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IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATIONS 37546,)
38015 AND 39953 FILED TO APPROPRIATE)
THE PUBLIC WATERS OF AN)
UNDERGROUND SOURCE IN CHURCHILL)
VALLEY, LYON, STOREY AND CHURCHILL)
COUNTIES, NEVADA.)

RULING

GENERAL

Application 37546 was filed on April 2, 1979, by James A. Powell to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the S1/2 Section 6, T.18N., R.25E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 6, T.18N., R.25E., M.D.B.&M.¹

Application 38015 was filed on April 25, 1979, by Barbara E. Powell to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the E1/2 Section 32, T.19N., R.25E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NE1/4 Section 32, T.19N., R.25E., M.D.B.&M.¹

Application 39953 was filed on December 11, 1979, by Mr. and Mrs. Keith O. Ohnstad to appropriate 2.4 c.f.s. of water from an underground source for irrigation purposes on 120 acres of land within the NW1/4 Section 9, T.17N., R.26E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NW1/4 Section 9, T.17N., R.26E., M.D.B.&M.¹

In 1975, Water Resources Reconnaissance Series Report #59, "Water Resources Appraisal of the Carson River Basin, Western Nevada", by Patrick A. Glancy and T.L. Katzer, was prepared cooperatively by the Nevada Department of Conservation and Natural Resources, Division of Water Resources and U.S. Department of the Interior, Geological Survey. This report is available from the State Engineer's office.

FINDINGS OF FACT

I.

Applications 37546, 38015 and 39953 were filed to appropriate water from an underground source within the Churchill Valley Ground Water Basin, Lyon County, Nevada, as designated and described by order of the State Engineer issued August 23, 1977.²

¹ Public record in the office of the State Engineer under Applications 37546, 38015 and 39953.

² Public record in the office of the State Engineer and Chapter 534, Nevada Revised Statutes.

II.

Applications to appropriate underground water to irrigate additional land have been denied in Churchill Valley.³

III.

The designated Churchill Valley Ground Water Basin is in a subbasin of the larger Carson River Basin in Western Nevada. The potential local recharge from precipitation to the Churchill Valley Ground Water Basin is estimated to be 1,300 acre-feet of water per year.⁴

IV.

Permits and certificates have been issued under ground water applications prior to Application 37546 which could be exercised to divert almost 9,500 acre-feet of water which is in excess of the estimated basin recharge from the Churchill Valley Ground Water Basin.⁵

V.

The perennial yield of a ground water reservoir may be defined as the maximum amount of water of adequate quality that can be withdrawn and consumed economically each year for an indefinite period. If perennial yield is exceeded on a continual basis, water levels will decline until adverse conditions develop including but not limited to:

- a. cones of depression,
- b. declining water tables,
- c. increased economic pumping lifts,
- d. reversal of ground water gradients which may cause migration of poor quality water into good quality zones,
- e. land subsidence,
- f. decreased flows at surface discharge areas (springs, seeps, etc.),
- g. water quality deterioration

These conditions are well documented in several ground water basins in the State of Nevada where withdrawals have exceeded recharge of perennial yield.⁶

³ Public record in the office of the State Engineer. See denied Applications 28437, 31130, 31156, 31314, 31649, 31650, 31651, 31652, 31743, 32444, 35628, 35629, 36191 and 38016.

⁴ Water Resources Reconnaissance Series Report 59, pp. 47 and 48.

⁵ Public record in the office of the State Engineer.

⁶ See Appendix of References.

VI.

Should Applications 37546, 38015 and 39953 be granted, and should subsequent development of ground water under these permits detrimentally affect prior ground water rights, the State Engineer is required by law to order withdrawals restricted to conform to priority rights.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 in 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.

Existing water rights for the Churchill Valley Ground Water Basin exceed the estimated potential recharge from precipitation to the Churchill Valley Ground Water Reservoir. The potential exists for additional pumpage under existing ground water rights which have not yet been developed. To grant additional water rights for irrigation from this limited ground water resource would adversely affect existing rights and threaten to prove detrimental to the public welfare.

IV.

The State Engineer is authorized and directed to designate preferred uses of water within designated ground water areas such as Churchill Valley.¹⁰ The consumptive use of additional ground water to irrigate additional land is not considered to be a preferred use of limited ground water resources of the Churchill Valley Ground Water Basin.

⁷ NRS 534.110, subsections 2 and 6.

⁸ NRS 533.025, 533.030, subsection 1, and 533.370.

⁹ NRS 533.370, subsection 3.

¹⁰ NRS 534.120, subsection 2.

RULING

Applications 37546, 38015 and 39953 are herewith denied on the grounds that the appropriation of underground water for irrigation as applied for would tend to impair the value of existing rights and would threaten to prove detrimental to the public interest and welfare.

Respectfully submitted


Peter G. Morros
State Engineer

PGM/KN/bl

Dated this 27th day of

December, 1984.

APPENDIX OF REFERENCES

Land Subsidence in Las Vegas Valley, 1935-63, Information Series No. 5 U.S.G.S.

State of Nevada, Department of Highways, Report on Land Subsidence in Las Vegas Valley.

Evaluation of the Water Resources of Lemmon Valley with Emphasis on Effects of Ground-Water Development to 1971, J.R. Harrill, Water Resources Bulletin No. 42, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1972.

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Effects of Irrigation Development on the Water Supply Quinn River Valley area, Nevada and Oregon, 1950-1964, C.J. Huxel, Jr., Water Resource Bulletin No. 34, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1966.

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The Effects of Pumping on the Hydrology of Kings River Valley, Humboldt County, Nevada, 1957-1964, G.T. Malmberg and G.F. Worts, Jr., Water Resource Bulletin No. 31, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1966.

Effects of Ground-Water Development on the Water Regimen of Paradise Valley, Humboldt County, Nevada, 1948-1968, and Hydrologic Reconnaissance of the Tributary Areas, J.R. Harrill and D.O. Moore, Water Resource Bulletin No. 39, United States Geological Survey, 1970.

Ground-Water Storage Depletion in Pahrump Valley, Nevada-California, 1962-75, J.R. Harrill, Open File Report 81-635, United States Geological Survey, 1982, prepared in cooperation with Nevada Division of Water Resources.

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Subsidence in Las Vegas Valley, John w. Bell, Nevada Bureau of Mines and Geology Bulletin 95.

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