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STATE ENGINEER
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DEPUTY



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STATE OF COLORADO
ENGINEERING DEPARTMENT
DENVER 2

December 4, 1945

SUBJECT:

Mr. M. C. Hinderlinder
State Engineer
State Capitol Building
Denver, Colorado

Dear Sir:

I herein submit report of the irrigation activities of this office in Irrigation Division No. 1, for the year 1945.

The water supply in the Division, up to the first of April, was somewhat below normal, the average water content on the water sheds as shown by the Snow Survey of April 1 indicating a depth of 4.8 inches, as compared with the normal of 5.9 inches; and the rainfall during the spring period up until July 15 was considerably below normal. However, after that date, there was considerable precipitation over most of the Division, on many occasions the storms being accompanied by severe hail which damaged crops considerably in some areas. During August there was an excessive amount of rainfall and as a consequence, most of the irrigation reservoirs were refilled during this month, which, to my knowledge, is the first time this situation has occurred. Storage the past year was conducted under an agreement, rather than by decretal order, which on occasion makes for a better distribution of the storage water. It is expected that a similar agreement will be in operation this coming year.

The amount of water in storage in the Division as of April 1, was 562,194 acre feet, which is approximately normal for that time of year, and storage was gradually increased until July 1, on which date 767,678 acre feet of water was in storage, which is about 80% of the maximum storage capacity in the Division. By August 1 this amount had dropped to 647,000 and to 643,000 on September 1, showing a very small use of reservoir water during the latter part of the season. During August, as has heretofore been mentioned, there was considerable storage available for the reservoir since, due to the rains, there was little demand for water for direct irrigation. However, after September 1, demands were again made for water for direct irrigation and some of the reservoir water was used. However, a considerable amount was carried over and storage was again started October 1 and is still in progress at this time, there being 608,117 acre feet in storage in the Division as of December 1, and there is little doubt that most reservoirs will be entirely filled for the coming irrigation season.

There were 76 administration orders issued to the Water Commissioners of the various Districts in this Division during the season, which is nearly double the usual number issued and this is due in a great measure to the erratic weather conditions which prevailed during the early summer.

The crops in the Division appeared to be normal, there being about the usual acreage of sugar beets and a somewhat greater acreage of small grains, with potatoes a little over the normal acreage. The prices on most crops are good, with the exception of potatoes, which took a decided slump shortly after digging began.

The administration of the Laramie River was conducted as in the past three years with little or no friction. However, there is some demand by some of the ranchers on the Laramie River that a permanent agreement of some sort be worked out with Wyoming. This has been discussed somewhat, but no definite action so far has been taken.

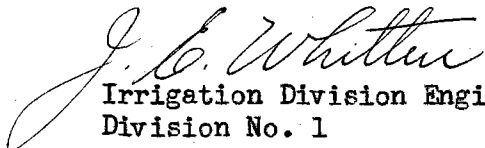
The transmountain diversions for the season were somewhat above average, there being a total of 99,647 acre feet diverted during the season, of which amount the City of Denver diverted 47,929 acre feet by way of the Moffat and Jones Pass Tunnels.

There has been no major construction in the Division during the past year. However, there is considerable work on some of the smaller dams and reservoirs now in progress and it is expected that more improvements and repairs will be made as the labor and materials situation improves. A new outlet has been constructed on the Bijou No. 2 Reservoir, replacing the old outlet tube which collapsed about 2 years ago.

Work is still in progress on the Colorado-Big Thompson Project, lining of the tunnel now going on, and preliminary work on the reservoirs in conjunction therewith. However, it is not anticipated that water will be diverted by this project before 1947.

There were no floods of material consequence, but a few of lesser importance scattered over the various streams in the Division, none of which did damage of importance.

Very respectfully submitted


Irrigation Division Engineer
Division No. 1

JEW:FF

DIVERSIONS FROM LARAMIE RIVER
 BY DITCHES IN COLORADO FOR THE YEAR 1945
 RECORDS OF THE OFFICE OF THE STATE ENGINEER OF COLORADO

<u>NAME OF DITCH</u>	<u>TOTAL DIVERSION SECOND FEET</u>
Bliler - Boswell	427.81
British Creek No. 1	19.69
Brown - Nunn Creek	318.03
Brown - Porter Creek	54.86
Ben Warren and Enl.	0
Brinker	0
Comet	165.03
Cabin	45.60
Detro No. 1	72.28
Detro No. 2	0
Davy	186.89
Ferguson	0
Forrester - Brown	85.61
Forrester No. 1 - Forrester	234.89
Forrester No. 2 - Forrester	0
Glendevey	31.81
French Woman	0
Grace Creek and Enl.	567.20
Grant	59.71
Hills	0
Upper Hills	155.51
Homestead (McIntyre)	118.65
Homestead No. 1 (Big Jenkins)	114.44
Homestead No. 2 (Little Jenkins)	54.87
Hance	5.99
Jim (Jimmy Creek)	225.17
Jim No. 2	42.03
Jimmy and Enl.	259.70
Jimmy Creek (Laramie River)	63.13
LaGarde and Enl.	322.63
LaGarde No. 1	0
Lamb	441.63
Link No. 1	287.01
Link No. 2	0
Lone Tree	87.57
Mansfield and Enl.	470.51
Mansfield No. 2	479.90
Martin No. 1	413.21
Martin No. 2 and Enl.	555.50
McIntyre	279.13
Nellie	212.21
Ollie	232.06
Pache	330.44
Parker	0

<u>NAME OF DITCH</u>	<u>TOTAL DIVERSION SECOND FEET</u>
Pine Creek and Enl. - - - - -	29.47
Roaring Creek Ditch - - - - -	95.12
Stuck - - - - -	155.16
Smith - Brown - - - - -	254.09
Stuart No. 1 - - - - -	59.43
Stuart No. 2 - - - - -	139.89
Stubb - - - - -	45.91
Schnitger - - - - -	256.98
Trollope - - - - -	45.39
Talmadge - - - - -	42.25
Timothy - - - - -	407.07
Warren - - - - -	81.00
Ward No. 1 - - - - -	89.90
Ward No. 2 - - - - -	59.71
Wright - - - - -	396.99
Yelton - - - - -	<u>353.05</u>
 Total - Meadow Lands - Second Feet - - - - -	 9,932.11
 Total - Meadow Lands - Acre Feet - - - - -	 -19,700.00

TRANSMOUNTAIN DIVERSIONS

<u>NAME OF DITCH</u>	<u>TOTAL DIVERSION ACRE FEET</u>
Laramie - Poudre Tunnel - - - - -	8,595.00
Skyline - - - - -	-10,563.00
Dead Man - - - - -	770.00
Lost Lake - - - - -	No Diversion
Columbine - - - - -	No Diversion
Bob Creek - - - - -	No <u>Diversion</u>
 Total - Transmountain Diversions - - - - -	 19,928.00
 Grand Total - - - - -	 39,628.00

TRANSMOUNTAIN DIVERSIONS
Irrigation Division No. 1
1945

<u>NAME OF DIVERSION</u>	<u>FROM</u> <u>DIST.</u>	<u>TO</u> <u>DIST.</u>	<u>SOURCE OF SUPPLY</u>	<u>1ST.</u> <u>DAY</u>	<u>LAST</u> <u>DAY</u>	<u>ACRE</u> <u>FEET</u>
Deadman	48	3	Laramie River	6-4	7-4	770
Laramie-Poudre Tunnel	48	3	Laramie River	5-21	7-10	8,595
Skyline Ditch	48	3	Laramie River	5-21	7-21	10,563
Lost Lake Ditch	48	3	Laramie River	No Diversion		
Columbine Ditch	48	3	Laramie River	No Diversion		
Bob Creek Ditch	48	3	Laramie River	No Diversion		
Sand Creek Ditch	48	3	Sand Creek	5-20	7-5	3,975
Michigan Ditch	47	3	North Platte River	6-18	8-25	3,093
Cameron Pass Ditch	47	3	North Platte River	6-14	7-26	297
Grand River Ditch	51	3	Colorado River	5-25	9-13	23,200
Moffat Tunnel	51	6	Colorado River	5-6	10-23	36,888
Williams Fork Tunnel	51	7	Colorado River	6-18	9-30	11,041
Berthoud Pass Ditch	51	7	Colorado River	6-18	9-8	1,037
Eureka Ditch	51	4	Colorado River	6-16	9-9	<u>188</u>
TOTAL						99,647

ACRE FEET IN STORAGE
IRRIGATION DIVISION NO. 1
1945

<u>DIST.</u>	<u>Jan. 1.</u>	<u>Feb. 1.</u>	<u>Mar. 1.</u>	<u>Apr. 1.</u>	<u>May 1.</u>	<u>June 1.</u>	<u>July 1.</u>	<u>Aug. 1.</u>	<u>Sept. 1.</u>	<u>Oct. 1.</u>	<u>Nov. 1.</u>	<u>Dec. 1.</u>
1	56,056	74,418	97,037	110,945	123,357	116,897	116,200	77,945	99,478	60,343	84,257	103,537
2	29,692	38,445	48,981	54,125	67,512	72,076	73,678	49,986	64,073	37,695	54,809	54,608
3	37,084	41,925	46,352	52,247	62,687	82,755	120,678	101,424	72,122	42,791	50,406	59,508
4	35,982	35,791	36,700	38,117	43,790	57,452	75,368	69,855	65,509	48,253	50,731	51,084
5	6,415	7,188	7,575	8,539	10,787	24,717	28,242	22,893	20,628	14,951	15,651	16,559
6	14,611	14,846	15,154	16,589	17,546	28,441	35,530	29,715	32,020	24,881	25,151	25,353
7	6,254	5,182	4,491	3,398	4,011	6,713	15,712	15,418	15,515	13,314	12,442	10,679
8	14,365	16,363	17,083	17,176	15,800	16,563	17,070	15,930	15,398	16,060	17,441	16,675
9	2,662	3,340	3,918	4,905	7,204	8,000	6,552	4,539	5,586	5,586	4,836	5,163
23	158,760	155,523	153,905	154,787	163,173	164,696	166,550	170,097	183,003	179,065	179,563	180,798
64	57,019	72,804	87,257	101,366	119,269	115,849	112,098	89,741	69,822	40,352	58,639	84,153

TOTALS 418,900 465,825 518,453 562,194 635,136 694,159 767,678 647,543 643,154 483,291 553,926 608,117

City of

Denver 177,300 174,905 173,254 172,903 178,229 181,848 191,842 194,949 207,323 204,027 205,847 204,301

Bel. for

Irrig-

ation 241,600 290,920 345,199 389,291 456,907 512,311 575,836 452,594 435,831 279,264 348,079 403,816

WATER COMMISSIONERS' REPORTS
FOR THE IRRIGATION SEASON OF 1945
IRRIGATION DIVISION NO. 1

WATER DIST. NO.	FIRST DAY WATER USED FROM NATURAL STREAM	LAST DAY WATER USED FROM NATURAL STREAM	ACRE FEET	TOTAL NO. OF ACRES THAT CAN BE IRRIGATED	CROPS IRRIGATED FROM CANAL IN ACRES													
					ALFALFA	NATURAL GRASSES	CEREALS	ORCHARDS	MARKET GARDENS	POTATOES	SUGAR BEETS	BEANS	PEAS	CABBAGE	CORN	OTHER	TOTAL IRRIGATED	
1	5-1-45	11-1-45	301,576	179,045	38,118	19,185	31,545	150	325	2,861	17,637	19,525			42	25,911	10,012	165,3
2	5-1-45	11-15-45	392,954	226,791	38,502	10,528	78,155	330	12,503	12,197	30,683	22,881	811	2,278	10,160	875	219,9	
3	5-8-45	10-31-45	403,175	380,000	63,370	4,815	70,555	1,525	3,648	28,598	38,625	9,325	385	687	20,000	22,627	264,1	
4	3-24-45	10-31-45	213,996	141,490	38,760	305	72,600	1,955	635	8,045	12,155	1,475	1,035	570	2,000	885	140,4	
5	2-17-45	10-22-45	100,928	112,235	39,540	8,785	45,270	70	915		16,265		190	300		900	112,2	
6	5-1-45	10-20-45	106,751	195,335	28,201	61,075	45,925	690	2,642	365	4,564	960	590	130	18,795	6,831	170,7	
7	4-1-45	10-31-45	128,700	116,128	11,873	1,085	53,346	1,364	10,858	111	1,335	952	335	1,227	10,691	5,204	98,3	
8	3-24-45	10-31-45	124,622	120,000	9,527	885	5,854	46	2,269		316				2,603	1,631	23,1	
9	5-1-45	10-27-45	27,244	16,329	5,068	1,583	5,124	99	345	25	137	0		50	1,242	360	14,0	
23	4-16-45	10-31-45	71,500	65,000		35,000											35,0	
47	Not reported		E.160,000	110,000		80,000											80,0	
48	5-2-45	10-31-45	19,656	5,000		4,600 (3,852 tons native hay)											4,6	
64	3-18-45	10-31-45	222,689	195,691	38,826	29,363	41,878	136	723	4,445	20,389	2,996	0	10	26,599	5,366	170,7	
65	5-10-45	11-1-45	17,554	* 8,400	1,014	217		15	16	12	47				1,453	538	** 3,3	
TOTALS			2,291,345	1,871,444	312,799	257,426	450,252	6,380	34,879	56,659	142,153	58,114	3,346	5,294	119,454	55,229	1,501,9	

* 5,000 acres in Nebraska.
 ** 1,447 acres in Nebraska.