

Department of the Interior  
BUREAU OF RECLAMATION  
ALBUQUERQUE AREA OFFICE

**2007**

**SUPPLEMENTAL WATER  
PROGRAM REPORT**

March 2008



## **Introduction**

The Rio Grande silvery minnow was listed as a federally endangered species on July 20, 1994. Dewatering of the river channel within the silvery minnow's habitat was identified as a key threat to the continued existence of the species. A sizeable portion of the silvery minnow's habitat is located within the mainstem of the Rio Grande between Cochiti Dam and San Marcial, which is a section of the river prone to critically low flows during the irrigation season.

The Final Rio Grande Supplemental Water Programmatic Environmental Assessment<sup>1</sup> (EA) was developed in compliance with the National Environmental Policy Act of 1969 to analyze the establishment of a Supplemental Water Program that would provide supplemental water to primarily benefit the silvery minnow.

## **Summary of the 2007 Supplemental Water Program**

The 2007 Supplemental Water Program was used to assist in achieving the targeted flows as described in the Biological and Conference Opinions on the Effects of Actions Associated with the Programmatic Biological Assessment of the Bureau of Reclamation's Water and River Maintenance Operations, Army Corps of Engineers' Flood Control Operation, and Related Non-Federal Actions on the Middle Rio Grande, New Mexico, dated March 2003 (BO).

Due to adequate water available from San Juan-Chama (SJ-C) leases, no additional water under the Emergency Drought Water Agreement was stored. At the beginning of 2007 there was 9 ac-ft of water available for endangered species. The small amount was due to changes made to the accounting after the 2006 season. This water was released in the middle of June. The EDWA pool in El Vado is currently empty, however, there is still the opportunity to store 4,934 ac-ft if supplies warrant and there is inadequate sources of water to meet the demands of endangered species.

11,353 ac-ft of leased SJ-C water was released throughout the year beginning in mid June. The monsoon season from July through October was rather disappointing, but flow events throughout this period made releases for endangered species unnecessary during some of this time.

Approximately 6,439 ac-ft was pumped from the Low Flow Conveyance Channel into the Rio Grande to keep the reach of river wet between San Acacia and Elephant Butte. The pumps were not needed before June 15 when the BO states there must be continuous flow from Cochiti to Elephant Butte. After June 15 the pumps were used to control the rate of drying of the river channel to facilitate minnow rescue. Table 1 summarizes the water used in 2007 to supplement flows in the Rio Grande between Cochiti and Elephant Butte Reservoir.

**Table 1 – Water Used in 2007 to Supplement flows in the Rio Grande**

<b>Source of Water</b>	<b>Volume (ac-ft)</b>
Leased 2006 and 2007 SJ-C Contractor Allocation released	11,353
Emergency Drought Water Agreement	9
Water Pumped from LFCC into Rio Grande	6,439
<b>TOTAL</b>	<b>17,801</b>

Representatives from USBR, U.S. Army Corps of Engineers (USACE), USFWS, NMISC, and MRGCD participated in conference calls throughout the irrigation season to exchange information and discuss Agency actions. These calls provided an efficient means to coordinate water operations, LFCC pumping operations, and related silvery minnow rescue operations.

**Stream Flow Forecast and Estimated Actual Runoff**

The National Resource Conservation Service's (NRCS) May 1, 2007 stream flow forecast for the Rio Grande Basin projected the total spring runoff to be below average based on a basin snowpack at 59% of average which was 292% of the amount received in the previous year. The May 1<sup>st</sup> forecast projected the most probable stream flow to range from a high of 94% of average for the Red River near Questa to a low of 45% of average for the Rio Grande at San Marcial. It should be noted that NRCS snowmelt forecasts are unregulated forecasts of stream flow that would occur naturally without any upstream influences.

The 2007 spring snowmelt runoff in the Rio Grande basin was overall better than forecast. March-July stream flows for the Rio Chama at La Puente were calculated to be around 197,000 ac-ft while the El Vado inflow forecast was only 149,000 ac-ft. Table 2 presents the NRCS May 1, 2007 forecast volumes and estimated actual runoff for select stations within the Rio Grande Basin. Runoff stream flow volumes were estimated by adjusting actual stream flow data to account for existing upstream influences.

**Table 2 – May 1, 2007 NRCS Stream Flow Forecasts and 30 Yr. Average (ac-ft)**

Forecast Point	Most Probable Runoff Volume (% 30 yr avg)	1971-2000 30 Year Average Volume
El Vado Reservoir Inflow (Mar-Jul)	149,000 (63%)	237,000
Rio Grande at Otowi Bridge (Mar-Jul)	450,000 (59%)	757,000
Santa Fe River near Santa Fe (Mar-Jul)	2,700 (59%)	4,600
Jemez Canyon Reservoir Inflow (Mar-Jul)	29,000 (64%)	45,000
Rio Grande at San Marcial (Mar-Jul)	255,000 (45%)	573,000

**Leased SJ-C Water for 2007 Supplemental Water Releases**

Table 3 provides a summary of all SJ-C supplemental water leases and releases executed in 2007. Carryover amount was water that was stored in 2006 in a Reclamation pool in Abiquiu. Water from all contractors, except for Albuquerque, was released from Heron which was then stored in Abiquiu until needed. This water had been from the contractors' 2006 allocations which was allowed to remain in Heron until April 30 due to waiver. Water that was leased from Albuquerque was released from the City's pool in Abiquiu.

**Table 3 – Summary of San Juan-Chama Contractor Water Leased for 2007**

Dates of Release	Contractor	Volume (ac-ft)
4/23	Belen	199
4/24-4/25	Bernalillo	400
4/23-4/24	Los Lunas	256
4/24	Taos	400
7/19-10/09	Albuquerque	3,987
4/25-4/30	Santa Fe	2,987
	'06 Carryover	3,358
<b>Subtotal: 2007 Releases for ESA</b>		<b>11,353</b>
<b>TOTAL 2007 LEASES</b>		<b>11,587*</b>

\* Difference between lease and release due to transportation loss between Heron and Abiquiu as well as evaporation loss in Abiquiu.