



November 25, 2020

Lindsay Darden
El Paso County Development Services Department
DSDcomments@elpasoco.com

RE: Paint Brush Hills Filing No. 14
Part of the NE ¼, 26 T12S, R65W, 6th P.M.
Water Division 2, Water District 10
Upper Black Squirrel Creek Designated Basin

Dear Lindsay Darden:

We have reviewed your October 22, 2020 submittal concerning the above referenced proposal for the development of 88 acres into 224 single family lots and tracts for landscaping, open space and utilities.

Water Supply Demand

According to the Water Supply Information Summary, the total estimated water demand is 91.05 acre-feet/year (58.24 acre-feet per year for household use and 32.81 acre-feet per year for irrigation use).

Source of Water Supply

Paint Brush Hills Metropolitan District (“District”) is the proposed water supplier. The District has provided a letter dated April 16, 2020 committing to serve the 224 single family lots within the proposed Paint Brush Hills Filing 14 subdivision. The subdivision lies within the allowed place of use of the District’s water supplies.

The District’s sources of water are a combination of bedrock aquifer allocations from the Denver Basin operating pursuant to both 37-90-107(7)(a) and 37-90-107(7)(b), C.R.S. The State Engineer’s Office does not have evidence regarding the length of time for which the bedrock aquifer sources 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 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 Therefore, the water may be withdrawn in those annual amounts for a maximum of 100 years.

According to 37-90-107(7)(b), C.R.S., “Any right to the use of groundwater entitling its owner or user to construct a well, which right was initiated prior to November 19, 1973, as evidenced by a current decree, well registration statement, or an unexpired well permit issued prior to November 19, 1973, shall not be subject to the provisions of paragraph (a) of this subsection (7).” Therefore, the annual amount of the water right operating pursuant to 107(7)(b) may be withdrawn in that amount indefinitely so long as there is water in the aquifer physically available to the well.

In the *El Paso County Land Development Code*, effective May 2016 states:



Chapter 8, Section 8.4.7(B)(5):

"Finding of Sufficient Dependability - The proposed water supply shall meet the following criteria to be found sufficient in terms of dependability:

- The supply is of sufficient quantity to meet the needs of the proposed subdivision for 300 years."

Chapter 8, Section 8.4.7.(B)(7)(b):

"(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."

Chapter 8, Section 8.4.7.(A)(2):

"Applicability" ...

- The effective date of this Section is originally November 20, 1986, and this Section shall fully apply to any subdivision which does not have preliminary plan approval prior to that date;"

Our files indicate that the District supplies subdivisions for which preliminary plat approval occurred prior to November 20, 1986. It is our understanding that El Paso County required the water supply of such subdivisions to be sufficient for a period of 100 years.

The State Engineer's Office does not have evidence regarding the length of time for which the bedrock aquifer 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 annual amounts of water available from the bedrock aquifers that may be withdrawn from a maximum period of 300 years are equal to one-third of one percent of the total amount.

Due to the fact that the District's rights operate pursuant to both 107(7)(a) and 107(7)(b), the review entails quantifying the water available from those rights over 300 years, and comparing that volume to the volume of commitments to supply water the District has made over 300 years, as described below.

1. The water rights available to the District total 147,550 acre-feet over a period of 300 years (= 98,050 acre-feet plus 24,000 acre-feet plus 25,500 acre-feet, as described below).
 - a. The water rights that are subject to an allocation based approach pursuant to 107(7)(a) total a volume of 98,050 acre-feet. These rights may be withdrawn at a maximum rate of 981 acre-feet per year for a maximum of 100 years, or at a maximum rate of 327 acre-feet per year for a period of 300 years.
 - b. The water right that is subject to 107(7)(b) may withdraw water at a rate of 80 acre-feet per year indefinitely so long as there is water in the aquifer physically available to the well. This right may produce 24,000 acre-feet over a period of 300 years.
 - c. The District has a contract with Meridian Service Metropolitan District for 85 acre-feet per year. The contract may withdraw 25,550 acre-feet over a period of 300 years.
2. The District's commitments to supply water total 141,613 acre-feet over a period of 300 years (= 31,432 acre-feet plus 110,181 acre-feet, as described below).
 - a. The District supplies subdivisions for which preliminary plat approval occurred prior to November 20, 1986, and schools, and greenbelt and park irrigation, for which it has a 100 year commitment to serve. Those commitments total 31,432 acre-feet over 100 years.
 - b. The District has committed to supply subdivisions for which preliminary plat approval occurred after November 20, 1986, for which it has a 300 year commitment to serve.

Those commitments total 110,181 acre-feet over 300 years. Those commitments include this subdivision, Paint Brush Hills, Filing No. 14.

The District has 5,937 acre-feet of water rights remaining uncommitted (= 147,550 acre-feet minus 141,613 acre-feet).

State Engineer's Office Opinion

Based upon the above and pursuant to Section 30-28-136(1)(h)(II), 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, so long as the District is committed to supplying 91.05 acre-feet per year (27,315 acre-feet total) to Paint Brush Hills Filing No. 14.

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 those rights operated pursuant to 107(7)(a), 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.

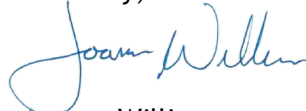
Our opinion is qualified by the following:

The Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the 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.

If you, or the applicant, have any questions, please contact Ailis Thyne at 303-866-3581 ext. 8216.

Sincerely,



Joanna Williams
Water Resource Engineer

cc: Upper Black Squirrel Creek GWMD

Paint Brush Hills Filing 14.docx
SEO referral no. 27424