

Kari Parsons

El Paso County Development Services Department Transmission via email: kariparsons@elpasoco.com

RE: Settlers View Final Plat

Case No. SF1841

Part of the NE1/4 of Section 23, T11S, R66W, 6th P.M.

Water Division 1, Water District 8

Dear Ms. Parsons:

We have reviewed your referral dated November 29, 2018 concerning the above referenced proposal for the final plat of Settlers View consisting of 14 residential single-family lots on 40-acres. Our office previously provided comments on the Settlers View Preliminary Plan by our letters dated July 31, 2017 and March 15, 2018. Residential lots will be served by individual on-lot wells and septic systems. There is an existing home and an existing well operating under with permit no. 75798-F located on the property. The home and the well will continue to be used on what will become Lot 2 of the Settlers View subdivision. The Applicants obtained a decree for underground water rights and an augmentation plan for Dawson aquifer wells in Water Court in consolidated case nos. 2011CW045 (Division 1) and 2011CW023 (Division 2).

Water Supply Demand

The Water Supply Information Summary Sheet ("Summary Sheet") provided for the final plat, estimates the same demands as identified in the preliminary plan, as follows: the household uses for the 14 lots will require 3250 gallons per day or 3.64 acre-feet/year, irrigation uses of up to 1.4 acres will require 3.15 acre-feet/year, the watering of 28 domestic animals will require 308 gallons per day or 0.345 acre-feet/year, and other uses would require 6.475 acre-feet/year. According to a letter dated April 4, 2017 from the Applicants' water attorney Mr. Henry D. Worley, the 3.64 acre-feet/year will be used for indoor sanitary and drinking purposes (based on 0.26 acre-feet/year per lot), the 3.15 acre-feet/year will be used for irrigation proposes (based on 0.225 acre-feet/year for the irrigation of approximately 4,356 square feet of landscaping per lot, at a rate of 2.25 acre-feet/acre), the 0.345 acre-feet/year will be used for watering of domestic animals (based on the demand of 11 gallons per animal per day and 2 animals per lot), and the 6.475 acre-feet/year will be used for other specified or unspecified uses.

In our previous comment letter dated March 15, 2018 we noted that the other specified or unspecified uses which were not listed in the original referral are allowed by the decree in consolidated case nos. 2011CW045 (Division 1) and 2011CW023 (Division 2) and include: drinking and sanitary water for commercial uses, a stand-alone cottage or a guest house, and a hot tub/spa and or swimming pool. Lot owners may chose to use the Dawson aquifer well for none, one, or any combination of the above described uses allowed by the water decree, so long as the well pumping does not exceed the allowed amount of 0.97 acre-feet/year or



1.0 acre foot/year for the existing well, permit no. 75798-F. If the existing well is expanded to be used for the above described uses the applicant must obtain a new well permit for this structure in accordance with Section 37-90-137(4) C.R.S.

Source of Water Supply

The proposed source of water for this subdivision is still listed as individual on lot wells producing from the not nontributary Dawson aquifer to be operated in accordance with the terms and conditions of the augmentation plan granted in consolidated case nos. 2011CW045 (Division 1) and 2011CW023 (Division 2). The decree granted in consolidated case nos. 2011CW045 (Division 1) and 2011CW023 (Division 2) also quantified the amount of water underlying the subject 40 acres. According to the decree the following amounts of water were determined to be available underlying the 40-acre parcel:

Aquifer	Annual amount available for 40 acre parcel (acre-feet)	
	Based on 100 year allocation	Based on 300 year allocation
	approach	approach
Dawson	49.6	16.5
Denver	37.1	12.3
Arapahoe	16.3	5.4
Laramie-Fox Hills	12.0	4.0

The plan for augmentation allows for an average diversion of 13.6 acre-feet annually and 4,081 acre feet total over a 300-year period. The decree allows the withdrawal from up to 15 wells in the Dawson aquifer, including the existing well with permit no. 75798-F, and one well in each other aquifer underlying the property (Denver, Arapahoe, and Laramie-Fox Hills). The allowed withdrawal from each well depends on the eventual number of lots in the subdivision. Annual diversions from the existing Dawson aquifer well with permit no. 75798-F are limited to 1.0 acre-foot annually by decree. For the proposed fourteen lot subdivision, the decree would allow pumping of up to 0.97 acre-feet per year for the remaining thirteen Dawson aquifer wells. The decreed uses are one single family dwelling on each lot, commercial uses (drinking and sanitation purposes), stand-alone office or guest cottage, hot tub/spa and/or swimming pool, stock water, and landscape irrigation.

The proposed source of water for this subdivision is a bedrock aquifer 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 37-90-137(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 <u>allocation</u> approach, the annual amounts of water decreed in consolidated case nos. 2011CW045 (Division 1) and 2011CW023 (Division 2) are equal to one percent of the total amount, 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 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 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 annual demand for the subdivision is less than the allowed average annual amount of withdrawal of 13.6 acre-feet per year, allowed by the augmentation plan. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

According to the April 4, 2017 letter from the Applicants' attorney, water in the Dawson aquifer will be transferred to homeowners by separate and specific water deeds. Accordingly, this office will require that the current water right owner provide a deed showing that 0.97 acre-feet/year or a total of 291 acre-feet for the 300 years of water in the Dawson aquifer has been transferred to the property owner when they apply for a well permit in the Dawson aquifer, as described in this water supply plan.

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 for the Settlers View final plat is adequate and can be provided without causing injury to decreed water rights. Our previous comments regarding any storm water detention structure proposed for this subdivision still apply.

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 <u>allocation</u> approach, for the proposed uses 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 Division 1 Water Court has retained jurisdiction over the final amount of water available pursuant to the above-referenced decree, pending actual geophysical data from the aguifer.

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 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.

Should you or the applicant have any questions, please contact Ioana Comaniciu at $(303)\ 866-3581\ x8246$.

Sincerely,

Joanna Williams, P.E. Water Resource Engineer

Ec: Subdivision File 24079

File for permit no. 75798-F