

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

oOo

In the Matter of Application 6916 of Aubrey Wardman to  
Appropriate Underground Water from an Unnamed Canyon  
Tributary to Santa Ana River in San Bernardino  
County for Irrigation and Domestic Purposes.

oOo

DECISION A 6916 D 313

Decided *April 11, 1932*

oOo

APPEARANCES AT HEARING HELD AT LOS ANGELES, FEBRUARY 5, 1932

For Applicant  
Aubrey Wardman

Harry F. Sewell

For Protestant  
John G. Bullock

Harry F. Brown

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

oOo

O P I N I O N

GENERAL FEATURES OF APPLICATION 6916

Application 6916 was filed on March 20, 1931. It proposes an ap-  
propriation of 2.50 cubic feet per second from the underground waters of an  
unnamed canyon (hereinafter designated as Henderson Canyon) tributary to  
the Santa Ana River in San Bernardino County. Applicant has sunk two shafts  
within the NW $\frac{1}{4}$  of NE $\frac{1}{4}$  of Section 16, T 1 N, R 6 W, S.B.P. & M. and proposes  
to convey the water by siphons or by pumping to 350 acres within Sections 9,  
16, 21 and 27, T 1 N, R 6 W, S.B.P. & M. where the water will be used from  
about March 1 to about December 31 for irrigation purposes and throughout

the entire year for domestic purposes on the NE $\frac{1}{4}$  of NW $\frac{1}{4}$  of Section 27, T 1 N, R 6 W, S.B.B. & M. The application was protested by John G. Bullock.

PROTEST

John G. Bullock claims a right to divert from a tunnel located upon his property within the E $\frac{1}{2}$  of SE $\frac{1}{4}$  of Section 16, T 1 N, R 6 W, S.B.B.&M. said right being based upon appropriation and use initiated prior to the effective date of the Water Commission Act. Mr. Bullock alleges in effect that the water which applicant proposes to divert contributes to his supply and therefore can not be diverted without injury to him.

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

Application 6916 was completed in accordance with the Water Commission Act and the Rules and Regulations of the Division of Water Resources and being protested was set for a public hearing in accordance with the Water Commission Act on February 5, 1932, at 10:00 o'clock A.M. in Room 1026 Associated Realty Building, Los Angeles, California. Of this hearing applicant and protestant were duly notified.

PHYSIOGRAPHY AND HYDROLOGY

Henderson Canyon from which applicant proposes to divert under Application 6916 and Bullock Canyon from which protestant diverts are located on the southerly slopes of the San Gabriel Mountains. Between these two canyons is what is locally known as No-Name Canyon. The drainage areas of these canyons are approximately as follows:

<u>Canyon</u>	<u>Area of Watershed</u>
Henderson Canyon	350 acres
No Name Canyon	30 acres
Bullock Canyon	160 acres

The air line distance between the proposed development of Aubrey Wardman and the tunnel from which John Bullock obtains his supply is 3,500 feet. The lower shaft of applicant is 350 feet in elevation above Bullock's tunnel. The point where the air line between the lower shaft of applicant and the Bullock tunnel crosses the ridge between Henderson Canyon and No Name Canyon is about 90 feet higher in elevation than the upper Wardman Shaft intake and about 120 feet higher in elevation than the lower Wardman shaft intake.

Bullock's tunnel which was driven in the late 80's to a length of 320 feet is located at the mouth of Bullock Canyon. It appears that during the years 1897, 1898 and 1899 the tunnel yielded a uniform supply of about 16 g.p.m. as determined by measurements made three times a year by Robert R. Henderson. During the years 1914 and 1915 two tunnels were driven on property now owned by Wardman in Henderson Canyon which yielded about 22 g.p.m. In May 1919 after the completion of these tunnels, one William B. Hutton measured the flow from Bullock's tunnel and found it to be 11 or 12 g.p.m. About 1928, Bullock's tunnel caved in and has never been repaired, the water collecting in the rear end of the tunnel and flowing over and through the debris.

Applicant Wardman, requiring a greater supply of water, sunk two shafts at the upper end of his property above the tunnels before mentioned and at the points designated as the points of diversion in Application 6916. Construction work on the lower shaft was commenced in January 1931 and completed February 20, 1931. Immediately thereafter he commenced sinking a second shaft about 300 feet above the first one and completed it about the middle of March 1931, obtaining a supply of 45 to 54 g.p.m. About this time it was noticed that the flow from Bullock's tunnel was decreasing and a

measurement of the flow made on April 1, 1931, indicated that it was about 4 g.p.m.

On April 1, 1931, Wardman ceased pumping from his upper shaft and siphons were constructed by means of which, on or about April 10 or 12, about 72 g.p.m. were diverted from both shafts until about April 22, when Wardman ceased operations. From June 17, 1931, to June 25, 1931, one siphon was again operated and about 9 g.p.m. were diverted. On July 17, 1931, both siphons were operated and the shafts yielded about 72 g.p.m. for 30 hours. A month later the flow in Bullock's tunnel was again measured by William Hutton who found the yield to be 4 g.p.m. During the month of August the siphons were operated for one day only but from September 10 until December 24, 1931, the siphons were operated continuously, the average output being approximately 32 g.p.m.

On September 16, 1931, the flow from Bullock's tunnel as measured by F. C. Finkle was 3.6 g.p.m. On September 17, 1931, Mr. Finkle found the flow from Wardman's two shafts to be 52 g.p.m. and the flow from Wardman's lower tunnel 6.4 g.p.m.

Mr. Wardman ceased siphoning on December 24, 1931. About the middle of December 1931, the flow from Bullock's tunnel began to increase and on January 1, 1932, it measured 8 g.p.m. and increased to 12 g.p.m. on January 20, 1932. On February 5, 1932, the flow was 11 g.p.m.

#### GEOLOGY

An investigation was made by Mr. F. C. Finkle consulting engineer and geologist, specializing on underground waters on April 30, 1929, and again on September 16, 17 and 18, 1931, during which the geology of the three canyons was examined. Mr. Victor Barlow, a geologist, also inspected this area on September 7, 1931, and on November 2, 3, and 4, 1931. The conclusions

of the two geologists as presented at the hearing were in close agreement.

It appears from the testimony submitted that the San Gabriel Fault extends easterly and westerly about one-half mile below the mouths of the three canyons. Almost paralleling this geological fault is an auxiliary fault bearing about N. 83° E. which extends across the three canyons about half way between the applicant's development and the protestant's development which acts as an impervious barrier through which underground water can not pass and which tends to deflect any water which it may intercept in a southwesterly direction away from the protestant's development. Evidence that this condition actually existed was present in the dense vegetation, aquatic in character, which was present in Henderson Canyon and the comparative barrenness of No Name and Bullock Canyons. No Name Canyon and Bullock Canyon contain no water vegetation, there being only a few sycamores which do not require much water. Both of these canyons appear to be "barren" without indications of underground water except in the immediate vicinity of Bullock's tunnel above which there is a small dike.

The intervening ridge between No Name Canyon and Henderson Canyon called "Summit Ridge" is a high ridge topographically and consists of schist interlaced with dikes of aplite and diorite and Mr. Finkle testified that the structure is such that there could not be any movement of water from Wardman's shafts into No Name Canyon or beyond. Mr. Barlow likewise testified that there was no way in which water could flow from Wardman's shafts to Bullock's tunnel as the formation of the ridges separating No Name Canyon from Henderson Canyon and No Name Canyon from Bullock Canyon was such as to be impervious to water. He also stated that in his opinion there was no fault extending across Henderson and No Name Canyons into Bullock Canyon by

which water could be transmitted from Henderson Canyon into Bullock Canyon and that the washes of Henderson Canyon and No Name Canyon came together at a point sufficiently south to in no way permit water to drain into Bullock Tunnel.

#### DISCUSSION

The testimony presented at the hearing indicates that during the years 1897, 1898 and 1899, the flow of water from the Bullock tunnel was about 16 g.p.m.; that in 1919, about 2 years after the construction of the two tunnels on the property now owned by Wardman, the flow from the Bullock tunnel was only 12 g.p.m. and that about two weeks after the two shafts were sunk on the Wardman property in 1931, the flow from the Bullock tunnel was only approximately 4 g.p.m. It further appears from the evidence that the decrease was first noticed about the time that Wardman's shafts were completed; that immediately after the cessation of siphoning from the two shafts, the flow from the Bullock tunnel began to increase and seven days thereafter had increased to 8 g.p.m. and a month later to about 11 or 12 g.p.m. No evidence was presented at the hearing however in support of the protestant's contention that these changes were the effect of pumping and cessation of pumping from the Wardman shafts and tunnels or that there is an underground connection between the two shafts from which applicant proposes to divert and the Bullock tunnel.

In view of the uncontroverted evidence presented by the two geologists at the hearing that the geological and physical features of that locality were such that it would be unreasonable to assume that there was any connection whatever between the underground waters of Henderson Canyon, tapped by applicant's shafts, and those in Bullock Canyon, tapped by pro-

testant's tunnel some two-thirds of a mile distant, it is our opinion that the fluctuations in the flow from the protestant's tunnel were caused by variation of the precipitation and subsequent runoff in Bullock Canyon itself.

It does not appear unreasonable also to assume that the caving in of the Bullock tunnel may also have affected its yield.

There is no continuous record of the yield of the Bullock tunnel. With the exception of one measurement made by William Hutton in May 1919, no actual measurements were made from about 1899 to April 1, 1931. It is common knowledge that the exceptional drought of 1931 affected the flow of springs and streams throughout all of California.

Testimony presented by Mr. Finkle on behalf of the applicant indicated that in such formations as existed in this locality it would be impossible for the water to percolate from Henderson Canyon to Bullock Canyon but in the event that the material were pervious enough to permit of percolation it would take more than a year for the effect of the applicant's diversion to become noticeable at protestant's tunnel.

#### CONCLUSION

In view of the testimony presented at the hearing we are of the opinion that the fluctuation of the flow from protestant's tunnel is due to the variation of precipitation in Bullock Canyon and the subsequent runoff rather than to the operation of applicant's siphons and that it is a matter of coincidence only that the yield from the tunnel decreased about the same time as siphoning from applicant's shafts commenced and increased about the same time as the siphoning was discontinued.

The uses to which applicant proposes to put the water are useful and beneficial, and Application 6916 should be approved.

O R D E R

Application 6916 for a permit to appropriate water having been filed with the Division of Water Resources as above stated, a protest having been filed, a public hearing having been held and the Division of Water Resources now being fully informed in the premises:

IT IS HEREBY ORDERED that Application 6916 be approved and that a permit be granted to the applicant subject to such of the usual terms and conditions as may be appropriate.

WITNESS my hand and the seal of the Department of Public Works of the State of California, this *11th* day of *April*, 1932.

EDWARD HYATT, State Engineer

WES:MP

BY

*Harold Conkling*  
Deputy

