



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER



WATER MASTER REPORT
PECOS VALLEY SURFACE WATER DISTRICT

2015

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WATER MASTER

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INTRODUCTION

The Pecos Valley Surface Water District was declared by Order of the State Engineer on July 1, 1952. On January 20, 1956, the State Engineer issued an Order extending the District and on May 11, 1959, and June 4, 1963, orders were issued reducing the District, for economical and satisfactory operation, to its present boundaries. The District now includes the Pecos River and most of the tributaries from a line south of Santa Rosa dividing Sections 19 and 30 in Township 8 North, Range 22 East, N.M.P.M., south to the New Mexico – Texas state line.

The waters of the District are administered in conformance with specific State Engineer Findings and Order's, permits and licenses, and adjudications by the courts, including the following:

United States v. Hope Community Ditch et al., No. 712 Equity, United States District Court for the District of New Mexico (1933).

Livingston v. Neeson et al., No. 5144, Fifth Judicial District in and for Eddy County, New Mexico (1931).

United States v. Harkey et al., No. 1610 Equity, United States District Court for the District of New Mexico.

Harkey v. Parkhurst et al., No. 3258, District Court for Eddy County, New Mexico (1920).

United States v. Judkins et al., No. 112, Fifth Judicial District for the Territory of New Mexico (1912).

State of New Mexico v. L.T. Lewis, et al., Chaves County Cause Nos. 20294 and 22600 Consolidated, Partial Final Decree, Pecos River Pump Section (1992).

State Engineer Findings and Order: June 10, 1964, September 22, 1972, and approved amendment January 8, 1982.

March 17, 1980 – “Determination of Ft. Sumner Irrigation District Direct Flow Right with the Los Esteros Project in Operation.”

The waters within the District are administered by the Water Master who is appointed by the State Engineer in accordance with New Mexico Statutes Annotated, Chapter 72, Article 3, Section 3. This appointment is subsequently confirmed by order of the District Court. The Pecos River Water Master maintains offices in the District II Office of the State Engineer at 1900 West Second Street in Roswell.

GENERAL

Robert C. Turner served as Pecos River Water Master from June 1, 1990 until his retirement on May 29, 2015. He also served as Secretary Computer from 2010 until his retirement. On May 30, 2015 Timothy B. Williams assumed the duties of Pecos River Water Master and Secretary Computer and was hired as Pecos River Water Master on November 7, 2015.

The operation of the Pecos Valley Surface Water District, PVSWD, is financed by assessment of the water users in the District (in accordance with New Mexico Statute 72-3-4), which includes four counties: Chaves, De Baca, Eddy and Guadalupe. The rate of assessment is determined by dividing the total approved budget for the next fiscal year by the total acre feet of water diverted in the past calendar year. Each user is then assessed his proportionate share based on the quantity of water diverted.

The field work of the Water Master consists generally of apportioning water among the users, servicing automatic water-stage recorders, making discharge measurements, and making field inspections for water use, supply and unauthorized diversions and waste.

Office work consists of computing and checking current meter measurement notes and discharge records; computing, tabulating and distributing records of drain water supply and use; computing and compiling assessment rolls; compiling reports, operating budgets; routine correspondence, and conferences with water users. Activities of the Water Master are reported to the State Engineer at the end of each irrigation season (January 1 through December 31) in accordance with New Mexico Statutes 72-3-5.

Personnel of the District II Office of the State Engineer assisted in servicing water-stage recorders, reading meters, making discharge measurements, and conducting various field investigations. Special thanks to Eric Boyda from District II for their assistance.

Personnel of the Water Resources Branch of the United States Geological Survey were most cooperative, especially U.S.G.S. personnel within the Carlsbad, Albuquerque and Las Cruces offices. They furnished equipment, records, and technical information, which were of great value in the administration of public surface water within the PVSWD. The Carlsbad Irrigation District and the Ft. Sumner Irrigation District extended full cooperation to the Water Master.

PRIVATE DRAIN WATER

Private drain water comes under the Water Master's jurisdiction as the river is used as a carrier. All drain water diverted is metered and recorded. The flow available for use is considered to be the flow of the drain at any time, less ten percent loss in transit. With the exception of one drain line, those remaining have either been purchased along with public surface water rights, or are no longer operational.

In 2015, 2,042 acre-feet of measured private drain water were contributed to the Pecos River, with 327 acre feet of this being diverted. In 2014, 2,043 acre-feet of measured private water were contributed with 534 acre-feet being diverted.

MEETINGS AND OTHER ACTIVITIES

In 2015, numerous meetings were held with water users in the field to discuss and share operational information. Discussions dealt with access problems, water usage, stream gauging techniques, recorder and flume operation and general ditch, flume and recorder maintenance. During the irrigation season, weekly conference calls were attended concerning operations on the Pecos River. Participants represented numerous state and federal agencies including the NM Interstate Stream Commission, NM Office of the State Engineer, Carlsbad Irrigation District, Fort Sumner Irrigation District, US Bureau of Reclamation, US Army Corps of Engineers, US Fish and Wildlife Service, NM State Parks, NM Department of Game and Fish, and the US Geological Society.

SUPPLY AND STORAGE

Data on daily gage heights, contents of reservoirs and flow of the Pecos River at various points are collected and tabulated by the United States Geological Survey, Water Resources Branch, in cooperation with the New Mexico State Engineer and other state, local and federal agencies. These data are published annually.

Santa Rosa Dam has regulated the flows at the USGS Pecos River near Puerto de Luna gage (08383500) since April 1980. The recorded stream-flow for 2015 was 108,300 acre-feet, or 77 percent of average for the period of record, the average annual runoff for the current 20-year period is 118,818 acre feet. Peak flow for 2015 was 2,760 c.f.s. and occurred on July 30, 2015.

The Rio Hondo at Roswell gage was closed permanently on May 18, 1997. The U.S.G.S. opened the Rio Hondo near Roswell gage, located east of Roswell. The recorded runoff in the lower part of the Hondo River water shed, a major tributary of the Pecos River, was 4,450 acre feet in 2015. The USGS gage at Rio Hondo near Roswell (08393610) recorded the maximum daily flow of 272 c.f.s. on September 22, 2015.

2015 stream flow in the lower Pecos River Basin (in New Mexico) as recorded at the USGS Pecos River near Artesia gage (08396500) was 116,900 acre feet or 75 percent of average for the period of record, the average annual runoff for the current 20-year period is which is 113,022 acre-feet. Peak flow for 2015 at the Artesia gage was 1,270 c.f.s. and occurred on October 22, 2015.

The quantities measured at the Artesia gage include releases from Sumner Reservoir made by the Carlsbad Irrigation District. Water released from Sumner Lake is summarized in Table 1 following herewith. This information was provided by Mike Cantrell, Sumner Lake Dam tender.

Below Carlsbad, flow at the USGS Black River above Malaga gage (08405500) in 2015 was 8,790 acre-feet or 99 percent of average for the period of record, the average annual runoff for the current 20-year period is 7,245 acre feet. The peak flow was 33 c.f.s. on Oct. 21, 2015. The Carlsbad Irrigation District received the total of their decreed right of 2,800 acre-feet on July 25, 2015.

The 2015 flow of the Pecos River from Carlsbad to the Texas state line, as measured at the USGS Pecos River at Red Bluff gage (08407500), was 101,858 acre feet or 99 percent of average for the period of record, the average annual runoff for the current 20-year period is 67,379 acre-feet. The peak flow of 599 c.f.s. occurred on Sept 25, 2015.

Summaries of reservoir content and stream flow during 2015 are shown in Tables 2 and 3 following herewith.

TABLE 1
SUMMARY OF WATER RELEASED FROM SUMNER LAKE – 2015
IN ACRE FEET

MONTH	SEEPAGE	OTHER	TO C.I.D.	TO F.S.I.D.	FCP BYPASS	BYPASS	TOTAL
JANUARY	621.91	-0-	-0-	-0-	-0-	631.83	1253.74
FEBRUARY	-0-	-0-	-0-	785.53	-0-	639.69	1425.22
MARCH	58.82	225.23	-0-	3,558.63	-0-	-0-	3,842.68
APRIL	-0-	-0-	7,674.60	5,798.16	77.34	-0-	13,550.10
MAY	-0-	-0-	-0-	5,570.10	-0-	-0-	5,570.10
JUNE	-0-	-0-	18,804.81	5,966.23	-0-	817.87	25,588.91
JULY	-0-	225.26	-0-	6,018.73	-0-	-0-	6,243.99
AUGUST	-0-	18,860.55	-0-	6,022.42	-0-	-0-	24,882.97
SEPTEMBER	-0-	-0-	-0-	5,769.99	-0-	-0-	5,769.99
OCTOBER	-0-	-0-	4,823.56	5,681.87	-0-	-0-	10,505.43
NOVEMBER	466.60	-0-	-0-	-0-	-0-	-0-	466.60
DECEMBER	-0-	1,758.76	-0-	-0-	-0-	-0-	1,758.76
TOTAL	1147.33	21,069.80	31,302.97	45,171.66	77.34	2,089.39	100,858.49

TABLE 2
SUMMARY OF RESERVOIR CONTENT - 2015
CONTENT IN ACRE FEET

RESERVOIR	SPILLWAY CREST	12/31/14 STORAGE	2015 MAXIMUM	2015 MINIMUM	12/31/15 STORAGE
SANTA ROSA LAKE	438,400	69,240	108,400 June 21	69,120 Mar 17	96,960
LAKE SUMNER	94,750	42,020	49,210 March 11	28,290 Oct. 29	43,860
BRANTLEY LAKE	1,008,000	81,100	85,230 Mar 25	19,460 Oct. 2	43,620
LAKE AVALON	4,330	2,940	5,190 Aug 19-24	1,030 Nov 1	2,700
RED BLUFF	289,700	140,100	147,300 Mar 7	114,300 Aug 7	145,600

TABLE 3
SUMMARY OF STREAM FLOW – PECOS RIVER IN NEW MEXICO AT U.S.G.S. STATIONS – 2015

STATION NAME & NO.	PERIOD OF RECORD				2015		2014	
	YEARS OF RECORD	AVERAGE ANNUAL RUNOFF	CURRENT 20 YEARS	MEAN C.F.S.	ACRE FEET	MEAN C.F.S.	ACRE FEET	
NEAR PUERTO DE LUNA (08383500)(Sec 20, T6N, R23E)	77	139,974	118,818	150	108,300	168	121,600	
BELOW SUMNER DAM (08384500)(Sec 2, T4N, R24E)	79	130,476	110,124	139	100,700	167	120,600	
NEAR ACME(08386000) (Sec 14, T9S, R25E)	78	120,347	91,287	132	95,570	163	118,200	
NEAR ARTESIA (08396500)(Sec18,T17S,R27E)	79	156,570	113,022	162	117,300	230	104,100	
NEAR LAKEWOOD (Kaiser Channel) (08399500)(Sec5,T19S,R27E)	64	-----	-----	183	132,300	251	183,320	
BELOW BRANTLEY DAM (08401500)	27	107,949	99,981	210	151,800	137	99,540	
BELOW DARK CANYON AT CARLSBAD (08405200)(Sec 6, T22S, R27E)	46	41,085	35,501	95.7	69,300	94.0	68,060	
NEAR MALAGA (08406500)(Sec 19, T24S, R29E)	79	102,567	60,134	144	104,500	133	96,440	
AT RED BLUFF (08407500)(Sec 1, T26S, R28E)	78	101,868	65,930	140	101,100	66.7	146,600	

WATER DIVERSION

The waters of the Pecos Valley Surface Water District are administered in accordance with licenses and court decrees as set forth in the introduction of this report. In these licenses and decrees, the annual duties or diversion per irrigated acre, vary from 2.0 to 4.0 acre feet. By reaches, the various general annual duties set out in the decrees are 2.0 acre feet per acre from the Puerto de Luna area to Sumner Lake, 2.5 acre feet per acre from Sumner Lake to the mouth of Salt Creek; and 3.0 acre feet per acre (plus conveyance loss) from the mouth of Salt Creek to the Texas state line. Some individual rights in the reach below Carlsbad have decreed annual duties of 3.75 and 4.0 acre feet per acre.

At the end of the 2015 irrigation season there were 29 recording devices serviced by the Water Master in the Pecos Valley Surface Water District. Data from four U.S.G.S. stations are used to administer surface water rights within the PVSWD. Approximately 18 other recording stations are visited on a regular basis but not serviced. These are stations in which the water rights have been purchased or leased by the Interstate Stream Commission or the Bureau of Reclamation and were not irrigated in 2015. Other stations have had the power disconnected, or water for irrigation is no longer available in sufficient quantity to make pumping practical. No diversion of surface water was observed at those river and tributary diversion points in the District that were not equipped with recording devices.

The water users under the Puerto de Luna East Community Ditch below Santa Rosa, which divert from the Pecos River, diverted 3692.44 acre-feet in 2015. Water users under the Puerta de Luna West Community Ditch diverted 2,162.43 acre-feet of surface water from the Agua Negra in 2015.

The adjudicated Direct Flow Right of the Ft. Sumner Irrigation District during March 1 through October 31 is the first 100 c.f.s. normal flow occurring at both the above Santa Rosa Lake, NM gage and the near Puerta de Luna, NM gage. The average flow available during the entire irrigation season was 93.9 c.f.s. The Irrigation District also has a right to divert for two periods, not in the regular season and not to exceed eight days each, during the months of November through February. The District did not exercise this right in 2015.

The water users in that reach of the Pecos River from Roswell to Artesia (Middle River Pumpers) had 116,900 acre-feet pass by the USGS Pecos River near Artesia gage. This was 75 percent of average.

The Carlsbad Irrigation District diverted 61,600 acre-feet from the Pecos River in 2015, as compared with 60,110 acre-feet diverted in 2014 and 32,970 in 2013. Some of the water right acreage in this District also received water from individually owned supplemental wells, and the District has a decreed right of 2,800 acre-feet from Black River.

In 2015, a total of 127,122.93 acre-feet of public surface water was diverted under the jurisdiction of the Pecos River Water Master, of which 112,269.33 acre-feet was diverted for irrigation purposes, and 14,853.60 acre-feet was available for municipal and commercial purposes. The municipal and commercial use includes the water rights of the City of Carlsbad. In addition, 327.12 acre-feet of private water (Pecos River Drain Pool) and 10.25 acre-feet of supplemental ground water were diverted under the Water Master's jurisdiction.

The Red Bluff Water Power Control District, under Permit No. 3254, approved by the State Engineer on March 30, 1971, may divert Pecos River water in New Mexico for salinity alleviation of water entering Red Bluff reservoir and for industrial use in Texas.

This permit was approved subject to an agreement signed by the Pecos River Commissioners for Texas and New Mexico and with the understanding that water measured at the existing United States Geological Survey gage, "Pecos River at Red Bluff, New Mexico," which is upstream from the Red Bluff Water Power Control District diversion, shall be considered and accounted for as water delivered at the New Mexico-Texas state line, notwithstanding the fact that the water under Permit No. 3254 will be diverted upstream from the New Mexico-Texas state line. The Red Bluff Water Power Control District submitted the usage in acre-feet on a monthly basis which was 196.577 acre-feet in 2015.

A summation of water diverted within the District above Red Bluff gage during 2015 (Table 4) and a summation of annual water diverted, by various reaches, from 2011 through 2015 (Table 5) follows.

TABLE 4

**SUMMARY OF WATER DIVERTED - 2015
PECOS VALLEY SURFACE WATER DISTRICT**

<u>DIVERSION UNIT AND SOURCE</u>	<u>ACRES OF WATER RIGHT</u>		<u>ACRE FEET DIVERTED (a)</u>		<u>ACRE FEET/ACRE (b)</u>
	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>PUBLIC</u>	<u>PRIVATE</u>	
<u>PECOS RIVER ABOVE SUMNER DAM</u>					
EAST PUERTA DE LUNA DITCH	352.06		3,692.44		10.40
WEST PUERTA DE LUNA DITCH	247.30		2,162.43		8.74
SANCHEZ, ARSENIO	63.93		63.33		0.99
TOTAL	663.29		5,918.20		
<u>PECOS RIVER FROM SUMNER DAM TO THE MOUTH OF -SALT CREEK-</u>					
± FT. SUMNER IRRIGATION DISTRICT	6,500.00		36,080.00		5.55
ATKINS, BARRETT & BETTY	9.045		0.00		0.00
ATKINS, HARVEY & BARBARA	11.543		0.00		0.00
ATKINS, JACK & SANDRA	0.273		0.00		0.00
ROSWELL LIVESTOCK AUCTION SALES, INC.	10.00		0.00		0.00
TOTAL	6,530.86		36,080.00		
<u>PECOS RIVER FROM THE MOUTH OF SALT CREEK TO McMILLAN RESERVOIR</u>					
<u>-BERRENDO CREEK-</u>					
ATKINS, JACKIE (i)	13.50		0.00		0.00
BLACKWELL, E. CLYDE (i)	38.30		0.00		0.00
BROWNING, CHARLES (h, i)	74.52		0.00		0.00
GONZALES, STEVEN & MARLA (h, i)	52.54		0.00		0.00
JENNINGS, EMMITT M. (h, i)	188.00		0.00		0.00
TOTAL	366.86		0.00		0.00
<u>-RIO HONDO-</u>					
HAGERMAN CANAL CO. (c, e)	8,332.07		4,025.01		0.48
TOTAL	8,332.07		4,025.01		

**TABLE 4 – cont.
SUMMARY OF WATER DIVERTED - 2015
PECOS VALLEY SURFACE WATER DISTRICT**

<i>DIVERSION UNIT AND SOURCE</i>	<i>ACRES OF WATER RIGHT</i>		<i>ACRE FEET DIVERTED (a)</i>		<i>ACRE FEET/ACRE (b)</i>	
	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>WELL (h)</u>	<u>PUBLIC</u>
-PECOS RIVER-						
BARBE, MADELINE	80.00		0.00	0.00		0.00
CHASE FARMS (h)	15.00		0.00	0.00	0.00	0.00
GAME & FISH (BUREAU OF RECL) (e)	56.47		0.00	0.00		0.00
GOMEZ, GILBERT	174.00		0.00	0.00		0.00
*INTERSTATE STREAM COMM (CHOAT, ROY) (c, d)	405.00	54.40	0.00	0.00		0.00
*INTERSTATE STREAM COMM (c, d)	80.00		0.00	0.00		0.00
*INTERSTATE STREAM COMM (LAKE ARTHUR FARMS) (c, d)	303.30		0.00	0.00		0.00
*INTERSTATE STREAM COMM (ANGELL, LEWIS) (c, d)	280.30	155.30	0.00	0.00		0.00
*INTERSTATE STREAM COMM (BRAMBLETT, BUFFELO VALLEY & PARKER UPPER) (d, e)	270.00		0.00	0.00		0.00
*INTERSTATE STREAM COMM (GLOVER, KATHY) (c)	1405.30	255.30	0.00	0.00		0.00
*INTERSTATE STREAM COMM (LANGENEGGER, JIM) (c, d)	92.70		0.00	0.00		0.00
*INTERSTATE STREAM COMM (RHODES, M.L.) (c, d)	257.80		0.00	0.00		0.00
*INTERSTATE STREAM COMM (UTTERBACK, ROBERT) (c, d)	88.40	123.00	0.00	0.00		0.00
LANKFORD, ROYCE	224.70	40.00	0.00	0.00		0.00
LATHROP, COLIN & DIANA	217.60		0.00	0.00		0.00
MORRIS, BRAD	13.30		0.00	0.00		0.00
POLLARD, CECIL	130.00		0.00	0.00		0.00
RHODES, WANDA (c, d)	60.00		103.56	0.00		1.72
TOTAL	<u>29.40</u> 4,183.27	<u>114.95</u> 742.95	<u>25.11</u> 128.67	<u>327.12</u> 327.12	0.00	2.44

**TABLE 4 – cont.
SUMMARY OF WATER DIVERTED - 2015
PECOS VALLEY SURFACE WATER DISTRICT**

<u>DIVERSION UNIT AND SOURCE</u>	<u>ACRES OF WATER RIGHT</u>		<u>ACRE FEET DIVERTED (a)</u>		<u>ACRE FEET/ACRE (b)</u>
	<u>PUBLIC</u>	<u>PRIVATE</u>	<u>PUBLIC</u>	<u>PRIVATE</u>	
PECOS RIVER FROM BRANTLEY RESERVOIR TO TEXAS STATE LINE -IRRIGATION-					
CARLSBAD IRRIGATION DISTRICT (f)	25,055.00		61,600.00		2.46
BENSON ENTERPRISES, LLC	1.00		0.00		0.00
CITY OF CARLSBAD – GOLF COURSE – NORTH & SOUTH PUMPS	167.98		0.00		0.00
CONQUISTADOR COUNCIL	10.60		0.00		0.00
EDEAL, PATRICK, & CAROLE	1.00		0.00		0.00
*INTERSTATE STREAM COMM (McDONALD, CLARENCE)	473.00		0.00		0.00
SIBLEY, WILLIAM C.	97.10	SUPPLEMENTAL UNDERGROUND			.11
*INTERSTATE STREAM COMM (CITY OF CARLSBAD – HARROUN CANAL)					
TOTAL	<u>1,918.70</u>		<u>0.00</u>		<u>0.00</u>
	27,724.38		61,600.00	10.25	10.25

TABLE 4 – cont.
SUMMARY OF WATER DIVERTED - 2015
PECOS VALLEY SURFACE WATER DISTRICT

<i>DIVERSION UNIT AND SOURCE</i>	<i>ACRES OF WATER RIGHT</i>		<i>ACRE FEET DIVERTED (a)</i>		<i>ACRE FEET/ACRE (b)</i>	
	<i>PUBLIC</i>	<i>PRIVATE</i>	<i>PUBLIC</i>	<i>PRIVATE</i>		<i>WELL (h)</i>
-COMMERCIAL-						
CITY OF CARLSBAD – TANSIL DAM BATAAN REC. LAKE			14,480.00 <u>373.60</u> 14,853.60			
TOTAL						
-BLACK RIVER-						
BLUE SPRINGS RANCH CARLSBAD IRRIGATION DIST. (g) LORENTZEN, JOHN & DENA & SAVAGE, MARK S. *INTERSTATE STREAM COMM WILLOW LAKE (STORAGE & IRRIGATION)	1,076.20 13.34 6.70 <u>573.71</u>		1,617.45 2,900.00 0.00 0.00 <u>0.00</u> 4,517.45		1.50 0.00 0.00	
TOTAL						
IRRIGATION TOTAL			112,269.33	327.12	10.25	
COMMERCIAL TOTAL		742.95	14,853.60	327.12	10.25	
GRAND TOTAL			127,122.93	327.12	10.25	

EXPLANATIONS

- a. Quantities diverted are inclusive of permitted carriage losses. In some cases, as at Puerto de Luna, quantities diverted include water returned, but not measured, to the river.
 - b. Water per acre does not reflect private water used.
 - c. Private water also used to supplement river right.
 - d. Pecos River Pumpers Association Drain Pool members; acreage irrigated is included in both public and claimed private-right figures.
 - e. Part of these rights, totaling 522.70 acres in addition to the 8,322.07 under the Hagerman Canal are combined with decreed groundwater rights and are duplicated in the Roswell Basin Water Master's records.
 - f. The acre feet/acre figure includes both Pecos River and Black River diversions.
 - g. Acreage under this right is part of the 25,055 acres of the C.I.D. shown as irrigated from Pecos River.
 - h. Well water is supplemented to surface right and figures are duplicated in the Roswell Basin Water Master's records.
 - i. These surface waters are no longer diverted due to insufficient quantities of water, but are supplemented by underground water. The supplemental underground water usage is reflected in the R.A. Basin Water Master's records.
- * All water rights appurtenant to these lands have been purchased by the ISC and no further diversions to them will be made.

TABLE 5
SUMMATION OF ANNUAL WATER DIVERTED
PECOS VALLEY SURFACE WATER DISTRICT
YEAR OF DIVERSION

AREA OF DIVERSION	ACRES (1)	2011	2012	2013	2014	2015	5 YEAR AVERAGE
ABOVE SUMNER LAKE (2)	663	7,418	9,133	6,439	6,280	5,918	7,038
FT. SUMNER IRRIGATION DIST.	6,500	36,510	36,560	34,560	37,140	36,080	36,170
SUMNER LAKE TO ACME	36	-0-	-0-	-0-	-0-	-0-	-0-
ACME TO AVALON (3)	367	-0-	-0-	-0-	-0-	-0-	-0-
BERRENDO CREEK (5)	8,332	4,485	3,530	1,178	2,272	4,025	3,098
RIO HONDO (4)	4,183	175	151	260	126	129	168
PECOS RIVER (6)							
CARLSBAD IRRIGATION DIST.	25,055	46,720	29,710	32,970	60,110	61,600	46,220
AVALON TO STATE LINE							
PECOS RIVER (7)	2,669	8,612	7,723	9,187	13,680	13,680	10,576
BLACK RIVER	1,670	4,496	5,042	5,133	4,893	4,517	4816
TOTALS	49,475	108,416	91,849	89,727	124,501	125,949	108,088

SUMMARY

Stream flow from Sumner Lake in the lower reach of the Pecos River basin, as measured at the gaging station near Artesia, was 103 percent of the current 20-year average. Combined storage in the four major irrigation storage reservoirs in the District (Santa Rosa which began storage April 21, 1980, Lake Brantley which began storage August 30, 1988, Sumner, and Avalon) was 12.6 percent on December 31, 2014, and 12.1 percent of total storage capacity on December 31, 2015.

Water users under the Puerta de Luna East Community Ditch diverted 3,692.44 acre-feet of water from the Pecos River and the Puerta de Luna West Community Ditch users diverted 2,162.43 acre feet from the Agua Negra in 2015. The Ft. Sumner Irrigation District diverted 36,080 acre-feet, and users in the reach from Ft. Sumner to Artesia had a 75 percent of average supply. Other users in the reach from Brantley Lake to the Texas state line had a 99 percent of average supply of water for irrigation, municipal, and commercial purposes.

The flow in Black River south of Carlsbad was 8,790 acre-feet or 99 percent of average. The Carlsbad Irrigation District did receive the total of their decreed right from Black River on July 25, 2015. No diversion of water to Willow Lake was observed in 2015. The Interstate Stream Commission purchased the Willow Lake water rights on October 26, 2001.

Continued surveillance was maintained of surface water use throughout the District.

**PECOS VALLEY WATER MASTER
EXPENDITURES FOR CALENDAR YEAR 2015
JANUARY – DECEMBER 2015**

	JANUARY – JUNE 2015	JULY – DECEMBER 2015	TOTAL
SALARIES/BENEFITS	40,505.50	12,717.08	53,222.58
TRAVEL/TRAINING	0.00	0.00	0.00
VEHICLE LEASES/GASOLINE	4,087.92	4,233.67	8,321.59
SUPPLIES-OFFICE/FILED/INV EXEMPT	1,345.47	30.60	1,376.07
POSTAGE & MAIL/PRINTING	1,000.00	0.00	1,000.00
RENT	2,213.41	2,687.70	4,901.11
TELECOMMUNICATIONS	79.59	73.11	152.70
DATA PROCESSING EQUIPMENT	0.00	0.00	0.00
MAINTENANCE	393.60	0.00	393.60
TOTAL EXPENDITURES	49,625.49	19,742.16	69,367.65

STATION: 08385000 **FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM** TYPE: CANAL
 AGENCY: USGS STATE: 35 COUNTY: 011 LATITUDE: 343029.8 LONGITUDE: 1041642.1 NAD83
 DRAINAGE AREA: CONTRIBUTING DRAINAGE AREA: DATUM: 4034.70 NGVD29
 DATE PROCESSED: 2016-04-11 10:01 - By jcordova
 Lowest aging status in period is APPROVED
 DD #1 Discharge, cubic feet per second

CALENDAR YEAR JANUARY TO DECEMBER 2015												
DAILY MEAN VALUES												
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	81	92	0	96	0	91	87	0	0
2	0	0	0	81	90	31	95	0	92	88	0	0
3	0	0	0	80	88	99	94	0	92	87	0	0
4	0	0	0	83	82	99	99	1.6	92	88	0	0
5	0	0	0	83	85	100	99	0	92	88	0	0
6	0	0	0	83	85	98	99	80	92	88	0	0
7	0	0	0	90	81	98	99	111	92	31	0	0
8	0	0	0	92	83	97	99	108	95	0	0	0
9	0	0	0	92	82	97	99	104	96	0	0	0
10	0	0	0	89	79	97	99	104	95	0	0	0
11	0	0	0	89	77	96	98	90	94	0	0	0
12	0	0	34	91	75	95	95	89	94	0	0	0
13	0	0	70	91	81	96	94	89	e94	71	0	0
14	0	0	71	91	79	93	99	89	e94	89	0	0
15	0	0	71	91	77	92	99	89	e94	87	0	0
16	0	0	80	91	82	91	98	89	e94	87	0	0
17	0	0	87	91	77	90	98	89	94	87	0	0
18	0	0	84	91	75	88	98	89	94	86	0	0
19	0	0	82	91	90	86	98	89	94	87	0	0
20	0	0	82	90	85	83	101	86	94	88	0	0
21	0	0	81	90	17	95	100	82	92	60	0	0
22	0	0	81	90	0	94	91	83	87	0	0	0
23	0	0	82	90	0	103	96	84	87	0	0	0
24	0	0	82	90	0	103	95	84	87	0	0	0
25	0	0	82	91	0	95	95	e84	87	0	0	0
26	0	0	82	81	0	97	95	84	77	0	0	0
27	0	0	82	100	0	95	95	84	87	35	0	0
28	0	0	81	103	0	91	95	84	87	51	0	0
29	0	0	81	99	0	89	e95	85	87	72	0	0
30	0	----	81	93	0	93	e95	84	87	86	0	0
31	0	----	81	----	0	----	41	82	----	59	----	0
TOTAL	0	0	1557	2688	1662	2681	2949	2317	2734	1602	0.00	0
MEAN	0	0	50.2	89.6	53.6	89.4	95.1	74.7	91.1	51.7	0.00	0
MAX	0	0	87	103	92	103	101	111	96	89	0.00	0
MIN	0	0	0	80	0	0	41	0	77	0	0.00	0
AC-FT	0	0	3090	5330	3300	5320	5850	4590	5420	3180	00	0
CAL YR 2015 TOTAL 18189.60 MEAN 49.8 MAX 111 MIN 0.00 AC-FT 36,080												
U.S. DEPARTMENT OF THE INTERIOR – U.S. GEOLOGICAL SURVEY – WATER RESOURCES												

STATION: 8403500 **CARLSBAD MAIN CANAL AT HEAD NEAR CARLSBAD, NM** TYPE: CANAL
 AGENCY: USGS STATE: 35 COUNTY: 015 LATITUDE: 322925.42 LONGITUDE: 1041509.82 NAD83 DRAINAGE
 AREA: CONTRIBUTING DRAINAGE AREA: DATUM: 3156.50 NGVD29
 DATE PROCESSED: 2016-04-11 10:01 - By jcordova
 Lowest aging status in period is APPROVED
 DD #1 Discharge, cubic feet per second

CALENDAR YEAR JANUARY TO DECEMBER 2015												
DAILY MEAN VALUES												
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	0	0	330	169	122	135	114	169	0.54	0	0
2	0	0	0	319	181	121	109	154	210	137	0	0
3	0	0	0	277	198	122	118	167	201	136	0	0
4	0	0	0	221	157	141	110	143	190	142	0	0
5	0	0	0	185	133	174	119	149	185	83	0	0
6	0	0	0	159	106	186	134	200	157	72	0	0
7	0	0	0	169	87	200	156	190	166	61	0	0
8	0	0	0	147	80	228	172	193	137	14	0	0
9	0	0	0	150	90	226	142	173	100	0	0	0
10	0	0	0	165	113	248	134	162	90	0	0	0
11	0	0	0	182	114	272	136	201	152	0	0	0
12	0	0	0	181	112	276	103	176	168	0	0	0
13	0	0	0	229	106	258	107	206	76	0	0	0
14	0	0	0	186	20	233	132	172	88	0	0	0
15	0	0	0	196	0.04	196	146	155	162	71	0	0
16	0	0	0	206	0	207	133	151	142	121	0	0
17	0	0	0	159	0	225	100	182	161	155	0	0
18	0	0	0	146	0	201	107	222	163	155	0	0
19	0	0	0	152	0	209	111	229	184	149	0	0
20	0	0	0	156	69	191	112	131	92	171	0	0
21	0	0	0	146	109	128	142	109	15	127	0	0
22	0	0	0	134	93	124	210	164	29	44	0	0
23	0	0	0	163	81	164	209	181	81	64	0	0
24	0	0	66	192	80	179	174	159	68	79	0	0
25	0	0	162	196	95	197	160	143	0	79	0	0
26	0	0	171	194	123	196	141	119	0	78	0	0
27	0	0	198	157	135	228	186	179	0	84	0	0
28	0	0	189	174	107	226	177	210	0	74	0	0
29	0	0	204	153	100	221	e150	182	0	92	0	0
30	0	----	251	142	129	229	e125	182	0.54	109	0	0
31	0	----	289	----	129	----	112	169	----	64	----	0
TOTAL	0	0	1530	5566	2916	5928	4302	5267	3187	2362	0	0
MEAN	0	0	49.4	186	94.1	198	139	170	106	76.2	0	0
MAX	0	0	289	330	198	276	210	229	210	171	0	0
MIN	0	0	0	134	0	121	100	109	0	0	0	0
AC-FT	0	0	3030	11040	5780	11760	8530	10450	6320	4680	0	0
CAL YR 2015 TOTAL 31057.12 MEAN 85.1 MAX 330 MIN 0.00 AC-FT 61,600												
U.S. DEPARTMENT OF THE INTERIOR – U.S. GEOLOGICAL SURVEY – WATER RESOURCES												

STATION: 08405200 **PECOS RIVER BELOW DARK CANYON AT CARLSBAD, NM** TYPE: STREAM
 AGENCY: USGS STATE: 35 COUNTY: 011 LATITUDE: 322433.39 LONGITUDE: 1041253.90 NAD83
 DRAINAGE AREA: 18550 CONTRIBUTING DRAINAGE AREA: 18550* DATUM: 3075.190 NGVD29
 DATE PROCESSED: 2016-04-11 10:01 - By jcordova
 Lowest aging status in period is APPROVED
 DD #1 Discharge, cubic feet per second

CALENDAR YEAR JANUARY TO DECEMBER 2015												
DAILY MEAN VALUES												
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	36	34	34	32	31	35	35	30	722	429	48	38
2	38	34	34	31	32	36	36	30	404	352	48	37
3	40	35	37	30	32	37	37	31	407	172	50	37
4	33	35	36	30	35	34	37	30	402	111	51	37
5	33	31	32	32	129	35	37	158	402	60	49	37
6	34	33	33	32	37	38	50	466	421	45	49	36
7	32	33	33	31	36	37	40	421	412	52	49	36
8	33	33	34	31	35	38	35	439	428	123	49	36
9	32	33	33	31	34	36	34	445	437	48	50	36
10	32	34	32	31	33	37	36	463	462	45	51	36
11	33	35	32	32	32	35	36	453	434	46	50	37
12	31	32	32	36	34	36	34	456	403	44	50	37
13	31	33	33	45	48	38	34	451	431	44	50	36
14	31	33	32	30	35	36	34	411	464	44	50	37
15	31	34	31	33	35	35	35	116	416	44	48	36
16	31	32	32	34	35	35	35	38	419	43	46	36
17	31	33	38	33	33	35	33	32	422	43	38	36
18	29	34	33	34	33	35	33	169	405	44	39	37
19	30	34	33	34	40	34	33	413	386	44	38	37
20	30	34	30	32	34	35	33	467	437	44	39	37
21	30	32	32	33	36	34	32	543	464	72	37	36
22	34	37	32	33	39	33	31	470	482	52	38	37
23	30	33	32	32	36	34	30	413	418	46	38	36
24	30	35	31	33	35	34	30	412	397	45	38	37
25	30	35	32	32	35	35	30	402	416	45	38	36
26	29	34	29	33	35	34	29	409	427	45	40	41
27	29	35	31	36	36	35	30	392	425	46	39	42
28	29	34	32	28	38	34	32	368	423	45	37	37
29	28	----	30	32	39	59	e38	366	459	46	38	38
30	31	----	30	32	e40	37	e30	365	436	48	38	36
31	42	----	32	----	e33	----	30	377	----	47	----	36
TOTAL	993	944	1007	978	1195	1086	1059	10036	12671	2414	1323	1144
MEAN	32	33.7	32.5	32.6	38.5	36.2	34.2	324	425	77.99	44.1	36.9
MAX	42	37	38	45	129	59	50	543	482	429	51	42
MIN	28	31	29	28	31	33	29	30	386	43	37	36
AC-FT	1970	1870	2000	1940	23700	2150	2100	19910	25310	4790	2620	2270
CAL YR 2015 TOTAL 34940 MEAN 95.7 MAX 543 MIN 28 AC-FT 69,300												
U.S. DEPARTMENT OF THE INTERIOR – U.S. GEOLOGICAL SURVEY – WATER RESOURCES												



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Tom Blaine, P.E.
STATE ENGINEER

DISTRICT II
1900 WEST SECOND STREET
ROSWELL, NEW MEXICO 88201
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June 27, 2016

Mr. Tom Blaine, P.E.
New Mexico State Engineer
Office of the State Engineer
P.O. Box 25102
Santa Fe, New Mexico 87504-5102

Dear Mr. Blaine:

I herewith transmit to you, in accordance with New Mexico Statutes Annotated Section 72-3-5 (1985 Repl. pamp.), the Annual Report of the Water Master of the Pecos Valley Surface Water District for calendar year 2015. This report covers activities of the Water Master and his assistant(s) during the irrigation season.

Respectfully submitted,

Timothy B. Williams, Water Master
Pecos Valley Surface Water District

TBW