COLORADO
Division of Water Resources
Department of Natural Resources

January 28, 2019

Kari Parsons
El Paso County Development Services Department
2880 International Circle, Suite 110
Colorado Springs, CO 80910

RE: Timber Ridge West Subdivision
Sec. 21, Twp. 12S, Rng. 65W, 6th P.M.
Water Division 2, Water District 10
CDWR Assigned Subdivision No. 25719

To Whom It May Concern,

We have received the submittal concerning the above referenced proposal to subdivide a 36.01± acres tract of land into three new lots. Two of the lots will be approximately 3.5 ± acres and the largest lot will be 29.0 ± acres. Our records indicate that there is one existing well located on the property. The proposed supply of water to the subdivision will be new individual on-lot wells for each lot, with wastewater being disposed of through individual on-lot septic disposal systems.

Water Supply Demand

According to the Water Supply Information Summary received in the submittal, the estimated water demand for the development is 1.22 acre-feet/year. Based on the Division 2 Water Court case no. 2017CW3002 this amount breaks down to 0.32 acre-feet/year/well for two Dawson aquifer wells and 0.58 acre-feet/year for an additional Dawson aquifer well, each serving one-single family residence, with some additional outdoor uses (irrigation, stock watering, etc.).

Please note that standard water use rates, as found in the Guide to Colorado Well Permits, Water Rights, and Water Administration, are 0.3 acre-foot/year for each ordinary household, 0.05 acre-foot/year for four large domestic animals, and 0.05 acre-foot/year for each 1,000 square feet of lawn and garden irrigation.

Source of Water Supply

The anticipated source of water is to be provided by on-lot wells producing from the Dawson aquifer that will operate pursuant to the augmentation plan decreed by the Division 2 Water Court in case no. 2018CW3005. The water in the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying the 36.01 acres of land which makes up the entire proposed Timber Ridge West Subdivision was adjudicated by the Division 2 Water Court in case no. 2017CW3002.

According to the decrees entered by the Division 2 Water Court in case no. 2017CW3002, the following amounts of water shown in Table 1, below, were determined to be available underlying the 36.01 acre property.

Table 1 – Denver Basin Ground Water Rights

Aquifer	Tributary Status	Volume (AF)	Annual Allocation 100 Year (AF/Year)	Annual Allocation 300 Year (AF/Year)
Dawson	NNT	1,944.4	16.44	5.48
Denver	NNT	1,897.7	18.98	1.86
Arapahoe	NT	1,561	15.61	1.66
Laramie-Fox	NT	1,026.2	10.26	1.12

Three annual acre-feet of Dawson groundwater has been reserved for existing Well Permit no. 304551.

The plan for augmentation decreed in Division 2 Water Court case no. 2018CW3005 allows for diversion of 1.22 acre-feet annually from Dawson aquifer for a maximum of 300 years. **Future wells constructed into the Dawson aquifer will require that the applicant apply for, and obtain a well permits issued pursuant to Section 37-90-137(4) C.R.S.**

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 is equal to one percent of the total amount available 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 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 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 annual estimated demand, for the entire subdivision, is 1.22 acre-feet as allowed by the augmentation plan. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

State Engineer's Office Opinion

Based on the above, it is our opinion, pursuant to CRS 30-28-136(1)(h)(I), that the anticipated water supply can be provided without causing material injury to decreed water rights so long as the applicant obtains well permits issued pursuant to C.R.S. 37-90-137(2) and the plan for augmentation noted herein, for all wells in the subdivision and operates the wells in accordance with the terms and conditions of any future well permits.

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 Division 2 Water Court has retained jurisdiction over the final amount of water available pursuant to the above-referenced decrees, pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifers, and identified in Division 2 Water Court case no. 2017CW3002, was 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. Furthermore, that applicant will need to apply for, and obtain a new well permits issued pursuant to Section 37-90-137(2) C.R.S.

Should you or the applicant have questions regarding any of the above, please contact me at this office.

Sincerely,

K. Fuller

Kate Fuller, P.E.
Water Resource Engineer

cc: Bill Tyner, Division 2 Engineer
Doug Hollister, District 10 Water Commissioner