

1950

Durango, Colorado.

March 3-1951.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colo.

Dear Sir:

This is to submit the annual report of Irrigation
Division 7 for 1950.

Tabulations of Water Commissioners Ditch and Reservoir
Reports are included.

Very truly yours,

J. R. Williams
Division Engineer.

ANNUAL REPORT OF DIVISION ENGINEER

IRRIGATION DIVISION 7

1950

The season of 1950 was the most exceptional of any within the writer's experience. Exceptional in that the accumulated snow supply at high elevations as of April 1st. was fair, being 73 percent of average on the San Juan and 90 percent on the Dolores. Adverse weather conditions during the spring months changed the water supply outlook from fair to bad. Stream flow was average or above, during April due to a warm spell the last ten days of that month. Crops started growth but cold, windy and dry weather thru May and until June 9th. kept crops frozen down. There were sporadic wet spells during June, July and September but generally it was considered a dry year. Crop yields were below average thruout the division.

Use of Water.

In spite of the adverse conditions there was used from the streams a total of 544,810 acre feet of water which was only 1,200 a.f. less than was diverted in 1949. The large percent of such diversion was early and of no benefit to crop growth because of the cold weather and late freeze. 114,440 acre feet was used from storage which was the largest amount of stored water ever used in this area and which was 22,670 a.f. more than was used from storage in 1949.

The total amount of water in storage on May 1st. was 121,440 ac.ft. On November 1st. the amount in storage was 41,270 a.f.. A new low stage was reached at Vallecito Reservoir on Nov. 1st. with 22,160 a.f. remaining and also at Ground Hog Reservoir with 3,630 a.f. remaining.

There was immense benefit from stored water which was used after the weather had warmed up to permit crop growth. In the Mancos Area there was delivered to the streams from Jackson Gulch Reservoir a total 5,500 a.f. of which 5,340 a.f. was diverted by canals and applied to about 5,000 acres of land. In this area there would have been a complete crop failure almost,

had it not been for the stored water used thru the summer.

The frost free period was from June 9th. to September 15th. at Durango. A total period of 98 days.

Lack of forage and water in some of the lower areas caused severe injury to livestock interests. There was claimed particular hardship along the lower Mancos which is used solely by Utes. In June it was claimed that the water holes had dried up and again this was claimed about the middle of September. Rains came on June 22d. and again on September 18th. which alleviated the bad conditions in respect to stock water.

It is expected that the U. S. Indian Service will make a claim in some manner to the waters of Mancos River for domestic or stock use and for the irrigation of a farm situated near the highway, on the river fully fifty miles downstream from the Upper Mancos Area.

Administrative work was exacting because of the low ^{water} supply and the measurement of stored water to and from the streams.

Tables of water content of snow, precipitation, temperatures and the tabulation of Water Commissioners Annual Reports conclude this report.

Water Content of Snow

San Juan River.

Date	Station	Snow Depth		Water Content		Average	Number	1950
		Ins.	Ins.	Water	of	Percent	of	Aver.
April 1:	Upper San Juan	37.1	34.1	34.4	14	99		
	Cascade	20.0	7.4	11.7	14	63		
	Silverton	6.3	1.9	5.0	14	38		
	Granite Peaks	0.0	0.0	8.2	9	0		
	Average	28.4	10.8	14.8		73		

Dolores River

April 1:	Rico	15.7	8.0	8.5	14	94		
	Lizard Head	43.9	18.1	20.0	14	90		
	Lone Cone	33.1	11.1	12.8	9	87		
	Average	30.9	12.4	13.8		90		

Above figures from report by U. S. Dept. of Agriculture.

Precipitation Record- 1950 Season

Station	Month													
	April	May	June	July	Aug.	Sept.	Total	April	May	June	July	Aug.	Sept.	Total
Durango	:0.51:-.98:0.34:-.78:0.97:	.17:2.65:	.69:1.04:-1.13:3.64:1.71:	9.15:-.32:										
Fort Lewis	:0.46:-.35:0.36:-.70:1.47:	.70:2.13:-.02:0.73:-1.56:3.51:1.59:	8.66:-.94:											
Cortez	:0.31:1.14:0.44:-.47:0.47:-.13:0.97:-.60:0.11:-1.64:0.74:-.99:	3.04:-4.97:												
Silverton	:1.02:-.78:0.70:-.68:1.84:	.27:3.12:	.33:1.20:-1.96:2.66:-.18:10.54:-3.00:											
Ignacio	:0.17:1.03:0.03:-.93:0.32:-.52:1.01:-.86:0.04:-2.12:2.32:	.69: 3.89:-4.77:												

The summer season averaged about minus two degrees from normal.

Above figures from U. S. Weather Bureau Reports.

Tabulation of Water Commissioners Annual Ditch Reports- 1950.

Dist. No.	: Amount : in S.F.	: Capacity : of Canals : in S.F.	: First Day : Water Was : Used From	: Last Day : Water Was : Used From	: Number of : Days Water : Was Used	: Average : Daily Amt. : Used
			: Nat. Stream	: Nat. Stream		
29	: * 589	: * 639	:	:	:	:
30	: 588	: 954	: April 1	: Nov. 15	: 229	: 254
31	: 768	: 930	: April 15	: Nov. 13	: 215	: 515
33	: 275	: 440	: April 2	: Nov. 23	: 198	: 40
34	: 817	: 904	: April 1	: Nov. 12	: 226	: 243
69	: 88	: 90	: March 15	: Aug. 26	: 164	: 20
Total	3,125	3,957	March 15	Nov. 23	237	1,150

Dist. No.	: Number of : Acre Feet : Used From	: Number of : Acres That : Can Be : Irrigated	Crops Irrigated (Acres)			
	: Nat. Stream		: Alfalfa	: & Timothy	: Cereals	: Orchards
29	: * 75,000	: * 37,000	:	:	:	:
30	: 116,450	: 59,769	: 9,838	: 6,346	: 10,957	: 627
31	: 221,290	: 57,978	: 11,487	: 26,194	: 12,356	: 431
33	: 15,660	: 22,860	: 4,475	: 1,006	: 4,575	: 32
34	: 110,030	: 56,902	: 15,611	: 8,612	: 14,885	: 958
69	: 6,380	: 2,476	: 505	: 520	: 385	:
Total	544,810	236,985	41,916	42,678	43,158	2,048

* Estimated by Division Engineer.

Tabulations of Water Commissioners Annual Ditch Reports.

Continued.

Dist. No.	Crops Irrigated (Acres)						Total
	Gardens	Potatoes	Beans	Sweet Clover	Mixed Hay	Other Crops	
29	:	:	:	:	:	:	* 15,000
30	5	268	600	:	:	:	28,741
31	:	59	32	1,616	455	1,816	54,446
33	63	10	:	50	:	35	10,246
34	39	412	3,538	:	:	32	44,087
69	:	:	:	:	:	:	1,310
Total	107	749	4,170	1,666	455	1,883	153,830

Tabulation of Water Commissioners Annual Reservoir Reports.

Dist. No.	Number of Reservoirs in District	Area of High Water in Acres	Capacity in Acre Feet	Amount in Storage on May 1.(A.F)	Amount in Storage on Nov.1(A.F.)	First Day Water Was Used From Storage
29	5	* 670	* 1,500	* 1,500	:	:
30	3	899	24,680	7,320	11,800	Power 11-1-49 Irr. 7-25
31	2	3,077	128,050	77,920	22,160	6-15
33	1	50	1,200	900	350	5-13
34	9	1,209	25,670	22,460	3,080	4-25
69	2	716	22,640	11,340	3,880	7-2
Total	22	6,621	203,740	121,440	41,270	4-25

* Estimated by Division Engineer.

Tabulation of Water Commissioners Annual Reservoir Reports.

Dist. No.	Last Day	Number of Days	Average Daily	Number of Acre Feet Used	Crops Irrigated (Acres)		
					Alfalfa	Grass & Timothy	Cereals
29	Aug. 9	59	13	* 1,500			
30	Aug. 25	10	16	320	100		100
31	Oct. 31	138	281	76,590	11,094	24,830	12,170
33	Aug. 9	59	7	780	282	55	288
34	Nov. 16	143	80	22,930	2,035	1,159	2,053
69	Nov. 7	104	59	12,320	10	42	
Total	Nov. 16	143	400	** 114,440	13,521	26,086	14,611

* Estimated by Division Engineer.

** Does not include 25,870 acre feet used from Cascade Reservoir for power.

Continued.

Dist. No.	Crops Irrigated (Acres)							
	Orchards	Gardens	Potatoes	Beans	Sweet Clover	Mixed Hay	Other	Total
29								* 1,500
30		5						205
31	431		59	32	1,586	455	1,816	52,473
33	18	18						661
34	101	4	28	520				5,900
69								52
Total	550	27	87	552	1,586	455	1,816	60,791

Plus Mancos District Supplemental Water 5,000

Plus Montezuma Valley " " 30,800

Adjusted Total 96,591