

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

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In the Matter of Application 3304 of the Coronado Water Company
to appropriate Flood and Surplus Underground Waters of the
Tia Juana Valley Basin, Tributary of the Pacific Ocean
in San Diego County for Agricultural Purposes.

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DECISION A. 3304 D-314
Decided *April 11, 1932*

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APPEARANCES AT HEARING HELD AT SAN DIEGO, DECEMBER 14, 1923

For Applicant

Coronado Water Company

R. G. Dilworth

For Protestants

San Ysidro Irrigation District

Geo. Maywood

Tia Juana Irrigation District

Geo. Maywood

Sundry land owners of Tia Juana River Valley District

Geo. Maywood

Sundry resident land owners of San Ysidro Irrigation
District

Geo. Maywood

Thomas Jensen, Geo. G. Downs, S. Holderness and
Floyd Sniff

F. B. Andrews

Herbert Peery

In propria persona

E. W. Peterson

In propria persona

EXAMINER: Donald M. Baker, Hydraulic Engineer, for H. A. Kluegel, Chief
of the Division of Water Rights, Department of Public Works,
State of California.

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OPINION

GENERAL FEATURES OF APPLICATION

Application 3304 was filed with the Division of Water Rights on
March 17, 1923. It proposes an appropriation of 7.74 cubic feet per second
of the flood and the surplus underground waters of the Tia Juana Valley Basin
in San Diego County to be diverted from January 1st to December 31st of each

year and 614 acre feet per annum to be diverted to storage from the same sources at the rate of 11.6 cubic feet per second from about November 1st to about May 1st of each season. The water is to be used for agricultural purposes on 4194.35 acres of land located in Sections 19 to 22 inclusive and Sections 26 to 35 inclusive, T 18 S, R 2 W, S.B.B. & M. and at Coronado Heights and the brickyard on the peninsula of San Diego. The season of use is throughout the entire year.

According to information submitted at the hearing it appears that the sole object in filing this application was to enable the applicant to use the water under Application 1851, for irrigation purposes as well as for domestic and municipal purposes and the applicant seeks to divert no more water than the amount asked for in Application 1851. (See page 8 of Transcript.)

PROTESTS

The application was protested by the following:

Sundry land owners of the Tia Juana River Valley	
Sundry resident land owners of San Ysidro Irrigation District	
San Ysidro Irrigation District	
Tia Juana Irrigation District	
Frank B. Byer	Thomas Jensen
Geo. B. Downs	S. H. Holderness
Floyd J. Sniff	N. P. Groftholdt
Solomon T. Hedges, et al.	R. A. Carrol
Roy F. Guinn	Herbert Peery

The protestants in general claim that the application should be denied upon the following grounds:

1. The waters sought to be appropriated are percolating waters and the Division is therefore without jurisdiction.
2. The supply of water in the valley is limited and any surface or subsurface water taken therefrom will lower the water plane, thereby increasing the cost of pumping in normal years and depriving overlying owners of water during subnormal years.

3. The unappropriated waters of the Tia Juana River, if any, are needed in the basin itself and should not be exported.
4. The lowering of the water plane in the valley may cause the influx of salt water from the Pacific Ocean.
5. The granting of the permit will not best conserve the public interests in that it will give a private corporation a source of water supply for speculative purposes.
6. The applicant has an entirely adequate water supply for its present and future needs in that it is now purchasing water from the City of San Diego.
7. Thomas Jensen and S. H. Holderness claim that they would be deprived of water which they are now using for duck pond purposes.

Other minor points are raised in the protests, some of them being more or less pertinent but the main contentions are presented above and reference is made to the individual protests for further details.

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

Application 3304 was completed in accordance with the Water Commission Act and the requirements of the Rules and Regulations of the Division of Water Resources and being protested was set for a public hearing in accordance with Section 1a of the Water Commission Act on December 14, 1923, at 10:00 o'clock A.M. in the Court Room of the Federal Building, San Diego. Of this hearing applicant and protestants were duly notified.

PHYSICAL CHARACTERISTICS OF SOURCE OF PROPOSED DIVERSION

Tia Juana River, the source of the proposed appropriation is territorial in character and is formed by the union of Tecate River, which flows in Mexican territory, and Cottonwood River which comes from American territory, near the boundary line a short distance from international monument 249. The river follows a sinuous course, passing alternately from American to Mexican

territory, to a point on the international boundary situated about $1\frac{1}{4}$ miles west of monument 250, where it enters Mexican territory, recrossing the boundary line after a run of approximately 16 miles at a place near the town of Tia Juana, between the latter and monument 255 whence it continues through American territory for a distance of about $6\frac{1}{4}$ miles to the Pacific Ocean, south of National City, California.

The valley floor at the boundary is about one mile wide and is bordered on the south by cliffs that rise some 400 feet above the river. On the north side of the valley, the bluffs, which extend northwesterly toward Nestor are more than 400 feet high at Tia Juana. These bluffs diminish in height and leave a plain through which the stream flows westward between sloping banks less than 25 feet high. At Tia Juana the river is about 50 feet above sea level and slopes westward at the rate of about 8 feet to the mile.

The catchment area of the Tia Juana River is about 2095 square miles of which about 470 square miles are within the United States and 1625 square miles are within Mexico. About 270 square miles of the drainage area are above the Barrett dam of the City of San Diego leaving about 1825 square miles which still discharge runoff to the lower valley. The precipitation is at times so great that large volumes of water sweep through the valley, but during long periods the flow is so much smaller that it sinks into the river bed as soon as it reaches the eastern slope of the coastal belt. The mean annual runoff of the Tia Juana River has been estimated as being from 50,000 to 70,000 acre feet per annum.

The Tia Juana Valley through which the stream flows is a sunken valley cut in prehistoric times through the older alluvial formation which has become filled with coarse sedimentary material.

APPLICATIONS APPROVED BY THIS OFFICE TO APPROPRIATE
FROM UNDERGROUND WATER OF TIA JUANA VALLEY

Under Application 1851, Permit 1724 the Coronado Water Company may divert from the underground flow of the Tia Juana Valley an amount not to exceed the following 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."

This maximum amount is equivalent to approximately 3200 acre feet per annum and is to be used for domestic and municipal purposes.

Under Application 2875, Permit 1815 the San Ysidro Irrigation District may divert 1 cubic foot per second from the underground flow of Tia Juana Valley Basin throughout the entire year with the proviso that the amount of water diverted thereunder together with that diverted under existing rights of permittee shall not exceed 1350 acre feet during any one calendar year.

The rights therefore which have either been initiated or acquired under permits from this office to appropriate from the underground basin of the Tia Juana Valley are approximately as follows:

Coronado Water Company (Application 1851, Permit 1724)	3200 a.f. per annum
San Ysidro Irr. Dist. (Application 2875, Permit 1815)	1350 a.f. per annum

UNDERGROUND WATER SUPPLY

In Water Supply Paper 446 of the United States Geological Survey, Mr. Charles H. Lee estimated the average annual addition to the ground water

supply of the Tia Juana River Valley as being 11,550 acre feet. The safe yield was estimated by Mr. Lee as being 7,900 acre feet per annum based upon a three year period with no replenishment assuming that adequate replenishment would take place the year after, and that complete replenishment would take place before the occurrence of another three year drought.

Mr. Hoops, engineer for the applicant, in a report dated May 16, 1922, which was filed as Exhibit 45 at the hearing held September 8, 1922, in the matter of Application 1851, estimated the safe annual yield of the Lower Tia Juana Valley to be about 8,630 acre feet per annum.

In a report to the State Engineer dated June 17, 1927, B. A. Etcheverry consulting engineer and Professor of Irrigation Engineering at the University of California, estimated that the annual demand on the underground supply of the lower Tia Juana River was 8,405^{acre feet per annum}/which estimate included 2600 acre feet for lands directly overlying the water bearing gravels, 590 acre feet for the San Ysidro Irrigation District, 3700 acre feet for the Coronado Water Company and 1515 acre feet for the Tia Juana Irrigation District which latter District has since been dissolved.

As hereinafter set forth the applicant is seeking to appropriate under Application 3304 for irrigation purposes no more water than it already has the privilege of diverting under its Application 1851, Permit 1724 for domestic and municipal purposes and therefore the annual demand on the underground supply of the lower Tia Juana River would appear to be well within the limits of safe annual yield.

DECLARATION BY MEXICAN EMBASSY

The Mexican Embassy has formally declared to the Secretary of State of the United States of America that Mexico reserves all rights to the waters on the upper reaches of the Tia Juana River.

Little is known of the possibilities of irrigation development from the Tia Juana River and its tributaries in Mexico. However it appears that the Mexican officials of Lower California propose to develop storage at the Garcia site on the South Fork of the Tia Juana River. An International Commission has been appointed to determine the respective rights of the two countries.

DISCUSSION OF PROTESTS

1. Jurisdiction by Division of Water Resources

There has been no conclusive showing that the waters which applicant proposes to appropriate are percolating waters as distinguished from underground waters flowing in known and definite channels and in the absence of such showing the Division is inclined to resolve doubts in favor of applicant and assume jurisdiction.

2. Applicant proposes to divert no additional water under Application 3304

The applicant under date of April 8, 1929, informed this office that it was willing that Application 3304 be amended to show that the total amount of water to be diverted thereunder together with that diverted under Application 1851, Permit 1724 would not exceed the amount allowed under Application 1851, Permit 1724 and that the use of water under the two applications should be alternately used at its discretion for domestic and municipal purposes and/or for agricultural purposes.

Application 3304 proposes also to store 614 acre feet per annum from the flood waters of the Tia Juana River. This amount however, the applicant states is not in addition to the amount of water applied for from underground sources but is for the purpose of conserving flood waters in order to relieve any possible drain on the underground waters during periods

of maximum use (See pages 9 and 117 of Transcript of hearing held December 14, 1923, in the matter of Applications 2875, 2925 and 3304).

3. Exportation of the Waters of Tia Juana River.

It is true that the place of use proposed by the applicant lies to the north of Tia Juana Valley proper but this fact does not constitute ground for denial of the appropriation. From the days of the early miners in California, the practice of diverting waters from one watershed into another has been of frequent and common occurrence and there are many instances of such diversions being made at the present time which trace their priority to early times in the history of the State. Since the passage of the Water Commission Act under which this office functions many applications have been approved for such diversions. Where the water is to be used is immaterial if there is a surplus which can be appropriated without injury to prior and existing rights.

4. Possibility of Influx of Salt Water.

The possibility of an influx of salt water from the Pacific Ocean at times when the water supply of the Tia Juana River becomes deficient cannot be determined from the evidence. The applicant however in order to guard against injury from this source has agreed to put down test wells, obtain measurements of the fluctuation of the water table, and analyze the water in these wells and others in order to obtain information as to the fluctuation of the underground water table and the effect of diversion by applicant upon the wells in the valley, and to further investigate and guard against the possible influx of salt water.

Furthermore the applicant has indicated that its pumping plant will be so constructed that the centrifugal pump will be set at an elevation

of approximately 20 feet above sea level and the length of the suction pipe will not be greater than 20 or 22 feet thereby insuring that the bottom of the draw down cone will not be below sea level.

5. Claim that Project is Speculative and Therefore Approval not in Public Interest.

There is no evidence that the Coronado Water Company has applied for a permit for speculative purposes and if there was such evidence it is not clear that this would form a basis for denial of the application. Section 20 of the Water Commission Act specifically provides that no value in excess of the actual amount paid to the State shall at any time be assigned to or claimed for any permit or license granted or issued under the provisions of the Act insofar as the same may affect public service. In its action upon applications to appropriate waters of the State, this office has no authority to deny an application such as this on the grounds that the enterprise may be for speculative purposes by a private corporation.

6. The Division of Water Resources has no Authority to Deny an Application on the Grounds that Applicant Already has an Adequate Supply.

In this instance applicant is seeking a more economical supply than it now has and that it has this privilege cannot be reasonably questioned. It is not within the power of this office to dictate to an applicant the source from which he is to obtain his supply.

7. There is Unappropriated Water in Sufficient Quantities to Justify the Approval of Application 3304 without Injury to Vested Rights.

The record clearly indicates that normally there is sufficient unappropriated water in the source from which applicant proposes to divert without depriving protestants of the water to which they are entitled. During years of insufficient supply it will be incumbent upon applicant to so

regulate its diversions as to safeguard the interests of the prior vested rights and special terms and conditions can be incorporated in the permit terms to determine what effect the diversion of applicant may have on the underground water level in the basin.

CONCLUSION

The purpose to which applicant proposes to put the water is a useful and beneficial one and as a public utility the Coronado Water Company is in a position to serve the lands within the area designated as the place of use in Application 3304. It owns in fee 188.5 acres in the Tia Juana River Valley upon which its wells and pumping plants will be located and 96 acres in Section 26, T 18 S, R 2 W, S.B.B. & M. which have been acquired for a reservoir site. The main transmission pipe lines, connecting the pumping plants with the present pipe lines of the Company and the proposed reservoir will be located on public roads and no rights of way will be required for these purposes. Rights of way for distribution pipe lines have not yet been obtained but the majority of these will be located on public roads.

It has been shown that there is sufficient unappropriated water in the source from which applicant proposes to divert to justify the approval of the application and it is the opinion of this office that Application 3304 should be approved for an amount of water not in excess of the total quantity which it now has the privilege of diverting under Application 1851, Permit 1724.

In order to protect the interests of users of water in the valley both as to water supply and possible influx of salt water from the ocean the applicant agreed to certain conditions which were incorporated in the permit issued in approval of Application 1851. It is our opinion that similar

conditions should be incorporated in any permit which may be issued in approval of Application 3304.

O R D E R

Application 3304 for a permit having been filed with the Division of Water Resources as above stated, protests 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 3304 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, to wit:

1. The amount of water appropriated shall be limited to that which can be beneficially used and shall not exceed the following quantities for the periods given:
 - a. Between January 1 and December 31 of each year, an amount equivalent to a continuous flow of 4.44 cubic feet per second, provided however that this rate of diversion may be increased between April 1 and September 30 of each year to the equivalent of a continuous flow of 5.79 cubic feet per second, and provided, further, that during any thirty day period between April 1 and September 30, the rate of diversion may be further increased to the equivalent of a continuous flow of 6.65 cubic feet per second.
 - b. Between November 1 and May 1 of each year, 614 acre feet to be diverted from the flood waters of Tia Juana River to storage at a rate not to exceed 11.6 cubic feet per second.
2. The total amount of water including both direct diversion and diversion to storage diverted under this permit together with that diverted under Application 1851, Permit 1724 shall not exceed 3200 acre feet per annum.
3. 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 Resources 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.

4. If in the opinion of the Division of Water Resources 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.
5. 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 Resources, 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 Resources, 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.
6. Records of said measurements and analysis shall be permanently kept by permittee and copies of same furnished the Division of Water Resources upon request.

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

BY *Harold Conkling*
Deputy

