

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

IN THE MATTER OF APPLICATION 82047 )  
FILED TO APPROPRIATE THE PUBLIC )  
WATERS OF AN UNDERGROUND SOURCE )  
WITHIN THE DIAMOND VALLEY )  
HYDROGRAPHIC BASIN (153), EUREKA )  
COUNTY, NEVADA. )

**RULING**  
**#6301**

**GENERAL**

**I.**

Application 82047 was filed on August 8, 2012, by Fred L. Etchegaray and John J. Etchegaray to appropriate 0.05 cubic feet per second from an underground source to water 500 cattle and for domestic purposes. The proposed point of diversion is described as being located within the SE¼ SW¼ of Section 8 T.22N., R.54E., M.D.B.&M. The proposed place of use is described as being located within the SE¼ SW¼ of said Section 8.<sup>1</sup>

**FINDINGS OF FACT**

**I.**

Application 82047 requests a new appropriation of underground water within the Diamond Valley Hydrographic Basin. Application 82047 does not specify a duty of water, but a duty can be calculated by expanding the requested number of cattle (500) using 20 gallons per day per cow for 365 days per year, which equates to approximately 11.2 acre-feet annually.

Under the provisions found under NRS § 533.370(2), 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 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 Diamond Valley Hydrographic Basin can be found by examining the basin's perennial yield.

The perennial yield of a groundwater reservoir may be defined as the maximum amount of groundwater that can be withdrawn each year over the long term without depleting the groundwater reservoir. Perennial yield is ultimately limited to the maximum amount of natural discharge that can be utilized for beneficial use. The perennial yield cannot be more than the natural recharge to a groundwater basin and in some cases is less. If the perennial yield is

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<sup>1</sup> File No. 82047, official records in the Office of the State Engineer.

exceeded, groundwater levels will decline and steady-state conditions will not be achieved, a situation commonly referred to as groundwater mining. Additionally, withdrawals of groundwater 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>2</sup>

The estimated perennial yield of the Diamond Valley Hydrographic Basin is 30,000 acre-feet annually. Records on file in the Office of the State Engineer show that the total committed groundwater resource in the Diamond Valley Hydrographic Basin (153) in the form of permits and certificates is currently over 131,000 acre-feet annually, providing evidence that there is no quantity of water to be had for appropriation by applications filed later in time.<sup>3</sup>

The annual Diamond Valley Crop Inventory for the years 2006 through 2012 estimated use of groundwater for solely irrigation purposes at 96,600 acre-feet for 2006, 95,700 acre-feet for 2007, 96,600 acre-feet for 2008, 97,500 acre-feet for 2009, 97,500 acre-feet for 2010, 96,800 acre-feet for 2011 and 100,500 acre-feet for 2012.<sup>4</sup>

Water level measurements provide an insight to the effect of over-appropriation on the Diamond Valley Hydrographic Basin. Significant decreases in water levels have been recorded by the Office of the State Engineer from 1950 to the present.<sup>5</sup>

The State Engineer finds there is no unappropriated groundwater available within the Diamond Valley Hydrographic Basin; therefore, there is insufficient water to satisfy the quantity requested for appropriation under Application 82047.

## CONCLUSIONS

### I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.<sup>6</sup>

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<sup>2</sup> Office of the State Engineer, *Water for Nevada, State of Nevada Water Planning Report No. 3*, p. 13, Oct. 1971.

<sup>3</sup> Nevada Division of Water Resources, *Underground Active Basin Summary, Hydrographic Basin Summary-By Manner of Use*.

<sup>4</sup> Crop Inventories, available online at <http://water.nv.gov>, Crop Inventories.

<sup>5</sup> Water Level Database, available online at <http://water.nv.gov>, Water Level Database.

<sup>6</sup> NRS Chapters 533 and 534.

**II.**

The State Engineer is prohibited by law from granting an application to appropriate the public waters where:<sup>7</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 protectable 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.

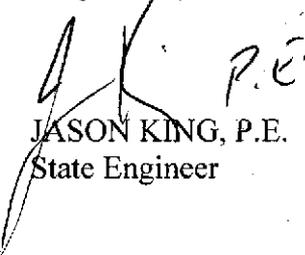
**III.**

The State Engineer concludes that the committed groundwater resources of the Diamond Valley Hydrographic Basin currently exceed the groundwater basin's estimated perennial yield.<sup>2</sup> Annual measurements of the groundwater levels show significant declines. The State Engineer concludes that the approval of the subject application would result in the additional withdrawal of groundwater in excess of the perennial yield of the Diamond Valley Hydrographic Basin and therefore, would conflict with existing rights and would threaten to prove detrimental to the public interest. The State Engineer further concludes that there is no unappropriated water at the proposed source.

**RULING**

Application 82047 is hereby denied on the grounds that there is no unappropriated water at the source and its approval would conflict with existing rights and would threaten to prove detrimental to the public interest.

Respectfully submitted,

  
JASON KING, P.E.  
State Engineer

Dated this 30th day of  
January, 2015.

<sup>7</sup> NRS § 533.370(2).