



STATE OF COLORADO
IRRIGATION DIVISION NO. 6
STEAMBOAT SPRINGS

B. T. CHASE
IRRIGATION DIVISION ENGINEER

November 22, 1949

*File with Reports
of Division Engs.*



Mr. M. C. Hinderlider
State Engineer
Denver, Colorado.

Dear Mr. Hinderlider:

Following is a brief report in regard to water supply, crop production, weather etc. in this Division the past year.

Water Commissioner reports are not all in at this time, however all information at hand points toward a very successful and prosperous year for both the water user and the dry land farmers. Water supply has been plentiful throughout the irrigation season for direct irrigation. A very small percent of the water in storage in reservoirs was needed for supplemental irrigation.

Climatic conditions in all respects were favorable for above average crop production. Temperatures run above normal, no injurious frosts occurred during growing season. Rain fall sufficient and well distributed for best results in producing above average dry land crops, grain and potatoes. Fall weather dry and warm, ideal for harvesting under the most favorable conditions.

All the old hay crop from previous year was desposed of during the last winter at a high price. This years heavy hay crop is being bailed quite extensively with the anticipation that market will again be very good. It is noted however, particularly in District No. 43, that cereals have replaced a few thousand acres of former hay meadows.

Due primarily to the better financial condition of the average water user, aided by a long period of fair weather this fall, a large amount of much needed construction work and repairs to ditches and small reservoirs has been accomplished, this included many new installations and replacements of steel parshall flumes.

Complete Annual Report will be forwarded as soon as all data can be assembled.

Very truly yours

B. T. Chase

1949

ANNUAL REPORT

IRRIGATION DIVISION ENGINEER

DIVISION No. 6

Steamboat Springs, Colorado.
November 28, 1949

Mr. M. C. Hinderlider
State Engineer
Denver, Colorado.

Dear Sir:

I herewith present my annual report for Irrigation Division No. 6 for 1949. Attached hereto are tabulations of Water Commissioners ditch and reservoir reports.

Water supply from direct stream flow was adequate throughout the season for all irrigation demands, with but few exceptions in scattered sections. The overall supply was far above the average and with the exception of Elk Lake reservoir in District No. 54, stored water in reservoirs was not needed for a supplemental supply at any time during the irrigation season. The first demand for use of water for irrigation was April 15th in Districts No. 43 and 57. Irrigation continued in some sections up to November 15th for fall irrigation on hay and pastures.

Climatic conditions were in all respects favorable for an above average crop production. Temperatures ranged above normal, no injurious frosts occurred during the growing season. Rain fall was sufficient and well distributed for a good quality and heavy yield of all dry land crops, more particularly relating to cereals and potatoes.

The warm and dry fall weather was ideal for putting up hay and for the harvesting of all other crops. All the old hay from the previous year was either consumed locally or otherwise disposed of during the past winter at high prices. This years extra heavy crop is being bailed quite extensively, anticipating that the market will again be favorable. The average annual hay tonnage in this Division is estimated at approximately 230,000 tons. The crop reports disclose that cereals have replaced several thousand acres on lands formerly reported in hay acreage, particularly in Districts No. 43 and 57. All such grain acreage is either irrigated very sparingly or not irrigated at all.

The favorable weather following the harvest season provided an opportunity for accomplishing some much needed repairs to several small reservoirs and for the cleaning and repairing of a good many ditches including the installation of good headgates and steel Parshall flumes.

In November this year construction work was completed on the enlargement of the D. D. & E reservoir dam, this reservoir was enlarged from a twelve to a twenty five foot water line, the capacity increased from 17,460,154 cubic feet to 44,325,442 cubic feet. The water stored therein will be used for the irrigation of about eight hundred acres.

DISTRICT No. 43

No reservoir report made for this District this year, the Water Commissioners ditch report contains 82 ditches irrigating total of 22,309 acres upon which 152,359 acre feet of water were diverted, at an average of 6.82 acre feet per acre. This high average is the result of an excessive diversion by eight ditches on the White River which had a total average diversion of 322.0 cubic feet per second for 155 days to irrigate 12,400 acres of alfalfa, natural grass and cereals. The average acre foot per acre diversion of these eight ditches being 8.1 acre feet. The other 76 ditches reported are approximately the same average acre foot diversions as the ditches in other Districts.

DISTRICT No. 54

The Water Commissioners reports for the year shows 48 ditches used for the irrigation of 6,941 acres, upon which were diverted 15,406 acre feet of water, or an average of 2.22 acre feet per acre.

Two reservoirs are reported, The Elk Lake reservoir being the only one used for irrigation with capacity of 17,354,832 cubic feet and is a supplemental supply for the irrigation of 500 acres under the Riley Live Stock ditch. The other, a small reservoir with capacity of 1,436,400 cubic feet used for stock water only.

DISTRICT No. 57

This Commissioner reports on total of 14 reservoirs of which two reservoirs with a total capacity of 13,535,506 cubic feet were used the past season for irrigation on 260 acres of land.

Three reservoirs were reported out of order and not used in 1949 having total capacity of 53,526,733 cubic feet.

Nine reservoirs with total capacity of 82,752,815 cubic feet were reported as being used for stock water. The acreage formerly irrigated under these nine reservoirs, has in recent years been converted to cereal crops, it being a crop not usually needing irrigation in this area, therefore water stored in such reservoirs has been turned down the natural water course or left in storage for stock watering purposes.

DISTRICT No. 44

The reports of this District show complete information on only one reservoir (un-decreed) used for irrigation on 40 acres.

Seven reservoirs are reported with total capacity of 51,598,828 cubic feet, were used for irrigation but on information otherwise noted for 1949.

Two reservoirs were used for stock water, a total capacity of 10,942,800 cubic feet of which the acreage thereunder were in grain in 1949 and not irrigated.

The ditch report shows 81 ditches, irrigating total of 16,473 acres upon which were diverted 51,259 acre feet of water. An average of 3.11 acre feet per acre.

DISTRICT No. 58

The Water Commissioner reports ten reservoirs as follows;

One reservoir the dam washed out and not in use in 1949.	<u>Total Capacity cu. ft.</u>
One reservoir for domestic use	675,800
Eight reservoirs used for irrigation	17,423,615
	423,636,615

The total storage capacity available for irrigation purposes was 9230 acre feet of which during 1949, 1436 acre feet were drawn off for supplemental supply to ditches or about 16 per cent of the water in storage was used.

The ditch report shows 264 ditches were used, irrigating 54,700 acres for which 174,488 acre feet of water were diverted, an average of 3.19 acre feet per acre.

Summary showing acre foot per acre diversions for
the Division

District No.	Acre foot per acre	Remarks
43	6.82	8-large ditches showed excessive diversions.
44	3.11	Probably a very fair average
54	2.22	Lack of sufficient water supply for entire season.
57	3.47	Adequate supply, application unrestricted.
58	3.19	" " "

Division average 3.76 acre feet per acre in 1949

Respectfully submitted,

B. T. Chase
Irrigation Division Engineer
Division No. 6

TABULATED STATEMENT OF WATER COMMISSIONERS
ANNUAL DITCH REPORT FOR THE IRRIGATION SEASON OF 1949

District No.	Number of ditches reported.	Amount of appropriation cu. ft. per second.	Capacity of ditches second feet.	First day water used from natural stream.	Last day water used from natural stream.
43	83	829.15	1063.50	4-15	10-30
44	81	476.23	581.00	5-1	10-2
54	48	112.18	265.00	5-10	10-1
55 & 56	No reports				
57	46	304.94	367.00	4-15	10-8
58	264	1388.03	1619.00	5-15	11-15
7	521	3110.53	3895.50	4-15	11-15

District No.	Average number of days water carried.	Average daily amount carried in second feet.	Number of acfs feet used	Number of acres that can be irrigated	Alfalfa	Natural Grasses.
43	78	521.50	152,359	22,309	5615	13,939
44	75	310.39	51,259	29,477	7175	7,873
55	52	155.00	15,460	10,970	670	5,760
57	80	191.39	41,950	16,413	830	10,901
58	86	943.85	74,498	64,442	1370	37,798
5	74	2122.13	335,492	143,611	15660	76,271

District No.	Cereals	Market Gardens	Potatoes	Pasture	Spinich	Lettuce	Berries
43	2755	---	---	---	---	---	---
44	1425	---	---	---	---	---	---
54	485	---	-26-	---	---	---	---
57	360	---	---	---	---	---	---
58	3509	112	79	10,247	930	635	20
5	8534	112	105	10,247	930	635	20

District No.	Total irrigated
43	22,309
44	16,473
54	6,941
57	12,091
58	54,700
5	112,514

TABULATED STATEMENT OF WATER COMMISSIONERS
ANNUAL RESERVOIR REPORTS FOR IRRIGATION SEASON OF 1949

District No.	Number of reservoirs reported	Area of high water line acres	Total capacity cubic feet	Quantity of water in reservoir May 1, cu. ft.	Quantity of water in reservoir Nov. 1, cu. ft.
43	No report	-----	-----	-----	-----
44	11	214	72,653,570	62,531,628	000
54	2	32	18,791,232	9,156,216	3,739,066
55 & 56	No reports	---	---	---	---
57	14	328	148,592,570	130,255,380	000
58	10	324	419,970,715	419,970,715	262,671,150
7	37	998	660,008,087	621,933,939	266,401,216

District No.	First day water was used.	Last day water was used.	Average number of days water carried.	Average daily amount carried. cubic feet	Number of acre feet reservoir water carried.
44	5-10	8-5	87	1.00	174.00
54	7-25	9-7	42	3.00	252.0
57	6-26	9-15	62	5.25	509.5
58	6-23	10-8	33	19.50	1436.0
4	5-10	10-8	56	28.75	2371.5

District No.	Alfalfa	Natural Grasses	Total Irrigated	
44	40	----	40	Insufficient information for complete report
54	---	----	---	Supplemental to acreage reported under Riley Live Stock Ditch
57	---	260	260	
58	---	---	---	All acreage reported under 17 different ditches included in ditch report
4	40	260	300	