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

IN THE MATTER OF APPLICATION 58881)
FILED TO APPROPRIATE UNDERGROUND)
WATER IN DAYTON VALLEY, LYON)
COUNTY, NEVADA.)

RULING

4046

GENERAL

I.

Application 58881 was filed by James M. and Norma Walsh on June 1, 1993, to appropriate 0.03 c.f.s. of underground water for commercial and domestic purposes. The point of diversion is within the NW¼ SE¼ Section 29, T.16N., R.21E., M.D.B.&M. The place of use is a portion of the NW¼ SE¼ Section 29, T.16N., R.21E., M.D.B.&M. The proposed use is described as being for a 30 space RV Park.[1]

II.

By Order No. 487 dated January 22, 1973, the State Engineer designated and described the Dayton Valley Ground Water Basin as a ground water basin coming under the provisions of NRS 534.120.

III.

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.[2] If the perennial yield is continually exceeded, ground water levels will decline until the ground water reservoir is depleted. 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 ground water

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1 Public record in the office of the State Engineer, filed under Application 58881.

2 Nevada State Engineer's Office, Water for Nevada, Report No. 3, p. 13.

gradients which could result in significant changes in the recharge-discharge relationship.

FINDINGS OF FACT

I.

The estimated ground water recharge to Dayton Valley by precipitation is 7,900 acre-feet per year. An additional 1,545 acre-feet is added from subsurface inflow through alluvium from Eagle and Carson Valleys. Therefore, the State Engineer finds that the perennial yield of Dayton Valley is 9,445 acre-feet per year.[3]

II.

The State Engineer has made estimates of ground water pumpage in Dayton Valley in 1977, 1979 and 1984. These years represent a below average water year, an average water year, and a good water year, respectively. The 1977 estimate found pumpage to be 14,300 acre-feet, and the 1979 estimate found pumpage to be 15,930 acre-feet. These estimates were made from electric power meter measurements supplied by Sierra Pacific Power Company.[4]

The 1984 pumpage estimate in Dayton Valley included Stagecoach sub-basin and was based on a survey of houses, mining activity, quasi-municipal water systems, and irrigated acreage. After subtracting estimated use in the Stagecoach sub-basin, that State Engineer finds that the pumpage in the Dayton Valley is estimated to be 7,600 acre-feet for 1984.[4]

III.

The State Engineer finds that existing certificated and permitted ground water rights in the Dayton Valley Ground Water Basin exceed 29,862 acre-feet annually.[5]

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[3] Nevada Department of Conservation and Natural Resources, Water Resource-Reconnaissance Series Report No. 59.

[4] Public record in the office of the State Engineer, Dayton Valley Pumpage Inventory.

[5] Public record in the office of the State Engineer, Hydrographic Basin Abstract 8-103.

IV.

The State Engineer finds that existing ground water rights in the Dayton Valley Ground Water Basin exceed the perennial yield of the basin. Should additional water be allowed for appropriation development under new applications and subsequent detrimental effects occur, the State Engineer is required by law to order that withdrawals be restricted to conform to priority rights.[6]

V.

The State Engineer estimates that Application 58881 proposes to divert an additional 10 acre-feet per year from the Dayton Valley Ground Water Basin.

VI.

The State Engineer has denied applications to appropriate ground water for quasi-municipal purposes in the Dayton Valley Ground Water Basin.[7]

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.[8]

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 welfare.[9]

III.

The State Engineer concludes that existing ground water rights exceed the estimates of perennial yield in the Dayton Valley Ground

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[6] NRS 534.110(6).

[7] Rulings 2084, 2493, 2583, 2588, 2593, 3022, 3708 and 3874, public records in the office of the State Engineer.

[8] NRS Chapter 533.025 and NRS 533.030, subsection 1.

Water Basin and that to approve an additional appropriation under Application 58881 from the limited ground water reservoir would adversely affect existing rights and be detrimental to the public interest.

RULING

Application 58881 is hereby denied on the grounds that the granting of this application for an appropriation of ground water in a basin where the water rights of record exceed the perennial yield and where pumpage exceeds that which is naturally replenishable would conflict with existing rights and be detrimental to the public interest.

Respectfully submitted,

R. MICHAEL TURNIPSEED, P.E.
State Engineer

RMT/CAB/pm

Dated this 3rd day of

December, 1993.