BEFORE THE STATE ENGINEER OF OREGON

MARION COUNTY

IN THE MATTER OF THE DETERMINATION OF THE)
RELATIVE RIGHTS TO THE USE OF THE WATERS)
OF AN UNNAMED STREAM RISING FROM A SPRING)
IN NW4 NE4, SECTION 5, TOWNSHIP 9 SOUTH,)
RANGE 3 WEST, W. M., MARION COUNTY, OREGON.)

FINDINGS AND ORDER
OF DETERMINATION

Now at this time the above-entitled matter coming on for consideration by the State Engineer, and it appearing that all evidence and testimony have been taken in the above-entitled proceedings, and the State Engineer having carefully considered all evidence and testimony and the engineering data and information gathered in accordance with law, and being fully advised in the premises, makes and orders to be entered of record in his office the following

FINDINGS AND ORDER OF DETERMINATION

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The unnamed stream, the relative rights to the use of the water of which are to be determined in these proceedings, is formed by two springs rising on a hillside within the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M., and upon lands owned by J. O. Farr. From the springs the water flows for a distance of about 3000 feet down a hillside, the fall of which in this distance is about 300 feet. Below this 3000-foot section the hill levels off into a sloping bench, about one-half mile wide, which extends to the Willamette River.

From the springs the water flows in a well-defined channel to a point about 500 feet north of the highway running between the land owned by J. O. Farr and the land owned by E. B. Cochran and wife where the water spreads out into a swamp or wet area, through which there is no well-defined channel, although the record secured of the flow of water indicates a definite current exists. This swamp or wet area is about 60 feet in width and about 500 feet in length. The water at the lower end of the swamp or wet area is collected in a well-defined channel and is conveyed across the highway in a culvert. The stream, from where it enters the lands of E. B. Cochran and wife to its junction with an unnamed stream flowing from the east, a distance of about one-fourth mile, has a well-defined channel. From said junction to the Willamette River there is a well-defined channel which crosses the lands of E. B. Cochran and wife, J. O. Farr and W. Shelley and wife. This channel carries the water flowing from the unnamed stream, the source of which is the two springs rising on the land owned by J. O. Farr, the unnamed stream flowing from the east, above-referred-to, and a third unnamed stream, the junction of which is a short distance above the confluence with the Willamette River, and upon land owned by W. Shelley and wife. In light of the decision of our court (Harrington v. Demaris, 46 Oregon, page 111) it appears that said unnamed stream is a watercourse and the right to the use of the water flowing therein, including the springs at its source, are subject to the rules of law governing the appropriation of public water.

The court's order and notices of the State Engineer do not definitely define the unnamed stream of which the relative rights are to be determined in these proceedings. However, due to the fact that there is no evidence as to whether or not the waters of the unnamed streams and their tributaries, other than the unnamed stream the source of which is the two springs rising upon the land of J. O. Farr, are being diverted and used by others whose rights may be junior to those asserted herein, and that the rights to the use of said unnamed streams and their tributaries are not being determined in these proceedings, this proceeding must be limited to that of the determination of the relative rights to the use of the waters of the unnamed stream, the source of which is two springs rising within the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M., above the junction with the unnamed stream flowing from the east, heretofore referred to, and upon which Weir No. 6 was installed, and to the use of water from said springs.

2.

That on the 26th day of August, 1942, there was filed in the office of the State Engineer an order of the Circuit Court of the State of Oregon for Marion County, dated August 3, 1942, in the case of E. B. Cochran, Plaintiff, vs. J. O. Farr, Defendant, directing that said cause be referred to the State Engineer under authority vested in said court, for the purposes of adjudicating the relative rights of all water users from an unnamed stream, rising from a spring in the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M. That the State Engineer thereafter fixed a time for making necessary surveys and examinations and the beginning and taking of such testimony as would enable him to determine the rights of the various claimants to the use of the waters of said unnamed stream, exclusive of its tributaries, as provided by law.

3.

That a notice was prepared by the State Engineer setting forth the date on or about which the State Engineer or his assistants would begin the investigation of the flow of said unnamed stream, and of the ditches diverting water therefrom, and said notice was published in two issues of The Capital Journal, a newspaper printed and published daily at Salem, Marion County, Oregon, and of general circulation in said county, said two issues being September 2 and September 9, 1942, the date of the last publication being more than ten days prior to the date fixed for the beginning of the taking of the measurements of said unnamed stream by the State Engineer, as provided by law.

4.

That duly qualified assistants of the State Engineer did proceed to make examinations, surveys and measurements of said unnamed streams and of works diverting water therefrom and surveys of the land irrigated, and gathered such other data and information as were essential to the proper determination of the relative rights of the parties interested, which said observations and measurements were reduced to writing and certified copies filed in this proceeding, and made a matter of record in his office. And the State Engineer did cause to be prepared a map or plat showing with

substantial accuracy the course of said unnamed stream and the two springs at its head, the location of the works used to divert water therefrom, and number of acres of land which had been irrigated in each legal subdivision, prints of said map or plat being on file and a part of the record herein.

5.

That as soon as practicable after the examinations and measurements were completed as described in the preceding paragraph, the State Engineer did prepare a notice setting forth a place and time certain when he would begin the taking of testimony (statements and proofs of claim) as to the relative rights of the various claimants to the use of the water of said unnamed stream; that said notice was published in two issues of The Oregon Statesman, a newspaper printed and published daily at Salem, Marion County, Oregon, and of general circulation in said county; said two issues being those of February 23 and March 2, 1943, the date of the last publication being at least thirty days prior to the first date fixed for the taking of claims by the State Engineer.

6.

That the State Engineer did send by registered mail to each person, firm or corporation claiming a right to the use of any of the waters of said unnamed stream and to each person firm or corporation owning or being in possession of lands bordering on or having access to said unnamed stream, in so far as said claimants and owners and persons in possession could reasonably be ascertained, a notice similar to such published notice, setting forth the date when the State Engineer or his authorized assistants would receive the statements and proofs of claim of the various claimants to the waters of said unnamed stream. That said notice was mailed at least thirty days prior to the date set therein for the receiving of claims in each instance. And the State Engineer did enclose with each of said notices a blank form upon which the claimant or owner could prepare in writing all the particulars necessary for the determination of his right, under oath.

7.

That the times and places when and where the State Engineer, or his authorized assistants, would receive claims of the various parties were fixed as follows:

For a period of 15 days beginning April 5, 1943, and ending April 19, 1943, at the office of the State Engineer in the State Office Building at Salem, Oregon.

That within said time claims to the use of the waters of said unnamed stream were filed, each of which will be hereinafter considered.

8.

That after the completion of the taking of such statements and proofs of claim the State Engineer did, on the 22nd day of April, 1943, give notice by registered mail to each of the various claimants to the use of the waters of said unnamed stream, that at the time and place named in said notice, to-wit:

From Tuesday, May 4, 1943, to Saturday, May 15, 1943, inclusive, (Saturday afternoons and Sundays excepted) at the office of the State Engineer at Salem, Oregon,

the testimony and proofs of claim theretofore filed would be open to public inspection. That said notice did also state therein the county in which the determination of the State Engineer in said proceedings would be heard by the Circuit Court of the State of Oregon, to-wit: The County of Marion. That thereafter the State Engineer did extend the time for filing statements of contest to and including June 2, 1943.

9.

That the State Engineer did, in accordance with said notice as described in the preceding paragraph, keep said claims open to public inspection at said times and places. That within the time fixed therefor the following contests were initiated by the filing with the State Engineer of notice of contest in writing:

Contest No. 1

J. O. Farr,

Contestant,

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E. B. Cochran and Zulima Cochran, husband and wife, and Willard Shelley and Margaret Shelley, husband and wife,

Contestees.

Contest No. 2

E. B. Cochran and Zulima Cochran, husband and wife, and Willard Shelley and Margaret Shelley, husband and wife,

Contestants,

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J. O. Farr,

Contestee.

10.

That after the filing of said statements of contests, the State Engineer did fix a time and place for the hearing of each of said contests and did, on the 4th day of June, 1943, serve notice of hearing of said contests on each of the parties to said contests, the date fixed for hearing being more than thirty and less than sixty days from the date the notice of said hearing was served on said parties. That upon the date and at the place as fixed for said hearing, to-wit: Tuesday, July 20, 1943, at the hour of 10:00 o'clock A. M., in Room 505 of the State Office Building at Salem, Marion County, Oregon, the taking of testimony was commenced before the State Engineer and continued until each of said contests was fully heard.

That due proof of the sending of the various notices by registered mail as hereinbefore set forth has been made and filed as a part of the record herein.

12.

Contest No. 1

J. O. Farr,

Contestant,

v.

E. B. Cochran and Zulima Cochran, husband and wife, and Willard Shelley and Margaret Shelley, husband and wife,

Contestees.

Contestees, E. B. Cochran and Zulima Cochran, husband and wife, filed herein Statement and Proof of Claim No. 1 wherein they assert a right to the use of the water of an unnamed stream, from a spring rising in the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M., for watering 300 head of stock on lands of claimants which are described in the tabulation herein. The basis of the right as asserted in said claim is appropriation and use with a date of priority of 1866.

To said Statement and Proof of Claim No. 1, contestant, J. 0. Farr, through his attorney, Herman E. Lafky, filed herein Statement of Contest No. 1 wherein it is contended:

- "1. That said contestant, J. O. Farr, claims exclusive right, for irrigation, livestock watering, and domestic uses, to so much of said waters, and overflow, as he may require for said purposes, by virtue of the fact that said unnamed spring first arises upon the lands owned by said contestant; further that, said contestant and his predecessors in interest, constructed the ditches, pipelines, and concrete retaining resevoir for the purposes of conserving and making said waters available; that said source of water is the sole and exclusive source of water for this contestant, whereas, said contestees have other available sources of water; that said unnamed stream does not and never has run in any well defined channel, nor in any continuous flow throughout the year.
- "2. That said above named contestees are claiming water rights exclusive of, and in priority over the water rights of this contestant; that Permit No. 13684 was issued this contestant on the 9th day of October, 1941, by the State Engineer, after hearing and over objections of said contestee E. B. Cochran, pursuant to Section 116-435; that said order directing the issuance of said water permit, was not appealed from to the Circuit Court, and as a consequence thereof, said water permit cannot be affected, nor set aside, by collateral attack through these proceedings; that neither of said contestees have any water right, or permit, or right of any kind whatsoever, in and to the use of any of the waters referred to, save and except the fact that, from time to time, over a period of years, if and when overflow water was then and there available, said contestees did make use of some portion of said water, through the pasturing of livestock along certain areas where said overflow appeared upon their respective farm properties.
- " 3. That the primary cause of decrease, if any, in the amount of said over-flow waters available to said contestees, from the waters herein referred to, arises from the fact that said contestees have failed, neglected, and refused, during the twenty years last past, to keep said ditch, and the area immediately tributary thereto, free from rushes, water cress, and other varieties of swamp vegetation, causing the major portion of the water overflow, at that point to spread and seep away, upon the property of said contestant, E. B. Cochran."

It appears that the contestee, E. B. Cochran, came to Oregon in 1894 although the testimony of the contestee is somewhat conflicting as to the time he first resided upon the property which he

and his wife now own. It appears that from March, 1904, to October, 1905, he resided upon the property now owned by the contestant, J. O. Farr, which was then owned by an aunt of the contestee's, and with some hired help did the farm work on this property. It appears that from the period of 1895 to 1915 contestee was watering on the average about 225 to 250 head of sheep on the property which the contestee now owns. However, the testimony is not definite as to which of the unnamed streams he was depending upon for his supply of water.

The testimony shows that in 1943 contestee, E. B. Cochran, was pasturing about 350 head of sheep and a few head of cattle on the land which he and his wife now own, and that the quantity of water required was from 10 to 20 barrels per day depending upon weather conditions.

There is no definite testimony as to whether contestee or his predecessors in interest used the water flowing in the unnamed stream, the rights of which are being determined herein, prior to 1905, and it appears that the manner in which the contestee could have used the water of the unnamed stream, from and including 1905 to date was by stock drinking directly from the stream as it flows through the lands of the contestee.

Contestees E. B. Cochran and Zulima Cochran, husband and wife, are hereby allowed the right to use 0.01 cubic foot per second from the unnamed stream, the source of which is two springs rising within the NE₄ NW₄, Section 5, Township 9 South, Range 3 West, W. M., for use in watering stock, with a date of priority of 1905. Said right is limited to stock drinking from the channel of said stream from where it enters the land of the contestees, to the junction with the stream flowing from the east upon which weir No. 6 was located. The lands of the claimant are described as follows:

Beginning at the southeast corner of Lewis Pettyjohn D. I. C. No. 39 in Section 4, Township 9 South, Range 3 West, W. M., thence south 60 degrees west along the south line of said D. L. C., 84.4 chains more or less to the east side of the county road, thence north 30 degrees west along the east side of said county road, 1990 feet more or less to the north line of said D. L. C., thence north 60 degrees east along said D. L. C., 84.4 chains more or less to the northeast corner of said D. L. C., thence south 30 degrees east 30.70 chains to the place of beginning.

It is further provided that said contestees shall have the right to construct stock ponds in the channel of said stream to store the water for watering stock or to divert the water allowed herein by means of a pipe line to watering troughs, providing that the overflow from the troughs shall be returned to the stream channel as above described without loss.

Contestees Willard Shelley and Margaret Shelley, husband and wife, filed herein Statement and Proof of Claim No. 3 wherein they assert a right to the use of water from an unnamed stream for watering 10 head of stock with a date of priority of 1866 by appropriation. To said statement and proof of claim, contestant J. O. Farr filed herein Statement of Contest No. 1, the bases of which are above set forth.

It appears that the right asserted in Statement and Proof No. 3 is based upon stock drinking from the stream on claimants' lands, which land is located below the point where the unnamed stream which is formed by the two springs in the $NW_4^!NE_4^!$, Section 5, Township 9 South, Range 3 West, W. M., joins with the unnamed stream flowing from the east.

Contestees Willard and Margaret Shelley have no diversion direct from the unnamed stream rising upon the property of J. O. Farr. The only right that said contestees could establish would be from the unnamed stream which flows through their property and the relative rights to the use of the water of this stream cannot be determined in this proceeding.

The claim of contestees Willard Shelley and Margaret Shelley, husband and wife, to the use of water from the unnamed stream rising upon the property of J. O. Farr is hereby rejected without prejudice.

13.

Contest No. 2

E. B. Cochran and Zulima Cochran, husband and wife, and Willard Shelley and Margaret Shelley, husband and wife,

Contestants,

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J. O. Farr,

Contestee.

Contestee filed herein Statement and Proof of Claim No. 2, wherein he asserts a right to the use of .Ol cubic foot per second of water from an unnamed stream, from a spring rising in the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M., for stock and domestic use with a date of priority of 1900, and a right to the use of said waters at the rate of 1/80th of a cubic foot per second per acre or equivalent for the irrigation of 5.0 acres of land, with a date of priority of 1912. At the time of hearing on this contest the contestee, J. O. Farr, by counsel, amended the Statement and Proof of Claim No. 2 changing the date of priority for irrigation from 1912 to 1900 so as to conform with the evidence. To said claim E. B. Cochran and Zulima Cochran, husband and wife, Willard Shelley and Margaret Shelley, husband and wife, filed herein Statement of Contest No. 2 wherein it is contended:

- "1. That for more than seventy-six (76) years last past these contestants, and their predecessors in interest, have appropriated the waters of said stream from the point at which it enters on the property of Cochran and wife in an amount sufficient to at all times water approximately three hundred (300) head of stock pastured on the Cochran property and twelve (12) head of stock pastured on the Shelley property.
- " 2. That during the months from June to October of each year no other water is available to these contestants for so watering said stock.
- " 3. That contestant J. O. Farr has no rights in and to said water, excepting only the surplus water after existing rights of these claimants have been satisfied to the extent necessary to properly water the stock hereinabove mentioned."

It appears that the only water which the contestee, J. O. Farr, is claiming is a right to use water from the larger of the two springs at the head of the unnamed stream, which is the spring rising in the northeast corner of the $NW_{4}^{1}NE_{4}^{1}$, Section 5, Township 9 South, Range 3 West, W. M.

Water from this spring is diverted at the place where it rises by means of a conduit 4 feet in length, constructed of 8-inch tile, which conveys the water to a small reservoir constructed on the channel leading from the spring, a few feet below where the spring rises. This reservoir is constructed of concrete, the inside dimension of which is as follows: length, 6 feet, 2 inches; width, 5 feet, 3 inches; depth, 2 feet, 10 inches, with a capacity when full of 686.1 gallons. Water from this reservoir is conveyed by means of a pipe line to the place of use in and about the contestee's buildings. The pipe line is of standard steel with a diameter of $1\frac{1}{2}$ inches. The length is about 2,000 feet and the fall from the water surface in the reservoir to the place of use is approximately 300 feet. The capacity of the pipe line, measured with the valves open at the lower end, is approximately 29.0 gallons per minute. When the reservoir is full the overflow is returned to the channel of the unnamed stream at the reservoir.

The water for irrigation during the years 1941 and 1942 was applied by means of two sprinklers with a combined capacity of 12 gallons per minute. Prior to the beginning of the irrigation season of 1943 the two smaller sprinklers were replaced by two No. 40 Rainbird sprinklers. The combined capacity under working conditions was about 9.0 gallons for each sprinkler or 18.0 gallons per minute for the two.

In said Statement and Proof of Claim No. 2 the land claimed as irrigated is 5.0 acres. The maps made from a survey of the lands under the direction of the State Engineer, which were accepted by the contestee, show that the area irrigated by the contestee in 1942 was 3.6 acres.

It appears that in the fall of 1894 a reservoir constructed of lumber was built at the place where the concrete reservoir above described is located and a pipe line was installed to convey water from the reservoir to the building on the property now owned by the contestee, and water from this source was used in the irrigation of a small garden in 1895. That in 1910 and 1911 water conveyed through the pipe line was used for the irrigation of about 2.0 acres of the land now owned by the contestee. That from the spring of 1914 to the time of hearing of this contest about the same area was irrigated each year as was irrigated in 1942 and 1943, which appears was about 3.6 acres.

From the records of operation of the sprinklers by the contestee, J. O. Farr, the following is noted:

That no water was used for irrigation in 1943 prior to July 6. That during the month of July, 1943, in which the precipitation was 0.32 of an inch, or 0.09 of an inch less than normal, the sprinklers were operated 577.75 hours. With a discharge of 9 gallons per sprinkler minute, the quantity of water used was 0.957 acre-feet. Assuming this was applied uniformly to 3.6 acres of land, the quantity used would have been 0.266 acre-feet per acre. That during the month of August, 1943, in which the precipitation was 2.14 inches, or 1.70 inches above normal, the sprinklers were operated 536.5 sprinkler hours. With a discharge of 9.0 gallons per sprinkler minute the quantity of water used was 0.889 acre-feet. Assuming that this quantity was applied uniformly to 3.6 acres, the quantity used would have been 0.247 acre-feet per acre.

That during the month of September, 1943, in which the precipitation was 0.06 of an inch, or 1.67 inches below normal, the sprinklers were operated 425 sprinkler hours. With a discharge of 9.0 gallons per sprinkler minute the quantity used was 0.728 acre-feet or 0.202 acre-feet per acre if applied uniformly to 3.6 acres.

That during the irrigation season of 1943, not including July 6, the sprinklers were operated 1658 sprinkler hours. With a discharge of 9.0 gallons per sprinkler minute the total quantity used by the contestee, J. O. Farr, in the irrigation of 3.6 acres was 2.82 acre-feet or 0.783 acre-feet per acre if applied uniformly to the 3.6 acres.

That of the 1658 sprinkler hours 1323 were used in the irrigation of land growing clover, the area of which appears to have been about 2.5 acres. With a discharge of 9.0 gallons per sprinkler minute the total quantity used in the irrigation of clover during the 1943 irrigation season was 2.193 acre-feet or about 0.877 of an acre-foot per acre if applied uniformly to the 2.5 acres growing clover.

While the records as to the area of land irrigated by the predecessor of the contestee prior to 1914 are not definite, it appears that the evidence is such that the doctrine of relation can be applied.

Contestee, J. 0. Farr, is hereby allowed a right to the use of 12.0 gallons of water per minute, for a period not to exceed 16.0 hours in any one day, and not exceeding a total of 0.96 acre-foot during any calendar month from the spring at the head of the unnamed stream rising near the northeast corner of the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M., and storage reservoir described herein, for the irrigation of 3.6 acres of land with a date of priority of 1894. Said contestee is also allowed a right to the use of 4.4 gallons per minute from said spring and reservoir for domestic use in contestee's residence and for watering stock, with a date of priority of 1894. The total quantity of water to which said contestee is entitled to divert during any irrigation season for the irrigation of 3.6 acres of land, as described herein, shall not exceed 3.6 acre-feet.

It is further provided that contestee, J. O. Farr, shall have the right, subject to the maximum rate of use, time of use, and quantity to be used during any calendar month and irrigation season as fixed herein, to use water as allowed herein for the irrigation of a smaller area provided that the quantity does not exceed 1.5 acre-feet per acre during any calendar month and two acre-feet per acre during any irrigation season.

The water allowed to the contestee, J. O. Farr, shall be diverted and conveyed in a pipe line as has been the practice and he, his heirs and successors in interest shall operate and maintain the pipe line and reservoir so as to prevent all waste and when water is not being used the water from the reservoir shall be returned to the stream at the reservoir. The period of time for the use of water for irrigation shall not include the time necessary to fill the reservoir with a capacity not exceeding 686.1 gallons.

The contestee, under the direction of the watermaster, shall install at his expense meters or measuring devices to determine the quantity that is being diverted and the total quantity diverted during any irrigation season.

Following is a description of the land to which the water right allowed herein to contestee J. O. Farr is appurtenant. That part of the following described tract located north and east of the highway and also within the SW4SW4NE4, SE4SE4NW4, NW4SW4, and NW4NW4SE4, Section 5, Township 9 South, Range 3 West, W. M., as the forty-acre tracts are shown upon the maps prepared under the direction of the State Engineer and a part of the record in these proceedings:

Beginning at a point on the south line of the Joseph Cox D. L. C. No. 38 in Section 5, Township 9 South, Range 3 West of the Willamette Meridian where the same intersects the Easterly line of the right of way of the Oregon Electric Railway; thence running north 60°26' East along the said south line of the said Joseph Cox D. L. C.; to a point where the same intersects the east line of said section 5; thence north along the said east line of said Section 5, 29.84 chains to the northeast corner of said Section 5; thence westerly along the north line of said section 5, to a point thereon 608.22 feet east of the quarter section corner on the said north line of said section 5; thence south 9°12' East 529.74 feet to a point; thence south 52°43' West 281.86 feet to a point; thence south 38°42' West 383 feet to a point; thence south 9°12' West 560 feet more or less to a point on a line running south 60°26' West from a point on the east line of said section 5, 84 links south of the northeast corner thereof; thence running south 60°26' West along said line to a point on the east line of the right of way of the Oregon Electric Railway; thence south along the said easterly line of said railroad right of way to the place of beginning, together with a right of way for a roadway one rod wide and along a southwesterly extension of the center line of the present county road running along the south line of the said Joseph Cox D. L. C. No. 38 said right of way to extend from the said county road to the Willamette River; saving and excepting from said tract, one half acre of ground deeded to School District No. 37 Marion County Oregon for a cemetery and burial place; which deed is recorded in book 21 of the deed records of Marion County, State of Oregon, on page 162, thereof and also saving and excepting therefrom an additional half acre of ground lying directly east of and adjoining the same which is to be also used for cemetery and burial purposes, which deed is recorded in book 147 page 575 of the deed records of Marion County, State of Oregon. All the above land situate in Marion County, State of Oregon.

14.

DIVERSIONS GOVERNED BY PRIORITIES AND BENEFICIAL USE.

The order of the rights of the respective claimants of water of the unnamed stream the source of which is the two springs rising within the NW4NE4, Section 5, Township 9 South, Range 3 West, W. M., and in which order they are entitled to divert and use said water, shall be and is according to the date of the relative priority of the rights as herein set forth and determined, and the first in order of time according to the date of relative priority shall be and is the first in order of right, and those having prior rights are entitled to divert and use the water of said unnamed stream and springs when necessary for beneficial use in connection with the irrigation of their respective land, or other beneficial uses, as allowed herein, and when the water is not required by the claimant having a prior right to its use, for the purpose for which said water was appropriated, he must and shall permit it to flow down the natural channel of the stream so those having subsequent rights can use the same.

RECORDS OF FLOW OF WATER.

Nine weirs were installed in 1943, six upon the unnamed stream rising upon the property of J. O. Farr, one upon the unnamed stream flowing from the southeast and forming a confluence with the aforesaid unnamed stream on the Cochran property, and two upon the channel below the junction of the aforesaid unnamed stream. The location of these weirs which are designated as Weirs Nos. 1, 2, 3, 4, 5, 5a, 6, 7 and 8 are shown upon the map made a part of the reports prepared by Geo. V. Naderman, Assistant State Engineer, which report is made a part of the records in this proceeding. The records of the flow of water at these weirs are also included in said reports.

An automatic recorder was installed at Weir No. 5 from which a continuous record, except for short periods, was secured from June 6 to October 13, 1943, of the water flowing over this weir. The flow of water in gallons per minute for each hour, secured at Weir No. 5 by the automatic recorder, is shown on the hydrograph included in Mr. Naderman's report, dated November 2, 1943. The records secured at the other eight weirs are shown on pages 3A and 4 of said report.

The records secured at Weir No. 6, which shows the flow of water of the unnamed stream flowing from the east and forming a confluence with the unnamed stream rising on J. O. Farr's property, on the property of E. B. Cochran and wife, show that the flow from May 7 to June 29, 1943, varied from about 246 to 15 gallons per minute. That from July 8 to October 13, 1943, the quantity of water flowing in the spring from which J. O. Farr secures water for domestic, stock and for irrigation is shown in the table on page 3A and 4 of Geo. V. Naderman's report, dated November 2, 1943, under the column headed "Total Flow", and the flow of the other spring is shown in said table on pages 3A and 4 under the column headed "Weir No. 2".

From the hydrograph and records included in Mr. Naderman's reports of the flow of water in the unnamed stream rising on J. O. Farr's property the following is noted:

That the combined flow of water of the two springs rising within the NW¹/₄NE¹/₄, Section 5, Township 9 South, Range 3 West, W. M., on September 1, 1943, was 21.85 gallons per minute and on September 4, 1943, 21.41 gallons per minute.

That the minimum daily flow at Weir No. 5 on August 31, 1943, was about 5.4 gallons per minute, on September 1, 1943, about 4.8 gallons per minute, and on September 2, 1943, the minimum flow was about 3.8 gallons per minute. That no water was used for irrigation from noon August 30, 1943, to 7:00 a. m. September 4, 1943.

From these measurements it is seen that the loss of water between the two springs, at the places where the water was measured, and Weir No. 5 was between 16 and 18 gallons per minute.

That on September 18 and 22, 1943, the combined flow of the two springs was 19.89 gallons per minute.

That on September 20, 1943, the minimum flow at Weir No. 5 was about 1.4 gallons per minute.

That no water was used for irrigation from 9:00 p. m. on September 19, 1943, until 10:00

a. m. on September 21, 1943.

From these records the maximum daily loss of water between the two springs, at the place of measurement, and Weir No. 5 was about 18.5 gallons per minute.

That on October 2 and 6, 1943, the flow of the two springs at the places of measurements was 19.89 gallons per minute.

That the minimum daily flow at Weir No. 5 on October 4, 1943, was about 1.5 gallons per minute and the minimum daily flow on September 5, 1943, was about 1.0 gallon per minute. That no water was used for irrigation between 9:00 p. m. on October 3, 1943, and 10:00 a. m. on October 6, 1943. From these measurements it is seen that the maximum daily loss of water between the two springs at the places of measurements and Weir No. 5 was about 18.0 gallons per minute.

The records show that the flow of water in the channel of the unnamed stream, the source of which is the two springs rising within the NW¹/₄NE¹/₄, Section 5, Township 9 South, Range 3 West, W. M., between Weir No. 5 and Weir No. 5a, on the property of E. B. Cochran and Zulima Cochran, husband and wife, is small.

From the above it is believed evident that within the channel of the unnamed stream from its source to Weir No. 5, as it was in 1943, during the summer months when the weather was hot and dry and if no water was being diverted for irrigation, the largest portion would be lost above the place where Weir No. 5 was installed.

The records indicate that the loss of water of the unnamed stream which rises upon the property of J. O. Farr between Weir No. 5 and Weir No. 5a, or upon the Cochran property, was very small.

It appears that at different times a channel has been opened up through the swamp or wet area, referred to herein, but no work has been done to maintain the same. J. O. Farr, the owner of the land upon which the swamp is located, stated at the time of hearing of the contests that several times he had granted E. B. Cochran permission to enter upon his land to improve the entire channel and to aid in this work. That this permission and offer to assist in the work was a continuing offer.

The authority of the State Engineer to make a definite Finding upon a matter of this nature is questionable. Therefore, the improvement of the channel so as to eliminate excessive losses is referred to the Court for determination.

Dated at Salem, Oregon, this 2nd day of February, 1944.

Chas E Shuhhmi CHAS. E. STRICKLIN

State Engineer