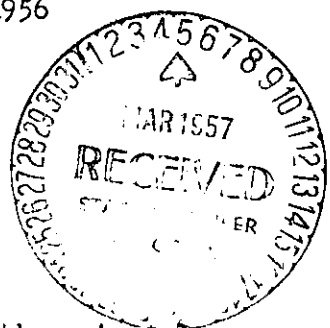


Glenwood Springs, Colorado  
November 30, 1956

1956



J. E. Whitten  
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, 1956.

A new decree for 158 second feet decreed to the Public Service Company of Colorado raised their right from 1,250 second feet to 1,408 second feet senior to the Big Thompson Project, but only the 1,250 second feet remained senior to the City of Denver and other transmountain diversions.

On July 18 stream flow at Shoshone had dropped to 1,408 second feet although full replacement was being made at Green Mountain. Stream flow at Shoshone held between 1,408 second feet and 1,250 second feet until August 10 when it dropped below 1,250 second feet. All transmountain diversions except Denver's Moffat Tunnel and Jones Pass Tunnel were closed and charges were begun against the Williams Fork Reservoir.

On August 11 we started releases from the Power Pool at Green Mountain Reservoir for irrigation use in Western Colorado. These releases continued until October 24 during which time 6,265 acre-feet had been released from the replacement pool and 67,606 acre-feet had been released from the power pool.

Minimum storage of 40,747 acre-feet was reached in Green Mountain Reservoir on April 27. Maximum storage of 154,306 acre feet was reached on July

14. Storage allocations for 1956, based on July 14th figures, were as follows:

<u>Storage - Acre-feet</u>	<u>Remarks</u>
154,306	Total Storage - July 14th
<u>7,757</u>	Dead Storage
146,549	Active Storage
<u>52,000</u>	Total Replacement Pool
94,549	Total Power Pool Storage

On July 6 it was necessary to take 25 second feet of the 41 second feet then being diverted at Jones Pass Tunnel to supply senior irrigation rights on the Williams Fork River above the Williams Fork Reservoir. It was turned back to the Tunnel again on July 20th. The tunnel was turned off for the season on August 27.

Replacement charges against the City of Denver's Williams Fork Reservoir this season started on August 10 and continued until October 31 during which time 4,062 acre-feet were diverted through the Moffat and Jones Pass Tunnels. Between September 5 and October 5 a total of 5,685 acre-feet were released from Williams Fork Reservoir which was 1,623 acre-feet more than the replacement requirements.

Spring runoff was sufficient to fill Green Mountain Reservoir with a capacity of 154,757 acre-feet and Williams Fork Reservoir with a capacity of 6,623 acre-feet.

Drouth during the summer resulted in the heavy demand for storage water in August, September, and October. Usual fall rains didn't come.

The situation was different in 1954. Then, runoff early in the year was light and Green Mountain Reservoir stored only 105,707 acre-feet of water. This means that only 46,000 acre-feet of water were available for release for irrigation, because 52,000 acre feet are reserved for replacement

of natural stream flow withheld by the Colorado-Big Thompson Project, and because 7,757 acre-feet of the storage is "dead" and cannot flow through the reservoir outlet.

Rains came in September, 1954 reducing the amount needed from Green Mountain Reservoir. The irrigation releases totaled 33,252 that year.

If demand in 1954 had been as great in August, September, and October as it was this year, the Colorado River Valley would have been short 21,600 acre-feet of water so far as Green Mountain Reservoir was concerned. With demand at 67,000 acre-feet and supply at 46,000 acre-feet the storage would have been that much short of meeting demand.

#### WEATHER

We had an early spring, an early summer, and a late fall this year. We had above normal temperatures and about normal precipitation throughout May, June, and July. There was practically no precipitation during September, this being the driest September of record. Drought conditions continued during the month of October with precipitation practically zero throughout the Irrigation Division.

#### SNOW AND STREAM RUNOFF FORECASTS

Snowfall was much above normal during the month of January in the Upper Colorado River Basin, and during February averages were slightly above normal. Averages for the month of March were about 70% of normal. Temperatures the latter part of March were much above normal which caused some early season snow melt at high elevations. Precipitation during the month of April was about 130% of normal over the Division. On May 1, streamflows were expected to be near average to about 15% above average for the coming irrigation season.

## CROP REPORT

The acreage of alfalfa and natural grasses were about normal, with a 70% yield. Increased hay prices are causing stockmen to cull their herds further than they intended, especially those producers who had to start feeding their animals in September because of lack of range grass.

The potato crop was below normal with acreage about the same as the past several years. Prices were running from \$1.80 to \$2.00 per cwt. at Glenwood Springs.

Cereal acreage remained about the same this season and yield was about normal.

The peach crop was below 1955, but higher than average. Early season frost damage in the peach area was blamed for the smaller crop.

The apple crop was very good this year, with about a normal yield. Prices were about the same as for last year.

TRANS-MOUNTAIN DIVERSION

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	210,700	Acre	Feet
Grand River	20,470	"	"
Berthoud	396	"	"
Eureka	52	"	"
Williams Fork Tunnel	8,880	"	"
Moffat Tunnel	53,430	"	"
Colorado Springs, Hoosier Pass Tunnel	9,290	"	"
Boreas Pass	260	"	"
Total	303,478	Acre	Feet

TO DIVISION NO. 2

Twin Lakes Tunnel	36,440	Acre Feet
Busk-Ivanhoe Tunnel	4,400	" "
Ewing Ditch	1,100	" "
Wurtz Ditch	2,590	" "
Columbine Ditch	1,390	" "
Fremount Pass Ditch	<u>0</u>	" "
Total	<u>45,920</u>	Acre. Feet
Grand Total	349,398	Acre Feet

Yours very truly,

*L. L. Finley*  
L. L. FINLEY

District No.	No. Of Ditches Reported	First Day Water Was Used	Last Day Water Was Used	Average Daily Amount Diverted in Sec. Ft.	No. of Acre Feet Used from Stream	No. of Acres that are Irrigated
36	...	.....	.....	.....	.....	.....
37	208	4-15-56	11-1-56	585.9	150,628	22,307
38	69	3-19-56	11-1-56	407.10	108,932	15,915
39	132	4-1-56	11-1-56	651.50	77,853	30,272
45	105	4-3-56	11-1-56	279.88	36,866	23,067
50	12	5-1-56	11-1-56	162.11	39,449	5,310
51	38	5-2-56	11-1-56	475.47	102,114	21,432
52	11	5-1-56	11-1-56	14.01	4,394	1,035
53	34	5-1-56	11-1-56	161.73	47,903	10,735
70	61	3-25-56	11-1-56	103.49	23,488	9,622
<b>Total</b>	<b>870</b>			<b>2,791.19</b>	<b>591,027</b>	<b>139,695</b>