Alamosa, Colorado.

November 24, 1958



Mr. J. E. Whitten, State Engineer, State Capitol Building, Denver, Colorado

Dear Sir:

Herewith is submitted my annual report as Irrigation Division engineer for the year 1958. This report includes tabulated and summarized reports of the water commissioners in this <sup>D</sup>ivision of the amounts of water diverted from the various streams, of the reservoir storage, and of acres irrigated.

The year 1958 might be considered a fairly normal year so far as diversions for irrigation are concerned, but not nearly so good a year as 1957. The diversions to ditches in this Division were 109% of the previous 10 year average but only 71% of 1957 diversions. There was considerable reservoir storage carried over from the previous year. Also there was considerable reservoir storage during the run off season. There was very little precipitation during the growing season, being much less than normal. The total number of acres irrigated was 572,179, compared to the previous 10 year average of 577,522 acres. Water was diverted for 282 days in this division.

Reservoir storage was used to advantage this year. On November 1957, there were in storage in the reservoirs in this Division 167,089 acre feet. On April 1, 1958 the amount in storage or available was 219,290 acre feet, of which 177,948 acre feet were delivered to ditches during the season. On November 1, 1958, the total amount of reservoir storage was 75,669 acre feet. This includes 34000 acre feet in Platora Reservoir which amount may never be available to Colorado, as this reservoir is subject to the Tri-State Compact. Several of the larger reservoirs were filled to capacity and spilled, these being the Rio Grande, Continental, San Luis, Smith and Platora. The first three of these reservoirs were emptied during the season and had no water in storage on November 1, 1958.

The Platora Reservoir carried over from the previous year 30390 acre feet. This caused the reservoir to spill early in the season. After the reservoir ceased to spill, there were 6000 acre feet released in order to provide flood control storage space. Late in July permission was received from the Compact Commissioners of Texas and New Mexico to release 20000 acre feet for use in Colorado. Accordingly, the gates of the reservoir were opened and approximately 20000 acre feet were released during a 24 day period, of which 14456 acre feet were delivered to ditches on the Conejos River. This permission to release this water was greatly appreciated by the farmers and aided materially in helping to mature the crops. There was no demand during 1958 to release any of the water stored in this reservoir to the other signatory states of Texas and New Mexico.

I want to repeat in this report, the remarks I have made in my two previous annual reports, concerning the operation of the Platora Reservoir. It is my opinion that considerable water is stored illegally as the gates are not large enough to always permit the natural flow of the stream to come through the reservoir.

- 2 -

Also the stream is standing the evaporation and seepage loss of the reservoir, for the monthly reports of storage, made by the Reclamation Bureau, show the same amounts in storage each month except the months that water was released for irrigation purposes. This is a serious matter for Colorado and deprives the water users on the Conejos River of considerable water and at a time that water is badly needed in the area for irrigation.

The following is a tabulation of the amounts of water diverted in each of the Water Districts in this Division and the percentage each bears to the amount diverted in 1957 and to the previous 10 year average.

No. of District	Acre Feet Diverted in 1958	Percentage of 1957 Diversions	Percentage of previous 10 year average.
20	632543	73	110
21	81710	56	113
22	231797	70	94
24	61528	175	130
25	42543	91	108
26	62505	65	154
27	11085	62	104
35	57644	57	120

It is obvious from this table that the diversions in this Division were in excess of the previous 10 year average. However, the possible benefits of this were off-set by the lack of rainfall during the growing season. On the whole crop production was good. The potato acreage and yield were above normal but the price, so far this year, is bad and below the cost of production. The lettuce acreage was **again** increased this year so that now lettuce is considered one of the major crops of the Valley. The lettuce yield was good but the price during most of the season was so low that it did not pay the cost of harvesting and shipping and a number of fields were plowed under.

- 3 -

In the districts where hay is the principal crop, the yield was very good, especially so, in Districts 25 and 26. The mountain ranges turned out to be good for the few rains late in the season brought back the feed and livestock came off the ranges in good condition.

Special Deputy State Engineer, D. H. Mathias, will make a detailed report for District No. 20, which District has about 55% of the total diversions and about 56% of the total number of acres irrigated in this Division.

The Terrace Reservoir in District No. 21, which developed a leak in July 1957 was repaired in a satisfactory manner, by digging a trench across the face of the dam in the area where the leak occurred and filling it with compacted earth. A six foot blanket of earth was put on the face of the dam from this point up to the high water level and riprapped. The hole on the lower face of the dam that was caused by the earth sloughing off, was filled with some 9000 cubic yards of granite. It is now believed that this is now a much better and safer dam than ever before.

The new stablization Reservoir in District No. 24, about 5 miles below San Luis, which was built by the Sanchez Ditch and Reservoir Co. and completed in the fall of 1957, was used to advantage this year. It gave much better control and use of the Reservoir water. This same company spent considerable money for drilling and grouting at the dam of the Sanchez Reservoir in an effort to stop a continuous leak of some 13 cubic feet per second through the side hill. A drilling company was employed to do the drilling and grouting. **A t**otal of 8 holes were drilled

- 4 -

and some 7200 sacks of cement were used in the grouting operation at a total cost of about \$29000.00. The operation was not a complete success, although the amount of the leak has diminished somewhat.

A project is being undertaken in District No. 35, which will consist of the construction of a canal from Indian Creek to the Mountain Home Reservoir. When completed, this will bring a considerable amount of the flood water in Indian Creek to the Mountain Home Reservoir. This will also entail the construction of a new spillway for the Reservoir, which is being considered. No accurate estimate of the cost of the completed project has been made as yet.

Climotology and precipitation records are not included in this report as that information may be obtained elsewhere in much more complete form than can be given in this report. Report of shipments of produce is not made, as a very large amount of the shipments are made by truck and these records are not available at this time.

Special Deputy State Engineer, D. H. Mathias, and the Water Commissioners and their deputies are to be complimented for the very fine manner in which they handled the few administrative problems which arose and in which the water was administered.

Respectfully submitted,

Roy B. Heilman,

Irrigation Division Engineer, Div. # 3,

- 5 -

#### WATER COMMISSIONERS! DITCH REPORTS

IRRIGATION DIVISION NO. 3

No. of Water District	Number of Ditches Reporting	First day Water was Carried	Last Day Water was Carried	No. Days Carried.	No. of Acre feet carried by all	Total Acres Irrigated
20 21 22 24 25 26 27 35	194 72 96 54 67 71 34 70	2-13 3-17 3-10 4-1 4-1 3-20 4-1 4-1	11-30 10-31 10-31 10-31 10-31 10-31 10-31 10-31	282 228 235. 214 214 225 214 214 214	632543 <b>81710</b> 231797 61528 42543 62505 11085 57644	324248 46001 98342 23376 17910 33420 6692 22190
Totals	658				1181355	572179

# 1958 Report

# TRANSMOUNTAIN DIVERSIONS IN TO DIVISION NO. 3.

	Acre feet brought over	, Acre feet delivere
Weminuche - Raber Lohr Fuchs	907.5 907.5 525	687 687 1/19
Tabor Squaw Piedra	525. 795 175 244	419 724 146 000
Totals -	3554	2663

# 1958 RESERVOIR STORAGE REPORT - DIVISION NO. 3

#### AMOUNTS IN STORAGE IN ACRE FEET.

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- <del> </del>	Rio Grande	Santa Mari	a Continental	Sanchez	Terrace
12-1-57 $1-1-58$ $2-1-58$ $3-1-58$ $4-1-58$ $5-1-58$ $6-1-58$ $7-1-58$ $8-1-58$ $9-1-58$ $10-1-58$ $11-1-58$	38073 39738 40850 41599 41941 38961 46978 39251 9351 0 0 0	14020 14330 14530 11866 15398 33754 34636 12870 7878 6995 6846	Est. 10400 " 11000 " 12000 " 125346 24516 24516 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	35756 34996 32069 32069 33514 42504 48872 34908 29702 26535 25622	1382 1465 1683 1445 1678 1262 4092 3868 2104 883 1683 1388
	Mt. Home	Smith	Cove Lake La	(	n Luis Platore or or Park
12-1-57 $1-1-58$ $2-1-58$ $3-1-58$ $4-1-58$ $5-1-58$ $6-1-58$ $7-1-58$ $8-1-58$ $9-1-58$ $10-1-58$ $11-1-58$	8354 8435 8706 9204 9460 9173 12232 10676 5112 3010 2334 2116	3514 4191 4320 Spilling " " 3852 2198 1996 1692 1788	""""""""""""""""""""""""""""""""""""	22 300 app. 32 324 46 300 4	

# <u>SUMMARY - 1958</u>

# WATER COMMISSIONERS' RESERVOIR REPORTS

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### IRRIGATION DIVISION NO.3

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	Water No.	District	Capacity in Acre Feet	Acre Ft. in Storage May 1, or amount avail able		rage	Total A Feet Deliver	
Rio Grande Santa Maria Continental San Luis(Beav Squaw Lake Regan Lake Goose Lake Metroz Big Ruby Sowards 1-2-3 Meadow Lake Streams Downing and) Loch Laven) Alberta Park Jumper Creek Mill Creek	20 20 20 20 20		$51113 43560 26716 4758 162 667 232 395 77 162 140 64 41 597 \times384348$	51113 39376 26716 4226 162 555 232 306 45  140  597 38	о 6846 0 0 260 0 260 0 0 260 0 0 260 0 43 8 43 48		49148 29382 24009 3990 150 338 216 32 42 ulture 126 ulture 516	2
Hunters Lake Humphreys Wee Ruby Bristol Head# Bristol Head# Spruce Lake # Spruce Lake # Shaw Lake Hermit Lakes	20 20 20 1 20 2 20 1 20		43 48 842 186 151) 804) 111 105 680 200 abo	43 48  113 292  111 105 680 ut	43 48 0 0 118 120	Fish cu Not u	112 251 88 504	mly
 1-2-3 Troutvale # 1 " # 2 Fuchs Road Canon Lost Lakes Spring Creek			299 257 237 no record 966 145	202 966 145	0 145	" <sup>F</sup> ish cu Not u	810	
(Wrights) Meadow Lake (Wrights) Trout Lake S.V.Dude Poage Rito Hondo Lake Cliff	20 20 20 20 20 20	about	114 320 120 370 600 No report	114 320 120 370	114 0 120 109	n Not u Fish c	234	
Terrace La Jara Cove Lake	21 21 2 <b>2</b> 2		17700 14050 6480	1262 6300 3180	138 <b>8</b> 2018 176		3942 1472 6534	

#### / SUMMARY - 1958

#### WATER COMMISSIONERS' RESERVOIR REPORTS

IRRIGATION DIVISION NO. 3

Name of R <b>e</b> servoir Reservoir	Water District No.	Capacity in Acre Feet	Acre ft. in Acre Feet Total Acre Storage May 1, in stor. Feet or amount avail- Nov.1, Delivy able ered
Platora Sanchez Eastdale # 1 Eastdale # 2 Salazar # 1 Salazar # 2 Rito Seco Smith Mountain Home	224 224 224 224 224 224 224 225 35 35	60000 103135 3468 3047 234 35 35 5336 20147	30390 34000 14456 33514 25622 22497 3000 Est. 600 Est.1164 no report """" 5336 Spilling,1788 2842 9173 2116 14616
Totals		369312	219290 75669 177948

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#### DIVISION NO. 3

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COMPARISON	FOR	PAST	10	YEAR	PERIOD

	No. of Acres Irrigated	Acre Feet of Water Delivered to Ditches
1948	757041	1320484
1949	789722	1/1/1/1/1/0
1950	570392	964516
1951	359228	631136
1952	615338	1626360
1953	581441	880377
1954	421406	772333
1955	1416690	818004
1956	434445	752538
1957	570796	1655405
1958	572179	1181355