



December 30, 2020

Ryan Howser  
El Paso County Development Services Department  
2880 International Circle, Suite 110  
Colorado Springs, CO 80910

RE: Forest Heights Estates - Final Plat  
SW1/4 of Sec. 9, Twp. 12S, Rng. 65W, 6<sup>th</sup> P.M.  
Water Division 2, Water District 10  
CDWR Assigned Subdivision No. 27462

To Whom It May Concern,

We have received the submittal to subdivide a 35.126 ± acre parcel into four lots; the proposed lots range in size between 5.0 and 14.6 acres. 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 2.4 acre-feet per year for household use in four single-family dwellings (0.4 acre-foot per year per dwelling) and 0.25 acre-foot per year for stock watering (0.02 acre-foot per year per head), for a total estimated water requirement of 2.65 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 four on-lot wells. The wells will produce from the Dawson aquifer and will operate pursuant to the augmentation plan decreed in consolidated case nos. 18CW3026 (Division 2) and 18CW3057 (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 a 33.36 ± acre portion of the property owned by the applicant.



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

<b>Aquifer</b>	<b>Tributary Status</b>	<b>Volume (AF)</b>	<b>Annual Allocation 100 Year (AF/Year)</b>	<b>Annual Allocation 300 Year (AF/Year)</b>
Dawson	NNT	2,570	25.7	8.5
Denver 4%	NNT	2,130	21.3	7.1
Arapahoe	NT	1,450	14.5	4.8
Laramie-Fox Hills	NT	951	9.51	3.1

The plan for augmentation decreed in consolidated case nos. 18CW3026 (Division 2) and 18CW3057 (Division 1) allows for diversion in up to three wells of 0.4 acre-feet per year per well for the uses proposed in the subdivision referral.

As required by the decree, the applicants shall cause to be recorded in the El Paso County real estate records this decree as or alternative covenants that run with the property providing notice to future owners of the property of the requirements of this decree, including without limitation the requirement for construction of a well to augment post-pumping depletions.

This office has record of one existing well located on the property. Well permit no. 293425 is an exempt well permitted pursuant C.R.S. 37-62-602. The referral documents indicate that the applicant intends to use this existing well as part of the water supply to the proposed subdivision. **This will require that the applicant apply for and obtain a new well permit 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 a maximum of 1.2 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 cannot be provided without causing material injury to decreed water rights.**

The applicant must obtain 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 **cannot 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 less than the annual amount of water required to supply the demands of the proposed subdivision. Additionally, the augmentation plan allows only three wells to operate.

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. 18CW3026 (Division 2) and 18CW3057 (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,



Kate Fuller, P.E.  
Water Resource Engineer

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