

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 15394 by Jack W. Dei, Application 15403 by Ruth W. Finley and Application 15564 by Emma E. Baker to Appropriate from Laguna de Santa Rosa, tributary via Mark West Creek to Russian River, in Sonoma County, for Irrigation Purposes.

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Decision A 15394, 15403, 15564 D 852

Decided March 19, 1956

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In Attendance at Conference Conducted by the Division of Water Resources on May 20, 1954:

Jack W. Dei	Applicant
Emma E. Baker	Applicant
Mr. Baker	Applicant Baker's husband
Annabel Lagomarsino	Applicant Baker's daughter
Cal Kimes	Applicant Baker's lessee
Virgil J. Williams	Applicant Baker's lessee
William Godward	Applicant Finley's attorney
Ezra Briggs	Applicant Finley's foreman
Everett Persons	Applicant Finley's son-in-law
Clifford Nelson	Husband of permittee under Application 13506
Edward H. Smith	Holder of Application 15685
K. L. Woodward, Associate Hydraulic Engineer and D. R. Jeffs, Assistant Hydraulic Engineer Division of Water Resources Department of Public Works	Representing the State Engineer

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## DECISION

### Substance of the Applications

Application 15394: 0.50 cubic foot per second from May 1 to November 15, the water to be diverted by pumping at a point within the SE $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 35, T7N R9W, MDB&M, distributed by portable sprinkler system, utilized in irrigating 50 acres of pasture. The applicant claims riparian rights, also appropriative rights under Application 13256.

Application 15403: 0.58 cubic foot per second, from May 1 to November 1, the water to be diverted by pumping at a point within the NW $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 26, T7N R9W, MDB&M, utilized in irrigating 37 acres of general crops. The applicant claims also an appropriative right under Application 11769.

Application 15564: 0.50 cubic foot per second, from April 15 to October 15, the water to be diverted by pumping at a point within the SW $\frac{1}{4}$  SE $\frac{1}{4}$  of projected Section 26, T7N R9W, MDB&M, utilized in irrigating 35 acres of pasture. The applicant claims also a riparian right.

### Protests

Application 15394 is protested by Emma E. Baker and by Ruth W. Finley, Application 15403 is protested by Emma E. Baker and Application 15564 is protested by Ruth W. Finley. The basis of each protest is the same, i.e. the alleged non-existence, during irrigation seasons, of unappropriated water in Laguna de Santa Rosa.

Answers

Applicant Dei answers the protest of Emma E. Baker against Application 15394 by stating in part:

"... there is sufficient water to satisfy not only all prior rights of appropriation but also enough water to irrigate 30 acres more or less now being irrigated by Mrs. Emma E. Baker without any right of appropriation."

"... There are others using unappropriated water from the Laguna ... without any authorized rights of appropriation and there has been sufficient water to satisfy all prior rights of appropriation plus the use made of said Laguna ... by persons without any rights of appropriation."

Applicant Finley answers the protest of Emma E. Baker against Application 15403 by stating in part:

"It is not known at this time whether sufficient water will be available in Laguna de Santa Rosa in ... any particular year to supply the water which is granted to me under ... Permit 6883 and also thereafter to supply the other persons who have filed subsequently .... (Application 15403) has been filed ... in order to preserve my right to any additional unappropriated water which may exist after all prior applicants entitled to receive permits have been satisfied ...."

Applicant Baker answers the protest of Ruth W. Finley against Application 15564 by stating in part:

"I have previously been drawing water ... under Application No. 12202, Permit No. 7652. The point of diversion under this permit is the farthest down stream of any water user on this part of the Laguna."

"My application No. 15564 is only for unappropriated water.... It is my belief that a hearing ... will show that only my own user under Permit No. 7562 ... will possibly be damaged by the granting of my application."

"As a possible adjustment ... I suggest that if I were allowed to transfer my present Permit No. 7562 ... to the location herein applied for, and in turn to transfer this application to the site of my Permit No. 7562, an agreement might be reached which would be equitable to all the water users on the Laguna."

## Field Investigation

The applicants and the protestants with the approval of the Division having stipulated to the submittal of the applications and protests upon the official records, a field investigation was conducted during the irrigation seasons of 1954 and 1955. At the conference on May 20, 1954, which marked the beginning of that investigation the parties were all present or represented.

## Records Relied Upon

Applications 11769, 12202, 13256, 15394, 15403, 19564 and all information on file therewith; Santa Rosa and Sebastopol quadrangles, United States Geological Survey.

## Information Secured by Field Investigation

Extracts from "Report of Division of Water Resources on Applications 15394, 15403 and 15564," dated November 23, 1955, and filed with Application 15394, are as follows:

"All interested parties were advised ... of the extent to which the field work would be carried and all were contacted upon several occasions during the investigation period."

"This report is a summary of available information concerning the problem as obtained from ... information contained in the files of the Division ... and from other public records and from the ... field investigation."

"Laguna de Santa Rosa heads in southeastern part of T6N R8W, MDB&M, receives water from several streams on the west slopes of Sonoma Mountains during periods of runoff and flows northwesterly ... to a junction with Mark West Creek .... The contributory watershed is

covered principally with grasses in the valley, is sparsely wooded on the higher slopes and has a drainage area of about 70 square miles. The ... precipitation ... occurs almost entirely during the late fall, winter and early spring .... The major portion of the water supply available to the applicants during the irrigation season is effluent from City of Sebastopol sewage treatment plant and from several apple processing plants in the vicinity. . . . All of this water originates from wells in the City of Sebastopol and enters Laguna de Santa Rosa at or upstream from the ... upper pool. ... ground water contribution to the supply appears to be considerable. Natural surface flow during the irrigation season from upstream sources is unsequential."

"An approximate profile of the stream bed of Laguna de Santa Rosa between Sebastopol Bridge and Molino Bridge ... (was prepared)."

"On the basis of the ... profile (and) the surface areas of the pools as planimetered from a recent aerial photograph ... the capacities of the upper and lower pools of Laguna de Santa Rosa are 10 and 95 acre-feet respectively."

"(A chart) depicts changes in water levels of the lower pool during ... 1951, 1952, 1953, 1954 and 1955; and of the upper pool during 1954 and 1955. Water level measurements for 1954 and 1955 were made by the Division. Measurements of the previous years were furnished by ... husband of permittee Nelson. ... level of water at the beginning of each of the irrigation seasons of 1951, 1952 and 1953 was slightly higher and drawdown was considerably slower than in 1954. ... it is believed that the 1954 conditions were aggravated by (1) the failure to install flashboards ... and (2) by a diversion by Edwin J. Evert from the upper pool."

"During the period of excess flow, water passes from the upper pool to the lower pool and from the lower pool ... continues to Mark West Creek a distance of about three and one-half miles. Considerable ... water passes northward during the winter from natural runoff and at the commencement of the irrigation season it is assumed that all of the water in storage is subject to use under riparian right. After about June 1 no water normally flows out of the lower pool ...."

" ... The supply (from sewage plant and local industries) is relatively small during the first part of the irrigation season but normally increases considerably beginning about the middle of July. A ... strike during ... 1955 caused a reduction in activities ... and ... water supply ... was reduced."

"Due to the pumping by Dei and Evert from the upper pool there is a time lag between the beginning of increased industrial wastage and its effect on the lower-pool users, depending on the starting level of the upper pool and the quantity of waste. During the 1954 and 1955 seasons Dei and Evert diverted more than the amount reaching the upper pool ... and withdrawal from the quantity in storage at the beginning of the season was necessary. Until the upper pool overflow, which is usually in late July or August, the only water supplementing the lower-pool supply is ground water effluent, bank storage or return irrigation water originally diverted ... for use upon adjacent pasture."

"During the 1954 and 1955 irrigation seasons periodic inspections were made of water conditions ... and the extent of use .... Measurements were made of power consumption and of the discharges of the diversion systems .... As all of the users divert ... with practically identical operating conditions ... it was assumed ... that the capacities were in a direct ratio with power consumption."

"(On that assumption) quantities diverted by each user during the period were as follows:

1954  
Diversions from Laguna de Santa Rosa  
in Acre-Feet

<u>Period</u>	<u>Dei #1</u>	<u>Dei #2</u>	<u>Nelson</u>	<u>Finley</u>	<u>Baker #1</u>	<u>Baker #2</u>	<u>Evert</u>	<u>Total</u>
5/20-6/3	7.07	5.15	2.64	12.82	3.92	1.12	5.34	38.06
6/3-6/17	6.49	5.44	2.85	11.68	2.64	3.41	12.50	45.01
6/17-7/1	8.36	7.99	3.38	12.92	3.86	4.28	12.05	52.84
7/1-7/15	10.13	6.34	3.27	9.31	0.95	1.82	7.24	39.06
7/15-7/29	9.32	8.16	2.96	15.96	--	3.08	6.90	46.38
7/29-8/12	3.06	12.52	--	13.30	--	--	8.45	37.33
8/12-8/30	7.02	18.05	3.35	10.92	--	3.74	4.17	47.25
<b>Total</b>	<b>51.45</b>	<b>63.65</b>	<b>18.45</b>	<b>86.91</b>	<b>11.37</b>	<b>17.45</b>	<b>56.65</b>	<b>305.93</b>

Total from Upper Pool - 120.30 acre-feet  
 Total from Lower Pool - 185.63 " "  
                                   305.93 " "

1955  
Diversions from Laguna de Santa Rosa  
In Acre-Feet

<u>Period</u>	<u>Dei #1</u>	<u>Dei #2</u>	<u>Nelson</u>	<u>Finley</u>	<u>Baker #1</u>	<u>Baker #2</u>	<u>Evart</u>	<u>Total</u>
6/13-6/29	8.89	9.60	3.80	18.34	3.26	5.22	4.28	53.39
6/29-7/13	10.77	7.33	3.22	19.48	--	5.92	3.14	49.86
7/13-7/27	4.29	7.61	--	19.00	--	2.32	3.07	36.29
7/27-8/10	5.63	12.30	2.82	7.50	--	0.25	3.00	31.50
8/10-8/24	5.90	11.43	3.78	10.45	--	4.10	3.49	39.15
8/24-9/20	11.58	23.93	4.75	27.55	--	6.32	5.87	80.00
<b>Total</b>	<b>47.06</b>	<b>72.20</b>	<b>18.37</b>	<b>102.32</b>	<b>3.26</b>	<b>24.13</b>	<b>22.85</b>	<b>290.19</b>

Total from Upper Pool - 95.05 acre-feet  
 Total from Lower Pool - 195.14 " "  
290.19 " "

"The Baker #1 diversion and the Nelson diversion are located at relatively shallow points on the lower pool .... During ... 1954 ... Baker #1 diversion was forced to cease operation about July 5, and on July 29 the Nelson pump had been moved southward onto the Dei property in order to divert from a deeper point in the lower pool."

"Water conditions in the lower pool during ... 1955 ... were in general more critical .... Baker #1 diversion was forced to discontinue about June 27 .... All of the other diversions on the lower pool were forced to curtail operations for about a two-week period beginning around the first of August."

"... supply (in 1955) was not sufficient over and above Evart and Dei #2 diversions to cause spillage and thus the lower pool users did not actually ... benefit therefrom until near the middle of September."

"With the exception of a small acreage of corn ... all of the land irrigated ... was ... permanent pasture. The following ... shows the acreages irrigated ....

<u>Owner</u>	<u>Area Which Received Water</u>	<u>Area Under Permit or License</u>	<u>Area Under Pending Applications</u>
Dei #1 & 2	72 acres	60 acres (A13256)	50 acres (A15394)
Nelson	18 "	18 " (A13506)	0 "
Finley	165 "	89 " (A11759)	37 " (A15403)
Baker #1	50 "	50 " (A12202)	0 "
Baker #2	20 "	0 "	35 " (A15564)
Evart	30 "	0 "	25 " (A16030)
<b>Total</b>	<b>355 acres</b>	<b>217 acres</b>	<b>147 acres</b>

The above listed acreages are believed to have received water at least during a portion of the season. The entire Finley acreage did not receive sufficient water and the land listed as Baker #1 received no water after about July 1. Mr. Briggs, operator of the Finley Ranch, indicated that in 1955 only about 100 acres of that ranch received water at any time. ('Dei #1' in tabulation relates to diversions from lower pool under Application 13256, 'Dei #2' total diversions from upper pool under Applications 13256 and 15394, 'Baker #1' diversions from lower pool under Application 12202, 'Baker #2' diversions from lower pool under Application 15564.)"

"The ... investigation did not include a field study of actual water requirements. . . . It was determined ... in connection with Application 12202 (Baker #1) that one cubic foot per second for each 100 acres was a reasonable requirement ...."

"... it was estimated (in State Water Resources Board Bulletin No. 2) that mean seasonal unit requirement ... for pasture in the Russian River Hydrographic Unit is 2.1 acre-feet."

"Based upon a seasonal demand of 2.1 acre-feet, 415 acre-feet would be required to supply the 217 acres of land presently under permit or license between June 1 and September 30, whereas ... only about 300 acre-feet was available during that period in 1954 and 1955."

"... Baker #1 diversion, ... under Application 12202 License 3556, is forced to discontinue early in the season due to a recession of water from the higher section of the channel at the north end of the lower pool. Mrs. Baker has ... maintained ... that the purpose of her Application 15564 is to appropriate at a convenient point such water as she is entitled to use under Application 12202 but which she is presently being deprived of due to the diversions under later rights."

"Laguna de Santa Rosa between Sebastopol and Molino Bridges ... is essentially two separate and distinct storage reservoirs (called upper and lower pools in text of this report). All of the surface contribution of water to the Laguna, both natural and foreign, enters the upper pool. Flow into the lower pool occurs only ... when the upper pool is completely full. During 1954 and 1955 diversions from the upper pool by Dei and Evart precluded spillage into the lower pool until near the end of the irrigation season."



"... a determination of the water now subject to appropriation, particularly in the lower pool, must be made on the basis of total quantity available over a normal irrigation season. ... during the June-September period of 1954 and also 1955 approximately 300 acre-feet of water were used from the two pools. Much of the water was used upon lands not presently covered under permit or license. Other lands which are included under permit and license suffered accordingly. . . . Only when discharge into the upper pool is of sufficient quantity and extent to offset diversions therefrom and cause spillage into the lower pool do the lower-pool diverters benefit from any contribution from Sebastopol sewage treatment plant and local industries. Until about the first of August the lower-pool users are essentially dependent upon winter storage and ground water effluent."

"Based upon the water requirements of the general area as determined by prior investigation ... about 415 acre-feet are required to serve the 217 acres presently under permit and license during the June-September period. ... It accordingly follows that under present development of the City of Sebastopol which provides the principal summer supply of water to the Laguna by means of the sewage treatment discharge and direct industrial wastages, no water is available for appropriation under the subject ... applications."

According to profile shown on chart accompanying the report the channel distance between Molino Bridge and Sebastopol Bridge is about 1-3/4 miles, the lower pool and the upper pool are respectively about 0.85 mile and about 0.33 mile in length, the pools lie between the bridges mentioned and are about 0.38 mile apart. According to the same profile diversions under Applications 15394 and 16030 head at the upper pool, diversions under Applications 11769, 12202, 13506, 15403 and 15564 head at the lower pool, diversions under Application 13256 head on both pools.

According to hydrograph shown on the same chart fluctuations of pool surfaces were ascertained as follows:

Upper Pool

In 1954 - full until June 12, dropped to 82 inches below outlet depth by July 9, refilled by August 1.

In 1955 - full until June 23, dropped to 30 inches below outlet depth by July 28, refilled by August 18.

Lower Pool

In 1951 - full until June 23, dropped to 44 inches below its outlet depth by August 12.

In 1952 - full until May 28, dropped to 42 inches below its outlet depth by August 30.

In 1953 - full until June 22, dropped to 74 inches below its outlet depth by August 12, rose 8 inches by August 30.

In 1954 - full until May 24, dropped to 158 inches below its outlet depth by July 28.

In 1955 - 8 inches below its outlet depth on June 13, 126 inches below its outlet depth on July 23 and August 14, 98 inches below its outlet depth on August 30.

Supplemental Information from Division Files

The bridges called Sebastopol Bridge and Molino Bridge in the report of field investigation are the bridges over Laguna de Santa Rosa on the roads designated on the Sebastopol quadrangle, United States Geological Survey, as State Route 12 and Occidental Road, respectively.

Applications to appropriate from Laguna de Santa Rosa, other than the applications currently at issue, include the following:

Application 11769 Permit 6883, Ruth W. Finley, 1.0 cubic foot per second, to be diverted at points within SW $\frac{1}{4}$  SE $\frac{1}{4}$ , NE $\frac{1}{4}$  SW $\frac{1}{4}$  and/or NW $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 26, T7N R9W, MDB&M, from April 15 to November 1, for irrigation.

Application 12202 Permit 7562 License 3556, Emma E. Baker, 0.5 cubic foot per second, to be diverted at points within the SE $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 26, T7N R9W, MDB&M, from April 15 to November 15, for irrigation.

Application 13256 Permit 7851, Jack W. Dei, 0.5 cubic foot per second, to be diverted at points within the NW $\frac{1}{4}$  NE $\frac{1}{4}$  and the SE $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 35, T7N R9W, MDB&M, from May 15 to October 15, for irrigation.

Application 13506 Permit 8699 License 4162, Louise K. Nelson, 0.13 cubic foot per second, to be diverted at a point within the NW $\frac{1}{4}$  NE $\frac{1}{4}$  of Section 35, T7N R9W, MDB&M, from May 1 to October 15, for domestic use and irrigation.

Application 16030, Edwin J. Evert, 0.5 cubic foot per second to be diverted at a point within the NE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 35, T7N R9W, MDB&M, from May 1 to October 31, for irrigation.

#### Discussion

In the Sebastopol Bridge-Molino Bridge reach of Laguna de Santa Rosa, flow is continuous except as continuity of flow is interrupted by diversions.

Diversions within Sebastopol Bridge-Molino Bridge reach are concentrated on what are termed the upper pool and the lower

pool. While these pools act as reservoirs (capacities estimated as 10 acre-feet and 95 acre-feet, respectively) they are actually enlarged portions of the stream channel itself.

Supply entering the reach mentioned, according to the information adduced, during irrigation seasons, comes mainly from a sewage treatment plant and from industrial plants, all at or near Sebastopol, all draining into the upper pool. It is that supply upon which appropriators, both on upper pool and on lower pool, mainly depend. Plainly, among appropriators, when supply is less than demand, relative priority must govern and no appropriator from the upper pool may lawfully divert unless at the same time prior rights to divert from the lower pool are fully satisfied.

When flow passes Molino Bridge, which it does according to the report of field investigation, until about June 1, supply exceeds demand and unappropriated water exists in the reach.

Somewhat before June 1, according to the hydrograph accompanying the report of field investigation, the water surface in each pool, in recent years, has begun to recede. The rate of recession accelerates but, due to the water that the pools then contain, no diverter is immediately injured. When, however, the water surface of the lower pool has dropped below the level of any appropriator's intake, that appropriator's supply fails forthwith. The appropriator who is first affected is the appropriator whose intake is highest in elevation. That appropriator, according to the profile accompanying the report of field investigation, is Emma E. Baker, holder of licensed Application 12202. The intake in question (called Baker #1 in the report of field investigation), according

to the profile, is some 700 feet upstream from Molino Bridge; the bed of the Laguna at that intake is but a few feet (perhaps 6 to 8 feet) lower than the lower pool outlet. According to the hydrograph the water surface of the lower pool had receded about 3.67 feet below that pool's outlet by August 12, 1951, 3.5 feet by September 1, 1952, 6.17 feet by August 12, 1953, 6.5 feet by July 16, 1954, and 6.5 feet by July 13, 1955. The greater and faster recessions in 1954 and 1955 than in 1951, 1952 and 1953 appear to have been due to the greater amounts diverted from the upper pool in 1954 and 1955 than in the preceding years.

The water surface of the upper pool fell below the latter's outlet level on or about June 12, 1954, and on or about June 23, 1955; it rose again to that level on or about August 1 and August 18 in those years, respectively. Evidently therefore no water passed from the upper to the lower pool between June 12 and August 1, 1954, nor between June 23 and August 18, 1955. During the same periods calculations indicate that some 57 and 50 acre-feet, respectively, were diverted, without apparent authority, from the upper pool. Such diversions appear to have been the direct cause of the cessation of free flow from the upper pool to the lower pool and of water shortage at the Baker #1 intake. Evidently unappropriated water does not exist in the upper pool when free flow between the two pools is not maintained.

Aside from the rights of Protestants Finley and Baker to divert from the lower pool, those protestants are also entitled

under their approved applications to divert from the reach of Laguna de Santa Rosa just north of Molino Road. Since supply in that reach is dependent upon overflow from lower pool and supply in lower pool is dependent upon overflow from upper pool, unappropriated water cannot exist in either pool except when lower pool is spilling. The hydrograph shows the average date of cessation of spilling from lower pool as being about June 9. The data do not enable the time when lower pool resumes spilling to be calculated but that time appears from the hydrograph to be well past September 1.

A supply which fails so early and resumes so late, for irrigation, in the locality under consideration, is grossly inadequate. The approval of applications to appropriate from so inadequate a supply, under the conditions which appear to exist, is plainly unwarranted.

#### Conclusion

The available information indicates that unappropriated water is usually non-existent, in the source from which the applicants seek to appropriate, from about June 9 to some undetermined time in September or later, that the diversions proposed in the applications if restricted to times when unappropriated water exists would not benefit the applicants materially and that diversions by the applicants at other times within irrigation seasons would injure downstream users by denying them the opportunity of diverting water to which they are entitled. In view of these

circumstances it is the opinion of this office that the approval of Applications 15394, 15403 and 15564, or any of them, is unwarranted and that the applications should therefore be denied.

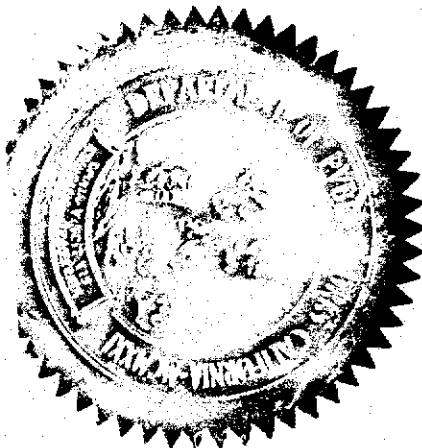
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ORDER

Applications 15394, 15403 and 15564 for permits to appropriate water having been filed with the Division of Water Resources as above stated, protests having been filed, stipulations having been submitted, a field investigation having been conducted and the State Engineer now being fully informed in the premises:

IT IS HEREBY ORDERED that Applications 15394, 15403 and 15564 be rejected and canceled upon the records of the Division of Water Resources.

WITNESS my hand and the seal of the Department of Public Works of the State of California this 19th day of March, 1956.



HARVEY O. BANKS, STATE ENGINEER

By

  
L. C. Jopson  
Assistant State Engineer