

1955 ANNUAL REPORT

A. R. OWENS, DIVISION ENGINEER
IRRIGATION DIVISION #1

Mr. J. E. Whitten, State Engineer
State of Colorado
State Capitol
Denver, Colorado

Dear Mr. Whitten:

I hereby present the Annual Report of the Office of Irrigation Division Engineer of Irrigation Division No. 1 for the year 1955.

Precipitation and stream flow were below normal during the winter and spring, resulting in below normal storage. The actual storage for irrigation use on May 1st was 413,000 acre feet; and while this represents 84% of normal, 178,000 acre feet were actually Colorado-Big Thompson Project Water, making the actual basin storage 235,000 acre feet or 48% of normal.

Accompanying the drouth, strong winds were prevalent throughout the spring and dust clouds reminiscent of the black blizzards of the early '30's were prevalent. Sugar beet plantings were badly harassed, being either blown out of the ground or buried.

There was no appreciable relief during the usual period of snow melt, priorities having 1876 date being the most junior supplied. For very short periods during the summer, rains permitted deliveries of water to 1885 priorities. In general, crops carried until about mid-July gave good yields, largely due to beneficial rains.

The pumping of water from wells played a vital role in the production of this season's crops. Development of this potential is one of the hottest issues presented for some time. Probably several thousand wells have been drilled in the flood plains of the entire South Platte System below Denver. It is considered that the waters in the gravels underlying this basin do not constitute a pool such as the artesian waters of the San Luis Valley, but rather are percolating waters and constitute the underflow of the several streams, the removal of which has

proceeded to such an extent that a portion of the normal surface stream flow is required to replace that removed by pumping. Court action on this matter is now threatened by ranchers in South Park.

Trans-mountain diversions of water to this Division again were most helpful, not only for the irrigation of crops but also for the very pressing need of rapidly growing cities for domestic water. The total brought into the basin this year amounted to 348,390 acre feet. Of this amount, the Colorado-Big Thompson Project was responsible for 256,550 acre feet and the City of Denver 46,400 acre feet.

The new reservoir (D. D. Gross) constructed by the City of Denver on South Boulder Creek was utilized this season for a more efficient use of the Moffat Tunnel water.

The City of Colorado Springs continued work on the Montgomery Reservoir Dam below the east portal of the Hoosier Pass Tunnel. This structure is about half complete. Pipe has been laid from the dam across South Park and is now complete to the point of discharge in the Fountain Creek water shed in Water District No. 10.

The Colorado-Big Thompson Project is virtually complete and water from it is being delivered to users in Water Districts Nos. 1 to 6, inclusive. The amounts delivered to the several stream systems and the problems encountered therewith will be contained in the report of Special Deputy State Engineer C. E. Schnurr.

Since the completion of the Gross Reservoir on South Boulder Creek and its use this season by the City of Denver for impounding the water delivered by the Moffat Tunnel, serious administrative problems have arisen. The situation can be best visualized by stating briefly that the flow of the Moffat Tunnel will soon nearly equal the flow of South Boulder Creek, and that the Creek is badly over-appropriated. In the past, numerous ditches have relied upon the diurnal peaks for their water supply, diverting for just a few hours each day. Now with a

- - - - - straddling, as it were, a relatively small stream, it is apparent

that the diurnal peaks are flattened out. In anticipation of this, a system was devised whereby it would be possible to temporarily store irrigation water in the reservoir, making release 24 hours later, and deliver to ditches on a 24-hour basis, the equivalent number of acre feet they were entitled to receive from the diurnal peak, but at a reduced rate of flow. Due to lack of long distance recorders and the difficulty of assembling information, the operation was unsatisfactory. It is hoped that next year's operation can be more satisfactory, otherwise further complaint will be made by the water users. Other complaints were received which were either resolved at the time or are in the process of so being.

Administration of the Laramie River District proceeded in accordance with the agreement of 1942. At the present time, water users in Colorado and Wyoming are negotiating and it is possible that in the next few months a compromise agreement may be consummated.

There were no floods of consequence reaching the South Platte River. A flood on Beaver Creek south of Brush cost one life.

There has been some discussion relative to the arbitrary date of November 1st as used to determine the amount of storage to which each reservoir is entitled for the next 12 months. This date seems to fit very well for irrigation storage, but at times works a hardship on municipalities. Our cities, generally, find it necessary to rely largely on reservoir water during the winter months. Our present method automatically reduces the amount of allowable storage and it is wondered if this is not contrary to the intent of the Courts and of the State Engineer's Office.

Demands have been made by irrigation interests that we make an evaporation charge against channel reservoirs. While there may be justification for such, it has never been the policy of this office. The problem has been referred to the State Engineer for further study and answer.

Tabulations of Water Commissioners' Annual Reports; Amounts of Water in Storage by Months; Totals of Trans-Mountain Diversions; and Amounts Diverted by the Several Users from the Laramie River and Tributaries accompany and form a part of this report.

Respectfully submitted,



Division Engineer

Irrigation Division No. 1

TABULATION OF WATER COMMISSIONER'S ANNUAL REPORTS
For The Irrigation Season 1955

Irrigation Division No. 1

Dist. No.	No. Acre Feet Used For Season	Acres Irrigated	First Day Water Used From Nat'l Stream	Last Day Water Used From Nat'l Stream
1	152,766	158,659	April 5	October 31
2	259,345	232,840	April 4	October 31
3	364,968	253,690	April 18	October 31
4	182,815	145,715	April 15	October 31
5	107,435	111,980	April 17	October 29
6	102,947	174,290	April 10	October 31
7	63,382	115,233	March 7	October 31
8	104,423	13,558	March 14	October 31
9	19,692	15,847	March 19	October 31
23	22,773	35,171	April 1	October 29
47	300,000 Est.	125,893	May 5	August 1 Est
48	18,716	4,845	May 2	October 29
64	227,917	178,107	March 4	October 31
65	20,096	7,860*	April 1	October 31
TOTALS	1,947,275	1,572,998		

*5,000 of this are in Nebraska

The following is a statement of water in storage in Irrigation Division No. 1, from January 1, 1955, to December 1, 1955, tabulated by Districts. This does not include North Park District No. 47, nor the Laramie River Basin District No. 48, as there is very little storage in either of those Districts.

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- Values in Acre Feet -

	Jan. 1st	Feb. 1st	Mar. 1st	Apr. 1st	May 1st	June 1st	July 1st	Aug. 1st	Sept. 1st	Oct. 1st	Nov. 1st	Dec. 1st
32,114	39,758	50,591	64,273	59,432	48,911	34,189	15,624	8,312	6,010	14,863	28,421	
7,447	12,243	18,389	26,143	25,666	20,358	16,602	6,110	4,066	8,750	9,464	16,322	
77,052	96,183	116,027	131,319	151,200	138,357	158,227	116,802	67,422	38,140	42,326	60,522	
51,562	61,340	70,521	85,262	83,244	68,259	61,855	46,369	34,356	25,068	31,325	39,120	
6,632	7,497	8,131	9,294	10,678	9,978	10,706	10,172	6,320	5,260	4,909	6,309	
6,884	6,791	6,356	6,937	7,695	14,813	20,391	21,950	18,118	16,516	15,598	16,353	
8,379	9,208	10,319	10,273	8,597	10,661	10,579	11,578	11,708	10,434	11,804	12,159	
15,363	14,309	13,838	14,108	13,132	15,244	16,730	15,198	17,178	17,376	16,724	17,233	
1,009	1,185	1,377	1,357	1,331	883	908	908	783	783	783	1,363	
56,353	54,395	52,855	50,916	49,608	46,940	51,520	50,303	51,161	49,900	48,331	48,619	
28,483	48,309	58,692	69,476	68,361	61,734	65,946	40,375	13,806	1,127	3,460	18,744	
291,278	351,281	407,096	469,358	478,944	436,138	447,653	335,389	233,230	179,364	199,587	265,165	
of Denver:												
78,080	74,453	71,840	69,550	65,411	67,781	75,447	81,145	84,405	83,137	80,658	80,462	
Irr. Use:												
213,198	276,828	336,256	399,808	413,533	368,357	372,206	254,244	148,825	96,227	118,929	184,703	

TRANS-MOUNTAIN DIVERSIONS
TO IRRIGATION DIVISION NO. I

1 9 5 5

Name of Diversion	From Dist.	To Dist.	Source Of Supply	First Day	Last Day	Acre Feet
Deadman Ditch	48	3	Laramie River	5-11	7-13	1,170
Sand Creek Ditch	48	3	Sand Creek	5-10	7-13	421
Laramie Poudre Tunnel	48	3	Laramie River	5-6	7-12	14,818
Skyline Ditch	48	3	Laramie River	6-9	7-2	3,677
Lost Lake Ditch	48	3	Laramie River	-	-	0
Columbine Ditch	48	3	Laramie River	5-14	7-13	157
Bob Creek Ditch	48	3	Laramie River	5-1	7-13	560
Michigan Ditch	47	3	No. Platte River	-	-	0
Cameron Pass Ditch	47	3	No. Platte River	6-13	7-11	188
Grand River Ditch	51	3	Colorado River	5-10	9-5	16,150
Adams Tunnel	51		Colorado River	11-1-54	10-31-55	256,550
Eureka Ditch	51	4	Colorado River	6-18	8-31	124
Moffat Tunnel	51	6-7-8	Colorado River	4-25	11-5	37,020
Williams Fork Tunnel	551	7	Colorado River	5-10	10-28	10,360
Berthoud Pass Ditch	51	7-2	Colorado River	5-28	7-30	458
Boreas Pass Ditch	36	23	Blue River	5-30	9-23	267
Hoosier Pass Tunnel	36	10	Blue River	5-2	8-26	6,470
					TOTAL	<u>348,390</u>

OFFICE OF STATE ENGINEER OF COLORADO
 Diversions from Laramie River & Tributaries
 - 1 9 5 5 -
 Recapitulation - Totals for Season

<u>Name of Ditch</u>	<u>Amount Diverted Day Second Feet</u>
Bliler - Boswell Stuck Warren	504.78
Mansfield & Enlg. Mansfield No. 2	940.07
Forrester No. 1 Grace Cr. & Enlg.	795.96
Detro No. 1 Detro No. 2 Lower La Garde	258.74
Jimmy Cr. (Net) La Garde minus Lower L. G. La Garde No. 1 Schnitger	613.00
Yelton	275.21
Homestead No. 1 (Big Jenkins) Homestead No. 2 (Little Jenkins) Pache Nellie	636.48
Martin No. 1 Martin No. 2 & Enlg. Wright	1,358.55
Brown - Nunn Cr. Cabin Davy Forrester - Brown Cr. Stubb	834.51
Link No. 1 Link No. 2 Smith - Brown Cr. Upper Hills	692.09
Brown - Porter Cr.	29.25
Lamb	428.83

Laramie River Diversions - Continued

<u>Name of Ditch</u>	<u>Amount Diverted</u> <u>Day Second Feet</u>
British Cr.	
Comet	
Homestead - McIntyre Cr.	
Lower Grant	
Upper Grant	
Stuart No. 1	
Stuart No. 2	654.32
Brinker	
McIntyre	
Pine Creek & Enlg.	369.33
Glendevey	
Talmadge	92.95
Lower Jim	
Trollope	
Ward No. 1	
Ward No. 2	28.62
Jim minus Lower Jim	
Jim No. 2	
Lone Tree	
Ollie	
Timothy	923.53
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Total Meadow Land Diversion - - - - -	18,716 Acre Feet
 -Trans-Mountain Diversions- Laramie River <hr/>	
Deadman Ditch	1,170
Laramie-Poudre Tunnel	14,818
Skyline Ditch	3,677
Lost Lake Ditch	0
Columbine Ditch	157
Bob Creek Ditch	560
	<hr/> 20,382 Acre Feet
Total Meadow Land	18,716
Total Trans-Mountain	<u>20,382</u>
Grand Total Laramie River	39,098 Acre Feet