

STATE OF COLORADO
IRRIGATION DIVISION NO. 2
PUEBLO

F. C. SNYDER
IRRIGATION DIVISION ENGINEER
BON DURANT BLDG.,
P. O. BOX 1423

Nov. 30, 1959.

SUBJECT:

Mr. J. E. Whitten
State Engineer
Capitol Bldg.
Denver, Colo.

Dear Sir;

I herewith wish to submit my report as Division Engineer of Irrigation Division No. 2 for the year of 1959.

We had a very good year due to a good early precipitation and an excellent carry over in the reservoirs. The months of June, July, August and September were very dry and the natural flow of the streams was accordingly very low. The reservoir carry over saved the crops for those farmers to whom it was available. The other farmers had a difficult time bringing their crops to maturity and were correspondingly hard to satisfy.

Precipitation for the year amounted to 14.11 inches at Pueblo which was above the normal. At Las Animas 11.32 inches of rainfall was below normal. It was very dry from the middle of June until August when some rains during the first two weeks relieved the drought only slightly. Another dry spell occurred from August 15th until September 28th when this area received a heavy wet snow on September 29th and 30th with about 2.5 inches water content. Although this storm caused great damage to power lines and to trees which were in full leaf at the time, it charged the ground water and put snow in the mountains. After this snow, which caused great hardships for both rural and urban areas, all rivers and creeks did better than normal for the balance of the season.

We had 521,600 acre feet of water in storage April 1, 1959, which was used down to 116,863 acre feet by October 1, 1959, showing a total used of 404,737 acre feet from this source. This leaves us with most reservoirs going into the winter empty or nearly so.

The John Martin reservoir went into the storage season Nov. 1, 1958, with 231,000 acre feet of water which was the largest amount for this time of year since it was put into operation. This amount of 231,000 acre feet was built up to 256,311 acre feet by April 1, 1959, when the first release was made. Constant withdrawals were made until the reservoir was declared empty on September 14, 1959. The water for early decrees was supplied from drainoff and seepage return until the end of the season. There was no water available from the upper districts for later decrees. There were no floods either on the Arkansas or the Purgatoire rivers during the summer to allow the closing of the gates for storage at the John Martin reservoir. With all these conditions existing, the outlook for the coming season is gloomy at this time. The expected storage of 20,000 or 25,000 acre feet of water by April 1, 1960, will be about a two-weeks run before the users will be on decrees again with hopes very dim for water to fill any decrees later than 1885.

Trans-mountain diversions totaled 50,235 acre feet for the year. The Western Slope demanded the flow from Sept. 10th to October 9th, which did not reduce the diversions very much as very little runoff was available during this period.

The Highline Canal Company is nearing completion at this time of a project of rehabilitating the Busk-Ivanhoe tunnel

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at a cost of about one million dollars. This should allow a greater diversion of the available supply in the future.

The channel both above and below the outlet gates at the Twin Lakes reservoir has been widened and deepened to the level of the bottom of the gates, permitting a greater amount of the stored water to be released. The Twin Lakes Reservoir & Canal Company is now building a new concrete Parshall flume in the outlet lowering it to the elevation of the bottom of the gates. The channel between the two lakes needs to be lowered and widened very badly. This work may be done this coming year.

The total amount of water distributed was 1,555,402 acre feet to irrigate a total acreage of 509,721, or 3.05 acre feet of water per acre irrigated.

Tables of trans-mountain diversions, reservoir storage by months, acres irrigated and water used are attached hereto.

I thank the Denver office force, the Attorney General's office, and all commissioners and their deputies for the splendid cooperation during the past season.

Respectfully submitted.


Division Engineer, Division No. 2.

TABULATION of WATER COMMISSIONER'S ANNUAL REPORTS
FOR IRRIGATION SEASON of 1959.

IRRIGATION DIVISION No. 2.

Dist. No.	First day water was used from natural stream	Last day water was used from natural stream	Number of acres feet water used by canals for season	Total number Acre irrigated 1959.
10	Nov. 1, 1958	Oct 31, 1959.	37,279	10,669
11	Nov. 1, 1958	Oct. 31, 1959	129,729	24,893
12	Nov. 1, 1958	Oct. 31, 1959	347,425	21,832
13	Apr. 15, 1959	Oct. 31, 1959	31,272	19,370
14	Nov. 1, 1958	Oct. 31, 1959	198,541	104,178
15	Nov. 1, 1958	Oct. 31, 1959	21,489	3,537
16	Nov. 1, 1958	Oct. 31, 1959	51,769	41,715
17	Nov. 1, 1958	Oct. 31, 1959	409,932	154,591
18	Nov. 1, 1958	Sept 11, 1959	10,124	4,805
19	Nov. 1, 1958	Oct. 31, 1959	76,067	22,941
49	Jun 28, 1959	Oct. 26, 1959	2,568	1,240
66	Jan. 1, 1959	Oct. 31, 1959	1,704	721
67	Nov. 1, 1958	Oct. 31, 1959	<u>237,503</u>	<u>69,229</u>
		TOTALS	1,555,402	509,721

TRANS-MOUNTAIN DIVERSIONS
Irrigation Division No. 2.

1959

Month	Columbine	Ewing	Wurtz	Busk-Ivanhoe Tunnel	Twin Lakes Tunnel	Larkspur	Totals.
In acre feet.							
Nov. 1958					96		96
Dec.					158		158
Jan. 1959					118		118
Feb.					104		104
Mar.					122		122
Apr.					126		126
May	46	220	506	480	6540	8	7800
June	1124	660	1164	3168	24730	41	30887
July	154	154	238	1112	6588		8246
Aug.	40	34	36	122	1754		1986
Sept.					382		382
Oct.					210		210
Totals	1364	1068	1944	4882	40928	49	50235

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47.96
1.92
2.96
59.07
142.14
52.66
11.91
10.51
35.02
47.06
43.52
17.66
80.00
251.26
8.02
106.56
21.55
59.02
6.34
1.34
18.08
27.99
50.52
28.07
277.67
49.64
1.06
14.11
977.94
133.20
57.07
15.61
2.558.81
521,625 T

April
521600

CONTENTS OF MAJOR RESERVOIRS in IRRIGATION DIVISION No. 2.

Dec. 1, 1958 to Nov. 1, 1959 Values in Acre Feet.

Dec. 1 Jan. 1. Feb. 1. Mar. 1. Apr. 1. May 1. June 1. July 1. Aug. 1. Sep. 1. Oct. 1. Nov. 1.

	Dec. 1	Jan. 1.	Feb. 1.	Mar. 1.	Apr. 1.	May 1.	June 1.	July 1.	Aug. 1.	Sep. 1.	Oct. 1.	Nov. 1.
Fountain Val.#2	4069	4094	4595	4771	4796	4796	4847	4470	3385	2537	2537	2554
Fountain Val.#3	95	88	152	271	192	169	142	109	71	57	55	70
Monument Res.	231	225	256	244	296	347	307	241	225	225	228	279
Sugar Loaf	5356	5369	5544	5826	5907	1598	3614	9302	6385	4300	3459	2977
Twin Lakes	11784	11738	12727	13651	14214	11732	15360	39668	25815	12678	7887	9471
Clear Creek	4661	4629	4845	5166	5266	5146	5589	8335	8298	7773	8004	7960
Mt. Pisgah	897	897	966	1112	1191	1191	1191	1191	945	568	568	568
Skaguay	2343	2092	1834	1444	1051	1204	1263	1863	1863	1570	1283	1570
Brush Hollow	1820	2305	2627	3015	3502	4137	3812	2602	1733	1158	1115	1659
City of ColoSpgs	4926	4753	4738	4790	4706	4627	4754	5168	4617	4385	3786	3936
DeWeese Dye	2056	2056	2621	3592	4352	4322	3962	3520	2621	2540	1291	1356
Teller				1821	1766		1634	1570		911	1410	1293
Lake Henry	1845	2357	8449	8900	8000	6935	6738	3660	1632			322
Lake Meredith	12099	12099	15637	26028	25126	22394	18468	1307	0	0	0	0
Beckwith(Hayden)	723	700	735	771	802	918	929	908	814	802	717	783
C F & I Res.	12416	12202	11691	11137	10656	11844	11731	8889	9836	12289	12618	12712
Color	2039	2006	2006	2039	2155	2239	2239	2187	1909	1680	1476	1407
Cucharas	6100	5902	6034	6034	5902	5836	5836	3330	1396	1226	1009	820
Huerfano Valley	634	556	576	576	634	634	634	236	539	0	0	0
Holito	0	19	37	37	134	134	143	111	0	0	0	0
Dotson	1756	1248	1248	1360	1808	1859	1859	1698	0	0	0	0
Dye	2908	2871	2835	2845	2799	2705	2582	976	0	0	0	0
Holbrook	3100	3090	3849	5238	5052	4836	4559	4021	299	186	0	0
Horse Creek	3190	2589	2468	3018	2807	1403	0	0	0	0	0	0
Adobe Creek	29467	29117	29117	29222	27867	27236	22056	22946	12363	0	0	0
Model	1828	2835	3672	4603	4964	4964	2121	1545	0	1056	0	0
North Lake	151	152	133	124	106	116	135	152	152	142	134	124
Monument Lake	1497	1585	1415	1415	1411	1764	1674	1650	1585	1570	1349	1349
NeeNoShee Nee												
Gronda & Sopha	97794	91871	92667	97794	97794	96412	91471	78677	66130	60378	51534	51267
Nee Skah(Queen)	9928	9171	11372	13607	13320	12472	11922	10713	8672	7187	5134	4937
Two Buttes	5071	5023			5707	5606	5909	7068	8893	8829	8385	8321
Thurston	1821	1638	1535	1690	1561	1573	1425	1323	1175	1086	1300	1128
John Martin	233179	238903	244370	252451	255881	223105	185513	139802	83782	32839	0	0
Totals	465754	464180	480751	514592	521666	474254	424419	369238	255135	167972	115279	116863
Mun.Mnfg.&Power	28033	27419	26665	26115	24147	26940	27385	28244	28260	29409	28650	29028
Irrigation	437721	436761	454086	488477	497453	447314	397034	340994	226875	138563	86629	87835