

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

IN THE MATTER OF APPLICATIONS )  
86031T AND 86223, FILED TO )  
APPROPRIATE THE UNDERGROUND )  
WATERS WITHIN THE LAMOILLE )  
VALLEY HYDROGRAPHIC BASIN (45), )  
ELKO COUNTY, NEVADA. )

**RULING**  
**#6364**

**GENERAL**

**I.**

Temporary Application 86031T was filed on March 23, 2016, by James Sustacha to appropriate 0.013 cubic feet per second, not to exceed 4.42 acre-feet annually of groundwater for watering 200 head of cattle from January 1 through December 31 of each year within the Lamoille Valley Hydrographic Basin. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 27, T.34N., R.57E., M.D.B.&M. The proposed place of use is described as being located within the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of said Section 27.<sup>1</sup>

**II.**

Application 86223 was filed on May 20, 2016, by James Sustacha to appropriate 0.013 cubic feet per second, not to exceed 4.42 acre-feet annually, of groundwater for watering 200 head of cattle from January 1 through December 31 of each year within the Lamoille Valley Hydrographic Basin. The proposed point of diversion and place of use are the same as described in Temporary Application 86031T.<sup>2</sup>

**FINDINGS OF FACT**

**I.**

Temporary Application 86031T was filed pursuant to NRS § 533.504, which allows for temporary appropriations to water livestock during a declaration of drought in the county where the point of diversion is located. Temporary Application 86031T and Application 86223 were both filed by the same Applicant and the applications were filed for the same amount of water, the same point of diversion, and the same place and manner of use. In the remarks section of Application 86223, the Applicant stated the application was filed to replace Temporary Application 86031T, when approved. The State Engineer finds that since the applications are identical, it is appropriate that they may be considered together in this ruling.

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<sup>1</sup> File No. 86031T, official records in the Office of the State Engineer.

<sup>2</sup> File No. 86223, official records in the Office of the State Engineer.

## II.

The proposed point of diversion is located 3,500 feet west of Rabbit Creek, which is a perennial tributary of the Humboldt River, a fully decreed surface-water source.

Pumping from wells located near a surface-water source can induce recharge in excess of naturally occurring stream infiltration by increasing the hydraulic gradient between the stream channel and the well. This occurs regardless of when the stream is flowing, because groundwater storage depletion caused by pumping in one season will be replaced by enhanced recharge in the following season.

The proposed point of diversion is located close to a surface-water source that is tributary to the Humboldt River; therefore, the amount of any water that may be captured from the stream was estimated using Glover's solution.<sup>3</sup> For this analysis, transmissivity was estimated to be between 350 and 1,000 ft<sup>2</sup>/day and the specific yield was estimated to be 0.15 for the proposed point of diversion.<sup>4</sup> The State Engineer finds that the Glover's analysis demonstrates that after a period of five years, reduction in stream flow caused by pumping from the proposed well under Application 86223 would be between 20-50% of the pumped rate.

### CONCLUSIONS OF LAW

#### I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.<sup>5</sup>

#### II.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:<sup>6</sup>

- A. there is no unappropriated water at the proposed source;
- B. the proposed use or change conflicts with existing rights;

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<sup>3</sup> Glover, R. E., and C.G. Balmer, 1954, *River depletion resulting from pumping a well near a river*. Am. Geophysical Union Trans. v. 35; no. 3: 468-470; and see also, Jenkins, C.T., 1968, *Techniques of water-resources investigations of the United State Geological Survey* (Computation of rate and volume of stream depletion by wells). United States Geological Survey. Book 4, ch. D1; p. 17.

<sup>4</sup> See Memorandum to file dated July 27, 2016, File No. 86223, official records in the Office of the State Engineer.

<sup>5</sup> NRS Chapters 533 and 534.

<sup>6</sup> NRS § 533.370(2).

- 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 shall approve an application for a temporary permit to appropriate groundwater for livestock during a declaration of drought if:<sup>7</sup>

- A. The application is accompanied by the fee prescribed by this chapter;
- B. The temporary appropriation is in the public interest; and
- C. The temporary appropriation does not impair water rights held by other persons.

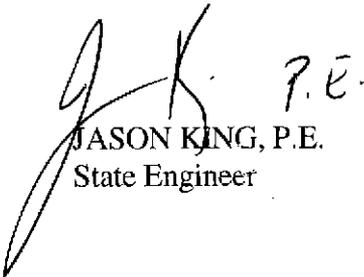
**VI.**

Glover's analysis demonstrates that after a period of five years, a well pumped under Temporary Application 86031T and Application 86223 would capture between 20% and 50% of the pumped rate from the surface-water source, which has existing senior decreed rights; therefore, the State Engineer concludes that Temporary Application 86031T and Application 86223 will conflict with existing rights and threaten to prove detrimental to the public interest.

**RULING**

Temporary Application 86031T and Application 86223 are hereby denied on the grounds that approval of the applications 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 9th day of  
September, 2016.

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<sup>7</sup> NRS § 533.504(3).