

IN THE MATTER OF APPLICATION 46955)
FILED TO APPROPRIATE THE PUBLIC)
WATERS OF AN UNDERGROUND SOURCE IN)
DRY VALLEY, LINCOLN COUNTY, NEVADA.)

RULING

GENERAL

I.

Application 46955¹ was filed on May 27, 1983, by Chester H. and Josephine Oxborrox as Trustees to appropriate 1.72 c.f.s. of water from an underground source for irrigation purposes on 200.48 acres of land within Lots 3, 4, 5 and the SE1/4 NW1/4 and 10 acres within the NE1/4 SW1/4 Section 6, T.1S., R.69E., and the SE1/4 SW1/4, SW1/4 SW1/4 Section 36, T.1N., R.68E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 6, T.1S., R.69E., M.D.B.&M.

II.

Ground-Water Resources - Reconnaissance Series Report 27 titled "Ground-Water Appraisal of the Lower Meadow Valley Area, Lincoln and Clark Counties, Nevada", was prepared cooperatively by the Geological Survey, U.S. Department of Interior and State of Nevada, Department of Conservation and Natural Resources.

FINDINGS

I.

Dry Valley is one of eight valleys in southeastern Nevada which are all a part of the Colorado River drainage system known as the Meadow Valley Area.²

II.

The perennial yield² of a ground-water reservoir is the maximum rate at which ground-water of suitable chemical quality is available and can be withdrawn economically for an indefinite period of time. If the perennial yield is exceeded, water will be withdrawn from storage and ground-water levels will decline.

Withdrawals of ground-water in excess of the perennial yield contribute to adverse conditions³ such as water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts, land subsidence and possible

1 Public records in the office of the State Engineer.

2 Ground-Water Resources - Reconnaissance Series Report 27.

3 See attached Appendix of References.

reversal of ground-water gradients which could result in significant changes in the recharge-discharge relationship. These conditions have developed in several other ground-water basins³ within the State of Nevada where storage depletion and declining water tables have been recorded and documented.

III.

Dry Valley is part of a drainage system which includes seven other valleys. The basins in this drainage system include Patterson, Spring, Eagle, Panaca, Rose, Clover, Lower Meadow Valley Wash and Dry Valley. These basins in downstream order are hydrologically interrelated and therefore development in one valley may intercept the supply of water that would reach the next valley downstream. Therefore consideration is given only to the perennial yield of the entire area. The preliminary perennial yield of the area is considered to be about 25,000 acre-feet.

IV.

Existing certified and permitted ground-water rights in Dry Valley total over 5,000 acre-feet per year. The total existing certified and permitted ground water rights in the 8 valleys comprising the Meadow Valley Area drainage systems exceeds 50,000 acre-feet per year.

V.

Ground-water levels measured in six monitor wells within the Panaca Valley have declined on a gradual basis from 1968 to 1983.¹

VI.

Should additional water be allowed for appropriation under new applications and subsequent development of ground-water pursuant thereto detrimentally affect prior ground-water rights, the State Engineer is required by law⁴ to order withdrawals be restricted to conform to priority rights.

VII.

Information available¹ to the State Engineer indicates that Application 46995 was filed in support of a Desert Land Entry Application. NRS 533.367 establishes the order of priority the State Engineer must consider in acting on applications for irrigation use within the same basin.

⁴ NRS 534.110(6).

VIII.

The approval of Application 46995 would authorize the additional withdrawal of 1002.4 acre-feet of ground-water within the drainage system which would serve to increase the withdrawal of ground-water within this system to more than twice the amount of the perennial yield.

CONCLUSIONS

I.

The State Engineer has jurisdiction under the provisions of NRS Chapters 533 and 534.

II.

The State Engineer is prohibited by law⁵ from granting a permit where:

- A. there is no unappropriated water at the proposed source,
- B. the proposed use conflicts with existing rights,
- C. the proposed use threatens to prove detrimental to the public welfare.

III.

The granting of a permit under Application 46955 would result in the withdrawal of substantial amounts of ground-water. The amount requested would substantially increase the total water rights in the Meadow Valley drainage system, which presently has certificated and permitted water rights exceeding twice the perennial yield.

RULING

Application 46955 is herewith denied on the grounds that the granting thereof would adversely affect existing rights and would be detrimental to the public interest and welfare.

Respectfully submitted,



Peter G. Morros
State Engineer

PGM/bl

Dated this 2nd day of

April, 1984.

⁵ NRS 533.370.

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 Quin 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.

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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Basin Ground-Water Hydrology, Ralph C. Heath, U.S. Geological Survey Water Supply Paper 2220, 1983.

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.