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 14915 by Fred W. Kantel to Appropriate Water from Elizabeth Lake Underflow, Tributary via Castaic Creek and Santa Clara River to Pacific Ocean, in Los Angeles County, for Irrigation and Recreational Purposes.

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Decision A. 14915 D. 780

Decided November 5, 1953

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Appearances at Hearing Held at Los Angeles on May 18, 1953:

For the Applicant

Fred W. Kantel — In propria persona

For the Protestant

Lake Elizabeth Development Company — G. H. Langford

EXAMINER - L. C. JOPSON, Supervising Hydraulic Engineer, Division of Water Resources, Department of Public Works, for A. D. EDMONSTON, State Engineer.

Also present - J. J. Heacock, Senior Hydraulic Engineer and Lawrence B. James, Associate Engineering Geologist, Division of Water Resources.

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OPINION

General Description of the Project

The applicant seeks to appropriate a total of 2 cubic feet per second, year-round, from 4 wells located on or near the shore of Elizabeth Lake, in Los Angeles County, for the irrigation of 110 acres of pasture and for recreational use -- boating, fishing, swimming -- incidental to the maintenance of a satisfactory water level in the lake. From the wells he proposes to pump directly into the lake and to redivert therefrom as his irrigation needs require, his point of rediversion being movable, along the north and south edges of the lake. A note supplementing the application reads as follows:

> "The amount rediverted from Elizabeth Lake will at all times be less than the amount being diverted into Elizabeth Lake. Water will be diverted from Elizabeth Lake Canyon Fault (underflow) from two or more of the four wells mentioned, and will be charged directly into Elizabeth Lake. The water will be added in such quantities as to maintain the level of Elizabeth Lake at a desirable level for recreational purposes contingent upon normal rainfall. The quality of the water will be improved and made suitable for game, fish life, recreational and other beneficial uses."

The applicant states that he owns part of the land which he proposes to irrigate, that he does not own the land where diversion is proposed, and that he will cover the balance of the land to be irrigated as well as necessary rights of access by securing a special use permit from the Forest Service. The lake, he states, is a natural lake, 50 acres in surface area.

Protest

The Lake Elizabeth Development Company protests the application, stating as the substance of its objection:

> "It is our belief that it will lower the water level in Elizabeth Lake, and therefore interfere with the present and future development of our property as a recreational area. In the spring of 1947 the ... Company purchased property in Sections 29, 30, 31 and 32 of T 7 N, R 14 W, SBB&M. Shortly thereafter we established the Lake Elizabeth Ranch Club to provide recreation for the members of the club. Since that time we have worked hard to develop an attractive and useful recreational area. One of the difficulties ... has been the low water in Elizabeth Lake. Because of this we have been trying to develop on our property ... an adequate water supply both for domestic use and recreational purposes ....
>
> "It is our opinion that should wells be put down at the points of diversion as applied for ... it will tend to lower the lake level considerably ....
>
> "It is our recollection that Mr. Kantel made application to pump water from the lake itself, which application we understood was denied. It is our opinion that to put down those wells in the locations designated would accomplish the same purpose as the applicant wished to do in his previous application.
>
> "We are of the opinion that the applicant has by no means exhausted the possibilities of obtaining water through wells on his own property. Therefore we feel that too many people would suffer from loss of recreation through the granting of this permit. We believe instead that the U. S. Government, as owners of this land, should do everything possible to improve this natural water basin as a fish and recreational area."

The protestant bases its claim of a right to use water from the source in question upon "use of the water for recreation since 1947." It states that it diverts at points within the SW¼ of

Section 29 and the E½ of Section 30, T 7 N, R 14 W, SBB&M. No terms are mentioned under which the protest may be disregarded and dismissed.

Answer

In answer to the protest by the Lake Elizabeth Development Company the applicant writes:

> "It will be noted that the protest ... is more of a commentary nature than a statement of facts forming a basis of protest for development of water below the level of their property. It would be impossible for a water development below their property to affect their situation at a higher level.
>
> "Reference is made to 'lowering the level of Lake Elizabeth' which indicates that protestant is not aware of some of the features of Application 14915 wherein it states that one of the purposes of the water development is to maintain a normal level of water in the said lake.
>
> "Reference also to ' the U. S. Government as owners of this land should etc.' Since September 18, 1952, applicant has been in possession of a Special Use Permit from the Federal Government granting permission for the wells referred to in Application 14915 with which they are in full accord.
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> "Reference to previous application filed April 24, 1950, as being denied is also without foundation. That application was 'canceled without prejudice' by the applicant."

Hearing Held in Accordance with the Water Code

Application 14915 was completed in accordance with the Water Code and the Rules and Regulations of the Division of Water Resources and being protested was set for public hearing under the provisions of the California Administrative Code, Title 23, Waters, on Monday, May 18, 1953, in room 803, California State Building, Los Angeles, California. Of the hearing the applicant and the protestant were duly notified.

Gist of Hearing Testimony

Applicant Fred W. Kantel testified (pages 7 and 8 of transcript), in part:

> " ... if and when water is taken from the Lake ... an equal portion would be replaced. That was with the intention of improving the quality of the water in the lake which is full of mineral salts ....
>
> "There was a question as to whether the water could be of any use for irrigation now. That was the reason for the wells to be drilled, so as to bring the pure water from down below in another strata of water ....
>
> "But if the water is not taken from the lake, then the water would not be put into the lake. Then the water from down below, at a deep ... well level would be used ... for the irrigation ....
>
> " ... we are taking water from a deep well level .... in no way that I can see ... could that affect ... Lake Elizabeth which is more or less each year according to the rainfall.
>
> "If there's no rainfall there's no lake. It has no relationship whatsoever to the underwater stratas.
>
> " ... by bringing water from the lower levels ... to put into that lake and to take out of the lake ... in time ... would improve the condition of the water that's in the lake ... now."

Applicant Kantel further testified (pages 10 to 21 of transcript) to the effect that he intends, under the application, to pump at times from the deep wells without putting water into the lake, that when water is not taken from the lake there is no obligation to put water into the lake, that the permit which he holds from the Forest Service covers only the construction of the wells, that he expects to get it amended to cover irrigation also.

Verne L.Cameron testified (pages 21 to 26 of transcript) that he/is a water engineer and locator, that he locates underground water with instruments that he has developed himself, and that have been proven to be very effective; that he located Applicant Kantel's wells, that "a vast amount of water that is dormant at present" is "waiting there for penetration to permit it to come up", that the ground water underlying Kantel's well sites is wholly unrelated to the rain water in Lake Elizabeth, that if the ground water "would have communication with the lake it would be such bad water that it would poison your ground." Witness Cameron testified further (pages 26 to 29 of transcript) that he is not a registered engineer, that he has made his living at engineering for 29 years, that his method of locating water has to do with reflected energies in the region of the cosmic ray, that the method he uses is written up in scientific journals in England but not "here."

G. H. Langford testified (pages 32 to 49 of transcript) that the lake can go dry and has gone dry, that Elizabeth Lake Development Company is trying to make the locality into a recreational area, that for that purpose the Company has pumped water long distances, that it is his belief and his associates' that if ground water is pumped as the applicant proposes, the Company wells will be affected, that his group does not object to the applicant pumping into the lake but does object to his pumping for direct use in irrigation. An

incident during the questioning of Witness Langford was the following statement (page 40 of transcript) by Applicant Kantel, with reference to perforations in the casings of his projected wells

> "I wouldn't start them from less than 100 feet because the first hundred feet would be bad water. Any water that would seep in that first hundred feet would be unsuitable water for any purpose."

In answer to a question as to whether or not he intended to gravel-pack his wells Applicant Kantel answered, "Possibly." In the same connection Witness Langford testified (page 42 of transcript):

> "Well, anyway, the point I want to bring out, then, is that you would start perforations at 100-foot, and you would gravel-pack it. And if you gravel-pack it then, the water can run down the outside of the pipe in the gravel packing, so the lack of perforations wouldn't keep out surface water, and you could take surface water in that manner."

L. E. Berriman testified (pages 50 to 63 of transcript) as to the contents of a Special Use Permit issued by the U. S. Forest Service to Applicant Kantel; he testified that said permit "merely grants the right ... to occupy the land for drilling and setting up a well"; he testified further to the effect that he holds the position of District Ranger, Angeles National Forest.

C. T. Pratt, Vice President, Lake Elizabeth Development Company, testified (pages 64 to 68 of transcript) to the effect that the two Company wells in the valley tributary to Elizabeth Lake (designated on hearing exhibit map as wells A and B) are used solely

to provide water for domestic purposes on certain lots and that in his opinion pumping from Elizabeth Lake would lessen the yield of those wells.

Lawrence B. James, Associate Engineering Geologist, Division of Water Resources, testified (pages 70 to 77 of transcript) in response to questions on points included in a field investigation in which he participated, the report of said investigation being Examiner's Hearing Exhibit No. 1. In particular he testified that protestant's wells C, D, E, and F are separated hydraulically from the applicant's proposed wells by an underground dike, that said dike would prevent pumping by the applicant from affecting inflow into protestant's wells C, D, E or F, that pumping by the applicant would not intercept flow that would otherwise reach protestant's wells A or B.

Hearing Exhibit

Examiner's Hearing Exhibit No. 1 is a report of a field investigation made in connection with Application 14915 on May 11, 1953 by Division employees J. J. Heacock, Senior Hydraulic Engineer and Lawrence B. James, Associate Engineering Geologist. The investigation consisted of a geologic reconnaissance of the area and interviews with interested parties. The report covering the investigation sets forth conclusions as follows:

> "1. The valley in which Elizabeth Lake is situated is a fault trough filled with sediments derived from the flanking slopes. It is a long, narrow valley, its width being about one-half mile at Elizabeth Lake school and less then one-fourth mile near Elizabeth Lake Canyon.

"2. The mountains which flank the valley on the north and on the south are composed of massive igneous rocks which are generally impervious but are known to contain some water-bearing fissures.

"3. Ground water within the sediments in the vicinity of Elizabeth Lake moves in a westerly direction toward the head of Elizabeth Lake Canyon.

"4. The protestant obtains water from wells A, B and D .... He has stand-by wells, E and F, which are not in general use but which are utilized in the event of failure of the other wells.

"5. Wells A and B of the protestant obtain water from the same ground water body from which the applicant proposes to pump.

"6. Branches of the San Andreas fault form barriers of low permeability which separate the ground water body from which the applicant proposes to pump from the ground water body which supplies wells C, D. E and F belonging to the protestant. These fault barriers would prevent pumping by the applicant from affecting the water supply to wells C, D, E or F ....

"7. It is probable that the aquifer beneath Lake Elizabeth is hydraulically connected with the waters contained in both the easterly and westerly divisions of the lake.

"8. That portion of the ground water pumped by the applicant and consumed by his crops would constitute a depletion in ground water storage. Assuming that about one-half of the water pumped would be consumed and the remainder returned to the basin, the annual depletion of ground water in storage resulting from the applicant's pumping would amount to about 100 acre-feet per annum. Such depletion during dry periods would be manifested by drop in ground water level and a drop in lake level. This drop would not be uniform throughout the valley, but would be greatest near the applicant's pump, and would diminish as distance from his wells increased. Determination of the extent to which the applicant's proposed diversion would lower the lake level or the water table in the vicinity of the applicant's pumps would involve a detailed water supply study of the region which is beyond the scope of this investigation.

"9. Since underflow in the valley moves in a westerly direction the proposed diversion of the applicant would not intercept flow which would otherwise reach the protestant's wells A or B."

Other Available Information

According to the "Hughes Lake" and "Lake" quadrangles, United States Geological Survey, Elizabeth Lake is situated within San Andreas Rift Zone; Elizabeth Lake is in fact a pair of lakes, without surface connection, a trifle under 3,275 feet in elevation; these lakes together with Hughes Lake and an intermediate unnamed lake form a chain of lakes; and the slope of the ground surface along this chain of lakes, which follows the course of the rift, is a little north of west.

Limited information as to rainfall and evaporation in the locality under consideration is contained in the reports on hydrologic data, Los Angeles County Flood Control District. According to that agency's biennial report for the seasons of 1947-48 and 1948-49 rainfall at Elizabeth Lake averages about 8 inches. Evaporation, according to the same reference, at Pine Canyon Patrol Station (one mile westerly from Elizabeth Lake), was 72.53 inches in the 1947-48 season, 69.11 inches in the season following.

Application 13704, the filing referred to in both protest and answer as having been made previously by the same applicant, initiated an appropriation of 0.65 cubic foot per second, from Elizabeth Lake, for irrigation. That application was protested

by Munz Bros. Company, by Lake Elizabeth Development Company and by Lake Hughes Chamber of Commerce. It was cancelled in April, 1951, at the applicant's request.

Excepting Applications 13704 and 14915, no applications to divert from Elizabeth Lake are of record.

Discussion

In view of statements contained in the report of field investigation, especially conclusions 1, 2 and 3 of that report, quoted in an earlier paragraph, the source from which the applicant seeks to appropriate may be deemed to be a subterranean stream flowing through a known and definite channel and therefore subject to appropriation.

The protestant's apprehension, stated in its protest, that the proposed appropriation will lower the water level in Elizabeth Lake and thereby interfere with the development of the protestant's property as a recreational area is an insufficient basis for denial of the application. It is stated in the report of field investigation that the proposed pumping, during dry periods, would probably cause recessions, both of lake level and of ground water levels, and that a determination of the extent of those recessions would involve a detailed water supply study. There is no evidence to the effect that the recessions would be considerable or that they would cause material

injury. Mere belief by the protestant that injury would result from a proposed appropriation cannot bar the approval of an application therefor.

The protestant's further apprehension, expressed at the hearing (page 65 of transcript), that the taking of water proposed by the applicant would reduce the amount of water available in the protestant's wells is also an insufficient basis for denial of the application. Of the protestant's six wells, fault barriers, according to the report of field investigation, would prevent pumping by the applicant from affecting any except wells A and B, and according to the same report, the applicant's proposed pumping would not intercept flow which would otherwise reach wells A and B. It appears therefore that any impairment of the protestant's water supply would be limited to a possible recession of water table elevation at wells A and B. The information at hand is insufficient to support a prediction as to whether or not such recession would be considerable. Since protestant's well A scales approximately one mile upstream from the applicant's nearest projected well (well No. 3) and protestant's well B is more than 1/2 mile upstream from well A, it appears doubtful that the applicant's proposed pumping would affect the protestant's wells seriously. In any event, it is not unusual for water tables to recede somewhat as pumping within an area increases, and the possibilities of such recession are an insufficient reason for the disapproval of an application to appropriate.

Summary and Conclusions

The applicant seeks to appropriate water from four wells on or near the shore of the more westerly of the two lakes that are collectively called Elizabeth Lake. The applicant engages to pump into Elizabeth Lake at least as much water as he pumps out of it. The protestant objects to any lowering of the surface of Elizabeth Lake, it believes the applicant's project would cause such lowering and it objects further to the applicant's project lest it interfere with the protestant's supply from its own six wells. From the testimony it appears that the lake water level may or may not be affected depending upon the depth to which the applicant's wells are driven and the manner in which they are cased. By field investigation it is determined that four of the protestant's wells cannot be affected by the applicant's project and that the applicant's project will not intercept the flow reaching the protestant's other two wells although it may occasion some recession of water table elevation at those two wells.

In view of the situation above summarized it is the opinion of this office that unappropriated water exists at the well sites at which the applicant seeks to appropriate, that the protestant's objections to approval of the application are insufficient and that the application therefore should be approved and permit issued, subject to the usual terms and conditions.

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ORDER

Application 14915 for a permit to appropriate water having been filed with the Division of Water Resources as above stated, a protest having been filed, a public hearing having been held and the State Engineer now being fully informed in the premises:

IT IS HEREBY ORDERED that Application 14915 be approved and that a permit be issued 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 of the State of California this 5th day of November, 1953.

A. D. Edmonston
State Engineer