

MEMORANDUM

New Mexico Office of the State Engineer
Water Use and Conservation Bureau

December 31, 2001

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

From: Patrick J. Romero, Water Master I

Subject: High Feather Ranch Bed and Breakfast Review, Santa Fe County

The High Feather Ranch Bed and Breakfast proposal is a request to convert a residential home into a Bed and Breakfast facility. The home, on a 65.2-acre lot, is located at 29 High Feather Ranch, in Cerillos, within the Ortiz Mine Grant, in Projected Section 31 of T14N, R8E, N.M.P.M.. It was reviewed pursuant to the Santa Fe County Land Development Code, and the New Mexico Subdivision Act. The developer proposes that water will be supplied to this development by a 72-12-1 domestic well.

The subdivider calculated the maximum annual water requirements, pursuant to Section 6.6.2 of the Santa Fe County Land Development Code. Water requirements were separated into indoor and outdoor uses. Outdoor water use will be limited to native species, pursuant to Article VII, Section 6.6.2.e of the Santa Fe Land Development Code

The developer has now submitted a reconnaissance geohydrologic report, as required by Section 6.4.5 of the Santa Fe Land Development Code. The report, by Corbin Consulting, did not meet all the requirements, as outlined in Section 6.4.6. I found numerous inconsistencies in his calculations. One such inconsistency was the author's claim that the thickness of the aquifer is 168 feet. According to the well log, it is only a few feet thick. I feel that the high amount of production (20gpm) by the well is due to the fact that it is in a geologic fracture. Fractures are extremely vulnerable to dewatering, and should not be considered a good long-term source of water. In using the storage calculations, the author should show that the water in storage is practically recoverable. Due to the very small water-bearing strata, this could prove to be a difficult task.

Instead of performing a pump test on the subject well, that author submitted a report for another well, approximately 1.0 mile away. The writer did not submit evidence to support the assumption that the geological conditions the wells were drilled into are similar, pursuant to section 6.4.6b of the Santa Fe Land Development Code. The developer should note that there are several dry holes in the area, one of which is very close to his own well.

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The author referred to several geohydrologic reports done in the area. He failed to mention details of the reports. One example is the Coyote Springs report. Of the five wells drilled for this development, none were proven to be a good domestic source for water, for the 100 year period required by the county regulations.

It is my opinion that the developer has not provided ample evidence that his water requirements will be met, pursuant to the Santa Fe County Land Development Code. In accordance, a favorable opinion should be **withheld**.