

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

IN THE MATTER OF APPLICATION 64054)
FILED TO APPROPRIATE THE PUBLIC WATERS)
FROM AN UNDERGROUND SOURCE WITHIN)
THE SPANISH SPRINGS VALLEY GROUNDWATER)
BASIN (85), WASHOE COUNTY, NEVADA.)

RULING

4641

GENERAL

I.

Application 64054 was filed by Leob Enterprises Limited Liability Company on April 22, 1998, to appropriate 3.181 cubic feet per second (cfs), not to exceed 594.95 acre-feet annually (afa), from an underground source for recreation purposes described as golf course irrigation and domestic uses. The proposed place of use is described as being within parts of Sections 12 and 13, T.20N., R.20E., M.D.B. & M. The proposed point of diversion is described as being located within the SE¼ NW¼ of said Section 13.¹

II.

The State Engineer initially described and designated the Spanish Springs Groundwater Basin on March 10, 1975, under the provisions of NRS § 534.030, as a basin in need of additional administration.²

III.

The Nevada Division of Water Resources and the U.S. Geological Survey (USGS) have cooperated in studies of the Spanish Springs Valley resulting in prepared reports such as Water Resources-

¹ File No. 64054, official records in the office of the State Engineer.

² State Engineer's Order No. 533, dated March 10, 1975, official records in the office of the State Engineer.

Reconnaissance Series Report 43 in 1967, and Water-Resources Investigation Report 96-4297 in 1997.³

FINDINGS OF FACT

I.

The proposed point of diversion under Application 64054 is located within the designated Spanish Springs Valley Groundwater Basin.^{1,2}

II.

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. Perennial yield cannot 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.⁴ 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, increased economic pumping lifts, land subsidence and possible reversal of groundwater gradients which could result in significant changes in the recharge-discharge relationship.⁵ Perennial yield is further defined as the amount of naturally occurring ground water that can

³ Rush, F.E. and Glancy, P.A., Water-Resources Appraisal of the Warm Springs-Lemon Valley Area, Washoe County, Nevada, Water Resources-Reconnaissance Series Report 43, Nevada Department of Conservation and Natural Resources, and U.S.G.S., 1967; Berger, D.L., Ross, W.C., Thodal, C.E., and Robledo, A.R., Hydrogeology and Simulated Effects of Urban Development on Water Resources of Spanish Springs Valley, Washoe County, West-Central Nevada, Water-Resources Investigations Report 96-4297, Nevada Division of Water Resources and U.S.G.S., 1997.

⁴ State Engineer's Office, Water for Nevada, State of Nevada Water Planning Report No. 3, p. 13, Oct. 1971.

⁵ Ibid.

be withdrawn from an aquifer on a sustained basis without impairing the native groundwater quality or creating undesirable effects such as environmental damage.⁶

The State Engineer finds that, because imported surface water recharges the Spanish Springs Valley aquifer, the term augmented yield is used to describe the total quantity of potentially available groundwater and is defined as the perennial yield plus salvable secondary recharge resulting from the use of imported surface water.⁷

III.

Salvable secondary recharge from imported surface water is dependent upon the volume of water imported, ditch losses, water actually applied to the irrigated fields, infiltration of the applied water, and outflow from the basin. Under 1994 conditions, salvable secondary recharge resulting from surface water imported from the Truckee River was estimated to be 1,400 afa.⁸ The State Engineer finds that the perennial yield of the Spanish Springs Groundwater Basin is 1,000 afa and the augmented yield of the basin-fill aquifer in Spanish Springs Valley is estimated to be 2,400 afa, assuming that 1,400 afa of groundwater recharge was salvaged from infiltration of imported Truckee River water in 1994.⁹

However, the State Engineer further finds that the dependence

⁶ Berger, D.L., Ross, W.C., Thodal, C.E., Robledo, A.R., Hydrogeology and Simulated Effects of Urban Development on Water Resources of Spanish Springs Valley, Washoe County, West-Central Nevada, Water-Resources Investigations Report 96-4297, Nevada Division of Water Resources and U.S.G.S., pp. 50-51, 1997.

⁷ Berger, D.L., Ross, W.C., Thodal, C.E., Robledo, A.R., Hydrogeology and Simulated Effects of Urban Development on Water Resources of Spanish Springs Valley, Washoe County, West-Central Nevada, Water-Resources Investigations Report 96-4297, Nevada Division of Water Resources and U.S.G.S., p. 51, 1997.

⁸ Ibid.

⁹ Ibid.

of salvable secondary recharge upon imported Truckee River water and mountain snow-pack gives the augmented yield a very unpredictable value, and if the quantity of imported surface water or its management changes, the groundwater recharge must be revised to account for changes in imported water and water management. The State Engineer finds that to consider salvable secondary recharge in the management of this groundwater basin would not be good management of the groundwater basin as the continued importation of surface water is not guaranteed in the future and to allow development based on said importation would threaten to prove detrimental to the public interest.

IV.

The State Engineer finds that the estimated groundwater pumpage in the Spanish Springs Groundwater Basin for 1994 was 2,600 afa¹⁰ and that existing permitted and certificated groundwater rights total more than 6,260 afa.¹¹ The State Engineer finds that existing groundwater rights in the Spanish Springs Valley Groundwater Basin far exceed the perennial yield and the augmented yield of the groundwater basin. The State Engineer finds that to grant additional water rights in the groundwater basin would interfere with existing water rights and threaten to prove detrimental to the public interest.

¹⁰ Berger, D.L., Ross, W.C., Thodal, C.E., Robledo, A.R., Hydrogeology and Simulated Effects of Urban Development on Water Resources of Spanish Springs Valley, Washoe County, West-Central Nevada, Water-Resources Investigations Report 96-4297, Nevada Division of Water Resources and U.S.G.S., p. 49, 1997.

¹¹ Hydrographic Basin Abstract, Basin 6-85, June 2, 1998, official records in the office of the State Engineer.

V.

The State Engineer has previously denied applications to appropriate ground water for quasi-municipal purposes in the Spanish Springs Groundwater Basin.¹²

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.¹³

II.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:¹⁴

- a. there is no unappropriated water at the proposed source; or
- 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 is authorized by law to deny a new application prior to publication when a previous application for a similar use of water within the same basin has been denied on the above grounds.¹⁵ Application 64054 was filed to appropriate ground water for golf course irrigation, a similar purpose as certain other applications which were denied on the grounds that they would conflict with existing rights and threaten to prove detrimental to the public interest. Therefore, Application 64054 may be denied without publication.

¹² State Engineer's Rulings Nos. 2032, 2033, 2034, 2035, 2350 and 2813, official records in the office of the State Engineer.

¹³ NRS Chapters 533 and 534.

¹⁴ NRS Chapter 533.370(3).

¹⁵ NRS § 533.370(3).

IV.

The State Engineer concludes that existing groundwater rights exceed estimates of perennial yield or augmented yield in the Spanish Springs Groundwater Basin, and to consider salvable secondary recharge from imported surface water in the management of the groundwater basin would not be good practice.

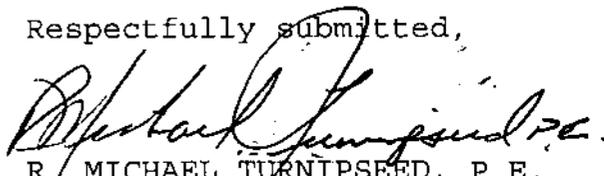
V.

The State Engineer concludes that to approve Application 64054 would interfere with existing water rights and threaten to prove detrimental to the public interest.

RULING

Application 64054 is hereby denied without publication on the grounds that the granting of the application would conflict with existing rights and threaten to prove detrimental to the public interest.

Respectfully submitted,


R. MICHAEL TURNIPSEED, P.E.
State Engineer.

RMT/MDB/cl

Dated this 12th day of
June, 1998.