

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

IN THE MATTER OF PROTESTED )  
APPLICATION 56511 FILED TO )  
APPROPRIATE THE UNDERGROUND )  
WATERS IN THE LOVELOCK VALLEY )  
GROUNDWATER BASIN (73), )  
PERSHING COUNTY, NEVADA. )

RULING  
# 4175

GENERAL

I.

Application 56511 was filed on July 3, 1991, by Humboldt Feeding, Inc., to appropriate 0.6 cubic feet per second (cfs), from an underground source for stockwatering purposes, located in the N $\frac{1}{2}$  NW $\frac{1}{4}$ , S $\frac{1}{2}$  SW $\frac{1}{4}$ , NE $\frac{1}{4}$  and SE $\frac{1}{4}$ , Section 15, T.27N., R.31E., M.D.B.&M. The proposed point of diversion is located in the NW $\frac{1}{4}$  NW $\frac{1}{4}$  of said Section 15.<sup>1</sup>

II.

Application 56511 was timely protested by Carl Bennett on the grounds that:

Said well is 160' from my fenceline(sic) and over  $\frac{1}{2}$  mile from the Feed lot. My well was drilled and approved in 1954 for 3.5 csf(sic) for a season total of 319.74 ac.ft. Humboldt Feeders propose to draw over 420 acre ft. per year minimum. My concern is that the water source will be depleted or adversely affected and render me unable to continue to use my existing well. If my well goes dry or is drawn down to a level requiring me to drill deeper, I will incur additional costs of drilling and pumping. Once the door is opened to Humboldt Feeders, they will expand their operation and require even moore(sic) water usage. They already have an adequate water source via the Lovelock Meadows water district, and even supply water to various construction sites and to Eagle Pitcher Mines. Why do they find it necessary to tap into my underground water source as well. When they originally drilled their test bore in May, they contacted Parsons Drilling and requested a "mineral" test as they told Mike Anderson of the Water Resources Engineers Office. This

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<sup>1</sup> File No. 56511, official records in the office of the State Engineer.

test bore was drilled without prior notice to your office and when I called to inquire about this, the hole was drilled, capped and the equipment was removed within 24 hrs.

Therefore the protestant requests that the application be denied.<sup>7</sup>

### III.

On January 21, 1993, a Public Administrative Hearing was held before representatives of the State Engineer.<sup>3</sup>

#### FINDINGS OF FACT

##### I.

The perennial yield of the Lovelock Valley Groundwater Basin is 43,000 acre feet annually (AFA)<sup>4</sup> and of this quantity, approximately 4,000 AFA are committed to beneficial use under permits and certificates issued by the State Engineer.<sup>5</sup> On the surface, there appears to be unappropriated water available, but the quality of the groundwater in this basin renders it unsuitable for most uses.<sup>6</sup> The quality of water from an existing well on the

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<sup>2</sup> Exhibit No. 3, Public Administrative Hearing before the State Engineer, January 21, 1993.

<sup>3</sup> Exhibit No. 1, Public Administrative Hearing before the State Engineer, January 21, 1993.

<sup>4</sup> Everett, D.E. and F.E. Rush, "Water Resources Appraisal of Lovelock Valley, Pershing County, Nevada" Water Resources Reconnaissance Series Report 32, Nevada Department of Conservation and Natural Resources and U.S. Geological Survey, April 1965.

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

<sup>6</sup> Robinson, T.W. and J.C. Fredericks, "Ground Water in Lovelock Valley, Nevada," Water Resources Bulletin No. 2, office of the State Engineer and U.S. Geological Survey, 1946. These authors report that the Total Dissolved Solids (TDS) concentration in the groundwater in Lovelock Valley ranges from 1000 to 6000 parts per million (ppm). See also footnote 4.

Applicant's property is such that it is unsuitable for stockwater.<sup>7</sup>

The protestant is the owner of record of Permit 16487, Certificate 4846<sup>8</sup> and his well, located about 500 feet from the proposed point of diversion of Application 56511,<sup>9</sup> produces a very good quality of water.<sup>10</sup> The quantity of good water available near the protestant's well is unknown but it appears limited to a small area, evidenced by the poor water quality encountered in several wells located nearby.<sup>7,11</sup> The protestant asserts that the pumping of good quality water from the proposed well under Application 56511 would pull the surrounding poor quality groundwater into the zone tapped by his existing well.<sup>12</sup> If this is true, then the quality of the water in the protestant's well would deteriorate until the water is made unsuitable for the protestant's use. The Applicant presented no evidence or testimony that would refute this assertion. Lacking evidence or testimony to the contrary, the State Engineer finds that the approval of Application 56511 would cause a conflict with the protestant's existing water right.

## II.

The occurrence of such good quality water in the protestant's well is an anomaly. The quantity of good water in this zone and the mechanism of recharge are not known. The State Engineer finds

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<sup>7</sup> Transcript p. 26, Public Administrative Hearing before the State Engineer, January 21, 1993.

<sup>8</sup> File No. 16487, official records in the office of the State Engineer.

<sup>9</sup> Transcript p. 8, Public Administrative Hearing before the State Engineer, January 21, 1993.

<sup>10</sup> Transcript p. 7, Public Administrative Hearing before the State Engineer, January 21, 1993.

<sup>11</sup> Transcript pp. 22-23, Public Administrative Hearing before the State Engineer, January 21, 1993.

<sup>12</sup> Transcript pp. 20-21, Public Administrative Hearing before the State Engineer, January 21, 1993.

that there is a potential for the water of unusable quality to enter the zone of heretofore good quality water, if additional water is allowed to be pumped as proposed under Application 56511. The State Engineer further finds that it is not in the public interest to risk the deterioration in quality in the protestant's well.

### III.

Using the hydraulic characteristics of the protestant's well,<sup>13</sup> the maximum drawdown caused by the applicant's well was estimated. If the applicant's proposed well, 500 feet away, were pumped continuously at 0.60 cfs, the maximum drawdown due to this pumping, was estimated to be about five feet in the protestant's well after 10 years of pumping.<sup>14</sup> The State Engineer finds that the estimated drawdown caused by the Applicant's proposed well is reasonable and does not represent a hardship to the protestant. However, the aquifer is highly transmissive<sup>13</sup> and pumping from the aquifer would tend to draw in water known to be of poor quality from the surrounding area. The State Engineer finds that the additional pumping, proposed under Application 56511, would increase the probability of poor quality water migrating into the zone of good quality water.

### CONCLUSIONS

#### I.

The State Engineer has jurisdiction over the subject matter.<sup>15</sup>

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<sup>13</sup> The specific capacity of the protestant's well was estimated from the well log to be about 28,000 gpd/ft. of drawdown. This value was correlated to a value of about 80,000 gpd/ft. for an estimate of the transmissivity of the aquifer.

<sup>14</sup> Values of storativity from 0.001 to 0.05 were used in a drawdown model. The maximum drawdown at the protestant's well was 4.9 feet.

<sup>15</sup> NRS 533 and 534.

II.

The State Engineer is prohibited by law from granting a permit where:<sup>16</sup>

- 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.

III.

The protestant's well is unique in that it produces good quality water from an underground area surrounded by poor quality water. While the extent of the zone in which the good quality water exists and the recharging mechanisms are not known, the State Engineer concludes the source of good quality water is limited.

IV.

Given the characteristics of the aquifer, the State Engineer concludes that the pumping of the good quality water as proposed under Application 56511 may draw poor quality water from the surrounding underground area into the zone which serves as the source of water from the protestant's well. This would cause a conflict with the protestant's existing water right and threatens to prove detrimental to the public interest.

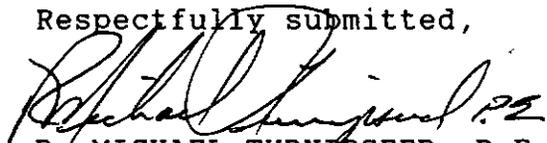
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<sup>16</sup> NRS 533.370(3).

RULING

The protest to Application 56511 is hereby upheld and said application is hereby denied on the grounds that the granting thereof would conflict with existing rights and threaten to prove detrimental to the public interest.

Respectfully submitted,

  
R. MICHAEL TURNIPSEED, P.E.  
State Engineer

RMT/JCP/pm

Dated this 24th day of  
March, 1995.