IN THE OFFICE OF STATE ENGINEER
OF THE STATE OF NEVADA

IN THE MATTER OF APPLICATIONS 60548 AND 60549 FILED TO APPROPRIATE THE PUBLIC WATERS OF AN UNDERGROUND SOURCE WITHIN THE VIRGIN RIVER AREA GROUNDWATER BASIN (222), CLARK COUNTY, NEVADA.

RULING

#4727

GENERAL

I.

Application 60548 was filed on September 29, 1994, by NuGold Technology, Inc., to appropriate 5 cubic feet per second (cfs) of underground water for mining and milling purposes within Sections 4, 5, 8, 9, 16 and 17, T.15S., R.68E., M.D.B.&M. The proposed point of diversion is described as being located within the SE¼ SW¼ of said Section 9.[1]

II.

Application 60549 was filed on September 29, 1994, by NuGold Technology, Inc., to appropriate 5.0 cfs of underground water for mining and milling purposes within Sections 2, 3, 10, 11, 14 and 15, T.15S., R.68E., M.D.B.&M. The proposed point of diversion is described as being within the SW¼ SE¼ of said Section 3.[2]

FINDINGS OF FACT

I.

The perennial yield of a hydrologic basin is the maximum amount of water of usable chemical quality that can be consumed economically each year for an indefinite period of time. The

---

[1] File No. 60548, official records in the office of the State Engineer.

[2] File No. 60549, official records in the office of the State Engineer.

perennial yield can not exceed the natural replenishment to an area indefinitely, and ultimately is limited to the maximum amount of natural recharge that can be salvaged for beneficial use. If the perennial yield is continually exceeded, groundwater levels will decline until the groundwater reservoir is depleted. Withdrawals of groundwater in excess of the perennial yield contribute to adverse conditions such as water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts, land subsidence and possible reversal of groundwater gradients which could result in significant changes in the recharge-discharge relationship.[3]

The United States Geological Survey (USGS) estimates that the perennial yield for the Nevada portion of the Virgin River Area Groundwater Basin is approximately 3,600 acre-feet annually.[4] The committed groundwater resource in the form of permits and certificates issued by the State Engineer's office for groundwater withdrawal within the Virgin River Area Groundwater Basin currently exceeds 12,350 acre-feet annually.[5] The State Engineer finds that the current committed groundwater resource of the Virgin River Area Groundwater Basin exceeds the estimated perennial yield of the groundwater basin.

---

[3] State Engineer's Office, Water for Nevada, Water Planning Report No. 3, p. 13, October 1971.

[4] Glancy, P.A., and Van Denburgh, A.S., Water Resources Appraisal of the Lower Virgin River Valley Area, Nevada, Arizona, and Utah, Water Resources Reconnaissance Series Report 51, pp. 36, 38, State of Nevada Department of Conservation and Natural Resources, U.S. Geological Survey, U.S. Department of the Interior, 1969.

[5] Nevada Division of Water Resources Water Rights Database, Special Hydrographic Basin Abstract, Basin 222, March 24, 1999, official records in the office of the State Engineer.

II.

The majority of the underground water which is being pumped from the Virgin River Area Groundwater Basin is utilized by the Virgin Valley Water District for municipal use.[5] Monthly groundwater pumpage records submitted by the Virgin Valley Water District to the office of the State Engineer indicate that 3,477.83 acre-feet of underground water was pumped by the Virgin Valley Water District from the Virgin River Area Groundwater Basin during 1998.[6] This figure represents approximately 96% of the groundwater basin's perennial yield. If the annual groundwater pumpage which occurs under non-municipal water right permits is added to this basin-wide pumping estimate, the perennial yield of the Virgin River Area Groundwater Basin is exceeded. The State Engineer finds that the amount of ground water which is currently being pumped from the Virgin River Area Groundwater Basin on an annual basis exceeds the estimate of the groundwater basin's perennial yield.

III.

Applications 60548 and 60549 request new appropriations of underground water in support of separate mining and milling operations. The annual consumptive use of water for each mining and milling operation is estimated by the applicant to be from 837.5 to 994.7 million gallons per year.[1] The State Engineer finds that the approval of Applications 60548 and 60549 would further contribute to the imbalance which currently exists between the groundwater basin's perennial yield and its committed groundwater resource and would conflict with the many existing water rights in the Virgin River Area Groundwater Basin.

---

[6] Virgin Valley Water District 1998 Pumpage Report, January 29, 1999, official records in the office of the State Engineer.

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.[7]

II.

The State Engineer is prohibited by law from granting an application to appropriate the public waters where:[8]

A. there is no unappropriated water at the proposed source;

B. the proposed use conflicts with existing rights; or

C. the proposed use threatens to prove detrimental to the public interest.

III.

The State Engineer concludes that to grant permits under Applications 60548 and 60549 in a groundwater basin where the quantity of underground water being pumped under existing appropriations exceeds the groundwater basin's perennial yield would conflict with existing water rights within the Virgin River Area Groundwater Basin and would threaten to prove detrimental to the public interest.

---

[7] NRS Chapter 533.

[8] NRS § 533.370(3).

RULING

Applications 60548 and 60549 are hereby denied on the grounds that granting the applications would interfere with existing rights and would prove detrimental to the public interest.

Respectfully submitted,

R. MICHAEL TURNIPSEED, P.E.
State Engineer

RMT/MDB/cl

Dated this 26th day of April, 1999.