

**IN THE OFFICE OF THE STATE ENGINEER  
OF THE STATE OF NEVADA**

IN THE MATTER OF APPLICATION )  
77744 FILED TO APPROPRIATE )  
THE PUBLIC WATERS OF AN )  
UNDERGROUND SOURCE WITHIN )  
THE SILVER STATE VALLEY )  
HYDROGRAPHIC BASIN (032) )  
HUMBOLDT COUNTY, NEVADA. )

**RULING**

**# 5979**

**GENERAL**

**I.**

Application 77744 was filed on January 6, 2009, by BFE Land Holdings, LLC, to appropriate 0.0062 cubic feet per second of underground water for stock-water purposes. The proposed place of use is described as being located within the SW $\frac{1}{4}$  SE $\frac{1}{4}$  and SE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 7, T.38N., R.37E., M.D.B.&M. The proposed point of diversion is described as being located within the SW $\frac{1}{4}$  SE $\frac{1}{4}$  of said Section 7.<sup>1</sup>

**FINDINGS OF FACT**

**I.**

State Engineer's Order No. 285, issued April 28, 1965, described and designated the Silver State Valley Hydrographic Basin as a ground-water basin in need of additional administration under the provisions of NRS § 534.030.<sup>2</sup>

The State Engineer finds that Application 77744 has a proposed point of diversion that is located within the hydrologic boundaries of the designated Silver State Valley Hydrographic Basin.

**II.**

The Nevada Revised Statutes (NRS) chapters 533 and 534 and the policies developed by the Office of the State Engineer control the appropriation of water within the State of Nevada. Under the provisions found under NRS § 533.370(5), before an application that requests a new appropriation of underground water can be considered for approval it must be determined, among other things, that there is

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<sup>1</sup> File No. 77744, official records in the Office of the State Engineer.

<sup>2</sup> State Engineer's Order No. 285, April 28, 1965, official records in the Office of the State Engineer.

unappropriated water available at the targeted source. The answer to the question of what amount of underground water is available for additional appropriation from the Silver State Valley Hydrographic Basin can be found in an analysis of the basin's recharge-discharge relationship. Central to this equation is the concept of the perennial yield of the Silver State Valley Hydrographic Basin.

The perennial yield of a ground-water reservoir may be defined as the maximum amount of ground water that can be salvaged each year over the long term without depleting the ground-water reservoir. Perennial yield is ultimately limited to the maximum amount of natural discharge that can be salvaged for beneficial use. The perennial yield cannot be more than the natural recharge to a ground-water basin and in some cases is less. If the perennial yield is exceeded, ground-water levels will decline and steady-state conditions will not be achieved, a situation commonly referred to as ground-water mining. Additionally, withdrawals of ground water in excess of the perennial yield may contribute to adverse conditions such as water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts, and land subsidence.<sup>3</sup>

Water for Nevada, State of Nevada Water Planning Report No. 3 estimates that the perennial yield of the Silver State Valley Hydrographic Basin is approximately 5,900 acre-feet annually.

The Office of the State Engineer has for many years relied upon the USGS' estimates of perennial yield. These estimates are critical in determining the degree of regulation that must be placed upon a basin's limited underground water resources. The committed ground-water resource in the form of permits and certificates issued by the Office of the State Engineer within the Silver State Valley Hydrographic Basin currently exceeds 21,182 acre-feet annually (afa).

Existing permits and certificates exceed the perennial yield of the Silver State Valley Hydrographic Basin.

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<sup>3</sup> State Engineer's office, *Water for Nevada, State of Nevada Water Planning Report No. 3*, p. 13, Oct. 1971.

**CONCLUSIONS**

**I.**

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.<sup>4</sup>

**II.**

The State Engineer is prohibited by law from granting an application to appropriate the public waters where:<sup>5</sup>

- A. there is no unappropriated water at the proposed source;
- B. the proposed use or change conflicts with existing rights;
- C. the proposed use or change conflicts with protectible interests in existing domestic wells as set forth in NRS § 533.024; or
- D. the proposed use or change threatens to prove detrimental to the public interest.

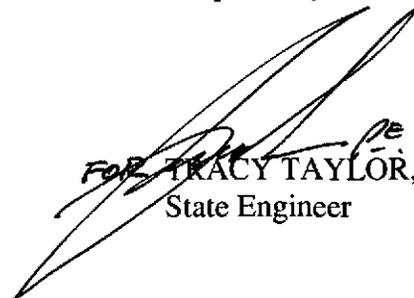
**III.**

The State Engineer concludes that approval of the subject application would result in the permanent withdrawal of ground water in excess of the perennial yield of the Silver State Valley Hydrographic Basin, and therefore would adversely affect existing rights and would threaten to prove detrimental to the public interest.

**RULING**

Application 77744 is hereby denied on the grounds that its approval would conflict with existing rights and would threaten to prove detrimental to the public interest.

Respectfully submitted,

  
For **TRACY TAYLOR, P.E.**  
State Engineer

TT/SEM/jm

Dated this 20th day of  
April, 2009.

<sup>4</sup> NRS chapters 533 and 534.

<sup>5</sup> NRS § 533.370(5).