

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

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IN THE MATTER OF APPLICATION NUMBER 4449 OF INIGO JONES,  
APPLICATION NUMBER 4659 OF HAL A. SHEARIN, AND APPLICATION  
NUMBER 4700 OF CARRIE K. HALL, ALL FOR PERMITS TO APPROPRI-  
ATE UNAPPROPRIATED WATER FROM HAT CREEK, IN SHASTA COUNTY,  
FOR AGRICULTURAL PURPOSES.

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DECISION NO. 4449,4659,4700, D 118  
Decided August 23rd, 1926.

APPEARANCES AT HEARING HELD JUNE 16, 1926:

For Applicants:

Francis Carr, Attorney at Law, Redding, Calif.  
for Hal. A. Shearin.  
No appearance for Inigo Jones.  
No appearance for Carrie K. Hall.

For Protestants:

W. D. Tillotson, Attorney at Law, Redding, Calif.  
for David Doyel, Otto Giessner, Bertha  
Giessner, Alan Brown, Ellen Brown, and W. W.  
Brown.  
Jesse W. Carter, Attorney at Law, Redding, Calif.  
for Perry Opdyke, Percy Opdyke, H. M. Wilcox,  
A. L. Doty, Mrs. A. L. Doty, Clare Brown, Ray  
Brown, William Valentine, and Della Valentine.  
George Hunt, Engineer, Pacific Gas & Electric  
Company, San Francisco, Calif., for Mt. Shasta  
Power Corporation.  
J. H. Hunter, Chief Engineer, Westwood, Calif.,  
for Red River Lumber Company.  
L. H. Sullivan, Hat Creek, for himself and Eva  
B. Sullivan.  
No appearance for Pit River Power Company.  
No appearance for Harry A. Lonquist.  
No appearance for Henry Lonquist.

EXAMINER:

Gordon Zander, Associate Hydraulic Engineer,  
Division of Water Rights.

IN ATTENDANCE:

T. R. Simpson, Assistant Hydraulic Engineer,  
Division of Water Rights.

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O P I N I O N

On February 9, 1925, Inigo Jones filed Application Number 4449 for a permit to appropriate one cubic foot per second of the unappropriated waters of Hat Creek, in Shasta County, the waters sought to be appropriated to be used throughout the entire year for domestic purposes and for the irrigation of forty acres of land situated on his homestead entry in the NW $\frac{1}{4}$  of Section 26, T. 34 N. R. 4 E. M. D. B. & M.

On June 26, 1925, Hal. A. Shearin filed Application Number 4659 for a permit to appropriate two cubic feet per second of the unappropriated waters of Hat Creek, in Shasta County, the waters sought to be appropriated to be used from May first to October first of each year for domestic purposes and for the irrigation of 40 acres of land situated on his homestead entry in the SW $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 33, T. 33 N. R. 5 E., M. D. B. & M.

On July 15, 1925, Carrie K. Hall filed Application Number 4700 for a permit to appropriate two and one-half cubic feet per second of the unappropriated waters of Hat Creek, in Shasta County, the waters sought to be appropriated to be used from March first to October thirty-first of each year for the irrigation of fifty acres of land in the N $\frac{1}{2}$  SW $\frac{1}{4}$  of Section 33, T. 33 N., R. 5 E., M. D. B. & M., said land being contiguous to, but not included in the lands of said Carrie K. Hall for which a water right was established by Superior Court decree in the case of Doyel, et al. vs. Massie, et al.

The above mentioned applications were duly advertised, and protests against

all three were filed by the Pit River Power Company, the Mt. Shasta Power Corporation, Harry A. Lonquist, Otto Giessner, Bertha Giessner, L. H. Sullivan, Eva B. Sullivan, William Valentine, Della Valentine, Alan Brown, Ellen Brown, Clare Brown, Fay Brown, H. M. Wilcox, David Doyel, W. W. Brown, and Henry Lonquist. In addition, a protest against Application Number 4659 of Hal. A. Shearin was filed by the Red River Lumber Company.

The three applications were set for joint public hearing in the Supervisors' Room of the County Court House at Redding, California at 10:00 o'clock A. M. on June 16, 1926, of which hearing all applicants and protestants were duly notified. The hearing was held at the time and place specified, Associate Hydraulic Engineer Gordon Zander presiding. Assistant Hydraulic Engineer T. R. Simpson also attended as a representative of the Division of Water Rights. Francis Carr, Attorney at Law of Redding, appeared for Applicant Hal A. Shearin, but no appearance was made on behalf of either Applicant Inigo Jones or Applicant Carrie K. Hall. W. D. Tillotson, Attorney at Law of Redding, appeared for Protestants David Doyel, Otto Giessner, Bertha Giessner, Alan Brown, Ellen Brown and W.W. Brown. Jesse W. Carter, Attorney at Law of Redding, appeared for Protestants H. M. Wilcox, Clare Brown, Fay Brown, William Valentine and Della Valentine, and for Perry Opdyke, Percy Opdyke, A. L. Doty and Mrs. A. L. Doty, the last four parties named being water users from Hat Creek but not record protestants. Protestant L. H. Sullivan appeared in propria persona, and also for Protestant Eva B. Sullivan. George Hunt, Engineer of the Pacific Gas & Electric Company, appeared for the Mt. Shasta Power Corporation, and J. H. Hunter, Chief Engineer, appeared for the Red River Lumber Company. No appearance was made on behalf of Protestants Harry A. Lonquist, Henry Lonquist, or the Pit River Power Company.

Subsequent to the hearing a letter was received from Applicant Inigo Jones explaining that his non-appearance was due to his financial inability to incur the expense of the hearing, and a letter was received from Applicant Carrie K. Hall explaining that her non-appearance was due to her inability to obtain anyone to leave in charge of her place while she made the necessary trip to Redding.

At the opening of the hearing, Attorney Carr announced that Applicant Hal A. Shearin desired to so amend Application 4659 as to reduce the amount of water applied for from two cubic feet per second to one cubic foot per second, which amendment was allowed by the examiner.

All parties present at the hearing stipulated that all evidence and records in the case of Doyel, et al. vs. Massie et al. on file in the office of the Division of Water Rights and in the office of the Clerk of the Superior Court of Shasta County, including the decree entered by the said Superior Court in that case on May 14, 1924, should be considered in evidence by the Division in acting upon Applications 4449, 4659, and 4700.

Protestants Harry A. Lonquist, Otto Giessner, L. H. Sullivan, Eva B. Sullivan, Bertha Giessner, Alan Brown, Ellen Brown, Clare Brown, Fay Brown, David Doyel, W. W. Brown, and Henry Lonquist are all water users from Hat Creek who divert their supplies below the proposed points of diversion of all three of the applications under consideration, while William Valentine, Della Valentine, and H. M. Wilcox are water users from Hat Creek who divert their supplies below the proposed points of diversion of Applications 4659 and 4700, but above the proposed point of diversion of Application 4449. The water rights of all of the protestants enumerated in this paragraph were established by the Superior Court decree mentioned in the preceding paragraph.

In acting as referee for the Superior Court of Shasta County in the case of Doyel, et al. vs. Massie, et al. the Division of Water Rights made a series of measurements of the flow of Hat Creek in September 1920, for the purpose of obtaining data as to the low flow of the stream. Such measurements indicated that the flow of Hat Creek immediately above all diversions was about 136.5 cubic feet per second on September 17, 1920, and the consensus of opinion among residents of the valley was that the flow of Hat Creek was about as low at that time as it had been at any time during the past twenty years.

A further and more extensive field investigation was made by the Division of Water Rights in July and August, 1921, for the purpose of obtaining additional data as to the water supply and use of water from Hat Creek. From this investigation it was estimated that the average gross duty of water in Hat Creek Valley was one cubic foot per second to about twenty acres of land, on which basis there would have been more than ample water for all lands irrigated from Hat Creek above its confluence with Rising River, throughout practically the entire 1921 irrigating season. The flow of Hat Creek above all diversions remained practically constant at about 159 cubic feet per second throughout August 1921.

Following the entry of the Superior Court decree on May 14, 1924, the Division of Water Rights has been called upon to administer the distribution of the waters of Hat Creek, thru the agency of a water master, during the irrigating seasons of 1924, 1925, and 1926. The results of such administration indicate that the average gross duty of water in Hat Creek Valley is probably somewhat higher than the one cubic foot per second to twenty acres originally estimated. During 1924, which was the year of lowest stream flow of record not only on Hat Creek but on practically all streams in Northern California, only sufficient water was avail-

able in Hat Creek during the period between June 1st and October 8th for diversion at the average rate of one cubic foot per second to about 30 acres of irrigated land. During the same period in 1925, which was also a year of sub-normal stream flow, only sufficient water was available in Hat Creek for diversion at the average rate of one cubic foot per second to about 27 acres of irrigated land.

During the 1924 season some injury to the crops on several of the ranches resulted from the limited water supply available, but in almost every case such condition could have been greatly improved if not entirely eliminated by the construction of additional lateral distributing ditches and a better levelling and checking of the land to receive water, and by the employment of additional help in irrigating. In support of this contention it is pointed out that one of the larger ranches on Hat Creek, owned by the Opdyke Brothers, the land of which is levelled, checked, and adequately provided with lateral ditches, and on which ranch practically continuous attention to irrigation was given both day and night, actually produced a larger crop in 1924 than in 1923, when water was available and used to the full capacity of the ditch system.

In 1925, some injury to crops on several of the ranches again resulted from the limited water supply available, but in every case to a lesser degree, partly because of the slightly greater water supply than in 1924, and partly because of improvements that had been made to the lands and ditch systems, and because of increased care exercised in handling the water. There is a marked tendency on the part of various of the Hat Creek water users to improve their lands and ditch systems, and to exercise greater care in handling the water, and this tendency will undoubtedly result in an increasing average gross duty of water from year to year, up to a certain limit. It now appears probable that the

ultimate average gross duty of water for the area irrigated from Hat Creek above its confluence with Rising River will be nearer one cubic foot per second to thirty acres than one cubic foot per second to twenty acres.

From the experience gained in administering the distribution of the waters of Hat Creek during the past two seasons, it has been determined that a continuous flow of about 150 cubic feet per second is necessary in Hat Creek immediately above all diversions in order to supply the Upper Users with their maximum irrigation needs, based upon the equivalent of a continuous flow of one cubic foot per second to twenty acres, and at the same time supply the Lower Users with their allotted minimum flows. Similarly it has been determined that approximately 162 cubic feet per second is necessary at the same point in order to supply the Lower Users with their maximum irrigation needs and at the same time supply the Upper Users with their allotted minimum flows. The average flow of Hat Creek above all diversions necessary to supply the full allotments provided by the decree in the case of Boyel, et al. vs. Massie, et al., is thus about 156 cubic feet per second. Assuming that all of the water users on Hat Creek require water to the extent of the maximum limits specified in the decree, it is concluded that there is unappropriated water in Hat Creek whenever the average flow above all diversions is in excess of 156 cubic feet per second. In making the above assumption, the extreme possibility on the side of safety has been chosen. As concluded from the discussion hereinabove contained, the ultimate average gross requirement of the lands in the valley will probably be nearer one cubic foot per second to thirty acres than one cubic foot per second to twenty acres, in which event there will be unappropriated water in Hat Creek when the flow above all diversions is somewhat less than 156 cubic feet per second.

In determining the flow above all diversions necessary to supply the vested rights, an allowance has been made for a channel loss in Hat Creek between the Hall Ranch and the Alec Brown Ranch, which loss has been estimated at about 20 cubic feet per second. In this connection it should be noted that the power project contemplated by the Red River Lumber Company under Applications 4436 and 4824 provides for by-passing the section of the creek in which this excessive loss occurs, by means of a metal flume and pipe line. Consequently, if the proposed power project is consummated it is probable that a considerable portion of the channel loss will be salvaged and made available to the water users, and in that event the flow in Hat Creek above all diversions, necessary to supply the vested rights, will be correspondingly reduced.

The data collected by the Division of Water Rights, and on file in its office, indicate that the flow of Hat Creek above all diversions was in excess of 156 cubic feet per second until sometime after September 1st in 1921, until sometime prior to June 1st in 1924, until about June 25th in 1925, and until about June 1st in 1926. 1921 was probably a year of slightly greater than normal stream flow, while 1925 was probably slightly below normal. The stream flow during 1924 was the lowest of record, and that during 1926 promises to approach the extreme stages of 1924.

It is therefore concluded that there is unappropriated water in Hat Creek during the early part of the irrigation season of each year, that in years of normal run-off there will probably be unappropriated water in the stream until about July 1st, and that in years of abnormal run-off there may be unappropriated water in the stream throughout the entire irrigation season.

Relative to the protest of the Pit River Power Company, the riparian



lands or that protestant are so remote from the proposed points of diversion of the three applications under consideration that no injury to the protestant's riparian rights through the granting of permits for the comparatively small amounts of water applied for, is apparent from the data at hand. The protestant failed to appear at the hearing to submit evidence in support of its protest, and it is assumed that its attitude toward the applications in question is expressed in the following quotation from the letter received from its attorneys, Cushing and Cushing, in response to notice of the hearing on the applications:

"You have heretofore advised us that applications are accepted only subject to existing rights and that in each permit a statement is included to the effect that the application is approved 'subject to existing rights'. The Pitt River Power Company will not be represented at the hearing, understanding that if permits are made upon the applications referred to they will carry the reservation above mentioned."

Protestant Mt. Shasta Power Corporation has constructed for the Red River Lumber Company two power plants situated on Hat Creek below its confluence with Rising River, and is now operating the same under lease from the Lumber Company. The protestant claims that the upper of these plants, known as "Hat Creek Power Plant No. 1", has been operated continuously since August 23, 1921; that the capacity of the same is 600 cubic feet per second; and that such capacity is in excess of the combined stream flow available from Hat Creek and Rising River. The protestant claims that the lower of the two plants, known as "Hat Creek Power Plant No. 2", has been operated continuously since September 28, 1921; that the capacity of the same is 400 cubic feet per second, and that all of the combined stream flow available from Hat Creek and Rising River up to 400 cubic feet per second, has been diverted and used thru the plant since its operation was commenced. In support of its contentions the protestant has submitted as a

portion of its "Exhibit No. 1" a record of the daily diversions thru the "Hat Creek Power Plant No. 1" and a record of the daily flow of Hat Creek at "Hat Creek Power Plant No. 2", both records covering the period from January 1, 1922, to September 30, 1925.

The Pacific Gas & Electric Company maintained a gaging station on Hat Creek, located about one and one-quarter miles above its confluence of Rising River and below all diversions from the creek above such confluence, from March 16, 1921 to July 31, 1924. A rating curve for this station and a continuous record of the daily discharge at the same for the above mentioned period, was submitted by protestant at the hearing as a portion of its "Exhibit No. 1". This record shows that Hat Creek contributed practically no water to the power plants operated by the protestant during the periods between July 24th and September 10th in 1921, between July 5th and September 25th in 1923, and between April 20th and sometime after July 31st in 1924. In 1922, Hat Creek contributed an average flow of less than 5 cubic feet per second to the power plants during the months of July, August, and September.

From the record discussed in the preceding paragraph it may be concluded that the amount of water that Hat Creek contributes to the Hat Creek power plants of the protestant during the months of July, August, and September of each year, is practically negligible even with only the present irrigation use; hence the increased use contemplated by the applicants would not materially effect the operation of the power plants during those months. While the diversion of water under the applications may slightly reduce the amount of water available

to the protestant's power plants during the months of April, May and June, in these particular instances the aggregate of the amounts of water applied for is comparatively small, and the lands to be irrigated are so situated that a considerable portion of the water diverted will probably return to the creek, and it is, therefore, probable the reduction in the protestant's water supply thru the use contemplated by the applicants will be practically negligible.

Protestant, Mt. Shasta Power Corporation, also own extensive tracts of land riparian to Pit River below the influx of Hat Creek, on which it has constructed its "Pit No. 3 Power Plant", now in operation, the diversion of water for which is made under authority of Permit No. 1372 issued by the Division of Water Rights on its Application No. 1891. The protestant is now constructing its "Pit No. 4 Power Plant" on Pit River immediately below the No. 3 plant, under authority of Permit No. 1373 issued by the Division of Water Rights on its Application No. 1892. Permits 1372 and 1373 authorize the use by the protestant of the waters of Pit River to the extent of 3000 cubic feet per second direct flow diversion, and 32,300 acre feet per annum storage. As in the case of the Pit River Power Company, however, the riparian lands of the Mt. Shasta Power Corporation, and the point of diversion of its "Pit No. 3 Power Plant", and the proposed point of diversion of its "Pit No. 4 Power Plant", are all so remote from the proposed points of diversion of the three applications under consideration that no injury to the protestants riparian rights, or to the water supply to which it is entitled under Permits 1372 and 1373, through the granting of permits for the comparatively small amounts of water applied for, is apparent from the data at hand.

The attitude of the Mt. Shasta Power Corporation <sup>toward</sup> the applications

was expressed by Mr. Hunt, at the hearing, as follows:

"Our contention has been that there is no unappropriated water in Hat Creek at the points where we divert. If, in the opinion of the Division of Water Rights, or if it can be shown that these appropriations can be made without diminishing the stream flow to which we are legally entitled, we have no protest."

"The company is very broadminded toward development in the State. We are willing to make concessions, and have made concessions, since the inception of the Division of Water Rights, to appropriators. However, we do not desire to establish a precedent in making a definite waiver in any case."

The Division of Water Rights finds that the diversions contemplated under the applications can be made without materially diminishing the stream flow at the points of diversion of the Mt. Shasta Power Corporation, and therefore, in accordance with the attitude of that protestant as expressed by its representative at the hearing, the protest of the Corporation will be disregarded.

The protestant Red River Lumber Company has filed Application No. 4436 for a permit to divert 190 cubic feet per second from Hat Creek for power purposes, which application is prior to all three of the applications under consideration, and is still pending. The proposed point of diversion of Application No. 4449 of Inigo Jones is below the proposed point of return of the protestant's power project, however, and consequently the use of water under that application could in no way effect the rights of the protestant. The proposed points of diversion under Application No. 4659 of Hal A. Shearin and Application No. 4700 of Carrie K. Hall are above the proposed point of diversion of the protestant's power project, and use of water under those applications may slightly reduce the amount of water available for the proposed power project. The amounts of water applied for under the two applications

are comparatively small, however, and the lands which it is proposed to irrigate are adjacent to the creek so that there will probably be a considerable return flow therefrom that would be available for use thru the protestant's power project. It is, therefore, found that the use of water under the three applications under consideration will not materially effect the water supply available for the protestant's proposed power project.

Under Application No. 4449, Inigo Jones has applied for one cubic foot per second for the irrigation of 40 acres of land, and under Application No. 4659, as amended at the hearing, Hal A. Shearin has applied for one cubic foot per second for the irrigation of 40 acres of land. Under Application No. 4700, however, Carrie K. Hall has applied for 2.5 cubic feet per second for the irrigation of 50 acres of land, indicating a contemplated duty of one cubic foot per second to only 20 acres of land.

Irrigation development in Hat Creek Valley has now reached such a stage as to make the value of water too great to permit of the wasteful irrigation practices that might have been justified under conditions existing twenty or thirty years ago, and the Division of Water Rights feels that public interest demands that future permits issued covering the use of the waters of Hat Creek should provide as high a duty of water as can reasonably be obtained under conditions existing at the time of their issuance. It has been hereinabove estimated that with proper preparation of the land and ditch systems, and with proper care in handling the water, the average duty of water in Hat Creek Valley will ultimately approach one cubic foot per second to 30 acres. The project contemplated under Application No. 4700 re-

presents considerably better than average conditions, in that the water applied for would be conveyed in an existing ditch thru which a considerable quantity of water is also diverted under a vested right; consequently the transportation losses for the additional water covered by the application would be reduced to a minimum.

It is the opinion of the Division of Water Rights that with proper preparation of the land and ditch system, and with proper care in handling the water, the same duty of water can be obtained on the project contemplated by applicant, Carrie K. Hall, as that specified by applicants Inigo Jones and Hal. A. Shearin; i. e., one cubic foot per second to 40 acres of irrigated land.

Under Application No. 4449, Inigo Jones has specified a period of use extending throughout the entire year, under Application Number 4659, Hal A. Shearin has specified a period of irrigation extending from May 1st to October 1st, and under Application No. 4700, Carrie K. Hall has specified an irrigation period extending from March 1st to October 31st. In order that possible injury to the operation of the power plants of Protestant Mt. Shasta Power Corporation, and of the proposed power plant of Protestant Red River Lumber Company, through use of water under the applications, be reduced to a minimum, it is essential that the period of irrigation specified in any permits that may be issued be reduced to that during which water is actually needed for irrigation purposes. Experience gained by the Division of Water Rights in administering the distribution of the waters of Hat Creek indicates that the irrigation season in Hat Creek Valley ordinarily commences about April 1st and ends about October 15th,

and the periods of irrigation specified in Application Number 4700 should be reduced accordingly.

ORDER

Applications Numbered 4449, 4659, and 4700 for permits to appropriate unappropriated water from Hat Creek having been filed with the Division of Water Rights, protests against the same having been filed, a public hearing having been held, and the Division of Water Rights now being fully informed in the premises:

IT IS HEREBY ORDERED that Applications Numbered 4449, 4659, and 4700 be approved, and

That a permit be issued on Application No. 4449 for a maximum amount of water of 1.00 cubic foot per second during an irrigation season extending from May 1st to September 30th of each year, and for water throughout the remainder of each year as required for domestic purposes,

That a permit be issued on Application Number 4659 for a maximum amount of water of 1.00 cubic foot per second during the irrigation season specified in the application.

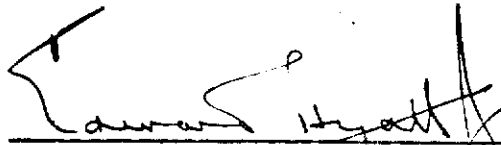
That a permit be issued on Application Number 4700 for a maximum amount of water of 1.25 cubic feet per second during an irrigation season extending from April 1st to October 15th of each year, all three of said permits to be subject to such of the usual terms and conditions as may be appropriate, and also subject to the following special clauses:

"All rights herein granted are subject to all of the rights established by the decree entered by the Superior Court of the State of California, in and for the County of Shasta, on May 14, 1924, in the case of Davis Doyel, et al, vs. Harvie Massie, et al".

"Diversion of water under this permit shall be made only when there is unappropriated water in Hat Creek, which will be from about April first to about July first during years of normal stream flow".

"As there is a possibility that there will not be sufficient water in Hat Creek during the latter part of the irrigation season to satisfy all requirements, this permit is issued subject to the express condition that the use hereunder may be regulated by the Division of Water Rights during such periods of water scarcity, to the end that such use will not interfere with prior vested rights".

Dated at Sacramento, California, this 23 day of August  
1926.

  
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CHIEF OF DIVISION OF WATER RIGHTS,  
DEPARTMENT OF PUBLIC WORKS,  
STATE OF CALIFORNIA

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