

Riverbend Crossing

Residential Development

Natural Features Report



VICINITY MAP

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General Location/Site Information:

The site is situated between US Highway 85/87 on the east and Fountain Creek to the West and South, in El Paso County near the City limits of Fountain, Colorado. The proposed residential parcel is adjacent to an existing commercial development to the east and is currently undeveloped land of native shrubs, grasses and weeds. The southern portion of the lot lies within the floodplain of Fountain Creek (see map #1).

The site is 53.08 acres (proposed 51.99) and is zoned PUD (proposed RS-5000). The proposed residential development will consist of 183 residential dwelling units for a gross density of 3.52 DU/ Acres.

Topography

The topography of the site has an elevation change of approximately 56 feet. The high point of the site at the northeast corner of the site has an elevation of 5,729 feet. The low point of the site is at the Southeast corner of the site along the Fountain Creek channel has an elevation of 5,673. The eastern side of the property, along the back side of the adjacent commercial property, falls off sharply at a slope of approximately 20%, for approximately 70 feet. The majority of the site gently slopes to the south and southwest at an average of approximately 1-2% until the land meets the Fountain Creek upper embankment. The north upper bank of Fountain Creek meanders through the southern portion of the site approximately 300 feet (average) from west to east, above the southern boundary line of the site. The upper bank sets at an elevation of 14 feet above the creek channel and sandbars. The embankment is characterized with eroded steep slopes greater than 2:1.

Topography, outside the floodplain, is favorable for residential development as long geotechnical, site preparation and foundation recommendations considerations are followed. (see Geotechnical Report, as prepared by RMG Engineers, dated April 2018).

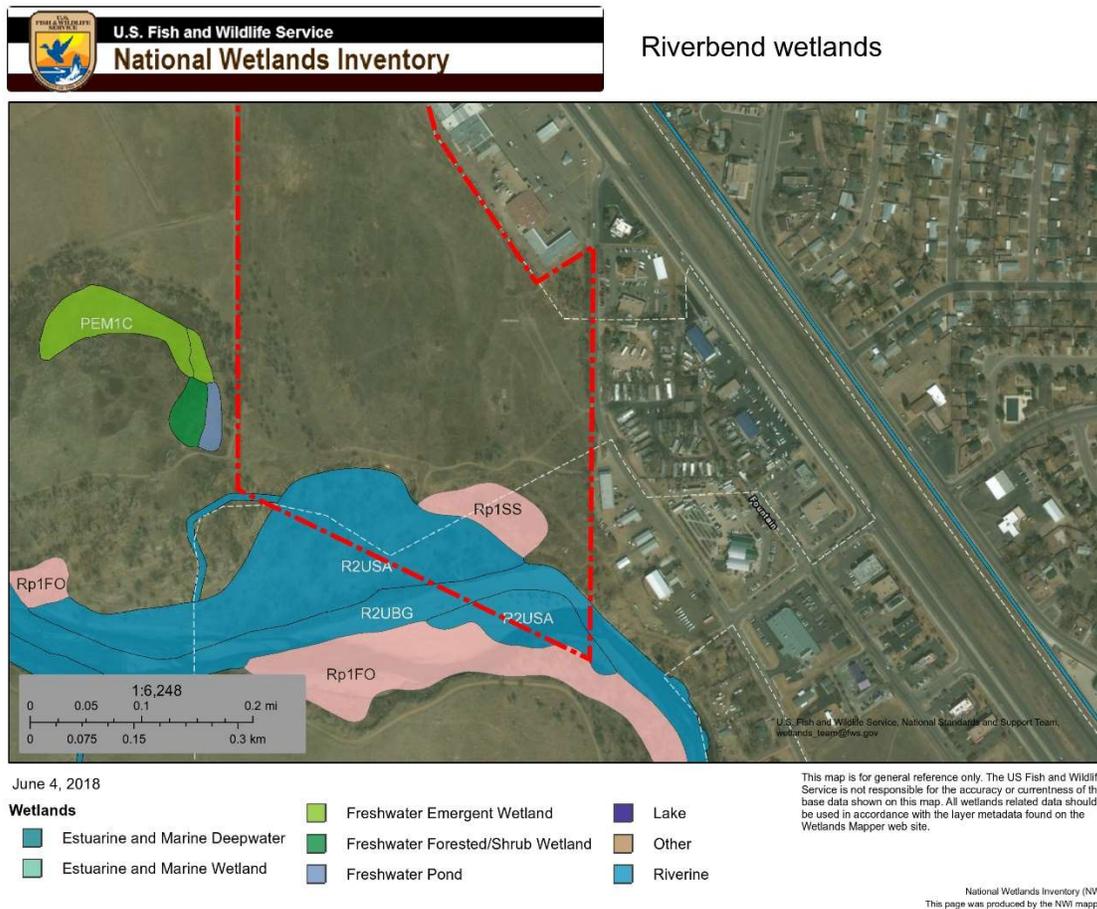
Hydrologic Features

As stated previously, Fountain Creek flows through the southern portion of the site in a direction from the northwest to the southeast. The stream channel will not be altered as the result of this development and will remain as open space and serving as a natural corridor for riparian and wildlife environments. A Full Spectrum Detention Area will be located above the northern side of the creek channel, above the upper embankment, at the southeast corner of the lot. There are no other water or natural features present in the project.

Flood Hazard/Floodplain:

Approximately 7 acres of the site is located within a designated FEMA floodplain along the southern boundary as determined by the flood insurance map, community map number 08041C0951F, effective date March 17, 1997. The floodplain area will not be disturbed as part of this proposed development. Stormwater runoff, generated from development, will drain into the proposed storm system and the full spectrum detention pond to be located above the north side of the creek channel at the southeast corner of the lot. Flows will then be conveyed to Fountain Creek and/or off site in a manner consistent with El Paso County and State requirements.

Wetlands:



Map #1

A search of the US Fish and Wildlife Services National Wetlands Inventory mapper website (<https://www.fws.gov/wetlands/data/Mapper>) indicated jurisdictional wetlands

(R2USA) and the presence of a riverine system (RP1SS) along the southern portion of the site within the floodplain area identified above. The coding is described as follows:

Wetland R2USA:

R = System Riverine: The Riverine System includes all wetlands and deep-water habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

2 = Subsystem 2 - Lower Perennial: This Subsystem is characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is composed mostly of species that reach their maximum abundance in still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.

US= Us Class: Unconsolidated Shore: Includes all wetland habitats having two characteristics: (1) unconsolidated substrates with less than 75 percent areal cover of stones, boulders or bedrock and; (2) less than 30 percent areal cover of vegetation. Landforms such as beaches, bars, and flats are included in the Unconsolidated Shore class.

A = Water Regime - Temporary Flooded: Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.

Wetland R2UBG

R=System Riverine: The Riverine System includes all wetlands and deep-water habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

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still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.

UB= Class, Unconsolidated Bottom: Includes all wetlands and deep-water habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

G= Water Regime Intermittently Exposed: Water covers the substrate throughout the year except in years of extreme drought.

Riparian RP1SS:

RP = Riparian System

1= Subsystem Lotic, related to or living in flowing water

SS = Class Scrub/Scrub Woody vegetation less than 6 meters in height

Riparian RP1FO

RP = Riparian System

1= Subsystem Lotic, related to or living in flowing water

FO = Class Forested: Woody vegetation less than 6 meters in height

The Fountain Creek corridor that lies within the parcel will remain undisturbed as the result of the proposed development.

Vegetation and Soils

The majority of the undeveloped site has a mix of native and disturbed shrubs and short grass prairie species including; western wheat grass, blue grama, alkali sacaton, needle-and-thread, and side oats grama. Galleta and fourwing saltbush are also present in select places above the Fountain Creek floodplain which flows through the southern portion of the site.

The Fountain Creek wetland/riparian channel consist of cottonwood groupings (and evidence of disturbed cottonwood timber – the result of past flooding occurrences), willow shrub species, native Serviceberries and Chokecherry shrubs. The upper embankment of the channel is characteristic of Cottonwood, Elm species and an occasional common and Rocky Mountain Junipers.

The soils area classified as clay, claystone and shale bedrock at lower depths in southwest portion of the site and silty sands with gravel, with clay and shale bedrock at lower depths, across the north and eastern portions of the site. The Colorado Springs Vegetation & Soils Map identifies the soils classification for the site as Clayey Foothills made up of gravelly, sandy, and clay loams. Along Fountain Creek soils are generally identified as Lower Elevation Riparian made up of Saline / loamy soils. Overall Subsurface soils conditions are favorable for residential development on shallow foundation systems. Claystone and shale are not considered suitable for direct foundation bearing and may require over excavation and replacement with structural fill may be required. There will be no development within the floodplain.

Scenic Resources

The natural mountain backdrop of Pike Peak and Cheyenne Mountains and the foreground of Fountain Creek to the west is the dominant scenic natural feature of the site. Views to the north, west and south are relatively unobstructed by development.

Rare Species/Wildlife Habitats/Migration Routes

A review of rare species and critical habitats within the project area was completed using the U.S. Fish and Wildlife Service's IPAC mapper and website (<https://ecos.fws.gov/ipac/>). The mapper identifies species either threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat within the project areas. Per the IPAC mapper, there are a total of 9 threatened, endangered, or candidate species and 13 Migratory Birds on the species on the list. However, the report also indicates that there are no critical habitats within the project area and therefore no rare or threatened species were found to be present on the site. Information provided by the U.S. Fish and Wildlife Service – IPAC (Information for Planning and Consulting).

Unique Natural Areas

The unique natural feature within the site is the Fountain Creek riparian corridor along the south boundary of the site. The meandering creek and associated floodplain exhibits a rich dynamic of riparian vegetation and wildlife ecosystems. Depository sandbars and disturbed vegetation provide evidence of flooding occurrences that change and reshape stream channel. The Fountain Creek corridor will remain undisturbed and provide opportunities for recreational and trail amenities.