



April 27, 2022

Ryan Howser
El Paso County Planning and Community Development
2880 International Circle, Suite 110
Colorado Springs, SO 80910

Re: Chaparral Heights Minor Subdivision
EA Number EA2153, File Number VR225
NE1/4 of the NW1/4 of Sec. 33, T11S, R63W, 6th P.M.
Upper Black Squirrel Creek Designated Basin
Water Division 2, Water District 10

Dear Mr. Howser:

We have reviewed the above referenced proposal to replat and subdivide a 17.82-acre property described in the NE1/4 of the NW1/4 of Section 23, Township 11 South, Range 63 West, 6th P.M. located at 15435 East Chapparral Loop, into three single-family lots, one of which has an existing residence.

Water Supply Demand

According to the submittal the estimated water requirements total 1.50 acre-feet annually (0.5 acre-feet/lot), for: in-house use, irrigation of 1,000 square-feet of lawns and gardens, and watering of up to 6 large domestic animals per lot.

Source of Water Supply

The proposed source of water is individual on-lot wells producing from the not-nontributary Dawson aquifer that will operate pursuant to the Determination of Water Right No. 4239-BD and Replacement Plan No. 4239-RP, including well permit no. 86152-F for the lot with the existing well. The Replacement Plan No. 4239-RP allows for an average diversion of 0.5 acre-feet annually for a maximum of 300 years. The subdivision lies within the allowed place of use of Determination of Water Right no. 4239-BD, and the proposed uses are uses allowed by that Determination and Replacement Plan. Well permit no. 86152-F was issued October 11, 2021 for the withdrawal of an average annual amount of 0.5 acre-feet for use in one single-family dwelling, irrigation (indoor and outdoor) agricultural, livestock, commercial, industrial, fish and wildlife and replacement.

The remaining two lots will be serviced by individual on-lot wells producing from the not-nontributary Denver aquifer that will operate pursuant to the Determination of Water Right No. 4238-BD. These wells will have an average diversion of 1.0 acre-feet annually for a maximum of 300 years. The subdivision lies within the allowed place of use of Determination of water Right no. 4238-BD and the proposed uses are uses allowed under that Determination. The 4% replacement water will be replaced using return flows from the two residences and are estimated at 0.468 acre-feet per year, which will meet the 4% requirement of 0.04 acre-feet per year per residence.

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 4239-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 2.73 acre-feet/year from the Upper Dawson aquifer would be reduced to one third of that amount, or 0.91 acre-feet/year, and the allowed average annual amount of withdrawal of 8.48 acre-feet/year from the not-nontributary (4% replacement) Denver aquifer would be reduced to 2.82 acre-feet/year. As a result, the water may be withdrawn in those annual amounts for a maximum of 300 years.

Applications for on lot well permits, submitted by entities other than the Applicant of the change of Determination of Water Right must submit evidence that the Applicant has acquired the right to the portion of the water being requested in the application.

State Engineer's Office Opinion

Based upon the above and pursuant to section 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 decreed 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 equal to the annual amount of water required to supply existing water commitments and the demands of the proposed subdivision.

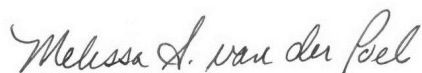
Our opinion is qualified by the following:

The Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the above-referenced decree, 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 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 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.

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

Sincerely,



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

Ec: Referral No. 29179