

1948

Glenwood Springs, Colorado

November 30, 1948

Mr. M. C. Hinderlider

State Engineer

Denver, Colorado

Dear Sir:

In compliance with the provisions of law, I transmit herewith my annual report as Division Engineer for Irrigation Division NO. 5 for the year ending November 30, 1948.

The Colorado River upper basin compact was completed this past summer and is now ready for approval by the several state legislatures.

The compact is an agreement between Wyoming, Colorado, New Mexico, Utah, and Arizona for an equitable division among themselves of the water allocated to the upper basin by the main Colorado River compact.

Under the compact, Colorado is to receive 51.75 %, Utah 23 %, Wyoming 14 %, New Mexico 11.25 % and Arizona is to receive a flat 50,000 acre-feet of the 7,500,000 acre-feet allocated to the upper basin. On the above basis Colorado will receive about 3,855,000 acre-feet annually.

On August 20th an irrigation water shortage occurred in the Colorado River in the Grand Junction - Palisade area and continued intermittently until October 15th. By changing minimum discharges at the Public Service Co. Plant at Shoshone and power loads at Green Mountain Dam we were able to go through the season with out shutting off any of the Trans-Mountain Diversions.

Water was released from Williams Fork Reservoir into the Colorado River on October 18th and continued to flow until November 7th during which time 5348 acre-feet was released. The above run was mostly used for power, however irrigation in the lower valley benefited from this release.

Green Mountain Reservoir was filled to capacity again this season and the power releases were at such times as to make it unnecessary to call for irrigation releases to compensate for the amount being diverted by the Adams Tunnel.

Shadow Mountain Lake was not filled this season but was maintained at a low elevation so that continued studies could be made of the ground water elevation in the surrounding territory. Due to the low elevation maintained in Shadow Mountain Lake it was possible to divert through the Adams Tunnel only the natural runoff

into Grand Lake. This totaled 9,235 acre-feet for the season .

Two new Water Commissioners were appointed this year: Mr.Lewis Cowden of Eagle was appointed Commissioner of water Di District No.37 to succeed Mr.Frank Long, who resigned early this spring; Mr. E.D.Bloye of Hot Sulphur Springs was appointed Commissioner of Water District No.51.

Crop report as follows:

Small Grains

There was some increase in acreage this year and the yield was about normal.

Sugar Beets

The Sugar Beet acreage has been gradually decreasing over the past few years; yield this season was very good.

Potatoes

Potato yield this year is about 80% of normal. Prices have not been to good in comparison with other farm products.

Alfalfa

Alfalfa acreage is about normal with yield about 80% normal.

SNOW REPORT

The following table shows the average snow depth and water content of 21 snow courses in the Colorado River Drainage Basin within Irrigation Division No.5 for the years 1943,1944,1945,1946,1947,1948 for the first of February, March, April, and May; also the average for the past thirteen years.

AVERAGE SNOW DEPTH

	1943	1944	1945	1946	1947	1948	13 year Average
Feb.	39.8	24.6	29.0	37.4	39.9	42.9	38.5
Mar.	44.9	28.3	38.1	38.2	51.8	47.1	42.5
Apr.	46.6	45.1	43.7	38.4	52.7	54.1	46.8
May	18.0	40.5	41.2	16.9	46.2	39.3	36.1

AVERAGE WATER CONTENT

Feb.	9.5	4.6	5.7	9.7	9.8	10.1	9.0
Mar.	12.0	6.8	9.7	10.2	11.3	11.7	10.9
Apr.	14.5	10.6	13.2	11.6	16.2	15.9	14.1
May	13.5	7.0	14.5	6.1	16.9	14.6	12.9

The following table gives the temperatures and precipitation recorded at Rifle, Elevation 5,300 and at Glenwood Springs, Elevation 5,823.

<u>Rifle</u>						
	May	June	July	Aug.	Sept.	
Maximum Temp.	*	94	96	97	96	
Minimum Temp	*	40	42	43	33	
Precipitation						Total
1948	*	1.38	0.87	1.12	0.42	*
1947	0.66	1.60	1.25	0.98	*	*
1946	1.73	0.65	0.65	2.25	0.51	5.79
1945	1.22	1.40	0.75	0.65	0.32	4.34
1944	0.30	0.66	0.99	0.29	0.07	2.31

<u>Glenwood Springs</u>						
	May	June	July	Aug.	Sept.	
Maximum Temp.	96	92	95	95	95	
Minimum Temp.	26	41	45	42	33	
Precipitation						Total
1948	0.55	1.29	1.15	1.60	0.56	5.15
1947	1.12	2.74	0.61	0.78	0.88	6.13
1946	2.03	0.74	1.16	1.91	0.46	6.30
1945	2.57	1.03	0.44	3.28	0.61	7.93
1944	2.29	1.61	1.14	0.56	0.07	5.67

ADMINISTRATION COSTS

Cost of administration of Division No.5 for the year of 1948 was \$9,020.50 This includes salaries of all commissioners and their deputies. 140,190 acres were irrigated at a cost of .064 cents per acre for services of Water Commissioners and their deputies.

DISTRICT No.	ACRES IRRIGATED	MILES TRAVELED	COM. & DEP. FEES
36	8,400	...	...
37	13,634	7,019	\$ 1,096.00
38	32,869	3,848	1,120.00
39	20,915	16,694	2,048.00
45	21,963	13,019	2,508.50
50	9,100	1,421	288.00
51	7,481	125	40.00
52	3,651	270	56.00
53	13,740	2,199	408.00
70	<u>8,437</u>	<u>7,680</u>	<u>1,456.00</u>
TOTALS	140,190	52,275	\$9,020.50

TRANS-MOUNTAIN DIVERSIONS

Following is a report of the Trans-Mountain Diversions from Division No.5 to Division No.1 and Division No.2 for the irrigation season:

TO DIVISION No.1

Adams Tunnel	9,235 Acre Feet
Grand River	17,733 Acre Feet
Berthoud	561 Acre Feet
Eureka	101 Acre Feet
Jones Pass	2,042 Acre Feet
Moffat Tunnel	22,953 Acre Feet
East Hoosier	0 Acre Feet
West Hoosier	0 Acre Feet
Boreas Pass	0 Acre Feet
<b>TOTAL</b>	<b>52,625 Acre Feet</b>

TO DIVISION No.2

Twin Lakes Tunnel	23,489 Acre Feet
Busk Ivanhoe Tunnel	1,028 Acre Feet
Ewing Ditch	155 Acre Feet
Wurtz Ditch	2,401 Acre Feet
Columbine Ditch	0 Acre Feet
Fremont Pass Ditch	0 Acre Feet
Larkspur Ditch	0 Acre Feet
TOTAL	<u>27,073 Acre Feet</u>
Grand Total	<u>79,698 Acre Feet</u>

Yours very truly,

*R.C. Failey*  
 Irr.Division Engineer  
 Division No.5



TABULATION OF WATER COMMISSIONERS ANNUAL DITCH REPORTS FOR  
IRRIGATION SEASON OF 1948 IRRIGATION DIVISION No.5

District No.	No of Ditches Reported	First Day Water Was Used	Last Day Water was used	Average No. of Days Water was used	Average Daily Amt. Diverted in Sec.Ft.	No. of Acre Ft. used from Stream
36	...	...	...	...	.....	...
37	152	May 1	Oct.20	173	360.85	168,961
38	116	Apr.15	Oct.15	183	833.90	198,350
39	129	Apr.1	Nov.1	214	355.43	149,362
45	104	Apr.1	Nov.1	214	361.73	164,340
50	...	...	...	...	.....	...
51	16	Apr.20	Sept.10	143	180.18	27,430
52	67	Apr.25	Oct.20	178	113.75	11,741
53	46	May 1	Oct.20	173	184.60	58,156
70	60	Apr.13	Nov.1	184	97.33	41,691
TOTALS	690	Apr.1	Nov.1	182	2487.77	660,031

District No.	No of Acres that can be Irrigated	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens
36	11,500	...	...	...	...	...
37	15,449	8,302	2,072	2,356	...	...
38	32,869	19,453	5,449	5,955	...	20
39	25,721	10,623	3,213	4,356	490	240
45	10,600	12,905	4,192	4,324	212	25
50	21,400	...	...	...	...	...
51	13,345	...	6,902	...	...	...
52	5,811	1,009	2,562	80	...	...
53	13,915	2,615	6,165	325	...	...
70	16,880	4,331	2,665	1,313	1	...
TOTALS	167,490	59,238	33,219	18,709	703	285

District No.	Potatoes	Sugar Beets	Peas	Other Crops	Pasture	Total Irrigated
36	...	...	...	...	...	8,400
37	842	...	59	3	...	13,634
38	1,992	...	...	...	...	32,869
39	1,118	875	...	...	...	20,915
45	132	73	...	100	...	21,963
50	...	...	...	...	...	9,100
51	...	...	...	580	...	7,481
52	...	...	...	...	...	3,651
53	35	...	...	365	4,235	13,740
70	24	...	...	103	...	8,437
TOTALS	4,143	948	59	1,151	4,235	140,190