



July 3, 2018

Nina Ruiz
El Paso County Development Services Department
Transmission via email: NinaRuiz@elpasoco.com

**RE: Flying Horse North Preliminary Plan
File No. SP-17-012
Portions of the Sections 34, 35 and 36, T11S, R66W and portions of Section 30 and 31, T11S,
R65W, 6th P.M.
Water Division 1, Water District 8**

Dear Ms. Ruiz:

We have reviewed your referrals of June 20, 2018 concerning the above referenced proposed preliminary plan for a planned community of 283 single-family residential lots on a 1417.8-acre parcel. Our office previously provided comments on the Flying Horse North Preliminary Plan (SF-17-012) by our letters dated January 17, 2018 and May 17, 2018. Residential lots will be served by individual on-lot wells and septic systems. The Applicant obtained an augmentation plan for Dawson aquifer wells in Division 1 Water Court case no. 2016CW3190 (pending amendment in case no. 2017CW3209).

Water Supply Demand

According to an updated Water Supply Information Summary Sheet ("Summary Sheet") provided in this third referral the total demand is for the development is 373.7 acre-feet/year. This amount breaks down to 84.9 acre-feet/year for in-house use, 108.8 acre-feet/year for irrigation of 43.5 acres of home lawn associated with the residential lots and common open space and 180 acre-feet/year for the irrigation of the golf course.

Additional information submitted in a letter dated June 26, 2018 from the Applicant's water consultant Mr. Curtis Wells indicates that the development will need 198 acre-feet/year. This amount breaks down to 84.9 acre-feet/year for in-house purposes (based on 0.3 acre-feet/year/lot), 81.2 acre-feet/year for home lawn irrigation (at a rate of 2.5 acre-feet/irrigated acre x 0.115 acre/lot x 283 lots), 28.06 acre-feet/year for common area irrigation, and 3.3 acre-feet/year for the watering of domestic animals (based on 0.11 acre-feet/year for 10-large domestic animals and 366 total animals for the subdivision). Based on the assumption of 0.11 acre-feet/year for 10-large domestic animals and 366 animals for the subdivision the demand for the domestic animals would be 4.0 acre-feet/year. Water for common irrigation area will be from not nontributary Dawson wells owned by the homeowners association. According to the augmentation plan no Dawson aquifer well approved pursuant to the plan for augmentation shall be allowed to pump water for any purpose unless it is also used in a residence on the lot on which such well is located, or for irrigation of open space lands. The common area irrigation demand is included in the 198 acre-feet/year demand for the development. According to the January 26, 2018 letter the total demand for the irrigation of the golf course is estimated at 180 acre-feet/year.

Furthermore a letter dated June 12, 2018 from the Applicant's water attorney Mr. Allan G. Hill clarified that the 198 acre-feet/year demand for the development is based on in-house demand of 0.3 acre-feet/year/lot (84.9 acre-feet/year), with the remaining of 113.1 acre-feet available for irrigation of lawns and common



open space. The lawn irrigation demand for the residential lots is 81.2 acre-feet/year leaving 27.8 acre-feet/year for the common area irrigation and 4.1 acre-feet for the watering of domestic animals.

Source of Water Supply

The proposed source of water for this subdivision is 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 in case no. 2016CW3190. As described in our previous letters the Applicant owns a portion of the ground water adjudicated in case no. 94CW023(B) underlying approximately 701 acres. Also, the Applicant's predecessor-in-interest entered into a Groundwater Production Lease, No. OT-109328 with the State Board of Land Commissioners. Based on the same the Groundwater Production Lease, the Applicant leased the not nontributary and nontributary groundwater underlying 640 acres decreed in case no. 2004CW098 through February 27, 2048. On that date all of the groundwater rights from case no. 2004CW098 revert to the Applicant. The estimated amounts owned and leased by the Applicant are listed in the table below:

Aquifer	Annual amount available to Applicant from case nos. 94CW023(B) and 2004CW098 (acre-feet)
	Based on 100 year allocation approach
Dawson	716
Denver	577
Arapahoe	239
Laramie-Fox Hills	386

The augmentation plan decreed in case no. 2016CW3190 allows for an average diversion of 198 acre-feet annually and 59,400 acre feet total over a 300-year period from the not nontributary Dawson aquifer. According to the decree, the allowed withdrawal from each Dawson aquifer well will be limited to 0.7 acre-feet/year/lot totaling 198 acre-feet/year for the 283 lots. The in-house use is limited 84.9 acre-feet/year while the irrigation of individual lots and open space land is limited to 113.1 acre-feet/year. Maximum area to be irrigated on each lot and open space will be limited by the restrictive covenants, which according to referral material will be limited to approximately 5,000 square-feet of lawn and garden. An application to amend the decree in case no. 2016CW3190 was filed with the Division 1 Water Court in case no. 2017CW3209 on December 28, 2017, to include livestock watering of up to 300 horses on certain residential lots. There will be no additional pumping over the 198 acre-feet already allowed by the augmentation plan in case no. 2016CW3190. Therefore, lots allowing for domestic animals will have a reduced number of square-feet of lawn and garden irrigation. In order to ensure that well permits are accurately issued by this office for the lots allowing for horses, we have previously requested that Applicant provides information to this office on how the horses will be allocated to the lots and how many horses will be allowed per lot. The requested information has not been provided, therefore, we reiterate that the **Applicant must provide information to this office on the number of horses that will be allocated to each lot.**

According to the augmentation plan decreed in case no. 2016CW3190 the Applicant is the owner of 20,800 acre-feet of nontributary ground water decreed in case nos. 99CW218 and 2000CW079. Among the 38,600 acre-feet available to the Applicant from the decree in case nos. 94CW023(B) and 2004CW098, the 20,800 acre-feet is also dedicated to replace the 59,400 acre-feet of post-pumping depletions associated with the not nontributary Dawson aquifer withdrawal within the development. Since an issue was raised regarding the ability of the Applicant's legality to access the water decreed in case no. 99CW218, the Applicant's water attorney clarified that the 20,800 acre-feet of water decreed in case no. 99CW218 will be conveyed to the homeowners association for replacement of the post-pumping depletions of the Dawson aquifer wells.

The information in the referral material clarified that the Arapahoe well operating under permit no. 81145-F will be used to irrigate the golf course and the clubhouse grounds. Well permit no. 81145-F was issued for the

amount of water transferred to the Applicant in case no. 2004CW098 in the Arapahoe aquifer (239 acre-feet). The use of ground water from this well is limited to municipal, industrial, domestic, commercial, irrigation, stock watering, recreational, fish and wildlife, fire protection, and augmentation purposes. For planning purposes the County required the Applicant to show that the proposed water supply for the golf course is available for 300 year. Based on an estimated demand of 180 acre-feet/year for the golf course the total demand for the 300 years would be 54,000 acre-feet. Subtracting the 23,900 acre-feet allowed to be pumped from well no. 81145-F the shortfall would be 30,100 acre-feet. According to the information provided the shortfall is proposed to be met by the not nontributary Denver aquifer water. Use of the not nontributary Denver aquifer water will require approval of an augmentation plan from the water court. According to the June 12, 2018 letter from the Applicant's water attorney, an augmentation plan for the not nontributary Denver aquifer to cover the shortfall from the golf course is sought to be approved within 5 years of the approval of the final plat for the subdivision.

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 allocation approach, the annual amounts of water decreed in consolidated case nos. 94CW023(B) and 2004CW098 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 allocation approach based on three hundred years, the annual demand for the subdivision is equals the allowed average annual amount of withdrawal of 198 acre-feet/year, allowed by the augmentation plan. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years. However, we note that the annual demand for the golf course is currently sufficient to cover approximately 132 year of the total demand. Therefore, the not nontributary Denver aquifer water proposed to cover the shortfall for the remaining 168 years will not be available until the proposed augmentation plan is approved by the water court.

Applications for on lot well permits, submitted by entities other than the Applicant (PRI #2, LLC) must include evidence that the well permit Applicant has acquired the right to the portion of the water being requested on the application.

As mentioned in our previous letter dated May 17, 2018 the existing well permit nos. 17278-A, 17279, 17280, 75882, and 2132 will be plugged prior to subdivision approval. **The Applicant is required to submit a Well Abandonment Report (Form GWS-09 available at <http://water.state.co.us/DWRIPub/Documents/gws-09.pdf>) for each well to affirm that the wells were plugged.**

As previously described, the applicant should be aware that any proposed detention pond for this Planned Development, must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), Colorado Revised Statutes, to be exempt from administration by this office. The applicant should review DWR's [Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado](#) to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is

encouraged to use Colorado Stormwater Detention and Infiltration Facility Notification Portal, located at <https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>, to meet the notification requirements.

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 nos. 17278-A, 17279, 17280, 75882, and 2132 are plugged and abandoned prior to the subdivision approval. In addition livestock watering sought in case no. 2017CW3209 shall be allowed once a decree is granted in this case. **However, as requested above, information on the number of horses that will be allocated to each lot must be provided to this office prior to the subdivision approval.** In addition we note that the proposed water supply for the golf course is adequate to meet the statutory requirement of 100 years but not the County's requirement of 300 years, until such time as the proposed augmentation plan for the not nontributary Denver aquifer is approved by the water court.

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 is greater than the annual amount of water required to supply existing water commitments and the demands of the proposed subdivision.

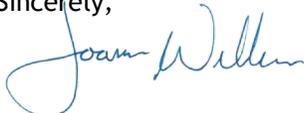
Our opinion is qualified by the following:

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 aquifer.

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 24155
File for permit nos. 17278-A, 17279, 17280, 75882, and 2132