



April 20, 2023

Ryan Howser
El Paso County Development Services Department
DSDcomments@elpasoco.com

RE: Falcon Acres, Final Plat
NE1/4 Section 4, T14S, R64W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Mr. Howser:

We have reviewed your submittal concerning the above referenced proposal for the subdivision of 49.23 acres into eight (8) residential lots ranging in size from 4.92 to 5.62 acres. We previously commented on this development by letters dated August 29, 2007 and February 25, 2022. This letter shall supersede the prior approvals. A letter submitted on March 8, 2023 was also reviewed in conjunction with the submittal.

Water Supply Demand

A Water Supply Summary Sheet was submitted with the referral that specified the total water demand for the subdivision as 2.64 acre-feet per year, for use in 8 single family dwellings, the irrigation of 0.27 acres and the watering of an unspecified number of domestic animals. The water demand for the subdivision has been estimated as 2.67 acre-feet per year.

Prior to further review of the subdivision water supply plan the demand and uses for each lot, along with the total demand for all lots must be clarified.

Source of Water Supply

The proposed water supply was not clearly defined. Based on the Water Resource Report the proposed water source may be either individual on lot wells or a central well in either the Arapahoe aquifer or Denver aquifer.

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 NE1/4 of the NE1/4 and the E1/2 of the E1/2 of the NW1/4 of the NE1/4, Section 4, Township 14 South, Range 64 West, 6th P.M. ("Overlying Land"). The 49.2 acres that are the subject of this referral are within the 49.2 acres of Overlying Land.

Determination of Water Right no. 1147-BD was issued by the Commission on April 16, 2007. The replacement water requirement for a 45 acre portion of the Overlying Land is not-nontributary (actual impact replacement) and the replacement water requirement for the remaining 4.2 acres is not-nontributary (4% replacement). The quantity of water allocated for the not-nontributary (actual impact replacement) portion of the Denver aquifer is an allowed average



annual withdrawal of 4.0 acre-feet (based on an aquifer life of 100 years) and the quantity of water allocated for the not-nontributary (4% replacement) portion of the Denver aquifer is an allowed average annual withdrawal of 0.7 acre-feet (based on an aquifer life of 100 years). Prior to withdrawing the not-nontributary (actual impact replacement) water, or withdrawing the not-nontributary (4% replacement) water from the 45 acres that overlies the not-nontributary (actual impact replacement) portion of the Denver aquifer, a Commission approved replacement plan must first be obtained.

According to our records there are three small capacity wells located on the property. The wells operated under permit nos. 74444-A and 113499 are constructed in the Denver aquifer and the well operated under permit no. 211298 appears to be constructed in the alluvium. According to the Water Resource Report well 74444-A may be used to serve the subdivision. The letter dated March 8, 2023 stated that “either or both” of the existing Denver aquifer wells, (permit nos. 74444-A and 113499) may be used for the subdivision water supply. The referral information did not specify if well 211298 will be used to serve the subdivision or would be abandoned or continue to be used as an exempt well. Upon approval of this subdivision the conditions under which these permit were issued would no longer exist, making the wells out of compliance with their well permits. Continued use of the wells would require that they be re-permitted. As the wells would be located within a post-June 1, 1972 subdivision material injury to other water rights would be a consideration in re-permitting the well, which would require that the Denver aquifer wells be re-permitted pursuant to Determination of Water Right no. 1147-BD and a Commission approved replacement plan to prevent injury to water rights in the alluvial aquifer. The alluvial well would also need to be re-permitted pursuant to a Commission approved replacement plan to prevent injury to water rights in the alluvial aquifer. Prior to further review of the subdivision water supply plan the Applicant must clarify if these wells will be plugged and abandoned prior to subdivision approval or if the wells will be re-permitted to operate pursuant to a replacement plan. In addition, the letter from March 8, 2023 also claimed that the water reserved for the operation of the existing wells with permit nos. 74444-A and 113499 should be included as part of the volume of water to provide for the subdivision water supply. However, in order to claim that water, a new Determination and replacement plan would be necessary before the water supply can be approved.

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 37-90-107(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 amounts of water determined in 1146-BD and 1147-BD are 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 those annual amounts 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 these sources 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 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, the allowed average annual amount of withdrawal of 4.0 acre-feet/year from the not-nontributary (actual impact replacement) portion of the Denver aquifer would be reduced to 1.33 acre-feet/year and the allowed average annual amount of withdrawal of 0.7 acre-feet/year from the not-nontributary (4% replacement) portion of the Denver aquifer would be reduced to 0.23 acre-feet/year. As a result, the water may be withdrawn in those annual amounts for a maximum of 300 years.

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 not adequate and cannot be provided without causing injury to decreed water rights.

It appears that in order to obtain a favorable opinion from this office on the proposed water supply to this subdivision, the applicant must do the following.

1. Provide a water supply plan that clearly states the proposed uses of the water within the subdivision, estimates the water demands for all lots and defines the proposed legal water source for all lots that is consistent with El Paso County's 300 year water supply requirement.
2. Clarify if wells 74444-A, 113499 and 211298 will be used within the subdivision or if they will be plugged and abandoned prior to subdivision approval. If the wells will be used within the subdivision the Applicant must provide evidence that a Commission approved replacement plan for the wells has been obtained, and if the applicant is claiming the water reserved for those wells in the present Determination 1147-BD, a new Determination must be approved by the Groundwater Commission before that water could be considered available for the subdivision water supply.
3. If new Denver aquifer wells are proposed that would withdraw not-nontributary (actual impact replacement) water, or would withdraw the not-nontributary (4% replacement) water from the 45 acres that overlies the not-nontributary (actual impact replacement) portion of the Denver aquifer, the Applicant must provide evidence that a Commission approved replacement plan for the wells has been obtained

If you, or the applicant, have any questions, please contact me at 303-866-3581 ext. 8208 or Melissa.Vanderpoel@state.co.us

Sincerely,



Melissa A van der Poel, P.E.
Water Resources Engineer

cc: Upper Black Squirrel Creek GWMD
Well permit no. 211298
SEO Subdivision referral no. 20707