

October 4, 2005

Mr. Dale Palkki
Planning Coordinator, Otero County
1000 New York Avenue, Room 101
Alamogordo, NM 88310-6935

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

Re: Broken Arrow Estates Subdivision

Dear Mr. Palkki:

On September 12, 2005, the Office of the State Engineer (OSE) received a request to review the Preliminary Plat for Broken Arrow Estates, a Type Three subdivision. The developer proposes to subdivide 86.44-acres into 16 lots with sizes ranging between 5.1 acres and 7.6 acres. This property is located approximately 8 miles south of Alamogordo on the west side of US Highway 54 south of Taylor Ranch Road within the E1/2 of Section 2, Township 18 South, Range 9 East, NMPM. The proposed water supply is individual and shared 72-12-1 wells. This proposal was reviewed pursuant to the Otero County Subdivision Regulations and the New Mexico Subdivision Act.

It is the opinion of this office that the proposal does not meet the requirements of Appendix C, Sections C.2.D and C.4.A of the Otero County Regulations. Accordingly, a negative opinion is issued at this time.

WATER DEMAND ANALYSIS AND CONSERVATION

The developer has quantified the maximum annual water requirement for the subdivision pursuant to Section C.1.A, Appendix C, of the Otero County Subdivision Regulations, which states that subdivisions relying on individual or shared wells shall be limited to a maximum of 3.0 acre-feet per year per domestic well. Under item no. 16 of the Disclosure Statement, the developer has stated that the maximum annual water requirements as forty-nine (49) acre-feet per annum. The maximum annual water demand for sixteen (16) lots, based on the above criteria, is forty-eight (48) acre-feet per annum. Nothing in the Disclosure Statement or the Restrictive Covenants suggests the purpose for an additional one acre-foot of water.

Item no. 16 of the Disclosure Statement limits the number of hook-ups to a domestic well to four, pursuant to Section C.2.C of the Otero County Subdivision Regulations. Further,

the developer has included a sample for “Water Well Operation Agreement for Shared Wells” with the proposal.

Under item no. 16 of the Disclosure Statement the developer is required to describe any limitations and restrictions on water use in the subdivision. The developer refers only to the conditions of approval imposed by the OSE at the time an individual well permit is issued. The developer is required to summarize the provisions of any covenants or other restrictions requiring the use of water saving fixtures and other water conservation measures. The only measure proposed is limiting the lawn size to 2500 square feet. Item no. 20 of the Restrictive Covenants contradicts this figure; *“planted lawn shall be limited to a maximum of 1200 square feet.”* Under the same section of the Disclosure Statement the developer states that *“the use of water saving fixtures, xeriscape landscaping, water harvesting, and the covering of pools and spas to prevent evaporation is “encouraged”.* These water saving measures should be made a part of the Restrictive Covenants. The developer is not in compliance with Appendix C, Section C.2.D, of the County regulations, which states that *“All subdivisions are required to be planned, developed, and constructed so as to provide for the conservation of water and minimization of water use.”*

Indoor conservation measures should include the requirement of installing water saving fixtures. With regard to outdoor use, this office recommends that the subdivider limit irrigation to 800 square feet per parcel. This restriction may be stated as follows: *“The total irrigated area shall not exceed 800 square feet per lot. The 800 square feet may be planted in any combination of trees, shrubs, annuals and perennials, grasses, and garden. Grasses should be selected that are well adapted to local climatic conditions, and non-native grasses are discouraged. Low-water use landscaping techniques applying the principles of xeriscape shall be utilized. Drip irrigation is encouraged whenever possible”.* Finally, this office suggests that other outdoor uses such as swimming pools, hot tubs, water fountains, and decorative ponds be restricted.

WATER AVAILABILITY ASSESSMENT

The developer has attempted to address water availability by stating, under Item no. 18 of the Disclosure Statement, that average depth to water is 60 feet, minimum well depth is 120 feet, maximum is 175 feet, and the estimated yield of wells is 35 gpm. As support documentation, the developer has submitted four well logs, which, however, indicate that the principal water-bearing strata are thin sand and gravel layers, from 5 to 10 feet thick, between layers of clay and caliche.

The life expectancy of the water supply, item no. 19 of the Disclosure Statement, relies on the Otero County Forty (40) year Water Plan and on the Tularosa Basin and Salt Basin Regional Water Plan which estimate that the drop in the water table may be 20-feet near the location of the subdivision over 40 years. A drawdown of 20-feet may have a significant impact on the life expectancy of the subdivision wells, whose principal water bearing strata are 5 to 10 feet thick lenses.

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Further, item no. 16, where the developer is required to describe the sources of water to meet the subdivision's maximum annual water requirements, states, "*the developer makes no representation or guarantees that water will be found under any lot*". This statement contradicts the discussion of the life expectancy of the water supply under item no. 19 of the Disclosure Statement.

In conclusion, it is the opinion of this office that the developer has failed to address the life expectancy of the proposed water supply **showing** sustained production over a 40-year period, pursuant to Section C.4.A, Appendix C of the County Regulations.

If you have any questions, please call me at 505-827-3845.

Sincerely,

Jerry Keller
Senior Water Resource Specialist

cc: John W. Longworth, P.E., Water Use and Conservation Bureau Chief
OSE Water Right Division, Roswell Office