

BEFORE THE DIVISION OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

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In the matter of Application 10529 of Sutter Butte Canal Company
to appropriate from Feather River in Sutter County
for irrigation purposes

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DECISION A. 10529 D-511

Decided *March 20, 1944*

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APPEARANCES AT HEARING HELD AT MARYSVILLE, FEBRUARY 10, 1943

For Applicant

Sutter Butte Canal Company

Seth Millington

For Protestants

T. H. Richards
Sutter Investment Company
Plumas Mutual Water Company
Sutter Basin Corporation, Ltd.
Garden Highway Mutual Water Company

Alvin Weis and Richard Fudge
No appearance
No appearance
Rex A. Lundberg
Desmond A. Winship

EXAMINER: Harold Conkling, Deputy State Engineer in Charge of Water Rights,
Division of Water Resources, Department of Public Works,
State of California.

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O P I N I O N

GENERAL DESCRIPTION OF PROPOSED PROJECT

The Sutter Butte Canal Company under its Application 10529, filed
with the Division of Water Resources on August 22, 1942, seeks an appropria-

tion of 500 cubic feet per second to be diverted from the Feather River at its so-called "Sunset Pumping Plant", located within the SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Section 9, T 16 N, R 3 E, M.D.B.&M. from April 1 to October 31 of each season for the irrigation of 23,240 acres within Townships 13, 14, 15 and 16 North, Ranges 2 and 3 East, M.D.B.&M. as shown upon a map filed in support of the application.

Applicant has for many years been diverting water from the Feather River by gravity at a point some 20 miles upstream from the Sunset Plant, under a claim of right antedating the effective date of the Water Commission Act but due to the increased demand caused by the present emergency, this gravity supply, according to applicant, will be inadequate and Application 10529 was filed for the purpose of assuring the lands served by the Company an adequate water supply.

The additional water which applicant seeks to appropriate will be pumped from the Feather River directly into the present canal system of the applicant and used to augment the supply for irrigation of lands in Sutter County which cannot be supplied from the present diversion system due to the larger area that is being planted to irrigated crops, particularly to rice and Ladino clover.

PROTESTS

T. H. Richards claims a right to the use of water from the Feather River based upon "prior use for approximately 30 years" for the irrigation of approximately 800 acres of land requiring from 5 to 6 thousand gallons per minute. His point of diversion is on the right bank of

the Feather River 0.35 mile above the Nicolaus bridge within the NE $\frac{1}{4}$ of Section 12, T 12 N, R 3 E, M.D.B.&M. Mr. Richards alleges in effect that experience has shown that there has never been sufficient water available for proper irrigation and that further diversion above his property would be detrimental to his interest as well as to the interest of the entire district.

Sutter Investment Company under its approved Application 1698 may appropriate an amount of water not to exceed 5.68 c.f.s. from about April 15 to about October 31 of each season for the irrigation of 415.73 acres within Lots 1, 2, 3, 4, 5, 7, 8, 9, 10, 14, 15, 16, 17, 18, 19, 20 and 21 and Tracts A and B of Feather River Orchard Tract within the S $\frac{1}{2}$ and NW $\frac{1}{4}$ of Section 11 and SW $\frac{1}{4}$ of Section 12, T 13 N, R 3 E, M.D.B.&M. Protest-ant also claims riparian rights and that its present use is about 8 c.f.s., although in the past it has diverted 14 c.f.s. Protestant's point of di- version is within the NE $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 12, T 13 N, R 3 E, M.D.B.&M. It alleges in effect that should Application 10529 be approved it would seriously and detrimentally affect the established rights of all downstream users.

Plumas Mutual Water Company under its approved Application 480 may appropriate from the Feather River and from Plumas and Messick Lakes an amount of water from all sources not to exceed 150 c.f.s. for the irri- gation of 53⁴⁹ acres within the boundaries of Reclamation District 784 on the easterly side of the Feather River in Townships 13 and 14 North, Ranges 3 and 4 East, M.D.B.&M. The points of diversion are located as follows:

- (1) On Plumas Lake: Within SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 29, T 14 N, R 4 E
- (2) On Feather River: Within NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, T 13 N, R 3 E
- (3) On Feather River: Within SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 6, T 13 N, R 4 E

In recent years the protestant has been diverting from Plumas Lake at diversion point No. 1 and from Feather River at diversion point No. 3.

Protestant alleges in effect that the flow in the Feather River is so low at times during the irrigation season that it overtaxes its pumping facilities to keep up its required supply. Protestant also alleges that the lowering of the flow in the river will cause additional operating costs.

The Sutter Basin Corporation, Ltd. under its approved Application 3206 may appropriate from the Feather River an amount of water not to exceed 87.49 cubic feet per second for the irrigation of 3499.6 acres within T 12 N, R 3 E, and T 11 N, R 3 E, M.D.B.&M. The points of diversion are described as follows:

- (1) Within NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 9, T 11 N, R 3 E, M.D.B.&M.
- (2) Within SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 15, T 11 N, R 3 E, M.D.B.&M.

Protestant also claims riparian rights. It alleges in effect that there is not sufficient water available for an additional appropriation and that the approval of Application 10529 will deprive it of its prior rights.

Garden Highway Mutual Water Company under its licensed Application 1699 may appropriate from the Feather River at a point within the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T 13 N, R 3 E, M.D.B.&M., an amount of water not to exceed 39 c.f.s. for the irrigation of 2705.11 acres within Sections 23, 24, 25, 26,

27, 34, 35 and 36, T 13 N, R 3 E, M.D.B.&M. Protestant also claims riparian rights. It alleges in effect that the flow in the Feather River at its point of diversion is now insufficient during the irrigation season and in dry years it is possible that all the available flow would be appropriated before reaching its point of diversion.

HEARING SET IN ACCORDANCE WITH SECTION 1a
OF THE WATER COMMISSION ACT

Application 10529 was completed in accordance with the Water Commission Act and the requirements of the Rules and Regulations of the Division of Water Resources and being protested was set for public hearing in accordance with Section 1a of the Water Commission Act on Wednesday, February 10, 1943, at 10:30 o'clock A.M. in Supervisor's Room, Court House, Marysville, California. Of this hearing applicant and protestants were duly notified.

GENERAL DISCUSSION

Little or nothing was presented at the hearing which contributed to the information already at hand. Applicant's attorney stated that he would rely entirely upon the records of the Division, that the applicant was only seeking to appropriate water which if not diverted and used would be wasted into the ocean, that the Company would cease pumping at such times as there was a possibility of infringing upon prior rights and that he was willing to stipulate to that effect.

Protestants on the other hand, directed attention to the fact that during the past seventeen years there were ten years during which the

summer flow was insufficient at Nicolaus to justify the proposed appropriation and suggested that if the appropriation was approved the season of diversion should be restricted. They were of the opinion that the approval of Application 10529 would only result in litigation.

There is on file with the Division of Water Resources an abundance of information relative to the flow of and diversions from the Feather River, including published records of the water resources branch of the United States Geological survey and the reports of Sacramento-San Joaquin Water Supervision, all of which has been given our careful consideration.

The proposed point of diversion of the applicant is approximately 38.1 miles above the mouth of the Feather River and about 10.8 miles above the junction of the Yuba and Feather Rivers. Between the proposed point of diversion and the confluence of the Yuba and Feather Rivers there is only one summer diversion that of J. L. Sullivan, Jr., who, during the past 18 years, has irrigated a maximum of 185 acres of general crops. Below Marysville the flow in the Feather River is augmented by the flow in the Yuba River which normally contributes about 50 to 100 c.f.s. during the summer months. Between Marysville and the Nicolaus Gaging Station there are at the present time 8 users of water including protestants Plumas Mutual Water Company, Sutter Investment Company, Garden Highway Mutual Water Company, and T. H. Richards (Bercut-Richards Company). The Bear River which enters the Feather River a short distance above Nicolaus contributes little or no water to the flow in the Feather River during the summer months. Below Nicolaus Gaging Station there are at the present time 5 users of water including protestant Sutter Basin Corporation, Ltd.

The following table has been prepared which sets forth in downstream order the present users of water from the Feather River below applicant's proposed point of diversion and the maximum areas which they have irrigated during the period from 1924 to 1943, inclusive, and also during the past three years, 1940 to 1943, inclusive.

Present Diverters Below Applicant's Proposed Point of Diversion
and Maximum Areas Irrigated by them or their Predecessors in
Interest from the Feather River

Miles above mouth of Feather River:	Diverter	Maximum Area		Maximum Area	
		Irrigated 1924 to 1943 inclusive	General: Crops	Irrigated 1940 to 1943 inclusive	General: Crops
38.1	Applicant's proposed point of diversion:				
33.9	J. L. Sullivan, Jr.	185	0	185	0
27.3	Mouth of Yuba River at Marysville				
25.2	Nevada-California Lands, Inc.	160	0	50	
24.0	Alicia Mutual Water Company	1200	1300	704	330
21.4	Oswald Water District	773	0	668	0
18.75	G. C. Shannon	97	0	88	0
17.5	Plumas Mutual Water Company (Protestant)	* 1250	320	1012	300
16.35	Sutter Investment Company (Protestant)	346	0	285	0
13.1	Garden Highway Mutual Water Company (Protestant)	2151	880	909	865
9.75	Bercut Richards Company (Protestant)	675	250	** 128	300
9.3	Nicolaus Gaging Station				
7.7	M. Scheiber	271	0	271	0
6.44	Capitol Company	148	0	140	0
5.6	Frank Guastalli	0	120	0	120
2.6	Sutter Basin Corporation (Protestant)	***954	786	1748	0
1.55	Henry Rutz	165	0	85	0

* Although 1800 acres of general crops were irrigated in 1931, the 1250 acres of general crops and 320 acres rice irrigated in 1930 required more water.

** Although 618 acres of general crops were irrigated in 1941, the 128 acres of general crops and 300 acres of rice irrigated in 1942 required more water.

*** Although 1833 acres of general crops were irrigated in 1935, the 954 acres of general crops and 786 acres of rice irrigated in 1939 required more water.

The largest users of water from the Feather River below applicant's proposed point of diversion are the Alicia Mutual Water Company, Oswald Water District, Plumas Mutual Water Company, Sutter Investment Company, Garden Highway Mutual Water Company, Bercut Richards Company, and Sutter Basin Corporation, Ltd. The use of water by these diverters varies considerably from year to year and it is possible that the use of water may be increased in the future by some of them. For instance both the Alicia Mutual Water Company and the Plumas Mutual Water Company are not now diverting all the water to which they are entitled. Although the Alicia Mutual Water Company may appropriate 100 c.f.s. it has only diverted at a maximum rate of about half this amount during recent years and although the Plumas Mutual Water Company may appropriate 150 c.f.s. if necessary, the records indicate that it has only diverted at a maximum monthly rate of about one-third this amount.

In general, however, it may be assumed that any water which passes the gaging station at the Nicolaus Bridge in excess of the prior rights of those who take water from the Feather River below the Nicolaus Bridge may be considered unappropriated water and subject to appropriation under the Water Commission Act. In order that this amount may be estimated the following table has been prepared from the records of the United States Geological Survey and the reports of the Sacramento-San Joaquin Water Supervision.

Table showing the number of days in each year (1921-1942) during which the flow in the Feather River at Nicolaus was less than certain amounts.

Year	Normal	600 c.f.s.	500 c.f.s.	400 c.f.s.	300 c.f.s.	200 c.f.s.	100 c.f.s.	Critical Period
1921	131	25	9	0	0	0	0	Aug. 19 - Sept. 13
1922	111	13	3	0	0	0	0	Aug. 22 - Sept. 19
1923	68	6	4	0	0	0	0	Aug. 21 - Sept. 12
1924	27	128	117	110	107	94	88	May 20 - Sept. 24
1925	65	23	16	2	0	0	0	Aug. 4 - Sept. 9
1926	65	74	63	29	5	0	0	June 24 - Sept. 9
1927	121	3	0	0	0	0	0	Aug. 9 - Aug. 30
1928	88	28	20	10	0	0	0	July 17 - Sept. 2
1929	38	6	0	0	0	0	0	July 16 - July 21
1930	80	1	0	0	0	0	0	July 22
1931	30	114	102	94	88	73	51	May 21 - Oct. 14
1932	68	64	45	27	8	0	0	Aug. 7 - Oct. 31
1933	39	72	68	63	29	0	0	July 14 - Sept. 23
1934	42	87	76	70	14	0	0	June 19 - Sept. 13
1935	88	0	0	0	0	0	0	---
1936	88	0	0	0	0	0	0	---
1937	65	53	52	42	25	0	0	July 27 - Sept. 17
1938	175	0	0	0	0	0	0	---
1939	39	80	73	66	50	39	13	June 7 - Sept. 6
1940	116	30	7	0	0	0	0	July 17 - Aug. 27
1941	133	2	0	0	0	0	0	Aug. 19 - Aug. 26
1942	136	8	1	0	0	0	0	Aug. 19 - Aug. 26

* 50-year mean (1889-1939) of natural runoff.

From the above table it appears that during the 22-year period there were only eight years (1924, 1926, 1931, 1932, 1933, 1934, 1937 and 1939) during which the diversion of 500 cubic feet per second by the applicant might have seriously affected the prior rights below, although during five of these years

at least 200 c.f.s. were available for appropriation by the applicant throughout the entire irrigation season. All eight of these years were considerably below a year of normal runoff.

During the 22-year period, with the exception of a few days, the entire amount of water sought by the applicant could have been diverted during 10 of these years (1922, 1923, 1927, 1929, 1930, 1935, 1936, 1938, 1941 and 1942) without infringing upon the rights below. Half of these years were of less than normal runoff.

During the 22-year period, there were four years (1921, 1925, 1928 and 1940) during which the applicant would have had to curtail the appropriation to an amount between 400 and 500 c.f.s. for about 30 days in order that there would be no infringement upon prior vested rights.

It may therefore be concluded that during a year of normal runoff, under existing conditions, there would not only be sufficient water for the appropriation of 500 c.f.s. by the applicant but also sufficient water to provide for existing rights to take and use water from the Feather River below Nicolaus which rights include the 87.49 c.f.s. which protestant Sutter Basin Corporation may appropriate under its approved Application 3206.

The flow in the Feather River at Nicolaus is largely dependent upon release of water for power purposes from storage in Lake Almanor, Bucks Lake, Butt Valley and other smaller reservoirs on the upper watershed which may explain the reason why the flow of the river at Nicolaus is not always consistent with the index of runoff. For instance there were 25 days in 1921 and only 6 days in 1929 when the flow in the Feather River at Nicolaus was less than 600 c.f.s. although the natural runoff from the Feather River

watershed during the season of 1920-21 was 131% of normal and the natural runoff during the 1928-29 season was 38% of normal.

The fact that the flow of water in the Feather River at applicant's point of diversion is largely governed by regulation and storage for power purposes above and that the use of water by the claimants varies considerably both as to amount and season of diversion would appear to preclude any attempt on the part of this office to limit applicant's proposed season of diversion. The burden will be upon the applicant to divert only at such times when there will be no interference with prior vested rights.

In certain cases however it has been found inadvisable to approve an application for so large an amount of water until after it has been shown that applicant could divert the amount applied for and in such cases the amount of water named in the permit is limited to either the present capacity of the plant or to the capacity to which applicant proposes to immediately construct the plant and to withhold action upon the balance until such a time as the applicant may have need for the additional water. This we believe is in order in this particular case inasmuch as the past performance of the District in connection with its Application 1149 would indicate that possibly the entire amount applied for will not be used.

Application 10529 is in effect an application for the re-appropriation of water which the Sutter Butte Canal Company once had the privilege of appropriating under its Application 1149.

Application 1149 was filed on December 8, 1918, and was approved on March 4, 1920, for an amount of water "not to exceed 500 cubic feet per second nor an amount which together with water delivered to the land from any source exceeds the rate of one cubic foot per second to 44 acres of land planted to rice and one cubic foot per second to 80 acres of land planted to general crops", the water to be diverted at the same point of diversion (Sunset Pumping Plant) from which applicant now seeks to appropriate.

Soon after the approval of the application, the Company installed two 42" and one 26" Byron Jackson centrifugal pumps having a total capacity of approximately 288 cubic feet per second under average head conditions, with the intent to install another 42" pump if and when it became necessary, which would increase the capacity by about 120 c.f.s. The additional pump was never installed.

During the years 1920 to 1924 inclusive, water was diverted at the Sunset Plant to augment the Company's main supply which is diverted from the Feather River by gravity some 20 miles above, the largest use having been made during the year 1923 when 618 acres of general crops and 9488 acres of rice were irrigated from this plant.

Subsequent to the year 1924 little if any use of the water was made and in 1937 the Company was informed that in our opinion any right which had at one time been vested under Application 1149 had been lost by nonuser and it was therefore suggested that the Company authorize the revocation of the permit. As the authorization was not forthcoming it became necessary to set the matter for public hearing.

The hearing was held on February 15, 1938, and as a result thereof it was found that permittee had failed to comply with the terms and conditions of the permit, that it had lost by nonuse such rights as had been established under the permit, and that it had no immediate plans for proceeding with diversions thereunder. The permit issued in approval of Application 1149 was consequently revoked on October 1, 1938.

The present installation at the Sunset Plant is the same as that installed under Application 1149 and there is some doubt as to whether additional units will be installed.

Under date of March 9, 1943, this office suggested to the applicant that when the suction pipes had been cleaned and its engineers were ready to test the plant capacity, this office be informed and an engineer of the Division would participate with its engineers in a test of the capacity, that if however it planned to install new runners before the beginning of the irrigation season, the test should wait until that time; that from this test the Division would calculate the discharge which would occur at high water and issue permit for that amount reserving action on the remainder of the quantity specified in the application, and that at any time further improvements were made another test would disclose the increase which should be made in the permit.

Although the Division has not been invited to participate in any of the pumping tests, under date of February 16, 1944, there was submitted to this office by the applicant a report of the pumping operations of the Sunset Pumping Plant. This report agreed very closely with measurements of the capacity of the plant made on July 15, 1942, July 26, 1943, and August 10, 1943, ^{by an engineer of the Division} and with measurements made by the Company itself on July 8, 1943.

From the data submitted by the applicant and checked by the measurements made by our engineer the total capacity of the one 26 inch pump and the two 42 inch pumps was estimated to be 234 cubic feet per second at highwater (12 feet static head).

Application 10529 should therefore be approved at this time for an amount of water not to exceed 234 cubic feet per second and action upon the remaining 266 cubic feet per second should be withheld until further order is entered.

O R D E R

Application 10529 for a permit to appropriate water having been filed with the Division of Water Resources, as above stated, protests having been filed, 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 10529 be approved for an amount of water not to exceed 234 cubic feet per second and that a permit be issued thereon subject to such of the usual terms and conditions as may be appropriate, and

IT IS FURTHER ORDERED that action be withheld upon the remaining quantity of water sought to be appropriated in Application 10529 until further order is entered.

WITNESS my hand and the seal of the Department of Public Works of the State of California, this 20th day of March, 1944.

EDWARD HYATT, STATE ENGINEER

BY

Harold Conkling
Deputy State Engineer

WES:MP

