the faceplate. The second project, which will not start until completion of the seepage-reduction corrections, will involve the removal of the existing spillway, including the gates and bridge, and replacing it with a reinforced concrete spillway, new gates, and a new bridge. Other improvements include widening of the crest, realignment of the roadway to better convey traffic across the right abutment, and installation of a new emergency fuse plug dike southwest of the facility.

In September 2021, the El Vado Seepage Reduction Modification Project, Phase 1, was awarded to Carpi USA, Inc., for $31.2M to carry out the selected method(s) to remedy the seepage problems at the dam. This contract was awarded to grout beneath the faceplate, perform repairs to the face plate itself, and install a geomembrane liner over the repaired faceplate. This method was selected as the best option out of a list of 16 alternatives considered in the Corrective Action Study. This option was the most economical and selection followed the standardized Safety of Dams process.

As work progressed, unforeseeable conditions were encountered, including discovery that the faceplate and its anchors deteriorated further than expected, the grouting caused too much pressure underneath the plates themselves, and the grouting required significantly more grout than originally anticipated. Ultimately, a stop-work order to Carpi USA, Inc. was issued on March 20, 2024.

In 2024, the Dam Safety Advisory Team ruled to demobilize all construction work and pursue a new evaluation of alternatives. Currently, Reclamation is following the Safety of Dams process to select a new alternative to best complete El Vado's repairs. Initial field exploration drilling was completed over the summer of 2025 and focused on collecting foundation rock samples from the left abutment and coffer dam locations. The Technical Services Center will present their evaluation of which of the existing alternatives will move forward into Feasibility Level study in early spring of 2026. The next phase of drilling will begin in June of 2026 and collect embankment and foundation samples from below the crest of the dam.

Related Reservoir Operations

Abiquiu Dam and Reservoir

Abiquiu Dam and Reservoir is a USACE facility. Both SJCP water and native water were stored in Abiquiu Reservoir. In September 2024, a sediment plug in the Rio Chama below Abiquiu near Medanales, NM, limited the reservoir release until December when the plug was removed and the channel conveyance capacity restored. This meant that typical end of year releases could not begin until mid-December and continued into mid-January 2025. This also resulted in incidental Rio Grande content of 2,023 ac-ft at the end of 2024, which was transferred to Compact Debit storage and released in January 2025 with the remaining 1,693 ac-ft of P&P water. In 2025, total reservoir storage reached a maximum of 122,999 ac-ft (6,203.52 ft) on November 20, 110,277 ac-ft was SJCP water. Table 9 provides a summary of monthly operations and water accounting for Abiquiu Reservoir.

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Table 9: 2025 Reservoir Operations for Abiquiu Dam[1]

Month	Rio Grande Inflow	SJCP Inflow	Rio Grande Outflow	SJCP Outflow	Rio Grande Losses	SJCP Losses	Sediment Content	Rio Grande Content	SJCP Content	Total Content
Dec 2023	2,775	4,147	12,730	2,435	45	237	1,167	3,702	100,044	104,914
Jan	3,924	6,101	3,914	12,669	2	-3,676	1,167	8	93,273	94,448
Feb	686	5,468	650	4,497	-2	318	1,167	45	93,926	95,139
Mar	1,378	5,950	1,428	446	-1	691	1,168	-3	98,739	99,903
Apr	19,838	1,170	14,390	2,602	56	1,522	1,175	5,389	95,785	102,349
May	24,455	4,682	16,062	4,326	214	939	1,191	13,568	95,201	109,960
Jun	8,107	8,267	8,962	9,455	288	1,348	1,196	12,426	92,665	106,287
Jul	2,534	9,822	3,603	3,978	203	964	1,199	11,154	97,545	109,898
Aug	5,910	9,383	5,668	3,065	247	1,257	1,204	11,150	102,606	114,959
Sep	3,608	7,717	3,691	3,102	91	480	1,207	10,975	106,741	118,923
Oct	5,427	3,035	5,363	218	86	459	1,208	10,954	109,099	121,260
Nov	3,108	2,942	3,328	2,040	50	272	1,208	10,683	109,728	121,619
Dec	20,591	1,131	29,990	4,595	12	407	1,219	1,272	105,858	108,348
Annual	99,566	65,668	97,049	50,993	1,246	4,981	-	-	-	-

Cochiti Dam and Reservoir

Located downstream from the confluence of the Rio Chama and the Rio Grande, Cochiti Dam and Reservoir is another USACE facility. Congress authorized a permanent pool of 1,200 surface acres for fish and wildlife and recreational purposes, called the "recreation pool". This pool is comprised of SJCP water, and evaporation losses are replaced with additional SJCP water to maintain 1,200 surface acres. Recreation pool water may be released from Heron Reservoir and temporarily stored in Abiquiu, then released over the winter to provide flows in the Rio Chama between Abiquiu and the confluence with the Rio Grande.

Due to the SJCP shortage in 2025, the recreation pool allocation was 1,668 ac-ft, 39% of full. It was released from Heron Dam between December 27, 2025, and January 11, 2026. The year ended with a deficit of 174 ac-ft needed to reach 1,200 surface acres. Table 10 is a summary of monthly operations and water accounting for Cochiti.

[1] Units are in ac-ft, Content for End of Month

Table 10: 2024 Reservoir Operations Cochiti Dam[1]

Month	Authorized SJCP Area (acres)	Authorized SJCP Content Capacity (ac-ft)	Wetlands Elevation (ft)	Wetlands Area (acres)	SJCP Content (ac-ft)	SJCP Area (acres)	SJCP Losses (ac-ft)	SJCP Demand (ac-ft)	SJCP Delivery (ac-ft)	Hold Pool= SJCP Pool + Sediment (ac-ft)
Dec 2023	1,200	44,137	5,354	0	40,589	936	111	3,549	0	42,348
Jan	1,200	44,137	5,354	0	42,287	1,064	61	1,850	1,759	44,057
Feb	1,200	44,137	5,354	0	44,475	1,216	164	-337	2,351	46,250
Mar	1,200	44,137	5,354	0	44,145	1,200	385	-7	55	45,925
Apr	1,200	44,137	5,354	0	43,658	1,172	486	479	0	45,444
May	1,200	44,137	5,354	0	43,255	1,140	403	882	0	45,055
Jun	1,200	44,137	5,354	0	42,917	1,109	338	1,220	0	44,722
Jul	1,200	44,137	5,354	0	42,528	1,078	389	1,609	0	44,341
Aug	1,200	44,137	5,354	0	42,088	1,055	441	2,050	0	43,908
Sep	1,200	44,137	5,354	0	41,876	1,047	212	2,262	0	43,704
Oct	1,200	44,137	5,354	0	41,728	1,040	148	2,410	0	43,562
Nov	1,200	44,137	5,354	0	41,557	1,031	170	2,580	0	43,402
Dec	1,200	44,137	5,354	0	41,471	1,026	86	2,666	0	43,340
Annual	-	-	-	-	-	-	3,283	-	4,165	-

[1] Data for End of Month

MRG River Gage Operation and Maintenance

Data from river gages help MRG water management agencies meet the needs of water users, fulfill the requirements of the Compact, support ESA operations, and provide information necessary for improving the daily management of the river system from Cochiti Dam to Elephant Butte Reservoir. Data from these gages are available to the public at https://waterdata.usgs.gov/state/new-mexico/.

Reclamation continues to fund four gages operated and maintained by the U.S. Geological Survey (USGS) primarily to support ESA operations: Rio Grande near Bosque Farms, NM (08331160); Rio Grande at State Hwy 346 near Bosque, NM (08331510); Rio Grande at bridge near Escondida, NM (08355050); and the Rio Grande above U.S. Hwy 380 near San Antonio, NM (08355490).

MRGCD continues to operate and maintain gages on many of their facilities. These gages monitor diversions, drains, and return flows to the river, and provide insight on how water is moving through the irrigation system. Reclamation hosts a website that includes schematics of MRGCD's system and associated gage data at https://www.usbr.gov/uc/albuq/water/ETtoolboxV2/home.html.

River Maintenance and River Efficiency Projects

Reclamation has authorization for maintenance of the Rio Grande from Velarde, New Mexico, to the headwaters of Caballo Reservoir. Responsibilities include maintenance of the river channel and floodplain. Project purposes include improving water delivery and sediment transport, protecting riverside facilities and property, and preventing flooding. River maintenance consists of any work done in the channel and floodplain, including habitat restoration. Reclamation conducts an annual assessment of sites and reaches after the spring runoff and summer monsoon events to identify maintenance needs.

Maintenance needs are prioritized based on the geomorphic trends and conditions, public and infrastructure risk, and water delivery effects for the 260-mile reach of the MRGP. Maintenance projects involve planning, design, environmental compliance, construction, and adaptive management. Most maintenance projects require adaptive and recurring maintenance over the life cycle of each project's intended design life.

Reclamation is attempting to improve its ability to acquire Clean Water Act (CWA) compliance for river maintenance projects, utilizing the various types of permitting approaches including individual permits, nationwide permits, regional permits, and Letters of Permission.

Middle Rio Grande River Maintenance Plan

The MRGP River Maintenance program has developed a long-term Comprehensive Plan and Guide (CP&G) that assists in accomplishing project purposes in an environmentally and economically sound manner. A final report is posted at the following web address: https://www.usbr.gov/uc/albuq/envdocs/reports/mrgRivMaint/CompPlan/start.pdf.

This maintenance plan is an engineering and geomorphic document that can be used to readily implement the most cost-effective and environmentally sound strategies that reduce Reclamation's long-term commitment of resources. Ongoing work on the CP&G involves evaluating reach-based strategies for feasibility, prioritization, and effects of implementation between reaches, including both upstream and downstream.

Reach-based planning across multiple reaches is ongoing, including concepts for managing channel capacity and width, as well as river bars, islands, and bank-attached bars. Reach-based planning is underway to evaluate the geomorphic reaches from Angostura to Montaño Bridge, and Isleta Diversion Dam (IDD) downstream to Elephant Butte, including the ongoing Lower San Acacia Reach Improvements[1] (LSARI) evaluating alternatives in the high-priority San Acacia Reach to improve water and sediment conveyance and meet ecological goals.

River Maintenance Sites

Reclamation is actively working on the planning, design, construction maintenance, adaptive management, and monitoring for 24 sites within the MRGP reach. There are five active sites that require an annual review of channel capacity and possible maintenance due to sediment accumulation.

Reclamation's efforts at all 24 maintenance sites include data collection, geomorphic and sediment investigations, design studies, alternative evaluations, design and development of construction drawings, material supply and development, lands access, environmental compliance, project and construction management, construction maintenance, and adaptive maintenance and monitoring.

In the following sections, the terms "new," "existing," "interim," and "adaptive" are used to describe the various river- maintenance sites and reach statuses. "New" sites develop following high-flow events on the Rio Grande in the previous year (due to the minimal runoff in 2025, there are no "new" river-maintenance sites). "Existing" sites are in the process of completion. "Interim" sites are locations where precautionary work is needed to limit potential damages before the next significant hydrologic event, and the work is temporary or a stop-gap measure; these sites will require a long-term project to be planned and designed. "Adaptive" sites have been substantially completed and are being monitored for function and performance.

Determination of River Maintenance Needs

Using a rating system that considers geomorphic trends and conditions, public and infrastructure risk, and water delivery effects, Reclamation completed its "Determination of River Maintenance Needs" process for sites and reaches along the river channel in the 260-mile reach of the MRGP in 2014. All monitored, existing, and completed sites were rated using the system and criteria again in 2024. Monitoring during the spring runoff and monsoon season in 2024 and work progress were considered in the 2024 site and reach ratings. Given the minimal spring runoff and monsoon seasons in 2025, Reclamation did not perform new assessments, therefore the ongoing prioritized work needs by reach and site identified in 2024 are still being actively pursued by Reclamation. As in past years, these ratings help prioritize project development and

[1] See the Lower San Acacia Reach Improvements Project section below.

implementation. This approach to the ratings and maintenance designations complements what is in the CP&G and the 2016 MRG Biological Opinion (MRG BO) for River Maintenance Actions.[1]

Ohkay Owingeh RM 270.8 (Existing)

Bank erosion was observed at the Ohkay Owingeh fishing ponds following relatively high runoff flows in the spring and summer of 2023. Given the proximity of the erosion to existing infrastructure, Reclamation in conjunction with Ohkay Owingeh Pueblo determined the site required immediate bank stabilization to provide protection from future high flows. Roughly 330 feet of bankline had eroded as of Reclamation's site visit on July 12, 2023 (see Figure 5).

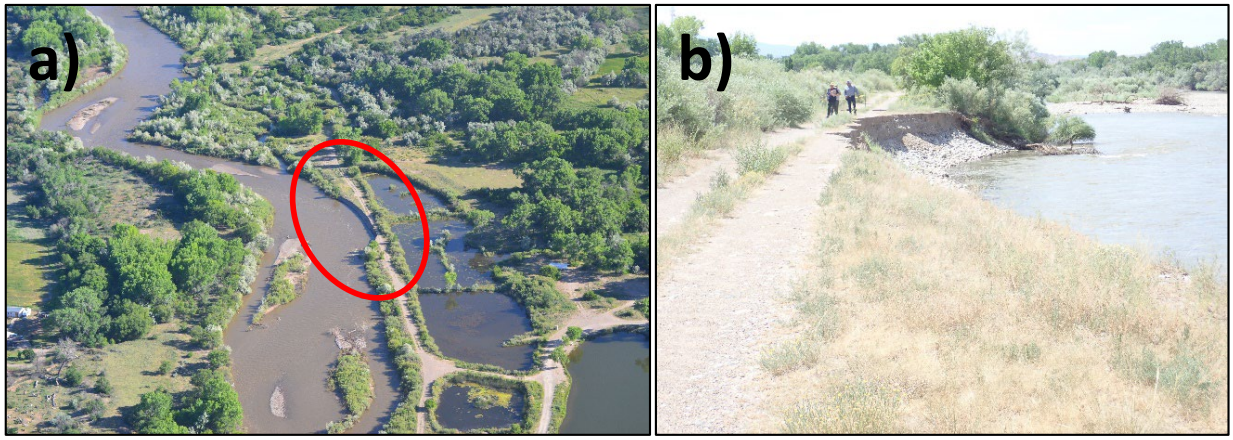


Figure 5: Photos of the eroded area at RM 270.5 in Ohkay Owingeh. a) An aerial photo taken in June 2023 looking north with the eroded area circled in red. Photo b) was taken from the ground on June 12, 2023, looking south toward the eroded area from the roadway.

Reclamation provided a bank stabilization design consisting of rock lining of the slope with backfill to restore the pre-existing roadway. Reclamation used existing reach data to create a hydraulic model which was used to determine the required size of riprap, which was then sourced from the Velarde stockpile. The kickoff meeting was held in early January 2024, and construction was completed by February 2024 (see Figure 6). Given the development of upstream meander bends, the eastern bankline near the Pueblo's groundwater fishing ponds will need to be protected via a long-term river maintenance project.

[1] See the Programmatic Water Operations and River Maintenance ESA Compliance section.

Figure 6: Photo looking north toward completed bank stabilization work at Ohkay Owingeh Pueblo (Reclamation, 2024)

San Ildefonso RM 257.8 (Existing)

In 2023, bank erosion was observed in the San Ildefonso reach near collector well structures built as part of the Pojoaque Basin Regional Water System (PBWRS) project. While the wells themselves are protected from erosion with buried riprap, the access roadway and underlying pipeline are not, and may be in the path of future bank erosion. The site underwent overbank flooding during the spring runoff of 2023 with bend development and bank erosion toward the access road (see Figure 7 and Figure 8).

To prevent further migration of the bend and the resulting threat to the infrastructure Reclamation provided a design for a temporary bank protection structure consisting of a self-launching riprap windrow set back from the bank. In the event of a high runoff and mobilization of the bank, the proposed structure would provide temporary bank protection to protect the existing infrastructure. As of January 2025, construction access to the site and questions around material to be used for the riprap windrow must be further resolved with the Pueblo of San Ildefonso to implement the work. Given the development of a localized meander bend and bar deposition, the location of eastern bankline will need to be protected via a long-term river maintenance project for the PBWRS infrastructure located in the floodplain.

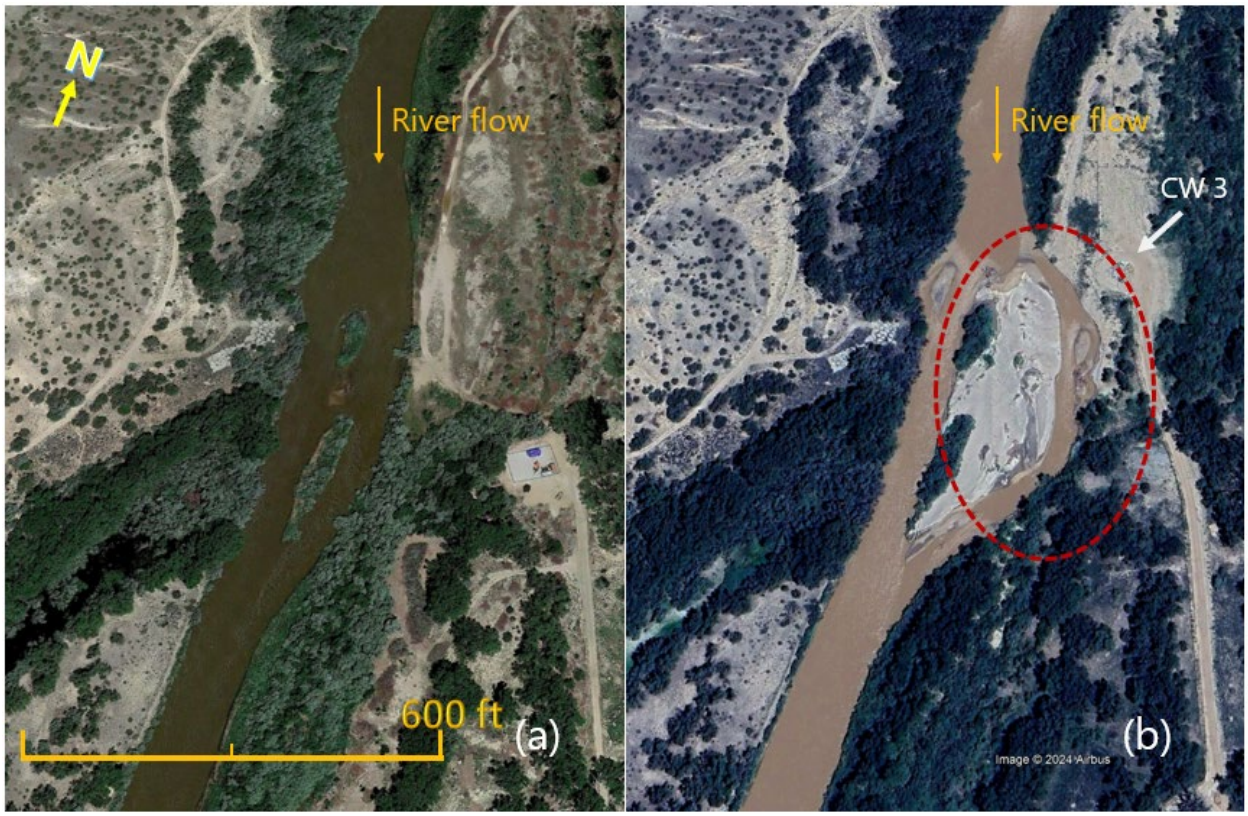


Figure 7: RM 257.8 Google Earth Imagery in June 2017 (on left) at the time of project designing and July 2024 (on right) during construction; visible erosion threatening infrastructure is circled in red. "CW 3" denotes the location of the existing collector well just northeast of the new erosion.

Figure 8: Photo taken September 17, 2024, looking downstream toward the eroded area.

San Felipe Pueblo (Existing)

A total of ten river maintenance sites have been identified on the Pueblo of San Felipe. Seven sites have been completed and three are ready for construction. The remaining three sites are RM 211.3, RM 212.8, and RM 214.4. Construction on longitudinal fill stone toe protection at RM 211.3 began in the fall of 2015 and was partially completed by March 2016. The work was put on hold at that time by the Pueblo of San Felipe for a review of impacts to vegetation of traditional or medicinal value. All construction work at the remaining sites is currently pending permission by the Pueblo of San Felipe. During the 2019 spring runoff, the bank eroded towards the levee at the two eastern bends at RMs 212.8 and 214.4. Again, work at these locations is currently on hold. A letter was sent to the Pueblo of San Felipe on October 31, 2019, informing the Pueblo of the potential risk to riverside facilities presented by conditions at these locations.

In 2024, the Pueblo of San Felipe received a grant from Reclamation's Aquatic Ecosystem Restoration Program in the amount of $400,000. The funding will help the Pueblo of San Felipe with their environmental management plan of their 10-mile reach of the Rio Grande system. Using this grant, the Pueblo of San Felipe has hired a restoration manager and contractors focused on restoring essential river functions to the Rio Grande. Reclamation continues to monitor these sites related to potential impacts to the adjacent riverside levee, drain, and canal systems.

Angostura to Montaño Reach Planning (Existing)

In 2014, Reclamation identified the reach of the Rio Grande from RM 201 to Montaño Bridge for hydraulic and geomorphic assessment and project planning. This reach is transitioning with riverbed incision and migrating bends that have caused problematic erosion at numerous locations. The goal of this reach planning is to analyze the current geomorphic and hydraulic trends and identify potential river projects that both minimize the need for future river maintenance and improve habitat value. Two hydraulic models of this reach were created using 2015 and 2017 hydrographic data. The completed hydraulic and geomorphic report is located at the website: Hydraulic and Geomorphic report at https://www.usbr.gov/uc/envdocs/reports/AngosturaDamtoMontanoBridge-GeomorphicandHydraulicAnalysis.pdf.

Sandia Pueblo RM 201.8 (Existing)

Bankline erosion has been observed along the eastern bank of the river at RM 201.8 since 2021 (see Figure 9). At this location the eastern levee has a point that comes within 200 feet of the existing active channel, presenting a risk to the levee, should the bank migration continue eastward. Erosion at this bend was expected to be alleviated by the construction of the two downstream side channels in the western floodplain, which concluded the Sandia RM 202 (Sandia Priority Site) rehabilitation work. While the side channels were activated by runoff flows in 2024, continued erosion at this outer bend was observed, which triggered the decision to implement temporary bank protection at this bend.

Reclamation provided an interim design based on the known hydrology to protect the eastern Bernalillo levee system. The purpose of the proposed temporary bank protection is to halt the migration of the outer bend, should runoff flows mobilize it, securing time and space to construct a permanent solution. Planning efforts for this interim project are completed. Access to this area either from U.S. Hwy 550 upstream or Sandia Pueblo downstream is still being worked out with Sandia Pueblo. Acquiring access for the active construction work at RM 199 has put finishing the planned interim work at this site on-hold. This site needs to be monitored during above average flows to avoid a future levee breach or until such time as the temporary bank protection is installed. Given the development of a localized meander bend and bar deposition, the location of eastern bankline will need to be protected via a long-term river maintenance project.

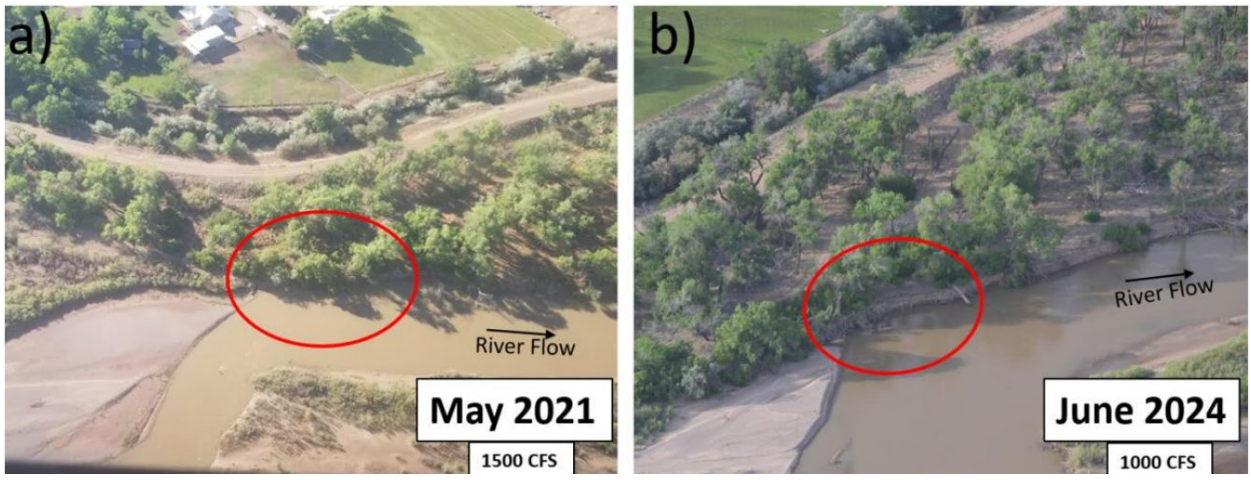


Figure 9: Observed bank erosion at Sandia RM 201.8 between May 2021 and June 2024.

Corrales Siphon and Bankline Repair (Adaptive)

The Corrales Siphon at RM 199.7 is in Corrales, New Mexico, just north of Albuquerque and about 700 ft downstream of the Arroyo de la Barranca confluence. The siphon was constructed in the early 1930s by the MRGCD to supply irrigation water to the Corrales Main Canal. During river reconnaissance in 2012, Reclamation discovered that degradation in the area had exposed the siphon. Reclamation placed riprap at the site to serve as temporary protection during the 2016 runoff. In 2020, MRGCD placed more riprap, extending it the entire width of the river and keying a short distance into the bankline.

In 2022, some of the siphon's wood stave pipe failed near the western inlet rendering it inoperable. This negatively affected flows in the Corrales main canal, and MRGCD deployed temporary pumps to provide irrigation water during the 2022, 2023, 2024, and 2025 irrigation seasons. By summer of 2025 the MRGCD had a feasibility study performed and developed a long-term solution with a new subsurface siphon to be constructed by horizontal directional drilling.

Construction on the siphon replacement began in late fall of 2025 with the MRGCD contractor crew coordinating with BOR crews for access in the Corrales Siphon area while the RM 199 project is underway. Work by MRGCD's contractor involves horizontal directional drilling of a new siphon bore hole deeper under the river bed and floodplain as well as pulling the 42-inch HDPE to connect the upstream headwater and downstream tailwater. MRGCD plans to place fill in the existing 96-year-old 60-inch wooden stave pipe. Construction is expected to be completed by March 2026.

River Mile 199 (Existing)

In 2017, Reclamation identified a new erosion site near RM 199 in the Corrales area. The Pueblo of Sandia's Tribal Council approved a project in 2021 allowing access for construction on their lands. In spring 2023, erosion of the western bank of the Corrales Siphon Bend, the northernmost bend, toward the levee following runoff flows raised concern that future runoff flows could threaten the levee and the Corrales main canal. In fall 2023, Reclamation implemented a short-term project to provide bank stabilization sufficient to withstand at least one similar runoff

season. A riprap windrow was constructed along the eroded bankline to limit the erosion. The riprap was sized to withstand flow rates up to the 2-year return flood flow and construction was completed January 2024.

Reclamation has completed design (see Figure 10) and environmental compliance and construction began in October of 2025 with the clearing for the staging areas and the project feature footprints. Coordination with Sandia Pueblo continued into the late fall of 2025 with a formal letter signed by Governor Felix Chaves granting permission to conduct the Pueblo Council approved work as planned on November 6, 2025. On January 7, 2026, a meeting was held for the construction of the side channel and bank protection features at the southernmost meander bend (see Figure 11). The upper and lower tiers of the bank protection features will be constructed using roughly 4,000 cubic yards of riprap along roughly 2,000 linear feet of eroded bank. The upper and lower tiers of bank protection will be separated by a lowered floodplain area. Roughly 12,000 cubic yards of alluvial floodplain material will be excavated to construct the side channel, which will also be used to temporarily divert river flows for construction. Spoil materials will be used as backfill for the bank protection feature and to raise the bed elevation of the incised river channel.

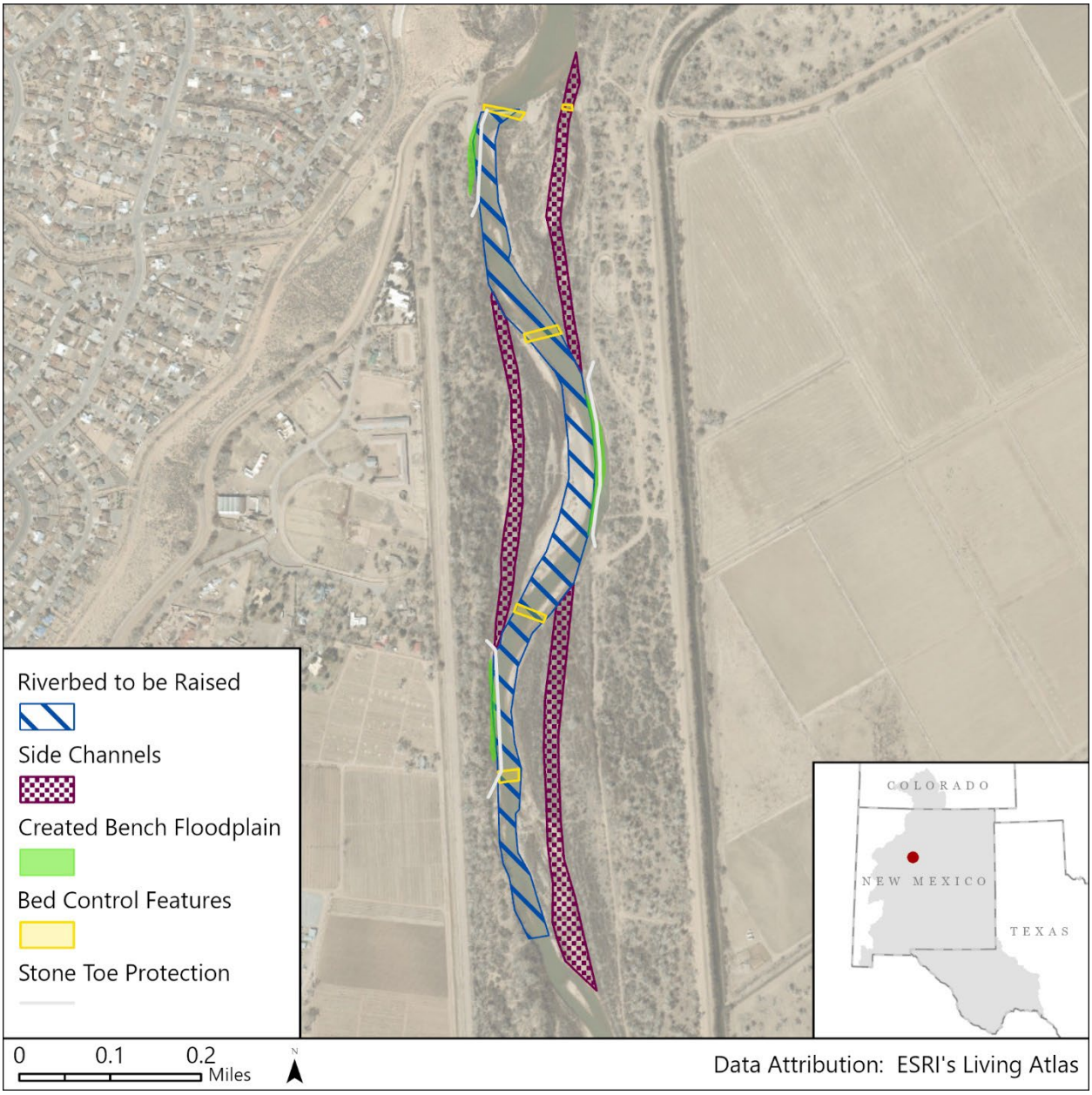


Figure 10: Plan view of design layout for RM 199 maintenance project.

Figure 11. Excavator crossing the Rio Grande at a constructed riprap crossing at RM 199.

Isleta to San Acacia Reach Planning (Existing)

In 2014, Reclamation identified the Rio Grande stretch from the IDD to the San Acacia Diversion Dam (SADD) for further investigation of geomorphic and hydraulic trends. This investigation was especially relevant given the observed overbank flooding in portions of the reach during the 2017 and 2019 runoffs. Geomorphic and hydraulic analysis reports for this reach were completed in March and December 2018, respectively. These analyses will be used to identify projects that have river maintenance and habitat value.

A 2021 Reclamation report identified sites that may need river maintenance or be suitable for habitat restoration in support of the MRG BO. It included a focused study on the Los Lunas subreach that identified RM 163 and RM 161 for future river maintenance work.

The reach report can be found at the following location: Geomorphic and hydraulic assessment of the Isleta to San Acacia Reach report at https://www.usbr.gov/uc/envdocs/reports/20181200-IsletaSanAcaciaHydraulicModeling-Report-AAO.pdf.

Los Lunas River Miles 163 and 161 (Existing)

In 2020, Reclamation analyzed the hydrology, hydraulics, and habitat of the Los Lunas subreach. The Los Lunas subreach overbanks at low flows and the overbanked water often becomes trapped against the levee. Data shows that the flow at which overbanking occurs has gotten lower over time. This investigation identified five locations along the eastern floodplain that overbank at flows less than the two-year return flow.

RM 163 is one of the first locations where water overbanks and saturates the levee toe as flow increases. In collaboration with New Mexico Interstate Stream Commission (NMISC) and MRGCD, Reclamation plans to lower the banks of the channel to improve aquatic habitat and

water conveyance. Reclamation completed project designs in fall 2022 (see Figure 12). After a long process to get CWA approval, construction began in February 2025 and was completed in September 2025. Spreading of the spoil material on the MRGCD levee was completed and crews were demobilized from the site by the fall. An As-Built Survey of the excavated features was completed by the River Analysis group staff in October 2025. Although flows were low (<1000 cfs) during and after construction, the river began to re-work the channel more or less immediately. Establishment of native vegetation within the lowered areas was observed by the end of the summer, post-construction. Summer low flows boosted by minor precipitation events in the drainage area contributed to flows that occupied the full post-construction channel width. The As-Built Survey shows that the excavated areas were successfully lowered to the elevation of the existing channel, expanding the active channel area and conveyance capacity.

Work to increase channel conveyance is planned for the reach just downstream of the Los Lunas Hwy 6 bridge (RM 161) where channel conditions are similar to those pre-dating the RM 163 project construction. Site visits were conducted by Reclamation and partner agencies (MRGCD and NMISC) in December 2025 to the RM 163 completed work and the RM 161 planned project area. Winter conveyance flows of roughly 1,800 cfs were contained within the active channel (Figure 13 panel b) within the completed work area, while flows in the planned work area were inundating the inset and heavily vegetated floodplain. Existing accreted bars and preliminary treatment strategies have been identified, and existing-condition 2-D hydraulic modelling was completed in January of 2026.

Figure 12: Plan view of bank lowering (BL) berm design for RM 163 maintenance project.

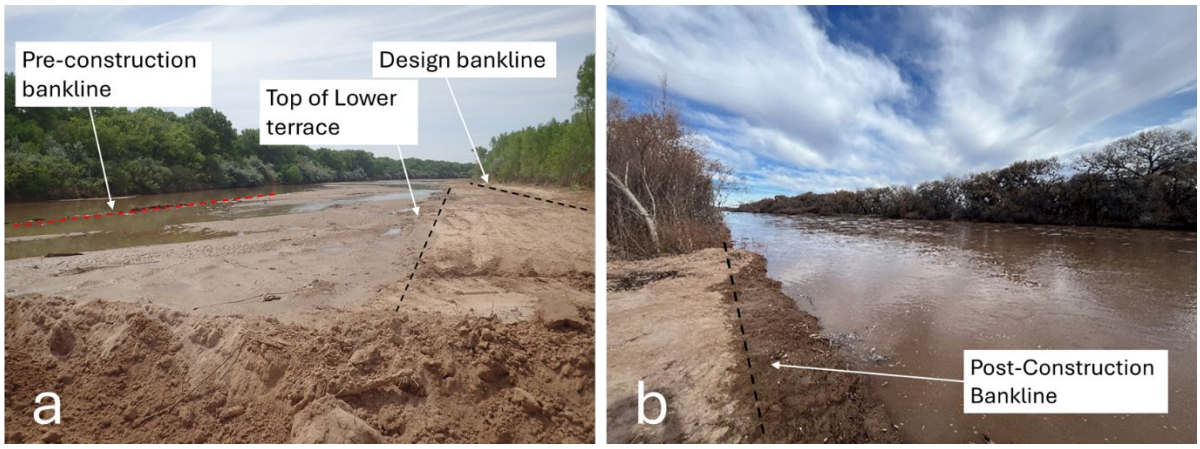


Figure 13: Panel a) shows a photo taken May 2025 looking upstream during the excavation of the bank lowering features. Panel b) shows a photo taken December 2025 looking upstream along the new bankline at a flow of roughly 1,800 cfs. The flows are contained within the channel at a flow rate that caused floodplain inundation prior to the project construction.

Cañas Arroyo RMs 95.2, 94.5, 94.3 (Existing)

Several river bends near the confluence of the Cañas Arroyo and the Rio Grande have continued to erode on the western riverbank since monitoring in this area began in 2008. These eroding bends are progressing laterally towards the San Acacia and Low Flow Conveyance Channel levees and pose a threat to this infrastructure if unhalted (see Figure 14). Constructed launchable rock windrows were installed by Reclamation at these locations in Spring 2025 to serve as

interim bank protection measures, while work continues to determine a long-term solution to manage sediment transport imbalances in this reach.

Figure 14: Satellite imagery 2013 to 2023 of bankline erosion near the Cañas Arroyo confluence.

Highway 380 to Elephant Butte Reservoir Reach Planning (Existing)

Continued monitoring efforts are underway to identify any new river maintenance and habitat restoration sites along this 50-mile stretch of the Rio Grande. This river reach has essential habitat for several federal threatened and endangered species, including the Rio Grande Silvery

Minnow (RGSM), the Southwestern Willow Flycatcher (flycatcher), and the Yellow-billed Cuckoo (cuckoo). Riverside infrastructure in this reach delivers irrigation flows to the BdA to support terrestrial habitat for the endangered New Mexico Meadow Jumping Mouse (jumping mouse). In addition to providing critical habitat for these endangered species, this reach of the Rio Grande is critical for the delivery of surface water flows to Elephant Butte Reservoir. Reclamation's planning in this reach is intended to balance water conveyance with habitat creation for the listed species. This reach planning effort complements the ongoing LSARI effort.[1]

The reach report on recent geomorphic, hydraulic, and vegetative trends can be found at the following location: Rio Grande Channel Analysis at https://www.usbr.gov/uc/DocLibrary/Publications/20200500-RioGrandeChannelAnalysisHighway380ElephantButteDelta-508-AAO.pdf.

Bosque del Apache River Realignment Upstream Phase (Existing)

Reclamation completed the design for the approximately 4.5-mile river realignment on the Rio Grande, extending from just downstream of the Highway 380 bridge near San Antonio, NM, near RM 86, to just below the north boundary of the BdA near RM 81 (see Figure 15). This realignment is intended to reduce the chance of sediment plug formation in the main channel by redirecting river flows to a lower point of the active floodplain east of the existing channel. Like the downstream phase of this project (see section below), the upstream phase is intended to reduce river perching and reconnect the floodplain with the main channel flow. It is expected that this project will improve riverside habitat and conveyance. Construction of the upstream phase is currently on hold pending project landowner approval and lands easement acquisition efforts by Reclamation and NMISC.

[1] See the Lower San Acacia Reach Improvements Project section.

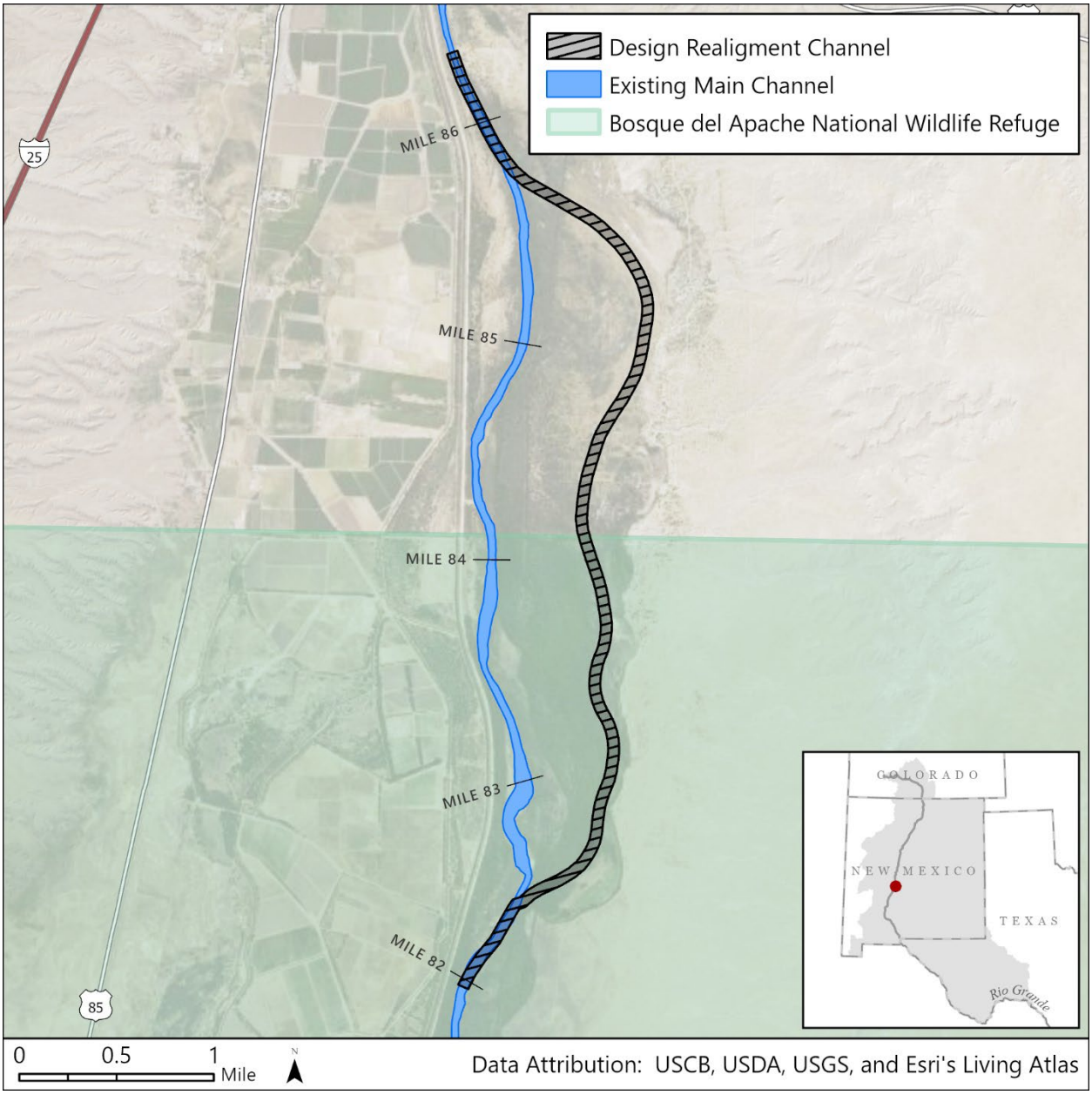


Figure 15. Map with the proposed Upper BdA Realignment.

Bosque del Apache River Realignment Downstream Phase (Adaptive)

During the 2008 and 2017 spring runoffs, sediment plugs formed in the main channel of the Rio Grande at RM 81 within the BdA. In 2014, a multi-agency project team developed a plan to realign the current channel to the east to address river maintenance concerns. This project moved 2.5 miles of the river channel and reconnected it with the current channel (see Figure 16). The excavation phase of the project was completed in September 2020 and moving excavation spoil into the old river channel was completed in March 2021.

Most likely due to poor spring runoff conditions within the reach, a section of the realigned channel did not mobilize sediment as intended. Work at this location, called the "knickpoint"

site, began in 2022 and was completed in February 2023. Ongoing habitat monitoring continues within the project's wetland mitigation area as directed under the project's CWA permit with the USACE.

Figure 16. Image of the downstream phase of the river realignment taken in Spring 2021. Photo is looking upstream with the realigned channel to the right of the frame and the abandoned channel to the left.

Bosque del Apache, Tiffany, and San Marcial Levee and Delta Channel Capacity Analyses (Adaptive)

The hydraulic channel capacity criteria used in the analysis of levee systems in this reach is to effectively and safely pass the two-year flow of 7,700 cfs. The maintenance design criteria of the San Marcial Delta Water Conveyance Channel Project (Delta Channel) used in the analysis was to effectively convey a normal spring runoff peak flow of 4,000 to 5,000 cfs to the Elephant Butte Reservoir pool.

The Tiffany and San Marcial Levee sections continue to maintain sufficient channel capacity. Realignment of a section of the river through the BdA has been delayed as is detailed in an earlier section of this report; this effort should restore sufficient channel conveyance capacity through the BdA section of the river.

Several severe river bends in the lower reach: Fort Craig Bend at RM 64.2, RM 63.4, and RM 60 continue to be monitored, particularly after runoff. Launchable riprap at two of these bends have seen multiple runoff seasons and much of this rock has already launched into the river. Some of this bank protection may need to be replenished in the future.

Fort Craig Bend RM 64.2 (Adaptive), RM 63.8 (Existing), RM 63.4 (Existing), and RM 60 (Adaptive)

Historically, the Rio Grande between Fort Craig and RM 60 was a wide, braided, and relatively straight river channel, but recently has developed a more sinuous planform. This has caused the formation of multiple bends, including Fort Craig Bend near RM 64 and the S-curve bend at RM 60. The outer side of these bends are near the west edge of the confined floodplain, adjacent to the spoil levee and the LFCC. Continued bank erosion and lateral channel migration at these locations threaten to breach the spoil levee and cause damage to the LFCC and access road. This could negatively affect water delivery and endangered species. In 2012, a rock windrow was placed on the west bank of the river as a temporary solution to bank toe erosion near the abandoned Fort Craig pump site. Observations show that some of the rock has dropped into the channel. Interim placement of launchable riprap material is planned at two bends (RM 63.8 and RM 63.4) to prevent further migration of the channel at these locations.

Currently the rock-lined Fort Craig and RM 60 bends appear to be stable. Reclamation plans to monitor these two bend locations during the runoff season but does not plan to place additional rock in 2025. The multi-disciplinary interagency LSARI team has developed alternatives to reduce maintenance frequency, increase water salvage, and enhance habitat throughout the San Acacia Reach. The alternatives are being evaluated via a feasibility-level study and through the LSARI effort (see LSARI section below).

River Mile 60 Operations

The goal of operations at RM 60 is to increase water delivery to Elephant Butte Reservoir without negatively affecting federally listed bird habitat along the LFCC West. This will be accomplished by managing flow distribution between the river and the LFCC West.

Reclamation developed an experimental gate operations plan in 2023. This plan was implemented by Reclamation and MRGCD in January 2024. In August 2024, alterations were made to the existing operations plan. MRGCD is overseeing operations, and Reclamation is monitoring and analyzing them.

Monitoring will occur monthly, and includes:

- Three flow measurements above and below RM 60
- Three flow measurements in the LFCC and LFCC West
- Ten ground water monitoring wells throughout the LFCC West
- Ten surface water transducers - three in the river and seven in the LFCC and LFCC West

Delta Channel Maintenance (Adaptive)

Reclamation and NMISC provide funding for joint Delta Channel maintenance, river maintenance projects, and riverside irrigation drain improvements with water salvage potential within the MRGP, and reservoir vegetation management in the RGP.

In 2025, work continued through the Delta Channel to maintain a 20-mile temporary channel into the Elephant Butte Reservoir pool for effective water delivery. The maintenance work was conducted by Reclamation and focused primarily on sediment excavation from the channel, sandbar de-vegetation, and vegetation removal along channel berms to maintain berm integrity between RM 55 and RM 44. A total of 55,000 cubic yards of sediment were excavated from the channel between these markers with just over half of this material being removed from RM 55 to RM 51(Nogal Canyon outfall to the Rio Grande). Reclamation provided necessary engineering services, environmental compliance, and construction inspection associated with Delta Channel Maintenance in accordance with the technical service agreement.

Truth or Consequences (Existing)

Reclamation annually excavates sediment from the river channel to maintain the authorized 5,000 cfs channel capacity in the reach between Elephant Butte Dam and Caballo Reservoir. Maintenance is conducted each fall after releases are shut off from Elephant Butte Dam. Primarily, sediment is removed at arroyo mouths. Secondary activities include sediment removal in other areas throughout the reach and bank stabilization with riprap at selected sites. Work completed in winter 2025-2026 involved sediment removal at the mouths of two major tributaries (Mescal and Cuchillo Negro) and is estimated at roughly 10,000 cubic yards of sediment.

In addition, during periods of non-release, Reclamation installs a dike to increase the alluvial groundwater levels that benefit of the artesian hot springs in Truth or Consequences.

Other Major River Maintenance Activities

Aggradation/Degradation Data Acquisition and Hydraulic Analysis

In 2022, Reclamation hired a contractor to acquire Digital Imagery and LiDAR data for the MRGP from Cochiti to Elephant Butte Reservoir. Topographic data was collected along 1,800 historic range lines established to monitor sediment aggradation and degradation along the floodway and levee system. The LiDAR data was modified to approximate the underwater bathymetry covered by the water surface at the time of data acquisition and a hydraulic analysis to evaluate the bankfull flow rate was completed. Reclamation conducted the analysis in partnership with NMISC, USACE, and MRGCD and hopes both Federal and non-Federal partners may agree on the current hydraulic conveyance conditions and capacities for the reach between Cochiti Dam and Elephant Butte Reservoir. Reclamation published two reports in 2025 from this dataset and compared with other similar previously acquired decadal datasets. The reports can be found at the following locations:

https://www.usbr.gov/uc/DocLibrary/Reports/uc-technicalreport-middleriograndegeomorphichydraulicassessment-508-AAO-20250600.pdf

https://www.usbr.gov/uc/DocLibrary/Reports/20241200-MiddleRioGrande2DOverbankingLeveeImpactAssessment-TechnicalReport-508-AAO.pdf

These reports provide a most recent assessment of the low, intermediate, and high flow conveyance properties of the Middle Rio Grande and provide spatial reference to where there are river maintenance needs related to effectively delivering water, sediment, and providing ecological function.

Lower San Acacia Reach Improvements Project

The LSARI Project goals are to improve water delivery, ecosystem function, and required maintenance by working with geomorphic trends. The project area begins near the south boundary of BdA at RM 74 and continues south to RM 54.5.

Within the San Acacia Reach, sediment supply exceeds transport capacity. About 33 million cubic yards of cumulative sediment have deposited in the river between BdA's south boundary and RM 60 from 1962 to 2012 (Holste, 2023). The long-term and prevailing condition is a depositional environment despite periods of channel incision caused by low reservoir levels. Attaining an equilibrium condition or transporting all sediment delivered from upstream is likely not possible, and it is important to manage how sediment is deposited in the project area to ensure water is delivered and environmental resources are conserved (Holste, 2023).

Key issues the project targets include channel perching, conveyance losses, and decline in ecosystem health. Channel perching maintains the riverbed at an elevation above the water table, causing seepage loss that may increase river drying. Perching increases sediment concentration in the main channel allowing sediment plugs to form, leading to levee breeches and significant losses as water spills into low-elevation areas disconnected from the main channel. Several factors contribute to conveyance losses. Transpiration, evaporation, seepage from the river channel, and stranded water on the floodplain after high-flow events all significantly reduce river flows. Historically a wide and shallow river, the Rio Grande in this reach presents a narrow and uniform channel that has contributed to the decline in ecosystem health. The RGSM and the flycatcher and their habitat require frequent floodplain inundation to thrive. Less frequent floodplain inundation stresses native vegetation and allows invasive phreatophytes to dominate riparian areas, reducing native habitat availability.

The LSARI Project completed the technical feasibility-level analysis in 2024. The draft Environmental Impact Statement (EIS) was completed in November 2025 and public comment was available through February 11, 2026. The final EIS and Record of Decision are anticipated by the summer of 2026. If an action alternative (see Figure 17) is selected as the preferred alternative, construction may begin in 2027.

Figure 17: LSARI alternatives map.

Programmatic Water Operations and River Maintenance ESA Compliance

The USFWS issued a final *Biological and Conference Opinion for Bureau of Reclamation, Bureau of Indian Affairs, and Non-Federal Water Management and Maintenance Activities on the Middle Rio Grande* (Consultation Number 02ENNM00-2013-F-0033; 2016 MRG BO) on December 2, 2016. The non-jeopardy determination in the MRG BO is based on the Proposed Action and mandatory accomplishment of numerous commitments (i.e., 86 Conservation Measures, 11 Reasonable and Prudent Measures, and 50 Terms and Conditions) by Reclamation

and the MRG BO Partners (BIA, NMISC, and MRGCD). The USFWS provided an Incidental Take Statement for the RGSM, flycatcher, and cuckoo.

On November 19, 2024, WildEarth Guardians, the USFWS, the Bureau of Reclamation, and MRGCD entered into a settlement agreement resolving case No. 1:22-cv-914-GJF-JMR in which WildEarth Guardians challenged the 2016 MRG BO. In that Settlement Agreement, Reclamation, USFWS, and MRGCD agreed to reinitiate ESA Section 7(a)(2) consultation on Reclamation's operations and maintenance activities in the MRG. Reclamation sent a letter on December 10, 2024, to USFWS requesting reinitiation of consultation. Per the terms of the Settlement Agreement, Reclamation and USFWS agreed to complete the reinitiated consultation with a new biological opinion by October 30, 2028.

During the pendency of the reinitiated consultation, Reclamation and the MRG BO Partners are continuing to implement the commitments set forth in the 2016 MRG BO. The MRG BO annual reports submitted to USFWS provide information on the implementation of MRG BO requirements and the proposed action.

Rio Grande Silvery Minnow

Since 1993, Reclamation has funded or supported the systematic sampling of the fish community in the MRGP with a focus on the endangered RGSM (*Hybognathus amarus*). With some exceptions (e.g., 1998), fish sampling by seining has been conducted monthly from April to November at 20 standard monitoring sites along the river (Dudley et al., 2025a). For comparison among years, seasons, and sites, the catch of RGSM is standardized as density or catch-per-unit-effort (CPUE;RGSM/100m^2). In 2017, 10 additional sites (30 total) were added to the survey protocol during October, with 10 more additional sites (40 total) added in October 2023 (Dudley et al., 2025b). CPUE is reported for the 20 standard sites, 30 sites, and 40 sites (Standard, Standard and Additional 10, Standard and Additional 20).

Incidental take of RGSM is authorized for the Proposed Action if October density is greater than or equal to 1.0 fish per 100 m^2 for 10 of the 15 years of the MRG BO's duration, and less than 0.3 fish per 100 m^2 for no more than 2 of the 15 years. Incidental take for the RGSM will be considered exceeded if these densities and time limits are not met because of the Proposed Action.

Based on monitoring data from the 20 standard sites, RGSMs were present at 2 of 20 sites with an overall CPUE of 0.033 RGSM/100 m^2 during October 2025 (Dudley et al., 2025b, Dudley et al., 2026). At these 20 standard sites, the October 2025 CPUE was lower than the October 2024 CPUE of 0.71 RGSM/100 m^2.

Based on the 30 sampling sites, RGSM CPUE in October 2025 was 0.035 RGSM/100 m^2 (Dudley et al., 2026). This estimate was approximately the same as the 20-standard site CPUE estimate of 0.033 RGSM/100 m^2. The species was present at 4 of those 30 sites in October 2024 (Dudley et al., 2025b).

Based on the 40 sampling sites, RGSM CPUE in October 2025 was 0.025 RGSM/100 m^2 (Dudley et al., 2026) This estimate was lower than both the 20-standard site CPUE estimate of

0.033 RGSM/100 m^2, and the 30-site estimate of 0.035 RGSM/100 m^2. The species was present at 4 of the 40 sampling sites (Dudley et al., 2025b).

In the annual report, RGSM status, trends, and mixture model estimated RGSM CPUE are used for long-term analyses, mesohabitat associations, sampling variation evaluation, and are modeled to evaluate their relationships to flows or other environmental conditions (see Dudley et al., 2025a). A two-model approach is used to separate presence and absence of RGSM from their actual abundance so that the errors are properly estimated.

The changes in the occurrence and estimated CPUE of RGSM were reliably predicted by seasonal differences in flows across years (1993–2025; Dudley et al., 2025a). Extended high flow during spring runoff appears to be crucial in explaining why some years had dramatically elevated RGSM CPUE. In contrast, poor spring runoff and extended low flow during summer were key to explaining reductions in the occurrence of this species across years. Prolonged high flow during spring runoff was most predictive of increased CPUE, while prolonged low flow during summer was most predictive of decreased CPUE of RGSM over time in the river (Dudley et al., 2025a) (See Figure 18).

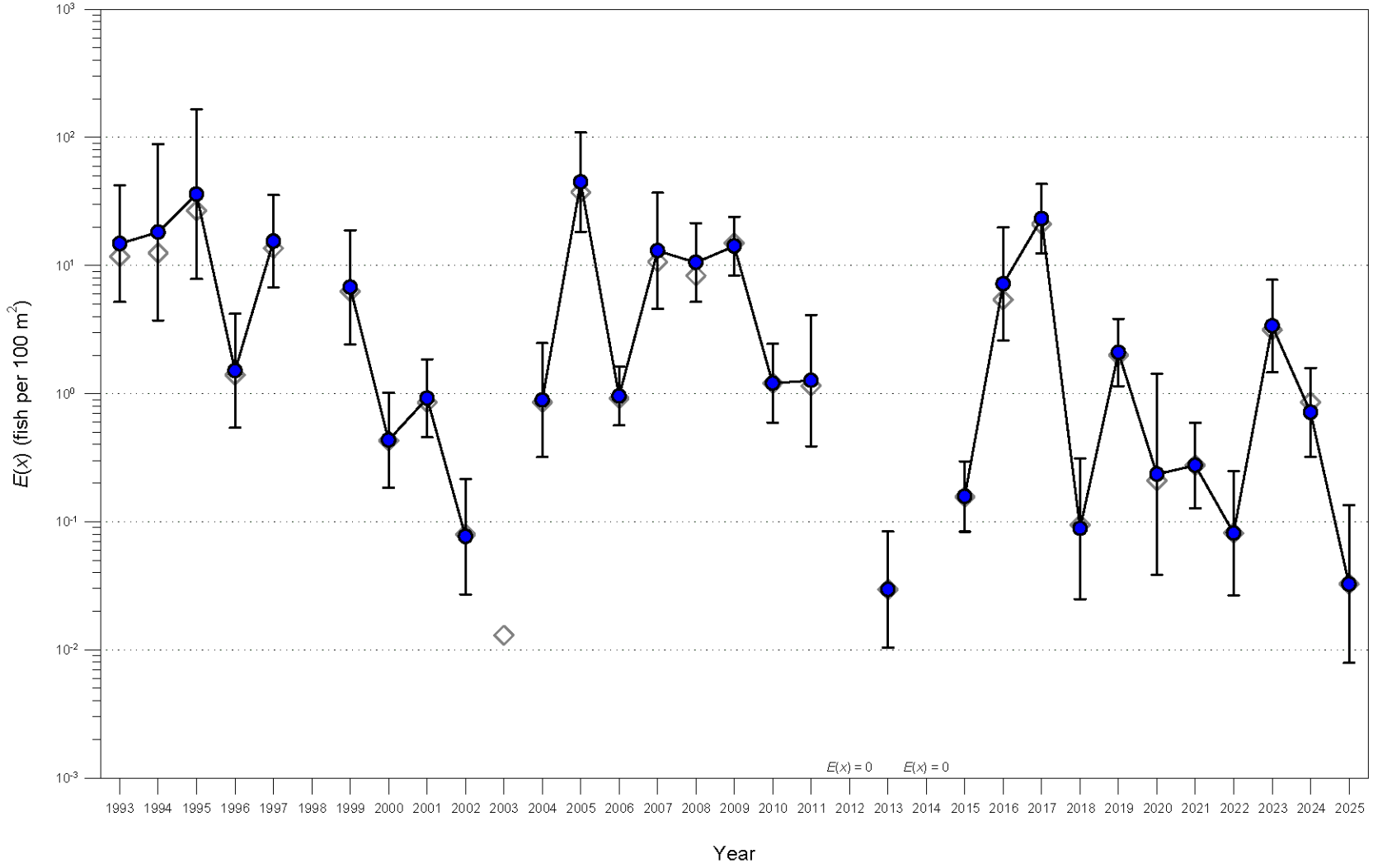


Figure 18. RGSM estimated CPUE (E(x)) using standard site (20 sites) October data for 1993-2025 (Dudley et al., 2025b, Dudley et al., 2026).

Literature Cited:

Dudley, R.K., S.P. Platania, and G.C. White. 2025a. Rio Grande Silvery Minnow Population Monitoring during 2024. Annual Contract 140R4019P0048 Report to Bureau of Reclamation, American Southwest Ichthyological Researchers, Albuquerque, NM.

Dudley, R.K., S.P. Platania, and G.C. White. 2025b. Rio Grande Silvery Minnow Population Monitoring during October 2025. November Contract 140R4019P0048 Report to Bureau of Reclamation, American Southwest Ichthyological Researchers, Albuquerque, NM.

Dudley, R.K., S.P. Platania, and G.C. White. 2026. Rio Grande Silvery Minnow Population Monitoring during 2025, Annual Summary Written Communication. Annual Contract 140R4019P0048 Report to Bureau of Reclamation, American Southwest Ichthyological Researchers, Albuquerque, NM.

San Acacia and Isleta Diversion Dams Projects

The goals of the SADD and IDD Improvement Projects were to provide upstream fish passage for the RGSM at both diversion dams as well as improve the existing east bank sluiceway and diversion works of the IDD. The SADD is located near RM 116 of the Rio Grande, within the village of San Acacia, NM, approximately 15 miles north of Socorro, NM. The IDD is located near RM 169, just downstream of the NM-147 bridge within the Pueblo of Isleta, approximately 15 miles south of Albuquerque, NM. See Figure 19 for the project vicinity map.

Within the MRG BO, several conservation measures commit Reclamation and the MRGCD to facilitating fish passage at SADD and IDD, to improve river channel connectivity, and to provide fish passage between reaches to improve habitat access for the RGSM. In 2016, a settlement agreement[1] was reached among Reclamation, MRGCD, the Pueblo of Isleta, and the BIA, which resolved multiple issues related to the construction and operation of the IDD. The proposed construction of fish passage and sluiceway modifications at IDD fulfills some of the commitments from that settlement.

Reclamation awarded a design-build contract in February 2023 for the design and construction of the SADD and IDD projects. Through 2023 and 2024, the contractor completed a Design Criteria Technical Memorandum, an Alternatives Analysis Technical Memorandum, completed a Value Engineering Study, completed a computation fluid dynamics modeling of the fish passage internal hydraulics, and began preparation of the design packages. In May 2025, it was decided to pause fish passage efforts but to continue the IDD sluiceway and east bank modifications. At the time of the pause, the SADD fish passage structure design was a draft 100% package and the IDD fish passage structure was at a 60% design level. The IDD sluiceway and east bank modifications design was completed in November 2025. Environmental compliance, permitting, and access agreements are nearing completion. Construction of the IDD sluiceway and east bank modifications are scheduled to begin in November 2026 and be completed by February 2027.

[1] See Isleta Settlement section.

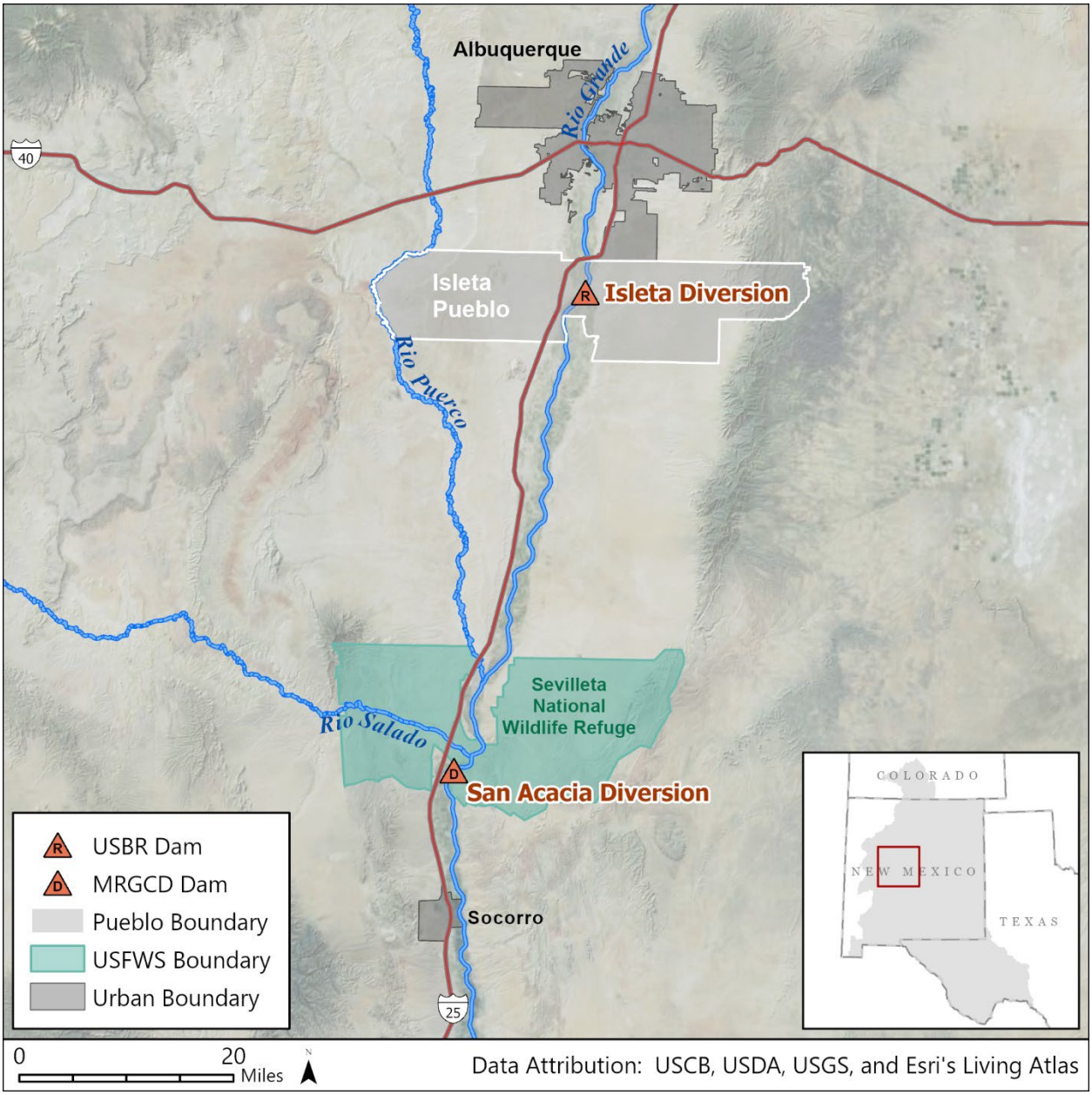


Figure 19: IDD and SADD Project Vicinity Map.

Concurrent with the design-build process, Reclamation completed a physical model and modeling report in 2023 of the IDD sluiceway, which informed that portion of the design. Reclamation is also currently preparing two-dimensional numerical modeling of the IDD structure to provide gate operations and maintenance guidance. Numerical modeling will be completed in 2026.

MRGCD currently operates both SADD and IDD to control irrigation diversions and will ultimately be responsible for O&M of the SADD and IDD fish passage structures once they are complete.

Southwestern Willow Flycatcher

The flycatcher (*Empidonax traillii extimus*) was listed as endangered by the USFWS effective in March 1995. The 2013 final designation of critical habitat defines two units located along the Rio Grande in New Mexico: the Upper Rio Grande Management Unit and the Middle Rio Grande Management Unit. No critical habitat was designated for the Lower Rio Grande Management Unit from Elephant Butte Dam to El Paso, TX.

Incidental take of flycatcher would be considered exceeded if more than 26 flycatcher territories are displaced in any year because of the Proposed Action, or if more than 2,071 acres of suitable flycatcher habitat are impacted because of the Proposed Action over the 15-year MRG BO duration.

In 2025, incidental take occurred from temporary and permanent impacts to vegetation from project related activities on the MRG, including mowing range lines south of Socorro and the RM 163 Project. A total of 0.08 acres of moderately suitable habitat, and 14.37 acres of suitable habitat were impacted for the flycatcher. There was no incidental take of flycatcher nest territories in 2025 from on-the-ground project activities.

During the summer of 2025, Reclamation conducted surveys and nest monitoring of flycatchers in 12 distinct reaches along approximately 205 miles of the Rio Grande, between the Isleta Pueblo and El Paso, TX (see Table 11). Surveys were performed to contribute to the baseline population data of the flycatcher along the Rio Grande, and to meet Reclamation's ESA compliance commitments for the MRG BO as well as the ESA compliance for the RGP[1].

In 2025, a total of 1,104 resident flycatchers were documented. These flycatchers established 615 territories, of which 489 were pairs. This represents a 9 percent increase in territory numbers from 2024, although comparisons are difficult, as only selected sites were surveyed in certain reaches both years. As in previous years, the San Marcial Reach was by far the most productive, containing 603 resident flycatchers and 320 territories, of which 283 were pairs – a 6 percent decrease in territories from 2024.

[1] see ESA Compliance for Operating Agreement and Storage of SJCP Water.

Table 11: Southwestern Willow Flycatcher Territories 2016-2025[1]

Location[2]	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Frijoles	N/S[4]	N/S	N/S	N/S	N/S	N/S	N/S	0	0	0
Belen	105	10	12	95	85	25	N/S	20	17	20
Sevilleta	N/S	18	N/S	17	N/S	N/S	N/S	12	4	5
San Acacia	N/S	0	N/S	0	N/S	N/S	0	0	0	0
Escondida	36	16	2	5	2	3	9	4	8	5
BdA	41	40	27	35	39	35	24	24	16	14
Tiffany	0	0	1	N/S	N/S	N/S	0	0	0	5
San Marcial	320	340	321	352	252	200	293	277	257	302
MRGP Subtotals	**502**	**424**	**363**	**504**	**378**	**263**	**326**	**337**	**302**	**351**
Caballo Reservoir	31	31	20	12	18	11	9	7	8	9
Caballo to El Paso, TX	82	107	84	96	107	109	91	77	60	41
RGP Subtotals	**113**	**138**	**104**	**108**	**125**	**120**	**100**	**84**	**68**	**50**
Total	**615**	**562**	**467**	**612**	**503**	**383**	**426**	**421**	**370**	**401**

Other studies continued or updated in 2025 for ESA compliance in the MRGP and RGP areas include:

- Flycatcher nesting hydrology and habitat variability study
- River maintenance impact monitoring
- Saltcedar leaf beetle (Diorhabda spp.) impact monitoring
- Elephant Butte delta hydrology monitoring

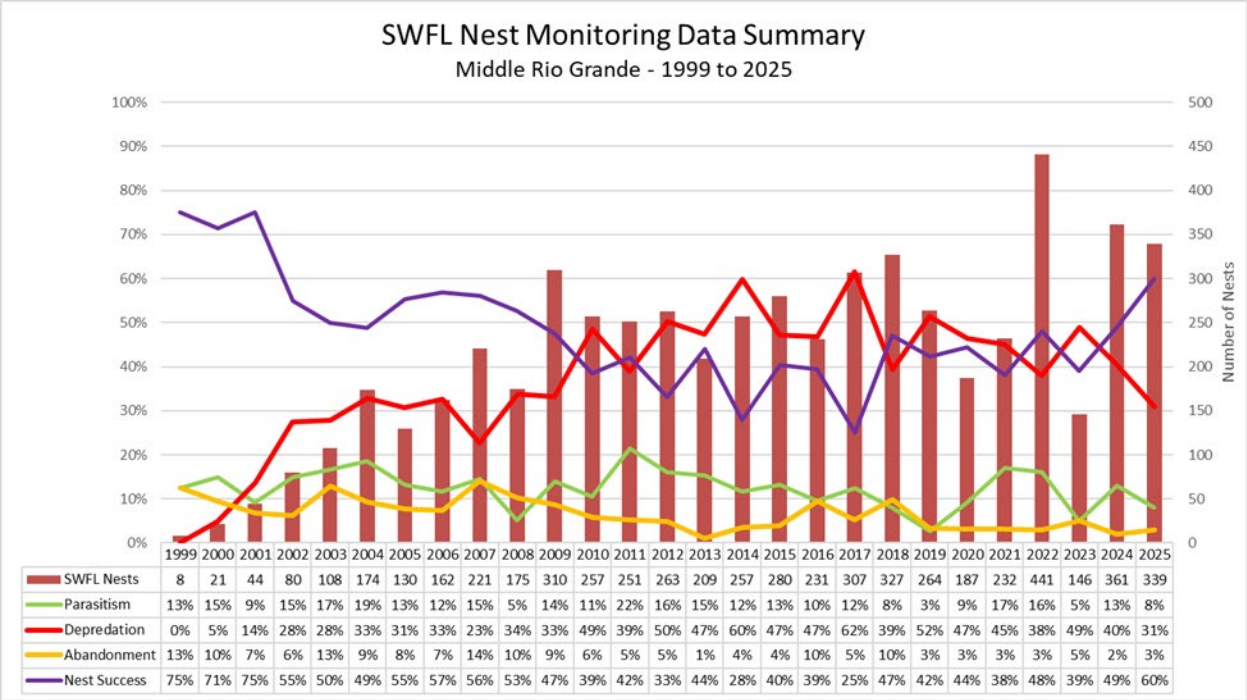
These studies are designed to provide insight into potential threats and habitat requirements of the flycatcher and cuckoo populations.

At Elephant Butte Reservoir, flycatchers have expanded their occupied habitat south to near Mitchell Point at RM 38. Flycatcher-occupied areas in the Elephant Butte Reservoir delta from RM 60 downstream to RM 54 were previously mostly in dense Goodding's and coyote willow of various age classes, with water provided by the LFCC outfall. However, much of this willow-dominated habitat has declined in quality during the past 12 years due to drought and natural succession. Invasive saltcedar is also encroaching and becoming a larger component of occupied habitat. Additionally, the presence of the saltcedar leaf beetle is an issue as it will likely defoliate saltcedar during nesting periods, reducing foliage cover, and making nests more vulnerable to predation, parasitism, and changes in microclimate.

Habitat modeling since 2016 has shown that some suitable habitat remains unoccupied, thus indicating that habitat is not a limiting factor for this population. However, there has been an overall reduction in the quality of the habitat.

[1] Breeding season only.
[2] Table does not include detections outside of the active floodplain at BdA.

Nest success in the MRG remained between 38 and 49 percent between 2018 and 2024, following a study period low of 25 percent in 2017 (see Figure 20). However, nest success jumped to 60 percent in 2025, the highest success rate recorded since the earliest years of monitoring.

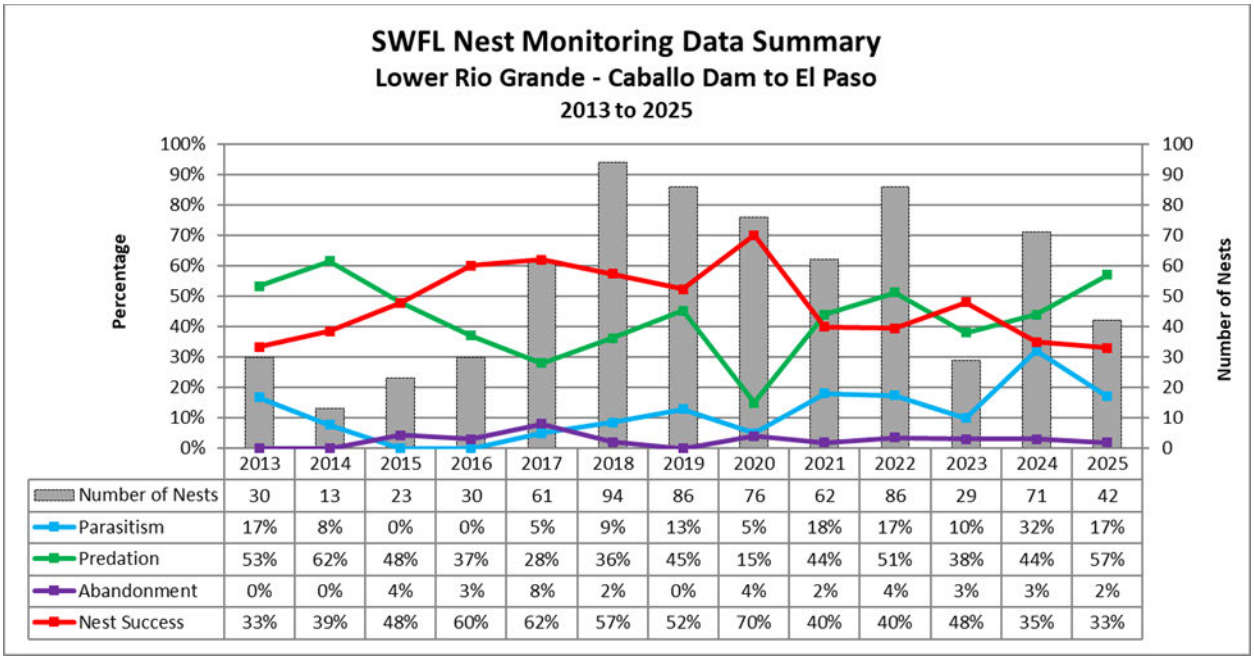


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
SWFL Nests	8	21	44	80	108	174	130	162	221	175	310	257	251	263	209	257	280	231	307	327	264	187	232	441	146	361	339
Parasitism	13%	15%	9%	15%	17%	19%	13%	12%	15%	5%	14%	11%	22%	16%	15%	12%	13%	10%	12%	8%	3%	9%	17%	16%	5%	13%	8%
Depredation	0%	5%	14%	28%	28%	33%	31%	33%	23%	34%	33%	49%	39%	50%	47%	60%	47%	47%	62%	39%	52%	47%	45%	38%	49%	40%	31%
Abandonment	13%	10%	7%	6%	13%	9%	8%	7%	14%	10%	9%	6%	5%	5%	1%	4%	4%	10%	5%	10%	3%	3%	3%	3%	5%	2%	3%
Nest Success	75%	71%	75%	55%	50%	49%	55%	57%	56%	53%	47%	39%	42%	33%	44%	28%	40%	39%	25%	47%	42%	44%	38%	48%	39%	49%	60%

Figure 20: Summary of Southwestern Willow flycatcher (SWFL) nesting in the MRGP from 1999 to 2025.

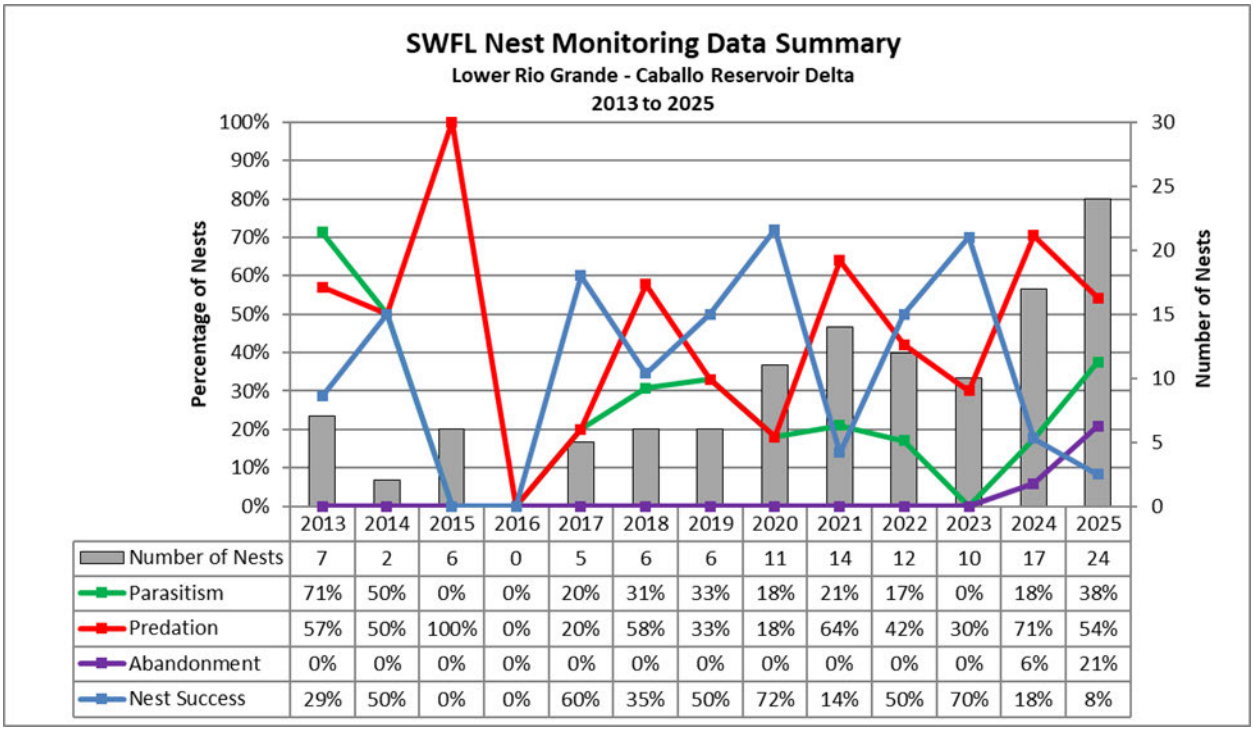
The decline in nest success from 2006 to 2017 may be related to the decline in habitat suitability and quality in heavily populated areas. Depredation, the biggest source of nest failure, averaged 27 percent from 1999 to 2011. Since 2012, the depredation rate has nearly doubled, averaging 49 percent. The depredation rate in 2017 was 62 percent, the highest recorded since 1999, but dropped back to 39 percent in 2018 and was only 31 percent in 2025. The reduced depredation rate and increase in nest success are likely due to flycatchers moving into higher quality developing habitat in the Belen and San Marcial reaches.

Nest success in the RGP area, both within the Caballo Reservoir Delta and downstream of Caballo Dam, has been highly variable in recent years, ranging from 8 to 72 percent between 2017 and 2025 (see Figure 21 and Figure 22). Nest success downstream of Caballo Dam has generally been higher than in the reservoir delta.



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Number of Nests	30	13	23	30	61	94	86	76	62	86	29	71	42
Parasitism	17%	8%	0%	0%	5%	9%	13%	5%	18%	17%	10%	32%	17%
Predation	53%	62%	48%	37%	28%	36%	45%	15%	44%	51%	38%	44%	57%
Abandonment	0%	0%	4%	3%	8%	2%	0%	4%	2%	4%	3%	3%	2%
Nest Success	33%	39%	48%	60%	62%	57%	52%	70%	40%	40%	48%	35%	33%

Figure 21: Flycatcher nest variables, Caballo Dam to El Paso, TX, 2013-2025.



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Number of Nests	7	2	6	0	5	6	6	11	14	12	10	17	24
Parasitism	71%	50%	0%	0%	20%	31%	33%	18%	21%	17%	0%	18%	38%
Predation	57%	50%	100%	0%	20%	58%	33%	18%	64%	42%	30%	71%	54%
Abandonment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	21%
Nest Success	29%	50%	0%	0%	60%	35%	50%	72%	14%	50%	70%	18%	8%

Figure 22: Flycatcher nest variables, Caballo Reservoir delta, 2013-2025.

During three of the past nine years (2017, 2019, 2023), the Rio Grande and LFCC both saw higher flows compared to the past several years, resulting in extensive overbank flooding and higher groundwater levels in some areas. This improved plant vigor, structure, density, and overall habitat quality. Conversely, Rio Grande and LFCC flows were extremely low in 2018, 2020, and 2025, which likely had negative impacts on habitat quality. Also, during 2020, a 330-

acre fire burned suitable occupied flycatcher habitat in the vicinity of Fort Craig, including an area that, in 2019, contained 14 flycatcher territories. Fire has repeatedly impacted occupied habitat, burning roughly 100 acres near Bosque, NM, in 2021 and burning almost 400 acres downstream of Fort Craig in 2022.

Western Yellow-billed Cuckoo

The western distinct population segment of the cuckoo (*Coccyzus americanus occidentalis*) was listed as a threatened species by the USFWS in October 2014. Critical habitat for the cuckoo was designated in April 2021.

Along the Rio Grande, two critical habitat units are included in the designation:

- Unit 35 (NM-4), Upper Rio Grande 1, Rio Arriba County: a continuous 5-mile segment of the Upper Rio Grande from Lyden to Alcalde in Rio Arriba County (518 acres)
- Unit 37 (NM-6B), MRG, Sierra and Socorro Counties: a continuous 109-mile segment, from RM 54 within the Elephant Butte Reservoir pool upstream to Bosque Farms. The largest breeding population of cuckoos north of Mexico is within this reach (46,595 acres)

Incidental take of cuckoos would be considered exceeded if more than 11 cuckoo territories are displaced in any year because of the Proposed Action, or if more than 2,071 acres of suitable cuckoo habitat are impacted because of the Proposed Action over the 15-year MRG BO duration.

There was no incidental take of cuckoo nest territories in 2025 due to construction activities from Reclamation's MRG projects. In 2025, no incidental take occurred to suitable cuckoo habitat from MRG project related activities.

During 2025, Reclamation conducted cuckoo surveys in 12 distinct reaches of the Rio Grande, within sites also surveyed for flycatcher, from the south boundary of the Pueblo of Isleta to El Paso, Texas (see Table 12). Surveys were conducted to contribute to baseline population data of the cuckoo along the Rio Grande and to meet Reclamation's ESA compliance commitments for the MRG BO and ESA compliance commitments for the RGP[1]. In 2025, there were an estimated 133 breeding territories, all assumed to be pairs, derived from 529 cuckoo detections. The estimated territories and documented detections were most concentrated in the southern portion of the San Marcial Reach, i.e., Elephant Butte Reservoir pool, and in the delta of Caballo Reservoir.

[1] see ESA Compliance for Operating Agreement and Storage of SJCP Water.

Table 12: Cuckoo Detections/Estimated Territories 2016-2025[1]

Location[2]	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Belen	23/5	1/0	10/1	40/11	22/5	15/3	N/S	41/10	34/4	54/12
Sevilleta	N/S	20/3	N/S[8]	50/11	N/S	N/S	N/S	41/10	12/4	32/10
San Acacia	N/S	19/4	N/S	24/6	N/S	N/S	28/8	47/14	50/13	23/8
Escondida	60/15	38/9	14/6	3/1	13/2	16/5	51/11	55/10	44/11	58/16
BdA	49/13	64/16	98/28	46/14	70/15	49/11	59/14	46/13	43/10	32/11
Tiffany	8/3	18/5	2/0	N/S	N/S	N/S	0	0	2/0	9/0
San Marcial	249/63	351/88	322/79	317/79	198/45	68/17	190/42	193/49	227/56	220/59
MRG Subtotal	**389/99**	**511/125**	**452/114**	**480/122**	**303/67**	**148/36**	**328/75**	**423/106**	**412/98**	**428/116**
Caballo	71/18	64/19	56/16	100/25	90/18	72/16	47/11	58/13	64/16	62/15
Percha	20/6	20/4	13/3	11/2	13/2	22/4	13/2	7/1	8/2	3/1
Hatch	23/5	15/3	27/8	11/3	10/2	21/4	11/2	17/6	11/1	6/2
Radium Springs	6/0	3/1	N/S	7/2	0	1/1	4/0	10/3	8/2	N/S
Las Cruces	6/1	11/4	10/4	7/2	8/1	19/5	9/3	25/7	10/4	16/6
Mesilla	14/4	7/1	1/0	5/1	0	0	12/2	10/3	9/3	N/S
RGP Subtotal	0	0	0	0	0	1/0	5/1	9/2	0	N/S
Total	**140/34**	**120/32**	**107/31**	**141/35**	**121/23**	**136/30**	**101/21**	**136/35**	**110/28**	**87/24**

[1] Breeding season only.
[2] Table does not include detections outside of the active floodplain at BdA.

New Mexico Meadow Jumping Mouse

The jumping mouse (*Zapus hudsonius luteus*) was listed as an endangered species under the Endangered Species Act (ESA) in June 2014, with final critical habitat designation following in March 2016. While designated critical habitat units for the species occur in Colorado, New Mexico, and Arizona, only Unit 6, Bosque del Apache (BdA), is within the Middle Rio Grande Project (MRGP). Unit 6 consists of 995 acres along 13.1 miles of ditches and canals associated with managed irrigation for wildlife purposes on BdA in Socorro County, NM. This unit begins in the northern part of the BdA and generally follows the Riverside Canal to the southern boundary of the refuge. Jumping mice have not been found on the Rio Grande in this area. The BdA habitat adjacent to the Riverside Canal is the only known occupied mouse habitat within the MRG Valley.

Except for BdA, systematic surveys for jumping mice or their habitat have not been conducted throughout the riparian corridor of the MRGP. However, since its listing, surveys for suitable jumping mouse habitat have occurred in selected areas as part of environmental compliance activities for specific projects, such as the Delta Channel maintenance. The Delta Channel is located outside the southern edge of the geographic area that the jumping mouse could potentially inhabit. The habitat assessment determined that the Delta Channel area is not the species' preferred habitat based on the herbaceous vegetation composition, lack of soil moisture, a high frequency of disturbance in the area, and a lack of regular inundation necessary to support jumping mouse habitat. It is therefore unlikely that suitable or occupied jumping mouse habitat exists south of BdA, and no additional populations have been identified along the MRGP.

While the MRG BO does not provide any supportive analysis for jumping mouse ESA requirements, Reclamation is committed to support efforts by the BO Partners or others seeking to provide water to BdA when it is available, dependent on available water supply and the water rights of BdA and other users. Reclamation continues to partner with BdA and the Middle Rio Grande Conservancy District to support water delivery infrastructure improvements on the refuge that are supportive of mouse habitat. Reclamation's activities have included design and construction support, planning, and compliance technical services to facilitate BdA infrastructure improvements.

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Middle Rio Grande Endangered Species Collaborative Program

In response to ESA species listings in the MRG, ESA-related litigation, and the 2001 and 2003 BOs, the Middle Rio Grande Endangered Species Collaborative Program (Collaborative Program) was formed, bringing various groups together to support ESA compliance for the RGSM and flycatcher, and address environmental issues.

The Collaborative Program consists of stakeholders representing diverse interests including federal, state, and local government entities, Pueblos and Tribes, and non-governmental

organizations working to protect and improve the status of listed species in the MRG Valley, while protecting existing and future regional water uses in compliance with applicable state and federal laws, including Compact delivery obligations.

The Collaborative Program is not included in the MRG BO and does not have responsibility or authority for meeting requirements. However, Reclamation and the BO partners work with the Collaborative Program to provide science recommendations in support of adaptive management. The Collaborative Program also hosts workshops, information sharing sessions, and symposiums for entities conducting science within the basin to share information, and maintains an online portal which houses scientific reports, species data and reports, and an interactive project and habitat map.

In 2025, Reclamation funded third-party management of the Collaborative Program; however, in February of 2025, was instructed to terminate this contract but continued funding ongoing monitoring activities and studies related to listed species. The 2025 accomplishments include:

- Minnow Action Team meeting
- Captive propagation of RGSM at multiple facilities
- Ongoing genetics studies of RGSM
- RGSM rescue and salvage efforts during river drying
- Annual monitoring of endangered species, reproductive success, and habitats

River Eyes and River Drying

The River Eyes program was developed to provide real-time information on river flows and river drying, allowing water management agencies to react quickly to changing river conditions. The MRG BO does not set specific flow targets or maximum rates of drying, and instead focuses on RGSM density in October. Water operations coordination is critical to maintaining RGSM density to the extent possible, and River Eyes facilitates coordination among agencies, which may mitigate unexpected drying, and helps prepare for and initiate RGSM salvage operations.

During the 2025 irrigation season, River Eyes monitored river conditions along the Rio Grande from Albuquerque to the location of the full pool elevation of Elephant Butte Reservoir. Field monitoring occurred from mid-April through mid-October.

River drying in 2025 began on April 15 in the San Acacia Reach, reaching a maximum length of over 44 miles on August 19. With significant monsoonal moisture in May, June, July, and September, the channel rewet and disconnected multiple times. The reach fully reconnected on October 14 and remained connected until the end of irrigation season.

Drying in the Isleta Reach began on June 20 near the Peralta Wasteway outfall, and reached a maximum extent of 10.16 miles on July 16. The channel near the Abeytas heading initially separated on July 11, and reached a maximum extent of 8.2 miles. In August, precipitation was about 25% of the mean, and a section of river channel adjacent to the Sevilleta National Wildlife Refuge, that had not dried since 2004, separated on August 14, reached a maximum of 8.25 miles, and reconnected for the year on August 29.

The channel dried in the Angostura Reach in 2025. It began on July 13, reached a maximum length of 11.67 miles, and reconnected on September 14.

The maximum extent of drying between Cochiti Dam and Elephant Butte Reservoir in 2025 was 78.85 miles on August 19.

Monsoon season (June-September) precipitation in 2025 was above or near normal in most months except for August. These events helped supply farmers and keep water in the river in May and June after a poor snowmelt runoff. August precipitation was far below normal and led to additional drying. September rain events reconnected the Angostura Reach for the season, and rain in early October fully reconnected the river from Cochiti Dam to Elephant Butte Reservoir on October 14, 2025.

Supplemental Water Program

Reclamation initiated its Supplemental Water Program in 1996 to support water needs of the ESA-listed species in the MRGP. The program originally included water acquisition, reservoir storage, and release of water to support river flows. From 2001 to 2020, it also included operation of a pumping network in the San Acacia Reach to pump water from the LFCC to the river. The Supplemental Water Program supports the MRG BO.

Water Acquisition and Management

In 2025, a total of 7,202 ac-ft of supplemental water was released for endangered species purposes. Of that volume, 4,674 ac-ft was water that Reclamation leased from 2024 SJCP contractor allocations and the remainder was from 2025 leases.

The release of supplemental water began April 27 at 100 cfs. It was reduced to 40 cfs in early May, then shut off from May 6 to 24 after rains increased flow into the MRG. The release resumed at 40 cfs from May 25 to June 2, then was again shut off due to rain flow from June 3 to 11. The release resumed June 12 and was reduced to 30 cfs on June 27. Apart from a few brief rain-caused shutdowns, it continued at that rate until the supply was exhausted on September 23.

MRGCD then focused on optimizing the location and rate of water release from other sources as detailed in the next subsection. In mid-October, widespread storms dramatically increased flow in the MRG, and the river fully connected from Cochiti Dam to Elephant Butte Reservoir on October 14 and remained connected through the end of irrigation season on October 31.

Reclamation's supplemental water account ended in 2025 with 925 ac-ft in storage in Heron from a November 2025 SJCP contractor allocation, the result of a large and unusual storm in Colorado that allowed SJCP diversions to resume. In 2026, Reclamation is negotiating leases of approximately 11,000 ac-ft from SJCP contractor allocations. However, water available from those leases could be less than that, depending on the overall SJCP allocation.

Other Sources of Supplemental Water

In addition to the water released by Reclamation, four other sources of water were used to support the needs of the listed species in 2025. These sources were SJCP water leased by Audubon Southwest, pre-1907 native water rights leased by Reclamation, pre-1907 native water

rights conveyed to Reclamation as part of a settlement with the City of Rio Rancho (RR-SWA), and water generated from on-farm and district conservation projects in a partnership between Reclamation and MRGCD.

The Environmental Water Leasing Program (EWLP), a fallowing program within the MRGCD largely funded by Reclamation, was not used for deliveries to the river in 2025. Funding for the EWLP in 2025 leveraged American Rescue Plan Act (ARPA) funds obligated by the State of New Mexico, and federal funding was not awarded. As a result, all water from fallowing in 2025 was used for Rio Grande Compact deliveries.

Water from all four sources was released to the river via MRGCD wasteway outfalls, and releases were coordinated closely. Potential points of release were Sandia Lakes Wasteway, 240 Wasteway, Los Chavez Wasteway, Peralta Wasteway, New Belen Wasteway, Lower Peralta #2 Drain, Storey Wasteway, and San Francisco Drain. Only Audubon Southwest's water was released at the Sandia Lakes Wasteway in the Angostura Reach.

The volume of water that may be delivered is computed from the farm delivery requirement to the lands and an adjustment factor based on available MRGCD supply, defined as the release from Cochiti Dam available for MRGCD use. Therefore, the total 2025 delivery from these other sources was 2,294 ac-ft as shown in Table 13.

Table 13: 2025 MRGCD Outfall Deliveries

Delivery Dates, 2025	Consumptive Use, ac-ft	Delivered Volume, ac-ft	Water Source
June 17 – July 26	139.61	149	Native water acquired, permitted, and used for offset
May 30-June 3, June 17-July7, July 27-August 5, September 18-October 31	N/A	452	On-farm conservation
June 18-September 17, September 20-28, October 4-6	1,300	1,387	Native water acquired by RR-SWA
August 8 – September 27	296.6	296.6	SJCP (Audubon Southwest)
TOTAL		2,294	

Reclamation leased pre-1907 water rights from the Town of Bernalillo with 139.61 ac-ft of consumptive use, which is permitted for offset via the NMISC's Strategic Water Reserve. The offset water was released from the New Belen Wasteway outfall from June 17 to July 26.

Reclamation's partnership with MRGCD to acquire water through conservation projects resulted in water available from improving irrigation turnouts and lining a portion of the Socorro Main Canal. In 2026, this program resulted in 461 ac-ft, of which 452 ac-ft was released from various wasteways in the Isleta reach from May 30 to June 3, June 17 to July 7, July 27 to August 5, and September 18 to October 31.

Protest of a permit application by the City of Rio Rancho resulted in a May 2019 *Settlement and Cooperative Water Agreement* under which Reclamation leases 1,300 ac-ft of pre-1907 consumptive use water rights from Rio Rancho. In 2025, the offset water was released from the 240 and Los Chavez Wasteways from May 30 to June 2, June 18 to September 17, September 20 to 28, and October 4 to 6.

Pumping to the River

The Neil Cupp pumping site, originally developed by Reclamation for temporary pumping operations from the LFCC to the river, was converted to a permanent pumping site by MRGCD after Reclamation ceased LFCC-to-river pumping in 2020. It is owned and operated by MRGCD and capable of pumping to both the river and irrigation facilities.

In June 2025, MRGCD pumped 97 ac-ft from the Neil Cupp site to the river over four days to slow channel drying. Pumping began June 13 at 20 cfs and tapered daily, ending June 16.

Rio Grande Project, New Mexico and Texas

Reclamation is responsible for the oversight of the RGP and operates and maintains Elephant Butte and Caballo Dams, and the Elephant Butte Powerplant (see Figure 23). Reclamation determines the release from Elephant Butte Dam to meet irrigation demand, while supporting hydropower production, maintaining compliance, and achieving other benefits. The release from Caballo Dam is based on irrigation demand to make water deliveries at the canal headings for the EBID, EPCWID, and the Republic of Mexico under the 1906 Convention.

EBID operates and maintains Reclamation's diversion dams on the Rio Grande – Percha, Leasburg, and Mesilla in New Mexico – under contract with Reclamation. The IBWC owns, operates, and maintains the American Diversion Dam and the American Canal in Texas, which delivers to EPCWID, and operates the International Diversion Dam, which diverts irrigation waters into the Acequia Madre head gates, operated by Mexico, in accordance with the International Treaties with Mexico (1906 and 1933).

The irrigation and drainage system of the RGP is owned, operated, and maintained by EBID in New Mexico and EPCWID in Texas. Reclamation owns and administers the lands and right-of-way activities of the reservoirs and diversion dam areas in New Mexico, and retains the title and O&M responsibilities for Elephant Butte and Caballo Dams and the Elephant Butte Powerplant.

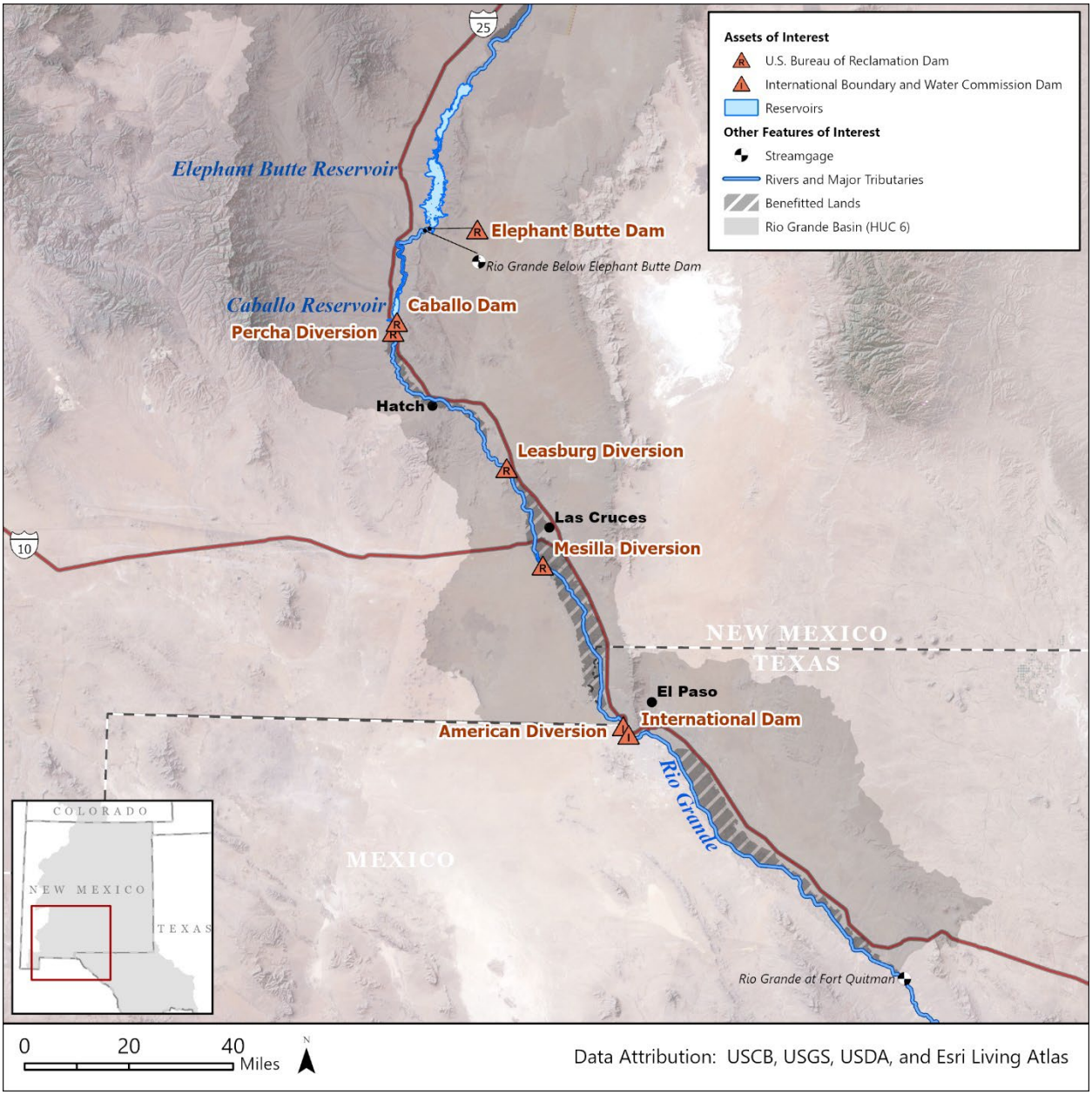

Figure 23: Map of the Rio Grande Project in New Mexico and Texas.

Rio Grande Project Operations

Combined total storage of SJCP, Compact Credit, and RGP in Elephant Butte and Caballo Reservoirs began 2025 with 207,486 ac-ft (9.3 percent of total capacity), and ended with 192,630 ac-ft (8.6 percent of total capacity). Maximum combined total storage was 304,398 ac-ft (14 percent of total capacity) on May 26, and minimum was 74,571 ac-ft (3 percent of total capacity) on September 6. Reclamation communicated with stakeholders to provide information and projections of reservoir elevations throughout the irrigation season.

Water Accounting for RGP Operations

Reclamation performs daily accounting of SJCP, Compact Credit, relinquishment credit, and native Rio Grande water for the Rio Grande in New Mexico, including the composition of water in reservoirs from Heron to Caballo. This accounting is needed to make informed daily water operations decisions. To perform this accounting, Reclamation uses the interagency Upper Rio Grande Water Operations Model (URGWOM). In URGWOM, an account with a non-zero value indicates assessed gains and losses, so for Elephant Butte accounts, end-of-year debits from the previous year are given a value of zero for the current year as to avoid incorrectly adding gains and losses to the debit.

Compact Credit Water

Compact credit water for Colorado and New Mexico is stored in Elephant Butte Reservoir and not included as RGP water. New Mexico began 2025 with a debit of 124,000 ac-ft, and Colorado began 2025 with a credit of 7,200 ac-ft.

Usable Water Accounting for RGP Operations

RGP supply is determined from the usable water on January 1, as defined in Compact Article I, and is tracked daily for increases from inflows and decreases from evaporation and releases. In 2025, the usable water in RGP storage (Elephant Butte and Caballo Reservoirs combined) was 199,529 ac-ft on January 1, reached a high of 293,367 ac-ft on May 26, and ended the year at 183,391 ac-ft on December 31.

Article VII Restrictions

Article VII of the Compact stipulates that when usable water in RGP storage, using the Compact accounting method, is below 400,000 ac-ft, no native Rio Grande water will be stored in post-1929 reservoirs upstream of Elephant Butte Reservoir unless accrued credit water has been relinquished. Article VII restrictions were in effect for all of 2025. No relinquishment credit was stored in a post-1929 upstream reservoir in 2025.

Elephant Butte Dam, Reservoir, and Powerplant

In 2025, the minimum surface elevation at Elephant Butte Reservoir was 4,288.20 ft (62,674 ac-ft) on September 10. The maximum elevation was 4,322.63 ft (282,605 ac-ft) on April 28 and 29.

Reclamation performed two separate releases at Elephant Butte Dam from April 30 through July 28, and from September 3 to September 9. The second release was intended to refill Caballo Reservoir after Caballo Dam maintenance operations ended. During these two periods, a release of 253,545 ac-ft was recorded by the USGS *Rio Grande below Elephant Butte* gage. The Elephant Butte powerplant record showed releases of 237,314 ac-ft. Note that Elephant Butte operators consistently record a lower discharge than the USGS gage. The 2025 annual volume measured by the USGS gage, including the seepage outside of releases, was 254,318 ac-ft.

The total gross hydropower generation in 2025 was 17 million kilowatt-hours (kWhr). Net hydropower generation was 16.6 million kWhr.

Caballo Dam and Reservoir

In 2025, the minimum surface elevation at Caballo Reservoir was 4,125.16 ft (2,187 ac-ft) from August 16 to September 2 during a dam maintenance operation that required draining the Reservoir to a level where work could be safely conducted on the intake structure. The maximum elevation was 4147.10 ft (52,246 ac-ft) on May 29 and 30. The irrigation release period extended from May 30 through August 13, releasing 248,979 ac-ft as measured at the *Rio Grande below Caballo Dam* gage, though minimal releases from maintenance operations occurred through August 22. During that period, Reclamation operated Caballo Reservoir to maintain storage levels adequate to respond to irrigation calls while protecting facilities and cultural sites. The calendar year 2025 release volume measured at the Caballo gage, including the seepage outside of releases, was 252,858 ac-ft.

The diversion from Caballo Dam for Bonita Lateral irrigation was 1,001 ac-ft from January through December.

RGP Warren Act Deliveries

Through a Warren Act contract, Reclamation sells drainage flows from the RGP lands as supplemental irrigation water for approximately 18,000 acres of the HCCRD. Flows out of the RGP to HCCRD are measured at three gaging stations near the Hudspeth County line: the Hudspeth Feeder Canal, the Tornillo Canal at Alamo Alto, and the Tornillo Drain. For 2025, 24,950 ac-ft of RGP drainage was measured flowing into Hudspeth County. During the contract charged period, March 1 through September 30, a volume of 15,263 ac-ft was measured.

Rio Grande Project Accounting

In December 2024, Reclamation allocated zero ac-ft as the initial 2025 allocation to Mexico. The provision of the 1906 Convention for extraordinary drought was applied and Reclamation provided Mexico with monthly updated allocations until April 2025 (the last in-season allocation to Mexico) when an allocation of 13,450 ac-ft was made. Mexico's allocation is calculated from the anticipated release of RGP water, and once allocated to Mexico, the U.S. does not reduce the allocation even if the anticipated or actual release is significantly less than originally anticipated. If the actual release is less than the anticipated release, an over-delivery to Mexico is calculated strictly for the purposes of RGP water accounting, not as part of the 1906 Convention. This is further explained below in this section of the report. For 2025, an over-delivery did occur.

The U.S. Districts, EBID and EPCWID, were provided an initial allocation in April 2025. Reclamation provided the U.S. Districts with updated allocations monthly as RGP water in storage increased. The last in-season allocation was in August, after above-average monsoonal inflows occurred.

Releases from Caballo for irrigation deliveries began on May 30 and ended on August 13. EPCWID and Mexico began the season on June 3 and 4, respectively, with coordinated orders for release. EBID began orders and diversions on June 2 and ended their surface water diversions on July 9. Mexico ended their diversions on August 10, and EPCWID ended their diversions on August 18.

The total Caballo release for RGP water accounting was 248,690 ac-ft, which was used to calculate the diversion ratio (a quantitative measure of delivery performance). For 2025, the calculated diversion ratio was 0.80. The allocation balances at the beginning of 2025 were 33,619 ac-ft for EBID and 58,772 ac-ft for EPCWID. See Table 14 for a summary of the 2025 water accounting.

Table 14: 2025 Rio Grande Project Water Accounting[1]

	Final Allocation	Final Charges	Caballo Release for Irrigation	Calculated Diversion Ratio	Adjustment for Over Delivery to Mexico	Account Balance for 2025
EBID	98,213	78,941	-	-	(998)	18,274
EPCWID	142,261	106,971	-	-	(760)	34,530
Mexico	11,705[2]	13,463	-	-	-	-
Total	252,179	199,375	248,690	0.80	-	-

2026 Rio Grande Project Outlook

Reclamation determined the 2026 initial allocation to Mexico was 0 ac-ft. In February 2026, the allocation to Mexico was 6,837 ac-ft (11% of a full allocation), and including the carryover from 2025, the water available for allocation to EBID and EPCWID was less than 130,000 ac-ft combined. Official initial allocations to EBID and EPCWID are expected to be set in March. Subsequent allocations are made monthly, and continue monthly, until inflows are insufficient to increase allocations and are finalized using October 31 data after the end of the irrigation season. With the anticipated below-average snowmelt runoff, Reclamation expects a less than 400,000 ac-ft release from Caballo for 2026. The 2026 irrigation releases from Caballo Reservoir are expected to begin on May 29 for both Districts and Mexico. The length of the release season will depend on inflow to Elephant Butte Reservoir. Elephant Butte Reservoir will likely reach peak storage in late April just before releases begin to Caballo Reservoir. Usable water stored in Elephant Butte and Caballo Reservoirs will likely remain below 400,000 ac-ft for the year.

RGP River Gage Operation and Maintenance

EBID and EPCWID operated and maintained gages for flow measurements at canal headings, river stations, and lateral headings during 2025. Reclamation operated and maintained the Rio Grande gaging station below Caballo, and coordinated and maintained central control of releases, river operations, and water accounting. In 2025, due to staffing shortages, Reclamation could not perform the required number of measurements under the Operating Agreement, and therefore had to rely on measurement data from the irrigation districts for the below Caballo gage. To carry out the water allocation accounting, the U.S. Districts collect field flow measurements and coordinate data from all water user entities. Using the summarized flow data submitted by the

[1] Volumes in ac-ft
[2] Based on non-extraordinary drought conditions under the Convention of 1906

U.S. Districts for their areas of responsibility, Reclamation calculated and summarized the monthly and end-of-year RGP water supply use and accounting for 2025.

Reclamation installed an acoustic flow meter within the Bonita Lateral pipe in 2023. The new flowmeter transmits a digital signal that Reclamation receives, and that may be available publicly once data validation is completed. In 2025, instantaneous flow values were collected along with quality control metadata. These flow data are being compared to the legacy analog flow meter for another year to validate accuracy before becoming the instrument of record.

Drought Resilience Efforts in the Rio Grande Project Area

In response to prolonged aridification of the RGP area and the need for collaborative solutions in support of water users and habitat in the area, Reclamation entered several strategic cooperative agreements and began collaborating with local governments and stakeholders to improve water supply resilience for RGP water users.

RGP Drought Resilience Projects

In 2023, Reclamation entered into two five-year cooperative agreements (1) with NMISC to hire water resource professionals to work on drought resilience projects, and (2) with National Fish and Wildlife Foundation for water conservation and ecological restoration projects with wildlife benefits. In 2025, Reclamation entered into an additional five-year cooperative agreement with NMISC for implementing drought resiliency projects in the RGP and for the MRGP EWLP. Collectively, these cooperative agreements provide over $65 million from Reclamation funding for the planning and implementation of stormwater capture projects at RGP area sediment dams, off-channel storage projects, permanent water acquisition in the RGP, water leasing in the MRGP, and exploring desalination and reuse opportunities for brackish aquifers in the RGP area.

RGP Drought Resilience Collaboration

In 2021, Reclamation established the RGP Area-Drought Resilience Team. This team was a multi-agency effort to enhance the resilience of the aquifer and stream system to improve RGP performance, improve water management, explore water conservation opportunities, enhance habitat, allow for information sharing between governmental agencies and RGP water users, and foster coordination and cooperation between Federal, State, and local agencies with jurisdiction in the RGP area.

In 2025, NMISC convened stakeholders to collectively craft and coordinate implementation of long-term water management solutions in the Lower Rio Grande by forming the Lower Rio Grande Water Alliance. The working committees from the RGP Area-Drought Resilience Team were transitioned under the Lower Rio Grande Water Alliance.

Active Rio Grande Project Litigation

Lower Rio Grande Adjudication

Since 2010, interested parties have been proceeding with Stream System Issue No. 104, which involves the United States' water interests in the Lower Rio Grande in New Mexico. In 2012, the court determined that the United States did not have a groundwater right associated with the RGP. However, the court did rule that the United States did have rights in Project return flows, which would have to be determined by the State Engineer. Also, the court did not rule on whether the various groundwater inflows into the Rio Grande are considered "project water," which – if so, determined by the court – would mean the United States has a right to such inflows once they become surface water again. Stream System Issue No. 104 has been stayed since 2017. The interested parties intend to mediate during.

State of New Mexico v. United States

On August 8, 2011, the State of New Mexico filed a lawsuit against the United States (*State of New Mexico v. United States et al.*, D.N.M. Civ. No. 11-0691) regarding the RGP 2008 Operating Agreement and a purported change in accounting of the water to be delivered to Texas from the Rio Grande. The case is stayed pending ruling by the Supreme Court on *Texas v. New Mexico*.

Texas v. New Mexico

In 2013, Texas submitted a request to file a complaint in the Supreme Court of the United States (SCOTUS) alleging violations of the Compact by New Mexico (*TX v. NM*). Colorado joined the case automatically as a defendant due to its involvement in the Compact. The United States joined the case as a plaintiff upon its request which was approved by SCOTUS in 2018. Texas claimed that New Mexico was interfering in the delivery of water to Texas by pumping New Mexico groundwater which intercepts RGP flows upstream of the New Mexico/Texas state line. In June 2024, SCOTUS denied a Consent Decree proposed by the States, which was recommended by then Special Master Michael Melloy over the objection of the United States. In August 2025, following 11 months of court-ordered mediation, the United States, New Mexico, Texas, and Colorado reached a settlement and filed two separate decrees: one dismissing the United States claims against New Mexico and a second settling Texas claims against New Mexico. In September 2025, current Special Master D. Brooks Smith held a hearing on the motions and related settlement agreements where the States and the United States testified in support of the settlement. In March 2026, SCOTUS filed the Special Master report recommending SCOTUS enter the Consent Decree. The United States and the States hope that SCOTUS will make their ruling by June 2026, and the settlement can begin implementation in 2027.

Facility Review and Safety of Dams Program

Elephant Butte Dam

There are no significant dam safety-related O&M issues associated with Elephant Butte Dam.

In February 2025, a Safety of Dams recommendation to have the vertical and horizontal datum control established by a licensed surveyor was completed.

The collection of weather data from the Elephant Butte station became fully automated and available for telemetry. Temperature, relative humidity, evaporation rate, precipitation accumulation, and wind speed/direction are now available in Reclamation's database.

Caballo Dam

There are no significant dam safety-related O&M issues associated with Caballo Dam. No Safety of Dam recommendations currently exist for Caballo Dam. There was a single Category 2 O&M recommendation for Caballo Dam completed in February 2026 during the Annual Site Inspection.

The collection of weather data from the Caballo station became fully automated and available for telemetry. Temperature, relative humidity, evaporation rate, precipitation accumulation and wind speed/direction are now available in Reclamation's database.

In August 2025, an emergency crane service contract was awarded for the debris removal from the intake structure. Post-wildfire debris flows introduced substantial volumes of woody debris and sediment from the Black Range during a monsoon event. Prior to the contractor service, Reclamation staff skimmed 17 tons of floating debris immediately after the runoff event. The crane service removed an additional 150 cubic yards debris from the perimeter of the intake structure to restore flow capacity back to pre-event levels.

Bonita Lateral Irrigation Pipe Project

The design and construction of Caballo Dam incorporated the Bonita Lateral Irrigation Pipe to deliver water to the Bonita Lateral to irrigate lands upstream of the first diversion dam. Due to the increasing need for repairs, Reclamation determined that replacement of the gate valve and the original 1939 wooden stoplogs is necessary. There is no immediate threat to the structure of the dam, however, without remediation the potential for piping through the earthen dam could compromise the structure.

In 2025, final design and specifications for the project were completed and Reclamation is currently preparing a contract solicitation for construction. Estimated contract award will be in August 2026. The planned construction period is October 2027 through February 2028.

Reservoir Vegetation Management

Reclamation maintains areas previously cleared at Caballo Reservoir to limit consumption of water by woody phreatophytes like salt cedar. In 2025, approximately 803 acres of phreatophyte vegetation at Caballo was managed utilizing mowers and mulchers; including 64 acres that have been treated with spray application herbicide. In 2026, Reclamation will award a contract using funding from NMISC to treat 1,615 acres of dense vegetation that is beyond the treatment capabilities of Reclamation's staff.

ESA Compliance for Operating Agreement and Storage of SJCP Water

The USFWS issued a final *Biological and Conference Opinion on effects of actions associated with the proposed continuation of the Rio Grande Project Operating Agreement and storage of San Juan-Chama Project water in Elephant Butte Reservoir, NM* (Consultation Number 02ENNM00-2015-F-0734, RGP BO) on May 25, 2016. The non-jeopardy determination in the RGP BO is based on the mandatory accomplishment of numerous commitments by Reclamation (nine Conservation Measures, four Reasonable and Prudent Measures, and nine Terms and Conditions). The USFWS provided an Incidental Take Statement for the flycatcher and cuckoo.

In accordance with the RGP BO, incidental take of flycatcher will be considered exceeded if more than 33 flycatcher territories or 24 nests (calculated as 96 eggs/nestlings) are taken because of high surface water events above the 2014 baseline. If more than 81 acres of occupied suitable or marginally suitable habitat are inundated for two to five years, take may also be exceeded. Incidental take of cuckoos will be considered exceeded if more than five cuckoo territories or three nests (calculated as 12 eggs/nestlings) are taken because of high surface water events above the 2014 baseline. If more than 606 acres of occupied suitable or marginally suitable habitat are inundated for two to five years, take may also be exceeded. Take from reservoir level inundation may be avoided if natural revegetation occurs as reservoir levels go down.

In 2025, Reclamation continued implementing the commitments set forth in the RGP BO. There was no incidental take of flycatcher or cuckoo nest and territories in 2025. Annual survey data for the RGP BO is included in the MRG BO section of this report.

Related Reclamation Programs

Native American Affairs Programs

Reclamation has numerous projects underway with Pueblos and Tribes in the Rio Grande Basin. These projects fall under several categories including the Native American Affairs (NAA) Program, planning, water rights settlements to include assessments and implementation, cooperative ventures with other Federal agencies, Rio Grande Pueblos Irrigation Infrastructure, and other special projects funded through Congressional legislation.

NAA and other programs have provided funding to various Pueblos for water resource related issues. In addition, the U.S. Department of the Interior's Indian Water Rights Office funded various needs related to active tribal water rights assessment teams throughout New Mexico.

The Omnibus Public Land Management Act of 2009, P.L. 111.11, authorized the study and rehabilitation of eighteen Rio Grande Pueblos' irrigation infrastructure through 2019. The study developed the Irrigation Infrastructure Report for Rio Grande Pueblos that was completed in September 2017 and amended in February 2022. The report was submitted to Congress in June 2022. Authorization of the program has been extended annually.

Reclamation currently has twenty-five active irrigation infrastructure improvement grants with fourteen Pueblos. Twenty-one of these grants are P.L. 93-638 contracts awarded with P.L. 111-11 funds. The remaining four grants are P.L. 108-7 financial assistance agreements. The Pueblos with open grants include Acoma, Cochiti, Isleta, Nambe, Ohkay Owingeh, Sandia, San Felipe, Santa Ana, Santa Clara, Santo Domingo, San Ildefonso, Taos, Zia, and Zuni.

The projects included in these grants will improve irrigation water conveyance resulting in improved water conservation and enhance drought resiliency. Reclamation awarded $23 million for current active open grants. Six of the open grants were awarded in 2025. The total amount of funds awarded in 2025 was 2.6 million dollars. These grants will service New Mexico Pueblo irrigation infrastructure improvements. Projects are currently in development for the Pueblos of Santa Clara, San Ildefonso, and Picuris. Reclamation is currently coordinating with USACE on acequia reconstruction projects.

Isleta Settlement

In October 2016, the *Agreement of Compromise and Settlement Regarding the Isleta Diversion Dam* (IDD Settlement) was reached between Reclamation, the Pueblo of Isleta, the MRGCD, and the BIA, which resolved multiple issues related to the construction and operation of the IDD. The IDD Settlement was organized into five funding category commitments, which included (1) compensation for a past and future use easement of the IDD, (2) infrastructure improvements, (3) bosque and riverine restoration, (4) equipment reimbursements, and (5) settling basin cleanup.

Of the five funding categories, all have either been completed or financially obligated, with the exception of the IDD infrastructure improvements. The IDD Settlement describes how monetary provisions are allocated to improve the infrastructure, functioning, and operation of the IDD and associated irrigation facilities. The parties are directed to undertake projects and activities to minimize, to an extent consistent with available funding, operational problems associated with the entrainment of sediment from the Rio Grande into the associated irrigation facilities to perform adaptive gate management, construct sediment-related structural modifications to the IDD and associated irrigation facilities, and implement any other sediment management or minimization projects or activities endorsed by the parties, and to which they consent.

In February 2023, Reclamation awarded a design-build contract for the design and construction of modifications to the IDD. The project includes improvements to the Peralta Sluiceway and realignment of the east bank to reduce sediment entrainment into the Peralta Main Canal on the east side of the river. The project design was completed in November 2025. Since work on the IDD must take place outside of the irrigation season to avoid interference with irrigation deliveries, construction is scheduled for after the 2026 irrigation season.

In parallel with the design-build contract, Reclamation staff have been conducting numerical modeling to investigate adaptive gate management with the goal of updating the IDD standard operation procedures to improve sediment management. Upon completion of construction and the adaptive gate management analysis, all commitments under the IDD Settlement will be satisfied.

Indian Water Rights Settlements

The Claims Resolution Act of 2010 was signed into law on December 8, 2010, authorizing the settlement of two long-running New Mexico Indian water rights cases. Title V, the Taos Pueblo Indian Water Rights Settlement Act, authorizes implementation of the Abeyta settlement (involving Taos Pueblo). Title VI, the Aamodt Litigation Settlement Act, authorizes implementation of the Aamodt settlement (involving Pojoaque, Nambé, Tesuque, and San Ildefonso Pueblos). Reclamation is working with BIA, the Pueblos, the State of New Mexico, and other involved parties to implement the provisions of these settlements.

Abeyta Indian Water Rights Settlement

The Abeyta Settlement Agreement resolved Taos Pueblo's water rights claims in the *United States v. Abeyta* adjudication of the Rio Pueblo de Taos and Rio Hondo stream systems. The Settlement Agreement was signed by the Pueblo, the United States, and several non-Pueblo parties, including the Town of Taos, El Prado Water and Sanitation District (EPWSD), Acequia Madre del Rio Lucero y del Arroyo Seco, Acequia Madre del Prado, Acequia del Monte, Acequia Madre del Rio Chiquito, Upper Ranchitos Mutual Domestic Water Consumers Association, Upper Arroyo Hondo Mutual Domestic Water Consumers Association (MDWCA), and Llano Quemado MDWCA (the Settlement Parties). The Claims Resolution Act of 2010, Public 111-291, 124 Stat. 3064 (the Settlement Act), authorized the United States to enter into the Abeyta Settlement Agreement and established a trust fund for the Pueblo, the Taos Pueblo Water Development Fund, which the Pueblo is authorized to use for multiple purposes, including

to acquire water rights, develop water and wastewater related infrastructure, implement watershed protections, and administer a Pueblo water rights program.

Four of eight non-Pueblo parties who have projects assigned to them by the Taos Pueblo Settlement Agreement have received their grant funding and are actively working on their projects: EPWSD, Town of Taos, Llano Quemado MDWCA, and Acequia Madre del Rio Chiquito/Acequia del Monte del Rio Chiquito (Rio Chiquito). Each of these four parties are at different stages in implementing their projects. EPWSD and Town of Taos are drilling wells and/or constructing well infrastructure. EPWSD is nearing completion of one of their two well projects and have nearly expended all their settlement funds; they have sought additional funding from the New Mexico State Legislature to continue construction. EPWSD proposed a new location for the Rio Grande Well, which is still being discussed with EPWSD and the other Settlement parties. Llano Quemado MDWCA is currently waiting for their driller to arrive at the Rio Grande Del Rancho Mitigation Well site. Rio Chiquito is working on securing land for their Rio Chiquito Mitigation Well site.

Upper Ranchitos and EPWSD signed an assignment agreement in October 2024, wherein Upper Ranchitos assigned and EPWSD assumed all Upper Ranchitos MDWCA's rights and obligations with respect to funding, planning, permitting, design, construction, operation, maintenance, and ownership of the Rio Lucero/Rio Pueblo de Taos Mitigation Well. The remaining three non-Pueblo parties: Upper Arroyo Hondo MDWCA, Acequia Madre del Rio Lucero y del Arroyo Seco, and Acequia Madre del Prado, have neither applied for funding nor been active in the monthly all-parties meetings.

Current settlement funding will not be sufficient to complete the projects as described in the Settlement Agreement. The non-federal parties are seeking legislation to address the funding shortfall and establish additional conditions for expenditure. Legislation was introduced in the House (H.R. 6205) and the Senate (S. 3242) in November 2025.

Pojoaque Basin Regional Water System (Aamodt Settlement)

The Aamodt Settlement Agreement provides for settlement of water rights claims in the Pojoaque Basin including claims of the Pueblos of Nambé, Pojoaque, San Ildefonso, and Tesuque; Santa Fe County; and the City of Santa Fe. The Aamodt Litigation Settlement Act authorized Reclamation to plan, design, and construct a Regional Water System (RWS). The RWS will consist of a water diversion on the Rio Grande, water treatment facility, storage tanks, and transmission and distribution pipelines that will supply up to 4,000 ac-ft of water annually to Pueblo and non-Pueblo customers within the Pojoaque Basin.

Reclamation has split the RWS construction project into three phases. Phase 1 includes an intake, a water treatment plant, storage tanks, and pipelines on the northern end of the project area in San Ildefonso Pueblo and the northern part of Pojoaque Pueblo. Phase 2 includes distribution tanks and pipelines within Nambé Pueblo, southern Pojoaque and Tesuque Pueblos, and Tesuque Village in Santa Fe County. Phase 3 includes distribution piping for the Pueblos of San Ildefonso, Pojoaque, Nambé, and Tesuque, and Santa Fe County. Phase 1 is currently under construction while Phases 2 and 3 are at various levels of design.

Phase 1 construction started in 2020. In 2025, construction continued at the water treatment plant, three tank sites, and two pump stations. In 2025 the number of pipeline crews increased to 13, installing transmission and distribution pipelines around the basin. In 2026, the schedule includes wrapping up work at the new facilities and establishing connections to existing facilities. Phase 1 is scheduled for completion in early 2027.

In 2025, the RWS stakeholders decided to reduce new schedule and budget risks by pivoting the Phase 2 efforts to a Design Build delivery model. The contract is expected to be awarded in mid-2026 with construction targeted for mid-2027 through late 2029.

Discussions continue with Indian Health Service, the Pueblos, and Santa Fe County to determine priorities and funding for constructing Phase 3 distribution pipelines.

Hydrologic Models

Upper Rio Grande Water Operations Model

URGWOM is a computational model developed through an interagency effort. It simulates processes and operations in the Rio Grande Basin from the headwaters in Colorado to Fort Quitman, TX, and tracks the delivery of water allocated to specific users within New Mexico. URGWOM operates on the RiverWare software platform developed at the Center for Advanced Decision Support for Water and Environmental Systems (CADSWES).

The primary purpose of URGWOM is to facilitate more efficient and effective water management – accounting, forecasting, and flood risk management operations – in the Upper Rio Grande Basin. URGWOM was developed with individual accounts that track SJCP water separately from native Rio Grande water. URGWOM is used to simulate runs for the Annual Operating Plans that forecast storage and water delivery for the rest of the year and for long-term forecasts for planning studies. The model is also currently being used for the Rio Grande Basin Study.

The URGWOM Technical Team (Team) generally meets monthly. An Executive Committee also convenes as needed. The USACE hosts a public-facing website that provides information on URGWOM, accessible at http://www.spa.usace.army.mil/Missions/CivilWorks/URGWOM.aspx. The website contains Reclamation-developed training modules and is updated with details, documentation, and meeting notes. Reclamation also hosts a SharePoint repository (access is available upon request) that contains the latest and historical URGWOM versions, archived annual accounting and Rio Grande Annual Operating Plan (AOP) runs, planning study runs, and memos documenting URGWOM modifications and development.

In 2025, there were a total of eight version updates to URGWOM, which included improvements and corrections to the model. These updates added additional options to blend hydrographs for AOP runs, fixed minor errors, cleaned up unused objects and slots, and resolved issues related to simulating major MRGCD diversions, among other minor changes. The URGWOM database was also updated to include data through 2022, enabling historical and AOP runs to utilize the most recent available data.

Reclamation completed a funding effort with the West Gulf River Forecast Center (WGRFC) to recalibrate their ensemble streamflow prediction (ESP) forecast model for the Upper Rio Grande and the Pecos Basins. WGRFC finalized and applied the calibrations to their ESP model in late 2025. Reclamation developed scripts to ingest ESP traces into its Hydrological Database and made the necessary modifications to URGWOM to run those traces as part of an AOP forecast extending through the end of the year. In 2026, Reclamation plans to run AOP simulations using both the NRCS forecast, as done in prior years, and the newly integrated ESP traces, to evaluate this new forecasting method.

Rio Grande Transboundary Integrated Hydrologic Model (RGTIHM)

RGTIHM is an interagency effort between the USGS and Reclamation, funded by Reclamation. The model is being developed to simulate the availability and use of surface water and groundwater in the Rincon and Mesilla Valleys, including surface water deliveries by the RGP and groundwater for irrigation and non-irrigation uses. RGTIHM represents the dominant natural and human components of the hydrologic system, thereby providing a reliable assessment of surface water and groundwater conditions and processes that can inform water users, and help improve planning for future conditions and sustained operations of the RGP.

Model development includes revision of the conceptual model of the flow system, construction of a water-balance model (Transboundary Rio Grande Watershed Model, or TRGWM) using the Basin Characterization Model platform, and construction of an integrated hydrologic flow model using the Modular Three-Dimensional Finite-Difference Groundwater Flow Model (MODFLOW) and One-Water Hydrologic Flow Model (MF-OWHM). The conceptual model identifies surface water and groundwater inflows and outflows, including the movement and use of water through both natural and anthropogenic processes. The groundwater flow system consists of a layered geologic sedimentary sequence combined with the effects of natural runoff and recharge, operation of the RGP, and groundwater pumping for irrigation and non-irrigation uses. Notably, operation of the RGP includes the application of surface water for irrigation, groundwater recharge from applied irrigation water, return flows through drains and wasteways, and reuse of return flows to meet irrigation demands lower in the RGP.

TRGWM and RGTIHM were developed for and calibrated to historical conditions of water and land use, and parameters were calibrated so that simulated values closely match observed values. The calibrated models were then used to assess the movement and use of surface water and groundwater in the Rincon Valley, Mesilla Basin, and northern part of the Conejos-Médanos Basin. Used together, RGTIHM and TRGWM provide a tool for analyzing the hydrologic system response to the historical evolution of water use in the region, including development of surface water and groundwater supplies for irrigation, municipal, industrial, and domestic uses. The models also provide a tool for evaluating the hydrologic system response to potential changes in water supplies and demands, including changes in irrigated acreage and cropping patterns, population and per capita water use, local and regional climate and hydrologic conditions, and surface water and groundwater management.

In 2025, USGS and Reclamation continued to work on RGTIHM improvements as summarized below.

RGTIHM development

In 2025, the USGS continued work on updates to extend the model simulation period through 2023. Automated workflows are being developed to facilitate efficient extensions of the simulation period in the future so that RGTIHM remains a relevant modeling tool to plan for future conditions and sustained operations of the RGP.

Ongoing work includes estimating the crop irrigation requirement used to simulate the demand component of irrigated agriculture in the Farm Process using actual evapotranspiration obtained from OpenET, drafting a USGS Scientific Investigations Report documenting the methods used to extend the simulation period, and preparation of a USGS data release that will include the updated model input and output files and automated workflows.

MF-OWHM and related software development

Reclamation and the USGS continued calibration and implementation of the Surface-water Operations Process in RGTIHM in 2025.

Water Accounting Reports Projects

San Juan-Chama Project Water Accounting

In 2025, SJCP water accounting was accomplished using version 9.6.1 of RiverWare software, and version 9.5 of the URGWOM accounting module. All accounting data and information are stored directly in the final 2025 accounting model. The data are also sent to Reclamation's HDB via a DMI. Reclamation consulted with representatives of the NMISC and USACE - Albuquerque District to verify the accounting data throughout the year. This ongoing discussion minimized concerns regarding year-end data quality and accounting methods.

Oracle Hydrologic Database

HDB is a specialized Oracle relational database for storing and retrieving hydrologic data used by Reclamation in the management of river and reservoir systems. A generalized version of HDB was specifically developed for use by Reclamation with RiverWare models. HDB includes connections to data sources such as Reclamation's hydrologic and meteorologic monitoring stations (HydroMet), domestic communications satellites, data storage systems, and modeling software like RiverWare. HDB was originally developed at the University of Colorado's CADSWES. Reclamation's HDB has been customized for specific office and model requirements. Reclamation depends on HDB installations for data storage and retrieval.

Development of water accounting and reporting functionalities for Reclamation's HDB installation continued during 2025. After a successful model run, water accounting data and other output are directly transferred from URGWOM to HDB via a DMI.

Reclamation continues to maintain and update its public websites. These websites have been a great asset for internal and public use in reporting, visualizing, and exporting data from Reclamation's HDB. Reclamation has also begun using Microsoft Power BI to create public dashboards, as discussed in the next section.

In 2025, Reclamation continued work to keep connections to other data sources stable as APIs and databases are changed and updated. The OneRain platform used by MRGCD and EBID required an update to scripts after OneRain was updated. Work has already started on the USGS data loader since USGS is switching to a new API which will require different parameters. In addition to keeping current connections functioning, new connections were automated including data from the Chama field office and new weather stations at Nambe, Elephant Butte, and Caballo reservoirs. Automation reduces time spent on manual entry and possible errors.

Dashboards

Reclamation has developed several dashboards using Microsoft Power BI software over the past couple of years. Currently, two of these dashboards are publicly accessible and are used by the public and various agencies for operations.

The Water Operations Dashboard displays real-time reservoir and streamflow data in multiple formats for the Rio Grande and Pecos River to assist with water operations. Data are pulled from USGS, Colorado Diversion of Water Resources, and Reclamation's HDB every hour on the hour and every half hour between 6 a.m. to 6 p.m. Data available are for the last seven days in 15-minute increments. The Water Operations Dashboard may be accessed at https://app.powerbigov.us/view?r=eyJrIjoiZDFhMmM4MmMtYmMwZi00ZmQ3LWI1MWQtOGVkMzk2YTZjMDgyIiwidCI6IjA2OTNiNWJhLTRiMTgtNGQ3Yi05MzQxLWYzMmY0MDBhNTQ5NCJ9

The AOP Projections pages display the results of Reclamation's Annual Operating Plan runs for the Rio Grande. The runs are completed in URGWOM using the NRCS's snowmelt runoff forecast and historical data for reservoirs and streamflow to the end of the calendar year. Projections are updated monthly, typically from February to August, depending on the need and conditions. The AOP projections may be accessed at https://app.powerbigov.us/view?r=eyJrIjoiNTkwMTJiZmEtYWMwYy00OTBmLWEwOWYtZTMyNjljYTQ1YjlhIiwidCI6IjA2OTNiNWJhLTRiMTgtNGQ3Yi05MzQxLWYzMmY0MDBhNTQ5NCJ9

Both dashboards are also accessible under *Data → Tools and Dashboards* in the Albuquerque Area Office's Water Operations webpage at https://www.usbr.gov/uc/albuq/water/index.html.

RiverWare

Numerous improvements to RiverWare were accomplished in 2025 through contracts that Reclamation and USACE have with CADSWES. Work included creating a "reload model" option to quickly and easily reload a model if needed, and additional options for helping find and select slots in a model. In addition, improvements to the rules, scripting, and DMIs continue. CADSWES' annual report, distributed to the RiverWare user community at their annual meeting, summarizes all 2025 changes to RiverWare.

Evapotranspiration (ET) Toolbox

ET Toolbox was an extension of Reclamation's Agricultural Water Resources Decision Support system that provided high-resolution rainfall and real-time water use predictions and estimates via a dedicated website. It also provided schematics of the MRG with the latest MRGCD, USGS, USFWS, and ABCWUA gage data.

In 2019, Reclamation began collaboration with NASA's Jet Propulsion Laboratory (JPL) to use their satellite-based ET product to replace ET Toolbox's calculated evapotranspiration. Security concerns delayed the project, and then the JPL contract ended. Reclamation is now attempting to use the process JPL developed to download and display their ET product.

A new MRG Water Management Toolbox was set up in 2022. It may be accessed at https://www.usbr.gov/uc/albuq/water/ETtoolboxV2/home.html. This new site does not calculate future ET or water use estimates. These estimates will be included once the work with JPL has been completed.

Aquatic Invasive Species- Zebra and Quagga Mussels

The zebra mussel (*Dreissena polymorpha*) and quagga mussel (*Dreissena rostriformis bugensis*) are invasive freshwater bivalve mollusks in the family Dreissenidae. These aquatic invasive species (AIS) impair water infrastructure and are extremely costly to remove, resulting in significant maintenance costs once established. It is estimated that zebra and quagga mussels cause over $1 billion annually in damages to water infrastructure and industries in the United States. These mussels proliferate, attaching to infrastructure surfaces like dams, water intakes, pipes, and canals impacting water storage, water delivery, irrigation, and hydropower. Invasive mussels can also impair recreational use and aquatic ecosystems by destroying watercraft motors, becoming a beach nuisance, altering aquatic food webs, and fostering harmful algal blooms. A single mussel can produce hundreds of thousands of eggs, which hatch into microscopic larvae called veligers. Veligers spread within a waterbody in numerous ways, mainly by floating within the water column, and can be taken up by outboard motors, pumps, or other water intake and storage on watercraft. Transport of invasive mussels can occur when watercraft used in an infested waterbody transport or discharge water-containing veligers or adult mussels into non-infested reservoirs.

Reclamation does not have authority to manage the importation, interstate transport, exclusion, control, or eradication of aquatic invasive species in New Mexico. On the Rio Grande, Reclamation supports AIS prevention activities by furnishing equipment and contractual support to the New Mexico Department of Game and Fish (NMDGF) for Elephant Butte Reservoir. Reclamation regularly collects water samples and analyzes them by microscopy and molecular methods, providing early detection that can be used to trigger immediate containment action.

Reclamation has contracted AIS monitoring for:

- Inspections for watercraft entering Elephant Butte Reservoir

- Decontamination of watercraft considered "high risk" as defined by the NMDGF
- Coordination with law enforcement for issuance and removal of red warning tags

Reclamation's AIS watercraft inspection and decontamination efforts have increased over time from 9,346 watercraft in 2013, to 19,503 in 2025, as have the contractual costs. In 2024, a total of 21,852 inspections were conducted – 2,343 more than in 2025. With limited funding, Reclamation has prioritized AIS watercraft inspection and decontamination services at two boat ramps, Marina del Sur and Rock Canyon, in Elephant Butte because of this reservoir's extensive recreation, fishing, irrigation, power, and water infrastructure. In 2025, 37.9 percent of incoming watercraft were high-risk inspections (i.e., were not drained and dried, etc.), and 3.93 percent of those were infested and decontaminated. In 2025, there were no detections of invasive mussels or their genetic markers in water samples collected from Elephant Butte by Reclamation's Ecological Research Laboratory.

For more information on mussels and the damage they can cause, please see Reclamation's latest video at https:/www.youtube.com/watch?v=BoJiBhj1R90&t=206s.

Planning Activities in the Rio Grande Basin

WaterSMART Program

Reclamation combines funding for multiple agency-wide programs promoting water conservation into a single competitive program—the WaterSMART (Sustain and Manage American Resources for Tomorrow) program. The program was formally established in 2010 under DOI Secretarial Order 3297. WaterSMART includes funding for seven subprograms: WaterSMART Grants, Title XVI Water Reclamation and Reuse (Title XVI Program), the Drought Response Program (DRP), the Basin Studies Program, the Cooperative Watershed Management Program, Water Conservation Field Services, and Aquatic Ecosystem Restoration. These programs can be accessed on the Reclamation website at https://www.usbr.gov/watersmart/.

Reclamation has selected several stakeholder-driven projects for funding in the Rio Grande Basin under the WaterSMART program. Below are examples of ongoing and recently closed grants in each Reclamation Project.

Closed Basin Project

Colorado's Rio Grande Basin Water Cooperative Project has an ongoing Water Strategy Grant to develop a water marketing strategy to help reduce the risk of dry-up of historically irrigated land and address the current water supply and demand imbalance. This is the only WaterSMART grant in the CBD. The total award for this project is $213,000 and it concluded in 2025.

Rio Grande Basin Headwaters and San Juan-Chama Project

Stakeholders in the headwaters of the Rio Grande Basin and SJCP have been able to secure awards for projects that focus on restoration, watershed group development, irrigation efficiencies, wildfire mitigation, and infrastructure planning and design. There are currently nine active projects with a federal investment of over $4 million.

Middle Rio Grande Project

Within the MRGP, stakeholders have received funding for projects such as floodplain reconnection, post-fire restoration, data management and collection, aquifer storage and recharge, water distribution system designs and construction, and water management plans. There are currently 18 active grants in the MRGP with a total federal investment of $21 million.

Rio Grande Project

Within the RGP, stakeholders have received funding for projects such as aquifer storage and recharge, water distribution system improvements, and water recycling and desalination. There are currently 17 active grants in the RGP with a total federal investment of $50 million.

Basin Study Program

Basin Studies are cooperative agreements between Reclamation and a recipient to address water supply and demand imbalances for stakeholders by developing state-of-the-art projections of future supply and demand by river basin, conducting analyses of how the basin's existing water and power operations and infrastructure will perform under multiple hydrologic scenarios, developing strategies to meet current and future water demands, and conducting trade-off analyses of strategies identified.

Santa Fe Basin Study

In 2015, Reclamation, in partnership with the City of Santa Fe and Santa Fe County, released the Santa Fe Basin Study online at: https://www.usbr.gov/watersmart/bsp/docs/finalreport/SantaFe/Santa-Fe-Basin-Final.pdf. This study evaluated factors such as hydrologic uncertainty, population growth, and other stressors on the Santa Fe watershed and water supplies for the combined municipal water system of Santa Fe and Santa Fe County.

Based on the study's conclusions, Santa Fe received funding from Reclamation for a Title XVI Feasibility Study completed in 2017, which describes alternatives for implementation of a water reuse project. Santa Fe was also awarded funding from Reclamation for a Basin Study Update to determine the likely timeline for hydrologic impacts on Santa Fe's water supply over the coming century, empowering Santa Fe's water utility plan for the remainder of its adaptation portfolio.

Additionally, Santa Fe was awarded a Water Management Options Pilot Project grant to redevelop the system dynamics model used to simulate its water supply sources and distribution. Work continues, but completion of the Basin Study Update has been postponed until the new system dynamics model is complete. Hydrologic inputs from the Rio Grande Basin Study will be used in this modeling. A memorandum of agreement for the study is currently being developed.

As a result of the Santa Fe Basin Study and Feasibility Study, several alternatives were identified for Santa Fe to acquire additional water. Santa Fe received Title XVI Program funds for a proposed water reuse project in 2022 and 2025. Reclamation is leading the environmental compliance process, which significantly progressed in 2025 and is expected to be completed in 2026. Under Santa Fe's preferred alternative, they would consumptively use all of their contracted SJCP water allocation by receiving credit for water returned to the Rio Grande.

Rio Grande Basin Study: Lobatos Gage to Elephant Butte

Reclamation has partnered with the MRGCD, eight Pueblos, and numerous other basin stakeholders, including State and municipal government entities, Pueblos and Tribes, irrigation and conservancy districts, acequias, and non-governmental and community organizations, to perform a Basin Study from the Lobatos stream gage near the Colorado-New Mexico border to Elephant Butte Dam in south central New Mexico. This basin study seeks to develop projections of future water supply and demand, and collectively evaluate and model potential adaptations to the projected changes. No water management decisions will be made as part of the basin study; instead, the study partners will create an interactive decision-support tool for water managers to consider, along with other constraints such as political and economic factors, as they manage water in increasingly challenging conditions.

The study's Memorandum of Agreement was adopted by 35 non-Federal entities and signed by Reclamation on January 24, 2023. Reclamation's signature initiated the official start to the five-year study schedule. As of 2025, there are 42 signatories, an increase of seven since the initiation of the study.

The non-Federal Partners in the basin study have organized into Sectoral Committees and are working on initial reporting to inform the partnership. Sectoral Committees and the Steering Committee meet monthly. Reclamation hosts All-Partner meetings quarterly.

The Modeling Team, led by Reclamation, has been working extensively with the University of Massachusetts Amherst on climate and hydrologic projection sets to inform the study and its partners. These projections will be finalized in 2026.

In 2025, the various Sectoral Committees began using facilitators to advance their efforts which included continued value assessments and conceptual adaptation strategies. Reclamation utilized an All-Partners meeting to brainstorm adaptation scenarios with study partners. In 2026 these adaptation scenarios will be translated into the study's model. Additionally, Reclamation began scoping out the options tool that will enable stakeholders to evaluate impacts of adaptation strategies under a suite of different hydrologic conditions.

Science & Technology Program

Reclamation's Science and Technology (S&T) Program is a Reclamation-wide, competitive, merit-based applied research and development program. The program focuses on innovative solutions for water and power challenges in the Western United States for Reclamation water and facility managers and the stakeholders they serve. The program has contributed many of the tools and capabilities Reclamation and Western water managers use today. S&T Program projects in the Rio Grande Basin that are ongoing or were completed in 2024 are listed below.

- FY 2020 Award – ongoing, An Experimental Monsoon Forecast for Water Management (Reclamation partnership with the National Center for Atmospheric Research, NCAR); https://data.usbr.gov/catalog/7986. This project was tested in 2021–2023 and has received "Facilitated Adoption" program funding from Reclamation's Research and Development Office for an additional three years of refinement and testing in both New Mexico and western Arizona. The team is now focusing on development of seasonal monsoon forecasts to support

Reclamation's annual operating plans. This project has been nominated for Reclamation Science & Technology Project of the Year.

- FY 2021 Award – finalized: Utilizing Acoustic Sensors to Detect Streambed Mobilization (Reclamation partnership with USGS California Water Science Center and Christ in the Desert Monastery); https://data.usbr.gov/catalog/4416/item/6268. This project deployed hydroacoustic sensors to determine the flows that initiate streambed mobilization in the Rio Chama. The goal is to improve management of high-flow pulses by correlating the moment of mobilization to a flow rate.
- FY 2023 Award – ongoing, Stochastic Streamflow Generation: A Complementary Approach for Hydroclimate Projections in Hydrologically Complex Basins (Reclamation partnership with University of Massachusetts Amherst). This project is developing tools and resources to support informed use of climate model projections and use of weather generators in water management applications in the Upper Rio Grande Basin, including the Rio Grande Basin Study: Lobatos Gage to Elephant Butte. The goal is to develop a generalized stochastic streamflow generation approach to complement Reclamation's present practices that is applicable across river basins and the broader water resources planning community.
- FY 2023 Award – ongoing, Assessing Satellite Remote Sensing Products to Improve Spatial and Temporal Resolution of Snow Water Equivalence Measurements in the SJCP's Source Watersheds (Reclamation partnership with University of New Mexico, University of Wyoming, University of Washington, and USGS New Mexico Water Science Center); https://data.usbr.gov/catalog/8085. This project builds upon a project in the headwaters of the SJCP, Assessing the Utility of New Satellites to Advance State of the Art Snow Forecasting Capabilities, funded under the Snow Water Supply Forecasting Program (see below). This S&T funding added three more years of data collection and remote sensing to support development of a comprehensive tool to assist Reclamation in its snow monitoring via remote sensing across the West.

Snow Water Supply Forecasting Program

In addition to the S&T Program, Reclamation's Research and Development Office initiated a series of projects in 2022 aimed at developing a Snow Water Supply Forecasting Program that takes advantage of new technologies. Reclamation AAO staff are participating in development of this program through two funded projects.

- A Testbed for Harnessing and Benchmarking Snow Data Observations and Watershed Modeling for Water Supply Prediction (Reclamation partnership with NCAR) – final. Modeling study to test snow monitoring technologies using data from other Reclamation snow studies. The final report has been received for this project but has not yet been posted.
- Assessing the Utility of New Satellites to Advance State-of-the-Art Snow Forecasting Capabilities (Reclamation partnership with the University of New Mexico, University of Washington, University of Wyoming, and USGS New

Mexico Water Science Center) – complete. The initial intent was to test the new NISAR satellite for snow monitoring, but launch was delayed. The project instead focused on comparison of satellite stereo imagery and satellite altimetry measurements of snowpack to ground-based snowpack measurements. This project received additional funding via the S&T program; see "Assessing Satellite Remote Sensing Products to Improve Spatial and Temporal Resolution of Snow Water Equivalence Measurements in the San Juan-Chama Project's Source Watersheds," above.

Wildfire Management Program

Wildfires have been growing in intensity and size throughout the western United States, impacting air and water quality, destroying fish and wildland habitat, and causing billions of dollars in damage to homes and infrastructure. DOI works in partnership with other federal agencies, stakeholders, and state, local, and Tribal governments to reduce wildfire risk, rehabilitate burned landscapes, support firefighters, and address other needs from wildfire impacts. DOI's bureaus (including Reclamation) and offices manage wildland fire on over 535 million acres of land to protect communities and ecosystems from wildfire threats and other devastating impacts of drought. Reclamation's Wildfire Management Program funded two projects in the Rio Grande Basin.

Fire Planning in the San Juan-Chama Project Headwaters

Fire Planning in the SJCP Headwaters is a cooperative agreement with The Nature Conservancy to create a comprehensive wildfire plan for the SJCP Headwaters, focusing on pre-fire, fire, and post-fire strategies and activities. These headwaters are a critical source of water for downstream water users. Reclamation has also cost shared with The New Mexico Forestry Division on their Water Trust Board-funded Watershed Restoration and Management Project.

In 2025, the overall effort was split into three different work groups addressing pre-fire, fire, and post-fire responses. These groups met regularly and began drafting different chapters for these focus areas for the final report, anticipated in 2026.

Caballo Post-Fire Mitigation

Two major and devastating fires have occurred in the past ten years in the Black Range: the Silver Fire of 2013 and the Black Fire of 2022. The Black Range is located about thirty miles west of Elephant Butte and Caballo Reservoirs in the Gila National Forest in south central New Mexico with tributaries that flow into these reservoirs. The Silver Fire burned approximately 138,698 acres with 57,724 acres being classified as medium- to high-severity burned areas. The Black Fire burned 327,263 acres with 74,594 acres being classified as medium- to high-severity burned areas. Combined, these two fires burned 465,961 acres.

In 2016, a precipitation event in the Black Range brought woody debris from the Silver Fire into Caballo Reservoir. This clogged the Caballo Dam outlet works, reducing releases to farmers and municipalities downstream. Efforts to unclog the trash rack during releases were ineffective. Future post-fire debris flows could completely overwhelm Caballo Reservoir's ability to release to RGP water users, or even make RGP releases impossible for extended periods of an irrigation season. This would have disastrous impacts for the RGP's farmers and municipalities,

specifically the City of El Paso, TX, and the Republic of Mexico, since the main source of water for the Mexican farmers and the City of El Paso is the RGP water.

Through Reclamation’s Wildfire Management Program, AAO was awarded funding in 2023 to assess future sediment and debris flow scenarios from the Black Range into Caballo Reservoir. This study may lead to planning projects that may help mitigate future debris flow events. In 2025, most project modeling was completed. The final product will be a technical report with recommendations.