

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

*Decision  
file*

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IN THE MATTER OF APPLICATION NO. 3883 OF THE  
SHEEP CREEK WATER COMPANY TO APPROPRIATE FROM SURFACE  
AND SUB-SURFACE FLOW OF SHEEP CREEK, TRIBUTARY  
TO THE MOJAVE DESERT DRAINAGE AREA IN  
SAN BERNARDINO COUNTY FOR  
IRRIGATION AND DOMESTIC  
PURPOSES

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Decision No. 3883 D 119

Decided August 24, 1926

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APPEARANCES AT HEARING HELD SEPTEMBER 22, 1925, FEBRUARY  
5, 1926, AND MARCH 9-10, 1926

For Applicant:

Sheep Creek Water Company

Swing and Wilson  
By Ralph E. Swing

For Protestants:

James M. Oliver, A. J. Wheeler, )  
Sumner B. Wright, Kate S. Wright, )  
Wrightwood Beneficial Owners, )  
Pacific Southwest Trust & Savings Bank.)

Leonard, Surr & Hellyer  
By Mr. Surr and  
James M. Oliver

El Mirage Land Owners Ass'n.

Mrs. L. L. Whitlock  
Donald M. Baker

County of Los Angeles

E. W. Mattoon  
E. T. Bishop  
Ernest Purdum

For Certain Interested Parties:

E. H. Hess and Linford E. Hess

Mrs. E. H. Hess

United States Forest Service

Geo. H. Cecil  
H. P. Dechant

EXAMINER:

Edward Hyatt, Jr.  
Chief of the Division of Water Rights

O P I N I O N

On June 12, 1917, the Sheep Creek Water Company filed application No. 12-718 for a certificate of diligence requesting that a time be prescribed for complete application of water to beneficial use.

Due consideration having been given to this application, a field investigation having been made, and the Water Commission having found that the project had merit and that a bona fide attempt had been made toward the completion of same, Certificate 12-5 was granted on September 19, 1918, allowing until December 21, 1921 for the complete application of the water to be applied to beneficial use.

Due to adverse conditions prevailing at that time, the Company was unable to complete the project within the time specified and a further extension was granted until September 1, 1923, the Company being advised that if it were unable to complete the project within the extended time, it would be advisable to file a new application under section 11 of the Water Commission Act and ask for the revocation of the former application.

The Company failed to complete construction work within the extended time and accordingly filed application No. 3883 on March 3, 1924.

Under application No. 3883 it is proposed to appropriate 4000 acre feet per annum throughout the entire year from Sheep Creek, surface and sub-surface flow, to be diverted at a maximum rate of 40 cubic feet per second, to storage in Horse Canyon Reservoir, which will have a capacity of 1300 acre feet. The surface waters of Sheep Creek will be diverted from a point in the SW $\frac{1}{4}$  SE $\frac{1}{4}$  Section 9, T 3 N, R 7 W, S.B.M. and the sub-surface waters from a tunnel in the E $\frac{1}{2}$  of Section 9 and NW $\frac{1}{4}$  Section 10, T 3 N, R 7 W, S.B.B. & M.

The water will be re-diverted from the Horse Canyon Reservoir at a point in SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 35, T 4 N, R 7 W, S.B.B. & M. and used for the irrigation of 1920 acres of general crops owned by the stockholders of the Company and lying within Sections 12,13 and 24, T 4 N, R 7 W, and Sections 7, 18 and 19, T 4 N, R 6 W, S.B.B.& M. The irrigation season will be from about March 1 to about September 30 of each year.

Application 12-718 sought to appropriate 18 cubic feet per second which is equivalent to 13,300 acre feet per annum, which is more than three times the amount of water named in application No. 3883.

The points of diversion named in the two applications are practically the same and the water was to have been used upon the same area of 1920 acres.

Application No. 3883 was 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 was set for a public hearing at the law library of the Court House, San Bernardino, at 10:00 o'clock A.M. on September 22, 1925, re-convened and continued in room No. 818, Pacific Finance Building, Los Angeles, at 9:30 o'clock A.M. on February 5, 1926, and again re-convened and continued in room No. 818, Sun Finance Building, Los Angeles at 10:00 o'clock A.M. on March 9, 1926. Of the hearing, applicant and protestants were duly notified.

The protest of the Land Owners of El. Mirage Valley against application No. 3883 was filed October 21, 1924.

The protest was signed by 23 individual protestants who claim that they are land owners overlying a basin of underground water supplied by Sheep Creek, all of the water of Sheep Creek percolating into the basin,

that their right is based upon use by pumping from the underground basin, the first well being drilled in 1910, increasing in number until at the present time, there are about 100 wells in El Mirage Valley from which source a domestic and an irrigation water supply is obtained for at least 500 acres of land.

The protest of James M. Oliver, A. J. Wheeler, Sumner B. Wright, and Kate S. Wright as Wrightwood Beneficial Owners and the Pacific South-west Trust and Savings Bank, record holders of title as trustee for aforesaid Beneficial Owners, was filed October 23, 1924.

Protestants claim that they are owners of about 1000 acres of land which are riparian to Swartout Creek, a tributary of Sheep Creek; that they are entitled to the use of the waters of Swartout Creek under riparian and prescriptive rights for the irrigation of a large portion of these lands; that during each irrigation season since 1888, except in one or two years of extraordinary heavy rainfall, all of the waters flowing in Swartout Creek and Sheep Creek have been used by the protestants and their predecessors in interest for irrigation and domestic purposes, and that during most of the years, the water flowing in the stream has been insufficient to adequately irrigate the crops growing upon said lands; that at the present time, the protestants are making arrangements for extensive subdivision of said lands and have already subdivided a large portion thereof; that if the application was approved it would result in the construction of a permanent drain which would very substantially lower the water plane for a great distance in all directions from the head of the proposed tunnel, thereby draining into said tunnel waters which would otherwise enter the ditches of the protestant; that the proposed diversion

will divert water from the watershed of Sheep Creek, where it rightfully belongs, into another watershed.

The protest of the County of Los Angeles was submitted at the hearing on Sept. 22, 1925.

Protestant claims a riparian right to the use of the waters of Swartout Creek and rights under permits issued by the Division of Water Rights on applications 3868, 3869, 3870 and 3878 for use in a public park and recreation camp, and allege in effect that the proposed development and use of water by the applicant would result in such underground drainage and depletion of the natural storage supply as would materially lower the water plane, rendering the sources relied on by protestants unavailable and the supply required by protestants' needs for domestic purposes entirely inadequate.

Relative to the protest of the Mirage Valley Land Owners, it may be said that while upwards of 75,000 acres of land in Mirage Valley appear to have been taken up under Desert or Homestead entries, very little land has actually been irrigated, and practically no crops have been harvested, the little irrigation that has been practiced being that required to prove up on a desert land entry, after which the land has reverted to its original condition, little if any benefit being derived from the crops planted.

In the years 1917 and 1918, there appears to have been about 50 families residing in the valley and about 200 acres of land irrigated, but at the present time, there are about 1/3 as many families and a maximum irrigated area of about 17 acres. That many were holding on to their properties for speculative purposes only, hoping that some day transportation facilities would be available, was clearly brought out at the hearing.

While Sheep Creek may contribute something to the underground supply

of Mirage Valley, it is not the only source of supply. It appears as likely that Mirage Valley and its surrounding country receives also the runoff from a large area of the northerly slope of the Sierra Madres, the main drains of which aside from Swartout and Sheep Creeks being Boneyard Canyon, Le Montaine Creek, Mescat Creet, Deadmans Canyon and Bob Canyon.

Much stress was laid at the hearing by the protestants upon the fact that there is a divide which prevents the waters of Sheep Creek from reaching the lands of the applicant, and that any diversion made by the applicant would take water from the watershed tributary to Mirage Valley and carry it into a foreign watershed.

An inspection of the map which was made to accompany the Report of the Mojave River Commission would appear to indicate that the flow of Sheep Creek is in close proximity to the so-called natural divide between the two alleged watersheds, and as the underground flow of a stream has a tendency to spread out laterally from the stream itself, it is not at all unlikely that a portion of the underground waters of Sheep Creek finds its way northeasterly to feed an underground basin underlying the lands which the applicant proposes to irrigate. The entire country appears to be an alluvial fill made by an antecedent stream, and the fact that a low surface divide has been formed probably in recent years would not necessarily limit the easterly percolation of the underflow of Sheep Creek Canyon as it leaves the foothills.

Just what the actual conditions of flow of the underground waters are, can only be determined by a hydrographic survey. The fact remains, however, that there is water from sheep Creek during certain times of the

year which passes into the Mojave Desert, and which is either lost by evaporation or seeps underground and which is not being put to beneficial use, and as such is subject to appropriation.

There appears to be an uncertainty in the minds of many of the property holders in Mirage Valley as to whether or not they would be injured by the proposed diversion. This was made evident at the hearing by Mr. Joseph L. Greene, Vice President of the El Mirage Valley Landowners, who made the following statement:

".....I believe that the majority of the property owners out there feel that the Sheep Creek development would not interfere with the supply of our water,....."  
(Transcript page 298).

In view of the above discussion, the protest of the Mirage Valley Landowners may be dismissed.

The real controversy is between the users of water in Swartout Valley and the applicant, and is over the proposed underground flow appropriation. They are not concerned with the waters which flow past them as surface waters, and admit that there are seasons when there is considerable surface water which passes down stream which no one uses.

Sheep Creek, just below its junction with Swartout Creek, flows over a gravel filled basin confined between bedrock on either side. This basin varies in width from about one-quarter of a mile to about one mile and extends for a distance of about four miles northerly from the junction of the two streams to where Sheep Creek debouches on to the Mojave Desert.

In the spring of 1917, the Sheep Creek Water Company sunk a vertical shaft which for the sake of identification we will call "Shaft B", through the Sheep Creek wash to a depth of 177 feet below the surface of the canyon, at which level the surface of the ground water was encountered and in the

fall of the same year, the surface of the ground water lowered about 5 feet which enabled the shaft to be extended to a depth of 182 feet. The shaft is located in the NE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 9, T 3 N, R 7 W, S.B.M. about 1000 feet from the stream bed of Sheep Creek and about 1200 feet from the proposed point of surface diversion named in application No. 3883.

Fifteen feet above the bottom of this shaft, a tunnel was driven upstream in a general southwesterly direction for a distance of about 440 feet, but has since been temporarily abandoned, the Company having considered that in order to intercept the ground water flow at bedrock, another tunnel should be driven further south which would penetrate the gravels at a greater depth. A flow of 13 $\frac{1}{2}$  inches of water was intercepted by the abandoned tunnel.

Work on the new tunnel was commenced in the fall of 1923, starting with an open cut at a point in the SW $\frac{1}{4}$  SW $\frac{1}{4}$  Section 3, T 3 N, R 7 W, S.B.M. and extending in a general southerly direction toward "Shaft B". About 500 feet of open cut has been made and about 2000 feet of tunnel driven, it being the intention of the applicant to continue the tunnel until the underflow is intercepted, even extending it, if need be, about 1000 feet further to "Shaft B" at which point it will be 120 feet below the bottom of the present shaft, or a total depth of approximately 300 feet below the natural surface of the canyon. The Company appears to be satisfied, however, that bedrock will be encountered before the tunnel has been driven to this point.

The tunnel follows up the Creek as near as it was possible for it to be constructed through material consisting of boulders and cobbles interspersed with fines brought down by the wash from Swartout Creek on a grade of 3 feet in 1000.

A short distance to the north and west of the entrance to the cut or tunnel, another shaft had previously been sunk to a depth of 197 feet which had two feet of water in it. This shaft will be designated as "Shaft D".

The difference in elevation between the ground water surface as located by the sinking of Shafts B & D is approximately that of the difference in elevation of the canyon floor at their two points or about 200 feet, which would appear to indicate that the gradient of the surface of the underground flow between the two shafts is about 200 feet in 3800 feet. Mr. Hinckley estimated that the percentage of voids through which the underground water would travel was about 20%.

Although the exact amount of under flow is not determinable, there would appear to be an underground flow flowing down Sheep Creek Canyon which is pretty well defined between the walls of the canyon, the depth to bedrock being unknown, but approximately 200 feet in depth. Mr. Lippincott estimates that the top width of the underflow from wall to wall is about 660 feet and the depth 170 feet below the water level at a point apposite the present heading of the tunnel. This cross-sectional area would of course vary at different points along the canyon.

The interested parties, both applicant and protestants, all agree that at the lower end of Swartout Valley there is a closely packed formation, or debris cone, the voids of which are filled with fine materials acting as a binder or cement which forms a natural impervious barrier or dam across the Swartout Canyon just above the junction of Swartout and Sheep Creeks. That this natural barrier causes the ground water to rise to the surface is shown by the testimony presented at the hearing which indicated that between the pumping plant of the protestant S. B. Wright, which is located about a mile and a quarter above the junction of the two streams near the center of Section 8, T 3 N, R 7 W, S.B.M., and the intake to the upper Heath Ditch, about three quarters of a mile below the pumping plant, there is an increase in the flow of the creek and that at times the valley

fill above this impervious barrier becomes water logged during a wet season.

Below this debris cone the surface of the underground water appears to drop and is no longer in contact with the surface water at the intake of the lower Heath Ditch which is located near the junction of the two streams.

The shaft designated as "Shaft B" to which the tunnel will be driven, if occasion demands, is a little over a mile from the point of rising water and between these two points the exact surface of the underground water is not definitely known, but facts would indicate that the underflow of Swartout Creek flows over the debris cone through rather coarse material for some distance from the pumping plant and then plunges at a very steep slope into the gravels below the junction of the two streams.

The amount of water which the applicant would be able to develop from the underground source is indeterminable. The quantity, however, would probably be small and unless the impervious dike or debris cone near the junction of Swartout and Sheep Creeks is penetrated, the effect of the diversion would be negligible on the level of the underground waters in Swartout Valley, west of the point of increasing surface flow which lies somewhere between the Wright Pumping Plant and the junction of the two streams, depending upon the season of rainfall and runoff.

Below the point of maximum surface flow, the testimony presented at the hearing indicated a gradual lowering of the underground water plane below the creek bed and it may be that the applicant's underground diversion would have a tendency to lower the plane through this section still further but it would result in no appreciable injury to the protestants, the only

effect being that it might increase the seepage in the lower Heath Ditch.

It is not the intention of the applicant to penetrate the impervious dike at the mouth of the canyon, but if this should be done and the taking of the underground water would result in injury to the protestants, the protestants would have adequate recourse thru the courts. The burden of safeguarding the present legal rights of the protestants in this matter is upon the applicant.

The property of the County of Los Angeles lies at the upper end of Swartout Valley and is so far removed from the proposed underground diversion that in our opinion no injury would result to them.

The protestants claim that the underground waters which the applicant is seeking to appropriate are percolating waters over which the Division of Water Rights has no jurisdiction.

According to Section 42 of the Water Commission Act,

"..... Whenever the terms stream, stream system, lake or other body of water occurs in this act, such term shall be interpreted to refer only to surface water, and to subterranean streams flowing through known and definite channels....."

From the testimony presented at the hearing, it would appear that the underground flow passes through a known and definite channel and although the rate of the flow may be very slow and may be said to "percolate" through the gravels, it is nevertheless flowing toward the desert through a definite channel formed by the walls of the canyon on either side, the surface of this flow being located through a certain portion of the canyon by the sinking of the two shafts.

Percolating waters may or may not be subject to appropriation depending whether or not they are flowing through a known and definite channel.

Percolating water as defined in the case of Vineland Irrigation District vs. Azusa Irrigating Company, et al., (126 Cal. 486) at page 494, would not come within the jurisdiction of the Division of Water Rights. In the decision, Justice Henshaw makes the following statement:

"..... It is essential to the nature of percolating waters that they do not form part of the body or flow, surface or subterranean, of any stream. They may either be rain waters which are slowly infiltrating through the soil, or they may be waters seeping through the banks or beds of a stream, which have so far left the bed and the other waters as to have lost their character as part of the flow....."

Percolating waters which form a part of the subterranean flow of a stream, however, do come within the jurisdiction of the State Water Commission as defined in the case of Los Angeles vs. Pomeroy, 124 Cal. 597, decided in 1899. The character of the water in the case may best be described by the following headnotes as taken from this case:

Headnote 10

Percolating Water - Subterranean Flow of River - Value of Land - Percolating water which forms part of the subterranean flow of the Los Angeles River, and which is moving in the same direction with it, through the lands sought to be condemned, does not belong to the owner of the soil, and cannot be taken and conveyed away by him to other lands for sale: and where the supply of percolating water which might be so removed is of slight value, and might be wholly interfered with by drainage on adjoining lands, a verdict fixing the value of the land at its market value for agricultural purposes will not be disturbed upon appeal.

Headnote 11

Percolation not inconsistent with Stream - Defined Channel - The fact of percolation is not inconsistent with the idea of a stream, when it is caused by the waters of a subterranean stream passing through the voids of loose, permeable, matured filling, or partially obstructing the channel of the stream, and when the material through which the water forces itself, fills a well defined channel with impervious sides and bed.

Headnote 12

Diversion of Underflow or Percolating Water - The owners of

Headnote 12, con'd.

the soil cannot divert any part of the underflow of subterranean water forming part of the stream, whether such water would or would not reach the surface stream of the river; nor can he divert percolating water if the effect would be to cause the water of the stream to leave its bed to fill the void caused by such diversion.

Headnote 14

Rules of Surface Streams applicable - Subterranean streams flowing through known and definite channels are governed by the same rules that apply to surface streams.

Headnote 15

"Defined" and "known" Channels - Reasonable Inference - The channel of a subterranean stream is "defined" when it is contracted and bounded though the course of the stream may be undefined to human knowledge; and its course is sufficiently "known" when it is the subject of reasonable inference.

Headnote 16

Inference as to channel - Submission to Jury - Where the boundaries of the channel and the existence and course of a subterranean stream in the lands sought to be condemned are not defined or known, otherwise than by inference from the evidence, and it might reasonably be inferred therefrom that the channel was bounded and defined by the sloping sides of hills meeting underground, and that there was a subsurface flow in that channel through such lands, corresponding with the known surface flow of the river outward through the gap, the court was justified in submitting to the jury whether the subsurface flow in such lands was a part of the stream.

Quoting from page 631 of the report of said case:

"The difference between counsel and the superior court at this point seems to be that to them all, water passing through sand, gravel and boulders is percolating water, and the mere fact of percolation is inconsistent with the idea of a stream, while to the court there is no such inconsistency when the material through which the water forces itself fills a well defined channel with impervious sides and bed, through which a considerable body of water flows from its source to its resting place ....."

The underground waters of the Swartout Valley and Sheep Creek, in our opinion, are similar to the waters as described in the last named case

and therefore come within the jurisdiction of this office.

Owing to the inavailability of runoff records of Sheep Creek over an extended period of time, various attempts have been made by engineers to compute the probable runoff from the estimated rainfall and comparison with the runoff of similar streams. The results of these various estimates are set forth in the following table:

Engineer	Drainage Area	Total Average Runoff in A. F. per annum	Runoff A. F. per annum	
			Surface	Underground
E. Hyatt, Jr.	11.75 sq.mi.	11,000	5,500	5,500
J. G. Van Zandt	11.8 "	14,756	6,324	8,432
Mr. Gillelen		12,000		
E. A. Rowe	10.4 "		4,848	
Mr. Lippincott	10.4 "		3,640	

Mr. Lippincott did not believe that more than 1,100 or 1,200 acre feet per annum could be developed by the tunnel.

It would appear that the use of water in Swartout Valley had been very small. Less than 100 acres of land have been irrigated and together with stock watering and domestic use the requirements of the valley are very small.

That there is considerable runoff during certain times of the year is admitted by all the interested parties. Most of the runoff occurs during the winter months when it is not utilized by the water users in Swartout Valley and during the summer months there are occasional cloudbursts which flood the valley. This winter flow and occasional summer floods can only be utilized by means of storage, there being little or no unappropriated water during the irrigation season.

It has been the practice of the Division of Water Rights to limit the amount of proposed diversion to the capacity of the applicants diversion works. As the capacity of the proposed reservoir is only 1300 acre feet, it would appear

reasonable to assume that a total diversion of 3000 acre feet per annum would be as much as could be put to beneficial use in any one year from a reservoir of that size. This amount would not only be sufficient to allow a 100% replenishment but would be sufficient to care for evaporation and other losses. Testimony presented at the hearing indicated that the average use of the applicant would be even less than 3,000 acre feet per annum (Transcript page 115).

Although the amount of proposed diversion should be limited to 3,000 acre feet per annum the season of diversion should be throughout the entire year as stated in the application in order that the applicant may avail itself of the opportunity of collecting the flood flows which may occur at any time.

The use to which the water is to be put is a highly beneficial one and is absolutely necessary to the production of crops on the lands of the Company, and as we have seen, there is undoubtedly unappropriated water during certain seasons of the year, which is subject to appropriation, and which the applicant can put to beneficial use. There is, therefore, no reason why the application should not be approved for 3,000 acre feet per annum.

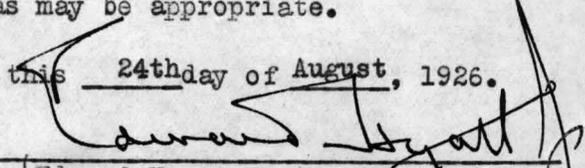
O R D E R

Application No. 3883 for a permit to appropriate water having been filed with the Division of Water Rights as above stated, protests 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 application No. 3883 be approved for 3000 acre feet per annum only and a permit be granted to the applicant subject to such of the usual terms and conditions as may be appropriate.

Dated at Sacramento, California, this 24th day of August, 1926.

WES:CC

  
(Edward Hyatt, Jr.)  
CHIEF OF DIVISION OF WATER RIGHTS