



January 21, 2021

Ryan Howser
El Paso County Development Services Department
DSDcomments@elpasoco.com

RE: Sedona Sun Acres Subdivision (a.k.a. Abeyta Minor Subdivision)
Part of the E ½ of the NW ¼, Section 10, T12S, R65W, 6th P.M.
Upper Black Squirrel Creek Ground Water Management District
Water Division 2, Water District 10

Dear Mr. Howser:

We have received your December 15, 2020 submittal concerning the above-referenced proposal to subdivide a 37.7-acre parcel of land into three lots. This office previously commented on this submittal to subdivide 37.7 acres into four lots in a letter dated August 5, 2020. This letter supersedes the August 5, 2020 letter.

Water Supply Demand

According to a report from JDS-Hydro Consultants, Inc. dated October 2020 (“Water Resources Report”) provided with the submittal, the estimated water requirements total 3.0 acre-feet annually (1.0 acre-feet/year per lot), for in house use in one single family dwelling, irrigation and stock watering.

Source of Water Supply

The proposed source of water supply is individual on-lot wells producing from the non-tributary (actual replacement) Dawson aquifer pursuant to the Replacement Plan for Determination of Water Right No. 1068-BD.

Determination of Water Right no. 1068-BD was issued by the Ground Water Commission (“Commission”) on November 29, 2006 for an allowed average annual amount of withdrawal of ground water of 28.4 acre-feet from the Dawson Aquifer (based on an aquifer life of 100 years) to be used on 37.7 acres, which is the subject property of this referral.

On April 8, 2020 the Commission approved the Replacement Plan for Determination of Water Right no. 1068-BD. The Replacement Plan for Determination of Water Right no. 1068-BD allows for the withdrawal of 4.0 acre-feet per year of groundwater from the Dawson aquifer for 300 years, through four wells to be located on four residential lots on 37.7 acres, which is the subject property of this referral. Each well may withdraw 1.0 acre-feet per year of groundwater to be used for use in one single family dwelling, stock and domestic animal watering, irrigation of lawn and garden, hot tub/swimming pool and augmentation. These allowed uses are consistent with the proposed uses specified in the Water Supply Report. The Water Resources Report makes a note that the Replacement Plan may be amended in the future to change from 4.0 acre-feet per year for four wells on four residential lots to 3.0 acre-feet per year for three wells on three residential lots.

The proposed source of water for this development is a bedrock aquifer allocation from the Denver Basin. The State Engineer’s Office does not have evidence regarding the length of time



for which the bedrock aquifer sources 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 of Water Right No. 1068-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 those annual 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 the bedrock aquifer sources 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 allowed average annual amount of withdrawal of 4.0 acre-feet per year from the Dawson aquifer (limited to 1 acre-foot per well) pursuant to the Replacement Plan for Determination of Water Right no. 1068-BD for a maximum of 300 years, is sufficient to supply the requirement of 3.0 acre-feet/year.

The Water Resources Report submitted makes reference to other water rights, including those in the Denver, Arapahoe and Laramie-Fox Hills Aquifers under Determination of Water Right nos. 1067-BD, 1066-BD and 1065-BD, but those rights are not identified as a sources of water for the subdivision.

The Water Supply Information Summary Sheet previously submitted indicates the existing well under permit no. 214120 will be used for the subdivision. Well permit no. 214120 was canceled upon the issuance of permit no. 85058-F. Well permit no. 85058-F was issued pursuant to the Replacement Plan for Determination of Water Right no. 1068-BD for the withdrawal of 1 acre-foot/year of groundwater from the Dawson aquifer for use in 1 single family, stock and domestic animal watering, the irrigation of lawns and gardens, hot tub/swimming pool and augmentation. Since the uses, annual amount of withdrawal and water source of permit no. 85058-F, are those proposed for the subdivision, permit no. 85058-F may be used within subdivision.

State Engineer’s Office Opinion

Based upon the above and pursuant to Sections 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 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.

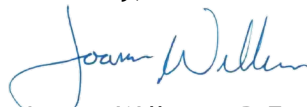
Our opinion is qualified by the following:

The Colorado Ground Water Commission has retained jurisdiction over the final amount of water available pursuant to the above-referenced Determination of Water Right(s), 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. The source of water is from a non-renewable aquifer, 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 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.

If you, or the applicant, have any questions, please contact Ailis Thyne at 303-866-3581 ext. 8216.

Sincerely,

A handwritten signature in blue ink that reads "Joanna Williams". The signature is fluid and cursive, with the first name "Joanna" being larger and more prominent than the last name "Williams".

Joanna Williams, P.E.
Water Resources Engineer

Cc: Upper Black Squirrel Creek GWMD
Well permit no. 85058-F
SEO referral no. 27244

Sedona Sun Acres_El Paso.docx