

October 9, 2023

Kari Parsons, Project Manager El Paso County Development Services Department Sent via online portal at: <u>https://epcdevplanreview.com/Agencies/Home</u>

Re: Sterling Ranch East Filing No. 1 Plat File #: SF2237 Part of the SE ¼ of Sec. 28 and part of the NE ¼ of Sec. 33, Twp. 12S, Rng. 65W, 6th P.M. Water Division 2, Water District 10 CDWR Assigned Subdivision No. 30978

Dear Kari Parsons:

We have received the above-referenced proposal to subdivide a 16.841-acre parcel into 42 single-family lots, ROWs, and 3 tracts for open space, landscape, park, signage, drainage, utilities, and trails. This filing is part of the Sterling Ranch East Phase One preliminary plan. The proposed source of water supply is service provided by the Falcon Area Water and Wastewater Authority (FAWWA).

Water Supply Demand

The proposed water uses and estimated water requirements are as follows: household use for 42 units (14.13 acre-feet/year) and irrigation use (2.72 acre-feet/year). The total demand for the subdivision is 16.85 acre-feet/year.

Source of Water Supply

The proposed source of water supply is service provided by the Falcon Area Water and Wastewater Authority (FAWWA). According to the letter dated November 15, 2022, FAWWA is committed to serving the 16.85 acrefeet/year of water demand associated with the 42 single-family lots and irrigated landscaping.

According to the Water Resources Report prepared by RESPEC dated September 15, 2023 ("Report") and the information provided by John McGinn on September 25, 2023 to this office (as part of our review of the Sterling Ranch East Filing No. 5), FAWWA has a water supply of 1,930.03 acre-feet/year based on a 300-year supply consisting of Denver Basin aquifer water adjudicated in Water Court case nos. 85CW131 (Shamrock West water), 86CW19, 91CW35, 93CW18/85CW445 (Bar-X Ranch water), 08CW113, 17CW3002, 18CW3002, and 20CW3059 and Determination of Water Right nos. 1689-BD, 1690-BD, and 1691-BD (McCune water). A summary of these water rights is provided in Table 3 of that Report. Because FAWWA anticipates serving 3,710 SFEs in 2040 and 7,310 SFEs in 2060, FAWWA may seek to connect with other water suppliers and investigate the use of lawn irrigation return flow (LIRF) credits and aquifer storage/recharge to increase its supply. Note that our office calculates that 1,929.85 acre-feet/year is available based on a 300-year supply. This discrepancy appears to originate from a difference in the quantity of water calculated to be available from case no. 91CW35. The FAWWA should be aware that they are limited to the decreed amounts in 91CW35 which are as follows: 3,400 acre-feet from the Dawson aquifer, 7,600 acre-feet from the Denver aquifer, 4,900 acre-feet (not the 4,936 acre-feet claimed in Table 3) from the Arapahoe aquifer, and 3,600 acre-feet (not the 3,623 acre-feet claimed in Table 3) from the Laramie-Fox Hills aquifer.

According to the Report, FAWWA has a total of 959.35 acre-feet/year of commitments, including the Rhetoric Subdivision and all other commitments through September 15, 2023. According to the Report, there are 970.5 acre-feet/year of uncommitted supply available to the FAWWA based on our estimate of



1,929.85 acre-feet/year of supply available to the FAWWA. Therefore, there appears to be more than sufficient legal supply to supply this development on a 300-year basis.

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. The Denver Basin water rights adjudications have been decreed by the State of Colorado, Water Division 1 District Court, Water Division 2 District Court, and the Colorado Groundwater Commission. 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 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. Additionally, 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 not his <u>allocation</u> approach, the annual amounts are equal to one percent of the total amount, as determined by rules 3.2.1 of the Designated Basin Rules, 2 CCR 410-1. Therefore, the water may be withdrawn in those annual amounts shown on attached Table 1 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 <u>allocation</u> approach based on 300 years, the allowed average annual amount of withdrawal would be reduced to one third of that amount which is <u>greater</u> than the annual demand of FAWWA's commitments. As a result, the water may be withdrawn in those annual amounts for 300 years.

Additional Comments

The application materials indicate that a storm water detention pond 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 section 37-92-602(8), C.R.S., the structure may be subject to 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, attached, 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 to meet the notification requirements, located at https://maperture.digitaldataservices.com/gyh/?viewer=cswdif.

State Engineer's Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(I) and 30-28-136(1)(h)(II), 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 <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 and 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 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 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 <u>Wenli.Dickinson@state.co.us</u> or (303) 866-3581 x8206 with any questions.

Sincerely,

Wenli Dickinson

Wenli Dickinson, P.E. Water Resource Engineer

Attachment: Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado

Ec: FAWWA file