

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
BEFORE THE STATE ENGINEER AND  
CHIEF OF THE DIVISION OF WATER RESOURCES

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In the Matter of Application 15451 by Inspiration Heights Mutual Water Company to appropriate water from two unnamed springs or cienegas within Conn Creek Watershed in Napa County for Domestic Purposes.

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Decision A. 15451 D. 798

Decided September 7, 1954

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In Attendance at Investigation Conducted by the Division of Water Resources at the Site of the Proposed Appropriation on March 18, 1954:

Edward Hoehn	)	President, Inspiration Heights Mutual Water Company, Applicant
Pete Nightingale	)	
M. D. Elkins	)	
C. L. Place	)	Connected with applicant company
Frank Wood	)	Protestant; representing also Protestant Elizabeth H. Wood
Mr. and Mrs. Eugene Marty	)	
Mr. and Mrs. Harold R. Roney	)	Protestants
Mr. and Mrs. William Dillenberg	)	
Mrs. Ivar Asplund	)	Representing Protestant Ivar Asplund
Sarah Merrifield	)	
Mr. and Mrs. Owen L. Permenter	)	Interested parties
Mr. and Mrs. Elwood Johnson	)	
Arthur Wood	)	
K. L. Woodward	)	Associate Hydraulic Engineer Division of Water Resources Department of Public Works Representing the State Engineer

n.b. The protestant Beaulieu Vineyard was unrepresented during the investigation; Protestant Katharine Pringle was neither present nor represented.

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## OPINION

### General Description of the Project

The application initiates an appropriation of 0.22 cubic foot per second, year-round, from a source described as two unnamed springs or cienegas within Conn Creek watershed, in Napa County. The source is further described as being located within the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 7, T8N R5W, MDB&M. The water is wanted for domestic purposes at a group of some 50 houses located within Sections 7 and 18 of the same township, each house having a one-quarter acre garden. Approximately 150 people in all are to be served. Diversion is to be effected by pumping from concrete spring boxes. The project includes some 3,000 lineal feet of 3-inch diameter pipe, a 100 gallon-per-minute pumping plant and, initially, three 2,000-gallon storage tanks, ultimately, a 200,000-gallon concrete reservoir. According to the application the applicant owns the place of use but not the diversion site. The necessary rights of way are said to have been obtained.

### Protests

Beaulieu Vineyard claims a right to the use of water from Conn Creek based upon riparian ownership, ownership of lands overlying a ground water supply and diversion from Conn Creek. It also bases its claim of a water right in part upon an order by the Division of Water Resources issued in connection with Application 10990. It states that its place of use is

located within projected Sections 10, 11, 14 and 15 of T7N R5W, MDB&M. It states that its protest may be disregarded if the applicant will agree "(a) to store water only during a period commencing with November 1 of one year and terminating on May 1 of the year immediately following; (b) not to appropriate water from said designated source at any time during which the flow of all water into the Conn Valley Dam Reservoir does not exceed 10 second feet." The protest contains among other statements the following:

"Conn Creek supplies water into a ground water basin which underlies the floor of the Napa Valley and to lessen this replenishing source of supply would affect underground water levels, thus lessening the supply of water available for use by crops and by wells over large areas of said Valley.

"On August 18, 1947, a certain stipulation was entered into between City of Napa ..., this protestant, and other riparian landowners of Conn Creek, which stipulation was approved by the Division of Water Resources, Department of Public Works, in connection with the matter of Application 10990, City of Napa .... Said stipulation, among other things, provides that during the period November 1 of each year to May 1 of the next year, said City of Napa will pass through its storage reservoir ... the waters flowing in Conn Creek ... up to an aggregate rate of flow of 10 cubic feet per second, and during the period May 1 to November 1 of each year, it will pass through said reservoir all water flowing in Conn Creek and its tributaries up to but not exceeding 10 cubic feet per second.

"It is only those waters flowing into Conn Creek which are in excess of the flow of 10 cubic feet per second which are unappropriated in accordance with the various orders and findings heretofore made by the Division of Water Resources."

As to its use of water this protestant states:

"On certain of its lands adjoining Conn Creek protestant maintains a nursery for the planting and growing of young grape vines which for many years last past has consisted of

five or six acres. This land is irrigated seven or eight times a year by water pumped from Conn Creek. Due to existing conditions, protestant must increase the size of that portion of its land used for nursery purposes in order to obtain vines for replanting existing vineyard, so that the need for water by protestant will be increased. Likewise on the lands owned by protestant adjoining Conn Creek are two wells, the water from which has been and is being used for domestic purposes every day of the year."

A protest by Frank and Elizabeth Wood and another by Katharine Pringle differ little from the protest by Beaulieu Vineyard except as to the location of protestants' lands and extent of protestants' use. In this regard the Wood protest states:

"The lands of protestants ... comprise: 54 acres more or less, in Lot B of Dinning Tract of Caymus Rancho; 16 acres more or less in SE $\frac{1}{4}$  SW $\frac{1}{4}$  of projected Section 3 ... and 14 acres more or less in NE $\frac{1}{4}$  NW $\frac{1}{4}$  of projected Section 10, T7N R5W, MDB&M ....

\* \* \*

"For the past 30 years, protestants have been irrigating several times a year thirty to sixty acres of the land owned by them, depending in extent upon the amount of rainfall. In addition there is a well drawing upon the waters of Conn Creek which is used continuously for domestic purposes."

The Pringle protest states in the same connection:

"The lands of protestant making use of Conn Creek comprise a portion of Lots 5 and 6, Block "B" of Caymus Rancho ....

\* \* \*

"Protestant's use of water by direct diversion arises from the pumping of water from a sump located on the bed of Conn Creek. Such diversion was and is by a 4" centrifugal pump with a capacity of 600 gallons per minute. In addition thereto protestant maintains two wells, the water from both of which is used for domestic and irrigation purposes. With the water pumped directly from Conn Creek, protestant irrigates 65 acres of orchard and vineyard. In addition thereto,

with water obtained from the other wells protestant irrigates 10 acres of orchard three or four times a season, and a one-acre nursery for the planting and growing of young grape vines, which takes frequent irrigation."

Eugene J. Marty in protesting the application states:

"My domestic supply would be in jeopardy as my well is supplied by Conn Creek. A dry well would necessitate abandonment of property which has been in our family since 1908. The only water available is in wells adjacent to the creek. Several dry holes drilled some distance from the creek will verify this fact."

Protestant Marty bases his claim to a right to water from Conn Creek upon "domestic use since 1908", describes his point of diversion as being located within the NE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 28, T8N R5W, states that his protest may be disregarded "if applicant agrees to abstain from diverting water during the months of June, July and August".

Harold R. Roney states as the basis of his objection that the proposed appropriation "will take away our water for domestic and general use, also for fire protection, will decrease the value of our property and practically make it useless for a home". He represents himself to be a riparian owner, states that his land "runs to the middle of the Creek", that he uses water for domestic purposes and in summer for the irrigation of young fruit trees and a garden, describes his point of diversion as being located within the SE $\frac{1}{4}$  of Section 28, T8N R5W, states that his protest may be disregarded "if a guarantee can be made that a normal amount of water be allowed to flow down Conn Creek at all times".

William and Alice Dillenberg protest that:

"This vast amount of water to be taken continuously from Conn Creek watershed will dry up our domestic water supply in our well and also will dry up all springs feeding Conn Creek within our land."

The Dillenbergs state that they divert at a point within the NE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 34, T8N R5W, that they use water for domestic purposes, that their use and/or their predecessors' began prior to December 19, 1914.

Ivar Asplund states as a reason for protesting the application:

"1. I depend on the creek to keep my well supplied with water. If water is taken from the creek or any tributary to it, it will cause the water in the creek to go down in turn causing my well to dry up. The well supplies my domestic water needs as well as water for my 12 head of livestock. 2. Water from the creek is used to irrigate one acre of vegetable garden."

He states that the extent of his use of water has been as follows:

"1. From well - water used from May 1 through October 31 - 3,000 gallons per day. From November 1 through April 30 - 1,500 gallons per day.

"2. From creek for irrigation of one acre vegetable garden May 30 through September 30 - 3,000 gallons per day."

His protest may be disregarded, he states, if "we can be guaranteed of the same amount of water in our creek as we have gotten in the past".

### Answers

The applicant answered the first three of the above discussed protests by letter dated October 20, 1953, the rest of the protests by letter dated November 23, 1953. Extracts from the answers are as follows:

"We are convinced that no injury will result to these protestants if the above mentioned application is granted, because the amount of water which these two springs contribute to the ground water basin ... is infinitesimal; therefore the claim that taking this water would divert water from the underground water basin so as to constitute a hazard to the growing crops and to the wells, is purely hypothetical, and not an actual fact.

" ... at present the creek, just above the entry of the stream from the springs, has twelve times as much water as the stream from these springs. But this is true only in the dry season. In the rainy season, the volume in the creek would be greatly increased, whereas that of the springs would increase comparatively little."

"The ninth of this month, before any rainfall, we visited the maintenance office of Conn Dam and inquired about the amount of water coming into Conn Reservoir from Conn Creek. I was informed that on that date there was, as he stated it, 'a mere dribble of .18 cu. ft. per sec.'. I then asked how much of this was passed through the reservoir into the creek below; the answer was that there was such a little dribble coming in that nothing was passed through; that in fact, the water had been shut off since September 25."

"Possibly the thing that disturbs the protestants is the fact that in our application we asked for .2 cu. ft. per sec.; and this, our protestants doubtless feel, is a lot of water in the dry season. We are agreed that this would be considerable water if these springs produced it during the dry season. The fact is, however, that during the dry season the water from one of these springs never even reaches Conn Creek ... and the other ... contributes ... about 0.0139 cu. ft. per sec. to the reservoir. The reason we applied for .2 cu. ft. per sec. is that we hope to be able to develop these springs; and if we do, we want the right to take the water. Even now there is definitely more water right at the springs, where we want to take it, than ever reaches the reservoir, as much of it is absorbed by vegetation and dry ground along the way.

"In the statement of injury, the protestants all mention 'percolation from the creek' as one of the important contributors to this 'underground water basin ....' In answer to this statement, we are happy to inform them that in our contemplated use of this water, we have no plan to remove it from the watershed of this Napa Valley water basin ...."

"The small amount of water which these two unnamed springs contribute ... is so infinitesimal that it isn't likely that it could ever be detected by the best scientific instruments, nor perceived in any way by the protestants. Their crops and their wells will be none the better if they have this small amount of water and none the worse if they do not have it."

#### Field Investigation

The applicant and the protestants with the approval of the Department having stipulated to the submittal of the application and protests upon the official records of the Department, a field investigation was conducted on March 18, 1954 by an engineer of the Division. The applicant and the protestants, except Beaulieu Vineyard and Katharine Pringle, were present or represented during the investigation.

#### Records Relied Upon

Applications 10990 and 15451 and all data and information on file therewith; Memorandum of Field Visit on September 8, 1950 (filed with Application 9496); St. Helena quadrangle and Water Supply Papers relating to surface waters, Pacific slope basins, United States Geological Survey.



Information Secured by Field Investigation

The report of the field investigation of March 18, 1954 contains among others the following statements:

"A conference was held at Pacific Union College following which the site of the applicant's proposed project was visited. It was not deemed necessary to investigate the projects of the protestants in view of the information contained in a memorandum dated September 8, 1950 ...."

"The source of the proposed appropriation is a cienega some 200 or 300 feet in diameter on a steep, heavily wooded northerly slope of the canyon forming Conn Creek. The cienega is thickly covered with fern and other phreatophytes. Mr. Hoehn explained that it was the proposal ... to put down two shallow wells or collection basins at the two points described in the application into which water would seep through the surrounding areas. Water would be diverted from the upper point when available, as it would provide gravity flow to the lower part of the place of use. Only when the upper supply was inadequate would the applicant resort to pumping from the lower point of diversion."

"At the lower end of the cienega water gathers into a defined channel and flows approximately 200 yards to Conn Creek. It was estimated that the full production of the cienega at the time of the investigation was approximately 0.50 c.f.s. The flow of Conn Creek immediately above the discharge from the cienega was in excess of 10 c.f.s.

"Information as to the reliability or extent of the flow over any extensive period is unavailable. Mr. Hoehn stated that the only measurement he had previously made was on October 9, 1953 at which time he measured 45 gallons per minute from the cienega with 600 gallons per minute flowing in Conn Creek. The latter did not include the cienega flow.

"Users of water from Conn Creek ... may be considered in two categories; (1) those above Conn Valley Dam and (2) those below Conn Valley Dam. The 'above-dam' users are located within a 2.5 mile reach of Conn Creek immediately above the dam and, progressing downstream ... , are as follows:

Merrifield  
Brown  
Permenter  
Johnson, E.  
Marty  
Roney

Asplund  
Dillenberg  
Hubert  
Tiffany  
Johnson, R.

"The Merrifields hold Permit 5326 for 0.25 c.f.s. between May 1 and October 1 by direct diversion .... According to Mrs. Merrifield they are presently irrigating six acres of alfalfa and pasture. The remaining 10 parties divert from shallow wells either on or adjacent to Conn Creek for domestic purposes, stockwatering and limited irrigation such as domestic gardens and lawns. Although all claim the supply is normally inadequate, Elwood Johnson, Roney, Asplund and Dillenberg asserted that they had been forced to either restrict or cease irrigation entirely due to a shortage of water over the past years. All vehemently opposed any upstream appropriation.

"Under Application 10990 the City of Napa is required to maintain a stream gage on Conn Creek immediately above the lake .... The flow over the Conn Creek gage may be assumed as unappropriated water insofar as they (the 'above-dam' users) are concerned.

"The only protestant or interested party below the Conn Dam present at the investigation was Frank Wood and although he was not authorized to speak on behalf of the other users, indicated that their objections were identical, that the stipulation with the City of Napa in connection with Conn Valley Dam (Application 10990) providing for a bypass of 10 c.f.s. between November 1 and May 1 and the entire flow during the remainder of the year defines their rights, and thus there is no unappropriated water during a large part of the year. However, according to Mr. Wood these users are only interested in the flow of Conn Creek during the months of April, May, June and possibly to the middle of July. After this latter date the flow is normally so small that the City was not being required to release it, that the lower users assume that this water would have been lost through evaporation or seepage and would not have reached them had the dam not been existing and furthermore, that the release of less than possibly 0.25 c.f.s. would have no noticeable effect on the underground basin supplying their wells."

"Mr. Hoehn ... stated that it is physically possible to divert only a small portion of the entire production of the cienega and therefore Application 15451 would have no noticeable effect on the downstream users . . . . On the other hand

the opposing parties stated that the flow of the creek was necessary to maintain the level of the wells, that the amount of flow had a very noticeable effect on their wells and that although the water was apparently seeping underground it was not entirely lost to them."

#### Information from Other Sources

In 1950 Messrs. Marty, Roney and Asplund (now protestants against Application 15451) complained of shortage of water in Conn Creek, the complainants attributing the shortage to unduly heavy pumping by the Merrifields, upstream permittees. A memorandum of field visit (filed with Application 9496) made in response to the complaints reads in part as follows:

"The investigation particularly covered all use from Conn Creek from the upper end of Conn Reservoir to permittee's point of diversion which is a distance of about 3 miles ...."

"An estimated .3 c.f.s. was flowing into upper end of permittee's regulatory reservoir. Of this amount .16 c.f.s. was being diverted by permittee. The balance or about .15 c.f.s. continued on downstream, diminishing gradually, and surface flow ceased entirely about 1/2 mile below permittee's point of diversion. From this point on down to the last user, just above the Conn Reservoir there are some pools. The surface of these pools is on an average of one foot below the normal streambed which seems to be about the level of saturation in the gravel."

"The persons interviewed have lived on Conn Creek from 15 to 30 years. With the exception of permittee, all agreed that only once before in the past 30 years has all surface flow ceased .... In 1939 which was an exceptionally dry year, the creek ceased to flow for a short period of time ...."

"From (permittee's) dam water is conducted ... for about 500 feet and poured into a masonry well .... A 5 HP 1½"

centrifugal pump attached to sprinkler system is used to transfer water from well to land .... Water was being applied to the land at about 60 gallons per minute ...."

"A total of about three acres of land is irrigated .... Stock water and domestic supply obtained from another source."

"Neighbors claim that permittee pumps steadily throughout day .... The downstream users can be roughly divided into two groups: Those who have not been harmed and are not complaining; and those who have been harmed."

"Mr. Johnson, Mr. Brown and Mr. Dillenberg all have shallow wells within about 50 feet of the creek bank and use the water for domestic purposes only. While the water level of their wells may have dropped, they are not unduly worried. However ... they feel that the Merrifields are not justified in using water for the irrigation of pasture for saddle horses, when people downstream have had to abandon the irrigation of household gardens and appear to be in danger of having insufficient water for household and stockwatering purposes."

"H. R. Roney and E. J. Marty both of whom have written letters of complaint are not full time residents. They have small tracts where weekends and vacations are spent. Mr. Roney has a shallow well for domestic supply and formerly diverted water direct from the creek for the irrigation of a small garden. The creek at this point is completely dry and the garden is suffering .... It is understood that the same situation exists (at the Marty place).

"Mr. Ivar Asplund ... is a full time resident and the cessation of flow in the creek is at present causing some damage in connection with his regular means of making a livelihood. The irrigation of garden and dairies has been abandoned due to the shortage of water. The possibility of future damage is far more serious .... Mr. Asplund's well is his only source of supply for both household use and the watering of a small herd of cattle. He feels certain that if the hot weather continues and the Merrifields' diversion continues, the water level in his well will continue to drop until he has no water for the above very necessary uses."

"Mr. Asplund's well is located about 100' from the creek channel, is 24' deep, and the water was standing in the well to the depth of 7'."

"A rough check of water levels was made, by use of a hand level. It was found that the creek bed itself is about 16' below the top of the well curbing, the upper point of saturation in the gravel above the creek was about 1 foot below the average channel and this checks with the water surface in the well almost exactly. Mr. Asplund stated that the depth of water in his well has never before dropped below 10' in the 30 years that he has lived on this place."

"Mr. and Mrs. Shand are the last affected users above the Conn Reservoir. ... Conn Creek is the only source of water for the irrigation of their garden. Water ceased to flow at this point on or about July 1 and they have not been able to irrigate since that time. ... the ranch manager ... (stated) that with the possible exception of 1939, this is the first time that all surface flow has ceased in the creek."

Following the investigation Permittee Merrifield was advised by letter from the Division as follows:

"The results of the investigation made on September 8 by an engineer of this office indicate that there was insufficient water in Conn Creek to supply your Application 9496, Permit 5326, and other prior vested rights.

"Your permit was issued pursuant to an application which states that it is for a permit to appropriate 'unappropriated waters of the State of California subject to existing rights' and the permit states that it is expressly issued 'subject to vested rights'.

"Subsequently any impairment of vested rights may give rise for a cause of legal action against you by the injured party. To prevent such action you should operate your diversion under the application and permit only at times when surplus waters exist in Conn Creek and should cease diverting whenever the flow is insufficient to fill the prior rights."

A topographic map of the locality (St. Helena quadrangle, United States Geological Survey), indicates that the surface area draining toward the springs or cienegas filed upon is roughly 0.075 square mile in extent; but that the land mass which is more elevated than the proposed point of diversion and which might supply water to that point by percolation or via underground passages is many square miles in extent. The map also indicates that the applicant's proposed place of use lies mainly if not wholly outside of the Conn Creek watershed.

Application 10990 Permit 6960 authorizes the City of Napa to divert 35 cubic feet per second from about November 1 to about May 1, also 30,500 acre-feet per annum, collected from about November 1 to about May 1 from Conn Creek, at a point within the SW $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 1, T7N R5W, MDB&M, for irrigation, municipal, industrial and domestic purposes. Permit 6960 was issued subject to the terms of a certain stipulation dated August 18, 1947. That stipulation sets forth among other things that the City of Napa does not intend to change ground water conditions within the area from which the protestants against Application 10990 secure their water, that for the purpose of maintaining the underground water level the City will drill and maintain certain pilot wells and read and record water levels therein; and it contains, among others the following passages:

"5. That for the purpose of maintaining the underground water conditions ... the City will pass through its said reservoir ... as follows:

(a) During the period November 1 ... to May 1 ... the City will pass through its said storage reservoir the waters flowing in Conn Creek and its tributaries up to an aggregate rate of flow of 10 cubic feet per second . . .

(b) During the period May 1 to November 1 ... all of the waters flowing in Conn Creek and its tributaries at an aggregate rate of flow to be determined from the said measuring devices ... ."

The stipulation also provides for a redetermination every 3 years on the basis of the pilot well records of the amounts necessary to bypass between November 1 and May 1 in order to accomplish the purpose intended and, if warranted, for a readjustment of the rate of bypassing.

Other filings within Conn Creek watershed include the following:

Application 13773 Permit 9202, Hershey, 5 acre-feet per annum from an unnamed stream at a point within projected Section 9, T8N R5W, MDB&M, for irrigation.

Application 13774 Permit 9203, Hershey, 1 acre-foot per annum from an unnamed stream at a point within projected Section 8, T8N R5W, MDB&M, for irrigation.

Application 13943 Permit 9204, Matheson, 180 acre-feet per annum from an unnamed stream at a point within projected Section 26, T8N R4W, MDB&M, for irrigation.

Application 14006 Permit 9205, Friesen, 130 acre-feet per annum at points within Section 31, T9N R5W, and Section 25, T9N R6W, MDB&M, for domestic, recreational and stockwatering purposes.

Application 14075 Permit 9206, Chiles, 100 acre-feet per annum at a point within projected Section 7, T8N R4W, MDB&M, for irrigation.

Application 14204 Permit 9207, Fasken, 115 acre-feet per annum at a point within Section 20, T8N R5W, MDB&M, for recreational purposes and irrigation.

Application 14490 Permit 9208, Friesen, a duplication of Application 14006 Permit 9205.

These 7 filings aggregate 661 acre-feet per annum. Collection in each instance is limited to periods extending from November 1 to May 1.

Each of the permits except Permit 9207 contains the following special term:

"Issuance of this permit shall not operate to the prejudice of any prior rights, including rights initiated by the filing by the City of Napa of Application 10990."

The flow of Conn Creek about 6 miles above its junction with Napa River has been measured by the United States Geological Survey since November, 1929. Approximately 1.6 miles above the point of measurement is Conn Valley Reservoir which serves the City of Napa and came into operation in December 1945. Mean discharges in cubic feet per second each water-year since the water-year 1930-31 inclusive, according to the published record modified to take into account since December 1945 increases or decreases in amounts stored in the reservoir, and amounts supplied therefrom to the City of Napa, have been as follows:



Water-year	measured at gage	Discharge: for increase or decrease of amount in storage	Correction: for increase or decrease of amount in storage	Correction: for deliveries to City of Napa	Corrected mean discharge from watershed above gage	Runoff per square mile of tributary watershed (cfs)
1930-31	1.50				1.50	0.029
1931-32	21.4				21.4	.412*
1932-33	6.06				6.06	.116
1933-34	7.63				7.63	.146
1934-35	32.3				32.3	.621
1935-36	34.2				34.2	.658
1936-37	26.0				26.0	.501
1937-38	82.0				82.0	1.575
1938-39	1.87				1.87	.036
1939-40	62.0				62.0	1.190
1940-41	104.0				104.0	2.000
1941-42	73.9				73.9	1.420
1942-43	31.8				31.8	.612
1943-44	14.4				14.4	.277
1944-45	20.7				20.7	.398
1945-46	2.07	+20.75			22.82	.438
1946-47	2.10	+ 2.90			5.00	.096
1947-48	2.91	+ 2.21	+1.82		6.94	.134
1948-49	2.99	+10.50	+2.75		16.24	.312
1949-50	3.51	+ 0.55	+3.27		7.33	.141
1950-51	36.6	- 0.28	+5.20		41.52	.798

Average	29.5	0.567
Median	21.4	0.412
*Median year		

The flow of Conn Creek has also been measured at a point immediately above Conn Valley Reservoir (Lake Hennessey) by the City of Napa. Monthly mean flows at that point, according to data supplied by the City of Napa (filed with Application 10990) in cubic feet per second, during the 6 months of each year when the City is required to pass downstream all water entering its reservoir, have been approximately as follows:

<u>Month</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>
May	0.75	4.23	1.23	1.55	2.32	3.13	3.96
June	0.63	1.47	0.48	0.58	0.98	1.61	1.15
July	0.07	0.60	0.24	0.03	0.43	.71	0.15
August	*	0.35	0.09	0.00	0.11	.21	0.14
September	*	0.26	0.00	0.00	0.00	.18	0.12
October	1.52	0.63	0.00	0.40	0.74	.03	0.31

\* Broken record.

The fluctuations of the water table in the area lying below Lake Hennessey and including the lands of certain protestants (Beaulieu Vineyard, the Woods and Katharine Pringle) have been observed and recorded in recent years by the City of Napa. According to data made available by that City (filed with Application 10990) water levels in the wells observed have ranged as follows:

Elevations between Which Water Surface Ranged in Observed Wells

Well Designations \*

Year	Height	#1	#2	#3	G1	G1	G1	W1	W2	W3
1946	Max.	167.1	137.0	148.4	166.3	151.6	155.8	153.3	151.3	
	Min.	155.9	129.6	135.2	156.9	136.5	140.3	144.3	138.0	
1947	Max.	167.1	137.1	149.0	166.8	152.2	156.9	154.6	152.8	
	Min.	156.0	130.8	137.0	156.6	138.2	141.2	143.2	138.8	
1948	Max.	167.2	136.8	149.3	166.3	151.6	156.1	153.2	151.5	
	Min.	155.6	132.0	135.9	156.9	139.2	141.3	143.1	139.5	
1949	Max.	167.2	137.1	148.9	166.2	153.1	155.0	153.8	153.8	
	Min.	156.0	132.8	136.8	156.3	138.2	142.7	143.9	143.9	
1950	Max.									
	Min.									
1951	Max.	167.2	141.6	149.8		155.3	156.0	156.8	156.8	
	Min.	154.8	133.5	137.4		136.1	142.8	144.9	144.9	
1952	Max.		143.4	153.5		155.0	158.1	158.2	158.2	
	Min.		133.2	136.3		137.6	142.8	146.0	146.0	
1953	Max.		141.0			154.0	158.0	157.6	157.6	
	Min.		132.8			138.9	141.2	146.0	146.0	

\* Location of wells shown on map - "Proposed Test Wells", revised March 28, 1946, filed with Application 10990.

n.b. - Omission of certain figures is due to incompleteness of data.

### Discussion

In view of the appropriation by the City of Napa and the lesser appropriations by other parties within Conn Creek watershed it is apparent that permits have been issued to divert from Conn Creek and its tributaries more water than that stream system supplies. However, the City of Napa has thus far diverted but a small fraction of the amount that it has been authorized to utilize, its diversion during the water-year 1950-51, according to Water Supply Paper No. 1215, having been but 3,760 acre-feet as compared with the 30,500 acre-feet authorized in the permit. Evidently much of the water filed upon by the City of Napa is, and may for some time continue to be, surplus water, subject to appropriation by another individual or entity, under the provisions of Sections 1203 and 1462 of the Water Code. The existence of Application 10990 Permit 6960 is therefore not an immediate bar to the approval of Application 15451, although diversions under Application 15451 could not lawfully extend beyond such time as the City is prepared to exercise its prior rights in full. Neither are the lesser filings (Applications 13773 etc.) an immediate bar to the approval of Application 15451, although the existence of these filings may hasten the time when rights under Application 15451 must terminate.

The yearly mean discharges of Conn Creek, tabulated on page <sup>17</sup>/supra, ranging from as little as 0.029 second-foot to as much as 2.00 second-feet per square mile, indicate that in some years supply will exceed demand and in other years it will be seriously deficient. The year 1950 was a year of serious water shortage as evidenced by the memorandum of field visit made in response to the complaint of Messrs. Marty, Roney and Asplund. The tabulation shows that runoff during the water-year 1949-50 was but 0.141 second-foot per square mile or about 34.2% of the 21-year median. In 5 of the 21 years of record runoff averaged less than 0.141 second-foot per square mile; in 15 years it averaged more. According to the memorandum of field visit, complainants stated that seldom if ever had supply been so deficient as in 1950. From such statements and from the tabulations on pages 17 and 17a supra it is apparent that supply within the reach of Conn Creek above Lake Hennessey is in excess of the requirements of users within that reach more often than not; and that usually, but not always, in most months, an additional upstream diversion such as currently proposed under Application 15451 can be made without injury to such users. According to the second of the tables mentioned, the mean flow of Conn Creek at the City of Napa gage

(below all users above the reservoir) exceeded 0.22 cubic foot per second (the amount sought by the applicant) in every month of May within the 6 - six month periods of record, in every month of June, in 4 of the 6 months of July, in 1 of the 6 months of August, in 1 of the 6 months of September and in 5 of the 6 months of October. While the flow of Conn Creek has not been recorded during months prior to May or subsequent to October it may be presumed from the known characteristics of Napa River, to which Conn Creek is tributary, and from the known characteristics of Conn Creek itself, that supply well exceeds current demand in those other six months. It may be presumed also that when the flow of Conn Creek persists as far as the City of Napa gage, water in that amount is in excess of the needs of upstream users, and as far as those users are concerned, is subject to appropriation.

The situation of the protestants against Application 15451 who divert at points below Lake Hennessey (Beaulieu Vineyard, the Woods and Pringle) differs from that of the protestants who divert at points above that reservoir only in that their supply is dependent upon releases from Lake Hennessey in accordance with the terms of the stipulation mentioned in an earlier paragraph, the stipulation providing for release through the reservoir from May 1

to November 1 of the entire flow of Conn Creek and its tributaries. When the supply reaching the protestants below the dam is insufficient to satisfy the rights of those parties, junior appropriators above them plainly must refrain from diverting. However, the rights of all diverters whether above the dam or below are limited to amounts that they reasonably need and the possibility that supply may sometimes fail, as in a season of sub-normal runoff, is an insufficient reason, ordinarily, for the denial of an application to appropriate. The purpose of the stipulation was to ensure the maintenance of the ground water level below the City's dam. The stipulation provides for the observation and recording of ground water levels at designated wells. Dependent upon that ground water are those protestants against Application 15451 whose properties are located below Lake Hennessey. They evidently cannot be injured by diversions above the lake unless ground water levels fall. The tabulation on page 17b supra indicates that ground water levels in the vicinity of those protestants has risen rather than fallen in the 7 year period last past. According to the report covering the field investigation of March 18, 1954 the protestants located below the reservoir are only interested in the flow of Conn Creek from April inclusive until about the middle of July. Those protestants' apprehension

that a diversion of 0.22 cubic foot per second for that period would materially affect ground water levels on their property appears to be without adequate foundation.

The situation seems to be that supply in Conn Creek usually is plentiful until about the end of June, scanty in July, almost non-existent in August and September, scanty in October, plentiful thereafter; and that the applicant proposes to utilize that supply in satisfying the domestic needs of 150 people distributed among 50 houses, each with an appurtenant  $\frac{1}{4}$ -acre garden. A supply which for 4 months per average year is either inadequate or non-existent is unsuitable for that purpose unless supplemented by a supply from another source or by a supply accumulated in storage. It is not apparent that a supplemental supply from another source is available. It is doubtful that the applicant's expectation of being able to develop a greater yield from the cienegas or springs filed upon than these sources have thus far produced can be realized, because of the nearness of the cienegas or springs to Conn Creek and the ready drainage of the former to the latter. The storage proposed by the applicant (206,000 gallons) is sufficient to supply the project for but 1.4 days.



### Summary

The applicant seeks to appropriate 0.22 cubic foot per second, year-round, from 2 unnamed springs or cienegas within Conn Creek watershed in Napa County for domestic purposes at a group of some 50 houses, each with an appurtenant  $\frac{1}{4}$ -acre garden. The proposed place of use lies for the most part beyond the Conn Creek watershed boundary and drains toward Napa River.

The application is protested by Beaulieu Vineyard, a corporation, and by 6 individuals or couples. The protestants claim rights to divert from Conn Creek and/or from wells fed from Conn Creek, for domestic purposes and irrigation. They contend that Conn Creek is fully appropriated and that they would be injured by the appropriation sought by the applicant, in that it would leave too little water in Conn Creek to satisfy their established rights. In answering the protests the applicant states in effect that the proposed appropriation will not injure the protestants because the amount of water that the two springs filed upon contribute to the ground water basin is infinitesimal, that the application was made on the expectation of so developing the springs as to substantially increase this yield.

A field investigation conducted on March 18, 1954 disclosed among other things that the source of the proposed appropriation is a cienega some 200 or 300 feet in diameter on a steep, heavily wooded northerly slope of the canyon forming Conn Creek, that the cienega is

thickly covered with phreatophytes, that water gathers into a defined channel at the lower end of the cienega and flows approximately 200 yards to Conn Creek, that the cienega was producing approximately 0.50 cubic foot per second at the time of the investigation, that the flow of Conn Creek above the cienega at the same time was in excess of 10 cubic feet per second, that the yield of the cienega and the flow of the creek on October 9, 1953 were reported to have been 0.1 cubic foot per second and 1.33 cubic feet per second, respectively, that in the 2.5 mile reach of Conn Creek immediately above Conn Valley Reservoir there are 11 water-users, that one of these is said to be irrigating 6 acres, that the 10 others divert from shallow wells on or near Conn Creek for domestic purposes including stock watering and garden and lawn irrigation, that they claim that supply is inadequate and that they vehemently oppose upstream appropriation. As to the protestants who divert at points below Conn Valley Dam the investigation discloses that those protestants consider themselves entitled, under the stipulation executed in connection with Application 10990, to 10 cubic feet per second between November 1 and May 1 and the entire flow of Conn Creek between May 1 and November 1, that they are mainly interested in the flow of that creek from about April 1 to about July 15, the flow after the latter date being so small that the City is not being required to release it, that they assume that such late flow would have been lost through evaporation and seepage and would not have reached them and

that a flow of less than 0.25 cubic foot per second would have no noticeable effect on the underground basin supplying their wells.

In 1950 three water users on Conn Creek above Conn Valley Reservoir complained that diversions by an upstream appropriator (Merrifield, Application 9496) were preventing them from exercising their prior rights and the situation was investigated by an engineer of the Division. The investigation, made on September 8, 1950, disclosed that the flow of Conn Creek at the Merrifield intake was 0.3 cubic foot per second, that Merrifield was diverting about 0.16 cubic foot per second, <sup>that</sup> the remaining flow diminished as it continued downstream and ceased entirely about 0.5 mile below Merrifield except that there were occasional pools from that point to Conn Reservoir. According to the investigator's report persons interviewed told him that only once before in the preceding 30 years had all surface flow ceased; and the lowermost user above Conn Reservoir stated that the date upon which flow ceased at his place was approximately July 1, 1950. Following the investigation Mr. Merrifield was instructed as to the necessity of refraining from diversion at times when supply is insufficient to satisfy prior downstream rights.

The topography of the locality is such that approximately 0.075 square mile of ground surface drains toward the proposed points of diversion. A much larger area of higher land is contiguous however, from which ground water might drain, should the geologic structure permit.

The City of Napa, under Application 10990 Permit 6960, may divert 35 cubic feet per second from Conn Creek from about November 1 to about

May 1 plus 30,500 acre-feet per annum, collected between the same limiting dates and stored in Conn Valley Reservoir. Permit 6960 is subject to a stipulation providing among other things that in the interest of maintaining ground water conditions the City will pass up to 10 cubic feet per second through its reservoir from November 1 to May 1 and will pass through its reservoir the entire flow of Conn Creek and tributaries from May 1 to November 1. There are also 7 applications of record to appropriate from tributaries of Conn Creek that are subsequent to Application 10990, prior to Application 15451. These applications are for amounts aggregating 661 acre-feet per annum, collected between November 1 and May 1. They have all been approved and with one exception the permits carry terms providing that their issuance shall not operate to the prejudice of prior rights, including specifically the rights initiated by the filing of Application 10990.

The flow of Conn Creek, over a 21-year period, at a gaging station 1.6 miles below Conn Valley Dam (corrected since 1945 to take into account amounts detained in storage and exportations by pipe line) appears to have averaged 29.5 cubic feet per second and to have ranged from an average during the water-year

1930-31 of 1.50 cubic feet per second to an average during the water-year 1940-41 of 104.0 cubic feet per second. It is evident that the average flow of Conn Creek is less than the amount of the appropriation initiated by the City of Napa under Application 10990 Permit 6960.

Conn Creek has also been gaged just above Conn Valley Reservoir (Lake Hennessey) since 1947 inclusive, during periods extending from May 1 to October 31. Flow at that point averaged more than 0.22 cubic foot per second (the amount sought under Application 15451) in every month of May, in every month of June, in 4 of the 6 months of July, in 1 of the 6 months of August, in 1 of the 6 months of September and in 5 of the 6 months of October.

The record of fluctuations in ground water levels in the area below Conn Valley Reservoir wherein the lowermost protestants against Application 15451 are located indicates that over the 7 year period last past ground water levels of that locality have slightly risen.

The City of Napa thus far has diverted but a small portion of the amount that it has been authorized to utilize under Application 10990 Permit 6960. Much of the water filed upon by that City is and may for some time continue to be surplus water, subject to

appropriation under provisions of the Water Code. The existence of Application 10990 Permit 6960 is therefore not an immediate bar to the approval of Application 15451 although diversions under the latter application cannot lawfully extend beyond such time as the City is prepared to exercise its prior rights in full.

Since the gage on Conn Creek above Lake Hennessey is below the protestants on that reach of the stream (the reach above the lake) any flow passing that gage may be deemed subject to appropriation, as far as those protestants are concerned. Inasmuch as ground water levels in the area below Lake Hennessey have been rising for the last 7 years the apprehension of protestants along the reach below the lake that the proposed appropriation will cause a subsidence of ground water levels, to their detriment, appears an inadequate reason for rejection of the application.

Due to the usual non-occurrence of unappropriated water in Conn Creek in August and September and the irregularity of its occurrence in July and October the supply which the applicant might lawfully divert under Application 15451, in the event of the approval of that application is insufficient for the purposes the appropriation is intended to serve. The domestic needs of a group of families require a firm water supply. The supply obtainable in

the manner proposed would require supplementation from another source. There is no evidence that any supplemental supply is available. The storage to be provided, according to the application, is insufficient to carry the project through any considerable period of drought. Evidence is lacking that the applicant's expectation of artificially increasing the yield of the source will be realized.

#### Conclusion

From the information above summarized it is concluded that unappropriated water exists in Conn Creek in May and June usually, in July and October occasionally and in August and September rarely; that from November to April, both inclusive, existing rights entitle the holders thereof ordinarily to divert the entire flow of the stream, although the largest such right, held by the City of Napa under Application 10990 Permit 6960, is as yet exercised only in small part and may not be fully exercised for some years to come. It is concluded that until such time as the rights to divert between November 1 and April 30 are exercised to such extent as to require substantially the full flow of the stream, diversions could be made during those months to the extent and in the manner proposed in

Application 15451, beneficially and without injury to other users. The data indicate that the applicant may usually divert during May, June, early July and October but should refrain from diverting during late July, August and September and at any other time when the flow of Conn Creek does not extend to the City of Napa gage on that stream above Lake Hennessey. It is concluded finally that the supply available for diversion under Application 15451 is insufficient, alone, to serve the purpose which that application purports to serve, and will require supplementation from another source. In view of these conclusions it is the opinion of this office that Application 15451 should be approved and permit issued, subject to the usual terms and conditions but with diversions thereunder limited to the period from about October 1 of one year until about July 15 of the next, and subject to special terms and conditions emphasizing the subordination of the application to the prior filing on Conn Creek by the City of Napa and further limiting diversions under the application to times when the surface flow of Conn Creek is passing the City of Napa gage on Conn Creek above Lake Hennessey.

cOo



ORDER

Application 15451 for a permit to appropriate water having been filed with the Division of Water Resources as above stated, protests having been filed, a field investigation having been conducted and the State Engineer now being fully informed in the premises:

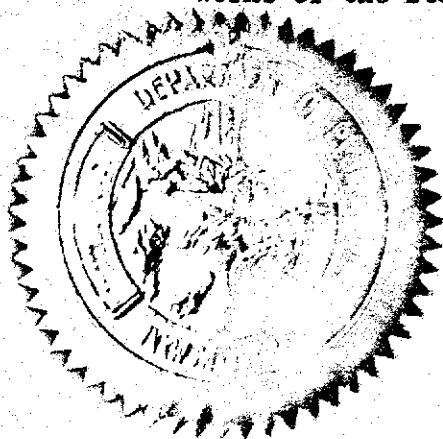
IT IS HEREBY ORDERED that Application 15451 be approved and that a permit be issued to the applicant, subject to such of the usual terms and conditions as may be appropriate, subject to limitation of the season of diversion to the period from October 1 to July 15 and subject to the following special terms and conditions, to wit:

Issuance of this permit shall not operate to the prejudice of any prior rights, including rights initiated by the filing by the City of Napa of Application 10990.

Diversions under this permit may be made only at such times as surface flow of Conn Creek is passing the City of Napa gage on Conn Creek above Lake Hennessey.

WITNESS my hand and the seal of the Department of Public

Works of the State of California this 7th day of September, 1954



*A. D. Edmonston*  
A. D. Edmonston  
State Engineer