

December 22, 2020

Kari Parsons El Paso County Development Services Department 2880 International Circle, Suite 110 Colorado Springs, CO 80910-3127 Sent via online portal at: <u>https://epcdevplanreview.com/Agencies/Home</u>

RE: Homestead North Preliminary Plan Sec. 27, 28, 33, Twp. 12S, Rng. 65W, 6th P.M. Water Division 2, Water District 10 CDWR Assigned Subdivision No. 27446

To Whom It May Concern:

We have received a referral regarding the above-referenced proposal to subdivide a $60.623 \pm acre tract of land into 147 single family lots. According to the submittal, the proposed supply of water and wastewater disposal is to be served by the Sterling Ranch Metropolitan District No. 1 ("District").$

Water Supply Demand

According to the Water Supply Information Sheet received by this office, the estimated water demand for the development is 62.47 acre-feet/year for 147 residential lots (0.35 acre-feet/year per residential lot) and 4.23 acres of irrigation to start native grasses (0.05 acre-feet/year per 1,000 square-feet). The total estimated demand is 62.47 acre-feet/year. The waste water will return to the District's central system.

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 source of water for the proposed development is to be served by the Sterling Ranch Metropolitan District No. 1 ("District"). A preliminary letter of commitment dated November 4, 2020 from the District was provided with the referral materials. However, the letter commits only 51.89 acre-feet/year, which is less than the estimated demand. According to the submittal, the District will provide water from Arapahoe, Denver, and Laramie-Fox Hills aquifer wells to a central system utilizing the water rights shown in Table 1, below.



Table 1 - Denver Basin Ground Water Rights					
Aquifer	Decree	Tributary Status	Volume (AF)	Annual Allocation 100 Year (AF/Year)	Annual Allocation 300 Year (AF/Year)
Laramie-Fox Hills	86CW19	NT	53,900	539	179.67
Laramie Fox- Hills	08CW113	NT	40	0.4	0.13
Laramie-Fox Hills	20CW3059 Pending	NT	2,780	27.80	9.27
Arapahoe	86CW18	NT	57,500	575	191.67
Arapahoe	20CW3059 Pending	NNT	4,320	43.20	14.40
Arapahoe	08CW113 Pending Augmentation	NNT	60	0.60	0.20
Denver	20CW3059 Pending	NNT	4,895	48.95	16.32
Denver	08CW113 Pending Augmentation	NNT	72,893	728.9	242.97
Total			196,388	1,963.85	654.63

Table 1 - Denver Basin Ground Water Rights

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 <u>allocation</u> approach based on three hundred years, the allowed average annual amount of withdrawal of 1,114.4 acre-feet/year would be reduced to one third of that amount, or 371.47 acre-feet/year. The preliminary plan for Sterling Ranch Phase I indicated that the estimated water demand for the development would be 201.11 acre-feet/year, leaving approximately 170.36 acre-feet/year, which is greater than the annual estimated demand of 74.836 acre-feet/year for Sterling Ranch Phase II. As a result, the water may be withdrawn in that annual amount 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 section 37-92-602(8), Colorado Revised Statutes, the structure may be subject to administration by this office. The applicant should review DWR's Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado, located at https://dnrweblink.state.co.us/dwr/ElectronicFile.aspx?docid=3576581&dbid=0 to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is encouraged to use Colorado Stormwater Detention and Infiltration Facility Notification Portal, located at https://maperture.digitaldataservices.com/gvh/?viewer=cswdif, to meet the notification requirements.

State Engineer's Office Opinion

Pursuant to Section 30-28-136(1)(h)(I), C.R.S., the State Engineer offers the preliminary opinion that the proposed water supply plan, when decreed by the water court as proposed, will not cause material injury to existing water rights. However, we will provide our final opinion only after the water court decree is signed and the county has resubmitted the water supply plan for our review. Additionally, the letter of commitment from the District does not commit to providing the full estimated water demand for the proposed subdivision, so the proposed source of water is inadequate.

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 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 <u>allocation</u> 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,

1. Fully Kate Fuller, P.E. Water Resource Engineer

ec: Bill Tyner, Division Engineer Doug Hollister, North Regional Team Lead