

1947

Durango, Colorado.  
March 15, 1948.

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

Dear Sir:

This is to submit the Annual Report of Irrigation Division  
Engineer, Irrigation Division Number 7 for the year of 1947.

Respectfully yours,

*J. R. Williams*  
J. R. Williams,  
Irr. Division Engineer.

ANNUAL REPORT  
OF  
DIVISION ENGINEER  
IRRIGATION DIVISION NUMBER 7.

- 1947-

Water Supply.

As of April 1st. the accumulated water content in snow cover on the upper drainage of San Juan River was 8.7 inches. The average water content for ten years of record is 14 inches. On the Dolores River the average water content at three stations was 8.1 ins. compared with a ten year mean of 12.8 ins.

On May 1st. there was no remaining snow except in isolated spots below elevation of 9500 feet. The only station showing snow cover at this date on the San Juan was Upper San Juan at elevation of ten thousand feet where there was 49.2 ins. of snow and 19.7 ins. of water. This was sixty five percent of ten year mean. On the Dolores there was snow measured only at Lizard Head Pass where there was 35.8 ins. of snow and 11.1 ins. water which was seventy two percent of average.

Weather was adverse during April. Precipitation was deficient which condition coupled with windy days and cold nights produced a serious condition thruout the crop area. Stream flow was low in April.

Precipitation and Temperatures.

Precipitation in May was far above the average. A heavy storm occurred from May 9th. to 12th. with total of more than three inches in farming areas and in mountains alike. Rainfall in June was slightly above the average. July was dry. August was one of the wettest months of record. Measured rainfall ranged from four to 7.6 inches. It was dry again in September.

The growing season between killing frosts was generally from June 12th. to October 23d. although some frost came on September 15th. at

higher elevations.

Temperatures averaged a few degrees below normal for the entire growing season. It was hottest on July 30th. when 95 degrees was recorded at Durango.

#### Stream Flow.

For the third consecutive year the ground water conditions at start of growing season were below average. There was insufficient stream flow during April to meet irrigation requirements on streams not having carry over storage. There was no snow melt of any consequence until the first week of May when heavy runoff occurred. Peak flow during this period was the highest of the season on most streams. Flood peaks were not as high as generally occur. Floods from rain in August approximated the high stages of early May.

#### Crops.

The adverse moisture conditions in April seriously affected the crop yield. Winter wheat burned so badly that the stand and yield were both affected. Yield averaged about twenty bushels or fifty percent . In areas under storage reservoirs with sufficient supply the conditions were some better. Hay crops were much better than in 1946 but below average. Second cuttings of alfalfa were much better than the first.

#### Use of Water.

A total of 519,000 acre feet was diverted from natural streams for irrigation of about 154,000 acres. This was an increase of 8,800 acres over that irrigated in 1946. Principal increase was in wheat and beans.

55,330 acre feet was used from storage . On November 1st. there was 114,000 ac. feet. remaining in storage.

#### Repairs, Improvements and New Construction.

Work was resumed on construction of the Jackson Reservoir Dam, Supply and Outlet Canals to same near Mancos. Construction of the Pargin Reservoir Dam was commenced on Stollsteimer Creek near Dyke, Colo.

Several measuring flumes of Parshall Type were installed. These were of steel or concrete. Two water level recorders were placed on canals taking water from the Florida River.

Work was continued by the Western Colorado Power Company in re-facing the Cascade Dam.

The U. S. Soil Conservation Service continued work with farmers and with ditch companies in repair and re-habilitation of dams, headgates and other structures in the Mancos and Dolores areas. Districts were formed in La Plata and Archuleta Counties which have permitted that Agency to work therein. So we may expect a great improvement in irrigation facilities soon thruout this division.

The compilation and summary of water commissioners reports conclude this report.

IRRIGATION DIVISION NO. 7

Tabulated Statement of Water Commissioners Annual Ditch Reports

1947.

Dist. No.	: Amount : in S. F.	: Capacity : of Canals : in S. F.	: First Day : Water Was : Used From : Natural : Stream	: Last Day : Water Was : Used From : Natural : Stream	: Number of Days : Water Was Used : From Natural : Stream
29	: * 589	: * 639	:	:	:
30	: 591	: 940	: Apr. 1	: Nov. 15	: 229
31	: 768	: 927	: Apr. 21	: Oct. 27	: 189
33	: 272	: 493	: Apr. 1	: Oct. 4	: 170
34	: 805	: 840	: Mar. 27	: Nov. 6	: 220
69	: 40	: 64	: Apr. 1	: Aug. 27	: 149
Total	3065	3903	Mar. 27	Nov. 15	229

Continued.

Dist. No.	: Average : Daily : Amount : Used in : S. F.	: Number of : Acre Feet : Used From : Natural : Stream	: Number of : Acres That : Can Be : Irrigated	: Crops Irrigated (Acres): : Alfalfa : Natural : Grass	: Cereals	: Orchards
29	:	: * 75,000	: * 43,000	:	:	:
30	: 214	: 98,060	: 59,460	: 10,142	: 5,324	: 10,659 : 628
31	: 492	: 185,780	: 62,320	: 11,146	: 20,154	: 11,067 : 100
33	: 67	: 22,710	: 22,780	: 4,461	: 1,204	: 5,465 : 50
34	: 305	: 133,920	: 66,980	: 13,589	: 6,937	: 11,469 : 955
69	: 12	: 3,550	: 2,540	: 840	: 795	: 724 :
Total	1,133	519,020	257,260	40,178	34,414	39,384 1,733

\* Estimated by Division Engineer.

Continued.

Crops Irrigated ( Acres.)

Dist. No.	Gardens	Potatoes	Beans	Timothy	Mixed Hay	Sweet Clover	Other	Total
29	:	:	:	:	:	:	:	*25,000
30	10	418	1,080	:	:	:	:	28,261
31	205	48	88	549	531	1,048	1,479	46,415
33	80	20	:	:	:	:	:	11,280
34	2	433	6,341	:	:	:	333	40,059
69	:	:	:	:	:	:	162	2,521
Total	297	919	7,509	549	531	1,048	1,974	153,536

\* Estimated by Division Engineer.

Tabulated Statement of Water Commissioners Annual Reservoir Reports.

1947

Dist. No.	Number of Reservoirs in District	Area of High Water Line in Acres	Capacity in Acre Feet	Amount in Storage on May 1st. in Ac.Ft.	Amount in Storage on Nov. 1st. in Ac.Ft.	First Day Water Was Used	Last Day Water Was Used
29	3	620	:	:	:	:	:
30	3	899	24,740	4,650	12,580	July 20	Aug. 15
31	2	3077	128,050	66,160	89,710	July 9	Oct. 13
33	1	56	1,200	600	0	May 2	Oct. 8
34	8	992	16,210	9,770	760	Apr. 28	Oct. 12
69	2	672	21,906	11,220	10,990	July 14	Aug. 17
Total	19	6,316	192,106	92,400	114,040	Apr. 28	Oct. 13

Reservoir Reports Continued.

Dist. No.	Number of Days	Average Daily	Number of Acre Feet	Crops Irrigated ( Acres )			
				Used	Used(S.F)	Storage	Alfalfa : Natural : Cereals : Orchards : Grass
30	10	8.0	160	275		300	10
31	60	267	*32,090				
33	48	7.4	710	251	15	263	13
34	168	45.9	15,420	2,496	679	1,518	210
69	35	100	**6,950				
Total	168	165	55,330	3,022	694	2,0811	233

Continued.

Dist. No.	Gardens	Potatoes	Beans	Other	Crops Irrigated ( Acres )
					Total
30		6			591
31					*
33	17	1	15		575
34	51	1,262	1,262		6,216
69					**
Total	17	58	1,277		7,582

\* Same crops irrigated as shown in ditch report.

\*\* Storage in Dist. 69 but used in Dist. 34 on same crops as under ditch report.