

BEFORE THE STATE ENGINEER OF OREGON

Washington County

IN THE MATTER OF THE)
APPLICATION OF SCHUEPBACH)
BROS. FOR APPROVAL OF A)
CHANGE IN PLACE OF USE AND)
USE OF WATER FROM A WELL)

STATEMENT, FINDINGS,
CONCLUSIONS
AND ORDER
APPROVING
TRANSFER NO. 2490

STATEMENT

On February 25, 1971 Schuepbach Bros. filed an application in the office of the State Engineer for approval of a change in place of use and use of water from a well pursuant to the provisions of ORS 537.705 and ORS 540.510 to 540.530. On August 20, 1971 the Beaver Construction Company, as present owners of a portion of the land from which the rights are being transferred, filed a consent to the application.

Certificate of water right issued to Schuepbach Bros. and recorded at page 33114, Volume 25, State Record of Water Right Certificates, confirms a right to the use of not to exceed 1.35 cubic foot per second of water from a well for irrigation of, among other lands, 3.4 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$; 34.8 acres in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ and 1.3 acres in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 17; and 7.0 acres in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 20, Township 1 South, Range 1 West, W.M., with a date of priority of January 21, 1959. These lands are irrigated from a well located 2140 feet west and 80 feet south from the northeast corner of DLC 50, being within the SE $\frac{1}{4}$ SW $\frac{1}{4}$ as projected within Williams DLC 50, Section 17, Township 1 South, Range 1 West, W.M.

The applicant herein, owner of the lands above described, proposes to change the use heretofore made of water to domestic use by the Aloha Huber Water District in Sections 5, 6, 7, 8, 16, 17, 18 and 19, Township 1 South, Range 1 West, W.M.; and Sections 1, 2, 10, 11, 12, 13, 23 and 24, Township 1 South, Range 2 West, W.M.

Notice of the filing of the application was given by publication in the Beaverton Valley Times, a newspaper printed and having general circulation in Washington County, Oregon, for a period of three weeks in the issues of April 8, 15 and 22, 1971.

On May 12, 1971 Henry L. Burns filed a protest in the office of the State Engineer against approval of said application alleging that:

1. From a hydrological standpoint, the well is different from the original filing made in 1959 and that the static water level, the pumping drawdown and status of the ground water supply should all be considered, with the pumping rate lowered proportionately.
2. That the proposed change in annual water consumption from irrigation to domestic would be substantial since it would be a year-around use and that the domestic use should be restricted to a total annual water withdrawal no greater than that for irrigation. Also, that the withdrawal should be based on irrigation use for 1970.
3. The proposed change will affect his claim of ground water registration GR-569 for use of water from a well in Section 19, Township 1 South, Range 1 West, W.M., with a date of priority of January 21, 1959, since he believes the subject well obtains its water from the same basaltic aquifer and the history of his well indicates that the ground water is being withdrawn at a rate in excess of the recharge and the supply in his well is in jeopardy.

On May 20, 1971 John B. Peyton filed a protest in the office of the State Engineer against approval of said application alleging:

- "1. That the basalt aquifer, which supplies the ground water source for the protestant's well, is not being recharged by ground water sources at a rate sufficient to maintain the level of the water supply so as to provide existing wells in the area, and particularly protestant's, with sufficient waters to maintain their prior existing uses.
- "2. That the proposed change of use would greatly reduce the water level in the basaltic aquifer due to the fact that the applicants have not used their allotted water on a continuous basis for many years.
- "3. That Aloha Huber Water District is in need of an additional source for domestic use and a constant use of the 1.35 cubic feet per second of water from the applicants' well would materially draw down the water level.

"4. That the existing use of applicants' well for irrigation allows the water used to recharge the existing ground water supply whereas a change of use from agricultural to domestic would provide a materially lesser amount of water for recharge."

The protestant is the owner of a well located on Cooper Mountain which well is used for domestic purposes.

After due notice a hearing was held by Chris L. Wheeler, State Engineer, on the matter of application for change in place of use and use of water from a well in the Conference Room, State Employment Office in Hillsboro, Oregon, commencing at 9:30 a.m. on June 2, 1971. Louis Bonney, Assistant Attorney General, was present as counsel to the State Engineer. Also present were the applicant, Schuepbach Bros., represented by their attorney, Albert T. Kemmer of Beaverton, Oregon; Aloha Euber Water District, represented by their attorney, J. D. Bailey of Hillsboro, Oregon; protestant Henry L. Burns who represented himself; and protestant John B. Peyton represented by his attorney, David Frost of Hillsboro, Oregon.

FINDINGS

According to the log filed in the office of the State Engineer on June 8, 1959 the well involved here was constructed 14 inches in diameter to a depth of 414 feet, with 40 feet of 14 inch casing sealed with cement to its full depth, for irrigation purposes by Schuepbach Bros. and had a 100 horsepower Johnson turbine installed. The log of materials encountered shows 0 to 11 feet of clay, 11 to 167 feet of weathered basalt and several additional layers of basaltic or igneous rock to the full depth.

The basalt aquifer tapped by the well underlays a broad area known as Bull and Cooper Mountains. The basaltic formations lie within an irregular shaped area of approximately 41 square miles in Sections 17, 18, 19, 20, 28, 29, 30, 31, 32, 33 and 34, Township 1 South, Range 1 West, W.M.; Sections 13, 14, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 and 36, Township 1 South, Range 2 West, W.M. ; Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17 and 18, Township 2 South, Range 1 West, W.M. and Sections 1, 2, 3, 4, 10, 11, 12 and 13, Township 2 South, Range 2 West, W.M. The lower aquifer

boundaries are located at least 500 feet below mean sea level (msl) and the upper boundaries at approximately 200 feet above msl. The elevation of the land surface varies from 150 feet msl to 750 feet msl. The water levels follow the general topographic surface configurations in part and pumpage from the developed wells has lowered the upper limits of the saturated rock zone from which ground water is produced.

Approximately 890 wells tap this aquifer for irrigation, municipal and domestic purposes, with the vast majority for domestic and most of the water withdrawn for group domestic or quasi-municipal purposes of the Aloha Huber Water District and the cities of Beaverton and Tigard. Included are the wells of protestant Henry L. Burns at a land surface elevation of 430 feet msl and protestant John B. Peyton at a land surface elevation of 380 feet msl and the proposed transfer to the Aloha Huber Water District at a land surface elevation of 270 feet msl. Water levels in the aquifer located on the slopes of Bull and Cooper Mountains have declined 30 to 60 feet. In the areas surrounding the wells which have been pumped continuously with fairly large volumes of water withdrawn, there is a pronounced cone of depression. The true aquifer decline has not been measured in the municipal wells, but the maximum indicated decline in a cone of depression is about 120 feet.

The waters of the Schuepbach well have been tested and found usable for domestic purposes. Applicant's exhibit No. 3 is a copy of a laboratory report from Charlton Laboratories dated September 11, 1961. This report states it is very hard bicarbonate type and moderately high in chloride (salt). This quality of water would not be fully satisfactory as a sole supply, but could provide an emergency source for the District's use or as a supplement during periods of heavy use in the summer by mixing with other sources of better quality water. Testimony of Roger McLean, superintendent of Aloha Huber Water District, and of Victor A. Bringle, consulting engineer for the District, shows this to be the intent of the District and they realize that other sources will have to be found for major additional supplies.

Testimony of protestant Burns was not specific on total water level decline in his well; however, he did testify that at this time there was 20 to 22 feet of water from the bottom of the hole. On September 3, 1957 Mr. Burns filed a registration statement of claimant of right to appropriate ground water with the State Engineer as provided by ORS 537.605 and 537.610. That sworn statement shows the well had a static water level of 210 feet below land surface and a total depth of 292 feet. Comparing the recorded data and current testimony, the decline would be 60 feet. This is less than testified to, but in any event there has been a substantial decline. Roger McLean, superintendent of Aloha Huber Water District, testified that the static water level of the District's wells had not declined. The original logs filed with the State Engineer listed the static water levels of well No. 1 as 195 feet below land surface elevation and well No. 2 as 200 feet below land surface elevation. Current reported levels of well No. 1 as 207 feet below land surface elevation and well No. 2 as 250 feet below land surface elevation would show a decline of well No. 1 as 12 feet and well No. 2 as 50 feet. Since well No. 2 is pumped almost continuously the measured decline may be a cone of depression rather than a true decline. Mr. Schuepbach testified his water level was 105 feet below land surface. In 1959 and on May 29, 1971 it was 123 feet. The driller had previously reported a static water level of 109 feet on May 8, 1959 or a decline of 14 to 18 feet.

The State Engineer has in progress a critical ground water study of the Bull-Cooper Mountain area under the provisions of ORS 537.730 to 537.740. Under this provision public hearing and completion of the study must precede any order adopted pursuant to those sections that may include total restrictions on withdrawal and use.

The evidence presented on acreages irrigated and rate of pumping for irrigation in the past five years is not sufficient to precisely determine these facts. The uncontroverted testimony of Rudolph Schuepbach was that not all of the 127.4 acres covered in the certificate had been

irrigated in any one year, but by moving the irrigated crops to different fields all of the land had been irrigated in the past years. Potatoes were a primary crop and each year they moved these fields in a different place. He further testified that he was responsible for the irrigation aspect of Schuepbach Bros. and that during the previous years he had pumped 600 gallons per minute and irrigated approximately 45 acres in 1970; 45-60 acres in 1969; 45-60 acres in 1968; 70-80 acres in 1967; and 37 acres of potatoes plus 30-40 acres of pasture in 1966.

Applicants' exhibit No. 4 is a print of the map prepared by Myron Bish, an engineer from the office of the State Engineer, showing the location of the irrigated land and the acreage in each subdivision as found by an actual survey made May 24, 1965. On this print Mr. Rudolph Schuepbach located tracts that had been sold. The first tract is surrounded by a blue dashed line and marked No. 1; the second is surrounded by a solid blue line and marked No. 2, and the third is surrounded by a heavy blue solid line and marked No. 3. Mr. Schuepbach testified that when tract No. 1 was sold there was no reservation of water right made and that water had not been used on that tract since the sale. Since most of the land was wooded he estimated that about 10-12 acres were irrigated and covered by the water right. Exhibit No. 4 shows 15.1 acres of irrigated land in this tract. He did not estimate the irrigated acreage in tract No. 2 that was condemned by the school district; however, he stated the 7.8 acres of irrigated land shown on exhibit No. 4 was correct. He did not estimate the irrigated acreage in tract No. 3 that was sold under contract in 1971 for homesite development, but stated it was 31 acres and exhibit No. 4 shows it all to be irrigated land.

The maximum amount of water to be used was based on proof of actual beneficial use under the permit and set forth in the certificate as 1.35 cubic foot per second, which is 607 gallons per minute. Further limitations on use of water (known as the duty of water) are set forth in

the certificate as follows:

"The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to 1/80th of one cubic foot per second per acre, or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed 2 1/4 acre feet per acre for each acre irrigated during the irrigation season of each year and shall conform to such reasonable rotation as may be ordered by the proper state officer".

The 15.1 acres of water right land sold in 1968 and the 7.8 acres of water right land sold in 1970 to the school district are eliminated from the right retained by Schuepbach Bros. Applying the above duty 1/80th times the remaining 104.5 acres gives 1.31 cubic foot per second or 598 gallons per minute as a maximum diversion authorized. Mr. Schuepbach's testimony was not precise, but a summation of his testimony gives a maximum use in the past five years of pumping at 600 gallons per minute up to 20 hours per day. Converting this to a uniform diversion by multiplying the 600 gallons per minute by 20/24 gives a maximum daily average use of 500 gallons per minute. This is slightly over the duty of water permitted for the 80 acres estimated to have been irrigated.

The application for transfer includes the 31 acres sold under contract in 1971 and approximately 15 acres held by the applicant which is only part of the lands covered in the certificate of water right. The water required and authorized for irrigation of the land from which it is being transferred is limited to not to exceed 0.58 cubic foot per second and a total yearly diversion of 116 acre feet. If water is pumped continuously at the rate of 0.58 cubic foot per second, it would take 100.9 days to divert 116 acre feet and at a rate of 1.31 cubic feet per second it would take 44.8 days.

The use is further restricted to the irrigation season of each year. The specific season is not set out in the certificate of water right; however, it varies in the Willamette Valley from year to year

depending on the climatic conditions. Irrigation can be beneficial at any time the soil moisture is low enough to be a limiting factor restricting the desirable plant or vegetative growth. In the adjudication of the relative rights to the use of the waters of the Tualatin River and its tributaries, the irrigation season is defined as beginning May 1 and ending September 30 of each year. The land involved is in the Tualatin Basin and there was no testimony indicating use outside of those limits; therefore, I find the irrigation season of this water right is the same.

CONCLUSIONS

Protestant Henry L. Burns stated in open hearing that he had no objection to the transfer if it were restricted to the amount of water used previously. ORS 540.530 provides that:

" * * * * If, after hearing or examination, the State Engineer finds that the proposed change can be effected without injury to existing rights, he shall make an order approving the transfer and fixing a time limit within which the application of water may be made to the new use. During the time allowed by the State Engineer for such application of water the right which has been transferred shall not be considered to be abandoned by nonuse. * * * *"

There is substantial evidence showing the aquifer tapped by the Schuepbachs, protestants, and many other wells in the area is a common water body with variations in several water quality parameters caused by faulting, varied aquifer characteristics and chemical constituents of the parent rock material penetrated by the individual wells. The total supply available from this aquifer for each of the wells is affected by the withdrawal from all wells. The decline in water levels reflects a change in ground water storage and is a measure of the total quantity of water withdrawn as the upper portion of the reservoir and zones surrounding heavily pumped wells are dewatered. Present ground water withdrawal exceeds the annual recharge to the aquifer. There has not been

any direct pump interference; however, between the cones of depression around the wells of Schuepbach Bros., Henry L. Burns and John B. Peyton. Therefore, there will not be any injury due to the rate of pumping but the total amount of ground water to be withdrawn each year must continue to be limited to the previously authorized amounts.

The withdrawal of water authorized for uses on tracts Nos. 1 and 2 totaling 22.9 acres is not available for transfer by the applicant since the land was sold without any reservation of water rights. Such consideration would require an application from the current owners; however, the use having ceased with the sale and the land use changed it would appear those rights have been abandoned.

The applicants propose to transfer the maximum possible to the Aloha Huber Water District by this application; therefore, if the rights appurtenant to tracts Nos. 1 and 2 have not been abandoned, their proportionate part of the total can be taken from the remaining 58 acres of irrigated lands of the applicant.

The protestants' contention that no more withdrawal should be permitted than was withdrawn in 1970 is not well taken. ORS 540.610 provides:

"* * * * Whenever the owner of a perfected and developed water right ceases or fails to use the water appropriated for a period of five successive years, the right to use shall cease, and the failure to use shall be conclusively presumed to be an abandonment of water right.
* * * *"

Nonuse for a shorter period does not restrict the right. Cropping patterns, climatological differences, temperature and many other factors affect the amount of water that can be beneficially used in any one year and this will vary substantially from year to year. ORS 540.610 also provides:

"Beneficial use shall be the basis, the measure and the limit of all rights to the use of water in this state. * * * *"

The Oregon Supreme Court *In re Waters of Deschutes River*, 148 Or. 389, stated:

"After much study and many experiments, the duty of water has been fixed in this case as indicated. The testimony does not indicate that the quantity of water allowed would produce the maximum crop or the largest yield, but no more

than a fair crop. In our former opinion, *In re Waters of Deschutes River*, supra, at page 666, this court said:

'It is a duty of the court in adjudicating water rights to suppress all wasting of water and the court may go further and declare what shall constitute the economic use of the water and to fix its proper duty by a decree awarding the use of a certain amount of water for that purpose. Water is too precious an article in the arid region, or semi-arid region, to be permitted to run to waste.'

We might add that it is the duty of the watermaster, or of those who administer the decree, not to allocate the water to a water user, who, on account of changed conditions, cultivates a less quantity of land one year than another and does not need the water allotted to him and cannot use the same for a beneficial purpose, or if, for any reason the water is not needed by a water user for a beneficial purpose, although the same may be awarded to him, the water master should regulate the same so that there should be no waste of water. Beneficial use is the limit of the right to the use of water in this state: Section 47-901, Oregon Code 1930. * * * *"

This means that an appropriator is not entitled to divert the full duty allowed if it is not actually required, and at any time it is not required it must remain in the ground water reservoir (source involved) for the benefit of other appropriators. If a person could lose his right to divert the maximum allowable in those years he needed the full duty, he would be encouraged to waste water in wetter years in direct derogation of the beneficial use principle.

There was no specific evidence presented by protestants to support their contentions that the irrigation use would return more water to the ground water reservoir than the municipal use. On the basis of the rather limited duty of water, it is very doubtful if any significant recharge would occur and it does not appear that it would be any less from the quasi-municipal use.

The statutes governing this proceeding do not provide for a determination of the total yield of the ground water reservoir and the highest and best use that can be made of the available supply. Such determination with wide discretion in its application is provided for in the critical ground water study that is in progress. This proceeding is limited by the statutes to a determination of whether the change to domestic use will injure existing rights. That is whether or not using water from the well for group domestic use would create a greater injury to the other users than continuing to irrigate the specific land now covered.

It appears that well spacing is such that interference will not occur from the pumping rate and that total quantities withdrawn each year must be restricted to the present authorized use. The change can be made without additional injury by restricting such use to those amounts on a total withdrawal basis while permitting a higher pump rate for shorter periods of time.

ORDER

NOW, THEREFORE, it hereby is ORDERED that the proposed changes in use of water from the Schuepbach well are approved subject to the following conditions:

1. A total diversion of not to exceed 116 acre feet per year (37,798,600 gallons) at a rate of flow of 0.58 cubic foot per second (260 gallons per minute); however, this rate may be exceeded for periods of time by rotation and ceasing pumping for proportionate periods in order to not exceed the equivalent total withdrawal that would have been obtained by continuous pumpage;
2. Such additional rate of withdrawal shall be correlated with the use of the well for irrigating the 58 acres of remaining lands so that the total diverted at any one time for municipal and irrigation purposes shall not exceed 1.31 cubic feet per second (588 gallons per minute);

3. The use of water shall be limited to the irrigation season of May 1 to September 30 of each year;
 4. A meter capable of reading both rate of flow and total discharge shall be installed on the discharge from the pump. The measuring facilities shall be approved by the State Engineer prior to final installation.
 5. The applicant and the Aloha Huber Water District shall keep records of the water withdrawn and file monthly reports with the State Engineer of the total amount of water diverted, the amount for quasi-municipal use, the amount for irrigation of the remaining lands and the maximum diversion rate that occurred during the month; and
- the water rights hereinbefore described as appurtenant to the following lands:

3.4 acres in NE $\frac{1}{4}$ SW $\frac{1}{4}$
34.8 acres in SE $\frac{1}{4}$ SW $\frac{1}{4}$
1.3 acres in SW $\frac{1}{4}$ SE $\frac{1}{4}$
Section 17

7.0 acres in NE $\frac{1}{4}$ NW $\frac{1}{4}$
Section 20
Township 1 South, Range 1 West, W.M.,

with a date of priority of January 21, 1959 for irrigation purposes, be severed therefrom and simultaneously and without loss of priority, transferred to domestic use of the Aloha Huber Water District in Sections, 5, 6, 7, 8, 16, 17, 18 and 19, Township 1 South, Range 1 West, W.M., and Sections 1, 2, 10, 11, 12, 13, 23 and 24, Township 1 South, Range 2 West, W.M.

It is FURTHER ORDERED that complete application of water to the proposed use shall be completed on or before October 1, 1974.

It is FURTHER ORDERED that the certificate of water right heretofore issued to Schuepbach Bros. and recorded at page 33114, Volume 25, State Record of Water Right Certificates, is canceled and in lieu thereof a new certificate be issued to Schuepbach Bros. covering the following lands:

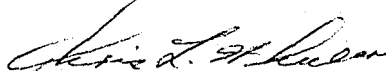
1.2 acres in NW $\frac{1}{4}$ SW $\frac{1}{4}$ as projected within Innes DLC 56
0.8 acre in SW $\frac{1}{4}$ SW $\frac{1}{4}$ as projected within Innes DLC 56
33.4 acres in SW $\frac{1}{4}$ SW $\frac{1}{4}$ as projected within Williams DLC 50
Section 17
Township 1 South, Range 1 West, W.M.

8.2 acres in SE $\frac{1}{4}$ SE $\frac{1}{4}$ as projected within Reed DLC 40
Section 18

14.4 acres in NW $\frac{1}{4}$ NW $\frac{1}{4}$ as projected within Williams DLC 50
Section 20
Township 1 South, Range 1 West, W.M.,

and upon receipt of proof satisfactory to the State Engineer of completion
of the authorized change in place of use and use of water, a certificate
shall be issued to Aloha Huber Water District confirming the changes.

Dated at Salem, Oregon this 24th day of August 1972.



CHRIS L. WHEELER
State Engineer