



April 4, 2024

Joe Letke
 El Paso County Planning and Community Development
 Transmission via EDARP portal

**Re: Mary Jane Ranch Minor Subdivision EA2311 MS242
 NW1/4 Sec. 15, T13S, R63W of the 6th PM
 Water Division 2, Water District 10**

Dear Mr. Letke;

We have reviewed your March 29, 2024 submittal concerning the above referenced proposal to subdivide 40 acres (“subject property”) into 4 lots of approximately 9 - 10 acres each.

Water Supply Demand

According to the submittal, the proposed uses and estimated annual demand for each of the four lots is 0.26 acre-feet per year for household use and 0.5 acre-feet per year for irrigation of lawns and gardens for a total water demand of 0.76 acre-feet per year per lot. The total annual water demand for the subdivision is 3.04 acre-feet per year.

Source of Water Supply

According to the Description of Property section of the Water Resources Report dated March 6, 2024 (“Report”) Lot 4 will continue to utilize the well constructed under permit no. 228255 and Lots 1-3 will receive potable water service via installation of new wells. However, the Information Regarding Sufficient Quantity of Water section of the Report states that well permit no. 228255 will be abandoned and new individual wells will be installed for Lots 1-4. The Applicant must clarify if well 228255 will be plugged and abandoned prior to subdivision approval or if a Commission approved replacement plan will be obtained for the well prior to subdivision approval.

The water in the Denver, Arapahoe, and/or Laramie-Fox Hills aquifers underlying the subject property was allocated under Determination of Water Right nos. 4474-BD, 4473-BD, and 4472-BD, respectively. Determination nos. 4474-BD, 4473-BD, and 4472-BD were approved pursuant to section 37-90-107(7), C.R.S. on January 25, 2023 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. 4474-BD, 4473-BD, and 4472-BD allocations is provided in Table 1.

Table 1. Summary of Determination of Water Right nos. 4474-BD, 4473-BD, and 4472-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)
Denver	4474-BD	NNT - Actual	9.5	3.2

¹ NT = nontributary; NNT-4% = not-nontributary (4% replacement) where a replacement plan is not required; NNT-Actual = not-nontributary (actual impact replacement) where a replacement plan is required.



Arapahoe	4473-BD	NNT - 4%	15.3	5.1
Laramie-Fox Hills	4472-BD	NT	12.6	4.2
Total	-	-	37.4	12.5

The subdivision lies within the allowed place of use of Determination of Water Right nos. 4474-BD, 4473-BD, and 4472-BD, and the proposed uses are uses allowed by the Determinations.

According to the Report the eventual homeowners will be able to construct a well in the Laramie-Fox Hills, Arapahoe or Denver aquifer. Wells cannot be constructed into the Denver aquifer until such time as a Commission approved replacement plan is obtained for the wells. The Applicant should clarify if adequate water will be deeded to each lot owner to allow withdraw of 0.76 acre-feet per year for 300 years or if the aquifers will be utilized in a different manner to meet the County’s 300-year allocation approach.

The proposed sources 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 Determination nos. 4474-BD, 4473-BD, and 4472-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.

Additional Comments

The submittal indicates that a stormwater detention structure will be constructed as a part of this project. 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 Opinion

Based on the above and pursuant to section 30-28-136(1)(h)(I), C.R.S., the State Engineer’s Office has not received enough information to render an opinion regarding the potential for causing material injury to decreed water rights, or the adequacy of the proposed water supply. **Prior to further review of the subdivision water supply plan the following information is required:**

1. The Applicant must clarify if well 228255 will be plugged and abandoned **prior to subdivision approval** or if a Commission approved replacement plan will be obtained for the well **prior to subdivision approval**.
2. The Applicant must clarify if adequate water will be deeded to each lot owner to allow withdraw of 0.76 acre-feet per year for 300 years or if the aquifers will be utilized in a different manner to meet the County's 300-year allocation approach. If the Denver aquifer will be relied on to meet the water demands of the lots and/or the County's 300-year allocation approach a Commission approved replacement plan is required prior to subdivision approval.

Should you have any questions, please contact me at 303-866-3581.

Sincerely,



Melissa A. van der Poel, P.E.
Water Resources Engineer

cc: Subdivision File #####
Water well permit no. 228255