

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

IN THE MATTER OF APPLICATION 65776, )  
FILED TO APPROPRIATE THE PUBLIC )  
WATERS OF THE STATE OF NEVADA )  
WITHIN THE PAHRUMP VALLEY )  
HYDROGRAPHIC BASIN (10-162), )  
NYE COUNTY, NEVADA. )

RULING

# 4932

GENERAL

I.

Application 65776 was filed on January 6, 2000, by the Nye County School District to appropriate 0.08 cubic feet per second (cfs), not to exceed 2.0 acre-feet annually (afa), of water from an underground source within the Pahrump Valley Hydrographic Basin, Nye County, Nevada. The proposed point of diversion is described as being located within the SE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 19, T.20S., R.53E., M.D.B.&M., and the proposed manner of use is for commercial purposes, i.e., school bus maintenance and parking lot, office, maintenance shop and bus washing yard area.<sup>1</sup> The proposed place of use is described as being in the SE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 19, T.20S., R.53E., M.D.B.&M., further described as Lots 3, 4, 5 and 6 in the Valley Ranchos Subdivision.

II.

Application 65776 was protested in a timely manner on March 13, 2000, by Jerry Wang on the following grounds:<sup>1</sup>

The proposed point of diversion is located close to our existing well site, constructed for private utility use under permits 62310, 62312, 62444 and 62446. Our well is located within 500 feet of the proposed place of use under permit 65776. We are concerned the proposed use will adversely affect the availability of water suitable for human consumption. Our project will serve up to 3,000 residential, hotel, shopping and commercial customers.

The protestant requests that the application be denied.

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<sup>1</sup> File No. 65776, official records in the office of the State Engineer

## FINDINGS OF FACTS

### I.

By Order No. 1107, dated November 8, 1994, the State Engineer declared that all applications filed to appropriate the underground waters from the Pahrump Valley Hydrographic Basin for all purposes, with the exception of small commercial (non-living) and industrial purposes, off the fan and only those applications that seek to appropriate 1,800 gallons per day (2.02 afa) or less and where the property is zoned for such purpose, would be denied.<sup>2</sup> The State Engineer finds that Application 65776 meets the criteria as set forth in State Engineer's Order 1107, the amount of water applied for under Application 65776 is 2.0 afa and for a school bus maintenance and parking lots and ancillary facilities to support its operation, which the State Engineer considers a commercial use.

### II.

A review of the records in the office of the State Engineer indicates that Permits 62310, 62311, 62312, 62443 and 62444 are in the name of The Forum Group Limited.<sup>3</sup> The total combined duty of the five permits is limited to 200.0 afa and were issued for municipal and domestic purposes. The common point of diversion under Permits 62310, 62312 and 62444 is located in the SW $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 19, T.20S., R.53E., M.D.B.&M. The common point of diversion under Permits 62311 and 62443 is located in the NW $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 20, T.20S., R.53E. M.D.B.&M.

Application 65498 in the name of the Forum Group Limited was filed on September 16, 1999, to change the point of diversion, place of use and manner of use of a portion of the water previously appropriated under Permit 62444.<sup>4</sup> The application proposes to change 0.274 cfs, not to exceed 100.0 afa. The proposed point of diversion and place of use of Application 65498 are described as being located in the NE $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 19, T.20S., R.53E., M.D.B.&M. The proposed manner of use is for quasi-municipal and domestic purposes.

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<sup>2</sup> State Engineer's Order No. 1107, dated November 8, 1994, official records in the office of the State Engineer

<sup>3</sup> File Nos. 62310, 62311, 62312, 62443 and 62444, official records in the office of the State Engineer.

<sup>4</sup> File No. 65498, official records in the office of the State Engineer.

### III.

The protestant, Jerry Wang, president of the Forum Group Limited, is developing the Oasis at Shangri-La Subdivision, which is located in the SE¼ of Section 19 and the W½ SW¼ of Section 20, T.20S., R.53E., M.D.B.&M. The State Engineer finds that a tentative subdivision map, Subdivision Review No. 6316-T, was filed with the office of the State Engineer on January 9, 1996, under the name of Oasis Golf Community, consisting of 509 lots.<sup>5</sup> The State Engineer also finds that a final subdivision map, Subdivision Review No. 6316F-1, for two (2) commercial lots was approved by the office of the State Engineer for water quantity based on Permits 62310, 62311, 62312, 62443, 62444, 62445 and 62446 and water service by Quality Utilities, on August 13, 1999.<sup>6</sup>

### IV.

The protestant claims the proposed place of use of Application 65776 is within 500 feet of the protestant's well site. The State Engineer's concern is with what impacts the applicant's appropriation from the proposed point of diversion would have on existing water rights, so it is the distance between the proposed point of diversion and the protestant's existing point(s) of diversion that is of greater importance than the distance of the proposed place of use to the existing well sites. With the aid of the Division of Water Resource's Geographic Information System the location of the points of diversion of Permits 62310, 62311, 62312, 62443 and 62444 and Application 65498, in the name of The Forum Group Limited, and Application 65776, in the name of the Nye County School District, are illustrated on Attachment 1. The State Engineer finds that the distance to The Forum Group Limited points of diversion from the proposed point of diversion under Application 65776 are approximately 1330 feet and 4100 feet. The proposed point of diversion under Application 65498 is located approximately 1100 feet from the proposed point of diversion of Application 65776.

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<sup>5</sup> Official records in the office of the State Engineer.

<sup>6</sup> Filed in File Nos. 62310, 62311, 62312, 62443 and 62444, official record in the of the State Engineer

V.

In order to determine the possible impacts the subject application might have on the protestants wells the State Engineer used U.S. Geological Survey Water-Supply Paper 2279 titled "Ground-Water Storage Depletion in Pahrump Valley, Nevada-California, 1962-75" by James R. Harrill, to estimate the aquifer characteristics. Transmissivity (T) was estimated to be between 1000 - 4000 square feet per day (7500- 29,900 gallons per day per foot) and the storage coefficient (S) values ranged from 0.001 to 0.04.<sup>7</sup> A transmissivity of 1000 square feet per day and a storage coefficient of 0.001 were used to estimate water-level drops that could be expected from pumping the proposed point of diversion under Application 65776. The projected water-level drops were generated using the standard Cooper-Jacob straight-line approximation of the Theis non-equilibrium equation for water-level drawdowns when a well is pumped or flowed.<sup>8</sup> The quantity of water used in the equation to project the water level drops was 2.0 afa (239 cubic feet per day). The method assumes a homogeneous and isotropic aquifer, infinite extent, with no recharge. The well test assumed continuous pumping from 1 day to 20 years. The results from the theoretical pump test indicated that there was no measurable impact on either of the protestant's wells under Permits 62310, 62311, 62312, 62443 and 62444, or the proposed point of diversion under Application 65498. The State Engineer finds that there is no detrimental impact on the protestant's water rights and the 2.0 afa of water proposed to be developed under Application 65776 is reasonable.

CONCLUSIONS

I.

The State Engineer has jurisdiction over the parties and the subject matter of this action and determination.<sup>9</sup>

II.

The State Engineer is prohibited by law from granting an application to appropriate the public waters where:<sup>10</sup>

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<sup>7</sup> Harrill, James R., Groundwater Storage Depletion in Pahrump Valley, Nevada - California, 1962 - 75: U.S. Geological Water Supply Paper 2279, pages 10 - 15.

<sup>8</sup> Freeze, R.A. and J.A. Cherry, *Groundwater*, pages 347 - 349 (1979).

<sup>9</sup> NRS chapters 533 and 534.

<sup>10</sup> NRS § 533.370(3).

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

### III.

The State Engineer prepared estimated water-level drops that can be expected to occur because of pumping a well with the estimated characteristics of transmissivity and storage coefficient of 1000 square feet per day and 0.001, respectively. Projected water-level drops were generated using the standard Cooper-Jacob straight-line approximation of the Theis non-equilibrium equation for water-level drawdowns when a well is pumped or flowed.<sup>11</sup> Based on the information available, the State Engineer concludes that the projected drawdown impacts at the protestant's wells are negligible as a result of the pumpage of 2.0 afa, and will not cause an adverse effect on the protestants ability to provide water to the Oasis at Shangri-La Subdivision under Permits 62310, 62311, 62312, 62443 and 62444 or pending Application 65498.

### IV.

Neither the applicant nor the protestant provided any hydrological studies of their own. The State Engineer concludes the results of the flow test generated that were analyzed using industry standard techniques provide sufficient information on the aquifer characteristics to make a reasonable determination of potential impacts on existing rights.

### V.

Nevada Revised Statutes provides that the right of each appropriator of ground water must allow for a reasonable lowering of the static water level at the appropriator's point of diversion.<sup>11</sup> Nevada law does not prevent the granting of permits to appropriate ground water to applicants later in time on the ground that the diversions under the proposed later appropriations may cause the water-level to be lowered at the point of diversion of a prior appropriator, so long as the water rights of holders of existing

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<sup>11</sup> NRS § 534.110(4).

appropriations can be satisfied.<sup>12</sup> The State Engineer concludes that the water rights of the protestant can be satisfied under such expressed conditions.

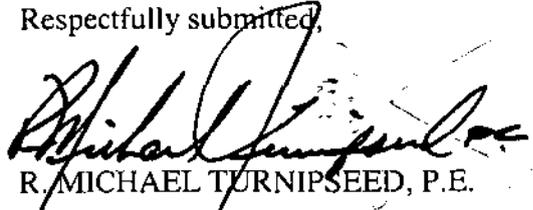
**VI.**

Based on the record of evidence available, the State Engineer concludes that approval of Application 65776 to appropriate 2.0 afa of water will not conflict with existing water rights nor threaten to prove detrimental to the public interest. The State Engineer further concludes that State Engineer's Order 1107, dated November 8, 1994, considers that small commercial (non-living units) and industrial uses that propose to divert 1,800 gallons per day or less from off the alluvial fan are preferred uses of the groundwater resources of the Pahrump Valley Hydrographic Basin.

**RULING**

The protest to Application 65776 is hereby overruled and Application 65776 is hereby approved subject to existing rights and the payment of the statutory permit fees.

Respectfully submitted,



R. MICHAEL TURNIPSEED, P.E.  
State Engineer

RMT/KWH/cl

Dated this 6th day of  
June, 2000.

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<sup>12</sup> NRS § 534.110(5).

