

IN THE MATTER OF APPLICATION NO. 14244 )  
FILED IN NAME OF EVA KERR TO APPROPRIATE :  
UNDERGROUND WATER FOR IRRIGATION PURPOSES, : RULING  
WHITE PINE COUNTY, NEVADA. )

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Application No. 14244 was filed April 22, 1952 by Eva Kerr to appropriate 2.0 c.f.s. of ground water for irrigation purposes. The proposed point of diversion is given as being within the SE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 7, T. 17 N., R. 63 E. and the land to be irrigated, in the amount of about 120 acres, is located within the SE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 7 and S $\frac{1}{2}$  NW $\frac{1}{4}$  Section 8 of said township and range.

Notice of the application was duly published in the Ely Record, a newspaper published in White Pine County, for the requisite period of time and on October 13, 1952 an informal protest was submitted by the City of Ely through N. E. Broadbent, Mayor of said city.

The protestant stated the application could "be granted subject to prior rights and grazing privileges of the Georgetown Ranch and contingent upon the unaltering of the natural flow of the Hercules Gap Spring".

On April 21, 1952 a field investigation was had on this application. Mr. DeRicco, Field Deputy State Engineer was accompanied by R. R. Gill, attorney for the City of Ely and the City Water Board, and by Frank Millard, acting City Engineer. It was the recommendation that no action be taken until the Bureau of Land Management was ready to grant the applicant's desert land application, and until a geological study was made to determine whether or not there would be any interference on protestant's prior rights on Hercules Gap Spring.

We have been advised by the Nevada Land and Survey office of the Bureau of Land Management that a favorable field report was made on applicant's desert land application, and that it will be allowed.

During February, 1953, another field investigation was made by H. E. Winchester, geologist and hydrologist of the State Engineer's office. His report, submitted March 4, 1953, recommended approval of Application No. 14244. In describing the geology of the area the report set forth as follows:

"The entire Hercules Gap area is underlain by limestones probably of Cambrian age. The formations outcrop along the top of the range to the west of the valley and at the Gap. The limestone is hard, blue, dense and in beds as much as four feet in thickness. The general dip of the beds is to the northwest but there has been some deformation which is shown locally by the folding and faulting.

The mountain sides have a good alluvial cover especially those to the west. The lower slopes of the ridge along the east side of the valley are well covered but the limestone forms cliffs higher up the slope. In the bottoms the alluvial fans have filled the valley to a considerable depth.

Once the stream channel passed into Steptoe Valley around the end of the Egan Mountains, however, in one way or another the water found and widened Hercules Gap through the ridge. In cutting down through the ridge it also cut down through 30 or 40 feet of alluvium in the valley, thus leaving benches along the lower end of the valley.

Hercules Gap Springs are located in a small area just to the west above the Gap. The springs rise in a comparatively small area of spongy ground and the water flows to the east through Hercules Gap and into Steptoe Valley. Mr. Millard, State Water-Right Surveyor of Ely, said that he had measured the flow from the gap for several years and the flow did not change very much from 0.32 c.f.s.

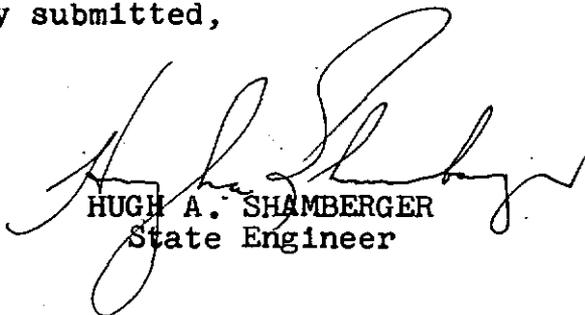
As the flow from these springs is very nearly constant, it can be assumed that the source is other than the valley fill. It may be the bedrock itself and some distance away. Thus the small constant flow of slowly percolating waters.

If the springs were affected by wet and dry seasons, or if their flow fluctuated to any significant degree, it would be thought that their source was the alluvium. Springs rising from such porous material would be very definitely effected by wet or dry seasons."

#### RULING

It is therefore the ruling of the State Engineer that a permit will be granted under Application No. 14244, following receipt of the statutory fee for the issuance thereof. Such permit will be issued subject to all existing rights. Since the permit will be for irrigation purposes only, the matter of existing grazing privileges is not involved.

Respectfully submitted,

  
HUGH A. SHAMBERGER  
State Engineer

Dated this 16th day  
of March, 1953.