

IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATIONS 42440,)
42441, 42442, 42443 AND 44575 FILED TO)
APPROPRIATE THE PUBLIC WATERS OF AN)
UNDERGROUND SOURCE IN SAN EMIDIO)
DESERT, WASHOE AND PERSHING)
COUNTIES, NEVADA.)

RULING

GENERAL

I.

Application 42440 was filed on September 15, 1980, by James M. Duenow to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the SW1/4 Section 19 and NW1/4 Section 30, T.30N., R.23E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SW1/4 Section 19, T.30N., R.23E., M.D.B.&M.¹

Application 42441 was filed on September 15, 1980, by Mary K. Duenow to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the SW1/4 Section 30 and the NW1/4 Section 31, T.30N., R.23E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SW1/4 Section 30, T.30N., R.23E., M.D.B.&M.¹

Application 42442 was filed on September 15, 1980, by Adell Newsom to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the S1/2 Section 12, T.30N., R.22E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SE1/4 Section 12, T.30N., R.22E., M.D.B.&M.¹

Application 42443 was filed on September 15, 1980, by Raymond C. Burdick to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the SW1/4 Section 18 and the NW1/4 Section 19, T.30N., R.23E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SW1/4 Section 18, T.30N., R.23E., M.D.B.&M.¹

Application 44575 was filed on October 2, 1981, by Elroy Newsom to appropriate 5.4 c.f.s. of water from an underground source for irrigation purposes on 320 acres of land within the W1/2 NW1/4, E1/2 NE1/4 Section 24 and the E1/2 E1/2 Section 13, T.30N., R.22E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NE1/4 Section 24, T.30N., R.22E., M.D.B.&M.¹

¹ Public record in the office of the State Engineer.

II.

In 1968, Water Resources - Reconnaissance Series Report 44 titled "Water-Resources Appraisal of Smoke Creek-San Emidio Desert Area, Nevada and California", by Patrick A. Glancy and F. Eugene Rush, was prepared cooperatively by the Department of Conservation and Natural Resources, Division of Water Resources and the U.S. Department of the Interior, Geological Survey. This report can be viewed at the office of the State Engineer.

FINDINGS OF FACT

I.

The source of water to be used to reclaim lands under these applications is water from an underground source within San Emidio Desert Area, Washoe and Pershing Counties, Nevada.¹

II.

Ground water recharge to the San Emidio Desert Area is mainly derived from precipitation within the area.² The geological survey estimates the perennial yield of the San Emidio Desert Area basin to be 2,500 acre-feet of water per year.³

III.

Certificates of water appropriation have been issued in the San Emidio Desert Area basin in the amount of 6,860 acre-feet per year for manufacturing, mining, domestic and irrigation purposes. The State Engineer has issued permits which would allow for a diversion of an additional 430 acre-feet per year. This constitutes a potential demand of 7,290 acre-feet of water per year from the San Emidio Desert Area basin.⁴

IV.

Should additional water be allowed for appropriation for the irrigation of lands under these applications and subsequent development of ground water pursuant thereto detrimentally affect prior ground water rights, the State Engineer is required by law to order withdrawals be restricted to conform to priority rights.

V.

Nine prior applications to irrigate lands in the San Emidio Desert Area have been denied.⁵

² Water Resources-Reconnaissance Series Report 44, p. 27.

³ Water Resources-Reconnaissance Series Report 44, p. 46.

⁴ Public record in the office of the State Engineer.

⁵ State Engineer's Ruling No. 2533, public record in the office of the State Engineer.

VI.

The approval of Applications 42440, 42441, 42442, 42443 and 44575 would authorize the additional withdrawal of 6,400 acre-feet of ground water which would substantially exceed the perennial yield of the ground water basin.³ The perennial yield of a ground water reservoir is lost through the natural process of evapotranspiration. 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 or perennial yield.⁶

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.⁷

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.⁸

⁶ See attached Appendix of References.

⁷ NRS 533.325.

⁸ NRS 533.370, subsection 3.

III.

If the subject applications were approved, additional lands would be irrigated. This would result in additional consumptive use by farmland irrigation. The additional withdrawals and consumption would remove water from the ground water reservoir which would not be replaced resulting in depletion of the ground water reservoir. The additional withdrawals and consumption of underground water for irrigation would, therefore, conflict with existing rights and threaten to prove detrimental to the public welfare.

RULING

Applications 42440, 42441, 42442, 42443 and 44575 are hereby denied on the grounds that their granting would tend to impair the value of existing rights and be otherwise detrimental to the public welfare.

Respectfully submitted



Peter G. Morros
State Engineer

PGM/KN/bl

Dated this 6th day of

November, 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.

Hydrologic Response to Irrigation Pumping in Diamond Valley, Eureka and Elko Counties, Nevada, 1950-65, J.R. Harrill, Water Resources Bulletin No. 35, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1968.

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.

Hydrologic Response to Irrigation Pumping in Hualapai Flat, Washoe, Pershing and Humboldt Counties, Nevada, 1960-1967, J.R. Harrill, Water Resource Bulletin No. 37, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1969.

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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.

Subsidence in United States due to Ground-Water Overdraft - A Review, J.F. Poland, Proceedings of the Irrigation and Drainage Division Specialty Conference, April 1973, American Society of Civil Engineers.