

IN THE OFFICE OF THE STATE ENGINEER

IN THE MATTER OF APPLICATIONS 44442,) 44443, 44698, 44699, 45015, 45086 AND 45087) FILED TO APPROPRIATE THE PUBLIC) WATERS OF AN UNDERGROUND SOURCE IN) CLOVER VALLEY, ELKO COUNTY, NEVADA.)

RULING

GENERAL

I.

Application 44442 was filed on September 17, 1981, by Richard A. Schacht to appropriate 3.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 250 acres of land within the S1/2 NW1/4, N1/2 SW1/4, SW1/4 NE1/4, NW1/4 SE1/4 Section 28, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NE1/4 Section 28, T.35N., R.62E., M.D.B.&M.¹

Application 44443 was filed on September 17, 1981, by Richard A. Schacht to appropriate 3.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 250 acres of land within the S1/2 NW1/4, N1/2 SW1/4, SW1/4 NE1/4, NW1/4 SE1/4 Section 28, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the SW1/4 NW1/4 Section 28, T.35N., R.62E., M.D.B.&M.¹

Application 44698 was filed on October 28, 1981, by Vernon and Joan Westwood to appropriate 2.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 80 acres of land within the E1/2 SE1/4 Section 28, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SE1/4 Section 28, T.35N., R.62E., M.D.B.&M.¹

Application 44699 was filed on October 28, 1981, by Vernon and Joan Westwood to appropriate 5.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 280 acres of land within the N1/2 Section 27, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the NW1/4 NW1/4 Section 27, T.35N., R.62E., M.D.B.&M.¹

Application 45015 was filed on November 2, 1981, by David L. and Brigitte Brough to appropriate 3.0 c.f.s. of water from an underground source for irrigation and domestic purposes on 165.55 acres of land within the W1/2 W1/2 Section 26, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the SW1/4 SE1/4 Section 27, T.35N., R.62E., M.D.B.&M.¹

Application 45086 was filed on November 30, 1981, by Taylors Ltd. to appropriate 8.0 c.f.s. of water from an underground source for irrigation purposes on 1280 acres of land within Sections 15 and 22, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the SE1/4 NE1/4 Section 22, T.35N., R.62E., M.D.B.&M.¹

¹ Public record in the office of the State Engineer.

Application 45087 was filed on November 30, 1981, by Taylors Ltd. to appropriate 8.0 c.f.s. of water from an underground source for irrigation purposes on 1280 acres of land within Sections 15 and 22, T.35N., R.62E., M.D.B.&M. The point of diversion is described as being within the SE1/4 SE1/4 Section 22, T.35N., R.62E., M.D.B.&M.¹

II.

Applications 44442 and 44443 were timely protested on February 26, 1982, by Taylors Ltd. on the grounds that these applications would adversely affect the water table and existing rights.¹

Applications 44698 and 44699 were timely protested on May 24, 1982, by Taylors Ltd. on the grounds that these applications would adversely affect the existing rights.¹

Application 45015 was timely protested on March 5, 1982, by Taylors Ltd. on the grounds that this application would adversely affect the water table and existing rights.¹

III.

Applications 44698 and 44699 were assigned to Richard A. Schacht on July 31, 1984.¹

IV.

By Order No. 850, dated March 11, 1985, the State Engineer designated and described Clover Valley Ground Water Basin under the provisions of NRS Chapter 534 (Conservation and Distribution of Underground Waters).¹

V.

A public hearing in the matter of protested Applications 44442, 44443 and 45015 was held before the State Engineer on March 6, 1985, in Wells, Nevada.²

VI.

State of Nevada, Office of the State Engineer - Water Resources Bulletin No. 12 entitled "Contributions to the Hydrology of Eastern Nevada", was prepared cooperatively by the United States Geological Survey and the Nevada Department of Conservation and Natural Resources. This report is available for review at the State Engineer's office in Carson City, Nevada.

² Transcript of public hearing of March 6, 1985, on file in the office of the State Engineer.

FINDINGS OF FACT

I.

The principal source of ground water to the Clover Valley Ground Water Basin is from precipitation on the east flank of the East Humboldt Range, with lesser amounts being supplied from the other mountain drainages bordering the basin.³

Weather records at Clover Valley Station indicate an annual precipitation of 13.22 inches. This station was on the lower west side slope of Clover Valley and probably reflects a somewhat higher precipitation than falls on the valley floor. Much of the precipitation occurring on the valley floor is lost by evaporation or transpiration before it reaches the ground water reservoir.³

A reconnaissance method of estimating average annual ground water recharge from precipitation indicates an annual increment of about 21,000 acre-feet for Clover Valley.³

Another method of estimating average annual ground water recharge to Clover Valley, based on a percentage of the total precipitation, was used by T.E. Eakin and G.B. Maxey of the U.S. Geological Survey. They estimated the average annual recharge to be 20,700 acre-feet.³

Estimates of the average annual ground water discharge suggests that about 19,000 acre-feet are discharged from Clover Valley, therefore, this represents the estimated perennial yield of the Clover Valley Ground Water System.³

Under extensive ground water development, possibly one-half of the natural discharge could be recovered by wells in Clover Valley.³

Ground water is discharged from Clover Valley by transpiration, evaporation, springs and wells. Although underflow from Clover Valley to Independence Valley is possible, it is concluded to be very small because of the low water level gradient and low permeability of the sediments in the segment between the two valleys.³

II.

Permits and certificates have been issued under existing rights for more than 22,000 acre-feet annually of ground water within the Clover Valley area. Of that figure, approximately 17,000 acre-feet annually has been issued for lands lying within T.34N., R.62E., and T.35N., R.62E.¹

III.

At the March 6, 1985, public hearing, existing water right holders in T.34N., R.62E., and T.35N., R.62E., M.D.B.&M., testified that their wells had been affected by the permitted pumping already occurring in the area.²

³ Water Resources Bulletin No. 12, Clover Valley, public record in the office of the State Engineer.

IV.

The results of a pump test conducted on June 15, 1981, on a well located in the SW1/4 SW1/4 Section 34, T.35N., R.62E., M.D.B.&M., were submitted as evidence as part of the March 6, 1985, hearing.²

A test well, No. 35/62-27 B1, was drilled by the U.S.G.S. in Clover Valley in 1949. This well is located within the NE1/4 NW1/4 Section 27, T.35N., R.62E., M.D.B.&M. The data from that test well is incorporated into Bulletin No. 12. As part of the analysis of the results of the test well, it was determined that the aquifer characteristics should improve a mile or so to the west of the test well.³

Based on the information provided by the 1981 pump test and the bail test conducted on well 35/62-27 B1, aquifer characteristics have been generally defined by the staff of the Division of Water Resources. A computer model method, developed by the United States Geological Survey based on known hydrologic principles and equations, was used to determine the effect pumping of any individual well in T.34N., R.62E., and T.35N., R.62E., M.D.B.&M., would have on existing rights. The analysis determined that Applications 44442, 44698, 45015, 45086 and 45087 would cause a significant lowering of the water table in the area and, therefore, would detrimentally affect existing rights.¹

The point of diversion of Application 44443 lies further west of the existing rights, pending applications, and test wells in an area where the aquifer characteristics are believed to be more favorable. Analysis shows that pumpage of this well at the rate of 3.0 c.f.s. would not cause a significant effect on existing rights in the area.

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action and determination.⁴

II.

The State Engineer is prohibited by law⁵ from granting a permit under an application to appropriate the public waters where:

- A. There is no unappropriated water at the proposed source, or
- B. The proposed use conflicts with existing rights, or
- C. The proposed use threatens to prove detrimental to the public interest.

⁴ NRS 533.325.

⁵ NRS 533.370(3).

III.

Based on the concentration of existing rights, information and data available to the State Engineer, and an analysis of the aquifer characteristics and a computer model analysis, the granting of Applications 44442, 44698, 44699, 45015 and 45087 will cause a detrimental effect on existing rights, and due to more favorable aquifer characteristics at the location of the point of diversion of Application 44443, the granting of this application will not cause a detrimental effect on existing rights.

RULING

The protest to Application 44443 is hereby overruled on the grounds that granting said permit will not conflict with existing rights or be otherwise detrimental to the public welfare. A permit will be issued under Application 44443 upon payment of the required statutory permit fees. The permit will be issued with the condition that a totalizing meter be placed on the well and a pump test, acceptable to the State Engineer, be conducted and the results thereof be submitted as part of the proof of completion of work.

The protest to Applications 44442, 44698, 44699 and 45015 are upheld and accordingly Applications 44442, 44698, 44699 and 45015 are hereby denied on the grounds that said applications would conflict with and impair existing rights.

Applications 45086 and 45087 are hereby denied on the grounds that said applications would conflict with and impair existing rights.

Respectfully submitted,



PETER G. MORROS
State Engineer

PGM/CT/bl

Dated this 25th day of
July, 1985.