

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

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In the matter of Application 7153 of Sisters of the Sacred Names of Jesus and Mary, a corporation, to appropriate from Agua Caliente Creek and Laurel Creek in Alameda County tributaries of San Francisco Bay, for Irrigation Purposes, and in the matter of Application 7154 of Sisters of the Sacred Names of Jesus and Mary, a corporation, to appropriate from Laurel Spring in Alameda County, a tributary of Laurel Creek and Sulphur Springs, in Alameda County, tributary to Agua Caliente Creek, for Domestic Purposes.

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DECISION A. 7153, 7154 D-375

Decided *June 8, 1935*

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APPEARANCES AT HEARING HELD AT SAN FRANCISCO ON NOVEMBER 20, 1934, AND CONTINUED TO DECEMBER 3, 1934.

For Applicant

Sisters of the Sacred Names of Jesus and Mary,
a corporation

Richard Fuidge
Lucas E. Milkenny
Fred Wood

For Protestants

Dr. M. E. Enos
A. J. Santos
F. F. Vargas
Joseph S. Briar
M. T. Lemos, Jr.
W. C. Adams
Mary A. Smith
Antone W. Vargas
John F. Souza

O. G. Foelker
R. J. Darter
No appearance
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EXAMINER: Everett N. Bryan, Supervising Hydraulic Engineer, for
Harold Conkling, Deputy in Charge of Water Rights, Division of
Water Resources, Department of Public Works, State of California.

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O P I N I O N

GENERAL DESCRIPTION OF PROPOSALS

Applications 7153 and 7154 were filed by the Sisters of the Sacred Names of Jesus and Mary, a corporation, on December 16, 1931.

Under Application 7153 it is proposed to appropriate 0.5 of a cubic foot per second by direct diversion and 30.0 acre feet per annum by diversion to storage from Agua Caliente Creek at a point within the SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 18, T 5 S, R 1 E, M.D.B.&M. and 10 acre feet per annum by diversion to storage from Laurel Creek at a point within the NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 18, T 5 S, R 1 E, M.D.B.&M. The season of direct diversion is from March 15th to October 1st of each season and diversion to storage in a reservoir of 40 acre feet capacity will be made at a rate not to exceed 1 cubic foot per second from October 1st to March 15th of each season. It is proposed to use the water for the irrigation of 112 acres of land located within Section 13, T 5 S, R 1 W, and Section 18, T 5 S, R 1 E, M.D.B.&M.

Under Application 7154 it is proposed to appropriate 0.14 cubic foot per second from Laurel Spring and 0.10 cubic foot per second from Sulphur Springs for domestic purposes at ranch buildings and a college located within Section 18, T 5 S, R 1 E, M.D.B.&M. The point of diversion on Laurel Spring is located within the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 8, T 5 S, R 1 E, M.D.B.&M. and the point of diversion from Sulphur Springs is described as being within the SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 18, T 5 S, R 1 E, M.D.B.&M.

Application 7153 was protested by Dr. M. M. Enos, F. F. Vargas, Joseph S. Briar, E. T. Lemos, Jr., W. C. Adams, Mary A. Smith, A. J. Santos, Antone W. Vargas and John F. Souza. Although Application 7154 was not pro-

tested prior to the hearing it was included at the hearing as the springs named therein were described as being tributary to the sources of proposed appropriation named in Application 7165 and therefore it appeared that the protests filed were applicable to both filings.

PROTESTS

In a joint protest, the protestants claim a right to the water which applicant seeks to appropriate which right is based upon riparian ownership and use for more than twenty years last past save and except since the applicant has constructed a dam across Agua Caliente Creek and piped the water to its reservoir. Protestants allege in effect that should Application 7153 be approved it would result in depriving them of water to which they are legally entitled for domestic, irrigation and stock watering purposes and cause their wells to dry up and become valueless. The properties of the various protestants lie downstream from the proposed point of diversion on Agua Caliente Creek and according to the protest each property is improved by a dwelling house, livestock buildings and a well and all of the protestants, excepting Dr. M. M. Enos, actually reside upon their respective premises.

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

Applications 7153 and 7154 of Sisters of the Sacred Names of Jesus and Mary, a corporation were completed in accordance with the Water Commission Act and the requirements of the Rules and Regulations of the Division of Water Resources and Application 7153 being protested, and Application 7154 being a companion application, both applications were

set for a public hearing in accordance with Section 1a of the Water Commission Act on November 23, 1934, at 10:00 o'clock A.M. in Room 537 State Building, San Francisco, California, which hearing was continued to December 3, 1934, at 10:00 o'clock A.M. at the same place. Of this hearing applicant and protestants were duly notified.

PROTESTANTS ARE CONCERNED ONLY WITH THE PROPOSED DIRECT
DIVERSION OF WATER FROM LAUREL CREEK UNDER
APPLICATION 7153

No protest was filed against the approval of Application 7154 which proposes diversions from Laurel Springs and from Sulphur Springs. The application was included at the hearing as it appeared that the springs were tributary to the sources named in Application 7153 which was protested.

It appeared at the hearing that protestants were not concerned with any proposed diversions from Laurel Creek and Laurel Spring as they were not located upon these sources and obtained no water therefrom and insofar as these sources were concerned the applications were not protested.

As to the proposed diversion from Sulphur Springs it appeared that the only objection that protestants had to this diversion was based upon the fact that this source might contribute to the summer flow of Agua Caliente Creek. Uncontroverted testimony presented at the hearing, however, indicated that Sulphur Springs were artificially developed and that in a state of nature there was no surface connection between these springs and Agua Caliente Creek. The protest against the approval of this phase of Application 7154 was not pressed inasmuch as protestants were informed that it was the established practice of this office to approve an application to appropriate from a spring in such cases upon the theory that any decrease in underground flow available to downstream users resulting from diversion

would be replenished by the storms of the succeeding winters before protestants would be affected.

Dr. M. M. Enos the uppermost protestant on Agua Caliente Creek and A. J. Santos the lowest protestant, both signified at the hearing that they were not concerned with the flow of Agua Caliente Creek during the winter flow (P.F. p. 179 and 264) and there was nothing to indicate that the protestants in general objected to the proposed diversion from Agua Caliente Creek during the winter months.

Upon this basis it would appear that the only issue before the Division lies in the proposed appropriation from Agua Caliente Creek of an amount not to exceed 0.50 cubic foot per second to be diverted from about March 15th to about October 1st of each season for irrigation purposes under Application 7183.

HYDROGRAPHY AND PHYSIOGRAPHY

Agua Caliente Creek rises in the central part of T 5 S, R 1 E, M.D.B.&M. in Alameda County south of Mission Peak at an elevation of about 2500 feet above sea level, flows northwesterly about one mile and then takes a general southwesterly course for a distance of about five miles to its junction with Mud Slough in the tidal marsh through which Coyote Creek enters San Francisco Bay. Testimony presented at the hearing indicated that the drainage area of Agua Caliente Creek was approximately 1120 acres with a normal seasonal runoff of about 840 acre feet. We find that of this area, about 880 acres lie above the applicant's proposed point of diversion and that about 1030 acres lie above the group of lands belonging to the protestants.

Above the applicant's proposed point of diversion the watershed varies from an elevation of about 300 feet to 2500 feet in a distance of about 3 miles and the testimony presented at the hearing indicates that most of the runoff occurs during the winter months and is flashy in character.

The applicant presented testimony to endeavor to show that during the summer months the flow did not reach the lands of the protestants but disappeared on the applicant's property.

The summer flow is made up largely from the flow of two springs located on the McClure Ranch which lies south and easterly from the applicant's property. Both springs flow continuously into a channel to Agua Caliente Creek during the winter months but during the summer months water from one of these springs is used to fill a swimming pool on the McClure property and once the pool is filled the water continues to flow through the pool and contributes to the summer flow of Agua Caliente Creek.

The applicant in the fall of 1930 constructed a diversion dam in Agua Caliente Creek and has been diverting water for irrigation and domestic purposes.

PRECIPITATION

Action by the Division upon applications to appropriate water from a stream is necessarily determined by conditions of flow during a season of normal runoff rather than during seasons of drouth or during seasons of abnormally heavy precipitation.

In order to more readily understand the situation as to normal runoff in the watershed of Agua Caliente Creek, a study of the U. S. Weather Bureau Records has been made. It was determined from these records

that the 85 year mean seasonal precipitation at San Francisco (elevation 206 ft.) covering the period from 1849-50 to 1933-34, inclusive, was 31.90 inches. At the same station for the 60 year period covering the seasons 1874-75 to 1933-34, inclusive, the mean seasonal precipitation was 31.23 inches. The records also indicate that for the 60 year period covering the seasons 1874-75 to 1933-34, inclusive, the mean seasonal precipitation at San Jose (elevation 95 ft.) was 14.32 inches. Based upon comparison with the mean seasonal precipitation at San Francisco, it is estimated that the mean seasonal precipitation for the 85 year period covering the seasons 1849-50 to 1933-34, inclusive, would have been approximately 14.77 inches.

The following table has been prepared which shows the indices of wetness at San Jose and at San Francisco and the mean for these two stations which mean has been assumed to be approximately the index of wetness for the watershed of Agua Caliente Creek. This table, while merely indicating the percentage of normal precipitation which occurred during the last 25 years, forms a basis upon which to determine conditions of flow during seasons of normal precipitation and frequent reference will hereafter be made to the index of wetness in connection with observations of flow.

TABLE SHOWING INDICES OF WETNESS
AT SAN JOSE AND SAN FRANCISCO

<u>Season</u>	<u>San Jose</u>	<u>San Francisco</u>	<u>Mean</u>
1909-10	99	89	94
1910-11	154	116	135
1911-12	72	64	68
1912-13	43	55	49
1913-14	132	133	133
1914-15	154	125	140
1915-16	111	124	117
1916-17	86	72	79
1917-18	63	52	58
1918-19	125	117	122
1919-20	60	48	54
1920-21	102	106	104
1921-22	100	91	95
1922-23	94	101	97
1923-24	44	53	48
1924-25	97	141	119
1925-26	98	94	96
1926-27	94	116	105
1927-28	70	90	80
1928-29	70	70	70
1929-30	74	74	74
1930-31	57	62	60
1931-32	91	96	93
1932-33	60	68	64
1933-34	59	59	59

GENERAL DISCUSSION

It is the contention of the applicant that the flow of water in Agua Caliente Creek during the summer months is insufficient in quantity to reach the lands of the protestants and if the water is not diverted to beneficial use as proposed by Application 7153, it would be lost by evaporation and transpiration.

In support of this contention J. W. Beebe, engineer for the applicant, who had investigated the stream since the fall of 1930, testified that there were a number of months during the years 1931, 1933 and 1934 that there

was insufficient water in the creek to flow off of the applicant's property (R.T. page 22). Measurements of flow in the creek were submitted at the hearing and entered as Exhibit No. 1 of the applicant. These measurements indicate that the flow in the creek at a weir just above applicant's diversion dam during the months of January, February and March of 1931 was only 15.3 acre feet (R.T. p. 25) and that during the remainder of the season with the exception of occasional releases from the McClure swimming pond above, the flow was too small to be accurately measured. As the flow during these three months represents the largest portion of the runoff during the season the runoff for the season of 1930-31 is exceedingly small as compared with the estimated normal seasonal runoff of 840 acre feet. (Index of wetness 1930-31= 60). The records of flow submitted indicated that there was some water flowing in the creek at the same point during the months of July 1933 to April 1934, both inclusive, although the summer flow was very small (Index of wetness 1933-34=59).

No measurements of flow were submitted for the season of 1931-32 (Index of wetness=93) and information was not obtained as to the measure of flow during this period.

As to the possibility of underground flow of the creek reaching protestants' property, Mr. Beebe stated that based upon his general knowledge of the geology of the San Francisco Bay Region, observations of surface flow, surface contours, and soundings with an iron rod, he was of the opinion that the underground flow of Agua Caliente Creek did not follow the course of the stream bed through protestants' properties but instead followed pre-historic channels in a general westerly direction. No actual test pits were dug.

It is indeed unfortunate that no actual stream measurements were made during a season of normal precipitation and for such seasons reliance must be placed upon actual observations of flow or persons who have been familiar with the flow over an extended period of time.

In 1927 Dr. M. K. Enos acquired a tract of land containing $2\frac{1}{2}$ acres immediately below and adjacent to the applicant's property on Agua Caliente Creek. In driving a well, 10 or 12 feet from the bank of the creek, to a depth of 12 or 15 feet below the level of the creek bed several layers of gravel were encountered from which water seeped into the well. Dr. Enos observed that there was a direct relation between the flow of water in the creek and the water level in the well.

According to the testimony of Dr. Enos, there was plenty of water available during the first two years after acquiring the property and he observed water flowing in the creek as late as October in 1928 or 1929 (Indices of wetness 1927-28=60, 1928-29=70). He stated that during the year 1930 there was water in the creek during the first week of May 1930 and then the flow suddenly ceased. As he intended to entertain some friends at his place on May 18, 1930, and wished to have the place as attractive as possible he asked the applicant's foreman about four or five days prior to this date if he would allow some water to flow down to his place. The request was complied with and on May 18, 1930, the swimming pool on his property was filled with water pumped from his well and a small stream of water flowed through the place. (Index of wetness 1929-30=74.) The last time Dr. Enos saw water flowing through his property in the summer time was in 1932 (Index of wetness =93).

The property of Jose S. Briar lies southwesterly of and adjacent to the property of Dr. Enos. Joe Briar, his son, who has been familiar with the flow of Agua Caliente Creek for fifteen years and has resided on the property for the last eight years testified that prior to the construction of applicant's dam in 1930 there was plenty of water in the creek and water was pumped from a well located about 10 feet from the creek bank for domestic, stock watering and irrigation purposes. In August 1932 he visited applicant's property and noticed that the entire stream flow was diverted by applicant to its reservoir. This year he was obliged to haul water to his property. He stated that years ago water used to flow through his property as late as September and about fifteen years ago it flowed during nearly the entire year (Indices of wetness 1918-19=122, 1919-20=84, 1920-21=104, 1921-22=95, 1922-23=97).

The lands of Manuel T. Lemos, Jr., lie just below the property of Jose Briar. Although a record protestant Mr. Lemos, subpoenaed by the applicant as a witness, testified that he had plenty of water and indicated that he wished to withdraw from the proceeding.

A. W. Vargas one of the lower protestants, presented testimony to the effect that during the latter part of April or first of May, 1932, (Index of wetness 1931-32=93) he observed about "four inches" of water flowing through his property, that during the past five years no flow had occurred later than this but that about seven years ago he had observed nearly "ten inches" of water flowing in the creek during the months of August and September (Indices of wetness 1927-28=80, 1928-29=70).

Michael (Smith) O'Grady a relative of Mary A. Smith, one of the protestants, testified that four or five years ago water flowed in the creek

during the month of June (Index of wetness 1929-30=74) and that until the last few years there had always been water in the creek during the summer months the flow extending some seasons as late as August or September. He stated that in excavating for a bridge across Agua Caliente Creek in August 1930 he had encountered wet gravel at a depth of one foot (Index of wetness 1930-31=80).

The last protestant downstream from applicant is A. J. Santos who owns a tract of land containing about 132 acres. One of his wells is located about ten feet from the creek bank and has been sunk to a depth of about eighty feet below the creek bottom. Mr. Santos stated that before the applicant had constructed its dam he had plenty of water in his well and even as late as May and June four or five years ago he had diverted water from the creek for irrigation purposes (R.T. p. 175). He stated that during the month of May 1932 and 1933 the flow of water in the creek suddenly ceased followed by a corresponding drop in the water level in the well. Ordinarily he waters about 90 head of stock from his well but recently he has had to water them elsewhere on account of the scarcity of water supply.

Mr. R. O. Bordner, a witness for the protestants, stated that during the latter part of July 1933, he visited the McClure ranch. He found that a portion of the water from one of the springs heretofore described, was being diverted through a five inch pipe into a settling basin and thence into a swimming pool. The swimming pool was full at the time and water was overflowing through a three inch pipe, running full, into a channel where it united with the flow from the springs which had not been diverted to the pool and contributed to the flow in Agua Caliente Creek.

Mr. Bordner stated that he followed the stream of water down the creek for a distance of one-half to three quarters of a mile from the easterly boundary of applicant's property to a point where the water flowed over a bluff. The water at this point was in excess of the amount which entered the creek from the McClure Springs due to accretions from other springs on applicant's property. Leaving the stream at the bluff, Mr. Bordner again entered applicant's property from the west and followed the creek bed upstream from the westerly boundary line to a point about one-half mile above applicant's upper bridge to a grove of trees about one-half mile below the point where the inspection downstream was discontinued. There was apparently no diminution of the flow at this point. Mr. Bordner noted that a small stream of water was flowing in the creek bed just above the applicant's buildings which was larger than the flow at the bluff and that below the buildings the flow materially increased due to accretions from seepage from irrigated lands and waste water from the buildings. No water was being turned into the creek from Sulphur Springs.

Mr. Bordner testified that when the swimming pool on the McClure property is emptied the water flows continuously through Agua Caliente Creek and that he had actually seen this flow twice during the summer of 1933 (R.T. pp. 250-231).

CONCLUSION

Although non-technical in character, we cannot help but be impressed by the testimony of those who have actually observed the conditions of flow in Agua Caliente Creek during seasons of normal precipitation and in seasons which approach normal and are convinced that during such seasons the waters of Agua Caliente Creek during many of the spring and summer

months contribute to the supply upon which protestants are dependent for irrigation, stock watering and domestic purposes. This supply is largely obtained from wells bordering upon the banks of Agua Caliente Creek and it appears that any diminution of the flow in the creek is immediately reflected by a lowering of the water level in the wells and when the flow in the creek ceases the wells become dry.

We are convinced that should the summer flow in Agua Caliente Creek be diverted as proposed under Application 7153 that it would result in depriving the protestants of water the use of which they have enjoyed in the past under claim of riparian ownership and therefore the direct diversion feature of Application 7153 should be denied.

Applicant as a riparian owner is also entitled to share in a reasonable use of whatever flow occurs during the spring and summer months and whenever, as claimed by applicant, the flow in Agua Caliente Creek diminishes to such an extent that it will not be available for beneficial use by the protestants even if the flow is allowed to pass beyond applicant's point of diversion, we can see no reason why the applicant could not avail itself of the use of such water as a riparian owner. We are convinced that there is no surplus or unappropriated water which should be taken by appropriation during these months.

As stated above, the protests are apparently directed against the approval of the direct diversion feature of Application 7153 only; no objection was made to the proposed storage thereunder and no real objection was entered against the approval of Application 7154. It is therefore the opinion of this office that Application 7153 should be approved only insofar as it relates to storage and that Application 7154 be approved subject to the usual terms and conditions.

C E R T I F I C A T E

Applications 7153 and 7154 for permits to appropriate water 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 7153 be approved as to its storage features only and that with this limitation a permit be granted to the applicant subject to such of the usual terms and conditions as may be appropriate, and

IT IS FURTHER ORDERED that Application 7154 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,
this 8th day of June, 1935.

EDWARD HYATT, State Engineer

By Harold Conklin
Deputy

