STATE OF COLORADO

DIVISION OF WATER RESOURCES
Irrigation Division No. 5
Glenwood Springs, Colorado

L. L. FINLEY
Division Engineer

November 30, 1967

SUBJECT:

Mr. A. Ralph Owens
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, 1967.

Mountain snow pack on May 1st was about 85% of the 15 year normal. Some of the high elevation snow courses were above normal due to the late April storms. Considerable melting occurred during April at the lower elevations, however, streamflow did not increase much. Valley soil moisture was in good condition. Forecasts for the May through September period for streams above Glenwood Springs were expected to be about 85% to 90% of normal.

Following is a table showing the forecast flow and the actual flow at Glenwood Springs of the Colorado and Roaring Fork Rivers as predicted on May 1st, 1967, by the U.S. Weather Service and as measured by the U.S. Geological Survey.

Water Year Flow
October 1966 through September 1967

	Forecast A.F.	15-year Average A.F.	Per Cent of 15-year Average	Actual Flow A.F.
Colorado River	1,690,000	1,930,000	88	
Roaring Fork River	780,000	925,000	84	

949,400

Storage in the Six larger reservoirs as of September 30 was as follows:

	1967	1966	1965	Capacity of Each
Granby Reservoir	277,348	293,632	383,503	539,758
Green Mountain Reservoir	127,962	109,502	148,650	154,645
Williams Fork Reservoir	43,658	- 0 -	78,909	93,000
Willow Creek Reservoir	9,678	8,186	7,971	10,553
Dillion Reservoir	239,226	235,151	255,514	255,514
Homestake Reservoir	25,108	1,256	- 0 -	43,000
TOTALS	722,980	647,727	874,547	1,096,470

There was a likking freeze on April 20 in the Grand Junction area with 25 degrees which was a record low, the previous record was 26 degrees in 1899: snow fell in the Glenwood Springs area.

Temperature changes during the last ten days in April and the first ten days in May caused extreme fluctuations in stream flow, with many farmers having water in their ditches one day and none the next, this was true on both large and small streams. Water Commissioners and deputies were kept busy running back and forth trying to keep up with the stream flow fluctuations. I believe this period was the most difficult to administer of any in my memory. On May 6 the Roaring Fork River at Glenwood Springs dropped to a record low of 260-second-feet: the previous record low was 400 second-feet in May 1963. By May 26 the Roaring Fork had raised to 5410 second-feet.

Heavy rains covered most of the Division during the latter part of May and the first part of June, getting all crops off to a good start.

Heavy rains which fell in Water District No. 70 about September 1st, caused much damage to fields, irrigation canals, county roads and bridges. Some of the ditches were so filled with silt and rock that they will have to

be rebuilt. Some fields were covered with silt and rocks to the extent that they may never be usable again.

Temperature wise this has been possibly the coldest season on record. Glenwood Springs can generally expect several days of 94 to 96 degree weather during July and August. This year the high for July was 91 degrees and for August, 88 degrees.

The cold winters of 1962 - 63 killed many fruit trees making it necessary to replant some trees. This plus the last two spring seasons of freezing has been a set-back to the fruit industry. Despite these facts the production of fruit is still an important industry in the valley.

Fruit growers in the lower Colorado River Valley are becoming fewer and fewer. Many have diversified or gotten out of the business; those who do make vertually a full-time business out of fruit are expanding their operations through purchase of smaller orchards. There was a time when a five to ten acre orchard would provide a reasonable living for a family, but now it takes much larger orchards to make it profitable.

Generally other crops have been about average in the Division this season.

The Bureau of Reclamation put the Silt Project into operation in a testing and reasoning program this summer. The Silt Water Conservancy District will take over operation next year. Part of the Silt Project water comes from a pumping plant on the Colorado River, east of Silt. The plant will be supplied water from Green Mountain Reservoir during periods of shortages in the Colorado River, which usually occurs in the spring and late summer. Another part of the project consists of a dam and reservoir on Rifle Creek. The reservoir has a capacity of 12,600 acre-feet but was only partly filled this season.

On August 19th, The Silt Project for the first time since its construction requested water from Green Mountain Reservoir and releases were started that day, and continued until September 15th: 1,011 acre-feet were released for its use.

Colorado Springs and Aurora's Homestake Water Diversion Project was completed and put into operation this season. The western slope facilities of this project are the Homestake Reservoir, which has a capacity of 43,000 acre-feet and two collection systems on Homestake Creek, and other tributaries of the Eagle River. Water is diverted to the eastern slope through a tunnel under the Continental Divide.

On August 16th, the Grand Valley Project and Orchard Mesa Irrigation District requested that water be released from Green Mountain Reservoir for their use. Releases were begun the same day and continued until September 15th, during which time 12,363 acre-feet was released. 40,249 acre-feet had been released during about the same period on 1966.

The Ruedi Dam, about 14 miles up the Frying Pan River from Basalt, Colorado, has been about completed. The dam is an earth-filled structure 285 feet high, which was started in 1964. It will impound 101,000 acre-feet of water and was built to compensate water users in western Colorado for water diverted from higher elevations, to the eastern slope, through the Divide Tunnel of the Fry-Arkansas Water Project. The Reservoir will start to fill with the next spring run-off.

Mr. Carl Lucksinger, Water Commissioner for Water District No. 38, died in May. Mr. Stephen Callicotte was appointed to fill the vacancy on June 8th.

Yours very truly,

L. L. Finley
Irrigation Division Engineer

LLF/skb

District No.	No. of Ditches Reported	First Day Water was used	Last Day Water was used	Average Daily Amount Diverted Sec.Ft.	No. of Acre Feet used from stream	No. of Acres Irrigated
36	147	5-14-66	10-1-66	489.9	107,783	13,407
37	199	4-30-66	10-16-66	502.1	141,781	21,330
38	81	4-10-66	11-10-66	418.6	113,060	28,910
39	127	4- 5-66	10-31-66	278.3	112,501	22,871
45	112	4- 1-66	10-31-66	273.4	85,970	21,061
50	107	4- 1-66	10- 1-66	421.9	72,051	18,938
51	199	4-15-66	11- 1-66	1,021.0	169,031	37,964
52	108	4-15-66	10-15-66	110.6	19,959	5,090
53	212	4-20-66	10-31-66	385.9	75,162	23,052
70	*63	3- 1-66	10-31-66	69.5	29,409	7,142
Totals	1355			3,971.2	926,707	199,765

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 19[illegible]7 Water Year

To Division No.1	Acre Feet
Adams Tunnel	267,530
Grand River	8,950
Berthoud	793
Eureka	188
Williams Fork	4,800
Moffat Tunnel	52,210
Colorado Springs - Hoosier Pass	9,930
Boreas Pass	0
Harold Roberts Tunnel	52,950
Total Acre-Feet	397,351

To Division No.2	
Twin Lakes Tunnel	47,550
Busk Ivanhoe Tunnel	4,830
Larkspur Ditch	0
Ewing Ditch } City of Pueblo	757
Wurtz Ditch } City of Pueblo	1,560
Columbine Ditch } City of Pueblo	1,570
Fremont Pass Ditch	0
Homestake Project - Colorado Springs & Aurora	4,420
Total Acre-Feet	60,687
Grand Total Acre-Feet	458,038