

June 7, 2004

Wayne Dalton
Santa Fe County
P.O. Box 276
Santa Fe, NM 87504-0276

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

Reference: Challenge New Mexico

Dear Mr. Dalton:

The Office of the State Engineer has reviewed the proposal for the Challenge New Mexico Therapeutic Horseback Riding Facility pursuant to the Santa Fe County Land Development Code (SFCLDC). While there are several minor problems with the developers' submittal, none of the problems are significant enough for this office to conclude that water would not be available for this subdivision for the 100-year period prescribed by the county. In accordance, a **positive** opinion is hereby issued.

Project

The Challenge New Mexico proposal is a request to construct riding facilities on a 23.393 acre lot. The lot is located on the northeast side of the Santa Fe Animal Shelter, off Caja Del Rio, in Section 35 of T17N, R8E, N.M.P.M.

Water Use Requirements

The developer has calculated the maximum annual water requirements of his development as 2.52 acre-feet per year, per lot, pursuant to Article VII, Section 6.6.2. of the SFCLDC. The developer has created water restrictions to assure to a reasonable degree that the maximum annual water requirement will not be exceeded.

Water Availability

The SFCLDC requires the developer to supply a geohydrologic report. Article VII, Section 6.4.2 of the code details the minimum requirements for this report. While Santa Fe County mapping of the area indicates that this development is in the Basin Fringe Zone, the geology recorded in the well logs indicates that, by definition, it is in the Homestead Zone.

The report submitted was prepared by James Corbin. The report included well logs, drawdown and recovery well test data, geologic cross-sections, water level contours, and results of 100-year schedule of effects model. The author concluded that water will be available for the 100-year period prescribed by the county. The consultant believes that principle water bearing formation drilled into is the Mancos formation; OSE believes that it the San Andres formation.

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While I had concerns regarding the improperly evaluated recovery curve and the maximum annual water requirement calculation (the saturated thickness used), these issues were not substantial enough to cause available drawdown to be exhausted in the 100-year period prescribed by the County.

Based on the well test results and a simple Theis model, the Luna Rosa well appears to have sufficient available drawdown to meet the annual water use of the development for the 100-year period prescribed by the county. Impermeable boundaries and aquifer compartmentalization have been observed in other wells in the area, causing low and failing well yields; thus, the performance of this well should not be viewed as representative of the area. In addition, the reader of this review should not consider it as an endorsement of the model presented in the report; it is based on our own Theis modeling of the subject well.

If you have any questions regarding this opinion, please feel free to call me at (505) 827-6790.

Sincerely,

Patrick J. Romero, P.E.
Water Resource Engineer

Cc: Brian C. Wilson, P.E., Water Use and Conservation Bureau