

IN THE MATTER OF APPLICATION TO)
CHANGE 47225 FILED TO APPROPRIATE)
THE WATERS OF AN UNDERGROUND SOURCE)
WITHIN THE AMARGOSA DESERT GROUND)
WATER BASIN IN NYE COUNTY, NEVADA.)

RULING

GENERAL

Application 47225 was filed on September 2, 1983, by Edward J. Rigler to change the manner of use of 4.0 c.f.s. of water from an underground source for irrigation purposes heretofore appropriated under Permit 40448 for quasi-municipal purposes. The point of diversion is described as being within the NW1/4 NE1/4 Section 24, T.15S., R.49E., M.D.B.&M., and the place of use is described as being within the E1/2 W1/2 SW1/4 SW1/4 Lots 32 and 33 Section 18; Lots 7, 22 through 25, inclusive, and Lots 39 through 58, inclusive, Section 19, T.15S., R.50E., M.D.B.&M., 169.6 acres total. ¹²

FINDINGS OF FACT

I.

By an order dated May 14, 1979, the State Engineer designated and described the Amargosa Desert Ground Water Basin under the provisions of NRS Chapter 534.³

II.

The perennial yield is the maximum amount of water that can be withdrawn from the ground water system for an indefinite period of time without causing a permanent depletion of the stored water or causing a deterioration in the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 and/or discharged from the ground water system.⁴

¹ Public record in the office of the State Engineer under Application 47225.

² Public record in the office of the State Engineer under Application 40448.

³ State Engineer's Order No. 724, public record in the office of the State Engineer.

⁴ Water Resources-Reconnaissance Series Report 14, p.28.

III.

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.⁵

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.⁵

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.⁵

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.⁶

IV.

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.⁷

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.

⁵ 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.

⁶ Water Resources-Reconnaissance Series Report 14, p.40.

⁷ Public records in the office of the State Engineer.

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.⁷

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.⁷

V.

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.⁸

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 to 2.7 feet below the copper washer.⁹

VI.

The State Engineer is authorized and directed to designate preferred uses of water within designated ground water basins.¹⁰ 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 be a preferred use of the limited ground water resources within that basin.

VII.

On June 25, 1979, the State Engineer denied applications to appropriate ground water for irrigation purposes on additional land within the basin totaling 4,560 acres with dates of priority ranging from July 30, 1976, to September 19, 1978.¹¹

⁸ Cappaert vs. United States, 426 U.S. 128 (1976).

⁹ United States v. Cappaert, Civil No. LV-1687, March 3, 1978.

¹⁰ NRS 534.120, subsection 2.

¹¹ 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.

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.

VIII.

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.

IX.

Appropriation of water for quasi-municipal purposes is considered to be a preferred use of water and, further, has been considered a preferred use of water in most designated ground water basins in Nevada.

X.

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.¹²

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.¹³

¹² State Engineer's Ruling No. 2749, public record in the office of the State Engineer.

¹³ NRS 533.025 and NRS 533.030, subsection 1.

II.

The State Engineer is authorized to deny applications prior to publication.¹⁴

III.

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.¹⁴

RULING

Application 47225 is herewith denied on the following grounds:

- 1. irrigation is not a preferred use within the Amargosa Desert Ground Water Basin;
- 2. changing the manner of use from quasi-municipal to irrigation would result in an adverse effect on existing rights;
- 3. the proposed use would also conflict with existing rights and further would not be in the best interest 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/SF/bl

Dated this 4th day of
SEPTEMBER, 1984.

¹⁴ NRS 533.370, subsection 3.