

September 17, 2003

Patsy Sanchez
Planning Director
Lincoln County
P.O. Box 711
Carrizozo, NM 88301-0711

CERTIFIED MAIL
RETURN RECEIPT
REQUESTED

Re: Alpine Village Cabins Subdivision in Lincoln County

Dear Ms. Sanchez:

On August 18, 2003, the Office of the State Engineer received a request to review the Preliminary Plat for "Alpine Village Cabins", a Type Three Subdivision. The proposal is a request to subdivide 27.44 acres of land into 21 lots. The proposed subdivision is located approximately one mile west of New Mexico Highway 48, between the towns of Alto and Ruidoso, within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, Township 11 South, Range 13 East, NMPM. Water will be provided by three shared domestic wells. This submittal was reviewed pursuant to the Lincoln County Subdivision Ordinance 2002-06 and the New Mexico Subdivision Act. It is the opinion of this office that the developer's water supply proposal will satisfy the requirements of the County's subdivision regulations contingent upon some minor amendments.

WATER DEMAND ANALYSIS

The developer has quantified the maximum annual water requirement for the subdivision pursuant to Section 18.2.A of the Lincoln County Subdivision Ordinance 2002-06 for both indoor and outdoor purposes following the procedures set forth in OSE Technical Report 48 (Wilson, 1996). The total water requirement for 20 lots (one of the lots will not be connected to water) has been estimated at 5.4 acre-feet, assuming 2.7 persons per dwelling. The outdoor water requirement has been calculated at 12.8 gpd per parcel, for the irrigation of 800 square feet of trees and shrubs. The quantification of the outdoor water requirement is consistent with Item # 17 of the Declaration of Covenants, Conditions and Restrictions for the subdivision, which states that the irrigation of trees and shrubs will be limited to 800 square feet, and that drought-resistant grass or turf areas will be limited to areas that will be irrigated by grey water or rainwater storage irrigation systems.

WATER AVAILABILITY ASSESSMENT

The proposed source of water for this subdivision is three shared domestic wells, two of which are existing wells permitted, by the OSE, in accordance with Section 72-12-1 New Mexico Statutes.

The developer does not propose to interconnect the wells. To do so would limit the total diversion to 3.0 acre-feet per annum from all sources combined, not enough for the estimated demand of 5.4 acre-feet per annum. The two existing wells, H-3148 and H-2496, are 573 and 360 feet deep respectively. The well logs indicate that the aquifer utilized is fractured Sierra Blanca volcanics.

The developer has submitted a geohydrologic report pursuant to Section 17 of Lincoln County Subdivision Ordinance 2202-06. An aquifer test was conducted at the two existing domestic wells. Well H-3148 was pumped at 8.6 gpm for 48 hours, and the water level dropped from 190.54 feet to 317.77 feet. The measured recovery was 87% of the static after 23 hours. The report includes determination of transmissivity, storage coefficient, and calculations to predict if there is adequate water available for 40 years and the projected impacts on nearby wells. The report concludes that there is adequate water available for 40 years, and that the drawdown on nearby wells will not be significant. Due to the fact that the needed amount of water (3.3 gpm) will not be pumped from a single well, but three domestic wells, and that the values of transmissivity used in the calculations of the effects are conservative, this office concurs with the conclusion in the geohydrology report.

The Revised Development Plan states that each well currently serves five lots. This is **not** reflected in the OSE records. In fact, while well No. H-3148 was permitted for use by more than one household, and as such required the reporting of meter readings, well No. H-2496 was permitted for use by one household only, and as such exempt from the metering requirement. The permittee, Mr. Kenneth Keegan, needs to report past meter readings for well H-2496 to the State Engineer, and have the permit amended, to indicate the correct use of water (multiple households). Also, the users will need to file changes of ownership for the three wells with the State Engineer Office.

FIRE PROTECTION

Section 17.2 of the County Subdivision Ordinance requires "*the subdivider to provide stored water for fire protection prior to construction for fire flow which shall not be less than 3,000 gallons*". Also, Appendix 2 of the Ordinance requires specifications about fire department distance and staff. The developer states, in the Revised Development Plan, that currently one well is equipped with a 3,000 gallon storage tank for fire protection, and that a second water storage tank for the same purpose will be supplied on the third (proposed) well. However, the developer has not provided the required information about the nearest fire station.

DISCLOSURE STATEMENT AND RESTRICTIVE COVENANTS

In Item # 16 of the developer's Disclosure Statement, reference is made to indoor water conservation measures by requiring the use of low water use fixtures. The developer should also specify the maximum amount of water that may be used by each dwelling in one calendar year. With regard to the outdoor water use, the developer specifies, under Item #17, the allowable type of vegetation, irrigation techniques, and square footage (≤ 800 square feet per parcel). Although the Revised Development Plan states that the subdivision will be served by three domestic wells, and that each well will serve 6 to 7 lots, the Disclosure Statement and Restrictive Covenants does not address this issue. A breakdown of which parcels will be served by which well should be included in the Disclosure Statement. A Well Share Agreement also needs to be prepared for prospective lot purchasers to review.

CONCLUSION

The water supply proposal for the Alpine Village Cabins Subdivision will satisfy the requirements to the Lincoln County Subdivision Ordinance contingent upon the amendment of the Disclosure Statement and preparation of a Well Sharing Agreement. The amendments to the Disclosure Statement should include:

- The maximum amount of water that may be used by each dwelling in one calendar year.
- A breakdown of which parcels will be served by which well.
- Complete information regarding the nearest fire station (distance, staff, etc.), pursuant to Item # NM, Appendix 2, Lincoln County Ordinance 2002-06.

Finally, Mr. Keegan needs to have Permit No. H-2496 amended at the Roswell Office of the State Engineer, to reflect the correct use of water (multiple households), and submit past meter readings.

The OSE is prepared to re-evaluate the development proposal when these items have been addressed. If you have any questions, please call me at 505-827-4273.

Sincerely,

Mara Smith
Water Resource Specialist Senior

cc: Brian C. Wilson, P.E., OSE Water Use and Conservation Bureau Chief
OSE Roswell Office