IN THE OFFICE OF THE STATE ENGINEER
IN THE STATE OF NEVADA

IN THE MATTER OF APPLICATION 50827 FILED)
TO APPROPRIATE WATER FROM AN UNDERGROUND)
SOURCE IN THE LAS VEGAS ARTESIAN BASIN,)
CLARK COUNTY NEVADA.)

RULING

#3936

GENERAL

I.

Application 50827 was filed April 16, 1987 by Ron Rudin to appropriate 0.025 c.f.s. of water from an underground source in the NW1/4 NE1/4 Section 36, T.18S., R.56E., M.D.B.&M. The water is to be used for quasi-municipal purposes for a 120 room motel, a 100 occupancy restaurant, and a service station in parts of the NE1/4 SE1/4, SE1/4 SE1/4, SW1/4 SE1/4 Section 25, and portions of the NW1/4 NE1/4 Section 36, all in T.18S., R.56E., M.D.B.&M. The applicant estimates the duty to be 2.77 million gallons annually (M.G.A.).[1]

FINDINGS OF FACT

I.

The State Engineer finds that the duty for a 120 room motel, a 100 occupancy restaurant, and a service station in the Las Vegas Artesian Basin is 9.75 M.G.A.[2]

II.

The State Engineer finds that the place of use of Application 50827 is within the place of use of Permits 47471, 47472 and 47473 issued August 7, 1984 to Ron Rudin for quasi-municipal purposes. These permits were each issued from an underground source for an appropriation of 1.0 c.f.s. not to

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[1] Public record in the office of the State Engineer under Application 50827.

[2] The State Engineer has many years of metered records of similar establishments and uses a per/fixture basis for estimating water use.

exceed 34.31 M.G.A. and are supplemental to each other for a total combined duty of 34.31 M.G.A. The permits are for water supply for the Retreat at Lee Canyon tentative subdivision.[3, 4]

III.

The State Engineer previously found that there was insufficient water quantity from the wells under Permits 47472 and 47473 for quasi-municipal purposes.[5] On August 18, 1989 and on October 19, 1990, the State Engineer recommended disapproval of the 89 lot Retreat at Lee Canyon tentative subdivision plat because of insufficient water quantity for 89 lots at 1,000 gallons per day per lot.[3]

IV.

The State Engineer has a copy of a aquifer test from the well drilled under Permit 47472 dated February 22, 1991. The Mark Group conducted the test and concluded:

A. The drawdown and recovery data for the well indicate generally poor aquifer conditions as evidenced by the low specific capacity (less than 0.2 gpm/ft) and a transmissivity estimate of 105 gpd/ft ($14ft^2$/day).

B. The well produced a fairly constant yield of 55 gpm throughout the test, and the time-drawdown projection indicates the well could be pumped at that rate for 4 1/2 days. A small decrease in pumpage would result in a significantly longer pumping period. If water levels tend to stabilize at the top of the perforated zone (900 feet), as indicated by the May, 1990 Water

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[3] Public record in the office of the State Engineer under Permits 47471, 47472 and 47473.

[4] Public record in the office of the State Engineer under Subdivision Review No's. 3779 T and 3779 RT.

[5] The wells are located high in a canyon and completed in hard rock with very low transmissivity. Extended pump tests could not sustain adequate flow.

Well Services test, a pumping rate of 50 to 55 gpm possibly could be sustained indefinitely. However, on the basis of the present test, a sustained pumping rate of 45 gpm is a more reasonable estimate.

C. Water level monitoring of well No. 1, about 500 feet away, showed no effect from the pumping of well No. 2. This indicates that the cone of depression although relatively deep, was of small areal extent, which would be expected in an aquifer of such low transmissivity.

D. The well appears to be only partially developed as evidenced by the visible presence of fine particulate matter in the discharge after several hours into the test. The fine material is expected to decrease as the well is used, and additional well development could be beneficial in increasing well capacity and prolonging pump life.[6]

V.

The transmittal letter from the Mark Group to Mr. Rudin dated February 25, 1991 state "that a combined total of about 58 gpm of water is available from your two wells on a sustained basis, as indicated in the test reports."[6]

VI.

The State Engineer finds that the aquifer in the area of the Retreat at Lee Canyon subdivision is of poor quality with low specific capacity and low transmissivity, and will not support an 89 lot subdivision at 1,000 gallons per day per lot.

VII.

The State Engineer finds that the well tested under Permit 47472 is not at the location for which Permit 47472 was issued in the SW1/4 SE1/4 Section 25, rather it is in the NW1/4 SE1/4 Section 25, T.18S., R.56E., M.D.B.&M.

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[6] Public record in the office of the State Engineer under Subdivision Review No. 3779 RT-1, excerpts from a report filed by a Las Vegas engineering consulting firm.

VIII.

On April 4, 1991, the Division of Water Resources recommended approval of an 84 lot Retreat at Lee Canyon tentative subdivision plat based on water quantity with conditions:

A. The amount of water allocated per lot will be reduced from 1,000 gpd to 750 gpd. This is based on a combined pumping rate of 58 gallons per minute for eighteen hours of pumping per day from the two existing wells.

B. The total combined duty of Permits 47471, 47472 and 47473 will be reduced from 34.31 million gallons annually (MGA) to 23.0 MGA from an underground source for quasi-municipal purposes. This is based on service to 84 lots and at 750 gallons per day.

C. No watering of areas indicated as "open space" on the revised tentative map.[6]

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.[7]

II.

The State Engineer is prohibited by law from granting a permit where:[8]

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.

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[7] NRS Chapter 533.

[8] NRS Chapter 533.370, subsection 3.

III.

The State Engineer concludes that there is insufficient water for appropriation at the source of Application 50827.

IV.

The State Engineer concludes that to issue a permit for Application 50827 would conflict with existing rights under Permits 47471, 47472, 47473 and other permits in the area.

V.

The State Engineer concludes that to issue a permit for Application 50827 would threaten to prove detrimental to the public welfare.

RULING

Application 50827 is denied on the grounds that there is insufficient water for appropriation at the source of the Application, the granting of a permit would conflict with existing rights, and would threaten to prove detrimental to the public welfare.

Respectfully submitted,

R. MICHAEL TURNIPSEED, P.E.
State Engineer

RMT/CAB/pm

Dated this 9th day of

October, 1991.