COLORADO
Division of Water Resources
Department of Natural Resources
Colorado Ground Water Commission

August 5, 2020

Rad Dickinson
El Paso County Development Services Department
DSDcomments@elpasoco.com

RE: 3050 Curtis Road 4 Lot Minor Subdivision (AKA Wyoming Estates Minor Subdivision)
SE ¼ of the NE ¼, Section 33, T13S, R64W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Mr. Rad Dickson:

We have reviewed the additional information submitted July 14, 2020 concerning the above referenced proposal to subdivide 40 acres into 4 residential lots. This office previously commented on this referral in a letter dated July 2, 2019, this letter supersedes the previous letter.

**Water Supply Demand**

According to the Water Supply Information Summary sheet provided with the submittal, the total estimated water requirement for the minor subdivision is 1.82 acre-feet/year (0.455 acre-feet per lot for household use in one single family dwelling, irrigation and stock watering).

**Source of Water Supply**

According to the Water Supply Letter dated June 16, 2020 by Julia Murphy of Ground Water Investigations, LLC, the source of water for the subdivision will be from wells constructed in the Denver aquifer operating pursuant to the Replacement Plan for Determination of Water Right no. 3542-BD.

Determination of Water Right no. 3542-BD was issued by the Ground Water Commission ("Commission") on July 2, 2018 for an allowed average annual amount of withdrawal of groundwater of 8.16 acre-feet from the Denver Aquifer (based on an aquifer life of 100 years) to be used on 40 acres , which is the subject property of this referral.

On July 2, 2020 the Commission approved the Replacement Plan for Determination of Water Right no. 3542-BD for the withdrawal of 1.82 acre-feet per year of ground water from the Denver aquifer for 300 years, through four wells to be located on four residential lots on 40 acres , which is the subject property of this referral. Each well may withdraw 0.455 acre-feet per year of ground water to be used for use in one single family residence; the irrigation of lawn, garden, and trees; and the watering of large domestic animals. 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. 3542-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 1.82 acre-feet per year from the Denver aquifer pursuant to Replacement Plan for Determination of Water Right no. 3542-BD for a maximum of 300 years, is sufficient to supply the requirement of 1.82 acre-feet/year.

The Water Resources Report submitted makes reference to other water rights, including those in the Arapahoe and Laramie-Fox Hills Aquifers under Determination of Water Right nos. 3541-BD and 3540-BD, but those rights are not identified as a sources of water for the subdivision.

**State Engineer's Office Opinion**

Based upon the above and pursuant to Sections 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 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 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 303-866-3581 ext. 8216.

Sincerely,

Keith Vander Horst

Keith Vander Horst
Chief of Water Supply, Designated Basins

Cc: Division 2
3050 Curtis Road 4 Lot Minor Subdivision.docx
SEO referral no. 26557