



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

Determination No. 1484-BD

Bill Ritter, Jr.
Governor

Mike King
Executive Director

Dick Wolfe, P.E.
Director/State Engineer

September 30, 2010

Craig Dossey
DSDcomments@elpasoco.com

RE: Mountain's Edge – Final Plat; SF-10-002
Section 13, T12S, R63W, 6th P.M.
Water Division 8, Water District 10

Dear Mr. Dossey:

According to the September 1, 2010 submittal concerning the above referenced proposal to subdivide approximately 40 acres into 5 residential lots, the applicant has changed their source of water from the Denver and Arapahoe aquifers to the Arapahoe aquifer exclusively.

In a letter from the State Engineer's Office, dated April 26, 2010, it was this Office's opinion that the proposed water supply was adequate and could be provided without causing injury. This letter supersedes that April 26, 2010 letter.

Water Supply Demand

According to the submittal, the estimated water requirements are 0.5 acre-feet annually per lot (a total of 2.5 acre-feet annually for 5 residential lots), for in-house use in one single family dwelling, irrigation of 3,000 square feet of home lawn and garden, and watering of two large domestic animals per lot.

Source of Water Supply

The proposed source of water is individual on lot wells (or shared wells) producing from the nontributary Arapahoe aquifer that will operate pursuant to Determination of Water Right no. 1484-BD. The allowed average annual amount of withdrawal provided for in Determination of Water Right no. 1484-BD is 13.3 acre-feet.

The subdivision lies within the allowed place of use of Determination of Water Right nos. 1484-BD, and the proposed uses are uses allowed by that Determination.

The proposed source 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 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 1484-BD 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 Therefore, the water may be withdrawn in those annual amounts for a maximum of 100 years.

Office of the State Engineer

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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 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 allowed average annual amount of withdrawal of 13.3 acre-feet/year would be reduced to one third of that amount, or 4.43 acre-feet/year. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

The proposed annual water supply of 4.43 acre-feet is more than the estimated annual demand of 2.5 acre-feet.

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 [for Designated Basins add: 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. 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.

Craig Dossey
September 30, 2010

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Should you have any questions, please contact Justina P. Farris of this office.

Sincerely,



Keith Vander Horst, P.E.
Designated Basins Team Leader

cc: Steve Witte, P.E., Division Engineer
Brian Suttan, Water Commissioner
Upper Black Squirrel Creek GWMD
Permit No. 225983
Determination No. 1484-BD

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