



December 21, 2023

Ryan Howser, Project Manager
 El Paso County Community & Development Services
 Transmitted via EDARP: epcdevplanreview.com

Re: Peerless Farms Preliminary Plan
File #: SP217, Applicant: Robert S. and Wendy K. Williams
 Part of the N ½ of the NW ¼ of Section 13, Twp. 13 South, Rng. 64 West, 6th P.M.
 Water Division 2, Water Association 10
 Upper Black Squirrel Creek Designated Basin
 CDWR Subdivision No. 29052 - 4th Letter

Dear Ryan Howser:

We have reviewed the above referenced re-referral for an application to subdivide a parcel of 40 acres described as part of the N ½ of the NW ¼ of Section 13, Twp. 13 South, Rng. 64 West, 6th P.M. into 7 residential lots. The proposed water supply is individual on lot wells producing from the Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying the property allocated under Determination of Water Right nos. 4475-BD, 4476-BD, and 4477-BD. This letter supersedes our comments on the Peerless Farms development dated October 24, 2023.

Water Supply Demand

According to the Water Supply Information Summary, the estimated water demand is 2.35 acre-feet/year for household use.

Source of Water Supply

The proposed water supply is individual on lot wells producing from the Denver, Arapahoe, and Laramie-Fox Hills aquifers underlying the property allocated under Determination of Water Right nos. 4475-BD, 4476-BD, and 4477-BD. Determination nos. 4475-BD, 4476-BD, and 4477-BD were approved pursuant to section 37-90-107(7), C.R.S. on January 25, 2023 and allocated the Denver Basin groundwater underlying the subject property for domestic in-house; irrigation of lawn, garden, and greenhouse; domestic animal and stock watering; commercial; firefighting; and replacement purposes. A summary of Determination of Water Right nos. 4475-BD, 4476-BD, and 4477-BD allocations is provided in Table 1.

Table 1. Summary of Determination of Water Right nos. 4475-BD, 4476-BD, and 4477-BD.

Aquifer	Determination No.	Aquifer Type ¹	Acre-Feet/Year (based on 100-year aquifer life)	Acre-Feet/Year (based on 300-year aquifer life)
Laramie-Fox Hills	4475-BD	NT	12.9	4.3
Arapahoe	4476-BD	NT	13.6	4.53
Denver	4477-BD	NT	0.446	0.148
		NNT-Actual	9.87	3.29
Total ²	-	-	26.946	8.978

¹ NT = nontributary; NNT-Actual = not-nontributary (actual impact replacement) where a replacement plan is required.
² Total does not include the NNT-Actual water since such water cannot be withdrawn without a Commission-approved replacement plan.



The subdivision lies within the allowed place of use of Determination nos. 4475-BD, 4476-BD, and 4477-BD, and the proposed uses are allowed by the Determinations.

A review of our records shows well permit no. 8141 located on the subject property. Permit no. 8141 withdraws from the alluvial aquifer and the not-nontributary (actual impact replacement requirement) portion of the Denver aquifer. According to information provided in the most recent referral, this well will be plugged and abandoned upon subdivision approval.

The proposed source of water for this subdivision is 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 section 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 Determination nos. 4475-BD, 4476-BD, and 4477-BD are equal to one percent of the total amount which is shown in column 4 of Table 1, 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.

The *El Paso County Land Development Code*, Section 8.4.7.(B)(7)(b) states:

"(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."

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 300 years, the allowed average annual amount of withdrawal would be reduced to one third of that amount as shown in column 5 of Table 1 which is greater than the annual demand for this subdivision. As a result, the water may be withdrawn in those annual amounts for a maximum of 300 years.

The Applicant should be aware that the majority of the Denver Aquifer water allocated under determination no. 4477-BD can only be withdrawn pursuant to a Commission-approved replacement plan. Only 0.148 acre-feet/year based on a 300-year supply is available in the nontributary portion of the Denver aquifer which does not require a replacement plan and would not be sufficient to supply one single-family home. If the wells will be constructed in the Arapahoe and Laramie-Fox Hills aquifers, the Applicant should also consider the economic costs of drilling such wells. Information available to this office shows that the Arapahoe aquifer is approximately 685 to 1,160 feet below the ground surface and the Laramie-Fox Hills aquifer is approximately 1,460 and 1,760 feet below the ground surface.

Applications for on lot well permits, submitted by an entity other than the current water right holder (Robert S. and Wendy K. Williams), must include evidence that the applicant has acquired the right to the portion of water being requested on the application.

Additional Comments

According to the submitted material, stormwater detention structure(s) will be developed on the site. The Applicant should be aware that, unless the structure can meet the requirements of a "storm water detention and infiltration facility" as defined in Designated Basin Rule 5.11, the structure may be subject to administration by this office. The Applicant should review Rule 5.11 to determine whether the structure meets the requirements of the Rule and ensure any notification requirement is met.

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, provided well permit no. 8141 is plugged and abandoned prior to the subdivision approval. A Well Abandonment Report (form [GWS-9](#)) must be submitted to this office to affirm the well was plugged and abandoned.

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 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 water rights, 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 non-renewable aquifers, 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.

Please contact Wenli Dickinson at (303) 866-3581 x8206 or Wenli.Dickinson@state.co.us with any questions.

Sincerely,


Ioana Comaniciu, P.E.
Water Resource Engineer

Ec: Well permit no. 8141 file
Upper Black Squirrel Ground Water Management District