



COLORADO

Division of Water Resources

Department of Natural Resources
Colorado Ground Water Commission

March 1, 2022

Kari Parsons
El Paso County Planning and Community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910

RE: Cornerstone Estates Final Plat
Project No. SF222/EA2175
NE1/4 of Section 23, T12S, R65W, 6th P.M.
Water Division 2, Water District 10
Kiowa Bijou Designated Basin

Dear Ms. Parsons:

We have reviewed the above referenced proposal to subdivide a parcel of approximately 58.8 acres. This proposal is for sixteen residential lots with lot sizes ranging from 2.5 acres to 3.6 acres. The applicant proposes to provide water services pursuant to a Determination of Water Right. Sewage will be through an on-site evaporative wastewater treatment system.

Water Supply Demand

According to the "Cornerstone Estates Subdivision - Water Resource Report" ("Report") prepared by RESPEC dated December 13, 2021, the estimated total water demand for the sixteen proposed lots is 5.06 acre-feet per year (0.316 acre-feet per year per lot), including household use, and outside uses, defined as 1000 square feet of outside uses (flowerbeds, tree watering, car washing). However, the Report also states that 5.06 acre-feet per year is required for in-house use and 0.91 acre-feet per year is required for outside use, which would total 5.97 acre-feet per year. In addition, these quantities conflict with the 4.88 acre-feet/year total referenced in the Water Supply Information Summary and Table 1 of the Report. Therefore prior to further review of the Subdivision Water Supply Plan the water demand and uses must be clarified.

Source of Water Supply

The Report states that the proposed source of water supply is individual on-lot wells producing from the nontributary Arapahoe aquifer, pursuant to Determination of Water Right No. 1302-BD. The Arapahoe aquifer water underlying the property was allocated under Determination of Water Right no. 1032-BD, therefore the proposed water supply for the subdivision must be clarified.

Determination of Water Right no. 1032-BD was issued by the Ground Water Commission ("Commission") on November 7, 2006 for an allowed average annual amount of withdrawal of groundwater of 23.5 acre-feet from the Arapahoe Aquifer (based on an aquifer life of 100 years). The uses allowed are domestic, commercial, industrial, irrigation, stock watering and



replacement supply. The groundwater is allowed to be used on the 58.8 acre parcel that is the subject of this referral.

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. 1032-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.

According to our records there is a small capacity wells located on the property. The well operated under permit no. 209893 is constructed in the Dawson aquifer. The referral information did not specify if well 209893 will be used to serve the subdivision. Upon approval of this subdivision the conditions under which the permit was issued would no longer exist, making the well out of compliance with its well permit. Continued use of the well would require that it be re-permitted. As the wells would be located within a post-June 1, 1972 subdivision material injury to other water rights would be a consideration in re-permitting the well, which would require that the well be re-permitted pursuant to Determination of Water Right no. 1034-BD and a Commission approved replacement plan to prevent injury to water rights in the alluvial aquifer. Prior to further review of the subdivision water supply plan the Applicant must clarify if the well will be plugged and abandoned prior to subdivision approval or if the well will be re-permitted to operate pursuant to a replacement plan. Note that a replacement plan associated with Determination of Water Right no. 1034-BD was issued on November 16, 2007.

According to our records the depth of the Arapahoe aquifer at this proposed location is between approximately 1,610 feet and 2,100 feet below ground surface. Given the cost of wells constructed to that depth the County should consider whether individual on-lot well in the Arapahoe aquifer is an economically viable water source.

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. **Prior to further review of the subdivision water supply plan the following information is required:**

1. The Applicant must provide a subdivision water supply plan that clearly states the water demands and proposed uses for each lot.
2. Clarify if well 209893 will be used within the subdivision or if it will be plugged and abandoned prior to subdivision approval. If the well will be used within the subdivision the Applicant must provide evidence that a Commission approved replacement plan for the well has been obtained.
3. The Applicant must clarify the proposed water source.

If you, or the applicant, have any questions, please contact Melissa van der Poel at 303-866-3581 ext. 8208.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joanna Williams". The signature is fluid and cursive, with the first name "Joanna" written in a larger, more prominent script than the last name "Williams".

Joanna Williams, P.E.
Water Resources Engineer

Ec: Subdivision file no. 21437
Upper Black Squirrel Creek Groundwater Management District