



April 29, 2021

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

RE: Circle A Subdivision
Part of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$, Section 23, T11S, R65W, 6th P.M.
Kiowa Bijou Designated Ground Water Basin
Water Division 1, Water District 1

Dear Ryan Howser:

We have received the additional information submitted on April 13, 2021 concerning the above-referenced proposal to subdivide a 14.9-acre parcel of land into three lots. This office previously commented on the subject proposal in a letter dated December 29, 2020, this letter supersedes the previous letter.

Water Supply Demand

According to the submitted Water Supply Information Summary Sheet and report for Denver Basin Groundwater Assessment dated April 9, 2021 by Julia Murphy (“Water Resources Report”) provided with the submittal, the estimated water requirements total 4.05 acre-feet annually (1.35 acre-feet/year per lot), for in-home purposes, outdoor irrigation of landscape, lawn and gardens, domestic animals and greenhouse use.

Source of Water Supply

The proposed source of water supply is individual on-lot wells producing from the non-tributary (actual replacement) Dawson aquifer, including well permit nos. 85145-F (Lot 2), 85146-F (Lot 3) and 85148-F (Lot 1), pursuant to the Replacement Plan for Determination of Water Right No. 4043-BD.

Determination of Water Right no. 4043-BD was issued by the Ground Water Commission (“Commission”) on November 9, 2020 for an allowed average annual amount of withdrawal of ground water of 13.18 acre-feet from the Dawson Aquifer (based on an aquifer life of 100 years) to be used on the 14.9 acre parcel that is the subject of this referral.

On November 9, 2020 the Commission approved the Replacement Plan for Determination of Water Right no. 4043-BD. The Replacement Plan for Determination of Water Right no. 4043-BD allows for the withdrawal of 4.05 acre-feet per year of ground water from the Dawson aquifer for 300 years, through three wells, including the existing well operated under permit no. 85148-F, to be located on three residential lots on the 14.9 acres which is the subject property of this referral. Each well may withdraw 1.35 acre-feet per year of groundwater to be used for in-home use, irrigation of landscape and gardens, domestic animals, commercial, fire protection, recreational, greenhouse, replacement and the watering of stock animals, either directly or after storage. These allowed uses are consistent with the proposed uses specified in the Water Supply Report.



The proposed source of water for this development is a bedrock aquifer allocation from the Denver Basin. The State Engineer's Office does not have evidence regarding the length of time for which the bedrock aquifer sources 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 Determination of Water Right No. 4043-BD 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 those annual 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 the bedrock aquifer 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 4.05 acre-feet per year from the Dawson aquifer pursuant to the Replacement Plan for Determination of Water Right no. 4043-BD for a maximum of 300 years, is sufficient to supply the requirement of 4.05 acre-feet/year.

The Water Supply Information Summary Sheet submitted indicates the existing well under permit no. 85148-F and well permit nos. 85145-F and 85146-F will be used for the subdivision.

Well permit no. 85148-F was issued for the use of an existing well constructed under permit no. 101207 (canceled) pursuant to the Replacement Plan for Determination of Water Right no. 4043-BD for the withdrawal of 1.35 acre-feet/year of groundwater from the Dawson aquifer for domestic use including in-house use, irrigation of landscape and gardens, domestic animal watering, commercial, fire protection, recreational, greenhouse, replacement and the watering of stock animals either directly or after storage. The place of use is limited to the 4.95 acres parcel known as Lot 1, Circle A Subdivision. Since the uses, annual amount of withdrawal and water source of permit no. 85148-F, are those proposed for the subdivision, permit no. 85148-F may be used within subdivision.

Well permit no. 85145-F was issued pursuant to the Replacement Plan for Determination of Water Right no. 4043-BD for the withdrawal of 1.35 acre-feet/year of groundwater from the Dawson aquifer for domestic use including in-house use, irrigation of landscape and gardens, domestic animal watering, commercial, fire protection, recreational, greenhouse, replacement and the watering of stock animals either directly or after storage. The place of use is limited to the 4.96 acres parcel known as Lot 2, Circle A Subdivision. This office has not received information that a well under permit no. 85145-F has been constructed. Well permit no. 85145-F will expire on February 23, 2022 unless this office receives information that the well was constructed installed before the permit expired or the

applicant applies for a one time one year expiration extension. Since the uses, annual amount of withdrawal and water source of permit no. 85145-F, are those proposed for the subdivision, should a well be constructed under permit no. 85145-F, the well may be used within subdivision.

Well permit no. 85146-F was issued pursuant to the Replacement Plan for Determination of Water Right no. 4043-BD for the withdrawal of 1.35 acre-feet/year of groundwater from the Dawson aquifer for domestic use including in-house use, irrigation of landscape and gardens, domestic animal watering, commercial, fire protection, recreational, greenhouse, replacement and the watering of stock animals either directly or after storage. The place of use is limited to the 4.95 acres parcel known as Lot 3, Circle A Subdivision. This office has not received information that a well under permit no. 85146-F has been constructed. Well permit no. 85146-F will expire on February 23, 2022 unless this office receives information that the well was constructed installed before the permit expired or the applicant applies for a one time one year expiration extension. Since the uses, annual amount of withdrawal and water source of permit no. 85146-F, are those proposed for the subdivision, should a well be constructed under permit no. 85146-F, the well may be used within subdivision.

State Engineer's Office Opinion

Based upon the above and pursuant to Sections 30-28-136(1)(h)(l), C.R.S., it is our opinion that the proposed water supply is adequate and can be provided without causing injury to water rights.

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 Colorado Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the above-referenced Determination of Water Right(s), pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifers, and identified in this letter, are calculated based on estimated current aquifer conditions. The source of water is from a non-renewable aquifer, the allocations of which are 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 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.

If you, or the applicant, have any questions, please contact Ailis Thyne at ailis.thyne@state.co.us.

Sincerely,



Joanna Williams, P.E.
Water Resources Engineer

Ec: Well permit nos. 85145-F, 85146-F & 85148-F
SEO referral no. 27464

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