

*Return to
Shamberger*

IN THE MATTER OF APPLICATIONS NOS.)
12589 TO 12593 INCLUSIVE FILED BY :
MULLER BROTHERS IN LYON COUNTY, :
NEVADA.)

RULING

Application Nos. 12589 to 12593 inclusive were filed by Muller Brothers on August 21, 1948 and on October 11, 1948 protests were filed under each of the applications by C. B. Burkham and Ambro Rosaschi, Jr. A brief description of these applications is as follows:

Application No. 12589 to appropriate 2.0 c.f.s. from spring seepage areas Nos. 2 and 3 at points within the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 9, T. 7 N., R. 25 E. for irrigation on 160 acres of land within portions of Sections 9 and 16 of said township and range.

Application No. 12590 to appropriate 0.50 c.f.s. of water from spring seepage area No. 1 at a point within the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 9, T. 7 N., R. 25 E. for the irrigation of 60 acres of land within said Section 9.

Application No. 12591 for 1.0 c.f.s. of water from spring seepage area No. 4 at a point within the NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 16, T. 7 N., R. 25 E. for the irrigation of 80 acres within portions of said Section 16.

Application No. 12592 to appropriate 2.0 c.f.s. of water from spring seepage area No. 5 at a point within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 9, T. 7 N., R. 25 E. for the irrigation of 100 acres of land within portions of Sections 9, 10, 15 and 16 of said township and range.

Application No. 12593 to appropriate 2.0 c.f.s. of water from spring seepage area No. 6 at a point within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 16, T. 7 N., R. 25 E. for the irrigation of 100 acres of land within portions of Sections 15 and 16 of said township and range.

The protests to the granting of permits under these applications were based upon the following grounds:

"That the granting of said application would invade and impair the prior vested and existing rights of protestants and each of them. That there is no unappropriated water in the source. That the source applied for is and always has been a tributary of Sweetwater Creek and East Walker River, the waters of which have been adjudicated by Decree in the United States District Court for the District of Nevada, In Equity No. C-125, in which an injunction has been issued, which said decree is made a part hereof by reference. That the use of the waters proposed is in violation of said decree in which the predecessors of

applicants were parties, and the applicants are subject to the penalties provided in said decree for violation of its terms."

On April 14, 1949 a hearing was held on these applications at Carson City, Nevada. Appearances were as follows:

For the Applicant - Mr. Richard Hanna,
Attorney at Law,
Carson City, Nevada.

Mr. Francis Brown, Foreman

Mr. Walter G. Reid, Engineer

For the Protestants - Messrs. Kearney & Adams,
Attorneys at Law, by Robert T. Adams,
Reno, Nevada.

Mr. Cecil B. Burkham, Protestant

Mr. Ambrose Rosaschi, Jr., Protestant

For the State Engineer - Hugh A. Shamberger,
Assistant State Engineer, and

Edmund Muth,
Deputy State Engineer

Following the hearing, and on June 4, 1949, and by stipulation of respective counsel the deposition of Tom Williams, a witness for protestants, was taken at Reno, Nevada.

A copy of the transcript of the hearing on April 14th, and the transcript of the deposition of Tom Williams are of record in the Office of State Engineer.

On May 9, 1949 a field investigation was made on the applications by Hugh A. Shamberger and Edmund Muth of the Office of State Engineer, in company with protestants and representatives of the applicant. Again, on September 14th, another field investigation was made by Hugh A. Shamberger, Assistant State Engineer, who was accompanied by T. W. Robinson of the United States Geological Survey. Neither the applicant or protestants were represented on the latter investigation.

The applicants, Muller Brothers, are the owners of the former Yparraguirre Company property on Sweetwater Creek in Lyon County. A certain acreage within this holding has been decreed water rights from Sweetwater Creek, a tributary of the East Fork of the Walker River by Decree in the United States District Court for the District of Nevada, in Equity No. C-125.

Protestant Ambro Rosaschi, Jr. is the owner of the former W. H. Roach property which joins the Muller Brother's property on the south and which also has decreed water rights on Sweetwater Creek. Protestant C. B. Burkham is the successor of the Patrick J. Conway holdings on Sweetwater Creek, and also the Agnes R. Compston property, both lying southerly from the Rosaschi property and also having decreed water rights from Sweetwater Creek.

The only other property having decreed water rights on Sweetwater Creek is the Dellamonica and Sciarani property which apparently receives water from Green Creek, a tributary of Sweetwater Creek. This property joins the Muller property on its north, and the Rosaschi property on its east. Protestant Rosaschi testified that he receives the waste water from the Atcheson place (Dellamonica and Sciarani) and that he has a small water right on Green Creek.

The decreed water rights as between the applicant and protestants and as shown in said Decree, In Equity No. C-125, are as follows:

Burkham, C. B., Successor to
Patrick J. Conway,

Sweetwater	1860	1.92	120	N $\frac{1}{2}$ of NW $\frac{1}{4}$, SE $\frac{1}{4}$ of NW $\frac{1}{4}$, SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Sec. 23; T. 7 N., R. 25 E. East 24.5 acres of S $\frac{1}{2}$ of NW $\frac{1}{4}$ of Sec. 30; T. 7 N., R. 26 E.
Creek	1861	1.28	80	

Douglas County Farmers Bank,
Successor to Agnes R. Compston,
(Now C. B. Burkham)

Sweetwater	1861	4.00	250	SW $\frac{1}{4}$ of NW $\frac{1}{4}$, SE $\frac{1}{4}$ of NE $\frac{1}{4}$, Sec. 23; S $\frac{1}{2}$ of NW $\frac{1}{4}$, N $\frac{1}{2}$ of SW $\frac{1}{4}$, NW $\frac{1}{4}$ of SE $\frac{1}{4}$, SE $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 24; NE $\frac{1}{4}$, E $\frac{1}{2}$ of SE $\frac{1}{4}$, SW $\frac{1}{4}$ of SE $\frac{1}{4}$, Sec. 25; T. 7 N., R. 25 E. S $\frac{1}{2}$ of NW $\frac{1}{4}$, less the East 24.5 acres, Sec. 30; T. 7 N., R. 26 E.
Creek				

Roach, W. H.
(Now Ambro Rosaschi, Jr.)

Sweetwater	1860	2.24	140	N $\frac{1}{2}$ of SW $\frac{1}{4}$, SE $\frac{1}{4}$ of SW $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 15; NE $\frac{1}{4}$, NE $\frac{1}{4}$ of NW $\frac{1}{4}$, Sec. 22; T. 7 N., R. 25 E.
Creek	1870	1.20	75	
	1885	.48	30	

Williams, Thos., Successor to
John F. Yparraguirre, et al,
(Now Muller Brothers)

Sweetwater	1861	5.12	320	N $\frac{1}{2}$ of Sec. 7; E $\frac{1}{2}$ of SW $\frac{1}{4}$,
Creek	1865	2.56	160	Sec. 7; SE $\frac{1}{4}$ of Sec. 7;
	1870	1.30	81	S $\frac{1}{2}$ of Sec. 8; All of
	1880	5.12	360	Sec. 9; SW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec.
	1885	5.12	360	10; W $\frac{1}{2}$ of NW $\frac{1}{4}$, Sec. 15; N $\frac{1}{2}$ of Sec. 16; SW $\frac{1}{4}$ of Sec. 16; N $\frac{1}{2}$ of SE $\frac{1}{4}$, Sec. 16; All of Sec. 17; N $\frac{1}{2}$ of NE $\frac{1}{4}$, SE $\frac{1}{4}$ of NE $\frac{1}{4}$, Sec. 18; Lots 9, 10, 11, 12, 13, 14 and 15 in Sec. 18; T. 7 N., R. 25 E. Lots 1 and 2 in Sec. 19; Lot 4, Sec. 18; SE $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 18; T. 7 N., R. 25 E.

The main trouble occurs when only the 1860 priorities or when both the 1860 and 1861 priorities only are being served. Under the Decree, the Burkham (Conway) and Rosaschi (Roach) properties are entitled to the first 4.16 c.f.s. of water. Up and to the time these properties can be served with this amount of water, there is no water available to the Muller Brother's property from Sweetwater Creek. When these 1860 rights are being served, any excess comes under the 1861 priority and the Burkham properties are entitled to 5.28 c.f.s. and Muller Brother's property to 5.12 c.f.s. A total of 14.56 c.f.s. is necessary to serve the 1860 and 1861 rights of these parties. The next 2.56 c.f.s. is appurtenant to the Muller Brother's property under a 1865 priority and above this the 1870 priorities of the Rosaschi and Muller Brothers can be served.

In 1940 the United States Soil Conservation Service mapped the lands on the Muller Brother's ranch and prepared a farm plan. The Land Use Map shows the existing ditches at the time of the survey as well as proposed ditches; the Conservation Map shows the land classifications. We availed ourselves of this information.

Some time prior to 1940 a ditch was constructed apparently with the idea to change the course of Sweetwater Channel some 13,000 feet, mostly through the Muller Brother's property. The idea of such change, as we understand it, was to confine the water to a better channel in order to save water lost by spreading along the old channel. This point of diversion of this ditch is in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 12, T. 7 N., R. 24 E. Its course is more or less parallel to the old channel and is about 900 feet northerly and connects with the old channel of Sweetwater Creek about 150 feet southwesterly from the section corner common to Sections 8, 9, 16 and 17, T. 7 N., R. 25 E. The main diversion point of the Muller Brothers from Sweetwater Creek is from this ditch at a point within

the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 8 or about 1900 feet from where it connects with the old channel of Sweetwater Creek as heretofore described. From this diversion point the main ditch runs eastward about 1000 feet where it splits, one ditch running northerly and the other southeasterly. Various small irrigation ditches convey water throughout the irrigated pasture lands. In general the pattern of the ditches, as shown on the Land Use Map, conforms to the testimony.

Within the irrigated areas of the ranch there are a number of marshy or swampy areas. In the applications filed, these areas are referred to as "spring seep areas". The five applications cover six such areas and the proposed plan as set forth in the testimony of applicant is to dig out shallow ponds at the lower end of each such area and construct drains which would convey the water to such ponds from whence water would be rediverted and spread. By so doing, the marshy or spring seep areas would be drained, making them useable for pasture, and at the same time a better and more palatable type of forage could be grown. The Conservation Survey Map of the Soil Conservation Service outlines these spring seep areas and has indicated them by the symbol "P₂W" which the Legend on the map describes as "wet pasture". The areas of the wet pasture land in relation to the proposed points of diversion are herewith given:

Application No.	Source Spring Area No.	Location T.7 N., R.25E.	Amt. applied for - c.f.s.	Approximate area in acres
12589	2 and 3	SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 9	2.00	7.0
12590	1	NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 9	0.50	4.3
12591	4	NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 16	1.00	26.1
12592	5	SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 9	2.00	8.3
12593	6	NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 16	2.00	4.3
				50.00

These areas are shown on the map filed in support of said application and which has been designated as Exhibit A-1. It is to be noted that the total acreages covered by the wet pasture is approximately 50 acres. In addition there is a considerable peripheral area outside of each marshy area where the water table is near the ground surface and from whence there would be evapo-transpiration. Subsequent to 1940 when the Soil Conservation Map was made, and following out certain recommendations of the Soil Conservation Service, surface drain ditches were constructed and the drain ditch that runs by the buildings to Sweetwater Creek was deepened. This work resulted in some drainage from these wet or marshy areas and subsequent drying up of portions of the areas. It is therefore quite likely that the area of the wet surface is less than it was in 1940.

NATURE OF SPRING AREAS:

The applications are to appropriate water from spring seepage areas and in each application such areas are all designated by a

number. A brief description of the nature of these so-called spring seepage areas is herewith given.

As indicated, the spring areas vary in size. Throughout these areas the water table is at the surface, or very close to the ground surface. It is impossible to walk across them without sinking in and by jumping on the small spring mounds within the areas the surrounding area for some few feet will rise and fall. In fact, such areas are similar to floating islands. As we get away from the marshy surface, indications on the ground are that for some distance the water table is very near the surface as evidenced by the water grass growing.

Spring Area No. 1

This area is the furthestest one north and is about 1400 feet northerly from Area No. 3. The same conditions are in evidence as at No. 3. Protestant's witness, Williams, testified that the surface flow from this area was small and would only fill a 1/2 inch pipe line.

Spring Areas Nos. 2 and 3

These areas are located about 700 feet apart. Protestant's witness, Williams, testified that there were very small flows from these areas and that a 4 inch pipe line was laid from Spring Area No. 3 to the house for a domestic supply and that when the valve was opened at the ranch buildings, the pipe would soon drain and only a small amount would come through. In recent years a number of small surface ditches were constructed to spread the water, and indications are that the water table was lowered and portions of the marshy area dried up. There still remains a considerable area that is boggy.

Spring Area No. 4

This area is located near Sweetwater Creek and Protestant's witness, Williams, testified that the surface flow from the area was very small and if it were not used on a small irrigated area it would flow directly into Sweetwater Creek.

Spring Area No. 5

This area is about 1600 feet northwesterly from Spring Area No. 6 and is in the same drain but at a higher elevation. Some small ditches have been constructed to convey water from the marshy area and spread it. Witness Williams for protestants stated that a small amount of water flowed from this area down by Spring Area No. 6. Indications are that prior to the small drain ditches, a much larger area between the areas Nos. 5 and 6 was marshy.

Spring Area No. 6

This area lies a few hundred feet westerly of the Muller Brother's buildings and is the location of the so-called "Fish Pond" mentioned in the transcript and from whence pumping is now being done. This area is near the lower end of a long draw running northwesterly and southeasterly. The draw extends nearly a mile and is about 700 to 900 feet in width. Muller Brothers developed two ponds at this point. The upper one, called the "Fish Pond" is about 200 feet in length along the axis of the draw and varies in width from 15 to 30 feet, with a depth below ground surface of about 3 feet. At the lower end is a headgate through which water can be passed to a circular pond which is about 100 feet in length and 50 feet wide, and about 4 feet deep, and which is a couple of feet lower in elevation. When the Fish Pond fills up, the water is run into the lower pond. A centrifugal pump having a capacity of about 200 g.p.m. pumps water from the lower pond through pipelines to a sprinkler system for a few acres of ground westerly of the pond. According to Mr. Brown, the Muller Brother's foreman, it takes about six hours to pump the pond down and the balance of the 24 hour period to gather enough water in the Fish Pond to refill the lower pond. At this rate, the pumpage would approximate about 0.22 acre-feet per day. On my visit on September 14th the pump was operating and the gate closed on the lower pond. However, the ditch that runs by the buildings was conveying drain water from the east side of the drain to Sweetwater Creek.

The locations of the proposed point of diversion from the spring areas in relation to Sweetwater Creek are as follows:

Spring Area No. 1 about 3000 feet northerly,
Spring Area No. 2 about 1700 feet northerly,
Spring Area No. 3 about 1800 feet northerly,
Spring Area No. 4 about 300 feet northerly,
Spring Area No. 5 about 3000 feet northerly, and
Spring Area No. 6 about 1500 feet northerly.

SOURCE OF WATER:

The origin of the waters forming these boggy areas could be definitely ascertained only by a detailed geological and engineering study. We do, however, feel that we have sufficient information so as to be reasonably correct in our assumptions.

The log of a test boring made by the Soil Conservation Service shows the following formations:

0 inches to 18 inches - Black, mucky fine sandy loam
18 inches to 30 inches - Clayish black fine sand
30 inches to 48 inches - Coarse sands and gravel

Investigation on the ground showed that the "black, mucky fine sandy loam" in the upper 18 inches was composed largely of a peaty material. Such material is formed from partial decomposition in water of various plants and is semicarbonized vegetable tissue. This indicates that untold ages ago these areas were wet. It is no doubt a fact that surface drainage water from irrigation of higher lands does influence the areas to some extent but the important fact is that irrigation waters did not cause them and it is doubtful in our minds that irrigation water has much effect on them.

The original source of the waters in these marshy areas is no doubt the watershed contributing to this area. There is quite a large watershed on both sides of the valley and in addition to the water contributed by the Sweetwater Creek drainage, there are a number of canyons northward from Sweetwater Creek that contributes water to the area.

It would appear that the main source of the water in Spring Seep Area No. 4, which is the nearest to Sweetwater Creek comes from the Sweetwater Creek fan. As the water of this creek debouches from the mountains, some of it sinks in the fan materials and rises in the spring seep area. This assumption is indicated by the fact that the gravel found over Area No. 4 has the same orange colored iron stain as appears on the rocks in the creek channel.

MOVEMENT AND PRESENT USE OF WATER APPLIED FOR:

Water from the tributary watershed percolates downgrade through sand and gravel formations which, as indicated by the log of the bore hole, lies below the clay material. This water is under artesian pressure and no doubt in some instances where the confining bed, which is in part the clayish fine sand but largely the black muck, is thin and incompetent the water has broken through to the surface. The artesian pressure is probably not large, otherwise larger flows would be expected at the land surface. The spring discharge marks the discharge point of the conduits. The movement of the water is so slow that at no time does it appear there was sufficient water at the surface to cause a runoff without man-made ditches. Over each spring area there is no doubt many of these small conduits. Drain ditches intercepting the flow in these conduits would have the effect of lowering the hydrostatic head and the flow in the drain would be larger than the amount of water originally reaching the surface in that locality.

Evidence of the upward movement of water in "conduits" can be seen on the ground. At one location, between Areas Nos. 5 and 6, a small spring area was noted on a ditch bank. On one side, and not over 6 feet distant, there was a ditch about 4 feet deep and on the other side the slope fell off gradually. The water reaching the ditch from the spring rose to the surface on top of the ditch bank and then flowed down into the ditch. There was no evidence of any drainage from beneath the ground surface into the ditch at this point. Another example was noted at the upper end of the so-called "Fish Pond" in Spring Seepage Area No. 6. At this point the

water rises from a definite conduit or tube and for several feet around white sand can be seen. This no doubt is one of the main sources of the water collecting in this pond. This appears to be the general characteristic of the entire seepage area.

It is our opinion that very little water ever reached Sweetwater Creek from these spring areas by sub-drainage and the water now reaching Sweetwater Creek is surface drainage through man-made ditches which, with the exception of the ditch by the buildings, have been made in recent years.

The waters in these spring areas are to a great extent being lost by evaporation and transpiration. The transpiration loss is from water-loving plants that do not have any great food value. It is the intention of applicant, as appears from the applications and testimony, to collect the waters from these areas in a shallow pond at the downhill side of the spring areas and then to spread the water by means of ditches and in this way be able to raise a better type of grass, and at the same time make the so-called spring areas available for pasture.

To determine the loss of water from surface or near surface evaporation and transpiration from the water grass would take a great deal of experimental work over a period of many months. We can arrive at a figure by comparing it with other similar areas where such studies have been made.

Duty of water studies made by the Division of Water Resources in the high mountain valleys of northeastern California indicate that the net use of water for meadow pasture irrigation for a season extending from April 15th to September 30th is in the order of 2.66 acre-feet per acre. Replacing the present type of grass with a more palatable grass would consume about the same amount of water. In other words, if the water was drained from the marshy areas and used on lower grounds for the raising of a more suitable grass, the net use of water, as far as transpiration is concerned, would be about the same. Evaporation losses would no doubt be less due to the fact that the water would be collected in a pond of small areas compared to the area of the marshy ground and the spreading of the water over a larger area. Thus it would appear that more water would be made available for beneficial use.

Evaporation studies at Lake Tahoe indicate that the April through September evaporation is in the order of 27 inches. This applies to a free water surface and it would be safe to assume that in the marshy areas under consideration, the evaporation would be about 24 inches or 2 acre-feet per acre. In the peripheral area surrounding the spring seep areas where the water level is near the surface, the evaporation loss would vary from 24 inches to 0 inches at about 3 feet below the surface. Under the proposed plan, ditches would be constructed to collect the surface and near surface water and convey such water to a small collecting basin from where the water would be spread, the result being to lower the water level in and adjacent to the marshy areas, thus restricting evapo-transpiration. There would still be evapo-transpiration losses

but they would be minimized and the water placed to a higher beneficial use. Such waters would be developed waters that heretofore have been lost.

The waters that rise to the surface in these spring areas are in principal, artesian waters. If drains intercept the water on its way to the surface the pressure is reduced and the immediate effect at least would be to cause a larger flow in the drains than originally reached the surface.

The amount of water that could be collected in the proposed ponds could not be ascertained until development is completed. However, in the pond at Spring Area No. 6 the applicant testified that his pump, with a capacity of 200 g.p.m., would pump the lower pond down and it would then take the balance of the day to refill. This means that in his development of Spring Area No. 6 which is about complete, he can pump out 0.225 acre-feet per day. During a seven month season the draft would be about 47 acre-feet. The effect of the past few dry years on the amount of water available would be impossible to determine without prolonged studies.

It is thought that the evapo-transpiration losses in the marshy areas would be in the magnitude of about 5 acre-feet during the growing season. How much of this water could be intercepted and drained depends on the effectiveness of the drain system. On the assumption that the recovery would be 80% it would mean that 4 acre-feet of water could be collected from each acre of marshy ground and impounded in the small ponds. In addition, there is a peripheral area outside of the marshy ground in which the water table is close to the ground surface and which would be subject to evapo-transpiration. The size of this area and the loss due to evapo-transpiration is unknown.

CONCLUSIONS:

1. The source of the water applied for is ground water which is subject to appropriation.

2. The original source of the water applied for is from precipitation on the watershed lying to the west, north and east of the Muller Brothers ranch and is not to be confused with the water in Sweetwater Creek. The water collecting in the proposed ponds may be influenced by the inflow of waste irrigation water.

3. That the use of excessive irrigation water may increase the water content in these spring seep areas. Water used from Sweetwater Creek in excess of the decreed right, if such be the case, is a matter of regulation by the proper authorities and is not germane to this proceeding.

4. That the development and use of the underground water applied for would not have any measurable or appreciable effect on the flow of Sweetwater Creek.

5. That the amount of water applied for at the various points is in excess of the amount that could be developed in the manner set forth in the applications.

6. No permit is necessary to collect and reuse irrigation water already appropriated on the property to which it is appurtenant. Neither is it necessary to secure a permit for drainage purposes as a person has the right to improve his property. In the present case, the applicant desires to use such drainage water.

7. In determining the amount of water that can be appropriated under each application, and in the absence of more exact data, we will assume that 4 acre-feet can be recovered from each acre within the marshy areas, and an equal amount can be recovered from the peripheral area outside of the marshy ground. The recovery at Spring Seep Area No. 6 will be based on present development with allowance for a small increase.

8. It is the policy of this office to encourage, rather than to discourage, measures taken to prevent waste or to increase the effective use of water where such use has no measurable or appreciable effect on existing rights.

RULING:

From the foregoing reasons, the following action is taken:

Application No. 12589 - Spring Seepage Area Nos. 2 and 3.

The protest to the granting of a permit is overruled and a permit will be granted in the amount of 0.25 c.f.s. and not to exceed 56 acre-feet between March 1st and September 30th of each year and for domestic use the year around.

Application No. 12590 - Spring Seepage Area No. 1.

The protest to the granting of permit is overruled and a permit will be issued in the amount of 0.25 c.f.s. and not to exceed 34 acre-feet between March 1st and September 30th of each year.

Application No. 12591 - Spring Seep Area No. 4

The Soil Conservation map shows some 26 acres of wet pasture in the vicinity of where the proposed point of diversion is indicated. Surface drain constructed subsequent to 1940 has tended to reduce this area and also it appears that the mapped area includes lands that couldn't be drained from the proposed point of diversion. The amount of water that could be developed would be

in about the same order as at Spring Seep Area No. 5.

The protest to the granting of a permit is overruled and a permit will be issued in the amount of 0.25 c.f.s. and not to exceed 66 acre-feet between March 1st and September 30th of each year.

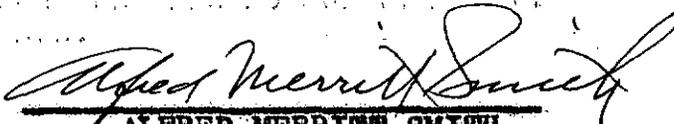
Application No. 12592 - Spring Seepage Area No. 5.

The protest to the granting of a permit is overruled and a permit will be issued in the amount of 0.25 c.f.s. and not to exceed 66 acre-feet between March 1st and September 30th of each year.

Application No. 12593 - Spring Seepage Area No. 6.

The protest to the granting of a permit under this application is overruled and a permit will be issued in the amount of 0.5 c.f.s. and not to exceed 60 acre-feet between March 1st and September 30th of each year.

Respectfully submitted,


ALFRED MERRITT SMITH
State Engineer

Dated October 17, 1949.