



March 14, 2024

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

Re: Falcon Acres Final Plat
File No. SF223

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 - 6th 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 and an existing well no. 74444-A which will operate pursuant to Determination no. 1147-BD and a pending replacement plan. This letter supersedes our most recent comments on this subdivision dated October 19, 2023.

Water Supply Demand

According to the letter dated January 16, 2024 from Eric K. Trout (“Letter”), 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

According to the Letter, 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 and an existing well no. 74444-A which will operate pursuant to Determination no. 1147-BD and a pending replacement plan.

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.



Determination of Water Right no. 1147-BD was issued by the Commission on April 16, 2007 for an allowed average annual amount of withdrawal of groundwater of 4 acre-feet from Area A and 0.7 acre-feet from Area B (based on an aquifer life of 100 years) to be used on the subject 49.2 acres. Area A requires a Commission-approved replacement plan that provides for the actual depletion of the alluvial aquifer to prevent material injury to existing water rights prior to the issuance of well permits; Area B requires that at least four percent (4%) of the amount of water withdrawn annually be returned to the alluvial aquifer. 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. Existing well permit no. 74444-A is located on Area A. The Applicant has filed an application for a replacement plan (receipt no. 10033812) for the withdrawal of 0.55 acre-feet/year allocated in Determination no. 1147-BD for in-house use, outdoor irrigation, and the watering of domestic animals for a period of 300 years. This application is currently pending approval.

According to our records, there are two other small capacity wells located on the property with well permit nos. 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, 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 the determinations is equal to one percent of the total amount, 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 the determinations would be reduced to one third of that amount. 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. 113499 and 211298 are plugged and abandoned upon subdivision approval and well no. 74444-A is re-permitted pursuant to the pending replacement plan. Since the water supply will rely on water which is the subject of the pending replacement plan, the replacement plan must be approved by the Commission before the State Engineer's Office will provide favorable comment on the subdivision water supply plan.

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