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

oOo

In the Matter of Petition to Change Point of Diversion under Application 2830, Permit 1343 of Elmer E. Paine allowing an Appropriation of Water from Saw Pit Canyon in San Bernardino County for domestic and Irrigation Purposes.

oOo

DECISION A. 2830 D 261

Decided June 21, 1930.

oOo

APPEARANCES AT HEARING HELD November 2, 1928.

For Permittee
Elmer E. Paine — Stephen Bedford, Atty.

For Protestant
Carl N. Hewitt — in propria persona

EXAMINER: Harold Conkling, Chief of Division of Water Rights.

oOo

O P I N I O N

On March 20, 1928, a permit was issued in due form upon Application 2830 allowing the appropriation of ten hundredths (0.10) cubic foot per second from Saw Pit Canyon in San Bernardino County for irrigation and domestic purposes. The point of diversion proposed was described as South 13° 15' West a distance of 2828.1 feet from the northeast corner of Section 13, T 2 N, R 5 W, S.B.B. & M., being within the NE¼ SE¼ of said Section 13.

Subsequently, (to-wit on November 13, 1929, and while Permit 1343 was in good standing before the Division) permittee filed a petition request-

permission to change the point of diversion upstream some 300 yards to a point described as North 14° 15' West a distance of 2487.38 feet from the southwest corner of Section 18, T 2 N, R 4 W, S.B.B. & M., being within the NE¼ SE¼ of Section 13 of T 2 N, R 5 W, S.B.B. & M. The proposed new point of diversion was said to be located on U. S. Forest lands. Permittee reports having applied for necessary Forest Service permit and no objection has been registered by the Forest Service although it was notified by this office concerning the petition.

PETITION COMPLETED, ADVERTISED AND PROTESTED

The petition was completed in accordance with the law and the Rules and Regulations of this office, was advertised, and a protest against the proposed change was received from Carl N. Hewitt. A hearing upon this protest was set for, and held upon November 2, 1928. Of this hearing both petitioner and protestant were given due notice and the matter is now submitted for action based upon a transcript of the evidence adduced at that time and data as to flow of underground water in Saw Pit Canyon submitted by protestant since that time.

PHYSICAL CONDITIONS AS PRESENTED BY EVIDENCE AND SUPPLEMENTARY DATA PRESENTED SUBSEQUENT TO HEARING

It appears that the change proposed by permittee and petitioner involves removal of his point of diversion under the permit a distance of some 300 yards upstream. At the original point of diversion the canyon is some 200 feet wide and filled at the bottom with porous material to an unknown depth through which the water flows during the latter part of the irrigation season as a subterranean stream. At the proposed new point of diversion the canyon is only some 40 or 50 feet wide at the bottom and the flow is forced to the surface by bedrock.

Permittee and petitioner advances as his reasons for desiring to make the change in location of his point of diversion that--

1. The channel changes from time to time at the present point as the stream swings back and forth across the detrital filled bottom of the canyon making the maintenance of headworks for his canal unduly expensive.

2. At times of low water the surface flow disappears beneath the surface of the ground at the present point of diversion and a diversion can only be made by an expensive subsurface barrier which would not be required at the new point.

3. Movement of the intake upstream as proposed will enable a gravity diversion to portions of permittee's land which cannot be reached by gravity flow from the present diversion point.

Protestant's objection to the change would appear to be based rather upon the ground that there is insufficient flow to satisfy his own prior appropriation and that of protestant than upon any injury from the change. The case presented by protestant shows clearly his conclusion that the water available at the proposed new point of diversion must pass the present or original point of diversion of permittee and petitioner. While the inference may be drawn from his arguments that it would be difficult to divert at the original point water which may readily be diverted at the proposed new point of diversion there has been no showing that the same water might not by more expensive headworks be diverted at the lower and original point. In fact all the evidence points clearly to the conclusion that the reasons advanced by permittee and petitioner for making the change are substantial and reasonable, and that there is no water available at the proposed new point of diversion which is not later available at the original point of diversion, with the possible exception of what may be lost in transit.

Protestant testified (page 41 of transcript) that prior to 1922 there was an abundance of water and he therefore did not protest this application when it was first filed. By his own statement it is only the dry seasons which have intervened that have brought a conflict between himself and applicant. Having considered and acted upon the application by the issuance of a permit the Division is not now in a position to consider the matter of unappropriated water. By the well established rule of the courts and by the provisions of the Water Commission Act itself petitioner is entitled to make the change from one point of diversion to another subject only to the condition that other users shall not be injured thereby.

To complete his case with such effect as to justify this office in denying the petition protestant must of necessity prove therefore that permittee and petitioner can at all times, when there is unappropriated water available, conveniently and expeditiously divert the amount to which he is entitled at the original point of diversion and that the removal to the new point will but put him in a way to interfere with and divert waters which are rightfully those of protestant under his earlier appropriation.

There appears to be a fairly constant surface flow at the proposed new point of diversion even during the periods of lowest flow when all surface flow has ceased at the lower and original point of diversion. The question was raised as to whether protestant could be affected at such times by diversions of permittee and petitioner. Protestant claimed at the hearing that the underground flow to his point of diversion from permittee's point of diversion was rapid and would soon be felt. To determine the rapidity of this underground flow it was agreed at the hearing on November 2, 1933, that action would be withheld upon the petition until some tests could be made of the rate of this underground flow.

The Division investigated promptly and reported to the interested parties the method which should be pursued in making these tests. Permittee appears never to have been sympathetic to these tests and has not cooperated. Protestant, however, on October 8th, November 27th, and December 1st, 1929, conducted some tests the results of which as reported by him may be summarized as follows:

In the test of October 8, 1929, three ounces of Eosine dye were introduced into the flow of Saw Pit Canyon at a point 148 feet downstream from the proposed diversion point of permittee and petitioner and another two ounces were introduced into the flow at a point half way to the diversion point of protestant, or approximately 3000 feet downstream. The Division had recommended the use of Uranine dye but protestant states that he could not obtain this either in Los Angeles or San Francisco. According to his statement the Eosine dye, by his own test, showed distinctly in a dilution of one in five million and would show in a dilution of one in ten million. The three ounces were introduced over a 26 hour period into a flow of about 25,000 gallons per day, and the two ounces were introduced into a flow of about 20,000 gallons per day. The only statement by protestant concerning the result of this test is that "Although very highly colored at first this color entirely disappeared in the canyon before reaching my intake."

In the test of November 27th twelve ounces of the dye were introduced over a 36 hour period at a point 280 feet below the proposed diversion point of permittee and petitioner, which amount of dye protestant advised was "sufficient to color entire flow of the spring (28,800 gallons in 24 hours) for a period of 19½ days in a dilution of one to seven and a half millions which is plainly visible." The color showed 32 hours later at a

point 280 feet downstream, and became faintly visible 40 feet farther downstream on December 6th. The flow was still highly colored at the 280 foot point on December 6th and plainly visible at that point on December 15th but there was no color on the latter date at the 380 foot point, and no color is reported as showing at any time at points downstream.

In the test on December 1, 1939 9 ounces of dye were introduced at a point 1,274 feet downstream from the proposed diversion point of permittee and petitioner, and color became clearly visible at a point 280 feet downstream 48 hours later. The color became faintly visible at a point 417 feet downstream from the point at which introduced within 120 hours. No color showed at any time below this lower described point.

According to the statement of protestant there is underflow for a distance of some 2,187 feet at the lowest flow period of the year between diversion point of permittee and the main canyon. The maximum rate of flow was observed over a total of 737 feet out of this 2,187 feet or roughly 1/3 of the distance and required 336 hours. This indicates that it would require a minimum of 42 days for the underflow to travel from permittee and petitioner's diversion point to the main canyon, and protestant assumes that roughly the flow for the remaining 4,000 feet distance to his point of diversion,--being largely surface flow--would require an equal length of time. If the tests of protestant and his assumptions as to the comparative rate of travel over the untested section of the route be accepted then it would be concluded that it will require 84 days for the underground flow to pass from diversion point of permittee and petitioner to that of protestant.

We are however not justified, under the circumstances, in attempting to apply the observed rate of travel in the short section for which it was

determined to a determination of the average rate of travel for the whole distance. There has been no attempt to show that the soils through which the subterranean flow must pass are homogeneous throughout the entire distance. In fact the tests reveal that quite the contrary is true. The maximum rate of observed and reported underground flow is 12½ feet per hour and the minimum rate is only 2/10 foot per hour, the one rate being 62 times the other.

It is also apparent from the showing made by the protestant in connection with these tests that the treated (dyed) flow at permittee's point of diversion was subject to very considerable dilution within the short section of the total distance wherein rate of flow was observed, and that there was a very considerable lag. Color introduced on November 27th and November 28th at a point 250 feet below permittee's proposed point of diversion showed highly colored 22 hours later at a point 280 feet downstream, was still highly colored at this point 192 hours later, and was faintly but plainly visible at this point 410 hours after its original appearance, although not visible 40 feet farther downstream where it had been visible previously. The rate of underground flow is therefore not only widely variable but there appears to be a diffusion of the subsurface water throughout more or less of a basin rather than a well defined subsurface stream.

SUMMARY AND CONCLUSION

Upon protestant's own statement there was, previous to the recent cycle of dry years, water available for both permittee and himself. It appears clear that even during the recent cycle of dry years the surface flow in the canyon does not cease until well toward the close of summer. The result of tests made by protestant of the rate of underflow indicates the probability that the effect of any diversion made by permittee after the

surface flow ceases will be so long in reaching protestant's point of diversion that it would under ordinary circumstances be relieved by the storms of the succeeding winter. In view of the apparent advantages which may accrue to permittee by the change in location of his point of diversion and the doubtful effect upon protestant for a very short portion of the year only, if at all, the petition should be approved.

O R D E R

A petition having been filed on November 18, 1927, requesting permission to change location of point of diversion under Application 2830, Permit 1343, said petition having been duly noticed, a protest thereto having been received, a hearing having been held, and the Division being now fully informed in the premises:

IT IS HEREBY ORDERED that petition received on November 18, 1927, to change point of diversion under Application 2830, Permit 1343 be approved.

WITNESS my hand and the seal of the Department of Public Works of the State of California, this 21 day of June, 1930.

EDWARD HYATT, State Engineer

BY Harold Conkling
Deputy

EHB:MP