IN THE MATTER OF 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 FILED TO APPROPRIATE THE WATERS OF AN UNDERGROUND SOURCE IN THE AMARGOSA DESERT DRAINAGE BASIN, NYE COUNTY, NEVADA

RULING

INTRODUCTION

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 were filed to appropriate water from an underground source in the Amargosa Desert Ground Water Basin, Nye County, Nevada.

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 30443 was filed by Dave and Dale Meyer on August 30, 1976, to appropriate 0.25 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ NW¼ of Section 2, T.17S., R.49E., M.D.B. & M., and the place of use is 10 acres within the SE¼ SW¼ of Section 2, T.17S., R.49E., M.D.B. & M.

Application 31962 was filed by Charles E. and Randee G. McWilliam on June 7, 1977, to appropriate 5.4 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ NE¼ of Section 12, T.16S., R.48E., M.D.B. & M., and the place of use is 320 acres within the E½ of Section 12, T.16S., R.48E., M.D.B. & M.

Application 31963 was filed by Tom C. and Dottie F. Ruston on June 7, 1977, to appropriate 5.4 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NW¼ SW¼ of Section 12, T.16S., R.48E., M.D.B. & M., and the place of use is 320 acres within the W½ of Section 12, T.16S., R.48E., M.D.B. & M.

Application 32120 was filed by Charles C. Childress on June 20, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ NW¼ of Section 9, T.16S., R.49E., M.D.B. & M., and the place of use is 160 acres within the NW¼ of Section 9, T.16S., R.49E., M.D.B. & M.

Application 32323 was filed by D. J. Curtis on June 27, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ SE¼ of Section 34, T.17S., R.49E., M.D.B. & M., and the place of use is 160 acres within the SE¼ of Section 34, T.17S., R.49E., M.D.B. & M.

Application 32506 was filed by Lavada and Clyde Parmer on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SW¼ NW¼ of Section 14, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the NW¼ of Section 14, T.16S., R.48E., M.D.B. & M.

Application 32507 was filed by Lavada and Clyde Parmer on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NW¼ SW¼ of Section 14, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the SW¼ of Section 14, T.16S., R.48E., M.D.B. & M.

Application 32508 was filed by Lewis and Claribel Dansby on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ NE¼ of Section 4, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the NE 1/4 of Section 4, T.16S., R.48E., M.D.B. & M.

Application 32509 was filed by Lewis and Claribel Dansby on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NW¼ NW¼ of Section 4, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the NW¼ of Section 4, T.16S., R.48E., M.D.B. & M.

Application 32510 was filed by Sherry Thatcher on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ SW¼ of Section 8, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the SW¼ of Section 8, T.16S., R.48E., M.D.B. & M.

Application 32511 was filed by Ralph C. and Patricia E. Allison on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SW¼ SW¼ of Section 3, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the SW¼ of Section 3, T.16S., R.48E., M.D.B. & M.

Application 32512 was filed by Ralph C. and Patricia E. Allison on June 30, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ SE¼ of Section 3, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the SE¼ of Section 3, T.16S., R.48E., M.D.B. & M.

Application 32731 was filed by Stewart Southwest, Inc., on July 7, 1977, to appropriate 1.35 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NW¼ NW¼ of Section 17, T.16S., R.48E., M.D.B. & M., and the place of use is 80 acres within the NW¼ of Section 17, T.16S., R.48E., M.D.B. & M.

Application 32732 was filed by Merville V. Stewart on July 7, 1977, to appropriate 0.70 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NW¼ NW¼ of Section 18, T.16S., R.48E., M.D.B. & M., and the place of use is 40 acres within the SW¼ SW¼ of Section 18, T.16S., R.48E., M.D.B. & M.

Application 32733 was filed by Stewart Southwest, Inc., on July 7, 1977, to appropriate 1.35 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ NE¼ of Section 18, T.16S., R.48E., M.D.B. & M., and the place of use is 80 acres within the NE¼ of Section 18, T.16S., R.48E., M.D.B. & M.

Application 33011 was filed by Mack C. and Artie E. Vassar on August 3, 1977, to appropriate 3.0 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ SE¼ of Section 27, T.16S., R.48E., M.D.B. & M., and the place of use is 75 acres within the E½ E½ of Section 27, T.16S., R.48E., M.D.B. & M.

Application 33156 was filed by Robert J. Eastman on August 15, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ SE¼ of Section 5, T.16S., R.49E., M.D.B. & M., and the place of use is 160 acres within the E½ E½ of Section 5, T.16S., R.49E., M.D.B. & M.

Application 33190 was filed by Jack Brown Sills, and Estelene N. Sills on August 17, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ SW¼ of Section 22, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the SW¼ of Section 22, T.16S., R.48E., M.D.B. & M.

Application 33344 was filed by I. C. Spears and Partners on August 24, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ NE¼ of Section 22, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the NE¼ of Section 22, T.16S., R.48E., M.D.B. & M.

Application 33345 was filed by I. C. Spears and Partners on August 24, 1977, to appropriate 2.7 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ SE¼ of Section 22, T.16S., R.48E., M.D.B. & M., and the place of use is 160 acres within the SE¼ of Section 22, T.16S., R.48E., M.D.B. & M.

Application 34564 was filed by Nye County Development Company, Inc., on November 4, 1977, to appropriate 6.0 c.f.s. of underground water for irrigation purposes. The point of diversion is within the NE¼ NE¼ of Section 4, T.17S., R.49E., M.D.B. & M., and the place of use is 320 acres within Lots 1 and 2 and the SE¼ of Section 4, T.17S., R.49E., M.D.B. & M.

Application 34635 was filed by Evelyn Honig (Nye County Development Company, Inc.) on November 21, 1977, to appropriate 2.4 c.f.s. of underground water for irrigation purposes. The point of diversion is within the NW¼ NE¼ of Section 1, T.16S., R.48E., M.D.B. & M., and the place of use is 320 acres within the E½ of Section 1, T.16S., R.48E., M.D.B. & M.

Application 34878 was filed by Earl Selbach on January 13, 1978, to appropriate 0.38 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SW¼ NW¼ of Section 7, T.16S., R.48E., M.D.B. & M., and the place of use is 20 acres within the SW¼ NW¼ of Section 7, T.16S., R.48E., M.D.B. & M.

Application 35220 was filed by Nye County Development Company, Inc., on March 27, 1978, to appropriate 3.1 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NE¼ NE¼ of Section 19, T.16S., R.49E., M.D.B. & M., and the place of use is 140 acres within the NE¼ of Section 19, T.16S., R.49E., M.D.B. & M.

Application 35647 was filed by Stewart Southwest, Inc., on July 20, 1978, to appropriate 4.0 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the NW¼ NE¼ of Section 17, T.16S., R.48E., M.D.B. & M., and the place of use is 240 acres within the NE¼ and the E½ NW¼ of Section 17, T.16S., R.48E., M.D.B. & M.

Application 35648 was filed by Stewart Southwest, Inc., on July 20, 1978, to appropriate 4.0 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SW¼ NE¼ of Section 17, T.16S., R.48E., M.D.B. & M., and the place of use is 240 acres within the NE¼ and the E½ NW¼ of Section 17, T.16S., R.48E., M.D.B. & M.

Application 35855 was filed by Nye County Development Company, Inc., on September 7, 1978, to appropriate 3.0 c.f.s. of underground water for irrigation purposes. The point of diversion is within the NW¼ NW¼ of Section 11, T.17S., R.49E., M.D.B. & M., and the place of use is 120 acres within the NW¼ of Section 11, T.17S., R.49E., M.D.B. & M.

Application 35893 was filed by Mack C. Vassar on September 19, 1978, to appropriate 5.0 c.f.s. of underground water for irrigation and domestic purposes. The point of diversion is within the SE¼ NW¼ of Section 26, T.16S., R.48E., M.D.B. & M., and the place of use is 155 acres within the NW¼ of Section 26, T.16S., R.48E., M.D.B. & M. 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 32,670 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 65,270 acre-feet per year of ground water from the Basin.

Certificates have been issued for surface water permits which could be exercised to divert 21,674 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 16,974 acre-feet per year from the Basin.

Therefore, the total certificated water rights exceed 54,000 acre-feet of water per year and the total permitted water rights exceed 82,000 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, 1973, the District Court, by Chief Judge Roger D. Foley, entered a preliminary injunction limiting the pumpage of selected wells 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 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/

CONCLUSIONS

I

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

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. 10/

III

The State Engineer shall determine if there is unappropriated water in the area affected and may issue permits only if such determination is affirmative. 11/

IV

If 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 are granted, an additional 4,560 acres of land would be irrigated. This would result in additional consumptive use by farm land irrigation of 22,800 acre-feet per year. The additional withdrawals and consumption 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.

V

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.

VI

The State Engineer is authorized and directed to designate preferred uses of water within the respective area so designated by him such as the Amargosa Desert Ground Water Basin. 12/ The consumptive use of ground water to irrigate additional land is not considered to be a preferred use of the limited ground water resources of the Amargosa Desert Ground Water Basin.

RULING

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 are denied on the grounds that the appropriation of underground water for irrigation purposes, as applied for, would conflict with and tend to impair the value of existing rights and be detrimental to the public interest and welfare.

Respectfully submitted,

William J. Newman

William J. Newman
State Engineer

WJN/RWP/jm

Dated this 25th day

of JUNE, 1979.

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, pp. 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, pp. 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 533.025 and NRS 533.030, subsection 1.
10. NRS 533.370, subsection 4.
11. NRS 534.110, subsection 3.
12. NRS 534.120, subsection 2.