

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

IN THE MATTER OF APPLICATION 57032)
FILED TO APPROPRIATE THE WATERS OF AN)
UNDERGROUND SOURCE WITHIN THE IVANPAH)
VALLEY NORTH GROUNDWATER BASIN,)
(164A) CLARK COUNTY, NEVADA.)

RULING

#4325

GENERAL

I.

Application 57032 was filed on December 23, 1991, by Greg Nunez to appropriate 0.1 cubic feet per second (cfs) of underground water for quasi-municipal purposes within a portion of the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 26, T.24S., R.58E., M.D.B.&M. The proposed point of diversion is described as being located within the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 26, T.24S., R.58E., M.D.B.&M.¹

II.

Application 57032 requests an appropriation of underground water from a point of diversion located within the Goodsprings townsite, to serve four houses.¹

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 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.² Withdrawals of groundwater in excess of the perennial yield contribute to

¹ File No. 57032, official records of the Office of the State Engineer.

² State Engineer's Office, WATER FOR NEVADA, STATE OF NEVADA WATER PLANNING REPORT No. 3, p. 13, October 1971.

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.

The Ivanpah Valley North Groundwater Basin is an interstate basin with recharge to the Nevada portion of the basin from precipitation estimated at approximately 700 acre-feet annually. Estimated groundwater inflow from the California portion of the basin is approximately 800 acre-feet annually. The total recharge into the Ivanpah Valley Groundwater Basin from subsurface inflow and precipitation is estimated to be approximately 1,500 acre feet annually. With the exception of that amount captured by wells, virtually all of this amount discharges as underflow into the adjacent groundwater basins, primarily the Las Vegas Valley Groundwater Basin. The amount of discharge which can be captured is limited to approximately 700 acre feet annually and this represents the basin's perennial yield.³

The committed groundwater resource for the Ivanpah Valley North Groundwater Basin in the form of permits and certificates issued by the State Engineer's Office currently exceeds 1,600 acre-feet annually, with the majority of these active permits concentrated within the Jean and Stateline areas.⁴ The State Engineer finds that the quantity of underground water already appropriated from the Ivanpah Valley North Groundwater Basin exceeds the perennial yield.

³ Glancy, Patrick A., WATER RESOURCES RECONNAISSANCE SERIES, REPORT 46, WATER RESOURCES APPRAISAL OF MESQUITE - IVANPAH VALLEY AREA, NEVADA AND CALIFORNIA, JUNE 1968, p. 41.

⁴ Hydrographic Basin Abstract for Basin 164A, official records of the Office of the State Engineer.

II.

The Ivanpah Valley alluvial fill basin is flanked on the east and west by bedrock mountain ranges. The basin fill consists of unconsolidated sediments derived in part from erosion of these mountains. The valley fill is the primary source for the groundwater which is being pumped at Jean and Stateline. A separate source of potable groundwater occurs in the northern part of the basin at Goodsprings where a carbonate aquifer supplies the numerous domestic wells and the two permitted water rights within the town.⁵ Currently this limited water resource is the single source for potable shallow groundwater within the community. Increased domestic pumpage associated with an increase in the community's population has degraded this resource to the extent that existing domestic wells have been deepened to secure a more reliable source of water.

Testimony and evidence entered into the record of November 2, 1988, administrative hearing held before the State Engineer on previous applications filed in Ivanpah Valley suggest that the carbonate aquifer utilized at Goodsprings is upgradient and structurally isolated from the alluvial groundwater aquifer which occurs approximately six miles to the southeast at Jean and approximately 30 miles to the south at Stateline, and that the gradual lowering of the groundwater level currently occurring within the Goodsprings area can be attributed largely to an increased demand placed on this source by additional domestic wells.⁶

The State Engineer finds that the approval of Application 57032 would further increase pumpage from the Goodsprings sub-area

⁵ Glancy, Patrick A., WATER RESOURCES RECONNAISSANCE SERIES, REPORT 46, WATER RESOURCES APPRAISAL OF MESQUITE - IVANPAH VALLEY AREA, NEVADA AND CALIFORNIA, June 1968, p. 15.

⁶ Transcript, pp. 49-51, 56-58, public administrative hearing before the State Engineer, November 2, 1988.

and would conflict with existing permitted rights within Goodsprings.

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 a permit where:

- 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.⁸

III.

Application 57032 seeks to appropriate water from the same underground source that supplies permitted and domestic wells for the town of Goodsprings. The State Engineer concludes that any new appropriation of underground water in the Goodsprings area would impose an additional demand upon an already burdened water resource and would adversely effect both the domestic wells and existing permitted rights and is not in the public interest.

⁷ NRS Chapters 533 and 534.

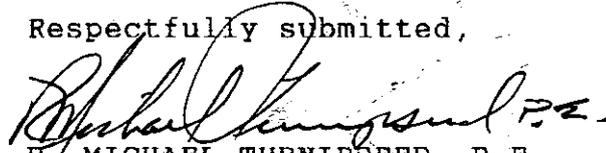
⁸ NRS 533.370.

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Application 57032 is hereby denied on the basis that granting this application would interfere with existing rights and prove detrimental to the public interest.

Respectfully submitted,


MICHAEL TURNIPSEED, P.E.
State Engineer

RMT/MDB/ab

Dated this 18th day of
April, 1996.