

IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATIONS 45273,) 45652, 45980, 46012, 46013, 46159, 46407,) 46408, 46409, 46424, 46425, 46472, 46567,) 46568, 46569, 46613 AND 46843 FILED TO) APPROPRIATE THE PUBLIC WATERS OF AN) UNDERGROUND SOURCE IN THE) COLORADO RIVER VALLEY DESIGNATED) GROUND WATER BASIN, CLARK COUNTY,) NEVADA.)

RULING

GENERAL

Application 45273 was filed on February 1, 1982, by Laughlin Recreational Enterprises, Inc., to appropriate 1.0 c.f.s. of water from an underground source for quasi-municipal purposes within a portion of the N1/2 Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NW1/4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 45652 was filed on May 11, 1982, by Margaret Elardi, dba Pioneer Hotel and Gambling Hall, to appropriate 0.16 c.f.s. of water from an underground source for quasi-municipal purposes within portions of Lot 4 and S1/2 W1/2 Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within Lot 4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 45980 was filed on July 26, 1982, by Laughlin Recreational Enterprises to appropriate 1.0 c.f.s. of water from an underground source for quasi-municipal purposes within the N1/2 Section 3, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 3, T.32S., R.66E., M.D.B.&M.¹

Application 46012 was filed on August 10, 1982, by Southern Nevada Water Corporation to appropriate 1.0 c.f.s. of water from an underground source for quasi-municipal purposes within Lots 1, 2, 3 and 4 Section 33; and Section 28, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 28, T.32S., R.66E., M.D.B.&M.¹

Application 46013 was filed on August 10, 1982, by Southern Nevada Water Corporation to appropriate 1.0 c.f.s. of water from an underground source for quasi-municipal purposes within Lots 1, 2, 3 and 4 Section 33; and Section 28, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 28, T.32S., R.66E., M.D.B.&M.¹

Application 46159 was filed on September 17, 1982, by James H. Bilbray to appropriate 0.5 c.f.s. of water from an underground source for quasi-municipal purposes within portions of Lots 3 and 4 Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within Lot 3 Section 13, T.32S., R.66E., M.D.B.&M.¹

¹ Public record in the office of the State Engineer.

Application 46407 was filed on December 2, 1982, by Gene Maday to appropriate 0.5 c.f.s. of water from an underground source for quasi-municipal purposes within the N1/2 SW1/4 and portions of the S1/2 SW1/4, Lots 3 and 4, Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SW1/4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 46408 was filed on December 2, 1982, by Gene Maday to appropriate 0.5 c.f.s. of water from an underground source for quasi-municipal purposes within the N1/2 SW1/4 and portions of the S1/2 SW1/4, Lots 3 and 4, Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the NE1/4 SW1/4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 46409 was filed on December 2, 1982, by Gene Maday to appropriate 0.5 c.f.s. of water from an underground source for quasi-municipal purposes within the N1/2 SW1/4 and portions of the S1/2 SW1/4, Lots 3 and 4, Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SW1/4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 46424 was filed on December 9, 1982, by Sahara-Nevada Corporation to appropriate 1.0 c.f.s. of water from an underground source for commercial purposes within Parcels 3, 4 and 5 of Lots 5 and 6 being within the NE1/4 NW1/4, NW1/4 NE1/4 Section 24, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 24, T.32S., R.66E., M.D.B.&M.¹

Application 46425 was filed on December 9, 1982, by Sahara-Nevada Corporation to appropriate 0.5 c.f.s. of water from an underground source for commercial purposes within Parcels I, II, III, IV and V of Lot 4 being within the SW1/4 SE1/4, SE1/4 SW1/4 Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 46472 was filed on December 23, 1982, by Gene Maday to appropriate 0.5 c.f.s. of water from an underground source for quasi-municipal purposes within the N1/2 SW1/4 and portions of the S1/2 SW1/4, Lots 3 and 4, Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SW1/4 Section 13, T.32S., R.66E., M.D.B.&M.¹

Application 46567 was filed on January 24, 1983, by Irwin Soper to appropriate 0.26 c.f.s. of water from an underground source for quasi-municipal purposes within the W1/2 NW1/4 Section 16, E1/2 NE1/4 Section 17, T.33S., R.66E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 17, T.33S., R.66E., M.D.B.&M.¹

Application 46568 was filed on January 24, 1983, by Irwin Soper to appropriate 0.26 c.f.s. of water from an underground source for quasi-municipal purposes within the W1/2 NW1/4 Section 16, E1/2 NE1/4 Section 17, T.33S., R.66E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NE1/4 Section 17, T.33S., R.66E., M.D.B.&M.¹

Application 46569 was filed on January 24, 1983, by Irwin Soper to appropriate 0.26 c.f.s. of water from an underground source for quasi-municipal purposes within the W1/2 NW1/4 Section 16, E1/2 NE1/4 Section 17, T.33S., R.66E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 17, T.33S., R.66E., M.D.B.&M.¹

Application 46613 was filed on February 7, 1983, by Southern Nevada Water Corporation to appropriate 0.79 c.f.s. of water from an underground source for quasi-municipal purposes within Sections 28 and 33, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within Lot 2 Section 33, T.32S., R.66E., M.D.B.&M.¹

Application 46843 was filed on May 3, 1983, by Sahara-Nevada Corporation to appropriate 1.0 c.f.s. of water from an underground source for commercial and domestic purposes within Parcels I, II, III, IV and V of Lot 4 being within the SW1/4 SE1/4, SE1/4 SW1/4 Section 13, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within Lot 4 Section 13, T.32S., R.66E., M.D.B.&M.¹

In 1966, Water Resources Reconnaissance Series Report 36, "Ground Water Appraisal of the Eldorado-Piute Valley Area, Nevada and California", by F. Eugene Rush and Charles J. Huxel, Jr., was prepared cooperatively by the Nevada Department of Conservation and Natural Resources, Division of Water Resources, and the U.S. Department of the Interior, Geological Survey. This report may be viewed at the office of the State Engineer.

In 1981, Open File Report 82-115, "Geohydraulic Reconnaissance of Lake Mead National Recreation Area - Las Vegas Wash to Opal Mountain, Nevada", R. L. Laney, prepared by the U.S. Geological Survey.

FINDINGS OF FACT

I.

The points of diversion and places of use under the subject applications lie in a developed area at the base of a small alluvial fan which descends to a narrow flood plain along the Colorado River, including what is generally referred to as the Laughlin area. The alluvial fan emanates from the Newberry Mountains which border to the west and northwest. The alluvial fan and flood plain are composed of unconsolidated to semi-consolidated sediments which form lenticular beds of sand, gravel, silt and clay. Ground water occurrence and movement are contained to fractures in the severely altered and faulted bedrock of the Newberry Mountains. Recharge from precipitation is very limited and ground water movement through the Newberry Mountains from adjacent Piute Valley is also very limited. There also may be some recharge to the ground water reservoir from cooling water infiltration and the coal slurry ponds at the Mohave Generating Plant.²

II.

By an Order dated July 2, 1982, the State Engineer designated and described the Colorado River Valley Ground Water Basin under the provisions of NRS Chapter 534.³

² Water Resources Reconnaissance Series Report 36 and USGS Open File Report 82-115, public record in the office of the State Engineer.

³ See State Engineer's Order No. 790 dated July 7, 1982, public record in the office of the State Engineer.

III.

It is estimated that the potential annual recharge to the Colorado River Valley Ground Water Basin from precipitation is 200 acre-feet.⁴ The perennial yield of a hydrologic system is the maximum amount of water of usable chemical quality that can be consumed economically each year for an indefinite period of time. If the perennial yield is continually exceeded, ground water levels will decline until the ground water reservoir is depleted of water of usable quality or until the pumping lifts become uneconomical to maintain. Perennial yield cannot exceed the natural replenishment to an area indefinitely, and ultimately is limited to the maximum amount of natural discharge that can be salvaged for beneficial use.⁵

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 gradients which could result in significant changes in the recharge-discharge relationship. These conditions have developed in several other ground water basins within the State of Nevada where storage depletion and declining water tables have been recorded and documented.⁵

IV.

Certificates of Appropriation from the Colorado River Valley Ground Water Basin have been issued in the amount of 436 acre-feet per year. Additionally, the State Engineer has issued permits which would allow the diversion of 1,324 acre-feet per year when fully developed. Therefore, a total of 1,760 acre-feet per year of water right is currently appropriated from the Colorado River Valley Ground Water Basin.¹

V.

A public administrative hearing in the matter of applications to appropriate water from the Colorado River Valley Ground Water Basin was held on June 11, 1982. Although testimony was presented at the hearing, there was no evidence presented that would indicate that there was sufficient ground water available to supply the proposed diversions without creating an adverse effect on prior existing water rights. A transcript of the hearing may be viewed at the office of the State Engineer.⁶

CONCLUSIONS

I.

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

⁴ Water Resources Reconnaissance Series Report 36, page 19.

⁵ See attached Appendix of References.

⁶ See State Engineer's Ruling No. 2763, dated July 9, 1982.

⁷ NRS Chapters 533 and 534.

II.

The State Engineer is prohibited by law⁸ from granting a permit under an application to appropriate the public waters 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.

III.

Should Applications 45273, 45652, 45980, 46012, 46013, 46159, 46407, 46408, 46409, 46424, 46425, 46472, 46567, 46568, 46569, 46613 and 46843 be granted, the additional withdrawals and consumption would remove water from the ground water basin which:

- A. Would not be replaced resulting in depletion of the ground water reservoir, or
- B. Would be replaced by infiltrating surface water that would otherwise remain in or return to the stream system which would constitute interference with existing rights.

The 18 applications to appropriate would require an appropriation of as much as 3,430 acre-feet of ground water annually.

The additional withdrawal and consumption of underground water would, therefore, conflict with existing rights and threaten to prove detrimental to the public welfare.

IV.

Should additional water be allowed for appropriation under new applications and subsequent development of ground water, pursuant thereto, detrimentally affect prior existing rights, the State Engineer is required by law to order withdrawals be restricted to conform to priority rights.⁹

⁸ NRS 533.370(3).

⁹ NRS 534.110(b).

RULING

Applications 45273, 45652, 45980, 46012, 46013, 46159, 46407, 46408, 46409, 46424, 46425, 46472, 46567, 46568, 46569, 46613 and 46843 are herewith denied on the grounds that the granting thereof would conflict with existing rights and be detrimental to the public interest and welfare.

Respectfully submitted,


PETER G. MORROS
State Engineer

PGM/SHF/bl

Dated this 27th day of
May, 1986.

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.

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.

Development of a Relation for Steady State Pumping Rate for Eagle Valley Ground-Water Basin, Nevada, F.E. Arteaga, T.J. Durbin, United States Geological Survey, 1978, prepared in cooperation with Nevada Division of Water Resources.

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

Methods of Determining Permeability, Transmissibility and Drawdown, U.S. Geological Survey Water Supply Paper 1536-1, R.H. Brown, J.G. Ferris, C.E. Jacob, D.B. Knowles, R.R. Meyer, H.E. Skibitzke and C.F. Theis, 1963.

Appendix of References

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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.

Ground-Water Hydraulics, S.W. Lohman, U.S. Geological Survey Professional Paper 708, 1979.