

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of
Alleged Waste, Unreasonable Use,
Unreasonable Method of Use, or
Unreasonable Method of Diversion
of Water by

Decision 1470

ESCALON AREA FARMS

DECISION REGARDING REASONABLENESS OF
INTENSIFIED GROUNDWATER USE

BY BOARD MEMBER ADAMS

On May 31, 1977, the State Water Resources Control Board held a public hearing pursuant to Section 764.10 of Title 23, California Administrative Code. This hearing was held to receive evidence on whether intensified pumping of large agricultural wells in the area south of Escalon which allegedly was causing shallow domestic wells to go dry or collapse constituted waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in violation of Section 2, Article X of the California Constitution. The respondent growers and other interested parties having appeared and presented evidence, the evidence received at the hearing and thereafter having been duly considered, the Board finds as follows:

Background

1. By letter of January 13, 1977, Mrs. Ethel Ritchey complained that the pumping of large agricultural wells in the area south of Escalon was causing 12-15 domestic wells to dry up or collapse.
2. The complaint named the following six respondents: (sic) Naraghi, Adrian, Murphy, Rollins, Bellini, and Bavaro.

3. Pursuant to Section 764.10 of Title 23, California Administrative Code, Board staff conducted an investigation of respondents' pumping and in a report dated February 14, 1977, concluded that such pumping did not constitute waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in violation of Section 2, Article X of the California Constitution. Complainant was furnished a copy of the report and advised that a Board hearing could be requested regarding the issue of waste, unreasonable use, method of use, or method of diversion. By letter dated March 14, 1977, Mrs. Ethel Ritchey and Mrs. Anita Smith both requested a hearing.

Findings as to Waste, Unreasonable Use, Unreasonable Method of Use, and Unreasonable Method of Diversion

4. The area of concern may be described generally as follows:

Commencing at the junction of Sexton Road and Highway 120 proceed east on Highway 120 to the junction of Brennan Road and Highway 120, thence south on Brennan Road to the junction of Brennan Road and Ullrey Avenue, thence east on Ullrey Avenue to the junction of Ullrey Avenue and McHenry Avenue, thence south on McHenry for approximately 600 feet to the junction of McHenry and Catherine Avenues, thence east on Catherine and a projection thereof to the Atchison, Topeka, and Santa Fe Railroad, thence southeast on said railroad to the intersection of said railroad and River Road, thence generally west on River Road to the junction of River Road and Sexton Road, and thence north on Sexton Road to the point of beginning.

The map attached as Exhibit A and incorporated herein illustrates the area.

5. Mr. Naraghi owns two parcels in the area with a total acreage of 140 acres, which is planted to peaches, almonds, cherries and walnuts. He recently drilled an agricultural well to a depth of about 130 feet. He did not commence using the well until February 1977, after the initial complaint letter. Furthermore, he has provided water free of charge to his neighbors when they indicated need and he further stated he intends to continue to do so.

6. Mr. Art Adrian owns about 20 acres of peach and almond orchards in the area. He has one domestic well with a depth of 96 feet, which he also uses to irrigate his land. A Mr. Frank Adrian also owns land within the area. However, he was not served with a notice and did not appear at the hearing. The amount of his property or the number of his agricultural wells, if any, is not known.

7. Mr. James E. Murphy allegedly owns agricultural property within the area. However, he did not appear at the hearing and the quantity of his land is not known. The Department of Water Resources (DWR) indicates that Mr. Murphy does own a deep agricultural well with a depth of over 400 feet, but that since it is located within several hundred feet of the Stanislaus River, it probably does not affect any domestic wells.

8. Mr. Allen S. Rollins and his son own about 550 acres of land near Escalon, 225 acres of which are within the area of concern. That acreage is principally planted to peaches and almonds. One parcel is located directly across the street from the residence of complainant Ritchey. Rollins installed on this parcel in May 1976 an agricultural well to a depth of 420 feet and with a 100 horsepower diesel pump. Pumping from this well began in December 1976.

9. Mr. Nick F. Bellino does not own property within the area; he does own 40 acres southwest of the area. He recently installed a 240-foot well on that property. Water from that well is used to irrigate almond and peach orchards by flood and sprinkler irrigation.

10. Mr. Frank Bavaro owns four ranches of 20 acres or less within the area. He irrigates from three domestic wells.

11. While other crops are grown in the area, almonds and peaches are the principal crops. The University of California Cooperative Extension Service

has prepared a publication entitled "Agricultural Water Use in a Dry Year". This publication provides detailed information on the appropriate irrigation schedule and the total water requirements for each crop. It further provides information on the amount of water necessary merely to sustain a perennial crop like an orchard and the amount of water necessary to produce a full crop.

12. During years of normal precipitation respondents obtain imported water stored in four surface reservoirs by the South San Joaquin Irrigation District (District). Because of the drought, the District's reservoirs are extremely low and are currently filled to 17% of capacity. In normal years they are near 100% capacity at this same time. To the date of the hearing they had provided the farmers within their service area with only one irrigation in late April and anticipated providing only one more irrigation. Each irrigation provides four inches of water per acre. The probability of a third irrigation is somewhat vague, and if one does develop, it will probably be scheduled late in the fall.

13. The only alternative supply of water available to the farmers in the District is groundwater. A source of reclaimed water is not presently available.

14. Respondent growers principally use two types of irrigation: border-check irrigation for peaches, and sprinkler irrigation for almonds. Border-check irrigation is a less efficient method of irrigation than sprinkler irrigation. However, peaches cannot be irrigated with sprinklers because water on the fruit causes spoilage.

15. Drip irrigation is a more efficient method of irrigation than sprinkler irrigation. However, it is not feasible to utilize drip irrigation for existing orchards because the roots are not developed in such a manner to use the water from drip emitters. Consequently, in the area of concern drip irrigation is being utilized only for new orchards.

16. The respondent growers are presently irrigating in accordance with the recommendations of the U. C. Extension Service. They are applying sufficient water to produce no crop losses due to lack of water. The respondent growers have not reduced their use of water to merely sustain the particular crop. In such sustenance-level irrigation, no marketable crop would be produced.

17. The respondent growers have also removed undergrowth and reduced cover crops in order to eliminate unnecessary transpiration of water by nuisance plants. In addition, most of the main conduits between pumps and field are pipelines or concrete lined ditches, which reduce water losses compared to unlined ditches.

18. A well when pumped creates a cone of depression in the static water level surrounding the well, and if the cone of depression is deep enough the deep well can make a shallower well nearby go dry. Furthermore, if such shallower well is cased only a portion of its depth, as many are in the area, then the uncased portion of the well may collapse if the water level at the well is depressed below the casing.

19. Complainants Ritchey and Smith alleged that 12-15 domestic wells recently went dry or collapsed, that 25 more domestic pumps are experiencing trouble from pumping sand, and that these problems are caused by the deep well pumping.

20. Mrs. Spence, who appeared as a witness for Complainant Smith, conducted a telephone survey of residents in the area of concern. Exhibit B summarizes the information she obtained for six wells located in the area. Exhibit B does not purport to be a comprehensive list of dry wells and it does not represent information obtained by any personal independent evaluation of the wells by Mrs. Spence. Nonetheless, Exhibit B does establish that several residents of the area of concern have experienced sufficient trouble with their wells to order new wells or to take other corrective action. The complainants alleged that other residents

of the area had experienced trouble with their wells but detailed information on their trouble is not available.

21. The shape and size of the cone of depression caused by a well can be precisely determined only by conducting field studies to determine aquifer constants such as the transmissibility and permeability of the aquifer. The relative depth and proximity of a shallow domestic well and a deeper agricultural well may also be sufficient to establish that it is more probable than not that the deep well interferes with the shallower well.

22. The situation here is further complicated by the fact that the static groundwater level has varied greatly for the past twenty years and that it has declined on the average at a rate of 12 inches to 18 inches per year. Paradoxically, during normal years the static groundwater level has risen during the summer months during high agricultural use of water. This rise evidently is caused by the use of imported surface water for irrigation which has incidentally recharged the groundwater basin. However, this year static groundwater levels are expected to decline substantially by about 30 feet partially because imported surface water will not be used to irrigate the crops to the same extent as during years of normal precipitation. Furthermore, well log data from DWR indicate that there are other irrigation and industrial wells and three municipal wells of the City of Escalon within the area of concern. For the foregoing reasons and without a detailed geologic study, it is not possible to determine specifically what caused a given well to go dry. However, the evidence is sufficient to make the following findings with respect to some of the respondents:

a. Mr. Naraghi did not commence pumping from his new agricultural well until after the initial complaint letter.

Accordingly, he could not have been responsible at all for the problems with domestic wells experienced before the use of his

well. While it may be argued that his pumping could exacerbate an already bad situation, no evidence was presented to this effect. Finally, even if his well does exacerbate the present situation, the evidence established that he has taken every reasonable and prudent step to mitigate the effect of the drought on his neighbors by providing them water at their request without charge.

b. Mr. Adrian has sufficient water from his one well to irrigate only 7 acres of orchard. He has been supplied with additional water by Mr. Naraghi. Irrigation practices recommended by the County Farm Advisor have been followed and reasonable efforts have been employed to prevent excessive evapotranspiration losses from ground cover in the orchard area.

c. Mr. Murphy's well, because of its close proximity to the Stanislaus River, probably does not affect any domestic wells within the area.

d. Mr. Rollins has followed recommended irrigation practices and has attempted to utilize more efficiently his irrigation water by narrowing his flood irrigation checks to one-half of what they once were. He has also attempted to speed distribution of the water through furrowing. Although no direct evidence was presented to this effect, pumping from his one deep well probably affected nearby domestic wells because of his well's close proximity to the domestic wells. However, by supplying water to his neighbors at cost, it appears he has taken reasonable steps to mitigate the effects of his pumping.

e. Mr. Bellino owns a well over 200 feet deep. However, his well probably does not affect domestic wells within the area for

several reasons. His property is just outside the area of concern; he pumps from an aquifer which may be isolated from the aquifer supplying the domestic wells; and his well is solidly cased to within four feet of its bottom, thus precluding extraction from any upper level aquifer.

f. Mr. Bavaro irrigates his small orchards by pumping from three shallow domestic wells. This pumping should have little effect on other domestic wells in the area.

23. At the hearing Mrs. Anita Smith requested that the complaint be withdrawn with regard to respondents Naraghi, Adrian, and Bavaro. Because of the conclusions of this decision, it is unnecessary to act on this request.

Further Findings of the Board

24. Because of the nature of the hearing in this matter it becomes apparent that the holding of this hearing resulted in some consequences unintended by this Board and that the nature of this hearing was misunderstood. First, the growers evidently believed that the hearing subjected them to unfair persecution by the State. While we are not aware of the basis for their conclusion, we should point out that the scheduling of a hearing under Section 764.10 of Title 23, California Administrative Code does not explicitly or implicitly constitute a finding by this Board that the respondent(s) has acted in violation of Section 2, Article X of the California Constitution.

25. When a hearing pursuant to Section 764.10 *et seq* of Title 23, California Administrative Code, is scheduled on the Board's own motion, it means that the Board is aware of sufficient facts to justify a further and more formal independent inquiry. In the present case the staff had determined that the growers had taken no action in violation of this Constitutional provision and in such event a hearing may be scheduled if requested by the complainant(s). When

a hearing is scheduled at the request of the complainants, the complainants have assumed a certain responsibility with regard to the conduct of the hearing. First, they should attempt to present sufficient evidence to the Board to justify a finding that the alleged actions of the respondent constitute a violation of Section 2, Article X of the California Constitution. In the present case the complainants would have had to establish that domestic wells were going dry or were collapsing, that such condition was proximately caused by the actions of the respondent growers, and that the use of groundwater for agricultural purposes was unreasonable in light of all the facts and circumstances, including other needs such as domestic use. With the exception of respondent Rollins, the complainants were able only to establish that some domestic wells were in trouble. With respect to respondent Rollins, there is sufficient evidence to establish that the use of his well has some impact on the use of complainant Ritchey's well. However, there was no evidence or argument advanced to justify a conclusion that Mr. Rollins' use of his well is unreasonable.

Although we realize that establishment of a causal relationship may involve detailed groundwater studies, which are beyond the resources of many complainants, the issue of causation must nonetheless be addressed. In the present hearing an expert from DWR familiar with the groundwater was available and this issue could have been explored by the complainants but was not. Finally, the determination that a particular use of water is unreasonable is a mixed question of law and fact and can best be addressed in a closing statement following the submission of all testimony and evidence. Although an opportunity to make a closing statement was provided at this hearing, no party availed himself of this opportunity.

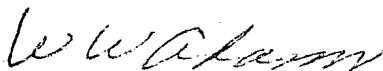
26. The hearing also created some confusion regarding certain of the respondents. As earlier mentioned, the original complaint letter of Mrs. Ritchey dated January 13, 1977, named Naraghi, Adrian, Murphy, Rollins, Bellino, and

Bavaro. Although Complainant Ritchey did not withdraw her complaint as to any grower, Complainant Smith requested that it be withdrawn with regard to respondents Naraghi, Adrian, and Bavaro, as earlier mentioned. This situation became further confused because Complainant Ritchey made no presentation in support of her complaint at the hearing and Complainant Smith limited her presentation to the three growers that she did not request be withdrawn. Generally, when there is more than one complainant in a hearing of this type and if the interests of the complainants are the same, we encourage the complainants to select one person as a spokesperson because it assists in the orderly presentation of their case. However, when the interests of the complainants are not completely the same, such consolidation only creates further confusion at the hearing. It appears that the orderly presentation of the evidence at the present hearing would have been assisted if the complainants had made separate presentations.

Conclusion

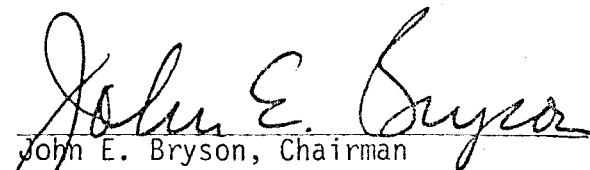
The Board concludes that there is insufficient evidence to establish that any of the respondent growers by their increased pumping of groundwater have acted in violation of Section 2, Article X of the California Constitution.

Dated: JUN 16 1977




W. W. Adams, Member


WE CONCUR:



John E. Bryson, Chairman



W. Don Maughan, Vice Chairman



Jean Auer, Member

Location - Ellis Road

Groundwater Level - 40 feet
Depth of Old Well - 58 feet
Pipe in Well - 57 feet

New Well - 145 feet
Pipe in Well at Present - 86 feet
Date of New Well - February 1977

Location - Jones Road

Groundwater Level - 60 feet
Pipe in Well - 70 feet
Depth of Well - 110 feet

Extension Pipe - 21 feet
Date of Extension - March 1977
Pipe in Well at Present - 91 feet
This was New Well in 1969

Location - Clough Road

Groundwater Level - 63 feet
Pipe in Well - 73 feet
Depth of Well - 94 feet

Extension Pipe - 20 feet
Date of Extension - April 1977
Pipe in Well at Present - 93 feet

Location - Dahlin Road

Groundwater Level - 56 feet
Pipe in Well - 60 feet
Depth of Well - 63 feet

Out of Water - April 2 to May 5
New Well ordered - 140 feet deep

Location - McHenry

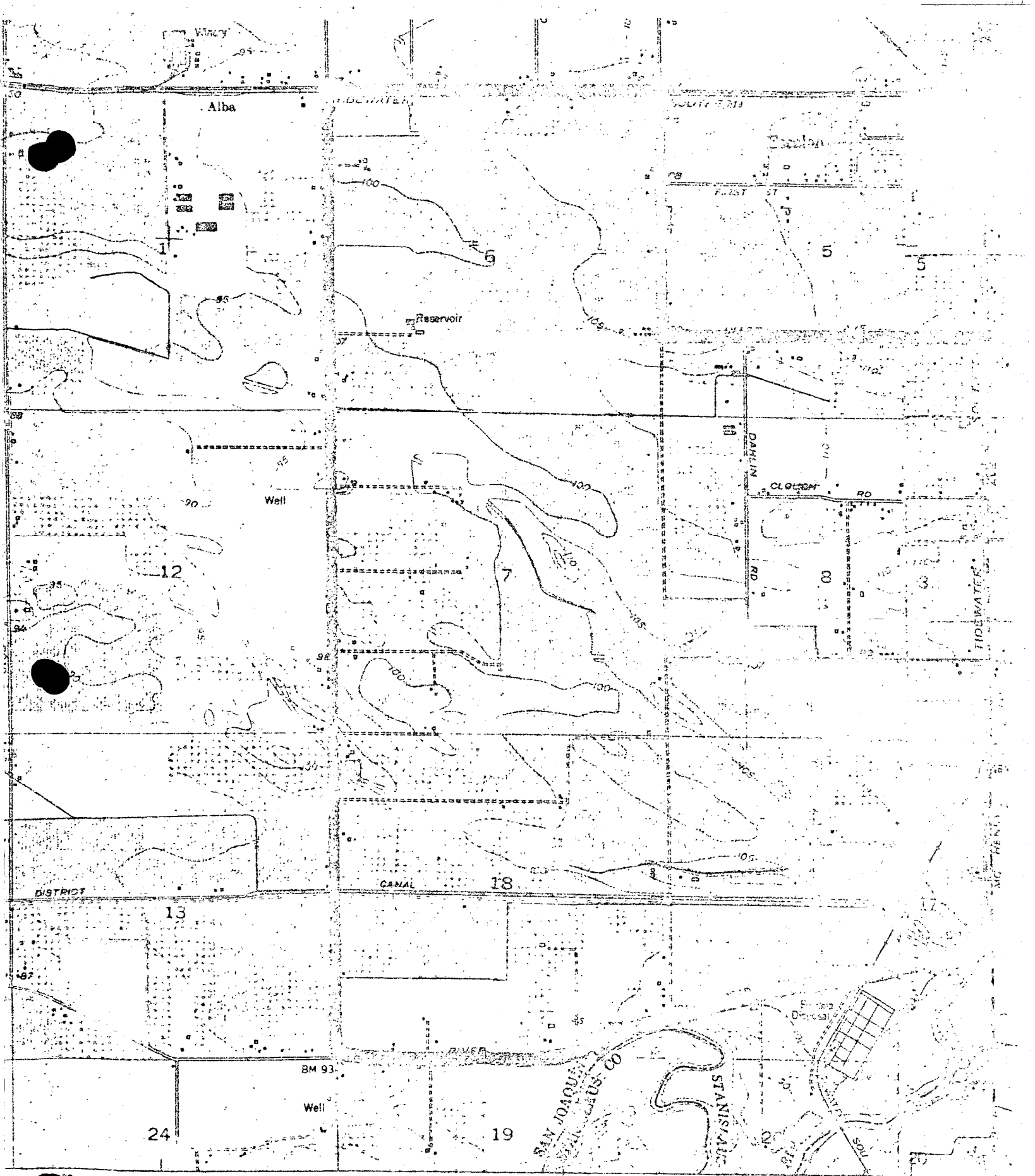
Groundwater Level - 50 feet
Pipe in Well - 53 feet
Depth of Well - 63 feet

Extension Pipe - 9 feet
Date of Extension - April 1977
Pipe in Well at Present - 62 feet
New Well Ordered - 200 feet

Location - St. Johns

Groundwater Level - 53 feet
Pipe in Well - 88 feet
Depth of Well - 125 feet

Extension Pipe - 30 feet
Date of Extension - April 1977
Pipe in Well at Present - 118 feet



1 MILE

7000 FEET

1 CENTIMETER

ROAD CLASSIFICATION

Heavy-duty

Light-duty

Unimproved dirt

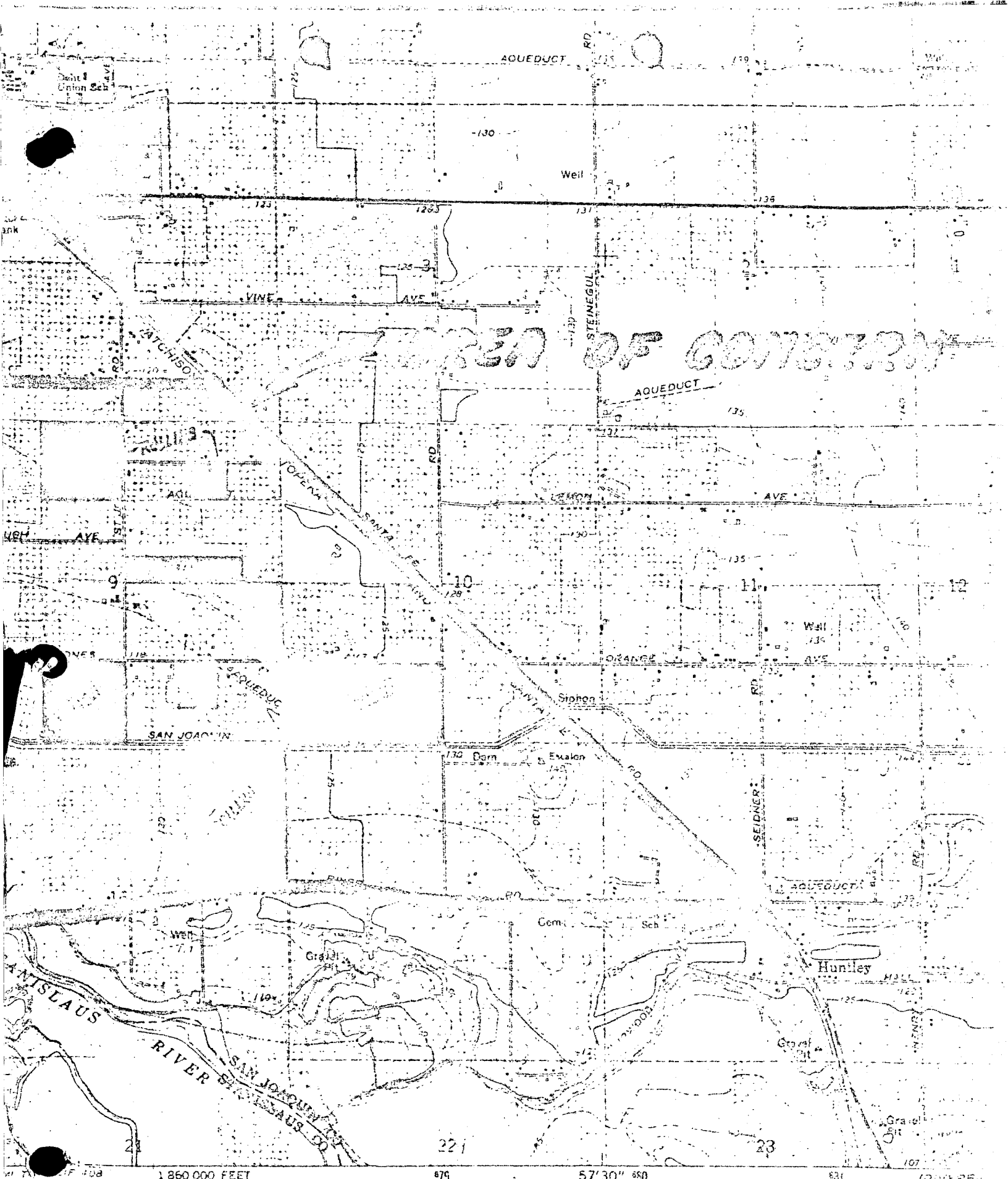
State Route

Mapped, edited
Control by USGS

Topography by
photographs

Superficial
Polyconic

INTERIOR - GEOLOGICAL SURVEY WASHINGTON D. C. - 1969



AREA OF CONSTRUCTION

1850 000 FEET 221 57'30" 450 23

and published by the Geological Survey
and USC&GS

Photogrammetric methods from aerial
1967. Field checked 1968
1913, revised 1953

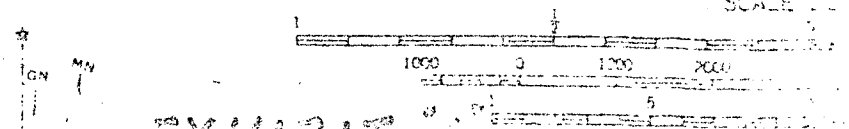


EXHIBIT 1

CONTINUED