



DIVISION OF WATER RESOURCES

ANNUAL REPORT FOR YEAR 1967

LOVELAND OFFICE

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Ass't Water Res. Engr.

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Division No.1

Water Districts in the South Platte Watershed started the year with prospects of another year of water shortage, with 70% of normal snow pack and below normal carry-over storage. At the beginning of the irrigation season, following above seasonal temperatures, decreased lower snow, poor soil moisture conditions, forecasts were in the 70-80% range. The high elevation snow pack was good in May, due to additional snow during April, and resulting in a late runoff. Above normal precipitation during May, June and July eased irrigation requirements in many areas. Many ditch companies stored river water in June and excess project water in September and October, which results in good carry-over for the 1968 season.

A comparison of stream flows of the areas three major streams indicate the deviation from normal during the past season.

<u>Gaging Station & Location</u>	<u>Year</u>	<u>Runoff In 1000 A.F.</u>	<u>Approximate Long time Average In 1000 A.F.</u>	<u>Percent of Average</u>
St.Vrain Cr. @ Lyons*	1966	39.5	94.	42.
	1967	78.1	94.	83.
Big Thompson River @ Mouth of Canyon	1966	72.	118.	61.
	1967	102.5	118.	87.
Cache La Poudre River @ Mouth of Canyon *	1966	141.3	300.	47.
	1967	183.9	300.	61.

* Not corrected for upstream diversions, except Munroe Canal on the Cache La Poudre River @ Mouth of Canyon.

On April 7, 1967, The Northern Colorado Water Conservancy District declared an initial quota of available project water for delivery during the 1967 season at 70% or 217,000 A.F.

Western slope water available in Granby and Willow Creek Reservoirs on Nov.1,1967 was 198,890 A.F. or 1,980 A.F. less than previous year.

Available project water in storage on the eastern slope on Nov.1,1967 was 118,447 A.F. or an increase of 59,172 A.F. over the previous year.

Water users in the following districts ordered a total of 198,352.5 A.F. of project water

Distribution of project water into the various water districts.

<u>Water Dist.</u>	<u>Carrier</u>		<u>Total Acre Feet</u>
2	Hansen Feeder Canal via Big Thompson	3,308.	3,308.
3	Hansen Supply Canal via Cache La Poudre	87,471.9	92,921.8
	Direct delivery	5,449.9	
4	Hansen Feeder Canal via Big Thompson	47,910.1	57,509.
	St.Vrain Supply Canal via Little Thompson	7,221.9	
	Direct delivery	2,377.	
5	St.Vrain Supply Canal via St.Vrain Creek	19,642.7	26,411.5
	Direct delivery	6,768.8	
6	Boulder Cr.Supply Canal via Boulder Creek	13,601.	<u>18,202.2</u>
	Direct delivery	<u>4,601.2</u>	
TOTAL TO ALL DISTRICTS (Including Replacement)			198,352.5

Comparative figures on amounts of project water ordered and delivered, except for direct delivery from canals are as follows:

<u>Stream</u>	<u>Ordered Am't In Acre Feet</u>	<u>Delivered Am't In Acre Feet</u>	<u>Over Or Under Delivery</u>
Boulder	13,601.	13,810.	+209.
St.Vrain	19,642.7	19,976.	+333.
Big Thompson	51,218.1	93,736.	-12,552.
River Skim	(55,070.)		
	<u>106,288.1</u>		
Little Thompson	7,221.9	7,266.	+44.
Cache La Poudre	87,471.9	87,633.	+161.

During period of no demand on the river between June 23rd and July 19th, the Bureau of Reclamation stored 13,711 A.F.

Computed on measured inflow and outflow on east slope facilities on a daily basis.

Western slope diversions via Alva B. Adams Tunnel during the period Nov.1,1966 to Nov.1,1967 were 255,020 A.F. Diversions for the 1967 water year were 267,530 A.F.

A total of 298,780 A.F. was diverted from Lake Estes via the Reclamation power system during the period Nov.1,1966 to Nov.1,1967 and includes 39,770 A.F. Big Thompson Skim water. Diversions during the water year were 311,830 A.F., including the same amount of Skim water.

A total of 89,830 A.F. was delivered to the Big Thompson River through the Big Thompson Power Plant during the Nov.1,1966 to Nov.1,1967 period.

During the same period, 133,570 A.F. was measured in the Hansen Feeder Canal below the Big Thompson Siphon. Of this amount, 1,530. A.F. was delivered directly from the canal to water users.

Reservoir storage as of Nov.1,1967 is normal or above. An average of the numerous reporting stations in the immediate and surrounding area amounted to 21.9 inches of precipitation in the irrigated areas and 23.4 inches in and near the foothills.

A total of 158 stream and 39 canal measurements were made out of the Loveland office during the 1967 water year. The ever-increasing demand for reports, daily accounting of project and river water, project water orders, phone calls, etc., make for less time for the necessary field work during the period April through November.

Again, I wish to thank the personnel at the East Slope Irrigation Facilities, Flatiron and Estes Park Dispatchers of the Bureau of Reclamation and the Northern Colorado Water Conservancy District for their cooperation and assistance during the past year.

Respectfully submitted,

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