IN THE MATTER OF APPLICATIONS 35593)
AND 38587 FILED TO CHANGE THE)
MANNER AND PLACE OF USE OF WATERS)
HERETOFORE APPROPRIATED FROM AN)
UNDERGROUND SOURCE IN THE AMARGOSA)
DESERT DRAINAGE BASIN, NYE COUNTY,)
NEVADA.)

RULING

INTRODUCTION

Applications 35593 and 38587 were filed to change the manner and place of use of waters heretofore appropriated under Permit 27812.

Water Resources Reconnaissance Series Report 14, Geology and Ground Water of Amargosa Desert, Nevada-California by George E. Walker and Thomas E. Eakin, geologists, 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 is available from the office of the State Engineer.

FINDINGS OF FACT

I

Application 35593 was filed on July 5, 1978 by Industrial Mineral Ventures, Inc. to change the manner and place of use of a portion of water heretofore appropriated under Permit 27812 from an underground source within the Amargosa Desert Designated Ground Water Basin. Application 35593 proposes to change the place of use of 1.0 c.f.s. of water from Section 29, T.17S., R.49E., M.D.B.& M. to the NE¼ NW¼ Section 12, T.17S., R.48E., M.D.B.& M. The manner of use is proposed to be changed from mining and milling to irrigation on 20 acres of land. Application 35593 was ready for action on March 10, 1979.

Application 38587 was filed on July 18, 1979 by Industrial Mineral Ventures, Inc. to change the manner and place of use of a portion of water heretofore appropriated under Permit 27812 from an underground source within the Amargosa Desert Designated Ground Water Basin. Application 38587 proposes to change the place of use of 1.5 c.f.s. of water from Section 29, T.17S., R.49E., M.D.B.& M. to the W½ NW¼ Section 12, T.17S., R.48E., M.D.B.& M. The manner of use is proposed to be changed from mining and milling to irrigation for 80 acres of land. Application 38587 was ready for action on May 10, 1980. 1/

II

By an order dated May 14, 1979, the State Engineer designated and described the Amargosa Desert Ground Water Basin under the provisions of NRS 534. 2/

III

The perennial yield is the maximum amount of water that can be withdrawn from the ground water system for an indefinite period of time without causing a permanent depletion of the stored water or causing a deterioration in the quality of the water. It is ultimately limited by the amount of water annually recharged to or discharged from the ground water system. 3/

IV

The Amargosa Desert Ground Water Basin is recharged in part by infiltration of precipitation within the tributary drainage area of about 2,600 square miles, but most is supplied by underflow from beyond the tributary drainage area through Paleozoic carbonate rocks.

The underflow originates in the Nevada Test Site and the ground water is tributary to three discharge areas: (1) Ash Meadows, (2) Alkali Flat (Southern Amargosa Desert), and (3) Oasis Valley, between Beatty and Springdale.

The Ash Meadows area consists of the unnamed valley and a spring line. The ground water travels through the lower carbonate aquifer to a hydraulic barrier which is coincidental to a normal fault. The fault extends from Big Spring on the southeast to a point five miles north northeast of Lathrop Wells. The principal annual discharge from the Basin (17,000 acre-feet) occurs as a direct result of the southwesterly movement of ground water within the lower carbonate aquifer to the fault controlled spring line. The resultant discharge from an individual spring is as much as 2,800 gallons per minute. 4/

The average annual ground water discharge from Amargosa Desert by evapotranspiration and outflow is estimated to be 24,000 acre-feet. Of this amount, 17,000 acre-feet is available on a perennial basis from the springs in Ash Meadows. Most of the remainder (7,000 acre-feet) is available to wells in the valley fill northwest and northeast of the springs. 5/

V

Certificates have been issued for underground water permits which could be exercised to divert more than 27,000 acre-feet of water per year from the Amargosa Desert Ground Water Basin. Permits have been granted which could be used to develop an additional 28,500 acre-feet per year of ground water from the Basin.

Certificates have been issued for surface water permits which could be exercised to divert more than 21,000 acre-feet of water per year from the Amargosa Desert Ground Water Basin. Permits have been granted which could be used to develop approximately an additional 17,000 acre-feet per year of surface water from the Basin.

Therefore, the total certificated water rights exceed 48,000 acre-feet of water per year and the total permitted water rights exceed 45,500 acre-feet of water per year. 6/

VI

Since 1962, the level of water in Devils Hole has been measured with reference to a copper washer. In 1969, the water level in Devils Hole was 2.3 feet below the copper washer with a continued lowering of the water level to 3.93 feet in 1972.

On June 5, 1972, the Federal District Court, by Chief Judge Roger D. Foley, entered a preliminary injunction limiting the pumpage of selected wells in the Ash Meadows area to return the water level in Devils Hole to not more than 3.0 feet below the copper washer. 7/

On March 23, 1978, an order was issued by the Federal District Court modifying the final decree filed April 9, 1974, to limit the pumpage of selected wells to maintain the water level in Devils Hole to a daily mean water level of 2.7 feet below the copper washer. 8/

VII

The State Engineer is authorized and directed to designate preferred uses of water within designated ground water basins. 9/ The State Engineer, in a ruling dated June 25, 1979, declared the consumptive use of ground water to irrigate additional land within the Amargosa Desert Ground Water Basin is not considered to a be a preferred use of the limited ground water resources within that basin.

VIII

On June 25, 1979 the State Engineer denied applications to appropriate ground water for irrigation purposes on additional land within the basin totalling 4,560 acres 10/ with dates of priority ranging from July 30, 1976 to September 19, 1978.

The additional withdrawals and consumption represented in these applications would remove water from the ground water reservoir 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.

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

IX

Existing water rights exceed the estimated average annual recharge to the Amargosa Desert Ground Water Basin. The potential exists for additional pumpage under existing ground water permits which have not yet been fully developed.

X

Mining and milling by nature of its activity is considered a temporary use of water and this is exemplified by virtue of the filing of applications to change 35593 and 38587 and further has been considered a preferred use of water in most designated ground water basins in Nevada.

XI

To grant applications to change the manner of use of rights issued for preferred uses to non-preferred uses within designated ground water basins would not be in the public interest or in the best interest of the orderly management of the resource. Additionally, there would be an adverse effect on existing rights.

CONCLUSIONS

I

The State Engineer has jurisdiction of the parties and the subject matter of this action. 11/

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. 12/

RULING

Applications 35593 and 38587 are herewith denied on the following grounds:

1. Adverse effect on existing rights;

2. Irrigation is not a preferred use within the Amargosa Desert Ground Water Basin;

3. The proposed use would conflict with existing rights and further would not be in the best interests of the orderly management of the resource within the ground water basin and, therefore, would be detrimental to the public welfare.

Respectfully submitted,

Peter G. Morros
State Engineer

PGM/dh

Dated this 16th day

of February 1982.

FOOTNOTES

1. Public records in the office of the State Engineer.

2. Public records in the office of the State Engineer.

3. Water Resources-Reconnaissance Series Report 14, p. 28.

4. Geological Survey Professional Paper 712-C, Hydrogeologic and Hydrochemical Framework, South Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site. U.S. Government, 1975, 126 pp.

5. Water Resources-Reconnaissance Series Report 14, p. 40.

6. Public records in the office of the State Engineer.

7. Cappaert vs. United States, 426 U.S. 128 (1976).

8. United States vs. Cappaert, Civil No. LV-1687, March 3, 1978.

9. NRS 534.120, subsection 2.

10. Public records in the office of the State Engineer under Applications 30443, 31962, 31963, 32120, 32323, 32506, 32507, 32508, 32509, 32510, 32511, 32512, 32731, 32732, 32733, 33011, 33156, 33190, 33344, 33345, 34564, 34635, 34878, 35220, 35647, 35648, 35855 and 35893.

11. NRS 533.025 and NRS 533.030, subsection 1.

12. NRS 533.370, subsection 4.