



May 25, 2023

Ryan Howser, El Paso County Development Services Department
2880 International Circle, Suite 110
Colorado Springs, CO 80910-3127

Sent via online portal at: <https://epcdevplanreview.com/Agencies/Home>

RE: Murr Subdivision
SE ¼, SW ¼, Sec. 33, Twp. 13S, Rng. 64W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin
CDWR Assigned Subdivision No. 30646

Dear Ryan Howser:

We have received a referral regarding the above-referenced proposal to subdivide a 37.13± acre tract of land into 4 single-family lots. The proposed supply of water is to be served by individual on-lot wells that will operate under Determination of Water Right No. 4366-BD and wastewater is to be disposed of through individual septic disposal systems.

Water Supply Demand

According to a report from Monson, Cummins & Shoheit, LLC dated March 20, 2023 (“Water Resources Report”) provided with the submittal, the estimated water requirements total 1.88 acre-feet annually. Each of lots 1, 2, and 4 are estimated to use 0.50 acre-feet/year (0.26 acre-feet/year for a single-family dwelling; 0.196 acre-feet/year for irrigation of 2,100 square-feet of home lawn/garden; and 0.044 acre-feet/year for watering of 4 head of livestock). Lot 3 is estimated to use 0.38 acre-feet/year (0.26 acre-feet/year for a single-family dwelling; 0.109 acre-feet/year for irrigation of 1,100 square-feet of home lawn/garden; and 0.011 acre-feet/year for watering of 1 head of livestock).

Source of Water Supply

The proposed source of water is individual on-lot wells producing from the not-nontributary Denver aquifer that will operate pursuant to Determination of Water Right no. 4366-BD.

Determination of Water Right No. 4366-BD was issued June 8, 2022 pursuant to section 37-90-107(7), and the Designated Basin Rules, 2 CCR 410-1 (“Rules”). Determination of Water Right No. 4366-BD allocates 548 acre-feet (5.48 acre-feet per year based on a 100 year allocation approach) of water from the not-nontributary (4% replacement) portion of the Denver aquifer and 125 acre-feet (1.25 acre-feet per year based on a 100 year allocation approach) of water from the not-nontributary (actual impact replacement) portion of the Denver aquifer underlying the 37.4 acres. The subdivision lies within the allowed place of use of Determination of Water Right no. 4366-BD, and the proposed uses are allowed by that Determination.



In order to meet the return flow requirements of Determination of Water Right 4366-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.

Proposed Lot 3 overlays the not-nontributary actual replacement portion of the property, and wells constructed on this property must operate under a Commission approved Replacement Plan. On June 21, 2022 the Commission approved a Replacement Plan for Determination of Water Right no. 4366-BD. The Replacement Plan allows for the withdrawal of 0.38 acre-feet per year of groundwater from the Denver aquifer for 300 years, through one well to be located on a residential lot on a 6.7 acre portion of the property of this referral. The allowed uses are consistent with the proposed uses specified in the Water Supply Report.

Well permit no. 87436-F was issued pursuant to C.R.S. 37-90-107(7) and the Replacement Plan for Determination of Water Right no. 4366-BD for the withdrawal of 0.38 acre-feet/year of groundwater from the Denver aquifer for in-house use, accessory uses of lawn and garden irrigation, and for the watering of domestic animals and livestock. The total amount of groundwater that may be withdrawn by this well may not exceed a volume of 114 are-feet. The place of use is restricted to a 5 acre land area which corresponds to Lot 3 of the subject proposed subdivision. This office has not received information that a well under permit no. 87436-F has been constructed. Well permit no. 87436-F will expire on September 8, 2023 unless this office receives information that the well was constructed and a pump was installed before the permit expired or the applicant applies for a one time one year expiration extension. Since the uses, annual amount of withdrawal and water source of permit no. 87436-F, are those proposed for the subdivision, should a well be constructed under permit no. 87436-F, the well may be used within the proposed subdivision.

Records from our office indicate that well permit no. 87143-F is located on the property on proposed Lot 4. Permit no. 87143-F was issued on June 27, 2022 pursuant to C.R.S. 37-90-107(7). Records indicate that the well was constructed on July 11, 1996 under Permit no. 196038. The well is permitted for the withdrawal of 0.38 acre-feet/year of groundwater from the Denver aquifer for in-house use, accessory uses of lawn and garden irrigation, and for the watering of domestic animals and livestock. The total amount of groundwater that may be withdrawn by this well may not exceed a volume of 114 are-feet. If the applicant intends to withdraw 0.50 acre-feet/year from this well, they must apply for and receive a new permit.

The remaining two lots will be serviced by individual on-lot wells producing from the not-nontributary Denver aquifer that will operate pursuant to the Determination of Water Right No. 4366-BD. These wells will have an average diversion of 0.50 acre-feet annually for a maximum of 300 years. The subdivision lies within the allowed place of use of Determination of water Right no. 4366-BD and the proposed uses are uses allowed under that Determination. The 4% replacement water will be replaced using return flows from the two residences.

Applications for on-lot well permits, submitted by an entity other than the current water right holder, Erik M Murr and Sharon A Murr, must include evidence that the applicant has acquired the right to the portion of water being requested on the application.

The proposed sources of water for this subdivision are bedrock aquifers in the Denver Basin. The State Engineer's Office does not have evidence regarding the length of time for which this source will be 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 the above-mentioned Determination is 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 these 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 5.48 acre-feet/year from the not-nontributary (4% replacement) Denver aquifer would be reduced to one third of that amount, or 1.82 acre-feet/year, and the allowed average annual amount of withdrawal of 1.25 acre-feet/year from the not-nontributary (actual replacement) Denver aquifer would be reduced to 0.41 acre-feet/year. As a result, the water may be withdrawn in those annual amounts for a maximum of 300 years.

Additional Comments

Should the development include construction and/or modification of any storm water structure(s), the Applicant should be aware that, unless the structure can meet the requirements of a "storm water detention and infiltration facility" as defined in Designated Basin Rule 5.11, the structure may be subject to administration by this office. The Applicant should review Rule 5.11 to determine whether the structure meets the requirements of the Rule and ensure any notification requirement is met.

State Engineer's Office Opinion

Based on the above, it is our opinion, pursuant to CRS 30-28-136(1)(h)(l), that the anticipated water supply can be provided without causing material injury to decreed waters.

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 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.

Should you or the applicant have questions regarding any of the above, please feel free to contact me directly.

Sincerely,



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Water Resource Engineer
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Ec: Referral No. 30646
Upper Black Squirrel Creek GWMD
Well Permit File no. 87143-F
Well Permit File no. 87436-F