

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

IN THE MATTER OF APPLICATION )  
68096 FILED TO APPROPRIATE THE )  
PUBLIC WATERS OF AN UNDERGROUND )  
SOURCE WITHIN THE BOULDER FLAT )  
HYDROGRAPHIC BASIN (61), EUREKA )  
COUNTY, NEVADA. )

RULING

**# 6015**

GENERAL

I.

Application 68096 was filed on October 15, 2001, by Dean A. and Sharon Rhoads to appropriate 5.0 cubic feet per second (cfs) of underground water for irrigation purposes. The proposed place of use is described as being 320 acres located within the N $\frac{1}{2}$  and SW $\frac{1}{4}$  of Section 8 and the NE $\frac{1}{4}$  of Section 18, T.35N., R.49E., M.D.B.&M. The proposed point of diversion is described as being located within the NW $\frac{1}{4}$  SW $\frac{1}{4}$  of said Section 8.<sup>1</sup>

II.

Application 68096 was timely protested by the Pershing County Water District and by Eureka County as summarized below:<sup>1</sup>

For Pershing County Water District

- The granting of the application will adversely affect the decreed waters of the Humboldt River.
- The basin is currently over-appropriated.

For Eureka County

- The basin is over-appropriated and there is no unappropriated water at the proposed source.
- In State Engineer's Ruling No. 5011, it was found that the committed resources far exceed the perennial yield

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<sup>1</sup> File No. 68096, official records in the Office of the State Engineer.

of the basin. Based on the findings and conclusions of Ruling No. 5011, there is no water available without exceeding the perennial yield or the safe yield of the basin and the application must be rejected.

- The Protestant believes that the place of use of the application may be the same place of use as the place of use filed in proofs of beneficial use by Barrick or Newmont mining companies and the State Engineer cannot issue duplicate water rights for the same use at the same location to different applicants.

#### FINDINGS OF FACT

##### I.

Nevada Revised Statute (NRS) § 533.365(3) 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 protested Application 68096 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.

State Engineer's Order No. 799, issued October 5, 1982, described and designated the Boulder Flat Hydrographic Basin as a ground-water basin in need of additional administration under the provisions of NRS § 534.030.<sup>2</sup>

All water right applications, which are filed in the Office of the State Engineer, are subjected to a simple

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<sup>2</sup> State Engineer's Order No. 799, October 5, 1982, official record in the Office of the State Engineer.

analysis to determine the location of the proposed points of diversion. This determination is a critical part of the initial application review process and establishes which hydrographic basin the proposed points of diversion are located within. The description of the proposed point of diversion, found within Application 68096 and its supporting map, was used to plot the location of the proposed well site. This location was found to be within the Boulder Flat Hydrographic Basin.

The State Engineer finds that Application 68096 has a proposed point of diversion that is located within the hydrologic boundaries of the designated Boulder Flat Hydrographic Basin.

### III.

The Nevada Revised Statutes 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 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 Boulder Flat 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 Boulder Flat Hydrographic Basin.

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. If the perennial yield is continually exceeded ground-water levels will decline.

Withdrawals of ground water in excess of the perennial yield contribute to adverse conditions such as water quality degradation, storage depletion, diminishing yield of wells, increase in cost due to increased pumping lifts, land subsidence and possible reversal of ground-water gradients, which could result in significant changes in the recharge-discharge relationship.<sup>3</sup>

The perennial yield of the Boulder Flat Hydrographic Basin can be derived from the estimates of the basin's annual ground-water recharge and discharge. The perennial yield of the Boulder Flat Hydrographic Basin has been estimated at 11,584, 14,000 and 30,000 acre-feet annually, and existing permitted and certificated water rights far exceed the highest estimate of perennial yield.<sup>4</sup>

The Office of the State Engineer has for many years relied upon estimates of perennial yield as these estimates are critical in determining the degree of regulation, which must be placed upon a basin's limited underground water resource. The committed ground-water resource in the form of permits and certificates issued by the Office of the State Engineer within the Boulder Flat Hydrographic Basin currently exceeds 97,000 acre-feet annually, (afa) although it should be noted that over 48,000 acre-feet of that amount is for mining, milling and dewatering purposes, which is considered to be a temporary use of water.

Application 68096 requests a new appropriation of ground water from the Boulder Flat Hydrographic Basin. The amount of water requested is not shown on the application;

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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.

<sup>4</sup> State Engineer's Ruling No. 5011, p. 8, April 5, 2001, official records in the Office of the State Engineer.

only a diversion rate of 5.0 cfs is indicated. Although there is only a diversion rate specified, additional information contained in the application file indicates that the Applicant is requesting sufficient water for the irrigation of about 320 acres of land. The standard duty assigned for irrigation permits in this area is 4.0 acre-feet per acre. Therefore, the duty of water can also be calculated by multiplying the number of acres by the standard duty per acre. The result is about 1,280 afa.

The State Engineer finds that the highest estimated perennial of the Boulder Flat Hydrographic Basin is 30,000 afa and the committed resources far exceed this amount. The State Engineer finds that Application 68096 requests a new permanent appropriation of underground water from the Boulder Flat Hydrographic Basin of 1,280 afa.

#### CONCLUSIONS

##### 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 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;
- 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.

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

<sup>6</sup> NRS § 533.370(5).

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 Boulder Flat Hydrographic Basin and therefore, would adversely affect existing rights and would threaten to prove detrimental to the public interest.

RULING

Application 68096 is hereby denied on the grounds that its approval would conflict with existing rights and threaten to prove detrimental to the public interest.

Respectfully submitted,



TRACY TAYLOR, P.E.  
State Engineer

TT/TW/jm

Dated this 9th day of  
November, 2009.