

IN THE MATTER OF APPLICATIONS)
31478, 31479, 31480, 31481, 31482,)
31483, 31484, 38049, 38696, 38697,)
38698, 38700, 38702, 38703, 38706,)
38707, 38708, 40191 AND 40194 FILED)
TO APPROPRIATE THE PUBLIC WATERS OF)
AN UNDERGROUND SOURCE IN RALSTON)
VALLEY, NYE COUNTY, NEVADA.)

RULING

GENERAL

I.

Application 31478¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 600 acres of land within NW1/4, NE1/4, N1/2 SW1/4, SW1/4 SW1/4 and SE1/4 Section 16, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 16, T.6N., R.44E., M.D.B.&M.

Application 31479¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 640 acres of land within Section 21, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 21, T.6N., R.44E., M.D.B.&M.

Application 31480¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 640 acres of land within Section 22, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 22, T.6N., R.44E., M.D.B.&M.

Application 31481¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 640 acres of land within Section 27, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 27, T.6N., R.44E., M.D.B.&M.

Application 31482¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 640 acres of land within Section 28, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 28, T.6N., R.44E., M.D.B.&M.

¹ Public records in the office of the State Engineer.

Application 31483¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 640 acres of land within Section 32, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NE1/4 NW1/4 Section 32, T.6N., R.44E., M.D.B.&M.

Application 31484¹ was filed on May 4, 1977, by Tonopah Flats Irrigation Company, Inc. to appropriate 10.8 c.f.s. of water from an underground source for irrigation purposes on 640 acres of land within Section 15, T.6N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 15, T.6N., R.44E., M.D.B.&M.

Application 38049¹ was filed on April 30, 1979, by Barbara Facer to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the E1/2 Section 3, T.2N., R.43E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 3, T.2N., R.43E., M.D.B.&M.

Application 38696¹ was filed on July 30, 1979, by Vallerie M. Donnelly to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 33, T.3N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 33, T.3N., R.44E., M.D.B.&M.

Application 38697¹ was filed on July 30, 1979, by Dale L. Donnelly to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the S1/2 Section 28, T.3N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SE1/4 Section 28, T.3N., R.44E., M.D.B.&M.

Application 38698¹ was filed on July 30, 1979, by Julie A. Donnelly to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 34, T.3N., R.44E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NE1/4 Section 34, T.3N., R.44E., M.D.B.&M.

Application 38700¹ was filed on July 30, 1979, by Jerry B. Johnson to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 28, T.3N., R.44E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NW1/4 Section 28, T.3N., R.44E., M.D.B.&M.

Application 38702¹ was filed on July 30, 1979, by Edwin G. Tullis to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 9, T.2N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 9, T.2N., R.44E., M.D.B.&M.

Application 38703¹ was filed on July 30, 1979, by H. Yvonne Tullis to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the S1/2 Section 9, T.2N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SE1/4 Section 9, T.2N., R.44E., M.D.B.&M.

Application 38706¹ was filed on July 30, 1979, by Valerie Jo Kessie to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 10, T.2N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 10, T.2N., R.44E., M.D.B.&M.

Application 38707¹ was filed on July 30, 1979, by Tierney N. Tullis to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the S1/2 Section 10, T.2N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 SE1/4 Section 10, T.2N., R.44E., M.D.B.&M.

Application 38708¹ was filed on July 30, 1979, by Alana K. Troutt to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 11, T.2N., R.44E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NE1/4 Section 11, T.2N., R.44E., M.D.B.&M.

Application 40191¹ was filed on January 4, 1980, by Carla L. Morkert to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the S1/2 Section 22, T.3N., R.44E., M.D.B.&M. The point of diversion is described as being within the NE1/4 SW1/4 Section 22, T.3N., R.44E., M.D.B.&M.

Application 40194¹ was filed on January 4, 1980, by Avis I. Smith to appropriate 5.4 c.f.s. of water from an underground source for irrigation and domestic purposes on 320 acres of land within the N1/2 Section 22, T.3N., R.44E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NW1/4 Section 22, T.3N., R.44E., M.D.B.&M.

II.

Ground-Water Resources - Reconnaissance Series Report 12 titled "Ground-Water Appraisal of Ralston and Stone Cabin Valleys, Nye County, Nevada", was prepared cooperatively by the Geological Survey, U.S. Department of Interior, and State of Nevada, Department of Conservation and Natural Resources.

Water Resources - Reconnaissance Series Report 45 titled "Water Resources Appraisal of Clayton Valley - Stonewall Flat Area, Nevada and California", was prepared cooperatively by the Geological Survey, U.S. Department of Interior, and State of Nevada, Department of Conservation and Natural Resources.

FINDINGS

I.

By Order dated April 22, 1980, the State Engineer designated and described Ralston Valley Ground Water Basin under the provisions of NRS Chapter 534.¹

II.

The State Engineer is authorized under statute² to declare preferred uses of the limited ground water resources.

III.

On August 15, 1980, the State Engineer designated¹ municipal use as a preferred use within the following described area within Ralston Valley:

T.4N., R.44E., M.D.B.&M.

Sections 3, 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, a portion of 28 and 29.

T.4N., R.43E., M.D.B.&M.

Sections 12, 13, 24 and 25.

T.5N., R.44E., M.D.B.&M.

Sections 31, 32 and 33.

IV.

Ralston Valley is a topographically and hydrologically closed basin with the exception of potential inflow of surface waters from Stone Cabin Valley during storms with sufficient volume of runoff and concentration of runoff.

The ultimate source of most of the ground-water in Ralston Valley is from precipitation within the drainage basin. The ground-water moves from the recharge areas in the northern part of the valley to the Mud Lake area in the southern end of the valley.³

V.

Ground-water levels along the Ralston Valley north south axis average about 200 feet below the land surface north of the

² NRS 534.120.

³ Ground-Water Resources - Reconnaissance Series Report 12.

City of Tonopah well field in T.4N., R.44E., and due to the bedrock constriction in the valley fill cross section at the well site area, the water table rises to a level at or near the land surface. South of the City of Tonopah well field site which is in T.4N., R.44E., the cross section of the aquifer widens again and the water level falls to approximately 480 feet from the ground surface. The depth to the ground-water level from the ground surface gradually decreases to an approximate depth of 240 feet below the playa at Mud Lake.³

VI.

The perennial yield⁴ of a ground-water reservoir is the maximum rate at which ground-water of suitable chemical quality is available and can be withdrawn economically for an indefinite period of time. If the perennial yield is exceeded, water will be withdrawn from storage and ground-water levels will decline.

Withdrawals of ground-water in excess of the perennial yield contribute to adverse conditions⁵ such as water quality degradation, storage depletion, diminishing yield of wells, increased economic pumping lifts, land subsidence and possible reversal of ground-water gradients which could result in significant changes in the recharge-discharge relationship. These conditions have developed in several other ground-water basins⁴ within the State of Nevada where storage depletion and declining water tables have been recorded and documented.

VII.

The estimated perennial yield^{3,6} of Ralston Valley is approximately 2500 acre-feet per year. Permits and certificates of appropriation have been issued under existing rights for approximately 1700 acre-feet of ground-water within Ralston Valley. Approximately 1400 acre-feet of this 1700 acre-feet is located at the City of Tonopah's well field in T.4N., R.44E.,

VIII.

Should additional water be allowed for appropriation under new applications and subsequent development of ground-water pursuant thereto detrimentally affect prior ground-water rights, the State Engineer is required by law⁷ to order withdrawals be restricted to conform to priority rights.

⁴ Water Supply Paper 1832 Page 39, U.S. Geological Survey.

⁵ See attached Appendix of References.

⁶ Water Resources - Reconnaissance Series Report 45.

⁷ NRS 534.110(6).

IX.

Information available¹ to the State Engineer indicates that Applications 31478, 31479, 31480, 31481, 31482, 31483 and 31484 were filed in support of Carey Act Applications. Applications 38049, 38696, 38697, 38698, 38700, 38702, 38703, 38706, 38707, 38708, 40191 and 40194 were filed in support of Desert Land Entry applications. NRS 533.367 establishes the order of priority the State Engineer must consider in acting on applications for irrigation use within the same basin.

X.

The approval of Applications 31478, 31479, 31480, 31481, 31482, 31483 and 31484 would authorize the additional withdrawal of 33,120 acre-feet of ground-water which would substantially exceed the perennial yield of the ground-water basin.

XI.

The approval of Applications 31478, 31479, 31480, 31481, 31482, 31483 and 31484 would authorize the additional withdrawal of 17,760 acre-feet of ground-water in T.6N., R.44E., M.D.B.&M., which is north and upgradient from the existing well field of the City of Tonopah in T.4N., R.44E., M.D.B.&M.

XII.

The present ground-water levels³ within T.3N., R.44E., and T.2N., R.44E., are approximately 400 feet below the ground surface. Applications 38049, 38696, 38697, 38698, 38700, 38702, 38703, 38706, 38707, 38708, 40191 and 40194 have points of diversion located within T.3N., R.44E., or T.2N., R.44E. A pumping lift of 400 feet is not an economical pumping lift.⁸

CONCLUSIONS

I.

The State Engineer has jurisdiction under the provisions of NRS Chapters 533 and 534.

II.

The State Engineer is prohibited by law⁹ from granting a permit where:

A. there is no unappropriated water at the proposed source,

⁸ NRS 534.110.

⁹ NRS 533.370.

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

III.

The granting of permits under Applications 31478, 31479, 31480, 31481, 31482, 31483, 31484, 38049, 38696, 38697, 38698, 38700, 38702, 38703, 38706, 38707, 38708, 40191 and 40194 would result in the withdrawal of substantial amounts of ground-water in excess of the perennial yield of the ground-water basin and would therefore adversely affect existing rights and be detrimental to the public interest and welfare. Also the approval of water rights for irrigation where pumping lifts are not economical, would be detrimental to the public interest and welfare.

RULING

Applications 31478, 31479, 31480, 31481, 31482, 31483, 31484, 38049, 38696, 38697, 38698, 38700, 38702, 38703, 38706, 38707, 38708, 40191 and 40194 are herewith denied on the grounds that the granting thereof would adversely affect existing rights and would be detrimental to the public interest and welfare.

Respectfully submitted,



Peter G. Morros
State Engineer

PGM/GB/bl

Dated this 2nd day of
APRIL, 1984.

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.

Hydrologic Response to Irrigation Pumping in Diamond Valley, Eureka and Elko Counties, Nevada, 1950-65, J.R. Harrill, Water Resources Bulletin No. 35, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1968.

Effects of Irrigation Development on the Water Supply Quin River Valley area, Nevada and Oregon, 1950-1964, C.J. Huxel, Jr., Water Resource Bulletin No. 34, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1966.

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The Effects of Pumping on the Hydrology of Kings River Valley, Humboldt County, Nevada, 1957-1964, G.T. Malmberg and G.F. Worts, Jr., Water Resource Bulletin No. 31, United States Geological Survey and State of Nevada, State Engineer's Office, Division of Water Resources, Department of Conservation and Natural Resources, 1966.

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Ground-Water Storage Depletion in Pahrump Valley, Nevada-California, 1962-75, J.R. Harrill, Open File Report 81-635, United States Geological Survey, 1982, prepared in cooperation with Nevada Division of Water Resources.

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Subsidence in Las Vegas Valley, John w. Bell, Nevada Bureau of Mines and Geology Bulletin 95.

Subsidence in United States due to Ground-Water Overdraft - A Review, J.F. Poland, Proceedings of the Irrigation and Drainage Division Specialty Conference, April 1973, American Society of Civil Engineers.