

M. C. HINDERLIDER  
STATE ENGINEER  
C. C. HEZMALHALCH  
DEPUTY



L. T. BURGESS  
CHIEF HYDROGRAPHER  
W. T. BLIGHT  
CHIEF CLERK & DRAFTSMAN

1953

STATE OF COLORADO  
ENGINEERING DEPARTMENT  
DENVER

Durango, Colo.  
February 10, 1954

SUBJECT:



Mr. M. C. Hinderlinder  
State Engineer  
Denver, Colo.

Dear Sir:

The annual report of Division Engineer for Irrigation  
Division Number 7 is herewith respectfully submitted.

Very truly yours,

*J. E. Williams*  
J. E. Williams,  
Division Engineer.

Annual Report for 1953

Irrigation Division Number 7.

J. R. Williams  
Division Engineer.

Water Supply

The snow cover on watersheds at high elevations as of April 1, 1953 was about fifty percent of average. The estimate of stream flow for the snow melt period was that it would be from forty to fifty percent. Precipitation during April was thirty five percent above average. Ten percent deficient in May and forty percent deficient in June. Stream flow for the April-June period was about sixty percent of the mean.

Two prolonged drought periods occurred. The first was from June 19 to July 17 and the second and most prolonged was from Sept. 1 to Oct. 21. These periods caused low stream flow and severe emergencies in farm and pasture areas which were not supplied by storage water from reservoirs.

Use of Water.

A summary of reports by Water Commissioners shows that there was a total irrigated area of 154,414 acres. 411,520 acre feet was diverted from natural streams with gross average headgate duty of 2.7 acre feet per acre with maximum of 4.1 a.f. and minimum of 1.5 a.f. per acre. In twenty one reservoirs with a capacity of 181,330 acre feet for irrigation there was stored a total of 148,520 acre feet. 116,640 a.f. was used from storage on 91,650 acres. A gross duty of 1.3 a.f. per acre. Making the total duty 4.0 a.f. on 91,650 acres. On November 1 there remained in storage 35,460 acre feet.

Crops.

Crop growth was retarded by cold weather during the spring months and a killing frost occurred on June 3d. Continual frosts during April and May completely destroyed the fruit crop with the exception of one or two orchards in the Hermosa area and a few orchards in Summit Ridge Area.

Hay and grain crops were normal in areas having supplemental water

to mature the second crops of hay. In general the season was far better than was anticipated by early estimates of water supply.

Improvements:

There were no major projects with exception of canal from Lightner Creek to the La Plata which was not completed. Several new headgates and measuring flumes were installed on canals.

Administration.

The shortage of stream flow caused exact determinations and administration of water rights. No unsurmountable difficulties arose although there were many controversies which had to be settled.

Tabulation of Water Commissioners Annual Ditch Reports.

Dist. No.	: Amount: in S.F.:	Capacity: of Canals in S.F.:	First Day: Water Used From Stream:	Last Day: Water Used From Stream:	Number: Days Used:	Mean: Daily Am't. Used:	Number: A.F. Used:	Number: Acres Irrigated:	Gross: Duty per Acre:
29	: 589	:* 639	:	:	:	:	:* 40000	:* 15000:	2.7 :
30	: 672	: 1055	: Apr. 10	: Nov. 15	: 220	: 240	: 105560	: 25651:	4.1 :
31	: 708	: 871	: " 22	: " 22	: 215	: 252	: 108310	: 48130:	2.2 :
33	: 277	: 540	: Mar. 18	: Oct. 26	: 223	: 41	: 18470	: 12118:	1.5 :
34	: 864	: 1286	: " 11	: Nov. 30	: 265	: 256	: 135050	: 52355:	2.6 :
69	: 109	: 78	: Apr. 9	: Aug. 25	: 139	: 15	: 4130	: 1160:	3.6 :
Totals	3219	4469	Mar. 11	Nov. 30	265	776	411520	154414	2.7

\* Estimated by Division Engineer.

Tabulation of Water Commissioners Annual Reservoir Reports.

Dist. No.	Number of Reservoirs	Area in Acres	Capacity in Feet	Maximum Amount Stored	Amount in Storage on Nov. 1st.	Number of Acres Used	Number of Acres Irrigated	Gross Duty in A.F. per Acre
29	5	*670 **	*1500 **	*1000 **		*1000	*1500	0.7
30	3	899	25390	19480	19170	130	180	0.7
31	2	3077	128050	102860	26510	76590	36300	2.1
33	1	50	1200	820	150	780	700	1.1
34	9	1214	26000	26330	3390	37890	52910	0.7
69	2	696	22630	17070	4780	a 250	a 60	4.2
Total	22	6606	205310	167560	54500	116640	91650	1.3
Less**	1	839	23960	19040	19040			
Net for Irr.	21	5767	181350	148520	35460	116640	91650	1.3

Note: \* Estimated by Division Engineer

\*\* Cascade Reservoir storage used for hydro-electric.

a Ground Hog Reservoir in Dist. 69. Water used in Dist 34.