

IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATION 48973)  
FILED TO CHANGE THE POINT OF)  
DIVERSION AND PLACE OF USE OF THE)  
WATERS OF AN UNDERGROUND SOURCE)  
HERETOFORE APPROPRIATED UNDER)  
PERMIT 38085 IN PAHRUMP VALLEY, NYE)  
COUNTY, NEVADA. )

RULING

GENERAL

Application 48973 was filed on April 8, 1985, by Floyd B. Neth and Shirley B. Neth to change the point of diversion and place of use of 0.057 c.f.s. of water from an underground source heretofore appropriated under Permit 38085. The proposed use is for irrigation and domestic purposes on 5 acres of land within the SW1/4 SW1/4 Section 3, T.20S., R.53E., M.D.B.&M. The proposed point of diversion is described as being within the SW1/4 SW1/4 Section 3, T.20S., R.53E., M.D.B.&M. The existing point of diversion is within the NE1/4 SE1/4 Section 28, T.19S., R.53E., M.D.B.&M.<sup>1</sup>

In 1982, U.S. Geological Survey's Open-File Report 81-635, "Ground Water Storage Depletion in Pahrump Valley, Nevada-California, 1962-1975", by James R. Harril, was prepared cooperatively by the Nevada Department of Conservation and Natural Resources and the U.S. Department of the Interior, Geological Survey. This report is available in the State Engineer's office.

The following publications were used in evaluating the ground water availability in the Pahrump Basin:

Geological Survey Professional Paper 712-C, "Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site", prepared by the United States Department of the Interior, Geological Survey.

Geological Survey Water-Supply Paper 1832, "Hydrology of the Valley-Fill and Carbonate-Rock Reservoirs, Pahrump Valley, Nevada-California", prepared in cooperation with the Nevada Department of Conservation and Natural Resources and the U.S. Department of the Interior, Geological Survey.

Water Resources Bulletin No. 5, "Geology and Water Resources of Las Vegas, Pahrump, and Indian Springs Valleys, Clark and Nye Counties, Nevada", by G.B. Maxey and C.H. Jameson.

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

FINDINGS OF FACT

I.

Application 48973 has a point of diversion located on the Pahrump fan within the area designated as the Pahrump Artesian Basin.<sup>2</sup>

II.

Permit 38085 (the base right) has a point of diversion which is not on the Pahrump Fan.<sup>2</sup>

III.

The State Engineer has designated the Pahrump Artesian Basin as provided under NRS 534.010 to 534.190, inclusive, by the following orders:

1. Order No. 176, dated March 11, 1941.
2. Order No. 193 dated January 15, 1948, extending the boundary of the Pahrump Artesian Basin.
3. Order No. 205 dated January 23, 1953, extending the boundary of the Pahrump Artesian Basin.

IV.

The State Engineer curtailed the issuance of permits to appropriate ground water for irrigation purposes within the designated Pahrump Artesian Basin.<sup>3</sup>

V.

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.<sup>4</sup> The perennial yield of Pahrump Valley probably does not exceed 19,000 acre-feet.<sup>5</sup>

-----  
<sup>2</sup> U.S. Geological Survey, Open File Report 81-635. Map indicating "Generalized Geology of Pahrump Valley, Nevada-California".

<sup>3</sup> State Engineer's Order 381, dated June 1, 1970.

<sup>4</sup> U.S. Geological Survey Water Supply Paper 1832, p. 39, "Hydrology of the Valley-Fill and Carbonate-Rock Reservoirs, Pahrump Valley, Nevada-California".

<sup>5</sup> U.S. Geological Survey, Open File Report 81-635, p. 71.

VI.

Overdraft may be defined as the amount by which the net pumping draft exceeds the perennial yield. A substantial overdraft exists on the ground water reservoir. Overdraft on the system in 1982 was about 4,482 acre-feet, and under these conditions, no new equilibrium is possible and water levels will continue to decline as long as this high level of pumping is sustained.<sup>6</sup>

VII.

The greatest declines of ground water levels in the Pahrump Valley have occurred along the base of the Pahrump and Manse fans where maximum declines of about 100 feet were observed between predevelopment in the basin and February 1976 levels.<sup>7</sup>

Water levels within wells measured upon the Pahrump fan have shown a decline from 1976 to 1984.<sup>1</sup>

VIII.

Permits and certificates have been issued in Pahrump Valley that could be used to withdraw over 70,000 acre-feet of ground water per year.<sup>1</sup>

IX.

Eight previous applications for appropriation of the underground waters with points of diversion located upon the Pahrump fan have been denied. The manner of use for seven of the applications denied was for quasi-municipal use and one was for commercial use.<sup>8</sup>

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.<sup>9</sup>

-----  
<sup>6</sup> U.S. Geological Survey, Open File Report 81-635, p. 71.

<sup>7</sup> U.S. Geological Survey, Open File Report 81-635, p. 30.

<sup>8</sup> State Engineer's Ruling Nos. 1854, 1897, 1918, 1919, 2836 and 3216.

<sup>9</sup> NRS 533.025 and NRS 533.030(1).

II.

The State Engineer is prohibited by law from granting a permit where:<sup>10</sup>

- A. The proposed use conflicts with existing rights, or
- B. The proposed use threatens to prove detrimental to the public welfare.

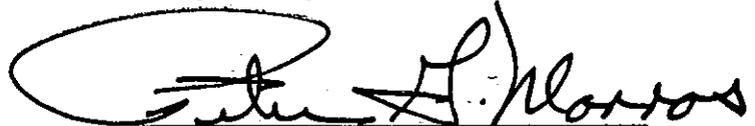
III.

An existing overdraft of the ground waters exists on the Pahrump fan. Application 48973, although an application to change, is a request to appropriate additional ground water on the Pahrump fan. If approved, Application 48973 could increase the overdraft of the ground water resource on the Pahrump fan and thereby conflict with existing rights.

RULING

Application 48973 is herewith denied on the grounds that the granting of this application would increase the potential pumpage draft on the Pahrump fan, thus causing an increase in the overdrafts and thereby adversely affecting existing water rights.

Respectfully submitted,



PETER G. MORROS  
State Engineer

PGM/KN/bl

Dated this 8th day of  
November, 1985.

-----  
<sup>10</sup> NRS 533.370(4).