

June 17, 2008

Mr. Edward Vigil
Senior Planner, Taos County
105 Albright Street, Suite C
Taos, NM 87571

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

Re: Miranda Canyon Preserve Subdivision

Dear Mr. Vigil:

The Water Use & Conservation/Subdivision Review Bureau of the Office of the State Engineer (OSE) has reviewed the referenced subdivision proposal pursuant to the Taos County Subdivision Regulations and the New Mexico Subdivision Act.

Based on the information provided, this office cannot determine that the subdivider can furnish water sufficient in quantity to fulfill the maximum annual water requirements of the subdivision, including water for indoor and outdoor domestic uses, and that the subdivider can fulfill the proposals in his disclosure statement concerning water, excepting water quality. Accordingly, a **negative** opinion is issued.

A staff memorandum providing the specific comments is attached for your information. If you have any questions, please call Jerry Keller at 505-827-3845.

Sincerely,

John W. Longworth, P.E.
Water Use & Conservation/Subdivision Review Bureau Chief

Encl.

cc: OSE Water Rights Division, Santa Fe Office

JK:jk

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

DATE: June 14, 2008

TO: John Longworth, P.E. Water Use & Conservation Bureau Chief

FROM: Jerry Keller, Senior Water Resource Specialist

SUBJECT: Miranda Canyon Preserve Subdivision, Taos County

SUMMARY

On May 19, 2008 the Office of the State Engineer (OSE) received a request review the subdivision proposal for Miranda Canyon Preserve, a Type-Four Subdivision. The proposal is a request to subdivide a 5,100-acre parcel into 150 residential lots ranging in size from 10.01-acres to 30.92-acres each, 2 open space lots, one campground lot, one maintenance lot, one community center lot, one equestrian stable boarding lot, and one owner retained lot of 844-acres. The proposed water supply is individual 72-12-1 domestic wells. The property is located approximately 3 miles southeast of Taos, on Taos County Road C-139 (State Road 382) within projected Sections 1, 2, 11, and 12, Township 23 North, Range 12 East, and projected Sections 12, 13, 14, 23, 24, 25, 26, 35, and 36, Township 24 North, Range 12 East NMPM, Cristoval de la Serna Grant.

The water supply documents submitted to this office consist of a Disclosure Statement, Water Availability Assessment (Geohydrologic Report), Covenants, Declaration, and Plat Map.

This proposal was reviewed pursuant to the Taos County Subdivision Regulations (Regulations) and the New Mexico Subdivision Act (Act). The water supply proposal is not in compliance with the requirements of Section 4.3.3.A of the Regulations and Section 47-6-11-F (1) the Act. Accordingly, a **negative** opinion should be issued.

WATER DEMAND ANALYSIS AND WATER CONSERVATION

Under Item No. 16 and Item No. 22 of the Disclosure Statement the subdivider has quantified the maximum annual subdivision water requirements as 46.72 acre-feet. The Water Availability Assessment includes a detailed water demand analysis. The estimated annual water budget for each proposed water use is summarized below:

- Residential lots - 0.3 acre-feet, calculated as 0.24 acre-feet assuming 2.34 persons per dwelling unit including a guesthouse occupied by 2 persons 60 days per year, 1,200 square feet of buffalo grass, 1,000 square feet of drip irrigated trees and shrubs, and 600 square feet of drip irrigated garden and 0.28 acre-feet with the addition of a swimming pool. The subdivider estimates that 30 lots may have pools
- Lot 151, maintenance yard - assumed 0.50 acre-feet
- Lot 152, conservancy tract - 0.07 acre-feet based on 15 guests per day and livestock watering

- Lot 153, community center - 0.49 acre-feet assuming 25 guests per day, a community swimming pool, 1,200 square feet of drip irrigated trees and shrubs, and 1,000 sprinkler irrigated buffalo grass
- Lot 154, conservancy tract - no water use
- Lot 155, retained by the owner - 0.50 acre-feet assuming the maximum allowable water use permitted by the Regulations
- Lot 156, campground - 0.10 acre-feet assuming 2-months of operation, 30 guests, and 15 campsites
- Lot 157, horse stable - 0.06 acre-feet for sanitary purposes. **An additional water use of 0.44 acre-feet per year is estimated assuming 30 horses or mules will be supplied by a 72-12-1.2 stock well. This quantity should be included as an outdoor use in the total subdivision water demand estimate.**

Conservation measures in the Disclosure Statement and Exhibit “D”, Design Guidelines, in the Declaration include low water use plumbing fixtures and appliances and requiring the use of refrigerated air instead of evaporative coolers. All outdoor water use is required to be supplemented by rainwater harvesting and gray water reuse. Xeriscape and low-water use plants are strongly encouraged. All water use will be metered.

The Design Guidelines should also restrict the planted areas on each residential lot to the quantities utilized to estimate the outdoor water demand.

WATER AVAILABILITY ASSESSMENT

The proposed water supply for the subdivision is individual 72-12-1 domestic wells constructed by the lot purchaser.

The developer submitted a Water Availability Assessment (Assessment), as required by Appendix A, Section 1 of the Regulations.

OSE Hydrology Bureau, as well as the Water Use and Conservation Bureau, reviewed the Assessment. The Hydrology Bureau’s comments are summarized in the attached memorandum.

While the Assessment appears to support that sufficient groundwater exists beneath the subdivision, the aquifer tests indicate that in certain areas, withdrawal of the groundwater by the subdivision wells may be at extremely low production rates of less than 3 gpm and may not be in compliance with the requirements of Section 4.3.3.A of the Regulations. The developer should communicate in the Disclosure Statement that low yielding wells are a possibility and make recommendations for facilities to compensate for the low yielding wells. The Assessment states that Well No. 5 “*can produce an adequate quantity of water for use as an individual domestic well if used in combination with a several thousand-gallon storage tank.*”

The addition of a storage facility may add significant costs to the development of the lot's water supply. The Disclosure Statement should also advise that if artesian conditions are encountered it may add significant costs to the well construction.