

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

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*IN THE MATTER OF APPLICATIONS NUMBERS 3544 and 3555 OF
THE MONTAGUE IRRIGATION DISTRICT TO APPROPRIATE FROM
SHASTA RIVER AND PARKS CREEK IN SISKIYOU COUNTY
FOR AGRICULTURAL PURPOSES

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DECISION NO. 3544 - 3555 D 99

Decided April 2, 1926

APPEARANCES AT HEARING HELD AT Yreka, January 12, 1926

For Applicant:

Taylor and Tebbe by R. S. Taylor

For Protestants:

James T. Chincock for the McKee Company

James D. Fairchild for W. D. Duke

D. G. Tyree for California Oregon Power Company

Tapscott & Tapscott by James R. Tapscott for

Richard E. Cavanaugh, Samuel L. Alexander,

Gus V. Nelson, Cecelia Nelson and Estate of
Mary Antonio.

Clifford E. Butler for Edson & Foulke Company,

S. Elizabeth Foulke, Louis H. Carrigan, Grace M.

Carrigan, H. E. Van Norman, Laud Van Norman,

Frederick S. Armstrong, owners in the Edson-Foulke

Big Ditch, Henry Flock, George Flock and Charles O. Fayot.

J. P. McKamara for L. B. and Mary A. Wholey.

Examiner: Edward Hyatt, Jr., Chief of Division of Water Rights.

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O P I N I O N

Applications Numbers 3544 and 3555 are for appropriations of water from
Shasta River and Parks Creek, respectively, for use by the Montague Irrigation
District for agricultural purposes.

The main features of the two applications are as follows:

Application Number 3544 was filed July 25, 1923, by George W. Dwinell,

Trustee, and assigned to the Montague Irrigation District September 30, 1925. It proposed an appropriation of 150 cubic feet per second direct flow to be diverted between April 1st and September 30th of each year and 60,000 acre feet storage per annum to be collected between September 1st of one year to July 1st of the succeeding year.

The storage water applied for is to be impounded in a proposed reservoir of 60,000 acre feet capacity located on Shasta River, said reservoir to be formed by the construction of a dam across the natural channel of Shasta River at a point within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 35, T 43 N, R 5 W, M.D.B. & M. From the dam the water will be conducted through a main canal some 21 miles in length to the lands of the Montague Irrigation District, where it will be used for the irrigation of 19,500 acres of land within the boundaries of said District.

Application Number 3555 was filed July 30, 1923, by George W. Dwinell, Trustee and assigned to the Montague Irrigation District, September 30, 1925. It proposed an appropriation of 15,000 acre feet per annum to be collected between September 30th of one year to July 1st of the next year. The water applied for is to be diverted from Parks Creek at a point within the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 29, T 42 N, R 5 W, M.D.B. & M., by means of low diversion dam, conveyed in an easterly direction by a canal some 0.7 miles in length and spilled into Shasta River at a point within the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 28, T 42 N, R 5 W, M.D.B. & M. From this point the water will flow down the natural channel of Shasta River to the proposed reservoir mentioned under Application 3544 and will be used in common with the water diverted from Shasta River for the irrigation of the aforesaid 19,500 acres of land within the boundaries of the Montague Irrigation District.

Application Number 3544 was protested by the California Oregon Power Company, Estate of Mary Antonio, et al, as owners in the Antonio Ditch, the McKee Company, Samuel Alexander and R. E. Cavanaugh.

Application Number 3555 was protested by W. D. Duke, the California Oregon Power Company, G. V. Nelson, Cecelia Nelson, Estate of Mary Antonio et al, as owners in the Antonio Ditch, Samuel Alexander and Mary A. and L. E. Wholey.

These two applications were completed in accordance with the Water Commission Act and the requirements of the Rules and Regulations of the Division of Water Rights, and being protested were set for public hearing in the City Hall, Yreka, California, at 10:00 o'clock a.m. on January 12, 1926. Of this hearing applicant and protestants were duly notified, and appearances were made on behalf of the applicant and protestants of record as noted above and on behalf of the Edson and Foulke Company et al, as owners in the Edson-Foulke Yreka Ditch; and Henry Flock, George Flock and Charles O. Payot, owners in the Flock and Payot Ditch, who were not protestants of record.

At the opening of the hearing and upon the suggestion of the examiner, Mr. Edward Hyatt, Jr., Chief of the Division of Water Rights, it was stipulated by all parties making appearances that the data contained in the report entitled "Report on Water Supply and Use of Water from Shasta River and Tributaries", the set of map sheets, 1 to 199, inclusive, entitled "Lands Irrigated from Shasta River and Tributaries", and the map entitled "Map of Shasta River and Tributaries Showing Diversion Systems and Irrigated Areas", all of which were prepared by the Division of Water Rights in connection with the Shasta River Adjudication and contain a large amount of data pertinent to the two applications, be considered in evidence at the hearing and that the Division take judicial notice thereof in preparing its findings.

Mr. John A. Boemer, Chief Engineer of the Montague Irrigation District was called as a witness for the applicant.

At this point it will be well to note the fact that Applications 3544 and 3555, as presented at the hearing, describe the proposed storage reservoir

as being of 60,000 acre feet capacity and the location of the impounding dam for said reservoir is described as being within NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 35, T 43 N, R 5 W, M.D.B. & M. However, witness testified that upon further study and investigation since the applications were filed, it had been determined that a reservoir of 70,000 acre feet capacity would be necessary and that the lower or Jones site, one of two sites investigated, and not the site as described in the applications, had been chosen for the location of the impounding dam. The following testimony by the witness is therefore based upon a reservoir of 70,000 acre feet capacity and relates to the Jones dam site which is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 25, T 43 N, R 5 W, M.D.B. & M.

These facts are pertinent for the reason that subsequent to the hearing the Montague Irrigation District amended its applications, said amended applications being received by the Division on February 4, 1926, in which amended applications the capacity of the impounding reservoir and the location of the dam were described as noted above.

Mr. Beemer testified that it was intended to bring under irrigation 19,500 acres of land within the boundaries of the Montague Irrigation District and that it was estimated that said lands would require a net duty of 1.75 acre feet per acre or a total of 42,600 acre feet of water per season delivered to the lands. This requirement, it was testified by witness would necessitate a diversion of 48,200 acre feet per season from the two sources named in the applications, it being estimated that the difference of 5,600 acre feet, between the amount diverted and the amount delivered would be lost in evaporation and seepage from the reservoir and main canal.

Witness further testified that there was sufficient water in Shasta River and Parks Creek available for the Montague Irrigation District at the proposed points of diversion to supply the amount of water required to properly irrigate said 19,500 acres of land.

Witness further testified that although a seasonal diversion of only 48,200 acre feet would meet the needs of the District, the amounts of storage applied for, 60,000 acre feet under Application 3544 and 15,000 acre feet under Application 3555, from Shasta River and Parks Creek, respectively, were justified by a study of the available runoff records, whereby it was shown that during dry years there was insufficient water to meet the District's needs, but that in wet years there was an over supply. Therefore it was necessary during years of abnormal runoff to divert and store an amount of water in excess of the 48,200 acre feet actually used by the District, in order to provide carry-over storage to meet the deficiency of a probable dry year to follow.

From a further study of the runoff records witness stated that he, as engineer of the Montague Irrigation District, had determined that storage of 70,000 acre feet of water was necessary to fulfill the above requirement, and that the estimates of the cost to the District for securing an adequate water supply had contemplated the cost of constructing a dam to provide such amount of storage.

Testimony was also given by witness tending to show the desirability of a direct flow diversion of 150 cubic feet per second, in addition to the 60,000 acre feet storage, applied for under Application 3544.

In regards to the seasons of storage applied for, September 1st to July 1st under Application 3544, and September 30th to July 1st under Application 3555, witness testified that the runoff records showed that there was some unappropriated water available in each month of the respective seasons mentioned under the two applications. It was however admitted that based upon a normal year little or no water could be expected prior to September 30th or subsequent to July 1st and that limiting the season of storage under Application 3544 to the dates of about September 30th to about July 1st would not prove a detriment to the District.

All of the foregoing testimony was based upon data contained in a Report on Montague Irrigation Project by John A. Beemer, C.E., dated August 1925, which was submitted at the hearing as applicant's Exhibit A.

In regard to securing lands within the proposed reservoir site witness testified that tentative agreements had been entered into between the District and the owners of said lands for the purchase of the same.

Witness also testified in regard to the flooding of the upper portions of the McKee or Nichols Ditch and the Miller and Dunlap Ditch owned by the McKee Company and the McKee Company and Dunlap Brothers, respectively, and submitted a plan for the proposed replacement of said ditches. By this plan the water to which said ditches are entitled would be carried through the outlet works of the District's proposed dam, conveyed a short distance through the District's Main Canal and thence through a short stretch of new ditch to the aforesaid McKee and McKee and Dunlap Brothers ditches.

Witness testified that a plan for the replacement of the above ditches had been mentioned to Mr. McKee but that no agreement had been reached in regard to same. Both the witness and the counsel for the McKee Company, however, stated that there appeared to be no reason why a satisfactory agreement could not be reached, on the basis of the plan submitted at the hearing.

Before considering the various protests attention is called to the fact that those making appearances at the hearing agreed by stipulation that the data contained in the proofs of appropriation filed by the various protestants with the Division of Water Rights in connection with the Shasta River Adjudication Proceeding, be considered in evidence at the hearing upon the basis that the statements contained in these proofs would be the evidence that otherwise would have to be presented at the hearing by said protestants. By reason of this evidence being thus submitted little or no testimony was given at the hearing on behalf of the various protestants in support of their claims as to the non-existence of unappropriated water in Shasta River and Parks Creek. Also, in consequence of the data contained in said proofs of

appropriation and the data contained in the report and the maps prepared by the Division of Water Rights in connection with said Shasta River Adjudication being made formally available to the Division in preparing its findings on Applications 3544 and 3555, the conclusions in respect to the various protests have been largely drawn from said data.

Attention is also called to the fact that while Applications 3544 and 3555 were in evidence at the hearing as described above, subsequent thereto the applications were amended in accordance with suggestions made by the Examiner at the hearing and said amended applications were received by the Division under date of February 4, 1926.

Application 3544 as amended eliminates the direct flow diversion of 150 cubic feet per second, reduces the amount of storage from 60,000 to 55,000 acre feet per annum and reduces the season of storage to include the period from October 1st to July 1st of each season, thereby eliminating the month of September. The capacity of the reservoir contemplated under the application has been increased from 60,000 to 70,000 acre feet and the location of the proposed impounding dam is described as being within the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 25, T 43 N, R 5 W, M.D.B. & M., or at a point approximately one mile downstream from the former proposed location in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 35, T 43 N, R 5 W, M.D.B. & M.

Application 3555 as amended remains the same as presented at the hearing except as to the changes in the capacity of the storage reservoir and location of the impounding dam, as noted under amended Application 3544, and a change in the location of the point of diversion from Parks Creek to the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 29, T 42 N, R 5 W, M.D.B. & M., or to a point about 500 feet upstream from the former proposed location in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 29, T 42 N, R 5 W, M.D.B. & M.

The amounts of water applied for in the amended applications represent reductions over the amounts specified in the applications as presented at the hearing. The change in the proposed point of diversion from Shasta River and the change in the capacity of the storage reservoir as described in the

amended applications, are fully covered by the testimony given at the hearing by John A. Beemer. Also the testimony introduced at the hearing on behalf of Mary A. and L. E. Wholey in regard to the proposed diversion point from Parks Creek is applicable to the proposed diversion point described in amended Application 3555. Furthermore, from an inspection of the maps prepared by the Division of Water Rights in connection with the Shasta River Adjudication, it is found that the proposed changes in the points of diversion on both Shasta River and Parks Creek do not affect the diversions of others than those appearing as protestants at the hearing. In view of these facts the changes as presented in the amended applications have been allowed without readvertising as is provided for in Section 16 of the Water Commission Act, and the amended applications, as received by the Division of Water Rights on February 4, 1926, have been considered in the conclusions to follow.

The protest of the California-Oregon Power Company was filed on November 21, 1925, against both applications. Protestant claimed that by the appropriation of the amounts applied for in the applications protestant would be deprived of sufficient water for its use for the purpose of generating electric current at a power plant located in Lot 5, SE $\frac{1}{4}$ NE $\frac{1}{4}$, Lot 2 and NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 1, T 45 N, R 7 W, M.D.B. & M. The point at which diversion is made from Shasta River for said power purposes is Lot 5, SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, T 45 N, R 7 W, M.D.B. & M.

This protest was not heard at the hearing as prior thereto a stipulation, dated January 12, 1926, was filed with the Examiner (See Application Folder No. 3544), said stipulation being between the Montague Irrigation District and the California Oregon Power Company and by which these two parties agreed that insofar as the protest of the California Power Company was concerned, the hearing be continued until a future date to be set by the Division of Water Rights, said date to be on or before February 2, 1926, and said hearing to be held at Sacramento, California. The purpose of said continuance was to afford applicant

and protestant an opportunity to reach an agreement whereby the California Oregon Power Company's protest would be withdrawn.

The hearing on said protest was postponed from time to time by the Division of Water Rights on receipt of information from the applicant that a preliminary agreement had been reached and awaited only the approval of the Board of Directors of the California-Oregon Power Company. On March 2, 1926, a certified copy of agreement dated February 19, 1926, was forwarded to the office of the Division of Water Rights by Brobeck, Phleger and Harrison, Attorneys at Law, on behalf of the protestant (see Application Folder No. 3544). This agreement provides that in consideration of certain promises and conveyances by the Montague Irrigation District, the California-Oregon Power Company will withdraw its protest against the above numbered applications.

The protest of Samuel Alexander was filed against both applications on December 1st, 1925. It protested Application 3544 upon the basis of a claim of prior rights and that the enjoyment of same would be interfered with by the granting of the appropriation applied for. The protest against Application 3555 was based upon the claim that the water diverted from Parks Creek and spilled into Shasta River above protestant's diversion dam would seriously interfere with the operation of his ditch, if not totally destroy the dam.

Samuel Alexander was called as a witness and testified that he had been familiar with Shasta River over that portion of its course north of the railroad bridge near Edgewood for the past 35 years. He further testified that the bed of Shasta River at the bridge crossing southeast of the Frank H. Mill's residence, had been dry for about two or three weeks during every irrigation season for the past ten years, said condition obtaining along about September 1st of each year.

From an inspection of the maps prepared in connection with the Shasta River Adjudication it is shown that the diversion point of the protestant's ditch is located on Shasta River above the proposed point of diversion by the

applicant from said stream. It therefore appears that the prior rights claimed by the protestant can be in no way interfered with by the applicant and will be fully protected by the issuance of a permit subject to vested rights.

In regard to the protest against Application 3555, it appears that any monetary damages to which the applicant might be liable for the destruction of protestant's dam would not be large and therefore the protest should not be considered as sufficient cause for denying the appropriation sought by the applicant.

The protest of the McKee Company was filed December 4, 1925. It is based upon the claim of prior rights and upon the claim of injury that will be suffered by the McKee Company from the destruction of its ditches by the construction of the proposed reservoir and dam of the applicant.

In regard to the first claim it appears that the protestant will be sufficiently protected in the enjoyment of whatever rights it may be entitled to by the issuance of a permit expressly subject to vested rights.

In regard to the latter cause of protest we have the plan submitted at the hearing by the Montague Irrigation District for the proposed replacement of the two McKee Company ditches that will be flooded by the applicant's proposed storage reservoir, and statements by the applicant's engineer and by counsel for protestant that there appears no reason why an amicable agreement cannot be worked out on the basis of said plan. Furthermore, in the event that negotiations between the McKee Company and the District should fail to effect an agreement, the District by right of eminent domain has the power to bring condemnation proceedings against said McKee Company to obtain the necessary rights of way and thereby overcome said protest. It therefore appears that said protest cannot be urged as sufficient cause for the denial of the permits requested under Applications 3544 and 3555.

The protest of R. E. Cavanaugh was filed against Application 3544 on December 17, 1925. It is based upon the claim of prior rights and it alleges that the same will be interfered with by the granting of the appropriation applied for. From an inspection of the maps prepared in connection with the

Shasta River Adjudication it is found that the points of diversions of all of protestants' ditches are above the applicant's proposed point of diversion from Shasta River. It therefore appears that such rights as the protestant may be entitled to cannot be interfered with by applicant's diversion and will be satisfactorily protected by the issuance of a permit expressly subject to existing rights.

The protest of W. D. Duke was filed against Application 3555 on November 11, 1925. It is based upon a claim of riparian rights and prior appropriative rights to the use of all the flow of Parks Creek and therefore alleges the non-existence of unappropriated water in Parks Creek.

Mr. Duke was called as a witness on his own behalf and testified that Parks Creek flowed through his land for a distance of about five miles, and that he had resided on said ranch for five years and was familiar with the general conditions of the flow of Parks Creek. Witness further testified that there was surplus water in Parks Creek during certain months of each season. Witness also testified that if the water to which he was entitled was left in Parks Creek to flow on down to his ranch he would be glad to have the applicant use the surplus waters.

The protests of G. V. Nelson and Cecelia Nelson were filed against Application 3555 on December 1st and 2, 1925, respectively. The protests are based upon claims of prior rights and allege that the enjoyment of the same will be seriously interfered with if the appropriation sought is granted.

Protestant G. V. Nelson, called as a witness on his own behalf and on behalf of his mother, Cecelia Nelson, testified that he was 35 years old and had been familiar with Shasta River and Parks Creek ever since he could remember. He further testified that he had observed Shasta River dry above the confluence of Parks Creek, at a point about one-half of a mile above the point of confluence of Parks Creek, during 1920 and 1921, ^{and} that such condition existed from about July 1st to about October 1st of those years.

In regard to the three foregoing protests we have the record of the runoff of Parks Creek at the Duke Ranch covering the period from December 20, 1921, to July 18, 1922, as shown on Table 37 of the "Report on Water Supply and Use of Water from Shasta River and Tributaries". This station is located near the lower end of the Duke Ranch and is below all diversions from Parks Creek, excepting three which serve an area of approximately 260 acres. The record therefore serves as an excellent criterion as to the existence or non-existence of unappropriated water in Parks Creek insofar as the allegations of the protestants W. D. Duke, G. V. Nelson and Cecelia Nelson are concerned.

From an inspection of said Table 37 it is shown that between December 20, 1921 and July 1, 1922, there was available in Parks Creek approximately 14,500 acre feet of water over and above that required by all diversions above said measuring station. Furthermore it is shown in Table 3 of a report entitled "Engineer's Report on Water Supply Available for Appropriation from Shasta River and Parks Creek under Applications 3544 and 3555" by Harrison Smitherum, Assistant Hydraulic Engineer, Division of Water Rights, dated February 26, 1926, (see Application 3544-Folder 6), that for a ten year period of record the mean of the estimated runoff passing said station between October 1st and July 1st was 16,900 acre feet.

In view of the above facts, together with the testimony of W. D. Duke, it is concluded that the protests of W. D. Duke, G. V. Nelson and Cecelia Nelson are without basis of fact and should not act as a bar to the granting of the appropriation sought under Application 3555.

The protest of Mary A. and L. E. Wholey was filed against Application 3555 on December 12, 1925. It is based upon the claim of prior rights and alleges that the same would be interfered with by the granting of the appropriation sought. From testimony deduced at the hearing and from an inspection of the maps prepared in connection with the Shasta River Adjudication Proceeding it was determined that the District's proposed point of diversion from Parks

Creek was below protestant's diversions and that the District's said proposed point of diversion did not lie on protestant's property. It is therefore apparent that the protestant's rights will be amply protected by the issuance of a permit expressly subject to vested rights and that the protest should not be urged as cause for denial of such permit.

There was no written protest filed by the Edson and Foulke Company, et al, owners in the Edson-Foulke Yreka Ditch, but appearances on their behalf were made at the hearing. Lewis M. Foulke, Secretary-Manager for the Edson and Foulke Company, was called as a witness on behalf of the owners in said ditch; the import of his testimony being to establish the claims of said ditch owners to the use of water from Shasta River and Parks from January 1st to December 31st of each year.

The witness also testified as to the non-existence during the seasons of 1922-1923 to 1924-1925, inclusive, of surplus water in Shasta River and Parks Creek below the diversion points of the Edson-Foulke Yreka Ditch from said streams, but admitted that there was a considerable area below said ditch which was tributary to the proposed Montague Irrigation District project.

The testimony of the witness relative to the non-existence of surplus water relates to points on Shasta River and Parks ^{Creek} considerably above the proposed diversion points of the Montague Irrigation District from said streams, and while conditions at the upper points may be, under certain conditions, a criterion of the flow at the lower points no testimony was introduced by protestants to show the non-existence of surplus waters at the said lower points. In view of this fact and of the conclusions set forth in the above mentioned "Engineer's Report on Water Supply Available for Appropriation from Shasta River and Parks Creek under Applications 3544 and 3555", the testimony of the witness should not be deemed conclusive as to the non-existence of surplus water and therefore should not mitigate against the appropriations sought.

The protest of the Estate of Mary Antonio, Henry Flock and George Flock, as co-owners in the Antonio Ditch was filed against both applications on December 1, 1925. The protest is based upon a claim of prior rights and alleges that the enjoyment of the same will be interfered with by the granting of the appropriations applied for by the applicant to the extent of being deprived of water through the Antonio Ditch for stockwatering purposes from October 1st to April 1st of each season and for irrigation purposes from March 15th to October 1st of each year.

There was no written protest filed against the two applications by Henry Flock, George Flock and Charles O. Payot, as owners in the Flock and Payot Ditch, but appearances were made on their behalf at the hearing. Protestants offered no testimony other than the statement of counsel that they would rely on the data contained in the Shasta River Report and maps, above referred to, and the data contained in proofs of appropriation filed by said protestants in the Shasta River Adjudication Proceedings, to put their case before the Division of Water Rights.

The ditches of the two foregoing protestants are the lowest irrigation diversions on Shasta River, excepting the Manuel Shelly Pumping Plant which for the most part is supplied by return flow from irrigation on the Antonio and Flock ranches, therefore the consideration of those protests, together with a consideration of the claims of various other users on Shasta River and Parks Creek with rights prior to those initiated by Applications 3544 and 3555, involve the determination of the main points at issue, firstly, the existence or non-existence of unappropriated water, and secondly, the period during which unappropriated water, if any, is available. The protests will therefore be considered as answered by the conclusions drawn on said points.

To determine the existence or non-existence of surplus waters there is available the testimony of John A. Beemer as Chief Engineer of the Montague Irrigation District, as to the existence of unappropriated water and the necessity for the appropriation of the amounts applied for which testimony is supported by a

report submitted at the hearing as applicant's Exhibit A; the data collected by the Division of Water Rights in connection with the Shasta River Adjudication; and the data contained in the various proofs of appropriation filed with the Division of Water Rights in said Shasta River Adjudication. There is also the testimony of G. V. Nelson as to the dryness of Shasta River at certain points during certain seasons of the year which has a bearing on such determination. The testimony of Lewis M. Foulke in regard to the non-existence of unappropriated water in Shasta River and Parks Creek, for reasons heretofore stated, has not been given consideration in this determination.

Based upon the foregoing data presented at the hearing for consideration by the Division of Water Rights a water supply study was made to determine the existence or non-existence of unappropriated water in sufficient amount to warrant the granting of the appropriations sought. The results of this study are contained in the above mentioned report entitled "Engineer's Report on Water Supply Available for Appropriation from Shasta River and Parks Creek under Applications Numbers 3544 and 3555" by Harrison Smitherum, Assistant Hydraulic Engineer, Division of Water Rights, dated February 26, 1926. The following conclusions are quoted therefrom:

1. There is sufficient unappropriated water in Shasta River to permit of the appropriation of 55,000 acre feet, the amount applied for under Application 3544. It however is to be noted that such amount of water was available only during one season covered by the ten year period of record, and that the mean for said period of record was 30,500 acre feet.
2. There is sufficient unappropriated water in Parks Creek to permit of the appropriation of 15,000 acre feet, the amount applied for in the District's application Number 3555. Approximately such amount of water was available in all but three seasons, namely 1917-18, 1919-20 and 1923-24, of the ten year period of record. The mean flow available for the ten year period was 16,500 acre feet.

To fix the period of time during which such surplus water may be reasonably expected to be available it is found necessary to consider Shasta River in two divisions, namely Upper Shasta River and Lower Shasta River, with the dividing point located between the points of confluence of Parks Creek and Big Spring Creek.

Upper Shasta River including the main stream and its tributaries above Big Spring Creek, receives its main water supply from rains and the melting of winter snows which fall on the tributary drainage area, and as is typical of such streams is characterized by excessive runoff during the late spring and early summer months and a deficient supply during the late summer and early fall. From about July 1st to about October 1st this section of the river contributes little or no flow to Lower Shasta River, due to use of the available flow for irrigation purposes.

Lower Shasta River, however, has a sustained flow of approximately 130 cubic feet per second, supplied mainly from Big Springs and several smaller springs tributary to Big Springs Creek. This flow is always more than ample to supply all the diversions made from Big Springs Creek and Lower Shasta River during the non-irrigating period, October 1st to April 1st of each season, and is normally ample to supply all irrigation diversions from April 1st to some time in June. However, during June the diversions on this section of the river become dependent on the flow of Upper Shasta River for a portion of their necessary supply.

From a study of the runoff records available for both sections of the river and from knowledge gained by past regulation of irrigation diversions on the Lower Shasta River by engineers of the Division of Water Rights, it is found that the supply in Upper Shasta River usually fails about the same time as shortages have occurred in Lower Shasta River. It is therefore apparent that in determining the period of time during which surplus waters will be available for appropriation under Applications 3544 and 3545 we must consider firstly, when there is surplus water in Upper Shasta River, as it is from this section of

the river that the applicant will derive its supply, and secondly, when diversion of such surplus water may be made without injury to prior rights on Lower Shasta River. By this consideration the claims of all present users directly affected by the applications are taken into account.

For the purpose of this determination there are available the runoff records of Shasta River above Big Springs Creek and Shasta River near Montague, Tables 10 and 23, respectively, of the Report on Water Supply and Use of Water from Shasta River and Tributaries. The year 1922 being slightly below normal in precipitation, it is considered that the records are fairly representative of runoff conditions that may be reasonably expected to exist during a normal year. Also they are representative of present conditions insofar as the use of water from Shasta River and its tributaries is concerned. While they do not cover the entire period under consideration, October 1st to July 1st, they cover the critical months of that period, namely October and June, and are therefore deemed adequate for the purpose.

The records presented in Table 10 show the daily discharge of Shasta River at a point located below the confluence of Parks Creek and above the mouth of Big Springs Creek, and, when corrected by the deduction of a certain amount of accretion between the lowest diversions on Shasta River and Parks Creek and the measuring station, are indicative of the period during which there are surplus waters in Upper Shasta River, insofar as the diversions above the station are concerned. Based upon the testimony of Gus. V. Nelson that he had observed the bed of Shasta River dry at a point about one-half mile above the confluence of Parks Creek during 1920 and 1921 and that said condition had existed from about July 1st to about October 1st of those years, the amount of this accretion has been estimated to be 15.0 cubic feet per second, or the amount of the daily recorded flow between July 1st and October 1st, as shown in said table.

The records shown in Table 23 represent the daily discharge of Shasta River at a point below all irrigation diversions on Shasta River, excepting the Lucas Pumping Plant, Webb Brothers Pumping Plant, Lewid Ditch, George Lemos Dam, George Lemos Upper and Lower Pumping Plants, Antonio Ditch, Flock and Payot Ditch, Flock Lower Ditch and Shelly Pumping Plant. It therefore naturally follows that if the amount of water necessary to supply these diversions is deducted from the recorded discharges at the station the amounts remaining will represent surplus water below all diversions insofar as the diversions on the Lower Shasta River are concerned.

From the proofs of appropriation filed in the matter of the Shasta River Adjudication, the total maximum amount of water claimed by the diversions above named is 32.0 cubic feet per second, and therefore this amount has been taken, insofar as the determinations contained herein are concerned, as the quantity of water necessary to supply these diversions. In addition to the above amount there must also be allowed 10.0 cubic feet per second to provide for the increased diversion contemplated by the Grenada Irrigation District under Application Number 1566, making a total of 42.0 cubic feet per second to be deducted from the recorded discharges shown in Table 23.

Deducting 16.0 cubic feet per second and 42.0 cubic feet per second from the recorded discharges shown in Tables 10 and 23, respectively, the table attached hereto has been prepared.

From this table it is shown that from May 10th, the beginning of the record, up to and including June 17th there was surplus water in Upper Shasta River and at the same time the flow in Lower Shasta River was in excess of the amount required to supply the claims therefrom, and that from October 3rd up to and including December 12th, the end of the record, a like condition existed.

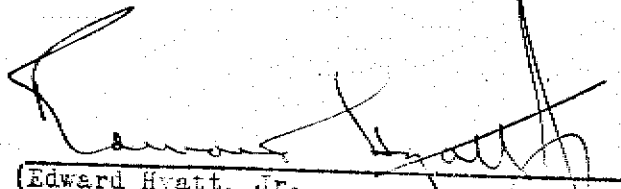
Therefore it is concluded that unappropriated water may reasonably be expected to be available from about October 1st to about June 15th of each season.

ORDER

Applications Number 3544 and Number 3555 for permits to appropriate unappropriated water having been filed with the Division of Water Rights as above stated, 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 said Applications Number 3544 and Number 3555 be approved as amended, except that in each application the season of storage applied for be reduced so as to end on about June 15th instead of on about July 1st, and that permits be issued subject to such of the usual terms and conditions as may be appropriate.

Dated at Sacramento, California, this 2nd day of April, 1926.



Edward Hyatt, Jr.
CHIEF OF DIVISION OF WATER RIGHTS

HS:MP

T A B L E

Comparison of Surplus Flows of Upper Shasta River and Lower Shasta River,
below all Diversions in their Respective Divisions

1 9 2 2

Discharge in cubic feet per second

Day	May		June		October		November		December	
	Upper	Lower	Upper	Lower	Upper	Lower*	Upper	Lower*	Upper	Lower*
	Shasta	Shasta	Shasta	Shasta	Shasta	Shasta	Shasta	Shasta	Shasta	Shasta
1			84	50	0	150	25	150	47	214
2			84	50	0	178	27	150	48	214
3			69	72	5	178	28	150	48	214
4			55	72	14	178	29	150	49	178
5			55	50	19	150	32	150	50	178
6			43	31	9	150	35	126	50	178
7			55	31	9	150	37	150	51	214
8			55	13	9	126	40	150	52	214
9			69	31	9	126	43	178	52	214
10	76	151	55	184	9	126	46	178	53	214
11	55	121	42	184	11	126	49	178	54	195
12	42	95	30	121	13	126	51	150	54	214
13	42	95	30	50	16	150	54	150		
14	55	50	30	50	18	150	53	150		
15	69	50	19	31	18	150	52	150		
16	100	72	9	31	19	150	50	126		
17	118	151	9	13	19	150	49	126		
18	133	184	9	0	18	150	48	150		
19	152	488	9	0	16	150	47	150		
20	249	793	9	0	17	178	46	150		
21	189	543	2	0	17	150	44	150		
22	152	257	0	0	17	150	43	155		
23	118	219			17	150	42	166		
24	133	184			17	150	43	178		
25	118	184			17	150	43	178		
26	100	184			18	180	44	214		
27	84	151			19	150	45	214		
28	84	121			21	150	45	214		
29	84	95			22	150	46	178		
30	84	50			23	126	46	178		
31	84	50			24	126				

* Record of daily discharges of Shasta River above junction of Yreka Creek for 1922, Table 26, Shasta River Report.