

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

IN THE MATTER OF APPLICATION 84482 FILED TO)
CHANGE THE POINT OF DIVERSION AND PLACE)
OF USE OF A PORTION OF AN UNDERGROUND)
WATER SOURCE PREVIOUSLY APPROPRIATED)
UNDER PERMIT 75523 WITHIN THE HUNTINGTON)
VALLEY HYDROGRAPHIC BASIN (47), ELKO)
COUNTY, NEVADA.)

RULING
#6354

GENERAL

I.

Application 84482 was filed on October 27, 2014, by Joseph C. and Kristi A. Cumming Family Trust to change the point of diversion and place of use of 2.04 cubic feet per second, not to exceed 360 acre-feet annually, a portion of water previously appropriated under Permit 75523. The manner of use is unchanged and is for irrigation purposes from January 1st to December 31st of each year. The proposed point of diversion is described as being located within the NW¼ NE¼ of Section 22, T.30N., R.56E., M.D.B.&M. The existing point of diversion is described as being located within the SE¼ SE¼ of Section 14, T.30N., R.56E., M.D.B.&M. The proposed place of use is described as being located within the S½ SE¼ of Section 15 and the N½ NE¼ of Section 22, T.30N. R.56E., M.D.B.&M. The existing place of use is described as being located within the N½ NE¼ of Section 23, the N½ N½ and N½ S½ NW¼ of Section 24, T.30N., R.56E., M.D.B.&M.¹

II.

Application 84482 was timely protested by the Pershing County Water Conservation District of Nevada on the following grounds:¹

{The} granting of said application will affect the Decreed Water of the Humboldt River. Basin 47, which is included with basins 46 and 48, is already over appropriated. Also, this application proposes to move existing well from bench ground to a new location with 800 feet of Cottonwood Creek.

¹ File No. 84482, official records in the Office of the State Engineer.

III.

Application 84482 was timely protested by the Humboldt River Basin Water Authority on the following grounds:¹

1. The proposed point of diversion is immediately proximate to Cottonwood Creek, the surface waters of which are fully appropriated under the Bartlett Decree. Production of groundwater from a well at the proposed point of diversion is likely to have an adverse impact upon the flow of Cottonwood Creek and to existing decreed surface water rights on Cottonwood Creek and other downstream water rights holders.
2. A review of well logs for other existing groundwater wells in the vicinity of the proposed point of diversion suggests that a seal in the proposed well casing to a typical depth of 50' may not afford protection to the surface flows of Cottonwood Creek.
3. It is noted that a review of the well log for the well at the existing point of diversion suggests that said well is sealed to a depth of 100'.
4. The proposed point of diversion is within a section of land within T30N, R56E which has been designated by the Nevada State Engineer through Order 865 as requiring special management pursuant to NRS 534 and accordingly, approval of Application 84482 and production of groundwater from a well at the proposed point of diversion may impair other existing groundwater rights.
5. The adverse impact upon the flow of Cottonwood Creek occasioned by the production of groundwater from a well at the proposed point of diversion is not in the public interest.

FINDINGS OF FACT

I.

Nevada Revised Statute § 533.365(4) provides that it is within the State Engineer's discretion to determine whether a public administrative hearing is necessary to address the merits of a protest to an application to appropriate the public waters of the state of Nevada. The State Engineer finds that in the case of Application 84482 there is sufficient information contained within the records of the Office of the State Engineer to gain a full understanding of the issues and a hearing on this matter is not required.

II.

This application was filed to change an existing water right in Huntington Valley. The proposed point of diversion is located approximately 630 feet from Cottonwood Creek. The existing point of diversion is located approximately 2,800 feet from Cottonwood Creek.

Cottonwood Creek is a fully appropriated surface water source.² Pumping from this well can induce recharge from Cottonwood Creek 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 amount of water captured from the stream can be estimated using a Glover's analysis.³ For this analysis, transmissivity was estimated to be 1,335 ft²/day and the storage coefficient was estimated to be 0.15 for the proposed point of diversion. Over a period of five years, reduction in stream flow caused by pumping from the proposed well under Application 84482 would be approximately 84%.¹

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.

² Bartlett Decree, incorporated as Section 1 into the Decree entered in *In the Matter of the Determination of the Relative Rights of Claimants and Appropriators of the Waters of the Humboldt River Stream System and its Tributaries*, Case No. 2804, Sixth Judicial District Court of the State of Nevada, In and For the County of Humboldt (October 20, 1931).

³ R. E. Glover 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, C.T. Jenkins, 1968, *Techniques of water-resources investigations of the United State Geological Survey*, Book 4, ch. D1, Computation of rate and volume of stream depletion by wells, United States Geological Survey, p. 17.

⁴ NRS Chapters 533 and 534.

⁵ NRS § 533.370(2).

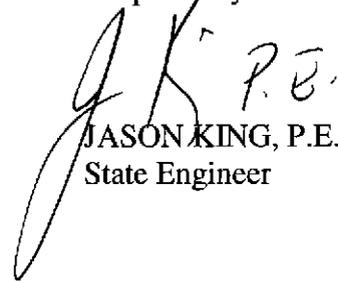
III.

The proposed point of diversion under this Application is in close proximity to a decreed surface-water source. Because water pumped from the proposed point of diversion over a five-year period would capture approximately 84% of its water from the decreed surface-water source, the State Engineer concludes that Application 84482 will conflict with existing rights.

RULING

The protests to Application 84482 are upheld in part and Application 84482 is hereby denied on the grounds that approval of this application conflicts with existing, decreed surface-water rights. No ruling is made on the merits of the remaining protest grounds.

Respectfully submitted,



JASON KING, P.E.
State Engineer

Dated this 11th day of
August, 2016.