

Before the Division of Water Resources
Department of Public Works
State of California

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In the Matter of Application 9871 of R. E., Nellie, and
A. E. Henderson to appropriate from Davis Creek,
tributary to Goose Lake in Modoc
County for Irrigation Purposes.

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Decision A. 9871 D - 469
Decided *March 3, 1941*

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O P I N I O N

General Description of Project

Application 9871 was filed by R. E., Nellie and A. E. Henderson on April 10, 1940. It proposes an appropriation from Davis Creek of an amount of water not to exceed 100 acre feet per annum to be diverted to storage in "Henderson" reservoir at a rate not to exceed 1 cubic foot per second from October 1 to about April 1 of each season. The point of diversion is described as being within the NW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 14, T 45 N, R 14 E, M.D.B. & M. From the point of diversion the water is to be conveyed by ditch to Johnson Slough and thence down the natural stream bed of Johnson Slough to the reservoir which is to be constructed on this slough to an initial capacity of 30 acre-feet and an ultimate capacity of 100 acre-feet. Water is to be released from the reservoir for the irrigation of the following described lands which are jointly owned by the applicants:

8.3	acres	within	NW $\frac{1}{4}$	SE $\frac{1}{4}$	Section 16,	T 45 N,	R 14 E,	M.D.M.
19.4	"	"	SW $\frac{1}{4}$	SE $\frac{1}{4}$	Section 16,	"	"	"
26.2	"	"	NE $\frac{1}{4}$	NW $\frac{1}{4}$	Section 21,	"	"	"
21.3	"	"	NW $\frac{1}{4}$	NW $\frac{1}{4}$	Section 21,	"	"	"
17.6	"	"	SW $\frac{1}{4}$	NW $\frac{1}{4}$	Section 21,	"	"	"
2.2	"	"	SE $\frac{1}{4}$	NW $\frac{1}{4}$	Section 21,	"	"	"
95.0	acres	- total						

Protest

Application 9871 was protested by the Lake Shore Cattle Company, predecessor in interest of the Bixby-Huffman Cattle Company. Protestant claims adjudicated rights and riparian rights and alleges in effect that should Application 9871 be approved it would deprive the Company of water to which it is entitled for the irrigation of some 3500 acres of meadow and pasture land and for the irrigation of "recede" lands on Goose Lake. Protestant claims that during the past 15 years there have been many dry seasons and that while 100 acre-feet of water is not a large quantity yet it might be sufficient to save a crop.

Conference

On July 23, 1940 a conference was held at Alturas between R. E. Henderson, representing the applicants, Fred H. Huffman, representing the protestant company and Harrison Smitherum, representing the Division of Water Resources and as a result of the conference it was verbally agreed that applicants would not store water in their proposed reservoir until the 3 ponds on the Lakeshore Ranch of Bixby-Huffman Cattle Company were filled. Although Mr. Huffman was advised that a permit would be issued with such restriction he was of the opinion that there should be a written agreement and to this end two forms of agreement were drawn up, one of which was signed by Mr. Huffman for the protestant. Neither of the agreements were signed by the applicants as they were of the opinion that the protestants were asking for 1200 acre-feet during the non-irrigating season which in their opinion would take all of the water (see letter from R.E. Henderson dated September 24, 1940).

Stipulation Under Regulation 12 B

Under date of November 6, 1940 the attention of both the applicants and the protestant were directed to the fact that an investigation of the

water resources of Davis Creek had been conducted by this office, the results of which were contained in a report dated January 1929 and that water master service on Davis Creek had been maintained for a number of years and that therefore the Division was in a position to act in the matter without formal hearing provided that stipulations under Regulation 12B of the Rules and Regulations were signed by both the applicants and the protestants.

Stipulations were subsequently signed by Fred H. Huffman representing the Bixby-Huffman Cattle Company and also by R. E. Henderson representing the applicants which have been approved by the State Engineer and the Division is now in a position to proceed in the matter without formal hearing.

The records relied upon in the determination of this matter are as follows:

- (1) Complete file on Application 9871.
- (2) Report on Water Supply and Use of Water from Davis Creek, Modoc County, California, dated January 1929.
- (3) Reports on Water Master Service on Davis Creek.
- (4) Decree No. 2782 - In the Superior Court of the State of California in and for the County of Modoc.
- (5) Records published by the United States Geological Survey of the runoff of Pine Creek near Alturas.
- (6) U.S. Weather Bureau records of precipitation at Lake View Oregon and Alturas, California.
- (7) Application 9825, Permit 5547 of Thomas Brile.

Prior Vested Rights

According to the Davis Creek Court Decree the rights to use water during the non-irrigation season are as follows:

<u>Name</u>	<u>Season</u>	<u>Use</u>	<u>Amounts c.f.s.</u>
Harry & May Bailey	July 1 - March 31	domestic & stock	0.10
Harry & May Bailey	(at all times)	power	2.50
John & Irene Briles	(at all times)	domestic & stock	0.25
J.D. Mulkey, et al	(at all times)	domestic & stock	4.30
C.T. & Minnie Watkins	(June 16-Feb. 28)	domestic & stock	0.20
A.H. & Ada McFarland	(June 16-Feb. 28)	domestic & stock	0.20
Lake Shore Cattle Co.	(Oct. 1-March 31)	domestic & stock	<u>1.50</u>
		Total	9.05

The 2.5 c.f.s. adjudicated to Harry and May Bailey for power purposes has not been used since the adjudication and although it may be used again under claim of riparian ownership it may be disregarded so far as the existing rights are concerned and the adjudicated direct diversion right may be considered as being 6.55 cubic feet per second.

No adjudication was made as to the storage rights on Davis Creek. It appears however that a right has been acquired to store water in the Sherlock Reservoir (capacity 100 acre-feet) owned by Messrs. H.E. Barker and L.C. Hartlerode and Application 9825 of Thomas Briles has been approved by the issuance of Permit 5547 for an amount of water not to exceed 200 A.F. per annum of which amount only 150 A.F. per annum is to be diverted from the Davis Creek watershed.

In addition to this storage there are ponds on the swamp area of the protestant Company's "Lakeshore Ranch" which have an estimated storage capacity of 1000 acre-feet and also ponds above the swamp area of this ranch which have an estimated capacity of some 200 acre-feet. These reservoirs at times are filled prior to the commencement of the irrigation season but under what claim of right these reservoirs are filled is not known as no storage can be claimed under the riparian right doctrine and no Court determination has been made. While the storage in the upper reservoirs may possibly be

claimed under appropriative rights initiated prior to the effective date of the Water Commission Act it is our understanding that at least a substantial portion of the storage in the ponds on the swamp area was developed subsequent to 1914.

Water Supply

It is unfortunate that no records of the run-off from Davis Creek watershed are available during the period from October 1 to April 1 which is the season of diversion named in Application 9371. Runoff records of Pine Creek near Alturas for the seasons 1918-19 to 1930-31 have been published by the United States Geological Survey and as this stream also has its source on the westerly slope of the Warner Range of mountains in Modoc County these records may be used in estimating the average seasonal runoff of Davis Creek.

The watershed of Davis Creek above the mouth of the canyon contains approximately 15.4 square miles ranging in elevation from about 5000 feet to about 7800 feet. The watershed of Pine Creek above the gaging station near Alturas contains approximately 31 square miles ranging in elevation from about 5000 feet to about 9600 feet.

The 1927-28 season was one of approximately normal precipitation as indicated by the U.S. Weather Bureau records of precipitation at Lakeview, Oregon and at Alturas, California. The runoff of Pine Creek at Alturas during this season was 14,800 acre-feet and the normal runoff of Davis Creek may be assumed to be 7500 acre-feet. Due to the fact that the elevation of the Davis Creek watershed is lower than that of the Pine Creek watershed and that the Davis Creek watershed has more precipitous slopes than the Pine Creek watershed the runoff from the Davis Creek watershed in general occurs earlier in the season than that of the Pine Creek watershed. Therefore while the total seasonal runoff of Davis Creek may be based upon the total seasonal

runoff of Pine Creek, the monthly distribution of Pine Creek can not appropriately be used in determining the monthly runoff of Davis Creek and as there are no records available upon which an appropriate comparison may be made it is believed that the runoff from Davis Creek may be approximately based upon the precipitation records.

Records have been published by the U.S. Weather Bureau of the precipitation at Lakeview, Oregon during the seasons 1927-28 to 1939-40 inclusive and at Alturas, California, from January 1932 to December 1941. Records at Alturas from 1927-28 to 1931-32 have been kept by the Division with the assistance of the Forest Service. From these records the following table has been prepared.

Precipitation - Vicinity of Davis Creek Watershed

Season	Seasonal Precipitation		*Normal 12.22	Coefficient of Wetness
	<u>At Lakeview</u>	<u>At Alturas</u>	<u>Mean</u>	
1927-28	12.38	11.80	12.09	99
1928-29	8.01	8.18	8.09	66
1929-30	9.99	8.95	9.47	77
1930-31	6.91	6.44	6.67	55
1931-32	12.16	12.01	12.08	99
1932-33	8.04	8.74	8.39	69
1933-34	11.62	9.83	10.72	88
1934-35	14.88	14.63	14.75	121
1935-36	14.71	14.49	14.55	117
1936-37	10.23	9.52	9.88	81
1937-38	18.09	19.82	18.80	154
1938-39	9.73	7.54	8.63	71
1939-40	15.31	13.16	14.23	116

* U.S. Weather Bureau records indicate a normal of 12.42 inches at Lakeview, Oregon and 12.03 inches at Alturas. The mean is 12.22 inches.

In order to determine the approximate runoff of Davis Creek for the period from October 1 to April 1 during the seasons 1927-28 to 1939-40 the flow of Davis Creek for the period from April 1 to October 1 as determined

from the Davis Creek Water Master Reports was subtracted from the total seasonal flow of Davis Creek as obtained by multiplying the average runoff of Davis Creek (7500 A.F.) by the percentage of normal precipitation. The results are shown in the following table:

Runoff of Davis Creek

Season	Index of wetness	Total Flow Davis Creek	Flow of Davis Creek Apr.1-Oct. 1	Flow of Davis Creek Oct.1-April 1
1927-28	99	7425	6170	1255
1928-29	86	4950	4200	750
1929-30	77	5775	4100	1675
1930-31	55	4125	1990	2135
1931-32	99	7425	6530	895
1932-33	69	5175	3490	1685
1933-34	88	8800	1720	4980
1934-35	121	9075	6215	2860
1935-36	117	8775	7125	1649
1936-37	81	6075	3925	2150
1937-38	154	11,550	8700	2850
1938-39	71	5325	2800	2525
1939-40	116	8700	3600	5100

The runoff of Davis Creek during the period from October 1 to April 1 is dependent upon the occurrence of the spring thaws. As will be observed from the above table the index of wetness is not a criterion as to the amount of water which may run off during this season. For instance, although the precipitation of the season of 1933-34 was 86% of normal the runoff during the period from October 1 to April 1 was considerably larger than the runoff for the seasons of 1927-28 and 1931-32 which were seasons of normal precipitation. The runoff for the seasons 1933-34 and 1939-40 during the period from October 1 to April 1 was far in excess of the amount of water to which any right has been adjudicated and even far in excess of any right which has been claimed. We must therefore conclude that there are times, dependent upon local conditions of precipitation and runoff that there is water subject to appropriation by the applicant without interfering with prior vested rights and therefore

it is our opinion that Application 9871 should be approved subject to the usual terms and conditions.

ORDER

Application 9871 for a permit to appropriate water having been filed with the Division of Water Resources as above stated, a protest having been filed, a stipulated hearing having been held in accordance with Regulation 12B of the Rules and Regulations of the Division of Water Resources and the Division of Water Resources now being fully informed in the premises,

IT IS HEREBY ORDERED that Application 9871 be approved and that a permit be granted to the applicant subject to such of the usual terms and conditions as may be appropriate.

WITNESS my hand and the seal of the Department of Public Works of the State of California this *3rd* day of *March* 1941.

EDWARD HYATT, State Engineer

By HAROLD CONKLING

Deputy

(Seal)