



June 28, 2023

Kylie Bagley,
El Paso County Community and Development Services
Transmitted via the EPC EDARP Portal

Re: **Manley Subdivision Filing No. 2 - Vacation and Replat**
File No. VR2310
SW ¼ of the SW ¼ of Section 22, Township 13 South, Range 64 West, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Kyle Bagley:

We have reviewed the information submitted concerning the above referenced proposal to subdivide 22.2 ± acres located in the SW ¼ of the SW ¼ of Section 14, Township 12 South, Range 65 West, 6th P.M. into two residential lots. Upon approval of the plat this action would result in one lot of 16.137 acres in size, the second lot would be 5.513 acres. Both lots contain an existing single-family residence.

Water Supply Demand

According to multiple sources in the referral materials and Replacement Plan - Determination of Water Right No. 104-BD - Amendment No. 1, signed April 30th 2019, the source of water will be two wells completed in to the Denver aquifer:

- The Denver aquifer water will be withdrawn through two wells to be located on two residential lots. For the first 100 years of pumping the allowed use of ground water for each well is use in 1 single family residence and irrigation of 700 square feet of lawn, garden, and trees or irrigation of 200 square feet of lawn, garden, and trees and watering of two domestic animals. After 100 years of pumping all irrigation and animal watering uses from the wells shall cease and the use of each well shall be limited to in-house use in 1 single family residence.
- The allowed annual amount of ground water to be withdrawn from the aquifer by all wells operating under this plan shall not exceed 0.59 acre-feet for the first 100 years then 0.52 acre-feet for the next 200 years, for a total pumping period of 300 years. The allowed annual amount of water to be withdrawn from each well shall not exceed 0.295 acre-feet for the first 100 years then 0.260 acre-feet for the next 200 years.

This office has record of an existing well permit no. 56323-F located on the property. This well permit was issued on August 20, 2001 for the construction of a new well into the Arapahoe aquifer pursuant to Determination of Water Right No. 103-BD. No evidence of well construction is available on file, therefore this permit is expired. The issuance of well permit no. 56323-F canceled well permit no. 164691.

Well permit no. 164691 was issued on June 11, 1992 for the change/expansion of use of an existing well with permit no. 34943 (canceled), completed into the Denver aquifer. The well was permitted to be used for domestic purposes inside three single family dwellings and irrigation not to exceed 1



acre of lawn and garden and watering of livestock on range and pasture. No evidence of well abandonment exists on file for this well. If the applicant intends to continue to use this well a new well permit will be required from our office.

Source of Water Supply

The proposed water supply is individual on-lot wells withdrawing from the not-nontributary Denver aquifer that will operate pursuant to Replacement Plan - Determination of Water Right no. 104-BD, Amendment No. 1.

Replacement Plan - Determination of Water Right no. 104-BD quantified an amount of water from beneath 40 acres of overlying land generally described as the SW 1/4 of the SW 1/4, Section 22, Township 13 South, Range 64 West, Sixth P.M., in El Paso County, of which this subdivision is a part. The allowed average annual amount of withdrawal shall not exceed shall not exceed 0.59 acre-feet for the first 100 years then 0.52 acre-feet for the next 200 years, for a total pumping period of 300 years. For the first 100 years of pumping the allowed use of ground water for each well is use in 1 single family residence and irrigation of 700 square feet of lawn, garden, and trees or irrigation of 200 square feet of lawn, garden, and trees and watering of two domestic animals. After 100 years of pumping all irrigation and animal watering uses from the wells shall cease and the use of each well shall be limited to in-house use in 1 single family residence.

Replacement Plan no. 104-BD, Amendment No. 1 allows the withdrawal the Denver aquifer water from up to two wells for the uses listed above. Each occupied single family dwelling that is being supplied by a well that utilizes a non-evaporative septic and leaching field treatment system shall be assumed to be providing 0.234 acre-feet of replacement water to the alluvial aquifer. To assure adequate return flows, the number of occupied single-family dwellings that are generating return flows via a non-evaporative septic and leaching field system must be equal to or greater than the number of dwellings shown in Table 1 below, or an amended or alternate replacement plan must be obtained that will make the required replacement deliveries.

Table 1		
Year	No. of Wells	Return Flow (af/yr)
1-15	1	0.234
16-300	2	0.468

The land on which the wells will be located is a 22.2-acre portion of the Overlying Land generally described as a portion of the SW ¼ of the SW ¼ of Section 22, Township 13 South, Range 64 West of the 6th P.M. The proposed water uses and place of use are allowed by the determination and replacement plan.

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 104-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.

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 water supply source must provide for a 300-year supply. Replacement Plan no. 104-BD, Amendment No. 1 allows the withdrawal of 0.59 acre-feet for the first 100 years then 0.52 acre-feet for the next 200 years for a total pumping period of 300 years. 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 an entity other than the current water right holder (Nancy Manley), must include evidence that the applicant has acquired the right to the portion of water being requested on the application.

State Engineer’s Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(l), 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 equal to 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 above-referenced decree, 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. The source of water is from a non-renewable aquifer, the allocations of which are based on a 100 year aquifer life. 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.

Please contact Ivan Franco at Ivan.Franco@state.co.us or at (303) 866-3581 with any questions.

Sincerely,



Ioana Comaniciu, P.E.
Water Resource Engineer

Ec: Subdivision file no. 30818
Upper Black Squirrel Creek Ground Water Management District