

IN THE MATTER OF APPLICATIONS)  
36867, 43291 AND 43292 FILED )  
TO APPROPRIATE WATER FROM AN )  
UNDERGROUND SOURCE IN SMITH )  
VALLEY, LYON COUNTY, NEVADA )

R U L I N G

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INTRODUCTION

Applications 36867, 43291 and 43292 were filed in the State Engineer's office to appropriate underground water for irrigation purposes in Smith Valley, Nevada.

In 1976 Water Resources Bulletin No. 43, "Geohydrology of Smith Valley, Nevada with Special Reference to the Water-Use Period, 1953-72" by F. E. Rush and C. V. Schroer was prepared cooperatively by the Nevada Department of Conservation and Natural Resources, Division of Water Resources and the United States Department of the Interior, Geological Survey. This report is available from the State Engineer's office.

A hearing before the State Engineer in the matter of Applications 27734, 28175, 28263, 28264, 28291, 28309, 29072, 29274, 30128 and 20137 was held in the District Court Room, Lyon County Courthouse, Yerington, Nevada, on December 16, 1976. A transcript of the hearing is on file in the State Engineer's office.

FINDINGS OF FACT

I

Application 36867 was filed by Leia M. Hills on February 28, 1979 to appropriate 2.1 c.f.s. of underground water for irrigation purposes. The point of diversion is within the NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 10, T.11N., R.24E., M.D.M., and the place of use is 100 acres within the E $\frac{1}{2}$  NE $\frac{1}{4}$  Section 10, NW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 11, SW $\frac{1}{4}$  SW $\frac{1}{4}$  Section 2, T.11N., R.24E., M.D.M.

Applications 43291 and 43292 were filed by Clifford E. and Maurine Duarte on March 4, 1981 each to appropriate 0.5 c.f.s. of underground water for irrigation and domestic purposes. The points of diversion and places of use are within the NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 4, T.10N., R.24E., M.D.M. 1/

II

Application 36867 was protested on December 24, 1979 by Walker River Irrigation District who prayed that Application 36867 be denied on the following grounds:

"Smith Valley is a designated basin and as such is not subject any further drilling for irrigation wells. Action taken by the Nevada State Engineer, Department of Water Resources in recent applications for wells within the basin have been to refuse permits." 2/

III

Applications 36867, 43291 and 43292 were filed to appropriate water from an underground source from within the Smith Valley Artesian Basin, Lyon County, Nevada as designated and described by Order of the State Engineer issued June 27, 1960. 3/

IV

The ground water reservoir water table has risen since the advent of farmland irrigation in Smith Valley and the water table is now substantially higher than under natural conditions before irrigation began. This rise in the water table has now nearly stabilized 4/ with water levels close to the surface in many parts of Smith Valley. 5/

V

The West Walker River is a gaining river below diversion canals in Smith Valley and serves as a drain for the irrigated farmlands. There is an estimated 30,000 acre-feet per year of return ground water and tailwater flow to the West Walker River in Smith Valley. 6/

VI

The recharge from precipitation to the Smith Valley ground water reservoir is estimated to be 17,000 acre-feet per year. 7/ Any consumptive withdrawal in excess of the natural recharge from precipitation will either deplete the ground water reservoir or cause additional surface water to percolate into the ground water reservoir. 8/ Discharge by evapotranspiration by low-value phreatophytes and discharging bare soil is estimated to withdraw 13,000 acre-feet per year from the Smith Valley Ground Water Reservoir. 9/

VII

Pumpage of ground water for irrigation was estimated to be 20,000 acre-feet in 1972 10/ and 21,000 acre-feet in 1976. 11/ Pumpage for irrigation is substantially less when surface water is available but is still estimated to average more than the 4000 acre-feet per year difference between recharge from precipitation and discharge by evapotranspiration by low-value phreatophytes and discharging bare soil.

VIII

In the relatively dry year of 1972 approximately one-half of the water applied for irrigation was consumed, that is, it did not return to either the surface or the ground water system. 12/ If applications 36867, 43291 and 43292 were granted, it is estimated that one-half of the water withdrawn under these applications would also be consumptively used putting an additional draught on the ground water reservoir and the West Walker River water that recharges the underground reservoir.

IX

Surface water appropriations and rights under Decree C-125 13/ from the West Walker River System far exceed the average annual flow of 179,000 acre-feet measured at Hoyer Canyon from 1958 to 1972. 14/

X

Ground water appropriations for irrigation from Smith Valley could be used to divert as much as 59,000 acre-feet per year to irrigate 15,000 acres. Beneficial use has been proved and certificates of appropriation issued for 39,000 acre-feet per year to irrigate 10,000 acres. 15/

XI

Large cones of depression have developed in areas of concentrated pumping in Smith Valley. From the spring of 1972 to the end of the irrigation season ground water levels had declined over 20 feet in areas of concentrated pumpage both south and north of the West Walker River in Smith Valley. 16/

In Section 31, T.12N., R.24E., M.D.B.&M., irrigation wells have had to be regulated and pumpage curtailed because of declining ground water levels. 17/

In 1976 the water table had declined in some areas to the extent that pumps on domestic and irrigation wells have had to be lowered. 18/

XII

Applications to appropriate additional surface water from the Walker River Stream System have been denied on the grounds that their granting would tend to impair the value of existing rights, there is no unappropriated water in the source and the granting of the proposed appropriations would be detrimental to the public welfare. 19/

XIII

Applications to appropriate underground water to irrigate additional land in Smith Valley have been denied on the grounds that their granting would tend to impair the value of existing rights. 20/

CONCLUSIONS

1. The State Engineer has jurisdiction of the parties and the subject matter of this action. 21/
2. The State Engineer is prohibited by law from granting a permit 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 welfare. 22/

3. Existing water rights on the West Walker River Stream System and the Smith Valley Artesian Basin far exceed flow in the West Walker River Stream System and recharge from precipitation to the Smith Valley Artesian Basin. To grant irrigation rights that consume large quantities of additional water would adversely affect existing rights and threaten to prove detrimental to the public welfare.
4. If applications 36867, 43291 and 43292 were granted, additional lands would be irrigated or lands that are irrigated only part time would be irrigated more intensively and frequently. This would result in additional consumptive use by farmland irrigation. 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 otherwise would return to the stream system.

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

5. The State Engineer is authorized and directed to designate preferred uses of water within designated ground water areas such as the Smith Valley Artesian Basin. 23/ The consumptive use of additional ground water to irrigate additional land or to more intensively or frequently irrigate other land is not considered to be a preferred use of the limited water resources of the Smith Valley Artesian Basin.
6. The underground water applied for, for irrigation, under Applications 36867, 43291 and 43292 would diminish return underground and tailwater flow 24/ to the West Walker River and so would adversely affect the prior rights as set forth in Decree C-125 and would conflict with appropriated rights on the Walker River Stream System and threaten to prove detrimental to the public welfare.

RULING

Applications 36867, 43291 and 43292 are denied on the grounds that the appropriation and use of the water as applied for would tend to impair the value of existing rights and would be detrimental to the public interest and welfare.

Respectfully submitted,



Peter G. Morros  
State Engineer

PGM/JC/bc

Dated this 27th day of  
JULY, 1981.

## FOOTNOTES

1. Public records located within the office of the State Engineer.
2. Public records located within the office of the State Engineer.
3. NRS 534.
4. Water Resources Bulletin No. 43, p. 22, 25 and 60.
5. Reporter's transcript of proceedings on the hearing of testimony and evidence before Roland D. Westergard, State Engineer (hereafter referred to as Transcript) p. 18, lines 4 & 5, p. 21, lines 15 through 23, p. 26, lines 6 thru 11, p. 27, lines 21 thru 25, p. 38, lines 5 thru 9, p. 61, line 8; Water Resources Bulletin No. 43, Plate 2.
6. Water Resources Bulletin No. 43, p. 60 & 61.
7. Water Resources Bulletin No. 43, p. 49 & 50.
8. Water Resources Bulletin No. 43, p. 65.
9. Water Resources Bulletin No. 43, p. 62 & 63.
10. Water Resources Bulletin No. 43, p. 53.
11. Estimate made in State Engineer's office.
12. Water Resources Bulletin No. 43, p. 51, Transcript p. 43, lines 18, 19 & 20.
13. Public records located within the State Engineer's office & United States v. Walker River Irrigation District, et al., United States District Court for the District of Nevada Equity No. C-125 as amended by the Order of the Honorable A. F. Sure, dated April 24, 1940, hereafter called Decree C-125.
14. Water Resources Bulletin No. 43, p. 39 & 23.
15. Public records located within the State Engineer's office.
16. Water Resources Bulletin No. 43, p. 65, 66 & 67.
17. Public records located within the State Engineer's office.
18. Transcript p. 80, lines 8 thru 11, p. 81, lines 5 thru 8.
19. Public records located within the State Engineer's office. See denied Applications 30095 and 30096.

20. Public records located within the State Engineer's office.  
See denied Applications 27242, 27328, 27572, 27701, 27734, 28175,  
28263, 28264, 28291, 28309, 29072, 29274, 30128, 30137, 30934,  
31808, 31887, 31928, 32357 and 32577.
21. NRS 533.025 and 533.030, subsection 1.
22. NRS 533.370, subsection 4.
23. NRS 534.120, subsection 2.
24. Transcript p. 28, lines 17 thru 26, p. 55, lines 4 thru 10.