



October 7, 2020

Lindsay Darden  
El Paso County Development Services Department  
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RE: Eagle Forest – PUD & Preliminary Plan  
SE1/4 of Sec. 8, Twp. 12S, Rng. 65W, 6<sup>th</sup> P.M.  
Water Division 2, Water District 10  
CDWR Assigned Subdivision No. 23287

To Whom It May Concern,

We have received the submittal to subdivide a 44.4 +/- acre parcel into 9 lots and a tract of open space; the proposed lots range in size between 3.0 and 4.9 acres and the proposed open space is 5.4 +/- acres. According to this office's records, a previous development known as Eagle Forest Estates was proposed for this property and this office provided comments regarding the water supply on November 21, 2012. The comments provided herein shall supersede those previous comments. The proposed supply of water for this development is to be served by individual on-lot wells and wastewater is to be served by individual septic systems.

### **Water Supply Demand**

According to the revised Water Supply Information Summary included with the submittal, the estimated water requirements include 2.7 acre-feet per year for household use in 9 single-family dwellings (0.3 acre-foot per year per dwelling), 4.7 acre-feet per year for irrigation and 1 acre-foot per year for stock watering, for a total estimated water requirement of 8.4 acre-feet per year.

It should be noted that standard water use rates, as found in the *Guide to Colorado Well Permits, Water Rights, and Water Administration*, are 0.3 acre-foot per year for each ordinary household, 0.05 acre-foot per year for four large domestic animals, and 0.05 acre-foot per year for each 1,000 square feet of lawn and garden irrigation.

### **Source of Water Supply**

The anticipated source of water is to be provided by nine on-lot wells which will produce from the Dawson aquifer and will operate pursuant to the augmentation plan decreed in consolidated case nos. 2004CW119 (Division 2) and 2004CW336 (Division 1). The water underlying this property was adjudicated and the applicant is the owner of the Dawson, Denver, Arapahoe, and Laramie Fox-Hills aquifers.



According to the decree referenced above, the following amounts of water shown in Table 1, below, were determined to be available underlying the 44.4 ± acre tract of land owned by the applicant.

**Table 1 - Denver Basin Ground Water Rights**

Aquifer	Tributary Status	Volume (AF)	Annual Allocation 100 Year (AF/Year)	Annual Allocation 300 Year (AF/Year)
Dawson	NNT	2,970	29.7	9.9
Denver	NNT 4%	2,910	29.1	9.7
Arapahoe	NT	1,920	19.2	6.4
Laramie-Fox Hills	NT	1,270	12.7	4.2

The plan for augmentation decreed in consolidated case nos. 2004CW119 (Division 2) and 2004CW336 (Division 1) allows for diversion of 9.9 acre-feet per year for the uses proposed in the subdivision referral.

This office has record of two existing wells located on the property. Well permit nos. 168590-A and 168591 are exempt wells permitted pursuant C.R.S. 37-62-602. The referral documents indicate that the applicant intends to use one or both of these existing wells as part of the water supply to the proposed subdivision. **This will require that the applicant apply for, and obtain new well permits issued pursuant to Section 37-90-137(4) C.R.S.**

The proposed source of water for this subdivision is a bedrock aquifer in the Denver Basin. The State Engineer’s Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. According to 37-90-137(4)(b)(I), C.R.S., “Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years.” Based on this **allocation** approach, the annual amounts of water decreed is equal to one percent of the total amount available as determined by Rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. Therefore, the water may be withdrawn in those amounts for a maximum of 100 years.

In the El Paso County Land Development Code, effective November, 1986, Chapter 5, Section 49.5, (D), (2) states:

“-Finding of Sufficient Quantity – The water supply shall be of sufficient quantity to meet the average annual demand of the proposed subdivision for a period of three hundred (300) years.”

The State Engineer’s Office does not have evidence regarding the length of time for which this source will “meet the average annual demand of the proposed subdivision.” However, treating El Paso County’s requirement as an **allocation** approach based on three hundred years, the annual estimated demand, for the entire subdivision, is potentially 9.9 acre-feet as allowed by the augmentation plan. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

**State Engineer’s Office Opinion**

Based on the above, it is our opinion, pursuant to CRS 30-28-136(1)(h)(I), that the anticipated water supply can be provided without causing material injury to decreed water rights so long as

the applicant obtains well permits issued pursuant to C.R.S. 37-90-137(4) and the plan for augmentation noted herein, for all wells in the subdivision and operates the wells in accordance with the terms and conditions of any future well permits.

Our opinion that the water supply is **adequate** is based on our determination that the amount of water required annually to serve the subdivision is currently physically available, based on current estimated aquifer conditions.

Our opinion that the water supply can be **provided without causing injury** is based on our determination that the amount of water that is legally available on an annual basis, according to the statutory **allocation** approach, for the proposed uses is greater than the annual amount of water required to supply the demands of the proposed subdivision.

Our opinion is qualified by the following:

The Division 2 Water Court has retained jurisdiction over the final amount of water available pursuant to the above-referenced decrees, pending actual geophysical data from the aquifer.

**The amounts of water in the Denver Basin aquifers, and identified in consolidated case nos. 2004CW119 (Division 2) and 2004CW336 (Division 1), was calculated based on estimated current aquifer conditions. For planning purposes, the county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 300 years used for allocation due to anticipated water level declines. We recommend that the county determine whether it is appropriate to require development of renewable water resources for this subdivision to provide for a long-term water supply. Furthermore, that applicant will need to apply for, and obtain a new well permits issued pursuant to Section 37-90-137(4) C.R.S.**

Should you or the applicant have questions regarding any of the above, please contact me at this office.

Sincerely,



Ivan Franco, P.E.  
Water Resource Engineer

cc: Bill Tyner, Division 2 Engineer  
Doug Hollister, District 10 Water Commissioner