

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

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In the Matter of Application 10764 of George K. Heard and Minnie Heard and Eugene Toney to Appropriate Water from the East Fork of Soldier Creek in Modoc County for Irrigation Purposes

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Decision A. 10764 D. 523

Decided April 19, 1945

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APPEARANCES AT HEARING HELD AT ALTURAS on June 15, 1944

For Applicants

George K. Heard, Minnie Heard
and Eugene Toney

Reuel A. Laird

For Protestant

J. V. Patch

Carr and Kennedy

Examiner

Gordon Zander, Supervising Hydraulic Engineer for Harold Conkling, Deputy State Engineer in Charge of Water Rights, Division of Water Resources, Department of Public Works, State of California, assisted by Russell Simpson, Senior Hydraulic Engineer.

O P I N I O N

General Description of Project

Application 10764 of George K. Heard and Minnie Heard and Eugene Toney was filed February 9, 1944. It proposes an appropriation of 1.60 cubic feet per second of the waters of the East Fork of Soldier Creek to be diverted through a ditch and slough with point of diversion within the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 32, T 44 N, R 16 E, M.D.B.&M. The season of use under

The proposed appropriation is from December 1 of each year to May 17 of the succeeding year. The water would be used for the irrigation (by sub-irrigation from the ditch and slough through which the water would be conveyed) of 156 acres of land described as follows:

40 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec. 32, T 44 N, R 16 E, M.D.B.&M.
38 acres in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Sec. 32, T 44 N, R 16 E, M.D.B.&M.
78 acres in the E $\frac{1}{2}$ NE $\frac{1}{4}$ of Sec. 32, T 44 N, R 16 E, M.D.B.&M.

156 acres - Total

The diversion works as proposed would be a timber spilling dam 4 feet in height by 16 feet long on top. The conduit would consist of an earth ditch and natural slough 6,600 feet in length, with the ditch section having a top width of 4 feet, bottom width of 2 feet, depth of water 1.5 feet, and a slope of 0.005. The estimated capacity of the ditch is 4.0 cubic feet per second.

Protests

One protest to the application, that of J. V. Patch, dated March 24, 1944, was received and filed by the Division on March 27, 1944. The protest alleges that approval of the application would deprive protestant of the water allotted to him by the decree in the case of San Francisco Cattle Loan Company, a corporation, et al., vs. C. M. Crampton, et al., Superior Court, Modoc County, No. 2405, dated November 28, 1928; that paragraph 57th of said decree, in addition to the awards made to him in paragraphs 28th, 29th and 56th thereof, awards him all the water flowing in Soldier Creek in excess of the amounts required to supply all other allotments awarded by the decree; that all of said excess flow is necessary for the use of the protestant for the irrigation of his lands, described as "all of the fractional Section 29, T 44 N, R 16 E, M.D.B.&M."; and that the East and West Forks of Soldier Creek "flow into and through said lands and said lands are riparian thereto".

In support of the protest, protestant has filed exhibits as follows:

Exhibit "A" - Excerpts from the decree covering paragraphs 56th, 57th, 60th, 28th and 29th, thereof.

Exhibit "B" - A schedule showing the number of days in each year from 1927 to 1942, inclusive, when the flow amounted to 31 second feet.

Exhibit "C" - A tabulation entitled "Peak Flows in Soldier Creek During the Irrigation Season from 3/9 to 9/30" for the years 1923 to 1943, inclusive.

In answer to this protest, applicants allege in effect that there is unappropriated water available for their use as applied for; that the approval of Application 10764 will not result in injury to the decreed water right of protestant; that Application 10764 will be subject and inferior to all rights set forth in the decree; that applicants do not expect to receive water merely because Soldier Creek may flow in excess of 31 cubic feet per second for one or two days but rather wish to be allowed to divert water under Application 10764 when it becomes apparent that protestant's lands are saturated to a point that run-off from said lands into Upper Alkali Lake becomes excessive; and that such condition of excessive run-off could be determined by the watermaster.

On April 26, 1944, a letter was addressed to Carr and Kennedy, Attorneys at Law, representing J. V. Patch as to their attitude toward withdrawing the protest of their client provided that Application 10764 be approved subject to special provisions as follows:

- (1) "All rights herein granted are subject to those rights established by the decree entered by the Superior Court of the State of California, in and for the County of Modoc, on November 23, 1928, in the case of San Francisco Cattle Loan Company, a corporation, et al., vs. C. M. Crampton, et al.

- (2) "This permit is issued subject to the express condition that the use hereunder may be regulated by the Division of Water Resources during periods of water scarcity to the end that such use shall not interfere with prior vested rights."

In answer thereto, received by the Division on May 1, 1944, the attorneys for protestant demanded that a date for the hearing be set to give them an opportunity to present proof of the facts alleged in the protest and further alleged that there is no unappropriated water available in Soldier Creek for Application 10764 or for any of the appropriations from that stream permitted or licensed under previous applications.

Hearing Held in Accordance with Sections 1340 to 1353 of Water Code

Application 10764 was completed in accordance with the provisions of the Water Code and the Rules and Regulations of the Division of Water Resources and being protested was set for public hearing in accordance with Sections 1340 to 1353, inclusive, of Water Code on Thursday, June 1, 1944, at 10:00 o'clock a.m. in the Supervisor's Room, Court House, Alturas, California. By Notice of Postponement of Hearing, dated May 9, 1944, the hearing was postponed to Thursday, June 15, 1944, at 10:00 o'clock a.m. in the aforesaid Supervisor's room. Of this hearing and postponement applicants and protestant were duly notified.

History

Litigation: In 1920 the case of San Francisco Cattle Loan Company, a corporation, et al., vs. C. M. Crampton, et al., involving all the claimants to the waters of Soldier Creek was instituted in the Superior Court, Modoc County. By order of reference, under date of May 21, 1925, the case was referred to the Division for investigation and report as referee. The field investigation pursuant to said order of reference extended over the period

from May 22 to September 12, 1925, the results of which are embodied in a report entitled "Report on Water Supply and Use of Water from Soldier Creek and Tributaries, Modoc County, California, December 21, 1925".

During the course of the investigation the diversions from Soldier Creek were administered by the engineer in charge of the investigation under an oral agreement among the various parties. During the irrigation seasons of 1926, 1927 and 1928 distribution of the waters of the stream system was made by a watermaster appointed by the Division under the authority of written agreements entered into among the various parties. Based upon the Division's investigation and upon the trial distribution carried on over the seasons of 1925 to 1928, inclusive, the various parties to the action entered into a stipulation for consent judgement, and in accordance with such stipulation a decree was entered in the case of San Francisco Cattle Loan Company, a corporation, et al., vs. C. M. Crampton, et al., Superior Court, Modoc County, No. 2405, on November 28, 1928.

The decree sets forth the rights of the various parties to the action for two periods, one for the "season of general irrigation" extending from 6:00 a.m. on March 19 to 6:00 a.m. on June 19 of each year; the other for the "season outside the season of general irrigation", covering the period from 6:00 a.m. on June 19 of each year to 6:00 a.m. on March 19 of the succeeding year. The decree further provides that during the "season of general irrigation" the available flow of the stream system up to the extent of the allotments provided therein shall be rotated between two groups of users, referred to as "Lower Users" and "Upper Users", the division line between the two groups being approximately at the forks of Soldier Creek into its east and west branches. The use of water during the "season outside the season of general irrigation" and the allotments of water therefor are on a

continuous flow basis.

As provided in the decree, the "season of general irrigation" is divided into eight rotation periods of 13 consecutive days and 10 consecutive days, alternately, which periods are numbered consecutively from First to Eighth, inclusive. The Lower Users are entitled to the water during the odd numbered periods of 13 days each, while the Upper Users receive their water in the even numbered periods of 10 days each.

The amounts of water allocated by the decree for the Lower Users totals 22.15 cubic feet per second. The total allocation for the Upper Users is 21.95 cubic feet per second. During the "season outside the season of general irrigation" the total allocation is 20.88 cubic feet per second.

Under the decree protestant J. V. Patch, as successor in interest to the San Francisco Cattle Loan Company, is entitled to 3.60 cubic feet per second in the fifth priority in the Lower Users periods and 2.04 cubic feet per second in the twelfth or last priority during the "season outside the season of general irrigation".

In addition to the above allotments to protestant J. V. Patch, paragraph 57th of the decree provides as follows:

(57th) " IT IS FURTHER ORDERED, ADJUDGED and DECREED, that saving and excepting the SAN FRANCISCO CATTLE LOAN COMPANY, the rights and allotments herein before adjudged and decreed to the various parties to this action are the full and complete rights, allotments and rates of diversion and times of diversion of water from said Soldier Creek of each and all of the parties to this action, and are the maximum rates of diversion and the specific and only time of diversion which the respective parties are entitled to divert and use water from said stream, and if, during any of said time or times, there is flowing in said Soldier Creek any water in excess of the amounts required to supply all allotments hereinbefore allotted or decreed for such time or times, that then and during such time or times as there is flowing in said stream an excess of water over and above the aggregate of all allotments for such time or times, the said parties to this action shall permit and allow all such excess water to flow down the said channel of said creek unretarded

and unmolested, without obstruction and interference to the lands of the said San Francisco Cattle Loan Company, a corporation, or its grantees, and said San Francisco Cattle Loan Company, or its grantees, shall be the owners of and have the right to divert and use all such excess water that may so flow in said stream at any such time or times, such use to be upon their said lands hereinbefore described."

Applications to Appropriate: From June 27, 1922 to January 6, 1923, six applications, Nos. 2908, 2935, 3033, 3097, 3185 and 3214, for the appropriation of water from Soldier Creek were filed with the Division. All were protested upon the grounds that there was no unappropriated water in Soldier Creek. Action on these applications was suspended pending entry of the decree in the case of San Francisco Cattle Loan Company vs. Crampton, to which all the applicants except two, and all the protestants were parties.

On March 20, 1929, subsequent to entry of the decree in San Francisco Cattle Loan Company vs. Crampton, a joint hearing on the above numbered applications was held before the Division at Cedarville, California. At this hearing the several protestants agreed to withdraw their protests provided that permits were issued expressly subject to the decree in the above mentioned action and that the diversions under such permits would be regulated under watermaster service on Soldier Creek.

By Order dated April 22, 1929, Applications 2908, 2935, 3033, 3097, 3185 and 3214 were approved and permits granted subject to the following special terms and conditions to wit:

"All rights herein granted are subject to those rights established by the decree entered by the Superior Court of the State of California, in and for the County of Modoc, on November 28, 1928, in the case of San Francisco Cattle Loan Company, a corporation, et al., vs. C. M. Crampton, et al."

and

"This permit is issued subject to the express condition that the use hereunder may be regulated by the Division of Water Rights during the period of water scarcity to the end that such use will not interfere with prior vested rights."

The total of the amounts of water granted under the above numbered applications was 6.37 cubic feet per second. Subsequent to issuance of permits, the appropriations under Applications 3097 and 3214, each for 1.0 cubic foot per second, were abandoned and the permits revoked. The remaining appropriations have been confirmed by licenses as follows:

<u>Application No.</u>	<u>License No.</u>	<u>Date of Issue of License</u>	<u>Amount of Water Cubic Feet Per Second</u>
2908	1566	5-27-35	1.25
2935	1613	1-22-36	1.75
3033	1648	4-24-36	.87
3185	1850	3-28-38	.50
		Total	<u>4.37</u>

The amounts of water set forth above are for a continuous flow diversion. The season of use for the several rights is from about March 1 to June 1 of each year. The license in each case provides that:

"in case of rotation the equivalent of such continuous flow allowance for any thirty day period may be diverted in a shorter time if there be no interference with other vested rights."

Watermaster Service: Distribution of the waters of Soldier Creek has been administered by the Division of Water Resources during each season from 1925 to date. Beginning in May, 1925 and through the 1928 season watermaster service was rendered under the authority of agreements entered into among the water right owners and in 1929 under the authority conferred by paragraph 62nd of the decree in San Francisco Cattle Loan Company vs. Crampton. Subsequent to 1929, the stream has been administered in accordance with the "Distribution of Water" procedure provided by Sections 4000 to 4360, inclusive, of Water Code.

Attention is directed to Section 4000 to 4027, inclusive, of Water Code pertaining to the creation of watermaster service areas and in particular

to Sections 4026 and 4027 which provide as follows:

4026. "Service areas shall be created from time to time as rights to water are ascertained and determined.

4027. "The rights may be ascertained and determined by any or all of the following:

- (a) Under procedure provided for in this division;
- (b) Under procedure provided by law, other than this division;
- (c) By agreement in writing entered into by the respective claimants;
- (d) By permits and licenses issued subsequent to any such adjudication or agreement."

Any new appropriations of water from Soldier Creek which may be approved under permit issued by the Division will be subject to watermaster service under the provisions of the Water Code.

Physical Features of Stream System

Soldier Creek has its source on the east slope of the Warner Mountains. It drains a precipitous watershed of about five square miles ranging in elevation from about 8000 feet at the summit to about 5000 feet at the mouth of the canyon where the stream debouches on to the valley floor. From its canyon mouth the stream flows northeasterly for a distance of about one-fourth of a mile where it divides into two forks, the most northerly of which is known as the West Fork of Soldier Creek and the other as the East Fork of Soldier Creek. Each fork follows a more or less northeasterly course and is finally tributary to Upper Alkali Lake which occupies the Central portion of the north end of Surprise Valley.

The West Fork of Soldier Creek follows a northerly course in a fairly well defined channel for a distance of about two miles to a point in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 31, T 44 N, R 16 E, M.D.B.&M., on the M. Toney Ranch

and thence northeasterly through the trough of the country for a distance of about two miles before reaching the lake.

The East Fork of Soldier Creek takes a northeasterly course, between well defined banks, for a distance of about three and three-fourths miles to a point in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 29, T 44 N, R 16 E, M.D.B.&M., on the J. V. Patch Ranch and thence for a distance of about one-fourth mile through several small branches across the Patch property to the Lake.

Water Supply

The main source of water supply of Soldier Creek is from the melting of the snow which falls upon its watershed during the winter months. Dependent upon the snow pack and the prevailing temperatures, the spring run-off usually begins about the middle of March and continues to about the middle of June of each year. During this period the run-off of the stream is very unstable and may be classed as flashy. Alternate freezing and thawing causes a wide daily variation in the flow and the occurrence of warm and cold spells contribute to the unstableness of the run-off for unpredictable periods of time. Continued heavy rains during the winter and early spring months and water spouts during the irrigation season occasionally cause flows of flood proportions, but which are of too infrequent occurrence to be depended upon for an irrigation supply.

In connection with its investigation in the case of San Francisco Cattle Loan Company vs. Crampton and in rendering watermaster service, the Division has measured and recorded the flow of Soldier Creek above all diversions during the irrigation season of each year from 1925 to 1944, inclusive. These records are available in the files of the Division as follows:

Year	Period of Record	File Reference
1925	March 25 - Sept. 12	Folder 9 - Soldier Creek Court Reference
1926	April 1 - June 30	Folder 10 Soldier Creek Watermaster District
1927	April 1 - June 30	Folder 11 Soldier Creek Watermaster District
1928	April 10 - July 25	Folder 12 Soldier Creek Watermaster District
1929	March 19 - July 31	Folder 13 Soldier Creek Watermaster District
1930	March 19 - Aug. 21	Folder 15 Soldier Creek Watermaster District
1931	March 19 - Aug. 7	Folder 16 Soldier Creek Watermaster District
1932	March 19 - Aug. 20	Folder 17 Soldier Creek Watermaster District
1933	March 19 - Sept. 24	Folder 18 Soldier Creek Watermaster District
1934	March 19 - Aug. 29	Folder 19 Soldier Creek Watermaster District
1935	March 19 - Sept. 30	Folder 20 Soldier Creek Watermaster District
1936	April 21 - Sept. 30	Folder 21 Soldier Creek Watermaster District
1937	March 19 - Sept. 30	Folder 22 Soldier Creek Watermaster District
1938	June 1 - Sept. 30	Folder 23 Soldier Creek Watermaster District
1939	March 22 - Sept. 21	Folder 9 Surprise Valley Watermaster Service Area
1940	March 19 - Aug. 5	Folder 10 Surprise Valley Watermaster Service Area
1941	April 1 - Sept. 30	Folder 11 Surprise Valley Watermaster Service Area
1942	March 18 - Sept. 30	Folder 12 Surprise Valley Watermaster Service Area
1943	March 19 - Sept. 30	Folder 13 Surprise Valley Watermaster Service Area
1944	March 19 - Sept. 30	Folder 14 Surprise Valley Watermaster Service Area

Water Supply Compared with Water Requirements

The requirements on the water supply consist of the decreed allotments, the excess flow right provided in paragraph 57th of the decree and the licensed appropriations.

Decreed Allotments: During the "season of general irrigation" from March 19 to June 19 of each year the total of allotments is 22.15 and 21.95 cubic feet per second for the Lower Users and Upper Users periods, respectively, or in other words a continuous flow of approximately 22.0 cubic feet per second is required to satisfy all decreed allotments during the period. For the "season outside the season of general irrigation", June 19 of each year to March 19 of the succeeding year the decreed allotments total 20.88 cubic feet per second, or approximately 21.0 cubic feet per second.

The decree further provides that the above allotments are the maximum amounts of water and the maximum rates of diversion thereof under the several rights sharing therein, thus the amount of water that can lawfully be diverted thereunder is a fixed quantity.

Excess Flow Right: As provided in paragraph 57th of the decree, the San Francisco Cattle Loan Company, predecessor of protestant J. V. Patch, is allotted all the flow of Soldier Creek in excess of the above decreed allotments without regard to season and with no limit placed on the amount or the rate of diversion thereof. This right is supplemental to the rights awarded to the Patch ranch in paragraphs 29th and 56th of the decree, which provide allotments of 3.60 cubic feet per second for each alternate 13 days (Lower Users rotation periods) from March 19 to June 19 of each year and 2.04 cubic feet per second continuous flow from June 19 of each year to March 19 of the succeeding year, respectively.

The amount of water that can be beneficially used on the Patch ranch under this excess right is dependent upon what portions of the allotments awarded under paragraphs 29th and 56th are available in Soldier Creek. Since the flow of Soldier Creek is very unstable from season to season and throughout each season, the demand on the excess flow is likewise variable. Dependent upon the extent, duration and time of occurrence of the run-off, this demand may vary from nothing during long protracted periods of excess flow to practically the entire flow during periods of short duration. Consequently a fixed quantity can not be set as representing the excess flow requirement.

However, there is a limitation on the use of water on the Patch ranch under his excess flow right. This limitation is fixed by the capacity of his diversion system on the East Fork of Soldier Creek and by beneficial use. The West Fork of Soldier Creek is not considered herein since any excess flow therein will eventually reach the Patch ranch whether required or not.

The maximum capacity of the Patch diversion system is 10.00 cubic feet per second, as taken from the record of the measurement thereof set forth on page 20 of the "Report on Water Supply and Use of Water from Soldier Creek and Tributaries, Modoc County, California, December 21, 1925". The water requirements for the Patch ranch are set forth in paragraphs 28th and 29th of the decree as 3.60 cubic feet per second for each alternate 13 days during the Lower Users rotation periods. The equivalent of this decreed allotment if taken at the maximum rate afforded by the capacity of the diversion system would be 10.00 cubic feet per second for 4.7 days.

For the purpose herein, that of determining whether or not surplus water is available for additional appropriations from Soldier Creek, it is

assumed that when required water will be diverted at the rate of 10.00 cubic feet per second for use on the Patch ranch. Such practice will entail a diversion of 6.40 cubic feet per second in addition to the Patch allotment of 3.60 cubic feet per second in the Lower Users rotation periods from March 19 to June 19; of the full 10.00 cubic feet per second in the Upper Users rotation periods from March 19 to June 19; and of 7.96 cubic feet per second in addition to the Patch allotment of 2.04 cubic feet per second from June 19 to March 19.

Licensed Appropriations: The total of the appropriations under Applications 2908, 2935, 3033 and 3185 is a continuous flow of 4.37 cubic feet per second. The season of use for the several rights is from about March 1 to June 1 of each year. The license in each case provides that

"in case of rotation the equivalent of such continuous flow allowance for any thirty day period may be diverted in a shorter time if there be no interference with other vested rights".

These appropriations occupy the most unfavorable position on the stream system as to priority and must obtain their water during periods of surplus flow, subject to the excess flow right of the Patch ranch. In order to receive any benefit under such appropriations, water must be taken at a faster rate than the continuous flow allotment set forth above. For the purpose herein it is assumed that when available, water will be taken at the rate of 8.74 cubic feet per second for one-half the time.

Total Requirements: A summary of the requirements for "Decreed Allotments", "Patch Excess Right" and "Licensed Appropriations" is given in the following tabulation.

Period	Amount of Water in Cubic Feet per Second					
	Decreed	Patch	Licensed	Totals		
	Allotments	Excess Right	Appropriations	Actual	Rounded	Total
March 1 - 19	20.88	7.96	8.74	37.58	38	
March 19 - June 1	*22.05	** 6.40	8.74	37.19	** 37	
		***10.00	8.74	40.79	*** 41	
June 1 - 19	*22.05	** 6.40	0	28.45	** 28	
		***10.00	0	32.05	*** 32	
June 19 - Oct. 1	20.88	7.96		28.84	29	
Oct. 1 - March 1	20.88	7.96	0	28.84	29	

* Mean for Lower and Upper Users periods
 ** For Lower Users periods
 *** For Upper Users periods

Comparison of Total Requirements with Water Supply: A comparison of the "Total Requirements" as set forth in the above tabulation has been made with the water supply record to determine the number of days during each season when surplus water was available. The results are tabulated on pages 16 and 17.

In general the record of water supply extends from March 19 to September 30 of each year, therefore, the results shown cover that period only. The "Rotation Periods" indicated are those periods established by the decree in San Francisco Cattle Loan Company vs. Crampton. The "Estimated Number of Days of Surplus Flow" were determined from a detailed study of the entire water supply record. Consideration was given to the extent, duration and time of occurrence of the run-off throughout each period of indicated surplus flow and for the preceding and following periods. Records of run-off are not available for the "Rotation Periods" prior to April 11, 1928, April 21, 1936 and June 1, 1938. The number of days of surplus flow shown for these periods was estimated from statements as to such surplus flow contained in the watermaster's monthly reports on Soldier Creek for 1928, 1936 and 1938, respectively.

PERIODS OF SURPLUS FLOW IN SOLDIER CREEK 1925-1944

Year	Rotation Period	Estimated Number of Days of Surplus Flow	
		In Period	Total for Season
1925	April 1 - 10	2	
	April 11 - 23	8	10
1926		0	0
1927	April 24 - May 3	6	
	May 4 - 16	7	13
1928	March 19 - 31	13	
	April 24 - May 3	5	
	May 4 - 16	7	25
1929		0	0
1930		0	0
1931		0	0
1932	March 19 - 31	2	
	April 11 - 23	3	
	April 24 - May 3	2	
	May 4 - 16	12	
	May 17 - 26	2	21
1933		0	0
1934		0	0
1935	May 4 - 16	8	
	May 17 - 26	10	18
1936	March 19 - 31	13	
	April 1 - 10	10	
	April 11 - 20	10	33
1937		0	0
1938	March 19 - 31	13	
	April 1 - 10	10	
	April 11 - 23	13	
	April 24 - May 3	10	
	May 4 - 16	13	
	May 17 - 26	10	
May 26 - 31	5	74	
1939		0	0
1940		0	0
1941	April 24 - May 3	1	
	May 4 - 16	7	8

Periods of Surplus Flow in Soldier Creek 1925-1944 (cont'd)

: Year :	Rotation Period	: Estimated Number of Days of Surplus :	
		Flow :	
:	:	: In Period	: Total for Season
: 1942 :	:	: 0	: 0
: 1943 :	: March 19 - 31	: 2	:
:	: April 1 - 10	: 10	:
:	: April 11 - 23	: 13	:
:	: April 24 - May 3	: 10	:
:	: May 4 - 16	: 9	:
:	: May 17 - 26	: 0	:
:	: May 27 - June 8	: 7	: 51
: 1944 :	:	: 0	: 0

SUMMARY AND CONCLUSIONS

(1) Out of the twenty years of record (1925 to 1944 incl.) there were periods of surplus flow in nine years. In three of these years, 1932, 1938 and 1943, surplus flow occurred in five or more of the eight rotation periods; however, only in 1938 and 1943 was the surplus flow well sustained throughout the season. Of the remaining six years two had surplus flows in three rotation periods and four had surplus flows in two rotation periods. Only during five years of record, 1928, 1932, 1936, 1938 and 1943, was there any surplus flow during the first rotation period (March 19 to March 31).

(2) Although there are no records available prior to March 19 or subsequent to October 1 of each year, the records of run-off on March 19 of each year indicate that there would be no appreciable surplus flow during the winter or early spring months.

(3) The Patch Ranch at the lower end of the East Fork of Soldier Creek has a decreed allotment of 3.60 cubic feet per second in the 5th priority class during the Lower Users' rotation periods, a continuous flow allotment of 2.04 cubic feet per second of last priority during the period from June 19 of each

year to March 19 of the succeeding year, and an excess flow right whenever water is available therefor. Only on exceptional occasions is there sufficient water available to supply the 5th priority rights with full allotments throughout the four rotation periods allocated to the Lower Users. The 2.04 cubic feet per second last priority allotment is never available after June 19. In most years reliance must be placed on the excess flow right to approach full irrigation requirements. It is apparent that due to both its location on the stream system and its unfavorable priority position, shortage in the water supply from any cause will be reflected on the Patch Ranch; consequently the initiation of new appropriations by upstream diverters will place an additional burden on the protestant in protecting his water right.

(4) Due to its location on the stream system and to the manner in which it receives its water in flush heads, the Patch Ranch may contribute considerable run-off or return flow to Upper Alkali Lake that can not be prevented and therefore should not be taken as an indication of surplus flow available for upstream diversion and use.

(5) Although there are periods of surplus flow when water would be available for additional appropriations from Soldier Creek, they appear to be of too infrequent occurrence and of too short duration to be of value as a basis for a water right, and it is therefore the opinion of this office that the application should be denied.

ORDER

Application 10764 for a permit to appropriate water having been filed with the Division of Water Resources as above stated, a protest having been received, a public hearing having been held and the Division of Water Resources now being fully informed in the premises:

IT IS HEREBY ORDERED that Application 10764 be denied and cancelled upon the records of the Division of Water Resources without prejudice.

WITNESS my hand and the seal of the Department of Public Works of the State of California this 19th day of April, 1945.

EDWARD HYATT, STATE ENGINEER



By Harold Conkling
Deputy State Engineer