

Steamboat Springs, Colorado

November 24, 1952

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

Dear Sir:

I herewith present my annual report for Irrigation Division No. 6 for 1952. Included herewith are the tabulated statements of water commissioners ditch and reservoir reports.

The first call for water for direct irrigation was on the 16 day of April. The last day for general application was on the 1st day of November, altho some irrigation was continued up to November 15, this late irrigation was quite extensive on meadow and pasture lands, due to the prolonged dry period running from September 13, and continuing through to November 18, with only .10 of an inch which occurred on October 8th, this was recorded only at the Steamboat Springs weather station.

Of the seven water districts in Division No. 6, the water commissioners of five districts reported 559 ditches having a total appropriation of 3,182 cubic feet per second, and as having diverted an average of 2,269 cubic feet per second for an average of eighty days during the growing season with a total diversion of 417,607 acre feet for the irrigation of 127,968 acres, or an average of 3.27 acre feet per acre.

Reservoirs

The water commissioner of water District No. 43 made no reservoir report, several small reservoirs are in service in this district but not requiring water commissioner services.

Water District 54 reports only one reservoir used for supplemental irrigation on 500 acres.

District No. 44, eleven reservoirs are reported of which 8 are used for irrigation, total capacity 45,577,328 cubic feet. 3 reservoirs were used for stock water only total capacity 17,598,800 cu. ft.

District No. 57, fourteen reservoirs reported having total capacity of 152,414,562 cubic feet. Three of these were used during the season for irrigation having a total capacity of 38,440,078 cubic feet. Five reservoirs with total capacity of 39,512,796, cubic feet, used for stock water only. Six reservoirs having total capacity of 74,461,042 cubic feet, were out of order and not filled.

District No. 58 twelve reservoirs are reported having a total capacity of 429,853,562 cubic feet, all of which were filled by May 1st, and having a carryover on November 1st of 127,491,800 cubic feet. Ten of these reservoirs were for irrigation and two reservoirs for domestic supply having total storage of 18,447,365 cubic feet. All irrigation storage water was used for supplemental supply to 32 different ditches.

Precipitation

April and May about normal precipitations. Conditions were favorable for agricultural activities. The extra

heavy runoff started in May. Cold and freezing temperatures at night continued through the later part of May and well into June. The July temperatures were above average, with precipitation above normal. August continued with above normal temperatures and precipitation.

Water Supply

Irrigation water supply held out longer than usual. No serious complaints were registered as a result of water shortages. The natural precipitation was plentiful through the growing season and it continued wet with an excess rainfall well into the harvesting season, letting up around the first of September.

All streams in the area reached the highest stage since 1917. The total runoff may exceed any previous record, even that of 1917, as this excess snow cover was well distributed over the entire area.

Inundation of several thousand acres of hay meadows and pasture lands of the Yampa River valley in water districts 58, 57, & 44 throughout the extreme high water stage the latter part of May and early June, caused a heavy loss in the yield of hay and some instances the crop was an entire loss.

Crops

Aside from the crop losses by inundation, the total hay crop of the area was approximately 25% to 30% short of the average, due principally to temperature conditions May and June, cold and freezing nights. It was very slow in getting started.

It is estimated that the wheat acreage in the Yampa Valley will be around eighty thousand acres, with an average yield of about 20 bushels per acre. This amount far exceeds any previous harvest in the area. Harvesting conditions were quite favorable. The wheat is bringing a little over \$1.80 per bushel. Probably not over 5% of the wheat acreage is under irrigation.

Late in 1951 the Trull Creek Reservoirs in District No. 58 was rebuilt under supervision of the Soil Conservation Service and it seems these services were terminated upon completion of the earth fill. A spillway was constructed but was not protected from erosion, consequently the results from the overflow this opening came very near being disastrous.

The McChivvis Reservoirs also in District No. 58 dam of which was also constructed under Soil Service supervision was left incompletd ~~as~~ to rip rap on the dam and ~~in~~^{no} protection of the spillway. The owner has been notified not to close the valve until all work is completed.

Under date of June 11, 1952, orders were given the owners of the Gardner Park Reservoir District 58 to either open the valve or provide more freeboard in the spillway when it was learned that water stored therein was within slightly over one foot from the crest of the dam and spillway crest was within .50 feet from crest. The dam had sufficient crest width to allow the placing of material on top to bring the freeboard to 5 feet. This work was accomplished^{soon} after starting. Work completed by June 13, within 48 hours, the water did not quite reach the spillway crest.

The Hughes-Chapman Reservoir came within inches of going over the top of dam this spring. However for some reason the dam held and a later examination disclosed that sometime in the recent past the owner who had more recently passed away, had some contractor put some more fill in on top of the old dam, filled old spillway and made new cut for spillway allowing not over a one foot freeboard with a four foot width of spillway. Orders were sent to the present operator of the reservoir to lower the spillway to at least five feet below the lowest point in the crest of dam and widen it to not less than ten feet on the bottom. This order was complied with in the first part of November.

Respectfully submitted

B. T. Chase

IRRIGATION DIVISION ENGINEER
Division No. 6

TABULATED STATEMENT OF
 WATER COMMISSIONER'S ANNUAL DITCH REPORTS
 FOR IRRIGATION SEASON OF 1952

Dis- trict No.	Number of Ditches Reported	Amount of Appropriation cu. ft. per second	Capacity of Ditches Second Feet	First day Water used From natural stream
43	77	821.37	1303.00	5-1
44	106	545.44	653.00	4-16
54	49	109.83	268.00	5-10
55 & 56	None	--	--	--
57	50	305.48	545.00	5-5
58	257	1399.87	1690.40	5-1
Total	<u>539</u>	<u>3181.99</u>	<u>4459.40</u>	<u>4-16</u>

	Last day water used from natural stream	Average number of days water carried	Average daily amount carried in second feet	Number of acre feet used
43	10-16	68	592.70	132,684
44	10-30	107	393.84	76,753
54	10-1	42	124.00	13,200
55 & 56	--	--	--	--
57	10-31	113	146.43	35,502
58	11-1	70	1012.19	159,468
Total	<u>11-1</u>	<u>80</u>	<u>2268.16</u>	<u>417,607</u>

	Total Irrigation
43	22,248
44	20,490
54	6,820
55 & 56	--
57	12,549
58	65,861
	<u>127,968</u>

TABULATED STATEMENT OF WATER COMMISSIONER'S
ANNUAL RESERVOIR REPORT FOR IRRIGATION SEASON OF 1952

District No.	No. of Reservoirs Reported	Area of high water line, acres	Total capacity in cubic feet	Quantity of water in reservoir May 1st, cu. feet
43	None	---	-----	-----
44	11	295	63,176,128	63,176,128
54	2	32	11,323,994	5,056,858
55 & 56	--	---	-----	-----
57	14	399	152,414,562	77,953,520
58	12	410	429,853,562	429,583,562
Total	39	1136	656,768,246	575,770,058

	Quantity of water in reservoir Nov. 1, cu. ft.	First day water was used	Last day water was used	Average number of days water was carried
43	---	--	--	--
44	00	4-20	9-20	69
54	259,100	6-26	7-14	19
55 & 56	---	--	--	--
57	00	5-16	9-22	97
58	127,941,800	6-10	8-28	44
Total	128,200,900	4-20	9-20	57

	Average daily amount carried cu. ft. per sec.	Number of acre feet reservoir water carried	Total irrigated by reservoir only
43	---	---	---
44	20.83	2,865	1250
54	6.00	227	---
55 & 56	---	---	---
57	6.80	1,338	460
58	59.00	6,976	---
Total	92.63	11,406	1710