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

IN THE MATTER OF APPLICATION)
85154 FILED TO APPROPRIATE THE)
UNDERGROUND WATERS WITHIN) **RULING**
THE STARR VALLEY AREA)
HYDROGRAPHIC BASIN (43), ELKO) **#6363**
COUNTY, NEVADA.)

GENERAL

I.

Application 85154 was filed on May 8, 2015, by Paul D. Bottari and Lori A. Bottari to appropriate 0.20 cubic feet per second of groundwater for the irrigation of 15 acres of land and domestic purposes from January 1 through December 31 of each year within the Starr Valley Area Hydrographic Basin. The proposed point of diversion is described as being located within the NW¼ NW¼ of Section 30, T.37N., R.61E., M.D.B.&M. The proposed place of use is described as being located within portions of the NW¼ NW¼ of said Section 30.[1]

FINDINGS OF FACT

I.

The proposed point of diversion is located approximately 1,830 feet northeast of Burger Creek, which is tributary to 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.[2] For this analysis, transmissivity was estimated to be 400 ft^2/day and the specific yield was estimated to be 0.15 for the proposed point of diversion.[3] The

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[1] File No. 85154, official records in the Office of the State Engineer.

[2] 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.

[3] *See* Memorandum to file dated June 17, 2016, File No. 85154, official records in the Office of the State Engineer.

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 85154 would be 15% 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.[4]

II.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:[5]

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.

Glover's analysis demonstrates that after a period of five years, Application 85154 would capture 15% of the pumped rate from the surface-water source, which has existing senior decreed rights; therefore, the State Engineer concludes that Application 85154 will conflict with existing rights and threaten to prove detrimental to the public interest.

RULING

Application 85154 is hereby denied on the grounds that approval of the application would conflict with existing rights and would threaten to prove detrimental to the public interest.

Respectfully submitted,

P.E.

JASON KING, P.E.
State Engineer

Dated this 9th day of

September, 2016.

[4] NRS Chapters 533 and 534.
[5] NRS § 533.370(2).