



COLORADO
Division of Water Resources

Department of Natural Resources
1313 Street, Room 821
Denver, CO 80203

August 15, 2018

Nina Ruiz
El Paso County Development Services Department
Transmitted via email:
ninaruiz@elpasoco.com

RE: Cordero Minor Subdivision, MS171
SE1/4 of NE1/4 of Sec. 1, T14S, R63W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Ms. Ruiz:

We have received your July 23, 2018 submittal concerning the above-referenced proposal to subdivide 35.55 acres into two lots of approximately 17 acres and 18 acres. This letter replaces our letter dated January 31, 2017.

Water Supply Demand

According to the submittal, the estimated water requirements of the entire Cordero Minor Subdivision are 1 acre-foot annually. The water requirement for each of the 2 lots is 0.5 acre-feet per year for use in one single family dwelling (0.3 acre-feet per year), irrigation of up to 3,000 square-feet of home lawn and garden (0.15 acre-feet per year), and watering of 4 large domestic animals (0.05 acre-feet per year).

Source of Water Supply

The proposed source of water is individual on-lot wells producing from the non-tributary (actual impact replacement) Arapahoe aquifer that would operate pursuant to Determination of Water Right No. 3344-BD and its associated Replacement Plan.

Determination of Water Right no. 3344-BD allows an average annual amount of withdrawal of 6.35 acre-feet based on a 100-year aquifer life. The Replacement Plan for Determination of Water Right no. 3344-BD allows diversions totaling 1 acre-foot annually from the Arapahoe aquifer for a period of 300 years split between two proposed wells on two residential lots. Each well is allowed to divert 0.5 acre-feet annually to serve 1 single family residence, irrigation of 3,000 square-feet of lawn and garden, and watering of 4 large domestic animals.

The proposed source of water 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 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.

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 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 allowed average annual amount of withdrawal of 6.35 acre-feet/year would be reduced to one third of that amount, or 2.12 acre-feet/year. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years, or as limited by the Replacement Plan.

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 aquifer, and identified in this letter, are calculated based on estimated current aquifer conditions. For planning purposes 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.

Item of Note

There is an existing well, permit no. 304886, producing from the alluvial aquifer, that is located on and was permitted on the basis of being on the existing 35.55-acre parcel. Upon approval of this subdivision the conditions under which this permit was issued would no longer exist, making the well out of compliance with its permit. Continued use of the well would require that it be re-permitted. As the well 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 approval of a replacement plan to prevent injury to water rights in the alluvial aquifer.

As the proposed water supply to the subdivision does not include well permit no. 304886, the plan of the developer and well owner appears to be that it no longer be used (and not re-permitted). Approval of the subdivision will therefore require the well to be plugged and abandoned. The requirement to plug and abandon the well should be included in the County’s approval of the subdivision and conveyed to the developer.

Should you have any questions, please contact Neelha Mudigonda at neelha.mudigonda@state.co.us.

Sincerely,



Keith Vander Horst, P.E.
Chief of Water Supply, Basins

cc: Well permit no. 304886
Upper Black Squirrel Creek GWMD
Determination of Water Right No. 3344-BD

NSM: Cordero_Aug2018