



June 28, 2023

Ryan Howser, Project Manager
 El Paso County Development Services Department
 Transmitted via the EPC EDARP Portal: <https://epcdevplanreview.com>

RE: Hill Subdivision Filing 1 - 6910 Alpaca Heights
 Part of the N ½ of the SW ¼ of the NW ¼, Section 29, T11S, R65W, 6th P.M.
 Water Division 1, Water District 8

Dear Ryan Howser,

We have reviewed the submittal documents related to Hill Subdivision Filing 1, concerning the above referenced proposal to subdivide a 14.692-acre parcel, known as Lot 1, C & H Estates Subdivision into three single-family residential lots of approximately 5 acres each.

Water Supply Demand

Based on the water supply information summary and the April 27, 2023 Water Resource Report from M.V.E. (“Report”) the estimated annual water requirements totals 0.78 acre-feet for in-house use (0.26 acre-feet/year/lot), 0.975 acre-feet for irrigation of up to 0.11 acres (1,600 square-feet of lawn irrigation/lot and based on 0.325 acre-feet/year/1,000 square-feet of lawn irrigation) and 0.72 acre-feet for the watering of 12 heads (based on 0.06 acre-feet/year/head). The total annual demand for the subdivision would be 2.475 acre-feet/year.

Source of Water Supply

The proposed water source is individual on lot wells constructed in the Dawson aquifer operating pursuant to the decreed augmentation plan in consolidated case nos. 2021CW3203 (05CW37) (Division 1) and 2021CW3074 (05CW13) (Division 2). The decree in consolidated case nos. (05CW37) (Division 1) (05CW13) (Division 2) quantified the amount of water underlying a 37.47-acre parcel [consisting of Lot 1 and Tract A (16.47 acres) Lot 2 (8.95 acres) and Lot 3 (8.84 acres) of C & H Estates Subdivision], located in the NW ¼ of Section 29, Township 11 South, Range 65 West of the 6th P.M. The following amounts of water were deeded to the applicant for the Lot 1 and Tract A (16.47 acres):

Aquifer	Annual amount available for 16.47 acre parcel (Lot 1 and Tract A) (acre-feet)*		Type
	Based on 100 year allocation approach	Based on 300 year allocation approach	
Dawson	17.60	5.87	Not-Nontributary
Denver	14.31	4.77	Nontributary
Arapahoe	7.30	2.43	Nontributary
Laramie-Fox Hills	5.12	1.71	Nontributary

*Tract A is included in the augmentation plan in case nos. 2021CW3203 (05CW37) (Division 1) and 2021CW3074 (05CW13) (Division 2), however according to the information provided it is not part of this referral.



The decreed augmentation plan in the case nos. 2021CW3203 allows for the total annual withdrawal of 3.30 acre-feet (0.825 acre-feet/year for each of Hill Well Nos. 1 through 4) from the not nontributary Dawson aquifer, based on a 300-year allocation approach. The augmentation plan states that indoor use will utilize an estimated 0.26 acre-feet of water per year per residence, with remaining 0.565 acre-feet per year available for other uses, including, irrigation of lawn and garden, and the watering of domestic animals and livestock.

There is an existing well on the property operating under permit no. 63600-F. This well is constructed in the not nontributary Dawson aquifer and operates pursuant to the decreed augmentation plan in Division 1 Water Court case no. 05CW37 and is permitted to withdraw 2.0 acre-feet per year for ordinary household use, stock watering, recreational use, wildlife, commercial, fire protection, and lawn and garden irrigation. Well permit no. 63600-F is required to be re-permitted pursuant to the new augmentation plan in case no. 2021CW3203.

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 37-90-137(4)(b)(I), C.R.S., "Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years." Based on this allocation approach, the annual amounts of water decreed in consolidated case nos. (05CW37) (Division 1) (05CW13) (Division 2) and deeded to the applicant in case nos. 2021CW3203 (Division 1) and 2021CW3074 (Division 2) are equal to one percent of the total amount, as determined by rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. 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 proposed annual water demand equals the allowed average annual amount of withdrawal of 3.3 acre-feet per year, allowed by the augmentation plan in the case nos. 2021CW3203. 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 entities other than the water court Applicants in case no. 2021CW3203 (Douglas E. Hills and Katherine L. Hill) must include evidence that the Applicant has acquired the right to the portion of the 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, provided well permit no. 63600-F is re-permitted to operate pursuant to the augmentation plan in case no. 2021CW3203.

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 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 Division 1 Water Court 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 aquifers, 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 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.

Should you or the Applicant have any questions, please contact me at this office at 303-866-3581 x8246 or ioana.comanicu@state.co.us

Sincerely,



Ioana Comanicu, P.E.
Water Resource Engineer

Ec: Subdivision file: 30827
File permit no. 63600-F