

**IN THE OFFICE OF THE STATE ENGINEER**

IN THE MATTER OF APPLICATIONS 52975,) 53053, 53061, 53070, 53071 AND 53212 FILED) TO APPROPRIATE THE PUBLIC WATERS OF) AN UNDERGROUND SOURCE WITHIN THE) COLORADO RIVER VALLEY GROUNDWATER) BASIN, CLARK COUNTY, NEVADA.

**RULING**

**GENERAL**

I.

Application 52975 was filed on February 28, 1989, by Robert Lee Gunther to appropriate four acre-feet per acre of water from an underground source for irrigation purposes on 320 acres of land within the E $\frac{1}{2}$  Section 15, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the E $\frac{1}{2}$  Section 15, T.32S., R.66E., M.D.B.&M.<sup>1</sup>

Application 53053 was filed on March 23, 1989, by Mary Lou Smith to appropriate 4 acre-feet per acre of water from an underground source for irrigation purposes on 320 acres of land within the W $\frac{1}{2}$  Section 9, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the W $\frac{1}{2}$  Section 9, T.32S., R.66E., M.D.B.&M.<sup>1</sup>

Application 53061 was filed on March 24, 1989, by Jeannie Ellison to appropriate 3.2 acre-feet per acre of water from an underground source for irrigation purposes on 320 acres of land within the S $\frac{1}{2}$  Section 3, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the NW $\frac{1}{4}$  SE $\frac{1}{4}$  Section 3, T.32S., R.66E., M.D.B.&M.<sup>1</sup>

Application 53070 was filed on March 29, 1989, by Patton W. Kwan to appropriate 4 acre-feet per acre of water from an underground source for irrigation purposes on 320 acres of land within the W $\frac{1}{2}$  Section 16, T.32S., R.65E., M.D.B.&M. The point of diversion is described as being within the W $\frac{1}{2}$ , Section 16, T.32S., R.65E., M.D.B.&M.<sup>1</sup>

Application 53071 was filed on March 29, 1989, by Colleen Kwan to appropriate 4 acre-feet per acre of water from an underground source for irrigation purposes on 320 acres of land within the W $\frac{1}{2}$  Section 3, T.32S., R.65E., M.D.B.&M. The point of diversion is described as being within the W $\frac{1}{2}$ , Section 16, T.32S., R.65E., M.D.B.&M.<sup>1</sup>

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<sup>1</sup> Public record in the office of the State Engineer.

Application 53212 was filed on May 1, 1989, by Kay Manos to appropriate four acre-feet per acre of water from an underground source for irrigation purposes on 320 acres of land within the E½ Section 10, T.32S., R.66E., M.D.B.&M. The point of diversion is described as being within the E½ Section 10, T.32S., R.66E., M.D.B.&M.<sup>1</sup>

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.<sup>2</sup>

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.<sup>2</sup>

#### FINDINGS OF FACT

##### I.

By an Order dated July 2, 1982, the State Engineer designated and described the Colorado River Valley Groundwater Basin under the provisions of NRS Chapter 534.<sup>3</sup>

##### II.

It is estimated that the potential annual recharge to the Colorado River Valley Groundwater Basin from precipitation is 200 acre-feet.<sup>4</sup> The perennial yield of a hydrologic system is the maximum amount of water of usable chemical quality tht can be consumed economically each year for an indefinite period of time. If the perennial yield is continually exceeded, groundwater levels will decline until the groundwater 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

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

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

<sup>4</sup> Water Resources Reconnaissance Series Report 36, page 19.

indefinitely, and ultimately is limited to the maximum amount of natural discharge that can be salvaged for beneficial use.<sup>5</sup>

Withdrawals of groundwater in excess of the perennial yeild 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 groundwater gradients which could result in significant changes in the recharge-discharge relationship. These conditions have developed in several other groundwater basins within the State of Nevada where storage depletion and declining water tables have been recorded and documented.<sup>5</sup>

### III.

Certificates of Appropriation from the Colorado River Valley Groundwater Basin have been issued in the amount of 726 acre-feet per year. Additionally, the State Engineer has issued permits which would allow the diversion of 955 acre-feet per year when fully developed. Therefore, a total of 1,681 acre-feet per year of water right is currently appropriated from the Colorado River Valley Groundwater Basin.<sup>1</sup>

### IV.

A public administrative hearing in the matter of the applications to appropriate water from the Colorado River Valley Groundwater 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 groundwater 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.<sup>6</sup>

## CONCLUSIONS

### I.

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

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<sup>5</sup> See attached Appendix of References.

<sup>6</sup> See State Engineer's Rulings No. 2763, dated July 9, 1982.

<sup>7</sup> NRS Chapters 533 and 534.

II.

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:<sup>8</sup>

- 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 52975, 53053, 53061, 53070, 53071 and 53212 be granted, the additional withdrawals and consumption from irrigation would remove water from the groundwater basin which:

- A. Would not be replaced resulting in depletion of the groundwater 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 6 subject applications to appropriate would require an appropriation of as much as 7,680 acre-feet of groundwater 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.

The State Engineer is authorized and directed to designate preferred uses of water within designated groundwater basins such as the Colorado River Valley Groundwater

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<sup>8</sup> NRS 534.120, subsection 2.

Basin.<sup>9</sup> The consumptive use of additional groundwater to irrigate additional land or to more intensively or frequently irrigate other land is not considered to be a preferred use of the limited water resources of the Colorado River Valley Groundwater Basin.

V.

Previous Application Nos. 32073, 32074, 32075, 32076, 32077, 32078, 32079, 32080, 32914, 36470, 36471 and 36529 filed with the State Engineer's office to appropriate additional groundwater within the Colorado River Valley for irrigation and domestic purposes, have been denied.

VI.

Should additional water be allowed for appropriation under new applications and subsequent development of groundwater, pursuant thereto, detrimentally affect prior existing rights, the State Engineer is required by law to order withdrawals be restricted to conform to priority rights.<sup>10</sup>

RULING

Applications 52975, 53053, 53061, 53070, 53071 and 53212 are denied on the grounds that the appropriation of underground water for irrigation would tend to impair the value of existing rights, would be detrimental to the public interest and welfare, and would not be a preferred use of the limited groundwater resource in the Colorado River Valley Groundwater Basin.

Respectfully submitted,



PETER G. MORROS  
State Engineer

PGM/DJL/bk

Dated this 20th day of  
June, 1989.

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<sup>9</sup> NRS 533.370(3).

<sup>10</sup> NRS 534.110(b).

## 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 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.

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Appendix of References

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