

BEFORE THE DIVISION OF WATER RIGHTS
Department of Public Works
State of California

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IN THE MATTER OF APPLICATION NUMBER 1851, OF THE CORONADO WATER
COMPANY FOR A PERMIT TO APPROPRIATE WATER FROM TIA JUANA RIVER,
IN SAN DIEGO COUNTY, FOR DOMESTIC AND MUNICIPAL PURPOSES.

DECISION A 1851. D 10
Decided May 15, 1924

*Original taken
by S. E. B.
at hearing*

PROTESTANTS:

San Ysidro Irrigation District
Herbert Peery and nineteen others
H. A. George
Citizens of Palm City, Imperial Beach and South San Diego
Tia Juana Irrigation District (Proposed)
F. B. Beyers and thirteen others.

APPEARANCES AT HEARING:

For Applicant- R. G. Dilworth and Horton L. Titus
For City of San Diego- S. J. Higgins and P. McClanaghan
For the townsite of Oneonta- E. W. Peterson
For the Proposed Tia Juana River Irrigation District
San Ysidro Irrigation District, Palm City, Imperial Beach,
South San Diego, farmers of Tia Juana Valley- Geo. A. Maywood
For F. B. Beyer and eighteen others- Hunsaker, Britt and
Cosgrove, and T. B. Cosgrove.
For the City of Coronado- Johnson Porterbaugh
For W. F. McClure, State Engineer - E. C. Eaton
Herbert Peery and R. T. Gwym- in propria personae.

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

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O P I N I O N

This is an application filed by the Coronado Water Company on
May 28, 1920, for permit to appropriate 7.736 cubic feet per second of the
underground flow of the Tia Juana Valley, in San Diego County, to supply

consumers under the system of applicant company, which operates as a public utility supplying water to the City of Coronado and territory to the south of San Diego Bay.

Protestants may be divided into two groups, in the first group being those deriving their water supply at present from wells located in the Tia Juana Valley for use on lands either in the Valley or upon the side slopes thereof, or owning land in the Valley which is at present subirrigated or might be irrigated from the underflow therein at some time in the future; in the second group those parties owning lands lying upon the beach between the Tia Juana Valley and San Diego Bay, who propose the formation of an irrigation district.

The protestants in the first group allege that pumping by applicant, especially thru a cycle of dry years, will lower the level of the underground water in the Valley, thereby injuring their wells and increasing their pumping lift, and possibly causing an influx of salt water from the Ocean, and will interfere with the flow of the River both surface and underground, and claim that the quantity applied for is in excess of the actual requirements of applicant. Those in the second group assert that all of the surplus waters of the River should be used on the lands adjacent to the Tia Juana Valley and none transported to the City of Coronado, as the applicant company already has a supply reasonably sufficient for its needs.

Other minor points are raised in the protests, some of them none or less relevant but the main issues are set forth above and reference is made to the individual protests for further details.

Applicant's reply that while their present sources of supply may be sufficient for present and future needs, the cost of same is prohibitive

to their consumers, and that a supply from Tia Juana River will result in a decrease in cost to consumers. They also assert that there is ample water available for their proposed appropriation, as well as to supply present rights, and they agree if at any time their proposed appropriation causes injury to same, to make equitable compensation.

The first group of protests was filed shortly after the application was advertised, and a field investigation made by Engineer Baker of the State Water Commission in November, 1920, and by the three members of the Commission in December, 1920. On December 9, 1920, a letter was addressed to the applicant by an executive member of the Commission, outlining specific information desired as a basis of action upon the application, including a detailed study of hydrographic features, present and future consumption of applicant Company, use of water in the Valley, etc. Protestants were invited to assist in the collection of this information, in order that the material would be collected in an impartial manner, but little assistance was rendered by them.

The material requested was received from applicant February 20, 1922. Due to removal of the Division's office from San Francisco to Sacramento, some delay was encountered in reviewing this data, but a conference was finally held in Coronado on May 17, 1922, at which representatives of the Division of Water Rights, the applicant, land owners in the Tia Juana Valley, proponents of the proposed Tia Juana Irrigation District, City of Coronado and U. S. Naval Base at North Island, were present.

At the close of this conference, it was suggested by the Division of Water Rights that every effort be made by opposing parties to reach some amicable basis of settlement, and that if such could not be reached, a formal hearing would be held.

Following this conference, the entire situation as regards water supply, use of water, etc., was reviewed by Hydraulic Engineer Donald M. Baker of the Division of Water Rights, in a report submitted May 29, 1922.

Little progress being made towards a settlement satisfactory to all parties, and requests being made by various parties for a hearing, such hearing was held in San Diego September 8, 1922, and continued to December 11, 1922.

Much verbal testimony was introduced at these hearings, as well as a large number of exhibits, engineering reports, etc., and legal briefs and arguments submitted.

A review of all the material available including both that submitted in the present case and that contained in Government reports, indicates that the Tia Juana River has a watershed embracing in excess of 2000 squares, ranging in elevation from sea level up to about 5000 feet, and from the character of the watershed, as given in the testimony of Mr. A. Ervast, and records of water crop upon adjacent watersheds, it should yield in normal years more than ample water for the present and future demands upon it, provided all of the water could be conserved.

About one eighth of the watershed area occurs behind the Barrett and Moreno dams of the municipal water supply of the City of San Diego, and little is known of the possibilities of irrigation development from the stream in Mexico, but even by making due allowance for water devoted to such uses, there would still remain out of the average flow more than ample to supply present and future uses in the United States.

It is a recognized fact amongst all who are interested in questions of water supply that, particularly in Southern California, wide variations occur from year to year in the water crop of any stream, and that such ex-

extremes above and below the average may occur for several years in succession.

After leaving its canyon several miles south of the International Boundary in Mexico, the Tia Juana River flows thru the Tia Juana Valley, which is a sunken valley cut in prehistoric times thru the older alluvial formation and filled with later and coarser sedimentary material.

During the winter months and after heavy rains, the water flows on the surface into the Pacific Ocean. At other times there appears to be a small inflow into the head of the Valley, and due to the slope of same, a slow movement of water down the Valley towards the Ocean, the water either passing out underground or rising to the surface and either being evaporated or running off thru the lagoons in the lower areas.

All parties to this proceeding either now obtain, or expect to obtain, a water supply from the underflow of the Tia Juana River as it passes thru the underground channels of the Valley. Certain of the protestants expect to base their rights upon applications for appropriation of water for agricultural purposes filed subsequently to the present application, and allege that the latter should be rejected as not best conserving the public interest, in accordance with Section 15 of the Water Commission Act. Such section declares however, that it is "the established policy of this state that the use of water for domestic purposes is the highest use of water and the next highest use is for irrigation. In acting upon applications to appropriate water the Commission shall be guided by the above declaration of policy. The Commission shall reject an application when, in its judgment, the proposed appropriation would not best conserve the public interest."

Application No. 1851, being for domestic purposes and prior in time to any other application, it would appear that this class of protests

have no merit and cannot be entertained. There remains, therefore, the protests of the existing users of water from the Valley. As regards these, the question of interest in the determination of the existence of unappropriated water is not so much the normal runoff of the stream as the supply obtainable from the underflow, and this will depend upon the annual flow of the stream, the duration of such flow thru the Valley, the draft during previous years, the possible storage capacity of the Valley fill, and other similar factors.

In normal years the above factors are such that the diversion proposed by applicant company may possibly result in a small lowering of the water level in nearby wells, and in a period of dry years this lowering may and probably will effect wells at some distance from applicant's pumps. The vast capacity of the gravels in the Valley fill, compared with the annual draft by pumps of present users and that proposed by applicant, however, and the certainty of a recurrence of wet years following a dry period, are assurance that the only effect of the proposed diversion will be as above stated, and for a short period, and will not be permanent.

The probability of an influx of salt water from the Pacific Ocean, at times when the water supply of the River becomes deficient, appears to be slight, and can only be determined by experience, as little is known of the underground geological conditions at the mouth of the Valley beyond the fact that in all probability there is some more or less impervious barrier extending underground across the mouth. In all probability, however, before the slope of the water table would be reversed, due to pumping and lack of runoff so as to cause an influx of salt water, other causes would cause a cessation of pumping.

The ultimate needs of the consumers under the applicant's system will be limited by the density of population. Experience has shown that when the density of an urban population reaches a certain point, the total water consumption becomes fairly stable, more inhabitants resulting in a decreased per capita consumption.

The applicant company has agreed to put down test wells, and obtain measurements of the fluctuation of the water table and analysis of the water in these test wells and in other wells in the Valley in order to obtain information as to the fluctuation of the underground water table, the effect of diversion by applicant upon other wells in the Valley, and to further investigate and guard against possible influx of salt water. Applicant has also agreed to compensate water users in the Valley for any increase in pumping lift or other cost caused by applicant's diversion, and also to cease pumping operations and obtain its supply from other sources at times when it appears that there is danger of an influx of salt water.

Any permit issued by the Division of Water Rights is issued subject to vested rights, and the owners of such rights in the Tia Juana Valley have an adequate remedy at law to enjoin any injury to their rights or to obtain adequate compensation for same should it occur thru operations under any permit issued upon this application.

It would therefore appear that water exists in the source given in the application available for appropriation; that the effect of the proposed appropriation upon protestants and others owning vested rights, if any, can be readily ascertained and applicant has signified its willingness to compensate for same; that water from this source could be delivered to consumers of applicant company at a rate much lower than at present; that certain

of protestants base their rights upon applications filed subsequently and for a use inferior to that proposed by the present application and therefore these protests are without merit; that the amount finally requested by applicant is a reasonable amount, so far as can be determined, and adequate for its future needs; that means are available for determining any damage that may be inflicted upon owners of existing rights, and the owners of same have an adequate remedy at law of enjoining such injury or obtaining compensation therefor, and such being the case, the public interest will be best served by the approval of this application and the issuance of a permit thereon.

O R D E R

Application No. 1851 for permit having been regularly 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 being now fully informed in the matter,

IT IS HEREBY ORDERED, that Application No. 1851 be approved and permit issued subject to such of the usual terms and conditions as may be appropriate and with the following special terms and conditions:

- (1) The amount of water appropriated shall be limited to that amount which can be beneficially used, and shall not exceed the following total quantities for the periods given-

Between January 1st and December 31st of each year, an amount equivalent to a continuous flow of 4.44 cubic feet per second, provided, that this rate of diversion may be increased between April 1st and September 30th of each year to an amount equivalent to a continuous flow during said period of 5.79 cubic feet per second, and provided, further, that during any thirty day period between April 1st and September 30th, the rate of diversion may be further increased to an amount equivalent to a continuous flow during said thirty day period of 6.65 cubic feet per second.

- (2) Prior to the time diversion is commenced under this permit, permittee shall put down test wells in sufficient number and in such locations, and equip same in such manner as in the opinion of the Division of Water Rights will allow measurements of the fluctuation of the subterranean water plane, with reference to the United States Geological Survey datum, within the Tia Juana Valley, to be made with reasonable accuracy, and will allow determination of the effect of said diversion by permittee upon the elevation of said water plane to be made with reasonable accuracy, and will allow the taking of samples of underground water for chemical analysis in order to determine whether or not such diversion by permittee is causing or may cause influx into the subterranean waters of the Tia Juana Valley of waters of such chemical content as to cause the waters naturally occurring therein to be unfit for use by the owners of rights thereto.
- (3) If in the opinion of the Division of Water Rights it shall become necessary to install additional test wells from time to time in order to better determine the above, same shall be installed and equipped in the same manner as the aforesaid wells.
- (4) The permittee herein shall cause measurements to be made of the elevation of the subterranean water plane in said test wells and in such other wells as may, in the opinion of the Division of Water Rights, appear necessary in order to determine the effect of diversion by applicant, upon the elevation of the water table in other wells in the Tia Juana Valley, on or about the 15th day of March, June, September and December of each year, and permittee shall cause samples of water in said wells to be taken and chemical analysis made thereof on or about the 15th day of June and September of each year. Additional measurements shall be made and additional samples taken and analyzed at such times as, in the opinion of the Division of Water Rights, are necessary to determine the effect of diversion by applicant upon the elevation of said subterranean water plane and upon the chemical content of said subterranean water.
- (5) Records of said measurements and analysis shall be permanently kept by permittee and copies of same furnished the Division of Water Rights upon request.

Dated at Sacramento, California this 15th day of May,

1924.

Acting Chief of Division of Water Rights
Department of Public Works
State of California

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