



COLORADO
Division of Water Resources
Department of Natural Resources
Colorado Ground Water Commission

July 10, 2019

Nina Ruiz
El Paso County, Planning and Community Development
Transmitted via email:
NinaRuiz@elpasoco.com

RE: Davis Ranch, Filing Nos. 1 and 2
Part of Sec. 3, T14S, R64W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Ms. Ruiz:

We have received your June 20, 2019 submittals concerning the above-referenced subdivision. Filing 1 consists of 76.8 acres and is approved to be subdivided into fourteen, approximately 5-acre, single family residential lots, while Filing 2 consists of 78.2 acres and is also approved to be subdivided into fourteen, approximately 5-acre, single-family residential lots.

The current submittal concerns a change in water supply. Our office has previously commented favorably on this subdivision in letters dated December 18, 2003 and July 3, 2018. This letter replaces our July 3, 2018 letter.

Water Supply Demand

Previous submittals state annual water requirements for each lot in both filings to be 0.55 acre-feet per lot (0.27 acre-feet for household use in one single family dwelling, 0.25 acre-feet for lawn irrigation of 4,300 square-feet, and 0.03 acre-feet for watering of 2 horses). Both Filings 1 and 2 each have an estimated annual water requirement of 7.7 acre-feet or a combined requirement of 15.4 acre-feet per year. The current submittal indicates that the annual water requirements for this subdivision have not changed.

Source of Water Supply

The water supply for Filings 1 and 2 consists of a combination of individual on-lot use wells and shared wells producing not-nontributary (with 4% replacement requirement) ground water from the Arapahoe Aquifer pursuant to Determination of Water Right no. 4-BD. Each well will supply the uses and divert the amount of water associated with the number of lots it serves, with the allowed use and annual withdrawal for each lot limited as described above.

The current submittal proposes that all lots will have individual on-lot use wells, except the following two sets of lots which will each share a well.

1. Lot 8 of Filing 1 and Lots 1, 2, 3 of Filing 2
2. Lots 7 and 8 of Filing 2



For informational purposes, a review of our files indicate sixteen well permits have been issued on the following lots.

Well permit no.	Filing	Lot	Date Issued
66454-F	1	1	30-Oct-07
65670-F	1	2	2-May-07
64270-F	1	5	11-May-06
65671-F	1	6	2-May-07
81513-F	1	7	13-Nov-17
64269-F	1	9	11-May-06
64271-F	1	12	11-May-06
65536-F	1	13	28-Mar-07
64267-F	1	14	11-May-06
83015-F	2	2	19-Mar-19
74542-F	2	4	7-Oct-10
82936-F	2	8	2-Feb-19
83046-F	2	9	27-Mar-19
66059-F	2	10	26-Jul-07
77692-F	2	11	8-Nov-13
75932-F	2	13	5-Apr-12

Note the following information related to the two sets of lots that the current proposal states will each share a well.

1. Well permit no. 83015-F was issued on Lot 2, Filing 2, for use on Lot 8, Filing 1 and Lots 1, 2, 3, Filing 2.
2. Well permit no. 82936-F was issued on Lot 8, Filing 2, for use solely on Lot 8, Filing 2. The use of ground water from this well cannot be used on Lot 7, Filing 2 as currently permitted. In order for this well to be shared with Lot 7, Filing 2, it would have to be pre-permitted.

Regardless of the current proposal as to which lots would have their own well and which lots would share a well, our office would issue permits for wells to be used either on individual lots or on any combination of more than one lot, so long as the lot or lots to be served are identified, total withdrawals are limited based on the per lot demand as described above, and no lot is permitted to be supplied by more than one well.

The allowed average annual amount of withdrawal provided for in Determination of Water Right no. 4-BD is 104 acre-feet. To meet the 4% return flow requirements of Determination of Water Right no. 4-BD, the return flow from the in house use of water must be through an individual waste water disposal system of a non-evaporative type.

The subdivision lies within the allowed place of use of Determination of Water Right no. 4-BD, and the proposed uses are uses allowed by that Determination.

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 Determination of Water Right no. 4-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 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 104 acre-feet/year would be reduced to one third of that amount, or 34.7 acre-feet/year. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years, and is sufficient to supply the requirement of 15.4 acre-feet/year for the Davis Ranch Subdivision Filings 1 and 2.

State Engineer’s Office Opinion

Based upon the above and pursuant to Section 30- 28- 136(1)(h)(1) 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 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 Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the relevant determinations and well permits, 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. 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.

Applicants for well permits will have to submit proof of water rights ownership. Our office also strongly recommends that the Applicant have a shared well agreement in any instance a well is shared and/or has multiple owners.

The developer or owner of Lot 7, Filing 2 should clarify if Lots 7 and 8, Filing 2 will have a shared well water source, or individual on lot wells. If Lots 7 and 8, Filing 2 will have a shared well water source, well permit no. 82936-F must be re-permitted to allow for the use of the well on Lots 7 and 8, Filing 2.

Should you have any questions, please contact Ailis Thyne at 303-866-3581 ext. 8216.

Sincerely,

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

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

Ec: Upper Black Squirrel Creek Ground Water Management District
Well permit nos., 59754-F, 66545-F, 65670-F, 64270-F, 65671-F, 81513-F, 64269-F,
64271-F, 65536-F, 64267-F, 74542-F, 66059-F, 77692-F, 75932-F, 82936-F, 83015-F,
83046-F