



April 4, 2023

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

RE: Estates at Cathedral Pines Subdivision
SE1/4 of Sec. 2, Twp. 12S, Rng. 66W, 6th P.M.
Water Division 2, Water District 10
CDWR Assigned Subdivision No. 30699

To Whom It May Concern,

We have received the submittal for the referenced proposal to subdivide a 35 ± acre tract of land into 8 new residential lots. The proposed supply of water to the subdivision will be eight individual on-lot wells and one community well operating pursuant to two court decreed water rights (09CW76 and 22CW3027), with wastewater being disposed of through individual on-site septic disposal systems.

Water Supply Demand

According to the updated Water Supply Information Summary received in the submittal, the estimated water demand for the development is 3.2 acre-feet/year for the entire development.

Each of the 8 residential wells will use 0.38 acre-feet/year, requiring 3.04 acre-feet/year total. This corresponds to 2.08 acre-feet/year for household use (0.26 acre-feet/year per home), 0.87 acre-feet/year for irrigation (0.0566 acre-feet/year per thousand square foot for 1,925 square-feet of lawn/garden per lot), and 0.088 acre-feet/year for watering of horses (0.011 acre-feet/year per horse for 1 horse per lot).

Additionally, Well No. 9 will be used to irrigate 2800 square-feet of lawn/garden, requiring an estimated 0.158 acre-feet (0.05 AF/year per 1,000 square-feet).

Source of Water Supply

The anticipated source of water is to be provided by nine wells producing from the Dawson aquifer that will operate pursuant to the augmentation plans decreed in Division 2 Water Court case nos. 09CW76 and 22CW3027. The following amounts of water shown in Table 1, below, were determined to be available underlying the 35 ± acre tract of land and owned by the applicant.



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	1,785	17.9	5.95
Denver	NNT	3,094	30.9	10.3
Arapahoe	NNT	1,339	13.4	4.4
Laramie-Fox Hills	NT	998	10	3.3

The plan for augmentation decreed in Division 2 Water Court case no. 22CW3027 allows for diversion of 3.2 acre-feet annually from Dawson aquifer for a maximum of 300 years.

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 3.2 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(4) 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 nos. 09CW76 and 22CW3027, 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(4) C.R.S.

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

Sincerely,



Kate Fuller, P.E.
Water Resource Engineer

cc: Rachel Zancanella, Division 2 Engineer
Jacob Olson, District 10 Water Commissioner