

STATE OF CALIFORNIA
STATE WATER RIGHTS BOARD

In the Matter of Application)
18023 of H. D. Wheeler* to)
Appropriate from Trabuco Creek) Decision No. D 951
in Orange County)
ADOPTED FEB 2 '60

Substance of the Application

Application 18023, filed on March 4, 1958, is for a permit to appropriate 200 acre-feet per annum (afa) from the underflow of Trabuco Creek tributary to San Juan Creek by off-stream storage, to be collected between November 1 and July 1 of each season for irrigation purposes. The water is to be pumped from three wells lying southerly of the Creek within the NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 12, T6S, R7W, SBB&M**, conveyed to an offstream reservoir within the NE $\frac{1}{4}$ of SW $\frac{1}{4}$ and used for the irrigation of 160 acres within the SW $\frac{1}{4}$ of the same section.

Protests

Protests against Application 18023 have been received from the following parties:

Trabuco Wash Area

Grady H. Glenn
Trabuco Oaks Mutual Water Company
Isabel Smith
Fred L. Schwendeman
Alice Smith Platz

* Subsequently assigned to California Farms, Inc.
** Hereinafter all township references are from San Bernardino Base and Meridian (SBB&M).

Trabuco Creek Area of San Juan Valley

Doris Bathgate
J. Roy Smith
Charles D. and John L. Swanner
Pearl M. Williams
Charles R. Williams
Lawrence F. Buchheim
Orange County Water Works District No. 4
Trabuco Water Company

All of the protestants, with the exception of Alice Smith Platz, are located on Trabuco Creek downstream from the applicant, and all object to the approval of Application 18023 on the grounds that the proposed diversion will diminish the flow of Trabuco Creek and accordingly interfere with the protestants' prior rights.

Trabuco Water Company claims a "pueblo grant" to 200 miner's inches of the surface flow of Trabuco Creek, and the other protestants claim riparian and/or appropriative rights initiated prior to the effective date of the Water Commission Act to various quantities for domestic and irrigation purposes.

Answers to Protests

The applicant in answer to the protests, in essence, states that water will be used for irrigation entirely within the SW $\frac{1}{4}$ of Section 12, T6S, R7W, which is underlain by unbroken sandstones sloping toward Trabuco Creek, that all return water from irrigation would flow to the Creek and would be beneficial, rather than detrimental, to the lower users.

Proceedings in Lieu of Hearing

The applicant and protestants stipulated to the proceedings in lieu of hearing as provided for under Section 737 of the Board's rules, and a field investigation was conducted on December 2, 1958, by E. C. Johnson, an engineer of the Board. The applicant and protestants were present or represented at the investigation.

Records Relied Upon

The records relied upon in support of this decision are Application 18023 and all relevant information on file therewith, with particular reference to "Report of Field Investigation on Application 18023", dated May 7, 1959; report by Orange County Flood Control District entitled, "Water Supply Study for Proposed Honor Farm, Trabuco Canyon", dated February 1, 1957; United States Geological Survey, "Alberhill", "Santiago Peak", and "San Juan Capistrano" quadrangles, all 7.5-minute series; United States Geological Survey, Water Supply Papers, Part 11, "Pacific Slope Basins in California", with particular reference to stream flow records of Trabuco Creek; State Water Resources Board, Bulletin No. 1, "Water Resources of California", 1951; and State Water Resources Board, Bulletin No. 2, "Water Utilization and Requirements of California", June, 1955, Volume 1, Text and Volume 2, Appendices and Plates; Division of Water Resources, "Memorandum Report-Present and Ultimate Land Use, Water Utilization and Requirements, Hydrographic

Unit No. 7, San Juan Capistrano Area, 1952"; United States Weather Bureau, "Climatological Data of California".

Source and Watershed

According to the Alberhill quadrangle, Trabuco Canyon heads on the southwesterly slopes of Santa Ana Mountains in eastern Orange County in T6S, R6W, and T5S, R6W, and trends in a generally westerly direction for about 6 miles through a deep narrow canyon to approximately the westerly line of Section 6, T6S, R6W. From this latter point the canyon widens into a narrow arroyo (previously referred to as Trabuco Wash) averaging approximately 0.25 mile in width and 1.5 miles in length, thence about 12 miles in a southwesterly direction through another canyon to a confluence with Oso Creek within Section 36, T7S, R8W, near the upper end of the Trabuco Creek Area of San Juan Valley. From this confluence Trabuco Creek continues about 2 miles in a southerly direction to a confluence with San Juan Creek below the town of San Juan Capistrano.

The drainage area above the proposed point of diversion scales about 14.6 square miles, ranging in elevation from a maximum of 5687 feet at Santiago Peak to a minimum of about 1100 feet. The elevation is about 150 feet at the junction of Trabuco Creek with Oso Creek.

The United States Geological Survey maintains a gaging station on Trabuco Creek near San Juan Capistrano. The gage is located approximately 0.5 mile upstream from the confluence of Trabuco and Oso Creeks, at U. S. Highway 101 Bridge, and

within the NW $\frac{1}{4}$ of Section 36, T7S, R8W, and measures the runoff of an area of 36.5 square miles. Oso Creek and the unmeasured portion of Trabuco Creek below the gaging station have a combined drainage area of approximately 16.5 square miles above their confluence, the watershed being broken hills at lower elevations. A gaging station is also maintained on San Juan Creek at a point about 2.5 miles upstream from San Juan Capistrano. This gage measures the runoff from an area of 110 square miles.

Water Supply

According to the report of field investigation of Application 18023 surface flow normally exists through the canyon section of the upper six miles of Trabuco Canyon. However, during the summer and fall months the flow disappears underground at the head of Trabuco Wash near the east line of T6S, R7W. There was no surface flow in the wash at the time of the December 2, 1958, investigation. The "Santiago Peak" and "San Juan Capistrano" quadrangles both show considerable native vegetation along the 12 miles reach of the channel of the canyon between Trabuco Wash and San Juan Valley, indicating a possible subsurface flow during a substantial part of the year. The afore-mentioned gaging station is located a short distance below this canyon section. Underflow of Trabuco Creek past the gage is considered by the United States Geological Survey, the operator of the gage, to be negligible.

Table 1 shows the mean monthly flow, in acre-feet, passing the gage during the period of proposed diversion under Application 18023 as well as the total seasonal runoff for the 26 years of published record.

TABLE NO. 1
 Trabuco Creek near San Juan Capistrano, California
 Period of Record

Runoff in Acre-feet

Year	November	December	January	February	March	April	May	June	Total for Period of Diversion	Total Seasonal Runoff
1930-31	0	0	0.8	35.7	0	0	0	0	36.5	36.5
32	0	308	0.4	2,670	330.0	13.1	0	0	3,321.5	3,320
33	0	0	106	0	0	0	0	0	106.0	106.0
34	0	14.9	58.7	1.8	0	0	0	0	75.4	75.4
35	1.2	1.8	109	188	36	76	0	0	412.0	413
36	0	0	0	384	0	6.5	0	0	390.5	390
37	0	817	343	17,610	4,080	1,600	627	116	25,193.0	25,190
38	0	0	0	68	11,440	1,080	495	91	13,174.0	13,210
39	5.2	525	234	657	111	118	26	4.8	1,681.0	1,730
1939-40	11	.2	197	866	203	325	43	1	1,646.2	1,650
41	0	238	7.5	5,300	9,440	6,470	1,470	359	23,284.5	23,350
42	0	.6	57	59	41	83	73	30	343.6	344
43	7.1	32	2,590	1,340	3,410	1,530	363	39	9,311.1	9,320
44	7.9	10	0	1,400	1,660	346	181	65	3,669.9	3,670
45	103	0	0	159	2,640	940	234	28	4,140.0	4,100
46	.4	157	0	0	.4	12	0	0	169.8	170
47	153	211	6	0	0	0	0	0	370.0	370
48	.2	1.4	2.2	1.0	.2	0	0	0	5.0	6.4
49	.1	.7	1.2	0	0	0	0	0	2.0	2.9
1949-50	.4	1.0	1.2	.6	0	.4	.6	0	4.2	4.2
51	0	0	0.2	0	.2	0	0	0	0.4	0.4
52	.2	2.6	2,230	36	3,650	896	202	61	7,077.8	7,080
53	1.6	3.2	.2	0	.2	0	.4	3.2	8.8	9.0
54	1	3	82	143	445	447	52	8.5	1,181.5	1,200
55	4.4	.4	2.6	.2	0	5.6	.2	4	17.4	76.0
56	.2	.2	1,360	0	.2	0	0	.2	1,360.8	1,360
Average	11.3	89.5	284.0	1,189.0	1,442.0	537.0	145.0	31.2	3,727.0	3,738
Median	.4	3.1	4.3	47.0	18.2	12.5	.3	.6	401.3	401.0

All of the protestants claim prior rights to the use of water from Trabuco Creek by virtue of valid appropriations made prior to the effective date of the Water Commission Act in 1914, or as riparian or overlying landowners. The validity of their rights as alleged in the protests is not questioned by the applicant and all available information is consistent therewith. There are no surface diversions from Trabuco Creek downstream from the proposed point of diversion. All of the wells of the protestants within the Trabuco Wash area are undoubtedly fed by surface flow and underflow from the stream. These include protestants Glenn, Trabuco Oaks Mutual Water Company, Isabel Smith, Schwendeman, and Platz. Protestants Bathgate, J. Roy Smith, Swanner, Pearl M. Williams, and Charles R. Williams are situated in the Trabuco Creek area of San Juan Valley between the gaging station and the confluence of Trabuco and Oso Creeks. J. Roy Smith also diverts below the confluence of Oso and Trabuco Creeks but above the confluence of Trabuco and San Juan Creeks, as do Trabuco Water Company, Buchheim and Orange County Water District No. 4. The water supply of the latter two groups of protestants is probably also supported by the flow of Oso Creek.

Bulletin No. 1, State Water Resources Board, "Water Resources of California", Table 50, on page 264 thereof, gives the estimated seasonal natural runoff for the period 1894-95 to 1946-47, from numerous streams in the South Coastal Area for which runoff records are available. The estimated natural runoff from Trabuco Creek above the San Juan Capistrano Station,

according to Bulletin No. 1, for the above-cited period averages 3,300 acre-feet per annum, varying from a maximum of 25,200 acre-feet during water year 1936-37 to several years with zero flow. The median* flow for the period is estimated at 405 acre-feet per year.

Prior Court Action

In July 1949, the rights of Applicant Wheeler to the use of water from Trabuco Creek were adjudicated in "Chester Smith, et al. v. H. Dale Wheeler, et al.", No. 44293, in the Superior Court of California in and for the County of Orange. In that action the applicant was enjoined from diverting water between August 15 and November 15 of each year from Trabuco Creek for use upon that portion of his land lying outside the Trabuco Creek watershed.

Information Obtained from Field Investigation

The report of the field investigation made on December 2, 1958, indicates that there are 59 acres of citrus and 82 domestic services depending on water in the area immediately below the proposed point of diversion; 217 acres of citrus are irrigated in the area between the gaging station and the confluence of Trabuco and Oso Creeks. Below the confluence of Oso Creek 753 acres of citrus are irrigated and the Town of San Juan Capistrano

* Median is that event in a series of events for which there are an equal number of events greater in quantity and lesser in quantity.

is serviced by Orange County Water Works District No. 4. Appendix B of Bulletin No. 2, "Water Utilization and Requirements of California", indicates that Orange County Water Works District No. 4 had 220 domestic services in 1954. A substantial amount of domestic and irrigation use reportedly is made of the ground water of the Trabuco Creek area of San Juan Valley, in addition to that represented by the protestants.

In a report of the Division of Water Resources, entitled "Memorandum Report - Present and Ultimate Land Use, Water Utilization and Requirement Hydrographic Unit No. 7, San Juan Capistrano Area, 1952", the following statement appears:

"An estimate has been made by the Division of Water Resources of mean seasonal overdraft on the forebay area of San Juan and Trabuco Creeks in the general vicinity of the town of San Juan Capistrano. The period selected for analysis of necessity adhered to the period of available well records, or fall of 1940 to fall of 1951. Only three continuous well records were available for the forebay area, and, based on this fragmentary data, a rough change in storage study indicated the mean annual overdraft of 1300 acre-feet.

"All of this amount may not truly constitute overdraft, but may be a cyclic condition caused by extreme concurrent drough years occurring during the period. While runoff for the period averaged 114 per cent of the 53-year mean, seven of the eleven years are subnormal with little or no runoff in the final four years of the period.

"Historically, the area of computed overdraft has contained permanent agricultural development for many years, the principal crop being citrus. A comparatively small amount of new planting has been made in the past decade. Irrigated crops do not appear to be lacking in water supply. Some increased draft from the basin may be attributable to urban development in the coastal area. Heavy brush and willow growth are apparent in the lower stream bed areas relatively close to the ocean. It is possible that this growth may be supported by a perched water plane."

Discussion

Trabuco Creek has two ground water units separated by about 12 miles of relatively nonwater-bearing material within Trabuco Canyon.

Within the upper unit (Trabuco Wash Area) the water-bearing materials are confined within the 0.25-mile wide and 50-foot deep zone between the canyon walls. This material is apparently of low permeability and steeply sloped. The available dependable water supply is confined to the underflow of the stream and is accumulated during winter runoff periods and rapidly depleted during the dry months by usage and underflow from the area. This condition is shown by the hydrograph of wells reported in "Water Supply Study for Proposed Honor Farm, Trabuco Canyon". This report also indicates that the area is substantially recharged every year.

The lower ground water storage unit (San Juan Valley) is a typical ground water basin and extends from the forebay at the lower end of the afore-mentioned canyon near the junction of Oso Creek to the Pacific Ocean.

As previously mentioned, the Division of Water Resources estimated that there was an annual overdraft of 1300 acre-feet in this basin for the period 1940 to 1951. An analysis of the precipitation records of the latter years of the study (the 8-year period 1943 to 1951) indicates that there was a deficiency in water supply of about 30 per cent of the long-time mean. Subsequent to the study by the Division, the

water levels in the basin have substantially recovered to near the 1940 levels, indicating that the basin was almost completely recharged. The last four years of record, 1953 to 1956, inclusive, show that during the recovery of water levels, there has been a deficiency in water supply of about 20 per cent of the long-time mean.

It can be concluded that during a long-time period of average water supply there is no overdraft in the lower unit and that the proposed overdraft reported by the Division of Water Resources was a cyclic condition caused by a series of extremely dry years for the latter portion of the period studied. Although Trabuco Creek contributes to recharge of this unit, it is apparent that San Juan Creek, with three times the watershed, and the other tributaries, supply most of the water for recharge into the lower units. It would not be unreasonable to assume that during such times as there were waters in excess of those required to fill the upper unit, the runoff of San Juan Creek, Oso Creek, and the lower portion of Trabuco Creek would be reaching the ocean and no injury to lower basin users would be anticipated.

Conclusions

The evidence indicates and the Board finds that unappropriated water occasionally exists in Trabuco Creek and that during such time as water is available it may be taken and used in the manner proposed under Application 18023 without

injury to prior right users. Because of the infrequency of its occurrence the permit should be specifically conditioned to permit diversion only during such time as surface flow of Trabuco Creek is reaching the applicant's point of diversion and the county road crossing near Trabuco School in the SW $\frac{1}{4}$ of Section 11, T6S, R7W, SBB&M, and the permit should also be specifically subject to the judgment in the case of Chester Smith, et al. v. H. Dale Wheeler, et al., No. 44293, in the Superior Court of California in and for the County of Orange.

Order

Application 18023 for a permit to appropriate unappropriated water having been filed, protests having been received, stipulations to the proceedings in lieu of hearing having been submitted by all interested parties, an investigation having been made by the Board, and the Board having carefully considered the available information and now being fully informed in the premises:

IT IS HEREBY ORDERED that Application 18023 be and the same is hereby approved, and that a permit be issued to the applicant subject to vested rights and to the following terms and conditions:

1. The amount of water appropriated shall be limited to the amount which can be beneficially used and shall not exceed 200 acre-feet per annum by storage to be collected from about November 1 of each year to about July 1 of the succeeding year.

2. The maximum amount herein stated may be reduced in license if investigation so warrants.

3. Construction work shall be completed on or before December 1, 1961.

4. Complete application of the water to the proposed use shall be made on or before December 1, 1962.

5. Progress reports shall be filed promptly by permittee on forms which will be provided annually by the State Water Rights Board until license is issued.

6. All rights and privileges under this permit including method of diversion, method of use and quantity of water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

7. Diversion of water under this permit shall be limited to such times as the surface flow of Trabuco Creek is passing the proposed point of diversion and also passing the county road crossing near Trabuco School in the SW $\frac{1}{4}$ of Section 11, T6S, R7W, SBB&M.

8. Use of water under this permit shall conform to the order of the Court in "Chester Smith, et al., Plaintiffs, v. H. Dale Wheeler. et al., Defendants", No. 44293, in the Superior Court of California in and for the County of Orange.

Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held at _____, California, on this _____ day of _____, 1960.

Kent Silverthorne, Chairman

W. P. Rowe, Member

Ralph J. McGill, Member