



June 15, 2021

John Green
El Paso County Development Services Department
DSDcomments@elpasoco.com

RE: Rapson Subdivision
Part of SE ¼, Section 14, T11S, R65W, 6th P.M.
Kiowa Bijou Ground Water Management District
Water Division 1, Water District 1

Dear Mr. Green:

We have received your May 20, 2021 submittal concerning additional information regarding the above-referenced proposal to subdivide a 19.6-acre parcel of land into two lots. This office previously commented on the subject proposal in a letter dated April 6, 2021. This letter supersedes the April 6, 2021 letter.

Water Supply Demand

According to a report from JDS-Hydro Consultants, Inc. dated February 2021 and revised April 2021 ("Water Resources Report") provided with the submittal, the estimated water requirements total 3.0 acre-feet annually. The proposed water demand for lot 1 is 2.12 acre-feet per year and the proposed water demand for lot 2 is 0.88 acre-feet per year. The proposed uses on each lot are use in one single family dwelling, the irrigation of 20,780 square-feet of irrigation and the watering of 11 horses. Based on the annual water demands specified in the Water Resources Report of 0.2 acre-feet per single family dwelling, 0.0566 acre-feet per 1,000 square feet of irrigation and 0.011 acre-feet per horse lots 1 and 2 would require 1.5 acre-feet per year each. Therefore the proposed uses for lot 2 would exceed the 0.88 acre-feet per year stated as the water requirement for lot 2. Prior to further evaluation of the water supply plan the applicant must clarify the water requirements and proposed uses for each lot.

Source of Water Supply

The proposed source of water supply is individual on-lot wells producing from the non-tributary (actual replacement) Dawson aquifer pursuant to the Replacement Plan for Determination of Water Right No. 3637-BD.

Determination of Water Right no. 3637-BD was issued by the Ground Water Commission ("Commission") on January 31, 2019 for an allowed average annual amount of withdrawal of ground water of 16.7 acre-feet from the Dawson Aquifer (based on an aquifer life of 100 years) to be used on 19.6 acres, which is the subject property of this referral.

On December 29, 2020 the Commission approved the Replacement Plan No. 2 for Determination of Water Right no. 3637-BD, (cancelling Replacement Plan No. 1 for Determination of Water Right no. 3637-BD issued on January 31, 2019). Replacement Plan No. 2 for Determination of Water Right no. 3637-BD allows for the withdrawal of 3.0 acre-feet per year of groundwater from the Dawson aquifer for 300 years, through two wells to be located on two residential lots on 19.6 acres, which is the subject property of this referral. Each well may withdraw groundwater to be used for use in-house use, irrigation of landscape/lawn and garden,



replacement and the watering of domestic animal and livestock. The information submitted also included well permit no. 85011-F.

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. 3637-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 3.0 acre-feet per year from the Dawson aquifer pursuant to the Replacement Plan No. 2 for Determination of Water Right no. 3637-BD for a maximum of 300 years, is sufficient to supply the requirement of 3.0 acre-feet/year.

The Water Resources Report submitted makes reference to other water rights, including those in the Denver, Arapahoe and Laramie-Fox Hills Aquifers under Determination of Water Right nos. 3636-BD, 3635-BD and 3634-BD, but those rights are not identified as a sources of water for the subdivision.

Well permit no. 85011-F was issued for the use of an existing well constructed under permit no. 84274-F (canceled), pursuant to the Replacement Plan No. 2 for Determination of Water Right no. 3637-BD for the withdrawal of 1.5 acre-feet/year of groundwater from the Dawson aquifer for use in one (1) single family, irrigation of landscape/lawn and garden, replacement and watering of domestic animals and livestock. The applicant has indicated the well constructed under permit no. 85011-F will located on lot 1 and will be used to serve that lot. Prior to further evaluation of the water supply plan the Applicant must show that the permitted amount of 1.5 acre-feet/year is adequate to meet the proposed demand of 2.12 acre-feet/year for lot 1.

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.

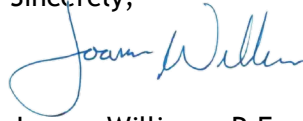
It appears that in order to obtain a favorable opinion from this office on the proposed water supply to this subdivision, the applicant must do the following.

1. The applicant should clarify the water requirements and proposed uses for each lot.

2. The applicant must show that the permitted amount of 1.5 acre-feet/year from well 85011-F is adequate to meet the proposed uses of lot 1.

If you, or the applicant, have any questions, please contact Ailis Thyne at 303-866-3581 ext. 8216.

Sincerely,



Joanna Williams, P.E.
Water Resources Engineer

Cc: Kiowa Bijou GWMD
Well permit no. 85011-F
SEO referral no. 27575

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