

RECLAMATION

Managing Water in the West

Calendar Year 2007 Report to the Pecos River Commission

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March 2008

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Introduction

The Albuquerque Area Office of the Bureau of Reclamation (Reclamation) is responsible for operation, maintenance, and oversight of three projects on the Pecos River. These projects are: the *Carlsbad Project*, which includes Sumner, Brantley, and Avalon Dams; the *Pecos River Basin Water Salvage Project*; and the *Fort Sumner Project*, which includes the Fort Sumner Diversion Dam. Figure 1 *Project Map of Reclamation's Albuquerque Area Office* depicts the general location of Reclamation's Projects under the Albuquerque Area Office's jurisdiction.

Reclamation's Carlsbad Field Office now reports to the Albuquerque Area Office's Facilities and Lands Division. An agreement between Reclamation and Carlsbad Irrigation District (Carlsbad District), finalized on October 2, 1989, provided for the Carlsbad District to operate and maintain Brantley Dam, Avalon Dan, Sumner Dam, and the Pecos River Water Salvage Project. Reclamation continues to be responsible for assuring that this work is accomplished in compliance with all applicable agreements, contracts, regulations, compacts, and other related laws.

Reclamation also has a Resource Management Planner working in support of the Bureau of Land Management (BLM) in BLM's Carlsbad Field Office as lead for Reclamation in the implementation of Section 365 of the Energy Policy Act of 2005 Pilot Project. This position coordinates with and assists BLM to identify efficiencies in processing oil and gas leasing and development activities.

The gage data used within this report is provisional and was downloaded from the United States Geological Service web page, <http://waterdata.usgs.gov/nm/nwis/dv>. The reservoir elevation data, which is provisional as well, is recorded by the dam tender and reported to Reclamation on a monthly basis.

Carlsbad Project Operations

Crop Production

As of the printing of this report, Reclamation had not received Carlsbad Irrigation District's (CID) 2007 crop and water data. This information is generally received in mid to late spring of each year and will be provided in the 2008 Calendar Year Report to the Pecos River Commission.

Since Reclamation had not received CID's 2006 crop and water data at the time of the printing of the 2006 Calendar Year Reports to the Pecos River Commission, this information is now being provided. As reported by CID, crops grown in the 2006 water year were as follows: alfalfa hay,

cantaloupe, corn, cotton lint, grass, irrigated pasture, oats, pecans, peppers, silage, sorghums, watermelon, and wheat. Out of a total irrigable area of 25,055 acres, 17,489 acres were irrigated in 2006. Crop and water data submitted by the district did not contain total gross crop related income, therefore the average crop value per irrigated acre is not provided. Of the total water diverted, 49,475 af were delivered to irrigated lands for a total of 2.83 af per irrigated acre.

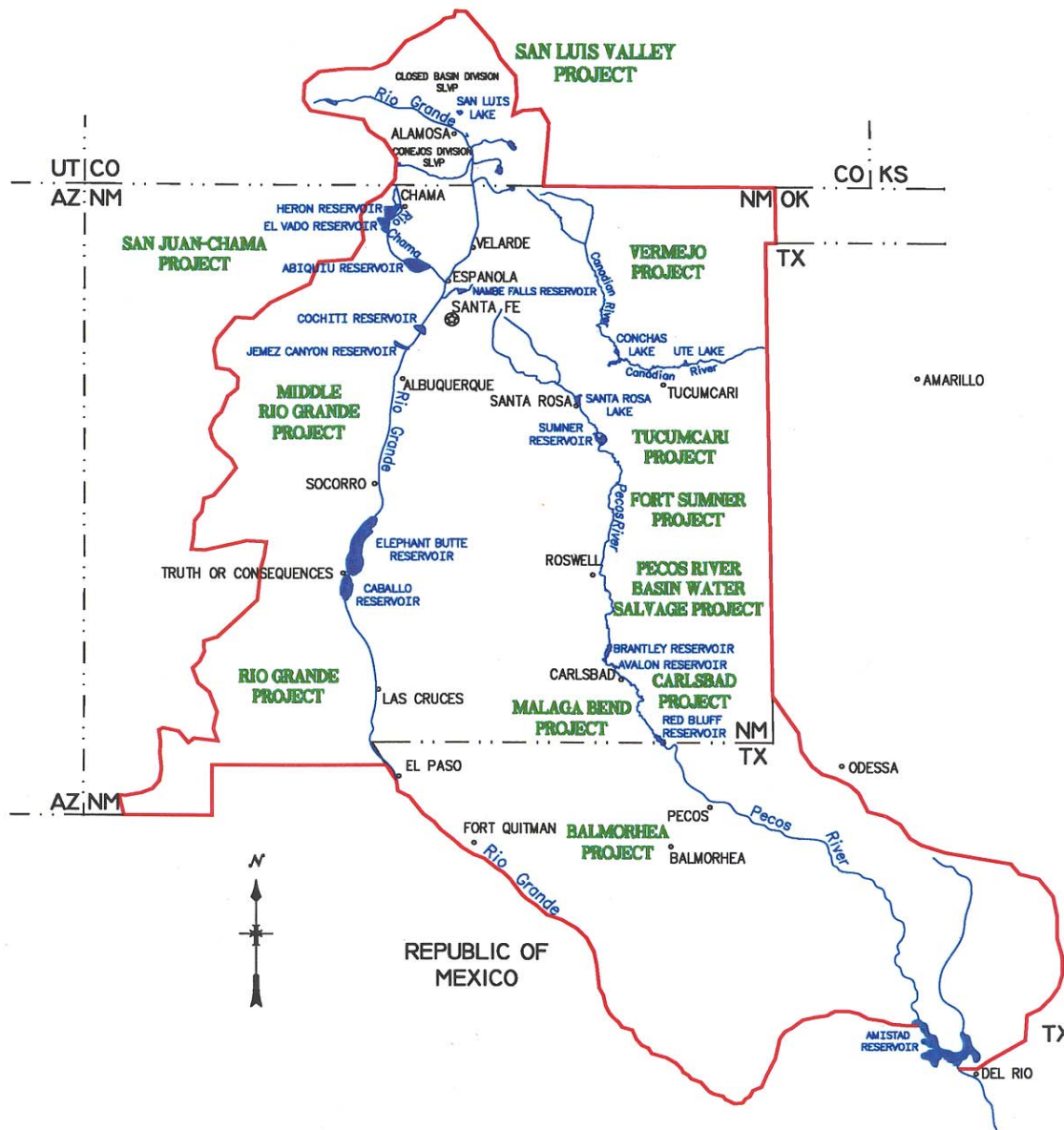


Figure 1. Project Map of Reclamation's Albuquerque Area Office.

Reservoir Storage Entitlements

All Carlsbad Project reservoirs were operated in accordance with the requirements of the Pecos River Compact and U.S. Army Corps of Engineers' (Corps) flood control criteria. Figure 2 *Area map of the Carlsbad Project* depicts the location of the Carlsbad Project Storage Dams on the Pecos River.

The Corps determines area and capacity tables for Santa Rosa Reservoir. Reclamation calculates annual total conservation storage entitlements for the Pecos River reservoirs that are in New Mexico. Table 1 *2007 Pecos River Reservoir Storage Entitlements* presents the calendar year 2007 storage entitlements for the four Pecos River Reservoirs.

Table 1. 2007 Pecos River Reservoir Storage Entitlements.

Reservoir	Entitlement Storage (acre-feet)	Minimum Pool (acre-feet)	Total Estimated Sediment Accumulation	Total Conservation Storage (acre-feet)	Conservation Elevation (feet)
Santa Rosa	92,450	0	4,228	96,678	4744.89
Sumner	40,184	2,500	242	42,926	4,262.88 (NAVD88)
Brantley	40,000	2,000	1,013	43,013	3,256.30 (NAVD 88)
Avalon	3,866	600	0	4,466	3,117.40
TOTAL:	176,500				

Operation of the dams on the Pecos River is a joint effort between Reclamation, Carlsbad District, and the Corps in coordination with the Fort Sumner Irrigation District (Ft. Sumner District) and the State of New Mexico. The Corps has flood control responsibilities at Sumner Dam when the reservoir gets into the exclusive flood control pool (elevation 4262.88 to 4283.88 feet (ft) from May 1 through October 31, and 4269.16 to 4283.88 ft from November 1 through April 30). The Corps has flood control responsibilities at Brantley Dam when the reservoir elevation is above 3271.00 ft up to 3283.00 ft. Elevations are referenced to the North American Vertical Datum (NAVD 29).

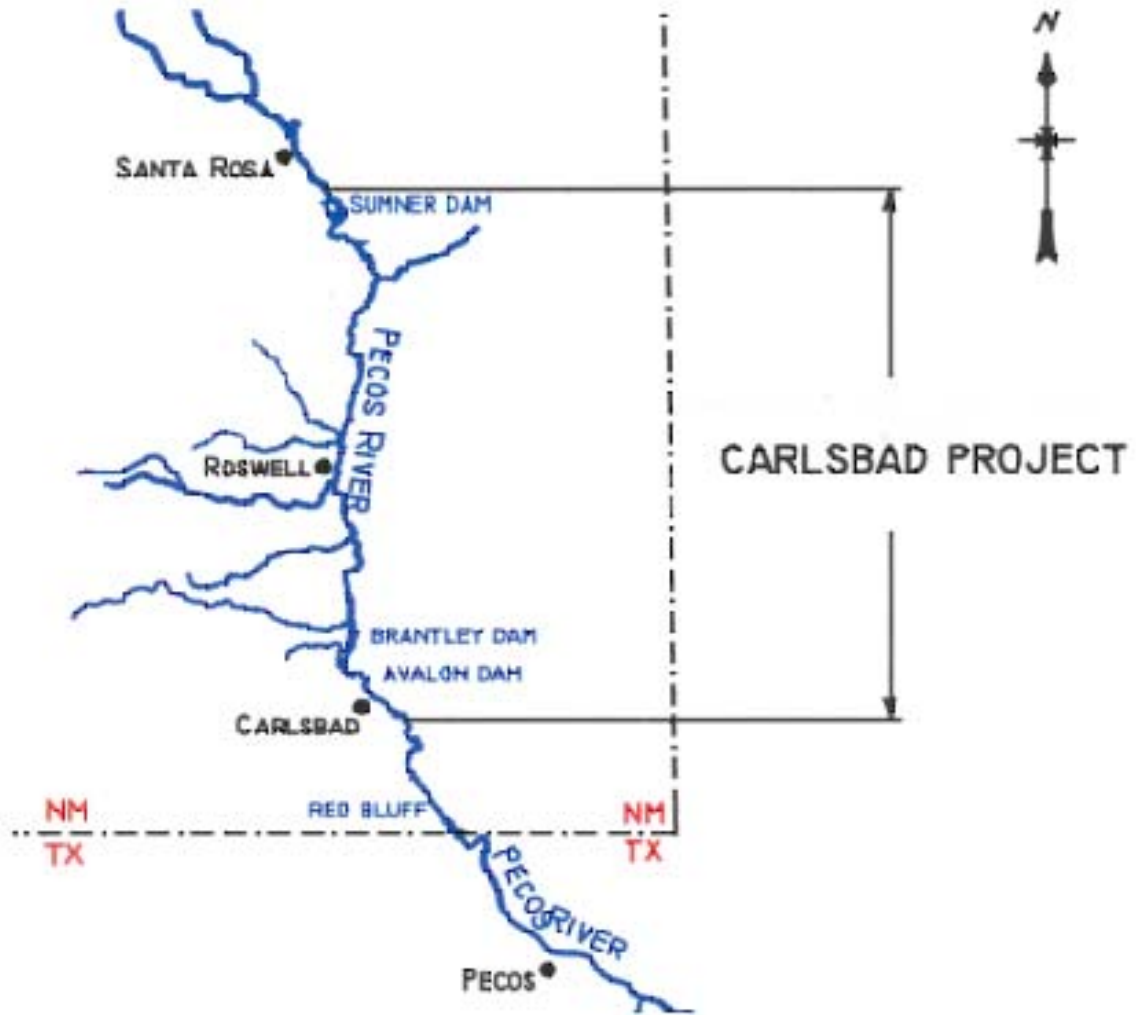


Figure 2. Area map of the Carlsbad Project.

The 2007 start-of-year total Carlsbad Project conservation storage in the four Pecos River reservoirs (Santa Rosa, Sumner, Brantley and Avalon) was 73 percent of entitlement. Santa Rosa, Sumner, Brantley and Avalon reservoirs on the Pecos River were at approximately 86, 72, 46, and 50 percent, respectively, of each reservoir's entitled conservation storage. The March 1, 2007 most probable forecasted snow melt runoff inflow into Santa Rosa Reservoir was approximately 50,000 acre-feet (af) or 94 percent of the 30-year average.

The actual March through July 2007 inflow to Santa Rosa Reservoir was approximately 40,198 af, 76 percent of the 30-year average. On December 31, 2007, the total Carlsbad Project entitlement storage in the four Pecos reservoirs was 50 percent of entitlement. Santa Rosa, Sumner, Brantley and Avalon reservoirs were at approximately 55, 61, 29 and 50 percent, respectively, of each reservoir's entitlement storage.

Sumner Dam and Reservoir

Sumner Dam Operations

The operation of Sumner Dam is to divert to storage the available natural inflow above Fort Sumner Irrigation District's allotted direct diversion water right, when bypassing this water is not required to meet the 35 cfs target at the United States Geological Survey (USGS) gage Pecos River Below Taiban Creek Near Fort Sumner, and to maintain continuous flow in the river. Fort Sumner Irrigation District has a direct diversion right of up to 100 cubic-feet-per-second (cfs) of the natural inflow above Sumner Reservoir as calculated by the New Mexico Office of the State Engineer.

Releases of stored Carlsbad Project water occur as block releases for the Carlsbad District. The duration of block releases is restricted to a maximum of 15 contiguous days, and the cumulative annual duration of all block releases is restricted to a maximum of 65 days. Block releases are scheduled so that there is not less than 14 days between releases, and scheduling block releases during the six week period around August 1 is avoided if possible. Block releases are scheduled to alleviate river intermittency as long as this scheduling does not constitute a wasteful use of water due to excessive net losses accrued during transit, or due to excessively high net downstream reservoir evaporation. Reclamation directs the Carlsbad District dam tender on gate adjustments and the Carlsbad District is responsible for all maintenance activities. This operating procedure does not alter the normal operations of Avalon and Brantley Reservoirs for the purpose of delivering water to the Carlsbad District.

Under a water right permit granted by the State of New Mexico, the Carlsbad Project is allowed to store up to an additional 20,000 af in Sumner Reservoir from November 1 to April 30 each year, provided that the entitled conservation storage of all four reservoirs on the Pecos River in New Mexico does not exceed 176,500 af. No additional storage under this water right permit occurred in 2007.

Sumner Reservoir began the year with 28,915 af in total storage. An early spring peak total storage of 39,376 af occurred on February 26 prior to the reservoir being drawn down by evaporation and block releases for the Carlsbad Project. Sumner Reservoir's lowest total storage occurred on October 31, after the reservoir was drawn down to 17,626 af by the third and final block release of the year. Sumner Reservoir ended the year with 24,389 af in storage.

Three block releases occurred during the 2007 calendar year. The first block release was initiated on February 26 and terminated on March 5 at a rate 1,400 cfs, for a total release of approximately 21,330 af. The second block release occurred on July 3 through July 9 when approximately 20,158 af was released at 1,400 cfs. The third and final block release for 2007 occurred from August 28 through September 6 at the rate of approximately 1,000 cfs for a total release of 19,946 af.

Non-irrigation season ESA-related bypasses were initiated for the 2006-2007 winter season on November 20, 2006 following the release of the remaining Fish Conservation Pool water. Figure 3 *2007 Sumner Dam Bypass / Release and Total Storage* illustrates Sumner Dam's total storage, bypasses, and releases. A total of approximately 4,721 af were bypassed for ESA related purposes during the non-irrigation season between January 1 and February 12 at an average rate of 18 cfs. During the irrigation season, which runs from March 1 through October 31, a total of approximately 1,000 af were released from the Fish Conservation Pool for ESA related purposes.

The effects of these modified operations on the Carlsbad Project water supply are discussed in the section on Reclamation's water offset program. Reclamation has leased water from river pumpers and the Hagerman Irrigation Company to replace the depletions associated with the modified operations.

During 2007, Reclamation stored 1,000 af in Santa Rosa and Sumner Reservoirs to provide releases to achieve target flows at the Taiban gage and avoid intermittency in the river. Reclamation replaced the water released out of Sumner Reservoir with 1,000 af of water pumped directly into Brantley Reservoir. During 2007, releases from the Fish Conservation Pool were made as needed during and after irrigation season at rates between 5 and 20 cfs.

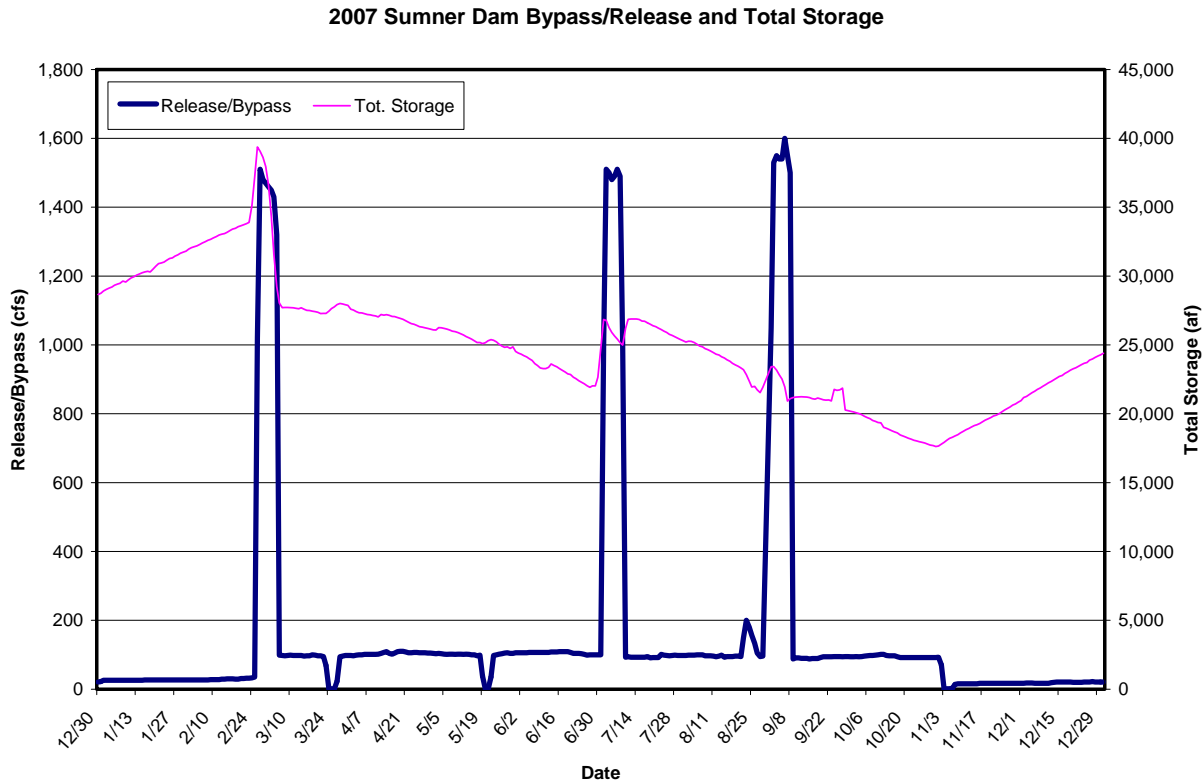


Figure 3. Calendar year 2007 Sumner Dam bypass/release and total storage (discharge downloaded from USGS web site on 03/11/2008).

Sumner Dam Facility Review and Safety of Dams Programs

All three radial gates at Sumner Dam, with a total design capacity of up to 56,000 cfs, are in need of repairs. CID is responsible for the repairs and for 68.36% of the cost and Reclamation is responsible for 31.64% of the cost. CID has not yet scheduled for this repair.

Sumner Dam Standing Operating Procedures (SOP) and Emergency Action Plan (EAP) were revised in 2006. The SOP/EAPs was distributed in 2007. The Sumner Dam Annual Facility Review (CFR) (examination) was completed in December 2007 and the report was completed in January 2008. There were a total of 7 incomplete recommendations for Sumner Dam in 2007; 10 recommendations were completed in 2007.

Brantley Dam and Reservoir

Brantley Dam Operations

During periods without irrigation releases Brantley Dam bypasses mitigation flows of 20 cfs. During the irrigation season (normally March through October), releases are made from Brantley

Dam to Avalon Reservoir at the rate necessary to support the diversion into the Carlsbad District’s main canal, generally between 75 and 350 cfs, as required by irrigation demand. Releases from Brantley Dam were also made in May and November of 2007 to assist the New Mexico Interstate Stream Commission (NMISC) in meeting its Pecos River Compact obligations as discussed in the sections labeled Water Release and Replacement Agreement for State Line Delivery and Carlsbad Irrigation District Water Lease Program. Figure 4 *2007 Brantley Dam Bypass/Release and Total Storage* depicts Brantley Dam’s Total Storage, Release, and Bypasses.

The Corps has flood operation responsibility once the reservoir rises into the flood pool, which is identified to begin at elevation 3271.00 ft (NAVD 29) in the Corp’s Water Control Manual for Brantley Dam. The top of the conservation or entitlement pool for Brantley Reservoir was calculated to be elevation 3254.61 (NAVD 29) as stated in the 2007 Pecos River Storage Entitlements. Therefore, Reclamation is responsible for control and operations until elevation 3271.00 (NAVD 29) is reached, regardless of the conservation elevation in the respective year, at which point the Corp assume operational responsibility.

2007 Brantley Dam Bypass/Release and Total Storage

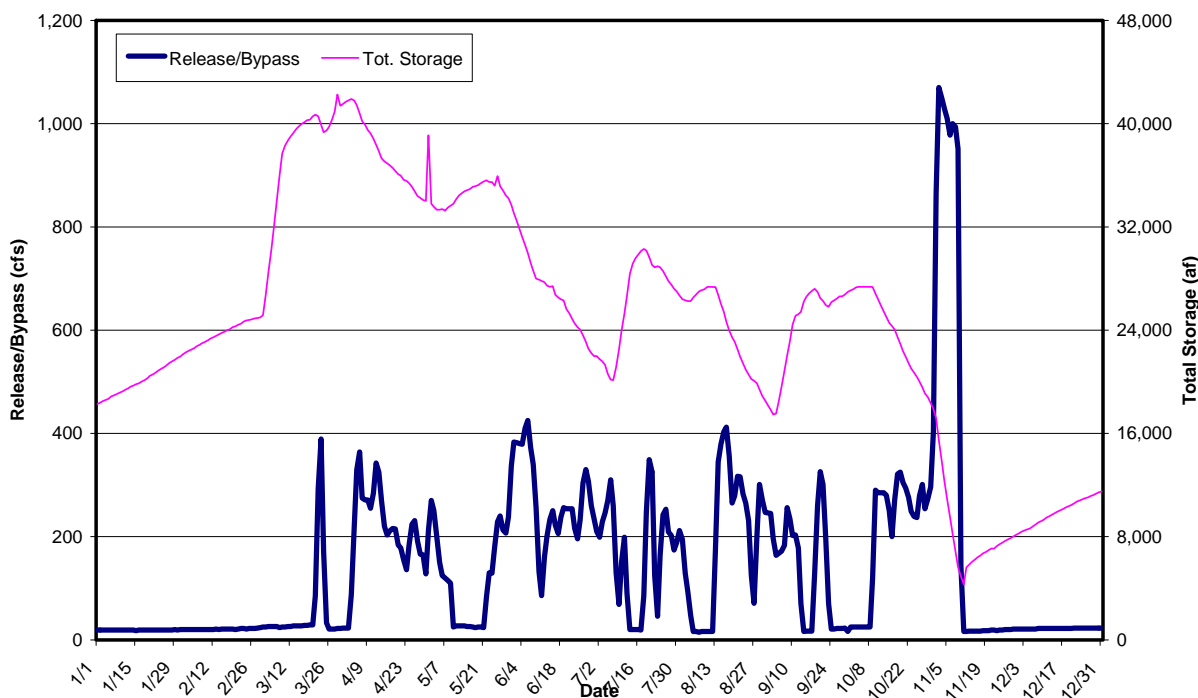


Figure 4. Calendar year 2007 Brantley Dam releases and total storage (discharge downloaded from USGS web site on 03/11/2008).

Brantley Reservoir began the year with a total storage of 18,278 af. Irrigation releases from Brantley were initiated on March 19 and then stopped and started as needed to meet demand and

to conserve water. The final irrigation release from Brantley Reservoir occurred on October 31. Approximately 75,320 af were released from Brantley for irrigation during this period. Brantley Reservoir reached a maximum total storage of 41,925 af on April 3, 2007. The lowest total storage occurred on September 3 with a volume of 17,469 af. Brantley Reservoir ended the year with a total storage of 11,505 af.

Brantley Dam Facility Review and Safety of Dams Programs

The Brantley Dam Annual Facility Review (CFR) (examination) was completed in 2007 and the report was completed in January 2008. There were a total of 12 incomplete recommendations for Brantley Dam in 2007; 6 recommendations were completed in 2007.

Sinkholes exist upstream and downstream on the left side of Brantley Dam. The sinkholes are visually monitored on a regular basis and are surveyed only if there seems to be any change in the amount of sinkholes or size of existing sinkholes. The latest survey was completed on May 10, 2005. Currently, the sinkholes are not a structural threat to the facility.

Avalon Dam and Reservoir

Avalon Dam Operations

Due to the small reservoir capacity and the location of Brantley Dam 10 miles upstream, Avalon Dam is used primarily as a diversion dam to meet irrigation demand for the Carlsbad District. Water is released from Brantley Dam and the small reservoir at Avalon is used to fine tune the releases into the Carlsbad District Main Canal. Avalon Reservoir began the year with conservation storage at 1,466 af. A total of approximately 8,954 af of water was released from Avalon Dam directly to the Pecos River in 2007 for the NMISC and Carlsbad District lease agreement. Avalon Reservoir end-of-year total storage was 1,925 af.

Diversions into the Carlsbad District Main Canal began on March 3, and ceased on October 31, totaling approximately 75,320 af. Carlsbad District diversions are presented in *Figure 5. 2007 Carlsbad Irrigation District Main Canal Diversions*.

2007 Carlsbad Irrigation District Main Canal Diversions

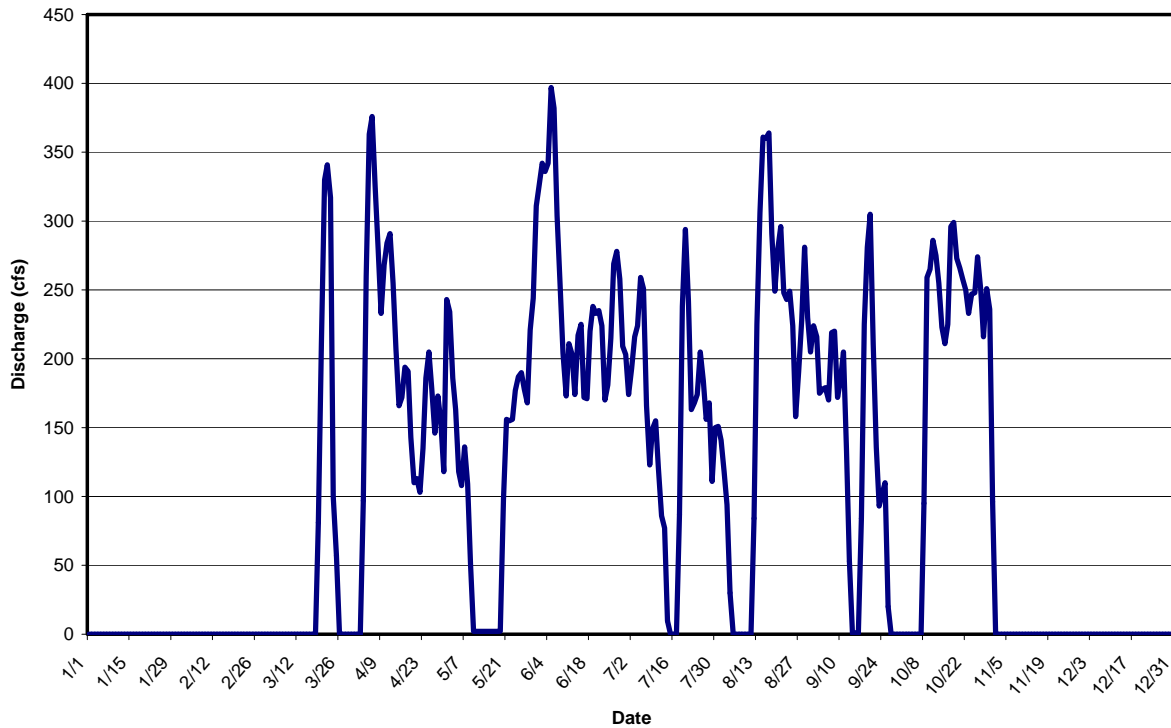


Figure 5. Calendar Year 2007 Carlsbad District Main Canal Diversions (discharge downloaded from the USGS web site 03/11/2008).

Avalon Dam Facility Review and Safety of Dams Programs

The Avalon Dam Annual Facility Review (CFR) (examination) was completed in 2007 and the report was completed in January 2008. There were a total of 6 incomplete recommendations for Avalon Dam in 2007; 5 recommendations were completed in 2007.

Carlsbad Project Environmental Compliance

Endangered Species Program for Water Operations

Pecos bluntnose shiner

Reclamation entered the monitoring phase of the Biological Opinion (10-year BO) for Reclamation's Proposed Carlsbad Project Water Operations and Water Supply Conservation, 2006-2016 (Cons. #22420-2006-F0096) upon completion of the Record Of Decision in August 2006.

Reclamation entered into an agreement with the New Mexico Interstate Stream Commission (NMISC) for delivery of a minimum of 1,100 af per year for the next 25 years. This delivery will occur through the "Vaughan Pipeline", which will be capable of approximately 15 cfs of flow from water rights purchased by the State of New Mexico Strategic Water Reserve Program. The ribbon cutting ceremony of the Vaughan Pipeline occurred on July 25, 2007. Rick Gold (ret), UC Regional Director and Connie Rupp (ret), Albuquerque Area Office Manager, attended the event as well as many state dignitaries. The project startup suffered some minor setbacks when leaks were discovered in the joints of the pipeline. NMISC is presently correcting the problem and the new proposed start date is expected sometime in June 2008. The Vaughan Pipeline is the first of many projects under New Mexico's new Strategic Water Reserve Program.

In 2007 Reclamation increased its 500 af Fish Conservation Pool to 1,000 af in Sumner Lake and Santa Rosa Reservoir through an exchange of water rights it owns at Seven Rivers. Water is pumped into Brantley Reservoir from wells at Seven Rivers, in exchange for water being released from either Santa Rosa Reservoir or Sumner Lake to maintain streamflows for the Pecos bluntnose shiner. Only 700 acre-feet of water was used to supplement flows during the irrigation season for the shiner this year. The remaining 300 acre-feet was released at the end of the year in the non-irrigation season to supplement existing flows. Reclamation is also working on an agreement with the Ft Sumner Irrigation District (FSID) to provide enough water to create another 2,500 acre-foot Fish Conservation Pool in Lake Sumner. The additional water will bring the total volume to 3,500 acre-feet in 2008.

Bitter Lake National Wildlife Refuge (NWR) Restoration Project

In January 2007, Reclamation kicked off the first of five Bitter Lake Restoration meetings of the year. The group, consisting of Federal, State, and private stakeholders, including Reclamation, U.S. Fish and Wildlife Service (Service), and the NMISC, began organizing and planning the first of two major restoration projects under the 10-year BO. The first project is part of a larger plan to restore riparian habitats and instream flows along a 12 mile, 4-reach section of the Service's Bitter Lake NWR. Reclamation plans to restore 1.5 miles of abandon oxbow in Reach 4 at the bottom of the project area. The Service believes that restoring this oxbow will benefit the shiner's overall habitat, thus potentially improving their population status.

Interior Least Tern

The 10-year BO included coverage for the Interior Least Tern, which was discovered nesting in 2004 at Brantley Reservoir. Reclamation added more than 56 acres of created habitat to the 28 acres of existing habitat of 2004 for a total of +84 acres of nesting and brood-rearing habitat by 2007. The 56 acres were created in two-sections; the northern site of 44.7 acres and a southern site of 11.9 acres. Because of a combination of high water levels in Brantley Lake during spring and higher than average spring rainfall (which subsequently sustained the high lake levels) this southern site was made inaccessible to heavy equipment that would be needed to remove vegetative growth.

Life-sized Least Tern decoys were obtained (Mad River Decoy, Waitsfield, VT) for use as social attractants (Fancher 1984, Kotliar and Burger 1984, Burger 1988) in an attempt to establish a breeding colony outside of the Brantley Lake conservation pool (at or above 3256 feet elevation). Sixteen decoys were placed, in pairs, near the lake's shoreline in the middle created habitat site in early May 2007 and monitored throughout the spring and summer.

Only five terns were observed at Brantley Reservoir in May 2007. No behavior suggestive of courtship or breeding was observed between these two adult birds throughout the summer, suggesting that these birds were not paired. Reclamation biologists watched carefully throughout the 2007 season for nesting activity, but there were no nests observed during the season.

National Environmental Policy Act (NEPA) Activities

An EA on the 7-Rivers well pumping/pipe has been tiered off the Long Term Miscellaneous Purposes Environmental Impact Statement (EIS) and was completed with a signed Finding of No Significant Impact (FONSI) April 16, 2007. This project was funded by 2025 funding and the water is required to meet the Pecos Settlement Agreement, water for state line deliveries.

Three Environmental Assessments (EA) are being tiered off the Carlsbad Project Water Operations and Water Supply Conservation EIS: (1) the Pecos River Restoration at Bitter Lake National Wildlife Refuge EA (ISC/FWS agreed on depletions issue) to meet RPM #1 in the BiOp. Completion date for this project is 2009, (2) the Pecos River Supplemental Water EA to meet ESA requirements (see below) and (3) the Long-Term Lease of Groundwater Rights, Pecos River near Ft Sumner NM (Vaughan Pipeline) (25 year lease). The Long-Term Lease of Groundwater Rights draft EA was finalized July 25, 2007 (FONSI signed) without the Fish Conservation Pool (FCP) included. The ribbon cutting ceremonies were July 25, 2007 for the Vaughan Pipeline. The pipeline is scheduled to be on-line during the 2008 irrigation season.

Pecos River Channel Restoration at Bitter Lakes National Wildlife Refuge Environmental Assessment

Reclamation and NMISC are currently conducting other projects and NEPA actions in the Pecos River basin. Relevant activities include river restoration at Bitter Lake Wildlife Refuge to create

fish habitat for the Pecos bluntnose shiner. Both Reclamation and ISC are parties to a Settlement Agreement, dated March 25, 2003 which among other things provides for ISC to use Carlsbad Project Water for state line deliveries to meet its Pecos River Compact deliveries.

The project is needed to comply with the 2006-2016 Biological Opinion for the Carlsbad Project Water Operations and Water Supply Conservation Environmental Impact Statement (EIS), June 2006. The Biological Opinion and EIS commit Reclamation to operate the Carlsbad Project with a target flow of 35 cubic feet per second (cfs) at the Taiban Gage and to keep the river continuous in order to conserve the federally protected Pecos bluntnose shiner. The purpose of the project is to provide adequate water to keep the river continuous, meet the contracted irrigation needs of the Carlsbad Project, avoid hindering New Mexico delivery requirements to Texas, and to establish partnerships in the basin.

Pecos Supplemental Water Environmental Assessment (EA)

The Bureau of Reclamation is proposing to obtain supplemental water to provide the operational ability to release approximately 2,500 acre-feet of water out of Sumner Lake per year to keep the river continuous, while also ensuring that there is enough water at Brantley Reservoir to meet the contracted irrigation needs of the Carlsbad Project.

FSID is currently considering a 10-year lease (with renewal option) agreement with Reclamation. Under the agreement FSID would lease up to 2500 af of its diversion right that is not required for FSID use. Reclamation will establish a 2500 af FCP in Santa Rosa and/or Sumner reservoir. There will be no minimum annual requirement for the district, but 25,000 af must be delivered to Reclamation (over the 10-year period), with the option for renewal until the full amount is delivered.

Reclamation will transfer title of any Ft Sumner Project facilities (diversion dam) held by the US to the district and relieve the remaining payment obligation under current contract subject to congressional authorization. FSID will not divert any water Reclamation releases for preservation of the Pecos bluntnose shiner and will pursue ESA Section 10 consultation with the FWS for their activities on the Pecos.

Any water provided by the district to Reclamation under the contract and not release by February 15 (CID still negotiating) of the subsequent year will be treated as Carlsbad Project water and made available for block release.

Scoping was done in Carlsbad 11/15 and in Ft Sumner 11/16. A draft EA will be available early 2008, with a final expected spring 2008.

The government to government letters, interested parties letter and the cooperating agency letters are all out and completed. ISC, FSIC, PVACD, and NMDGF all signed on as cooperating agencies. A second scoping letter was mailed November 13, 2007 to update interested parties.

Pecos River Basin Water Salvage Project

Under the authority of Public Law 88-594, Reclamation continues to control salt cedar growth from the Sumner Dam area to the New Mexico-Texas state line. This excludes the area between the Artesia bridge and north boundary of Reclamation's Brantley lands. Reclamation contracts with the Carlsbad District to perform the mechanical removal work. Salt cedar removal is primarily accomplished utilizing rubber-tire tractors with root plows, and caterpillars with a rake attachments.

Pecos River lands cleared in New Mexico total approximately 33,200 acres. Federal lands in the program make up about 36 percent of the cleared areas, and private lands make up about 64 percent.

The original authorizing legislation allowed clearing for approximately 58,000 acres, but was reduced as a result of litigation brought by the Audubon Society, and the completion of an EIS in 1979. Fiscal Year 2007 expenditures for maintaining the cleared areas of salt cedar was \$287,720, or \$8.66 per acre. The NMISC funded \$150,000.00 of these costs.

NMISC continues to fund Reclamation's involvement in obtaining annual cooperative agency agreements from private landowners for the Pecos River Basin Water Salvage Program.

Although the program did not achieve the original acreage intended, the Water Salvage Project is, to date, the largest and most successful effort to control the growth of salt cedar in the Pecos Valley.

Carlsbad Project Vegetation Management Program

The United States Department of the Interior, Bureau of Reclamation completed a five-year programmatic environmental assessment/biological assessment (EA/BA) for the purpose of performing research and demonstration using integrated methods (herbicides, biological and mechanical) on saltcedar to determine effective methods of control and rehabilitation while monitoring). Saltcedar is considered a noxious species whose impacts to water resources in New Mexico are detrimental. It transpires large amounts of water in comparison to native vegetation. The proposed work would involve lands within the Carlsbad Project area which include Brantley and Avalon Reservoirs. Proposed work would be located on Reclamation lands within the Carlsbad Project area, called the Research Project area.

Reclamation has participated in the experimental release of beetles for saltcedar control in the Pecos Basin. Release of beetles (*Diorhabda elongate*) began in 2004. Mortality among the released beetles has been high, with only 5 beetles surviving from 2006 into 2007. In 2007, an additional 300 beetles were released at two sites (site A and site B) in the same area as the 2006 release. Two weeks after the release, no adult beetles or egg masses were found at either site, and little if any leaf defoliation was detectable. A different type of beetle may be released in 2008.

Reclamation, along with other state, federal, and county agencies, meet every six months to

review and update on-going research and demonstration projects within the Carlsbad Project area. Our recent meeting was September 25 and 26th, 2007, 830am-3pm at the SWCD in Carlsbad. Next meeting is scheduled for April 2 and 3, 2008 at 8:30-3pm in Roswell at the Bitter Lakes National Wildlife Refuge Office.

Fort Sumner Project

Crop Production

As reported by Fort Sumner Irrigation District (FSID), crops grown in 2007 were alfalfa hay, other hay, irrigated pasture, melons, pecans, and nursery. A total of 6,901 irrigable acres were irrigated in 2007. Total gross crop related income of \$6,768,748 was reported on FSID's crop and water data for an average crop value of \$980.84 per irrigated acre. Of the total water diverted, 31,132 af were delivered to irrigated lands for a total of 4.5 af delivered per irrigated acre.

Operations

The irrigation season for Ft. Sumner District typically begins March 1st and ends October 31st. The Ft. Sumner District is also allowed to divert for two, eight-day periods during the winter. This winter right is usually taken just prior to March 1st. During irrigation season, 80 to 100 cfs is usually bypassed through Sumner Reservoir depending on Ft. Sumner District's available water right. For 2007, Ft. Sumner District began calling for water on February 15 and discontinued irrigating on October 31. In 2007, Ft. Sumner District's allotment ranged from 70 to 100 cfs. A total of approximately 39,273 af were diverted into the Ft. Sumner District Main Canal as recorded at the USGS Fort Sumner Main Canal Near Fort Sumner, NM gage. This total includes Reclamation's ESA related bypasses and Fish Conservation Pool releases which were diverted at Fort Sumner Diversion Dam and returned to the river at the Ft. Sumner District's Sandgate wasteway. A graph of Ft. Sumner District's diversions is shown in Figure 6 *2007 Fort Sumner Irrigation District Main Canal Diversions*.

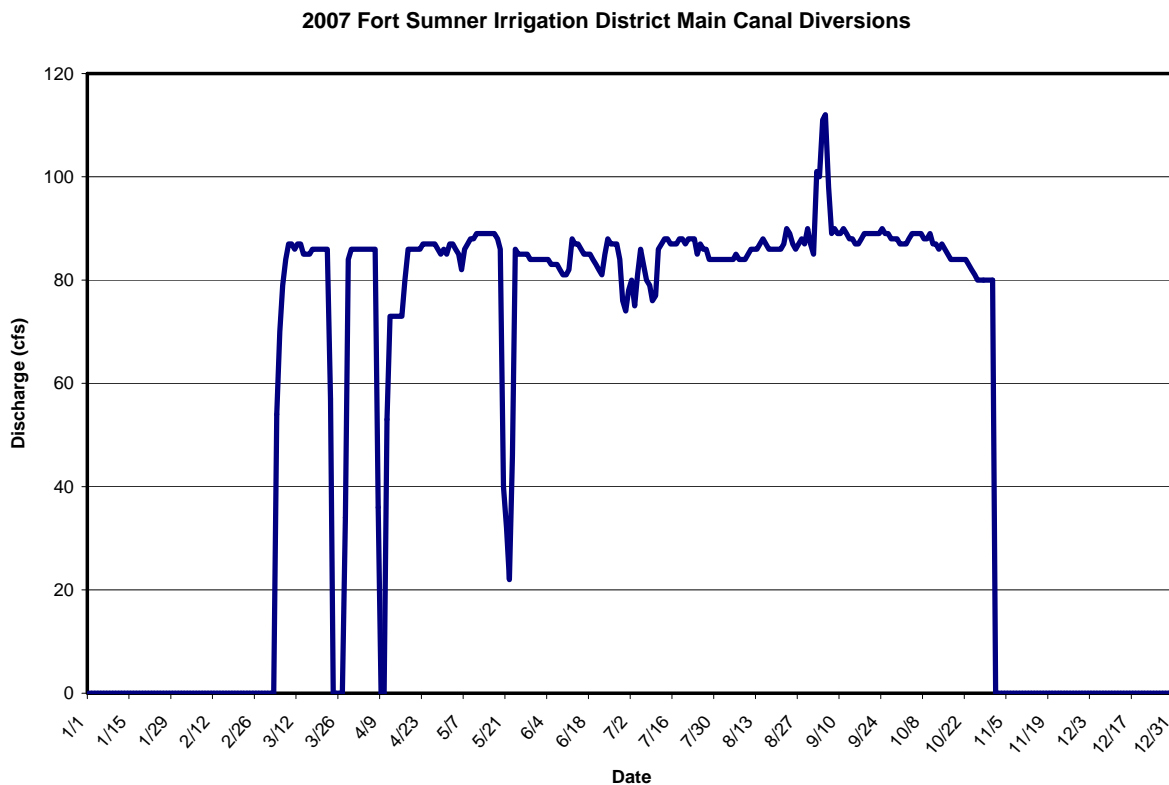


Figure 6. Fort Sumner Irrigation District 2007 diversions (discharge downloaded from USGS web site on 03/11/2008).

Reclamation signed an agreement with the Ft. Sumner District to fallow land within the Ft. Sumner District and then returns the water to the Pecos River at the Sandgate wasteway. This lease agreement expired on August 15, 2007. The goal of this leasing and fallowing program was to increase the flows in the upper critical habitat to benefit endangered species on the Pecos. The water returned to the Pecos River is calculated based on the amount of land retired and the amount of water diverted into the Main Canal.

The retired acreage was 750 acres from August 16, 2005 through August 15, 2006, and 509 acres from August 16, 2006 through August 17, 2007. A total of 3,476 af were bypassed by the Ft. Sumner District into the Pecos River through the Sand Gate Diversion as reported on the USGS web site.

Fort Sumner Irrigation District Review of Operation and Maintenance Program

The Albuquerque Area Office of the Bureau of Reclamation decided to change the Review of Operation and Maintenance (RO&M) examination of the Fort Sumner Irrigation Project from every 3 years to every 6 years. The next RO&M examination is scheduled for October 2009.

Other Pecos River Activities and Operations

Reclamation's Water Offset Program

Reclamation leases water rights from willing sellers within the Pecos River Basin to offset the additional depletions caused by Endangered Species Act related operations. During 2007, Reclamation had agreements with seven Pecos River pumpers, one of whom is also a Hagerman Irrigation Company irrigator, to lease 3,774.18 surface water rights and 507 acre-feet of Hagerman Canal water rights. The land associated with the leased water was fallowed. The Hagerman Canal water was pumped directly into the Pecos River.

Reclamation entered into a lease agreement with the NM Interstate Stream Commission for 1,800 acre-feet of artesian well water to be pumped into the Pecos River annually. Deliveries to the river are expected to commence in 2008. Another lease for 900 acre-feet of artesian well remains in place. This water is also pumped into the Pecos River.

Draft calculations produced using the new Pecos Annual Accounting Method, developed jointly by the NMISC and Reclamation, indicate that Reclamation's Carlsbad Project Water Acquisition (CPWA or offset) program put more water into the Pecos River than the additional depletions incurred by the modified operations of Sumner Dam for the period from November 1, 2006, through October 31, 2007 (the 2007 water year). For the 2007 water year, Reclamation bypassed 4,584 acre-feet of water through Sumner Dam creating 667 acre-feet of additional depletions. CPWA amounts of 2,443 acre-feet per year were provided at Brantley Reservoir to eliminate these additional depletions, resulting in an estimated credit of 1,776 acre-feet to the Carlsbad Project for the 2007 water year.

Reclamation and the NMISC have developed and are close to signing an agreement for offsetting depletions the Carlsbad Project causes as a result of bypass operations for the bluntnose shiner.

Carlsbad Irrigation District Water Lease Program

Reclamation and the Carlsbad Irrigation District entered into a 40-year contract on November 21, 2006, which provides for the use of Carlsbad Project water for purposes other than irrigation. This contract provides for the Interstate Stream Commission and the Carlsbad Irrigation District to enter into third-party lease agreements for the purposes of leasing water from other district water users. It also provides for the Interstate Stream Commission to use water appurtenant to lands it owns within the district for purposes other than irrigation. Such leases must be approved by Reclamation. No third-party agreements have been executed and approved to date. No water was leased during 2007.

Water Release and Repayment Agreement for State Line Delivery

The release for the repayment agreement occurred from November 1 to November 12, and was 8,954 af for 2007.

Lower Pecos River Basin Committee (Ad Hoc Pecos River Basin Committee)

The Lower Pecos River Basin Committee is a group originally convened as an ad hoc committee by NMISC in August 2001 to develop a consensus plan for continuing to meet New Mexico's Compact obligations. The committee's focus is implementation of the consensus plan and other actions to continue New Mexico's compliance with the Pecos River Compact. Reclamation did not participate in any meetings in 2007.

Pecos River Basin General Stream Adjudication

[State of New Mexico, ex rel. the Office of the State Engineer and Pecos Valley Artesian Conservancy District v. L. T. Lewis, et al. and the United States of America, Case Nos. 20294 and 22600 (Consolidated)].

The Pecos River General Stream Adjudication (State Engineer v. L.T. Lewis) is ongoing in the 5th Judicial District Court in Chaves County, New Mexico. Reclamation and the U. S. Department of Justice are involved in this case by virtue of the U. S. interest in the water rights for the Carlsbad Project.

In authorizing funding to implement the ad hoc committee's consensus plan, the New Mexico legislature required that there be a settlement of the Carlsbad Project's surface water claims (H.B. 417, NMSA 72-1-2.4). The Carlsbad Irrigation District, Pecos Valley Artesian Conservancy District, the State of New Mexico, and the United States reached a settlement agreement in March, 2003. Key settlement terms are in accordance with the consensus plan and H.B. 417. They include NMISC purchase of land and water rights, augmentation of the flow of the Pecos River by pumping groundwater to the river, and provisions for management of supplemental well pumping within Carlsbad District. The settlement also includes operating rules governing the use of water allotted to Carlsbad District lands purchased by the NMISC. Depending on stateline delivery status and the water supply available to Carlsbad District, NMISC allotments may be delivered to the state line or re-allotted to Carlsbad District irrigators. Under the settlement the United States and Carlsbad District have agreed to refrain from making a priority call unless the supply available to Carlsbad District drops below 50,000 af. The settlement agreement addresses only the rights of the United States and Carlsbad District. Adjudication of individual Carlsbad District members' rights is continuing.

The settlement parties have agreed to an extension of the interim period to allow all conditions precedent necessary for fully implementing the settlement to be met. The conditions precedent

in the settlement agreement include minimum levels of land and water right purchases by NMISC, a minimum capacity for augmentation well pumping to be in place, and completion of environmental compliance requirements.

Reclamation and the NMISC completed an Environmental Impact Statement in August, 2006 clearing the way for a long term “Miscellaneous Purposes Contract” which is required to allow Carlsbad Project Water to be released for delivery to the state line. This contract is now in place.

Endangered Species Act Related Litigation

The Forest Guardians filed a Notice of Intent (NOI) to Sue on August 21, 2007 citing many numerous, alleged violations of the Endangered Species Act. On September 19, 2007, Reclamation responded to the Forest Guardians detailing its compliance to the 10-year BiOp and its many additional efforts to keep the Pecos River whole. There has been no response from the Forest Guardians. In January 2008, the Forest Guardians announced it was merging with Sinapu, a Boulder nonprofit group that works to protect and restore large carnivores in the southern Rockies. The new group is now called WildEarth Guardians.

Water 2025

The Department of the Interior’s Water 2025 initiative assists communities and irrigation districts in the western United States with funding to meet critical water related needs. The Department is seeking to collaborate with local interests on projects that will help reduce the potential for water related conflicts. Through the Water 2025 program Reclamation has awarded challenge grants for up to 50 percent of the cost of projects to improve conservation, efficiency, and opportunities for development of water markets.

The NMISC received Water 2025 grants for two projects on the Pecos River. One grant helped fund improvements to the Red Bluff Gage (completed in July, 2006) and a grant of \$930,600 was awarded for pipelines in the Seven Rivers area that will be used to deliver augmentation water to Brantley Reservoir, as required under the Pecos River settlement agreement, will be completed by March 2008.

Emergency Drought Relief Program

Under the Emergency Drought Relief Program, Reclamation completed new municipal water supply wells for Ruidoso Downs, NM, Ruidoso, NM, and Las Vegas, NM. Additional well projects for Carlsbad, NM and Hagerman, NM have been approved. Work is expected to begin during the Spring of 2008.