COLORADO
Division of Water Resources
Department of Natural Resources

August 6, 2024

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

Re: Berisford Subdividion
File #: SF2415, Applicants: Chris and Amy Berisford
Part of the W ½ of the NW ¼ of the NE ¼ of Section 23, Twp. 11 South, Rng. 65 West, 6th P.M.
Water Division 1, Water District 1
Kiowa Bijou Designated Basin

Dear Joe Letke:

We have reviewed the above referenced re-referral for an application to subdivide a parcel of 20 acres described as the W ½ of the NW ¼ of the NE ¼ of Section 23, Twp. 11 South, Rng. 65 West, 6th P.M. into four (4) residential lots of 5 acres each. The proposed water supply is individual on lot wells producing from the Dawson aquifer underlying the property allocated under Determination of Water Right nos. 4653-BD and the associated replacement plan 4653-RP.

Water Supply Demand

According to the Water Supply Information Summary, the estimated water demand is 1.561 acre-feet/year/lot, totaling 6.244 acre-feet for the entire subdivision.

Source of Water Supply

The proposed water supply is individual on lot wells producing from the Dawson aquifer underlying the property allocated under Determination of Water Right nos. 4653-BD and the associated replacement plan 4653-RP. Determination of Water Right No. 4653-BD was issued February 27, 2024 and allows an average annual withdrawal of 19.0 acre-feet for 100 years from the Dawson aquifer for domestic, livestock, domestic animals, irrigation (indoor and outdoor), recreation, fire suppression, wildlife, and replacement either directly or after storage. The allowed place of use is the 20 acres described as the W ½ of the NW ¼ of the NE ¼ of Sec. 23, T 11S, R 65W, 6th P.M. Replacement Plan No. 4653-RP was issued February 27, 2024 and allows an average annual withdrawal of 1.561 acre-feet for 300 years from the Dawson aquifer for each of four residential lots (6.244 acre-feet total). The allowed uses under the plan for each on lot well is use in one single family residence, irrigation of lawn and garden and greenhouse, watering of domestic animals and stock.

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 amount of water determined in Determination no. 4653-BD is equal to one percent of the total amount, as determined by rule 5.3.2.1 of the Designated Basin Rules, 2 CCR 410-1. Therefore, the water may be withdrawn in that annual amount 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 of 19.0 acre-feet/year from the Dawson would be reduced to one third of that amount, or 6.333 acre-feet/year. Additionally, the average annual withdrawal amount allowed under Replacement Plan 4653-BD is equal to the proposed water demand. Based on this approach, there is sufficient water legally available in the Dawson aquifer based on a 300-year aquifer life to meet the proposed per lot demand based on the allocation available in accordance with Determination of Water Right No. 4653-BD and Replacement Plan no. 4653-RP.

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

Additional Comments

The Applicant should be aware that and proposed stormwater detention structure(s) must meet the requirements of a "storm water detention and infiltration facility" as defined in Designated Basin Rule 5.11, otherwise the structure may be subject to administration by this office. The Applicant should review Rule 5.11 to determine whether any proposed 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.

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 me at (303) 866-3581 x8246 or ioana.comanciu@state.co.us with any questions.

Sincerely,

Ioana Comaniciu, P.E.
Water Resource Engineer

Ec: Subdivision File 32436