



COLORADO
Division of Water Resources
Department of Natural Resources

May 30, 2019

Nina Ruiz
El Paso County Development Services Department
DSDcomments@elpasoco.com

RE: Saddlehorn Ranch/824 Acre Curtis Road Subdivision-Preliminary Plan
Case No. SP196
Section 3 and the N ½ of the N ½ of Section 10, T13S, R64W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Ms. Ruiz:

We have reviewed your May 15, 2019 submittal concerning the above referenced proposal for the development of 816.5 acres into 224 single family lots, including roads, drainage facilities, and utilities.

Water Supply Demand

According to the submitted Water Resources & Wastewater Report ("Water Resources Report") from April 2019, the total estimated water requirement is 94.08 acre-feet/year, based on a demand per lot of 0.42 acre-feet/year. In addition, the Water Supply Information Summary Sheet included in the referral material indicates that the total amount required for the subdivision is 83,989 gallons/day or 94.1 acre-feet/year also based on the demand per lot of 0.42 acre-feet/year.

Source of Water Supply

The proposed water supply for this development is nontributary ground water from the Arapahoe and Laramie-Fox Hills aquifers that has previously granted by the Ground Water Commission ("Commission") in the Determination of Water Rights Nos. 457-BD for the Laramie-Fox Hills aquifer and 458-BD for the Arapahoe aquifer. The Determination of Water Right Nos. 457-BD and 458-BD were issued by the Commission on March 3, 2004, for 6,955.31 acres. The land that is subject to this referral is part of the 6,955.31 acres land area. Determination of Water Right No. 457-BD allows for an average diversion of 2,347 acre-feet annually for a maximum of 100 years and the Determination of Water Right No. 458-BD allows for an average diversion of 2,719 acre-feet annually for a maximum of 100 years. According to the information provided, the pro-rata amount of water for the land that is subject to this referral is 275.41 acre-feet/year from the Laramie-Fox Hills aquifer from 457-BD aquifer and 319.09 acre-feet/year from the Arapahoe aquifer from 458-BD for a maximum of 100 year.

Well permit nos. 66937-F and 66938-F were issued in accordance with the terms and conditions of the above-mentioned Determination of Water Rights. The wells are proposed to supply the lots in this development, through a central water system. Well permit no. 66937-F allows for an annual withdrawal of 1,600 acre-feet and it was completed to withdraw water from the Arapahoe aquifer and well permit no. 66938-F allows for an annual withdrawal of



800 acre-feet and it was completed to withdraw water from the Laramie-Fox Hills aquifer. The wells were constructed in 2007 however, a pump has not been installed in the wells. Therefore prior to installing a pump in the wells and using these wells in the central water system the Applicant must obtain new well permits in accordance with Section 37-90-107(7) C.R.S.

The 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 Nos. 457-BD and 458-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.

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 275.41 acre-feet/year from the Laramie-Fox Hills aquifer from 457-BD aquifer and 319.09 acre-feet/year from the Arapahoe aquifer from 458-BD for a maximum of 100 years would be reduced to one-third of those amounts, or 91.80 acre-feet/year for the Laramie-Fox Hills and 106.36 acre-feet for the Arapahoe aquifer. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

The proposed annual water supply of 198.15 acre-feet/year (91.80 acre-feet/year from the Laramie-Fox Hills aquifer plus 106.36 acre-feet/year from the Arapahoe aquifer) is more than the estimated annual demand of 94.08 acre-feet/year.

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, provided Applicant obtains new well permits for the existing wells permit nos. 66937-F and 66938-F prior to subdivision approval.

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.

If you, or the applicant, have any questions, please contact Ioana Comaniciu at 303-866-3581 ext. 8246.

Sincerely,

A handwritten signature in black ink that reads "Keith Vander Horst". The signature is written in a cursive, flowing style.

Keith Vander Horst
Chief of Water Supply, Designated Basins

Ec: Division 2
Saddlehorn Ranch_May19.docx
Project no. 26492