



May 13, 2024

Ashlyn Mathy, Project Manager
 El Paso County Development Services Department
 Transmitted via the EPC EDARP Portal: <https://epcdevplanreview.com>

RE: Ivilo Heights Subdivision
 Case No. SF245
 Part of the SE ¼ of the NW ¼, Section 6, T12S, R65W, 6th P.M.
 Water Division 1, Water District 8

Dear Ashlyn Mathy,

We have reviewed the submittal documents related to Ivilo Heights Subdivision, concerning the above referenced proposal to subdivide approximately 6.15 acres into two single-family residential lots of 2.82 acres (Lot 1) and 2.91 acres (Lot 2). The comments in this letter supersede the comments from this office dated February 9, 2024.

Water Supply Demand

Based on the water supply information summary and the December 2023 Water Resource Report from RESPEC (“Report”) the estimated annual water requirements totals 0.52 acre-feet for in-house use (0.26 acre-feet/lot), 0.623 acre-feet for irrigation of up to 5,500 square-feet per lot (0.0566 acre-feet/1,000 square-feet) and 0.176 acre-feet for the watering of 16 horses (8 horses/lot assuming 0.011 acre-feet/horse). The total annual demand for the subdivision would be 1.32 acre-feet.

Source of Water Supply

The proposed water source is individual on lot wells constructed in the Dawson aquifer operating pursuant to the decreed augmentation plan in case no. 2022CW3087. The decree in case no. 2022CW3087 quantified the amount of water underlying the subject 6-acre parcel. The following amounts of water were determined to be available underlying the 6-acre parcel:

Aquifer	Annual amount available for 6-acre parcel (acre-feet)		Type
	Based on 100 year allocation approach	Based on 300 year allocation approach	
Dawson	4.8	1.6	Not-Nontributary
Denver	5.1	1.7	Not-Nontributary 4%
Arapahoe	2.35	0.78	Nontributary
Laramie-Fox Hills	1.71	0.57	Nontributary

The decreed augmentation plan in case no. 2022CW3087 allows for the total annual withdrawal of 1.32 acre-feet (0.66 acre-foot/year/lot) from the not nontributary Dawson aquifer, based on a 300-year allocation approach. The augmentation plan states that indoor use will utilize an



estimated 0.20 acre-feet of water per year per residence, with remaining pumping entitlement available for other uses, including, irrigation of lawn and garden, and the watering of horses or equivalent livestock per lot.

The existing well on the property permit no. 87817 was re-permitted under permit no. 88939-F for Lot 1 of Ivilo Heights Subdivision. The issuance of permit no. 88939-F canceled permit no. 87817. The use of groundwater from well no. 88939-F is limited to one single family dwelling, 5,500 square feet of lawn and garden irrigation, and the watering of eight horses or equivalent livestock. The average annual amount of groundwater to be withdrawn is limited to 0.66 acre-feet and the total volume of groundwater to be withdrawn shall not exceed 198 acre-feet.

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 case no. 2022CW3087 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.

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 three hundred years, the proposed annual water demand equals the allowed average annual amount of withdrawal of 1.32 acre-feet per year, allowed by the augmentation plan in the case no. 2022CW3087. As a result, the water may be withdrawn in that annual amount for a maximum of 300 years.

Any application for an on lot well permit for Lot 2 of Ivilo Height Subdivision, submitted by entities other than the water court Applicant in case no. 2022CW3087 (6225 Vessey, LLC) must include evidence that the Applicant has acquired the right to the portion of the water being requested on the application.

Additional Comments

The Applicant should be aware that any proposed detention pond for this project must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., otherwise 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/gvh/?viewer=cswdif>.

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 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 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.

Should you or the Applicant have any questions, please contact me at this office at 303-866-3581 x8246 or ioana.comanicu@state.co.us

Sincerely,



Ioana Comanicu, P.E.
Water Resource Engineer

Ec: Subdivision file: 31191
File permit no. 88939-F