



March 23, 2023

Kylie Bagley,
El Paso County Community and Development Services
Transmitted via the EPC EDARP Portal

Re: **Gunners Ridge Minor Subdivision**
File No. MS233
Part of the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 14, Township 12 South, Range 65 West, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Kyle Bagley:

We have reviewed the information submitted concerning the above referenced proposal to subdivide 38.83 acres located in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 14, Township 12 South, Range 65 West, 6th P.M. into four (4) residential lots: three 5-acre lots and one 23.83-acre lot. The lots will be single-family residential lots.

Water Supply Demand

According to the letter dated February 15, 2023 from Eric K. Trout:

- The well on the 23.83-acre lot will have the following uses: use in up to 2 single-family dwellings or their equivalent (0.3 acre-feet per unit per year or 0.6 acre-feet per year total), up to 1 acre of irrigation (2 acre-feet per year), in-building sanitary use (0.3 acre-feet per year), and the watering of up to 80 large domestic animals (1 acre-foot per year), for a total use of 3.9 acre-feet per year for 300 years.
- The other three wells will have the following uses (per lot): use in 1 single-family dwelling (0.3 acre-feet per year per well), 6,000 square-feet of irrigation (0.3 acre-feet per year per well), and the watering of up to 8 large domestic animals (0.1 acre-feet per year per well), for a total use of 0.7 acre-feet per year for 300 years or 2.1 acre-feet per year for 300 years for all three wells on the 5-acre lots.

The total water demand for the subdivision will be 6 acre-feet per year.

Source of Water Supply

The proposed water supply is individual on-lot wells withdrawing from the not-nontributary Dawson aquifer that will operate pursuant to Determination of Water Right no. 463-BD and Replacement Plan no. 463-RP.

Determination of Water Right no. 463-BD quantified an amount of water from beneath 310 acres of overlying land generally described as the SE $\frac{1}{4}$ of Section 11 and the NE $\frac{1}{4}$ of Section 14, all in Township 12 South, Range 65 West of the 6th P.M., in El Paso County (Overlying Land), of which this subdivision is a part. The allowed average annual amount of withdrawal shall not exceed 217 acre-feet, which based on an aquifer life of one hundred years results in an amount of water allocated of 21,700 acre-feet. The use of groundwater is limited to the following beneficial uses: commercial, domestic, irrigation, industrial, fish and wildlife propagation, aesthetic, and for augmentation



purposes.

Replacement Plan no. 463-RP allows the withdrawal the Dawson aquifer water from up to four wells for the following uses:

- One well will withdraw 3.9 acre-feet annually for the following uses: in-house use in up to two (2) single-family residences; in-building commercial sanitary use; up to one (1) acre of irrigation of home lawn, garden, pasture, hay and trees; and watering of up to eighty (80) large domestic animals.
- The other three (3) wells will each withdraw 0.7 acre-foot annually for in-house use in one (1) single family residence; up to 6,000 square-feet of irrigation of home lawn, garden, pasture, hay and trees; and watering of up to eight (8) large domestic animals; for a total withdrawal from the three (3) wells of 2.1 acre-feet annually.

The land on which the wells will be located is a 38.83-acre portion of the Overlying Land generally described as a portion of the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 14, Township 12 South, Range 65 West of the 6th P.M., as described in Exhibit B of the Findings and Order dated March 15, 2023 for Replacement Plan no. 463-RP. The proposed water uses and place of use are allowed by the determination and replacement plan.

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 463-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 this source 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 water supply source must provide for a 300-year supply. Replacement Plan no. 463-RP allows the withdrawal of 6 acre-feet per year for 300 years. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

Applications for on lot well permits, submitted by an entity other than the current water right holder (Andrew and Emilee Makings), must include evidence that the applicant has acquired the right to the portion of water being requested on the application.

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 **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.

Please contact Wenli Dickinson at Wenli.Dickinson@state.co.us or at (303) 866-3581 x8206 with any questions.

Sincerely,



Ioana Comaniciu, P.E.
Water Resource Engineer

Ec: Subdivision file no. 30685
Upper Black Squirrel Creek Ground Water Management District