



June 29, 2023

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

RE: Mariah Trail Filing 1 - 19205 Mariah Trail
 Case No. SF2315
 Part of the NW ¼ of the NW ¼, Section 7, T11S, R65W, 6th P.M.
 Water Division 1, Water District 8

Dear Kylie Bagley,

We have reviewed the submittal documents related to Mariah Trail Filing 1 Subdivision, concerning the above referenced proposal to subdivide a 35-acre parcel, into six single-family residential lots of minimum 5 acres each.

Water Supply Demand

Based on the water supply information summary and the April 2023 Water Resource Report from RESPEC (“Report”) the estimated annual water requirements totals 1.8 acre-feet for in-house use (0.3 acre-feet/year/lot), 1.8 acre-feet for irrigation of up to 0.82 acres (6,000 square-feet of lawn irrigation/lot and based on 0.05 acre-feet/year/1,000 square-feet of lawn irrigation) and 0.15 acre-feet for the watering of 12 heads (based on 0.0125 acre-feet/year/head). The total annual demand for the subdivision would be 3.75 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 case no. 2022CW3094. The groundwater that is subject to 2022CW3094 was quantified in case no. 2006CW189 for a 170-acre parcel, located in the W ½ of Section 7, Township 11 South, Range 65 West of the 6th P.M. The following amounts of water were deeded to the applicant for the 35 acre parcel:

Aquifer	Annual amount available for 35 acre parcel		Type
	Based on 100 year allocation approach	Based on 300 year allocation approach	
Dawson	21.03	7.01	Not-Nontributary
Denver	28.02	9.34	Nontributary
Arapahoe	15.63	5.21	Nontributary
Laramie-Fox Hills	10.68	3.56	Nontributary

The decreed augmentation plan in the case nos. 2022CW3094 allows for the total annual withdrawal of 3.75 acre-feet through up to six lots from the not nontributary Dawson aquifer, based on a 300-year allocation approach. The augmentation plan states that indoor use will utilize an estimated 0.3 acre-feet/year/well or 1.8 acre-feet/year total, 0.3 acre-feet/year/well or 1.8 acre-feet/year total for irrigation of lawn, garden, and trees of up to 6,000 square-feet/lot, 0.025 acre-



feet/year/well or 0.15 acre-feet/year total for stockwatering for up to 2 large domestic animals/lot and fire protection.

There is an existing well on the property operating under permit no. 85835-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. 2006CW189 and is permitted to withdraw 0.7 acre-feet per year for in-house use and irrigation of 7,000 square-feet of lawn and garden irrigation. This well is proposed to supply one of the lots in this subdivision. Since well permit no. 85835-F will operate pursuant to the decree in case no. 2022CW3094, the applicant must obtain a new well permit pursuant to the new augmentation plan in case no. 2022CW3094.

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 case no. 2006CW189 and deeded to the applicant in case no. 2022CW3094 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 3.75 acre-feet per year, allowed by the augmentation plan in the case no. 2022CW3094. 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 Applicant in case no. 2022CW3094 (Thomas D. Kirk, Jr.) 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.

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.comaniciu@state.co.us

Sincerely,



Ioana Comaniciu, P.E.
Water Resource Engineer

Ec: Subdivision file: 30833
File permit no. 85835-F