



October 19, 2023

Ryan Howser, Project Manager
El Paso County Development Services Department
Transmitted via EPC EDARP Portal: epcdevplanreview.com

Re: Falcon Acres Final Plat
Part of the NE ¼ of Section 4, Twp. 14 South, Range 64 West, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin
CDWR Referral No. 20707 - 5th Letter

Dear Ryan Howser:

We have reviewed the re-submittal concerning the above-referenced proposal for the subdivision of approximately 49 acres into 8 residential lots of 5+ acres. The proposed water supply for the lots is individual on lot wells producing from the not-nontributary (4% replacement requirement) Arapahoe aquifer which will operate pursuant to Determination of Water Right no. 1146-BD. This letter supersedes our most recent comments on this subdivision dated August 29, 2023.

Water Supply Demand

The proposed water uses and estimated water requirements for each lot are as follows: use in 1 single-family home (0.3 acre-feet/year); the irrigation of 4,000 square-feet of lawn, garden, and trees (0.2 acre-feet/year); and the watering of 4 large domestic animals (0.05 acre-feet/year), for a total water demand of 0.55 acre-feet/year/lot. The total water demand for all 8 lots is 4.4 acre-feet/year.

Source of Water Supply

The proposed water supply for the lots is individual on lot wells producing from the not-nontributary (4% replacement requirement) Arapahoe aquifer to operate pursuant to Determination of Water Right no. 1146-BD. Determination of Water Right no. 1146-BD was issued by the Ground Water Commission (“Commission”) on April 16, 2007 for an allowed average annual amount of withdrawal of groundwater of 14.2 acre-feet from the Arapahoe Aquifer (based on an aquifer life of 100 years) to be used on 49.2 acres generally described as the NE ¼ of the NE ¼ and the E ½ of the E ½ of the NW ¼ of the NE ¼ of Section 4, Township 14 South, Range 64 West, 6th P.M. (“Overlying Land”). The allowed uses of the water are domestic, commercial, industrial, irrigation, and replacement supply. The proposed water uses and proposed place of use are allowed by the determination.

According to our records, there are 3 small capacity wells located on the property with well permit nos. 74444-A, 113499, and 211298. Upon approval of this subdivision, the conditions under which these permits were issued would no longer exist, rendering the wells out of compliance with their well permits. According to the letter dated September 27, 2023 from Eric K. Trout, these wells will be plugged and abandoned.



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 section 37-90-107(7)(a), C.R.S., "Permits issued pursuant to this subsection (7) shall allow withdrawals on the basis of an aquifer life of 100 years." Based on this allocation approach, the annual amount of water determined in Determination of Water Right no. 1146-BD is equal to one percent of the total amount or 14.2 acre-feet/year, as determined by Rule 5.3.2.1 of the Designated Basin Rules, 2 CCR 410-1. Therefore, the water may be withdrawn in that annual amount for a maximum of 100 years.

The *El Paso County Land Development Code*, Section 8.4.7.(B)(7)(b) states:

"(7) Finding of Sufficient Quantity

(b) Required Water Supply. The water supply shall be of sufficient quantity to meet the average annual demand of the proposed subdivision for a period of 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 300 years, the allowed average annual amount of withdrawal of 14.2 acre-feet/year from the Arapahoe aquifer would be reduced to one third of that amount, or 4.73 acre-feet/year, which exceeds the annual demand of 4.4 acre-feet/year for this subdivision. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

Applications for on lot well permits, submitted by an entity other than the current water right holder (Thousand Hills Land and Cattle Co., LLC) must include evidence that the well permit applicant has acquired the right to the portion of water being requested on the application.

State Engineer's Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(I), C.R.S., it is our opinion that the proposed water supply is adequate and can be provided without causing injury to decreed water rights **so long as well nos. 74444-A, 113499, and 211298 are plugged and abandoned upon subdivision approval. A Well Abandonment Report (form [GWS-09](#)) must be filed with this office for each well prior to the subdivision approval.**

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 on the subdivided land is greater than the annual amount of water required to supply existing water commitments and the demands of the proposed subdivision.

Our opinion is qualified by the following:

The Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the above-referenced water right, pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifer, and identified in this letter, are calculated based on estimated current aquifer conditions. The source of water is from a non-renewable aquifer, the allocation of which is based on a 100-year aquifer life. 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 100 years (or 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.

Please contact Wenli.Dickinson@state.co.us or (303) 866-3581 x8206 with any questions.

Sincerely,



Ioana Comaniciu, P.E.

Water Resources Engineer

Ec: Upper Black Squirrel Creek GWMD
Well permit nos. 74444-A, 113499, and 211298