



NATURAL FEATURES AND WETLANDS REPORT

for

***Flying Horse North Development
El Paso County, CO***

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1.0 INTRODUCTION

Flying Horse Development (“Applicant”) has retained Bristlecone Ecology, LLC (“B.E.” or “Agent”) to perform an environmental assessment and routine wetland delineation and prepare a Natural Features and Wetlands Report for the proposed Flying Horse North mixed-use development project (“Project”), located in unincorporated El Paso County (EPC), Colorado. Contact information for both Applicant and Agent is provided below:

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1.1. Purpose and Goals

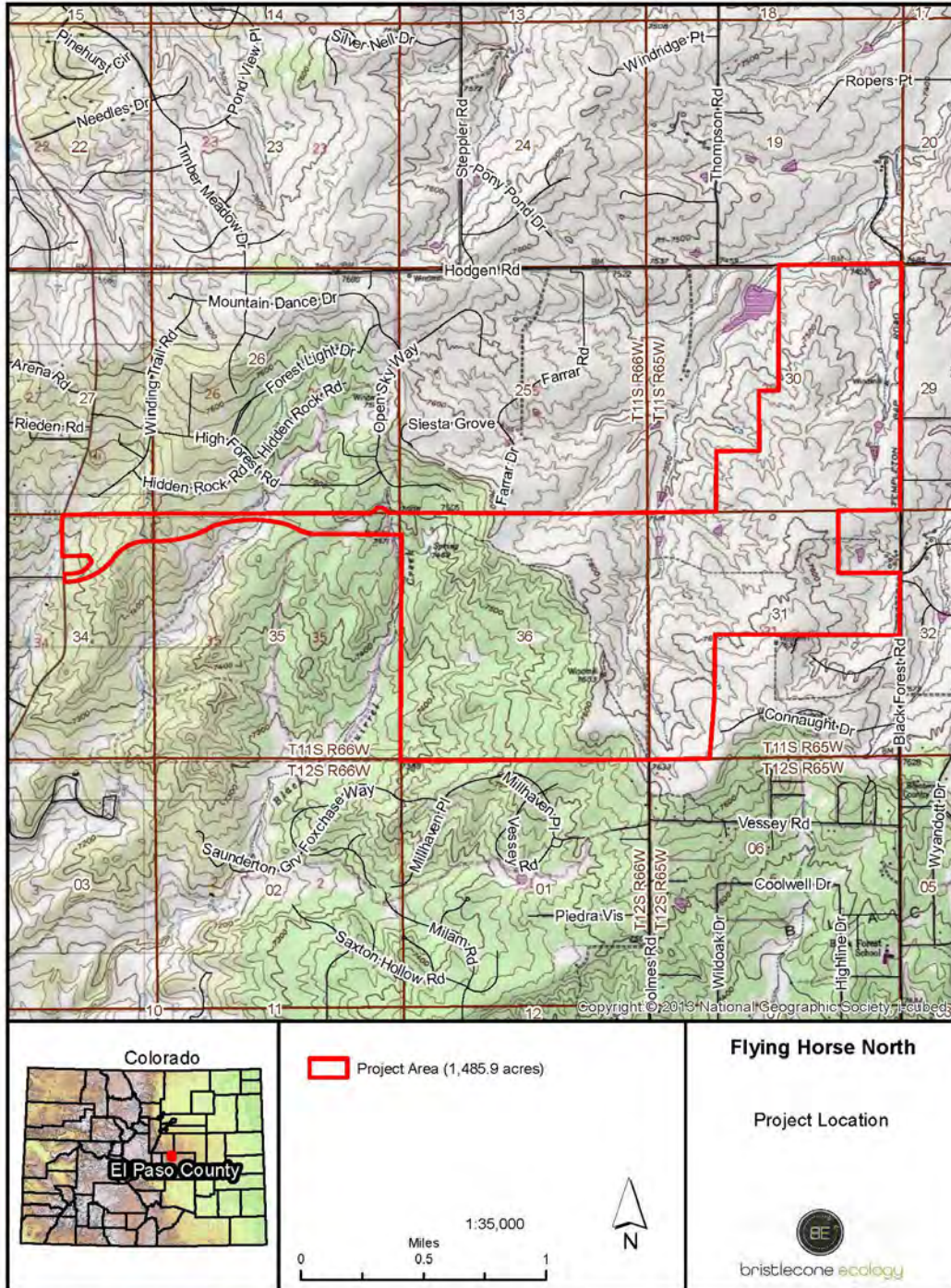
The purpose of this Natural Features and Wetlands Report is to find and document natural resources and existing site conditions in order to identify potential environmental constraints that may affect the development of the Project. In addition, a goal of this report is to provide guidance on regulatory issues that could influence site development in accordance with development planning and application submittals in EPC. Environmental resources and constraints addressed include:

- Vegetation
- Soils
- Aquatic Resources/Wetlands/Waters of the U.S. (WOTUS)
- Wildfire Hazard
- Flood Hazard
- Wildlife Impacts
- Federal and State Listed Threatened and Endangered (T&E) Species

1.2. Project Description and Site Location

The Project will consist of approximately 1,571 residential lots, a hotel with approximately 225 rooms, a 19-hole golf course, commercial space, open space tracts, stormwater detention facilities, arterial roads, utilities, and other associated facilities and infrastructure. The Project is located on approximately 1,486 acres southwest of the intersection of Hodgen Road and Black Forest Road, and is bounded on all sides by scattered rural residential development (**Figure 1: Project Location Map**). The site is located on portions of Sections 30 and 31 in Township 11S, Range 65W, and in portions of Sections 34, 35, and 36 in Township 11S, Range 66W, and can be found on the U.S. Geological Survey’s (USGS) Black Forest 7.5-minute quadrangle and Monument 7.5-minute quadrangle (USGS 2020). Topography of the Project consists of rolling foothills grasslands and pine-oak woodlands of the Black Forest region. Portions of the site have already been developed, including 81 residential lots and much of the golf course, under a prior filing (Filing No. 1).

Figure 1: Project Location Map



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2.0 METHODOLOGY

B.E. performed a desktop review to gather background information about the environmental setting of the Project area. Publicly available data sources queried via desktop included:

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) data
- USFWS Critical Habitat Portal
- Species profiles and spatial data from Colorado Parks and Wildlife (CPW)
- USFWS National Wetland Inventory (NWI) data
- USGS National Hydrography Dataset (NHD)
- USGS aerial imagery
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels
- Google Earth current and historic aerial imagery
- Colorado State Forest Service (CSFS) Wildfire Hazard Maps
- National Resources Conservation Service (NRCS) county soil survey data
- Colorado Natural Heritage Program (CNHP) Survey of Critical Biological Resources

Following the desktop review of these resources, a site reconnaissance was conducted on December 20th, 2021, to field-verify results of the review and identify potential impacts to these resources and constraints to development. The field reconnaissance focused on identifying and mapping wetland habitat and WOTUS, on classifying vegetation communities on the site, and on identifying suitable wildlife habitat, particularly that which could support T&E species.

3.0 ENVIRONMENTAL SETTING

The Project area is located on the border of two ecoregions: the Foothill Grasslands ecoregion and the Pike-Oak Woodlands ecoregion (Chapman et al. 2006). Topography of the Project consists mainly of rolling grasslands and ponderosa pine (*Pinus ponderosa*) forests with some steeper gulches, and is bordered on all sides by rangeland and scattered rural residential development. The pine woodlands of the Black Forest cover roughly the western half of the site, while grasslands dominate the eastern and northern portions of the property. The Foothills Grasslands Ecoregion is composed of a mixture of tall and mid-grasses and isolated pine woodlands; conversely, the Pine-Oak Woodlands are mainly forests of both pines and scrubby oaks that form a mosaic with the prairies to the east (Chapman et al. 2006). Dominant species in both ecoregions include little bluestem (*Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), yellow Indiangrass (*Sorghastrum nutans*), Junegrass (*Koeleria macrantha*), mountain muhly (*Muhlenbergia montana*), needle-and-thread (*Hesperostipa comata*), and Gambel oak (*Quercus gambelii*) (Chapman et al. 2006).

Elevations of the Project site range between approximately 7,360 and 7,620 feet above mean sea level (AMSL). The Project site contains no Colorado Natural Heritage Conservation Areas or Potential Conservation Areas according to the CNHP (2022), and according to the USFWS' Information for Planning and Conservation (IPaC; 2022), does not contain Wildlife Refuges or Hatcheries. The area has been used historically as rangeland, but residential and commercial development is increasing steadily.

3.1. Vegetation

The Project site is within the Foothill Grasslands and Pine-Oak Woodlands, with the predominant vegetation corresponding to those ecoregions. Blue grama (*Bouteloua gracilis*), buffalograss (*B. dactyloides*), purple threeawn (*Aristida purpurea*), Western wheatgrass (*Pascopyrum smithii*), Junegrass (*Koeleria macrantha*), needle-and-thread, yellow Indiangrass, and little bluestem are the dominant species in uplands throughout the site. Other upland species present include threadleaf sedge (*Carex filifolia*), crested wheatgrass (*Elymus cristata*), sideoats grama (*Bouteloua curtipendula*), Junegrass, switchgrass, fringed sage (*Artemisia frigida*), soapweed yucca (*Yucca glauca*), Woods' rose (*Rosa woodsii*), yarrow (*Achillea millefolium*), stiff goldenrod (*Solidago rigida*), mountain mahogany (*Cercocarpus montanus*), and annual ragweed (*Ambrosia artemisifolia*), among others. Ponderosa pines and Gambel oak form a dominant overstory in the western half of the site, with skunkbush sumac (*Rhus trilobata*), Western serviceberry (*Amelanchier alnifolia*), and chokecherry (*Prunus virginiana*) comprising a sparse shrub understory. There is little to no riparian vegetation, as there is not sufficient hydrology along the various upland swales on the site to support more mesic vegetation. The only exceptions are a few small ponds and the wetlands along Black Squirrel Creek which crosses the site; these support wetland species including Baltic rush (*Juncus balticus*), Nebraska sedge (*Carex nebrascensis*), meadow foxtail (*Alopecurus pratensis*), and redtop (*Agrostis gigantea*). Much of the site appears to have been lightly disturbed by cattle grazing in the past, but vegetative cover is currently relatively extensive and healthy. Diversity is moderate for this ecoregion, and the structure of vegetation in the uplands is somewhat underdeveloped, likely owing to cattle grazing.

Several noxious weeds are present at the site, mostly scattered throughout the property in low densities, with a few concentrations in some areas. Weed species observed included both diffuse knapweed (*Centaurea diffusa*) and spotted knapweed (*C. stoebe*), Scotch thistle (*Onopordum acanthium*), common mullein (*Verbascum thapsus*), and annual ragweed. Smooth brome (*Bromus inermis*), a non-native grass form monotypic stands, is present in more mesic areas along swales.

B.E. reviewed CNHP data for the Monument and Black Forest 7.5-minute quadrangles, which summarizes vegetation communities in the state by USGS quadrangle. Data were reviewed to determine the probability of the presence/absence of significant natural communities, rare plant areas, or riparian corridors that may be within the Project area. Based on CNHP’s data and the site reconnaissance, the probability of these plant communities being impacted by Project development is described below in Table 1.

Table 1. Potentially Impacted Vegetation Communities (CNHP 2022)

Plant Community (Type)	Status ¹	Presence and Location	Probability of Impacts
<i>Andropogon gerardii</i> - <i>Sporobolus heterolepis</i> Western Foothills Grassland (Xeric Tallgrass Prairie)	G2, S1	Mesic habitats of the Rocky Mountain foothills and riverine habitats. This type is a regional endemic found only in eastern Colorado, western Oklahoma, and possibly elsewhere. Reportedly occurs in the nearby Black Forest.	None. Community is not present in the Project area.
<i>Bouteloua gracilis</i> - <i>Bouteloua dactyloides</i> Grassland (Shortgrass Prairie)	G4, S2	Found in flat to rolling uplands throughout much of the central and southern Great Plains. Soil type is often sandy loam. A variety of other short graminoids make up much of the remaining habitat.	Expected. This community covers portions of the Project area, but it is not the primary grassland community at the site.
<i>Hesperostipa comata</i> - <i>Bouteloua gracilis</i> - <i>Carex filifolia</i> Grassland (Montane Grasslands)	G5, S2	Occurs in relatively mesic savanna habitats, on gentle to moderate south- and west-facing slopes. Dense habitat occurs in some areas of the Black Forest.	None. Project area lies on the fringe of this community.
<i>Pinus ponderosa</i> - <i>Quercus gambelii</i> Woodland (Foothills Ponderosa Pine Scrub Woodlands)	G5, S5	This is a widely distributed and broadly defined habitat type in the foothills and mountains. Present in the Black Forest in Colorado wherever ponderosa pine overstory coincides with at least 5% cover of Gambel oak	Expected. This is the primary wooded community present on the Project site.

¹G=Global; S=State

1=Critically Imperiled; 2=Imperiled; 3=Rare or Uncommon; 4=Widespread, Abundant, and Apparently Secure; 5=Demonstrably Widespread, Abundant, and Secure.

3.2. Soils

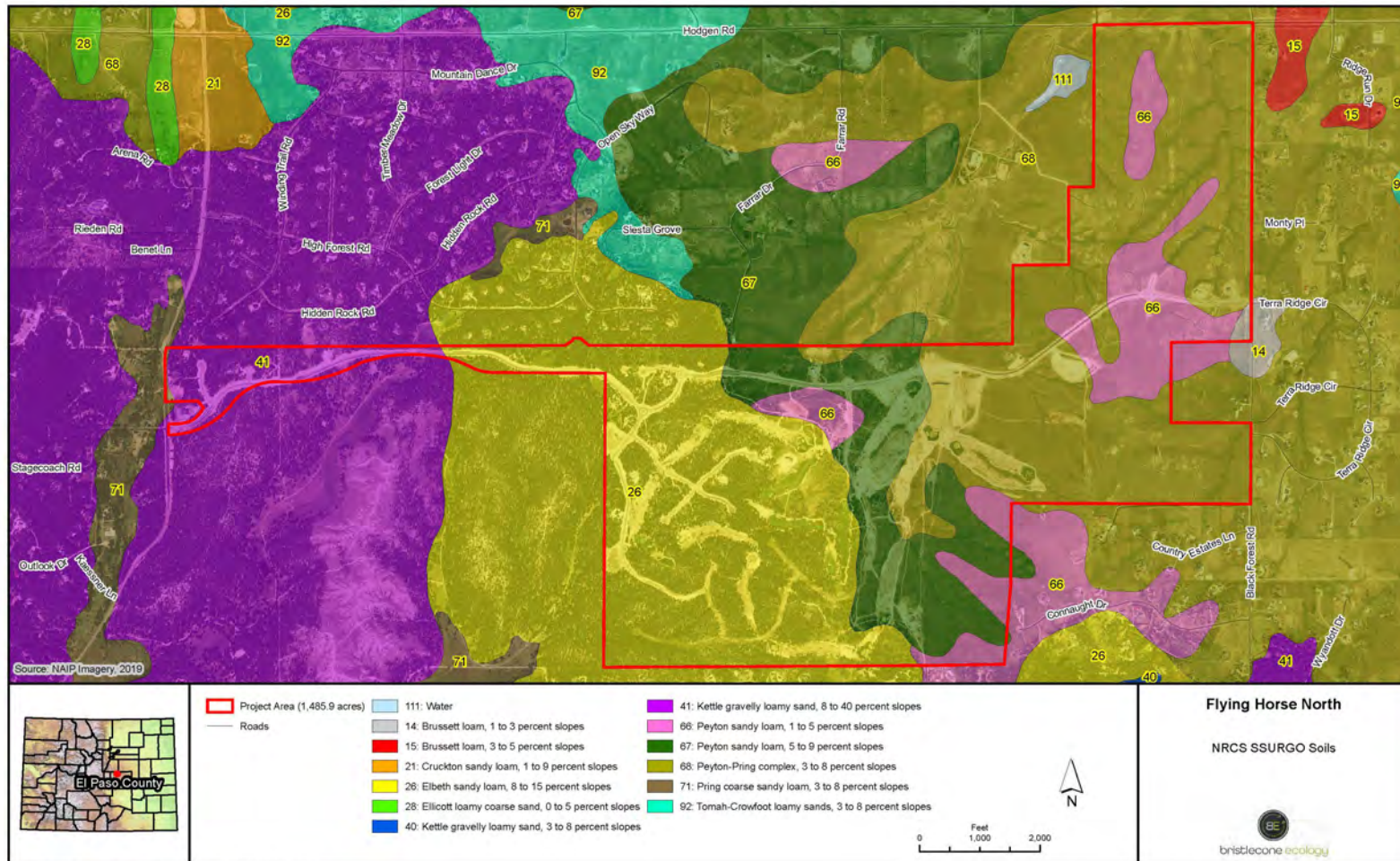
Soil survey data and reports were reviewed to determine the potential for the presence of geologic hazards within the Project (NRCS 2022a). County soil survey data indicate that the site is composed primarily (62%) of the Peyton-Pring soil complex, which is comprised of Peyton sandy loams (1 to 9 percent slopes) and Pring sandy loams (3 to 8 percent slopes) (NRCS 2022a). Other major soil series comprising the site include Elbeth sandy loam (8 to 15 percent slopes; 33% of Project area) and Kettle gravelly loamy sand (8 to 40 percent slopes; 5% of Project area) (NRCS 2022a). While these soils are the dominant series occupying the Project area, there are minor components (called “inclusions”) within each series or consociation that could contribute to the overall soil composition at the site.

The NRCS provides information on soil properties that would influence the development of building sites for dwellings with and without basements, as well as small commercial buildings, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Qualitative soil ratings are assigned to each major soil group and include ‘Not Limited’, ‘Somewhat Limited’, and ‘Very Limited’. ‘Not Limited’ indicates that the soil type has properties that are very favorable for the specified type of construction. ‘Somewhat Limited’ indicates that the soil type has properties that are moderately favorable for the specified type of construction. These limitations can generally be overcome through planning and design considerations. ‘Very Limited’ indicates that the soil type has properties that cannot generally be overcome through design and planning considerations (NRCS 2022b). Approximately 62% of the site is rated ‘Not Limited’ for dwelling with or without basements, while approximately 33% is rated ‘Somewhat Limited’, and the remaining 5% of the site, on the far western edge, is rated ‘Very Limited’ (NRCS 2022b). For small commercial buildings, approximately 11% of the site is rated ‘Not Limited’, approximately 50% of the site is rated ‘Somewhat Limited’, and approximately 39% of the site is rated ‘Very Limited’ (NRCS 2022b).

B.E. reviewed the hydric soil ratings for all soil components present on the Project site to aid in the identification of wetland habitats during the site reconnaissance. Hydric soils are those that form under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions, and their formation is required in order for wetlands to become established. All the primary soil series occurring on the site (Pring, Peyton, Elbeth, etc.) are described as having a hydric rating of zero in El Paso County, meaning less than 1% of these soils are expected to be hydric (NRCS 2022c). Hydric ratings are on a scale of 1 to 100, with 100 having greater hydric components (NRCS 2022a). The Pleasant soil series, a minor component of the primary series on the site, is rated as hydric in El Paso County and is typically found in depressions and drainages where ponding can regularly occur (NRCS 2022c). Based on these ratings, the overall suitability of the site for the development of hydric soils, and thus the presence of wetlands, is low.

All the soils series present on the site are grouped into Hydrologic Group B, according to NRCS soils data (NRCS 2022d). This grouping includes soils that have a moderate infiltration rate, which results in the soils having a corresponding moderate rate of surface and ground water transmission. Additional, detailed soil data for the Project will be presented in a soils/geology/geotechnical report that will be submitted separately.

Figure 2: NRCS SSURGO Soils



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3.3. Aquatic Resources

Aquatic resources include jurisdictional wetlands and other regulated Waters of the U.S. (WOTUS) such as streams/rivers, ponds/lakes, and ditches, as well as non-regulated wetlands, streams/rivers, ponds/lakes, ditches, and other surface water features. The USFWS' NWI and USGS' NHD datasets were reviewed for the possible presence of wetlands and streams, respectively, within the Project area. Aerial imagery (USDA 2019 and Google 2020) was reviewed to locate water features not depicted in the NWI and NHD datasets. NHD and NWI data are notoriously inaccurate, necessitating field inspection to verify the presence or absence of the resources depicted in these datasets. Aquatic features that were depicted in the data can be seen in **Figure 3: Aquatic Resources Desktop Review**, and include:

- The channel of Black Squirrel Creek is mapped in the NHD data as an intermittent stream running north to south nearly through the narrowest part of Project area. The NWI data shows a seasonally flooded wetland occupying the tributary in the same area. This area was permitted under Section 404 of the CWA for Stagecoach Road, which has been constructed.
- Two minor tributaries to Black Squirrel Creek are mapped in the NHD data as crossing the narrow portion of the Project area both to the east and to the west of Black Squirrel Creek. The NWI data does not show wetlands in these locations.
- A tributary to East Cherry Creek is mapped in the NHD data near the center of the Project area. Several ponds are depicted in the NWI data as both riverine and palustrine wetlands associated with this tributary.
- A second tributary to East Cherry Creek is mapped in the NHD data near the northeast corner of the Project area. The same feature is identified in the NWI data as more than a dozen different riverine and palustrine wetlands.
- A few palustrine wetlands are identified in the NWI data scattered throughout the site.

Because these desktop data are often inaccurate, the watercourses and other aquatic features identified in the preliminary desktop analysis were inspected in the field to assess their jurisdictional potential. A site reconnaissance and routine wetland assessment were conducted on December 20th, 2021. The wetland assessment revealed that few of the features identified in the NHD and NWI data were present on site, with only the main tributary to Black Squirrel Creek generally matching the desktop review data. Other tributaries indicated in the NHD/NWI data were not present on the site as depicted, or present to a vastly reduced extent. All wetlands present on the site were isolated palustrine wetlands, generally corresponding with the NWI data, with one exception. The wetlands associated with Black Squirrel Creek at the narrow point where Stagecoach Road was constructed are the only jurisdictional aquatic resource on the property, and these were permitted in 2017. During the site reconnaissance, the features identified in the NWI/NHD data were inspected and classified as follows (see also **Figure 4: Wetland Location Map**, and **Appendix I: Photographic Log**):

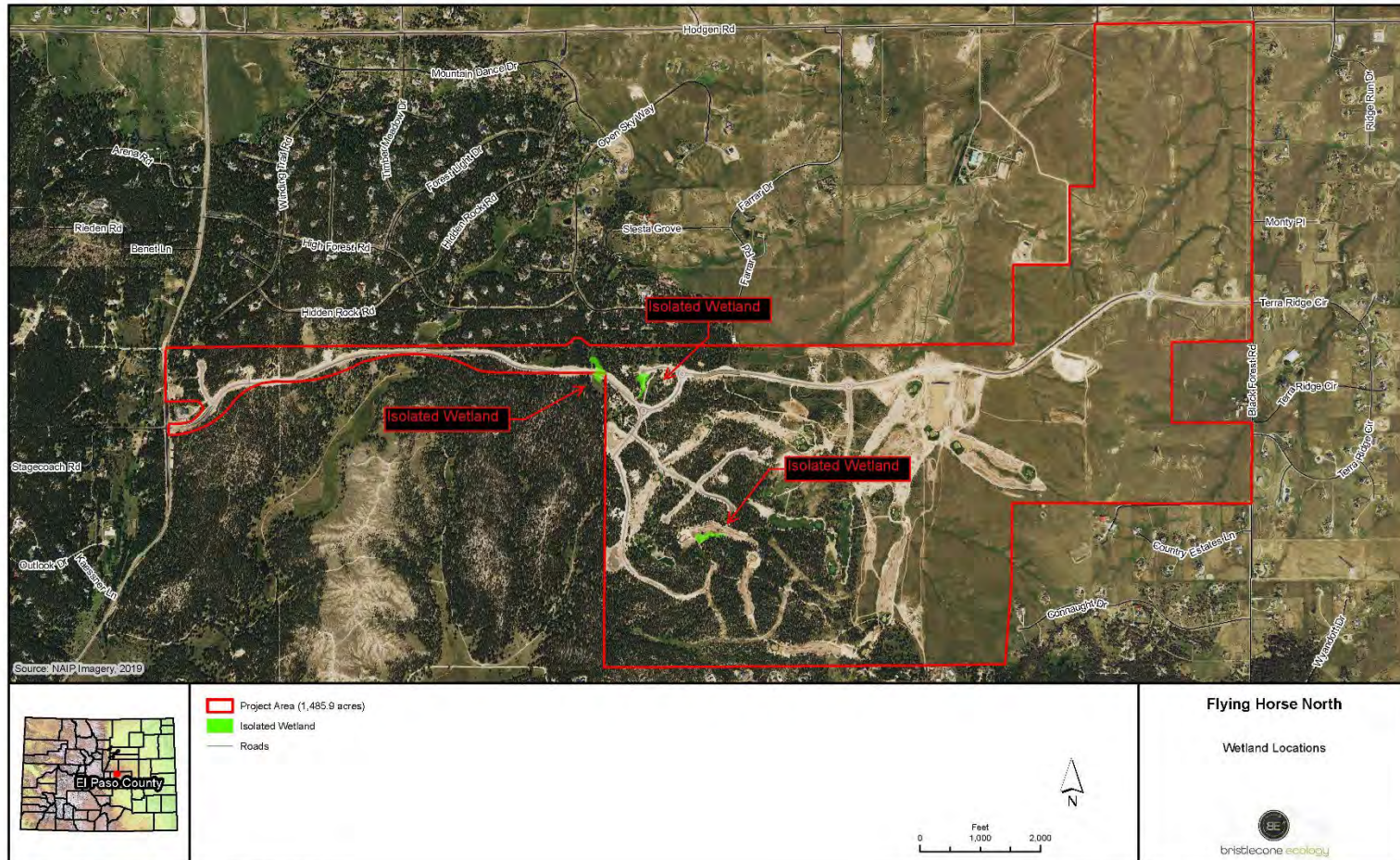
- The main channel of Black Squirrel Creek on the site is generally present as mapped in the NWI and NHD data, bisecting the Project area from north to south at its narrowest point. The NHD/NWI classification of 'intermittent' is likely accurate, though the stream

may be perennial, as flowing water was present during the wetland assessment. Either way, this tributary, along with its associated wetlands, is the primary aquatic feature on the site, and the only jurisdictional one.

- The minor tributaries to the east and west of Black Squirrel Creek depicted in the NHD and NWI data are not present as indicated in the datasets. These tributaries are depicted in heavily forested areas of the site where streams would not be expected. B.E. was not able to find any trace of these streams in the forested areas. The prior wetland delineation was similarly unable to locate these resources.
- The tributaries to East Cherry Creek depicted on the east site of the Project area in the NHD and NWI data were inspected and were confirmed to be upland swales with no discernible streambed or banks and no wetlands present (see **Appendix I**).
- A few palustrine wetlands were found scattered throughout the site in the general locations depicted in the NHD and NWI data. These wetlands were all isolated, with no hydrologic connection to downstream WOTUS, and therefore not jurisdictional.

Based on the information obtained from the site reconnaissance, the wetlands present on the Project site, with the exception of one jurisdictional wetland associated with Black Squirrel Creek and permitted in 2017, are all isolated. Most of the tributaries depicted in the NHD and NWI data did not contain wetlands and were not tributaries at all. While only the U.S. Army Corps of Engineers (USACE) may determine the regulatory status of aquatic features under the Clean Water Act, it is B.E.'s professional opinion that the field-delineated wetlands on the site would not be considered jurisdictional, minus the wetlands associated with Black Squirrel Creek.

Figure 4: Wetland Location Map



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3.4. Noxious Weeds

The Project had a Noxious Weed Management Plan (“Plan”) prepared in 2017 as a standalone document based on El Paso County requirements for noxious weed control. The Plan is a Project-specific document that has been designed to set forth Project-level regulations to prevent and control the spread of noxious weeds within the Project area and vicinity. Noxious weeds are defined as those non-native plants that aggressively invade and are detrimental to native vegetation communities and ecosystems. The *Colorado State Noxious Weed Act* (Colorado Revised Statute 35-5.5-103) developed a list of plants considered noxious in the state of Colorado that should be targeted for control by various methods dependent on list category (A, B, or C). The Plan tiers to the requirements set forth by the El Paso County Noxious Weed Management Plan (EPC 2017), and the El Paso County Noxious Weeds and Control Methods report (EPC 2018a), which contain guidelines for the control and treatment of noxious weeds found in the County. EPC requires that commercial or industrial projects that include ground disturbing activities submit a project-specific noxious weed management plan. This Plan provides methods to prevent and control the spread of noxious weeds at construction and post-construction phases of the Project. See **Appendix II: Noxious Weed Management Plan**.

3.5. Wildfire Hazard

In the 2018 El Paso County Development Standards, the stated purpose and intent for fire protection and wildfire mitigation is to ensure that proposed development is reviewed for wildfire risks and adequate fire protection (EPC 2018b). No permit or approval associated with development, construction, or occupancy shall be approved or issued until the provisions of these standards are satisfied. The Project area is located in two fire protection districts (FPDs): the Black Forest FPD, and the Wescott FPD. Both districts participate in an aid agreement which allows each district to give and receive aid from the other. There are two staffed fire stations in each district, for a total of four stations servicing the Project area:

Black Forest FPD:

- Station 2, 16465 Ridge Run Drive, Colorado Springs (1.18 miles from eastern site entrance on Old Stagecoach Road)
- Station 1, 11445 Teachout Road, Colorado Springs (4.32 miles from eastern site entrance)

Wescott FPD:

- Station 2, 15055 Highway 83, Colorado Springs (0.0 miles from western site entrance on Stagecoach Road; this station is located within the Project boundary)
- Station 1, 15415 Gleneagle Drive, Colorado Springs (5.21 miles from western site entrance)

The Black Forest FPD has the following operations equipment available:

Station 1:

- 3 fire engines
- 1 water hauler
- 1 ambulance

- Chief's vehicles
- Utility vehicles

Station 2:

- 1 fire engine
- 1 brush truck
- 1 water hauler
- 1 ambulance

The Wescott FPD has the following operations equipment available:

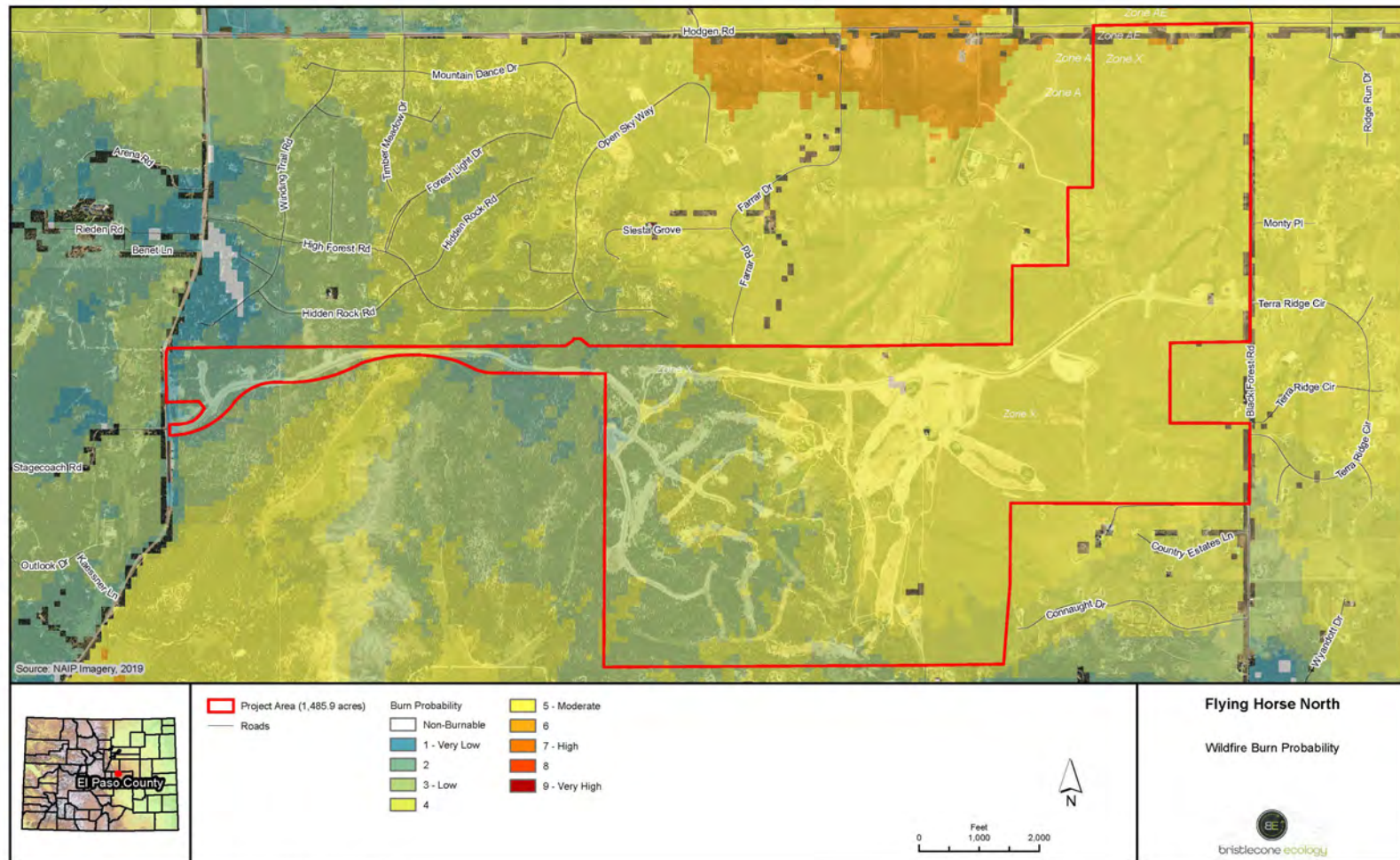
- 1 ladder
- 3 fire engines
- 1 ambulance
- 1 tender
- 1 brush truck
- 1 utility truck
- 2 command vehicles
- 1 hummer
- 1 ATV
- 1 air trailer
- 1 chipper

Wildfire hazard for the Project site was evaluated using the Colorado State Forest Service's (CSFS) online Wildfire Risk Assessment Portal (WRAP; CSFS 2020). WRAP allows professionals, planners, and the public to access the best scientific information regarding wildfire risk and establish prevention and mitigation measures accordingly. According to WRAP, the wildfire risk for the Project site is approximately 30% "Moderate Risk", approximately 40% "Low Risk", and approximately 30% "Lowest Risk" (CSFS 2020; **Figure 5: Wildfire Hazard Map – Wildfire Risk**). "Wildfire Risk" is determined by CSFS by combining the burn probability rating of a site with the values-at-risk rating. While the Project site has a low to very low rating of values and assets that would be adversely impacted by wildfire, the burn probability for the entire site is rated about 40% "Low" to "Low-Moderate" and about 60% "Moderate" (CSFS 2020; **Figure 6: Wildfire Hazard Map – Burn Probability**). Counterintuitively, the areas mapped for "Moderate" burn probability are not the forested portions of the Project area, but rather the areas of contiguous grasslands on the eastern half of the site.

3.6. Flood Hazard

Flood hazard maps and flood insurance rate maps (FIRM) from the Federal Emergency Management Agency (FEMA) were reviewed to determine the potential for flood hazard at the site. The site is not located in a flood hazard zone except for an approximately 2-acre portion along the northernmost boundary of the site; flood risk for the remaining 1,484 acres is deemed by FEMA to be 'minimal' (**Figure 7: Flood Hazard Map**).

Figure 6: Wildfire Hazard Map – Burn Probability



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Figure 7: Flood Hazard Map



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3.7. Wildlife Communities

The Project site provides moderate quality habitat for some grassland and woodland wildlife, including birds, mammals, reptiles, and possibly amphibians. Development of the site would inevitably affect some habitat for wildlife, but based on the findings of the site reconnaissance, B.E. classified the expected impacts to grassland species as relatively low, and to woodland species as moderate to low. Wildlife that could be affected were identified first by referencing CPW’s Species Activity Mapping (SAM) spatial data to assess the likelihood of occurrence for state T&E species, state species of concern (SC), and other general wildlife, including big game species. The Colorado Natural Heritage Program (2022) also provides species status data from tracked natural animal and plant communities in the state. The review indicated that there is potential for the occurrence of 13 mammals, 14 birds, and 12 reptiles, including one SC mammal, one state- and federally-threatened mammal, one state threatened bird, and one federally protected bird (**Table 2: SAM Wildlife Potential for Occurrence**).

Table 2. SAM Wildlife Potential for Occurrence (CPW 2021)

Common Name	Scientific Name	Type of Occurrence (CPW 2019)	Status ^{1,2}
Mammals			
Big brown bat	<i>Eptesicus fuscus</i>	Overall range	n/a
Black bear	<i>Ursus americanus</i>	Overall range Human conflict area	n/a
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	Overall range Potential colony occurrence	SC, S3
Elk	<i>Cervus canadensis</i>	Overall range	n/a
Fringed bat	<i>Myotis thysanodes</i>	Overall range	G4, S3
Hoary bat	<i>Lasiurus cinereus</i>	Overall range	n/a
Little brown myotis	<i>Myotis lucifugus</i>	Overall range	n/a
Mountain lion	<i>Puma concolor</i>	Overall range Peripheral range	n/a
Mule deer	<i>Odocoileus hemionus</i>	Overall range	n/a
Olive-backed pocket mouse	<i>Perognathus fasciatus</i>	Overall range	G5, S3
Preble’s meadow jumping mouse	<i>Zapus hudsonius preblei</i>	Overall range	FT, ST, S1
Pronghorn	<i>Antilocapra americana</i>	Overall range	n/a
Silver-haired bat	<i>Lasionycteris noctivagans</i>	Overall range	n/a
Townsend’s big-eared bat	<i>Corynorhinus townsendii</i>	Overall range	SC, G4, S2
Western red bat	<i>Lasiurus blossevillii</i>	Overall range	n/a
White-tailed deer	<i>Odocoileus virginianus</i>	Overall range	n/a
White-tailed jackrabbit	<i>Lepus townsendii</i>	Overall range	n/a

Table 2. SAM Wildlife Potential for Occurrence, Continued (CPW 2021)

Common Name	Scientific Name	Type of Occurrence (CPW 2019)	Status ^{1,2}
Birds			
Band-tailed pigeon	<i>Patagioenas fasciata</i>	Breeding range	S4B
Brewer's sparrow	<i>Spizella breweri</i>	Breeding range	S4B
Burrowing owl	<i>Athene cunicularia</i>	Breeding range	ST
Cassin's sparrow	<i>Peucaea cassinii</i>	Breeding range	n/a
Golden eagle	<i>Aquila chrysaetos</i>	Breeding range	BGEPA, S3S4B
Wild turkey	<i>Meleagris gallopavo</i>	Overall range	n/a
Grasshopper sparrow	<i>Ammodramus savannarum</i>	Breeding range	S3S4B
Lark bunting	<i>Calamospiza melanocorys</i>	Breeding range	S4
Lazuli bunting	<i>Passerina amoena</i>	Breeding range	S5B
Lesser sandhill crane	<i>Antigone canadensis ssp. canadensis</i>	Overall range	n/a
Northern harrier	<i>Circus hudsonius</i>	Breeding range	S3B
Prairie falcon	<i>Falco mexicanus</i>	Breeding range	S4B, S4N
Rufous hummingbird	<i>Selasphorus rufus</i>	Migration range	n/a
Swainson's hawk	<i>Buteo swainsoni</i>	Breeding range	S5B
Virginia's warbler	<i>Oreothlypis virginiae</i>	Breeding range	S5
Reptile and Amphibians			
Bullsnake	<i>Pituophis catenifer sayi</i>	Overall range	n/a
Greater short-horned lizard	<i>Phrynosoma hernandesi</i>	Overall range	n/a
Milksnake	<i>Lampropeltis elapsoides</i>	Overall range	n/a
Many-lined skink	<i>Plestiodon multivirgatus</i>	Overall range	n/a
Ornate box turtle	<i>Terrapene ornata ornata</i>	Overall range	n/a
Painted turtle	<i>Chrysemys picta</i>	Overall range	n/a
Plains garter snake	<i>Thamnophis radix</i>	Overall range	n/a
Prairie lizard	<i>Sceloporus consobrinus</i>	Overall range	n/a
Plateau fence lizard	<i>Sceloporus tristichus</i>	Overall range	n/a
Prairie rattlesnake	<i>Crotalus viridis</i>	Overall range	n/a
Smooth greensnake	<i>Opheodrys vernalis</i>	Overall range	n/a
Terrestrial gartersnake	<i>Thamnophis elegance</i>	Overall range	n/a

¹FT=Federally Threatened; ST=State Threatened; SC=State Species of Concern; BGEPA=Bald and Golden Eagle Protection Act

²State (S) or Global (G) CNHP Status: 1=Critically Imperiled; 2=Imperiled; 3=Vulnerable; 4=Apparently Secure, but Cause for Long Term Concern; 5=Demonstrably Secure; B=Breeding; N=Non-breeding

Following the review of the SAM data, a site reconnaissance was performed to field-verify the information provided in the data and perform a general wildlife survey. In general, the site provides low-to-moderate quality habitat for wildlife. The site is dominated by two primary vegetation communities, represented in the eastern half by typical Foothill Grasslands vegetation – such as blue gramma, prairie Junegrass, and Western wheatgrass – and in the western half by Pine-Oak Woodlands vegetation – such as Gambel oak and ponderosa pine. Riparian and wetland vegetation is scarce. The western half of the site is currently undergoing construction, though current conditions largely continue to support the well-developed woodland vegetation characteristic of the Black Forest. Overall, the forested regions of the Project area have been partly preserved, despite the ongoing development. Invasive weeds such as diffuse knapweed, spotted knapweed, musk thistle, and common mullein are scattered in isolated portions of the site in relatively low numbers, with no noticeable concentration areas.

While some of the species listed in the SAM data may occur on the site, few were observed, and the majority are either not expected to occur, or may occur only rarely based on the limited habitat available. The only species in the SAM data observed were pronghorn (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*), while others such as big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), elk (*Cervus canadensis*), grasshopper sparrow (*Ammodramus savannarum*), lark bunting (*Calamospiza melanocorys*), and northern harrier (*Circus hudsonius*) are species in the SAM data that are expected to occur on-site in the appropriate seasons. Of note, there is no suitable habitat present for the state-listed Preble's meadow jumping mouse (*Zapus hudsonius preblei* or Preble's) or the state-threatened burrowing owl (*Athene cunicularia*). There is generally grassland habitat available for the state sensitive black-tailed prairie dog (*Cynomys ludovicianus*), but none are present on the site and no burrows were observed. Golden Eagle (*Aquila chrysaetos*), a raptor that receives federal protections under the Bald and Golden Eagle Protection Act (BGEPA) and nests primarily on cliffs, is unlikely to occur except in passing.

More generally, birds were the most common wildlife observed on the site during the reconnaissance. Species included American goldfinch (*Spinus tristis*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), house finch (*Haemorphous mexicanus*), northern flicker (*Colaptes auratus*), red-breasted nuthatch (*Sitta canadensis*), red-tailed hawk (*Buteo jamaicensis*), and red-winged blackbird (*Agelaius phoeniceus*). These species tend to prefer open habitats, marshes, or wooded areas like the predominant habitats present on-site.

The site provides some potential nesting habitat for raptors, and fair habitat for northern harrier, which nests on the ground in grasslands (though this species was not observed). The wooded areas in the western half of the site could provide sufficient substrate for tree-nesting raptors such as Swainson's hawk (*Buteo swainsoni*), red-tailed hawk, and the cavity-nesting American kestrel (*Falco sparverius*). No signs of nests were found in any of the trees.

The Project area also provides habitat for mammals including rodents, deer, and carnivores. Other than six pronghorn and one mule deer, mammals were not observed during the site

reconnaissance, but a few other species are expected to occur, including coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), and red fox (*Vulpes vulpes*). Evidence of fossorial mammals was minimal, but a few eskers (mounds) were observed, presumably of pocket gophers (family *Geomidae*). The area is suitable year-round range for mule deer, white-tailed deer elk (*Cervus canadensis*). The site also has potential to provide foraging and breeding habitat for predators such as coyote, red fox, and potentially black bear (*Ursus americanus*); it is also listed as peripheral habitat for mountain lion (*Puma concolor*). No black-tailed prairie dogs and no historic or active prairie dog burrows were observed (which precludes the presence of burrowing owls, a prairie dog burrow specialist).

3.8. Federally Listed T&E Species

The USFWS IPaC database (USFWS 2021) was used to determine the likelihood of occurrence of federally listed T&E species within the Project area. The IPaC query listed eight species, including two birds, one mammal, two fishes, and two flowering plants with the potential to occur within or be affected by activities in the Project area (**Table 3: Federally Listed T&E Species Potentially Impacted by the Project**). B.E. has provided our professional opinion regarding the probability of occurrence at the Project site and their probability of being impacted by Project development. Preble’s meadow jumping mouse is of particular note and is discussed in greater detail in a consultation request letter to USFWS asking for a determination of potential effects. The letter is appended here for reference, and the response from USFWS, which is pending as of this writing, will be included in Project documents when it becomes available (**Appendix III: Endangered Species Act Consultation Request Letter**).

Table 3. Federally Listed T&E Species Potentially Impacted by the Project (USFWS 2022)

Common Name	Scientific Name	Habitat Requirements and Likelihood of Impacts	Federal Status ¹
Birds			
Piping plover	<i>Charadrius melodus</i>	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska. Specifically, water depletions have been shown to effect habitat for this species downstream in the watersheds listed. Likelihood of impacts: None, Project is only partially within the watersheds listed, and water depletions will not occur.	FT
Eastern black rail	<i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i>	Eastern black rail is a subspecies of black rail that occurs east of the Rocky Mountains in North America. Black rails are small, cryptic marsh/wetland specialists, and depend entirely upon these habitats to support their resource needs. Requires dense overhead cover (usually cattails [<i>Typha</i> spp.] or bulrushes [<i>Schoenoplectus</i> / <i>Scirpus</i> spp.]) and moist to saturated soils. Eastern black rails have been expanding their range in Colorado. There is negligible suitable habitat on the Project site. Likelihood of impacts: None, suitable habitat is not available on the site.	FT

¹FE= Federally Endangered; FT=Federally Threatened

Table 3, Cont. Federally Listed T&E Species Potentially Impacted by the Project (USFWS 2022)

Common Name	Scientific Name	Habitat Requirements and Likelihood of Impacts	Federal Status ¹
Mammals			
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	Inhabits well-developed riparian habitat with adjacent, relatively undisturbed grasslands, and a nearby water source. Riparian habitat includes a dense combination of grasses, forbs and shrubs; a taller shrub/tree canopy may be present. Has been found to use uplands as far out as 100 meters beyond the 100-year floodplain. Habitat is present to the west of the site along Black Squirrel Creek; however, the Project area itself does not support suitable habitat for Preble's (Figure 8: Preble's Meadow Jumping Mouse Habitat Map). A consultation request letter has been sent to the USFWS (Appendix III: Endangered Species Act Consultation Request Letter). Likelihood of impacts: None, suitable habitat not available at the site.	FE
Fishes			
Greenback cutthroat trout	<i>Oncorhynchus clarkii stomias</i>	Cold, clear, gravely headwater streams and mountain lakes. Genetic sampling has confirmed that the only remaining native pure-strain population occurs in a four mile stretch of creek outside of its native range in Bear Creek (Metcalf et al. 2012). Reintroduction efforts are ongoing in the South Platte River system. Likelihood of impacts: None, habitat not present.	FT
Pallid sturgeon	<i>Scaphirhynchus albus</i>	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska. Likelihood of impacts: Likelihood of impacts: None, Project is only partially within the watersheds listed, and water depletions will not occur.	FE
Flowering Plants			
Ute ladies'-tresses orchid	<i>Spiranthes diluvialis</i>	Primarily occurs along seasonally flooded river terraces, sub-irrigated or spring-fed abandoned stream channels, and lakeshores. May also occur along irrigation canals, berms, levees, irrigated meadows, gravel pits, borrow pits, and other human-modified wetlands. There are no known populations in El Paso County, and the site is above the elevation where surveys are required (USFWS 1992). Likelihood of impacts: None, habitat not present, and the site is not in an area that requires surveys.	FT
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Occurs in tallgrass prairie in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Oklahoma. Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska. Likelihood of impacts: Likelihood of impacts: None, Project is only partially within the watersheds listed, and water depletions will not occur.	FT

¹FE= Federally Endangered; FT=Federally Threatened

4.0 SUMMARY OF IMPACTS

4.1. Vegetation

Vegetation will be unavoidably disturbed through development of the Project site. The vast majority of the site is classified as either Foothill Grasslands, which is the primary ecosystem type that will be impacted, or Pine-Oak Woodlands, which will largely be preserved. The site is generally of moderate quality and impacts are not expected to imperil or substantially harm either of these ecosystems, though development of the site will result in the loss of a few hundred acres of grasslands. No globally-sensitive vegetation communities are present, and one state-sensitive vegetation community is present (Shortgrass Prairie), according to CNHP data for sensitive vegetation communities and site reconnaissance (CNHP 2022). The Project site is on the fringe of the Ponderosa Pine Woodlands, a globally and state stable vegetation community. There are many mature trees on the property, mostly along the ridgelines of the western portion of the site where large estate lots are planned. The majority of the woodlands on the site will be incorporated into the development and will thus be preserved; as such, significant impacts are not expected. Development of the site will likely increase and improve riparian habitat along the swales in the eastern half of the site through the planting of trees along drainages and the presence of more consistent hydrologic flows. There is currently almost no riparian or wetland habitat on the property. The highest quality habitat on the site is within the forested areas, primarily in the western half of the site. As mentioned, these areas will largely be preserved and incorporated, so the highest quality habitats on the site will remain.

4.2. Aquatic Resources

There are few aquatic resources on the site, and nearly all wetlands were isolated, with the exception of the wetlands associated with Black Squirrel Creek, a known jurisdictional stream. Other wetlands mapped in NHD/NWI data are isolated. Site reconnaissance also revealed that many of the aquatic resources depicted in the NWI/NHD data are not present on the site at all (see **Appendix I**). With the exception of the jurisdictional wetlands along Black Squirrel Creek where it crosses the property, all field-delineated wetlands shown in **Figure 4** are expected to be considered isolated by the USACE. As such, a Section 404 permit from the USACE is not expected to be necessary, as determined in 2016 when the site was first assessed for wetlands. A permit was obtained at that time for the construction of Stagecoach Road over Black Squirrel Creek.

4.3. Noxious Weeds

Noxious weeds are present on the Project site in several areas but in generally limited quantities. There were no large concentrations of noxious weeds, but scattered noxious weeds were found throughout various portions of the site as isolated occurrences. List A Species, which require reporting and eradication by Colorado law (Colorado Department of Agriculture [CDA] 2006), were not detected. List B Species require either eradication, containment, or suppression; List C Species require control through either public education or chemical control. List B and List C Species that were detected during the site reconnaissance included:

List B

- Scotch thistle
- Diffuse knapweed
- Spotted knapweed

List C

- Common mullein

It is possible that additional noxious weed populations may be present on the site. A site inventory to identify and map noxious weeds during the growing season would be required to accurately catalogue all populations on the site. A Noxious Weed Management Plan has been prepared for the Project detailing recommendations for identifying and controlling the spread of noxious weeds prior to, during, and/or post-construction.

4.4. Wildfire

Roughly 30% of the Project area is mapped as “Moderate” wildfire risk while the remaining 70% is mapped as “Low” or “Lowest” risk. The lowest risk areas of the site include the wooded western half of the property, while the moderate risk areas are the grasslands to the east. The site is rated low in terms of values and assets present that could be lost to wildfire; it is rated low to low-moderate in terms of burn probability based on the available fuels at the site. The nearest fire response is Station 2 in the Westcott FPD, which is located within the site itself; the second closest station is Station 2 in the Black Forest FPD, which is 1.18 miles away.

Development of the site would result in a reduction of the available fuels for wildfires, while simultaneously increasing the values and assets present on the site. As such, the overall wildfire risk index for the Project is expected to stay close to the same as a result of development.

4.5. Wildlife

Similar to the impacts for vegetation, some wildlife will inevitably be affected by development of the Project area. Some species that prefer suburban habitats including some species of birds are expected to benefit from increased bird feeders and trees in yards. Designated open spaces will also conserve some of the open grassland habitats that are currently available, but open, undisturbed grasslands will be reduced on the whole. Implementation of a stormwater management plan will assist in protecting water quality in downstream reaches, which will provide additional benefits to aquatic species including invertebrates. Increased flows and riparian tree and shrub plantings will introduce riparian and wetland habitats that do not currently exist, diversifying the property. Detention facilities may add seasonal water features that could support additional wildlife such as waterfowl. Some impacts to forest species are expected as a few trees will be cleared for construction and wildfire hazard reduction. By and large, the wooded habitats on the site will be preserved. Since grasslands are the most dominant habitat type, grassland species

are expected to experience the greatest adverse impacts. Deer, foxes, bears, raccoons, and skunks may experience adverse effects from the increase in urbanization in close proximity to wildland areas. Few sensitive species were present and only in small numbers, and thus are not expected to be affected any more than other species. No state listed species were present.

4.6. Federally Listed T&E Species

Federally listed T&E species are not expected to occur on the Project. All species listed either occur in habitats that were not present on the site or would only conditionally be affected if development were to involve water depletions that are known to affect downstream populations in different river systems. Depletions will not occur, and species downstream will not be affected. Preble's meadow jumping mouse habitat is not present on the site, though habitat is present nearby in Black Squirrel Creek to the west of the site. Consultation with the USFWS regarding the western half of the development in 2016 resulted in a 'not likely to adversely affect' determination issued by USFWS. Since the western half of the site will not be affected by the upcoming phases of development to the east, and because these areas drain north where Preble's habitat is not present, it is unlikely further development of the site will affect Preble's. A request for consultation and a new effects determination has been submitted to USFWS (**Appendix III**).

5.0 RECOMMENDATIONS

Upon completion of a desktop review, site reconnaissance, and routine wetland delineation, B.E. finds that some environmental constraints are present within the Project area. Constraints are summarized below within the regulatory context that they apply, and recommendations are provided.

5.1. Clean Water Act

Section 404 of the Clean Water Act prohibits the discharge of dredge or fill material into WOTUS (including wetlands) without a valid permit. Wetland habitat, as well as jurisdictional WOTUS lacking wetlands, are not present on the site, and thus development is not expected to affect any jurisdictional aquatic resources. Based on the preliminary site layout and lack of aquatic resources on the site, permitting pursuant to Section 404 of the CWA will not be required. No further action is recommended.

5.2. Endangered Species Act

Section 9(a)(1) of the Endangered Species Act prohibits the take of federally listed species and their habitats, and defines such take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 U.S.C. § 1531). There is no suitable habitat for listed species on the site. There is no suitable habitat for Preble’s, and the USFWS has previously issued a determination that the Project would be unlikely to adversely affect the species. A new request for verification that Preble’s would not be affected by Project development has been submitted to the USFWS (see **Appendix III**). Other federally listed species are not present, or they would not be affected because the Project will not involve water depletions from the river basins where these species occur. No impacts to any federally listed species are anticipated from site development and no further due diligence recommendations are provided.

5.3. Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

Migratory birds, and the parts, nests, or eggs of such a bird receive statutory protection under the Migratory Bird Treaty Act, which prohibits the intentional take of migratory birds. Bald eagles (*Haliaeetus leucocephalus*) and golden eagles receive additional statutory protection from accidental take and disturbance under the BGEPA. Both acts particularly apply to nesting birds and their nests. There were no nests observed on the site, but some nesting substrates for raptors and other migratory birds are available throughout the site, particularly in the scattered timber. On rare occasions golden eagles may use very large conifers as nesting substrate (Katzner *et al.* 2020); there is no suitable habitat for bald eagles. Further nesting substrates for other migratory birds are present in the form of open grasslands, as well as ponderosa pines in the wooded portions of the site, all of which are expected to be used by some migratory birds during the nesting season.

It is recommended that vegetation clearing/grubbing of the site occur outside of the nesting season (March 15th to July 31st) to avoid disturbing nesting migratory birds. If such timing

restrictions are not possible, B.E. recommends conducting a migratory bird nesting survey during the nesting season to ensure impacts to nesting birds do not occur.

5.4. Colorado Noxious Weed Act

In order to ensure Project compliance with the Colorado Noxious Weed Act, and to comply with the requirements of El Paso County's Noxious Weed Management Plan Act, the Noxious Weed Management Plan referenced in Section 3.4 of this report should be implemented, and further site-specific weed management should be implemented on an ongoing basis. In particular, control of both knapweeds and Scotch thistle (and any other List B noxious weeds observed on the site) is required by Colorado law.

5.5. Non-Statutory Considerations

There is potential for other wildlife, including some big game, to occur within the site. However, no big game migratory routes traverse the Project. In addition, ranges for several migratory birds, including the state-threatened burrowing owl, overlap the Project area, though habitat for burrowing owls is not present based on the lack of prairie dog presence. Coordination with CPW would determine the appropriate avoidance measures to take during and after construction regarding general wildlife. Impacts to wildlife should be reduced as much as practical through the implementation of typical covenants, such as using bear-resistant trash containers and fencing that allows safe passage for game animals.

Should you have any questions regarding the information or recommendations provided in this report, please feel free to contact Bristlecone Ecology at dmaynard@bristleconeecology.com.

Sincerely,

Bristlecone Ecology, LLC

A handwritten signature in black ink, appearing to read 'Daniel Maynard', written in a cursive style.

Daniel Maynard
Ecologist

6.0 REFERENCES

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APPENDIX I

PHOTOGRAPHIC LOG



PHOTO 1 – View of the main tributary to East Cherry Creek that flows through the center of the site. This feature is identified in the NHD and NWI data but was found to be just a broad upland swale with no associated wetlands and no defined streambed or banks. Site development will preserve this area as open space, plant stabilizing riparian plants, and increase hydrology to support riparian vegetation.



PHOTO 2 – View of the eastern tributary to East Cherry Creek, showing another broad upland swale with no discernible presence of aquatic features. Vegetation is typical of the rest of the grassland areas of the site.



PHOTO 3 – Near Hodgen Road on the northern boundary of the Project site, showing a depression subject to infrequent ponding along one of the tributaries to East Cherry Creek. While this feature is identified as a palustrine wetland (PABFh) in the NWI data, there is no wetland vegetation and no hydrology present.



APPENDIX II

NOXIOUS WEED MANAGEMENT PLAN



NOXIOUS WEED MANAGEMENT PLAN

for

***Flying Horse North Development
El Paso County, CO***

PREPARED FOR:

Flying Horse North Development
2138 Flying Horse Club Drive
Colorado Springs, CO 80921
Contact: Drew Balsick

PREPARED BY:

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February 2022

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APPENDICES

APPENDIX I: COLORADO STATE NOXIOUS WEED LIST

EXECUTIVE SUMMARY

Bristlecone Ecology, LLC (“Bristlecone”) was retained by Flying Horse North Development (“Applicant”) to prepare a Noxious Weed Management Plan (“Plan”) for the proposed Flying Horse North mixed-use development (“Project”), located in unincorporated El Paso County, Colorado. The Project would develop approximately 1,571 residential lots, a hotel with approximately 225 rooms, a 19-hole golf course, commercial space, open space tracts, stormwater detention facilities, arterial roads, utilities, and other associated facilities and infrastructure. The Project is located on approximately 1,486 acres of undeveloped land southwest of the intersection of Hodgen Road and Black Forest Road and is bounded by scattered rural residential development on all sides.

This Plan is a Project-specific document that has been designed to set forth Project-level regulations to prevent and control the spread of noxious weeds within the Project area and vicinity. Noxious weeds are defined as those non-native plants that aggressively invade and are detrimental to native vegetation communities and ecosystems. The *Colorado State Noxious Weed Act* (Colorado Revised Statute 35-5.5-103) developed a list of plants considered noxious in the state of Colorado that should be targeted for control by various methods dependent on list category (A, B, or C). The Plan shall tier to the requirements set forth by the El Paso County (EPC) Noxious Weed Management Plan (2017a), which contains guidelines for control and treatment of noxious weeds found in the County. EPC requires that residential projects that include ground disturbing activities submit a project-specific noxious weed management plan. This Plan provides methods to prevent and control the spread of noxious weeds at construction and post-construction phases of the Project.

Scattered and isolated concentrations of noxious weeds were found throughout portions of the site. Scattered populations of Scotch thistle (*Onopordum acanthium*) were present throughout the site in isolated areas. Both diffuse knapweed (*Centaurea diffusa*) and spotted knapweed (*Centaurea stoebe*) were observed throughout most of the site in small quantities. All three species are List B species that require treatment in Colorado.

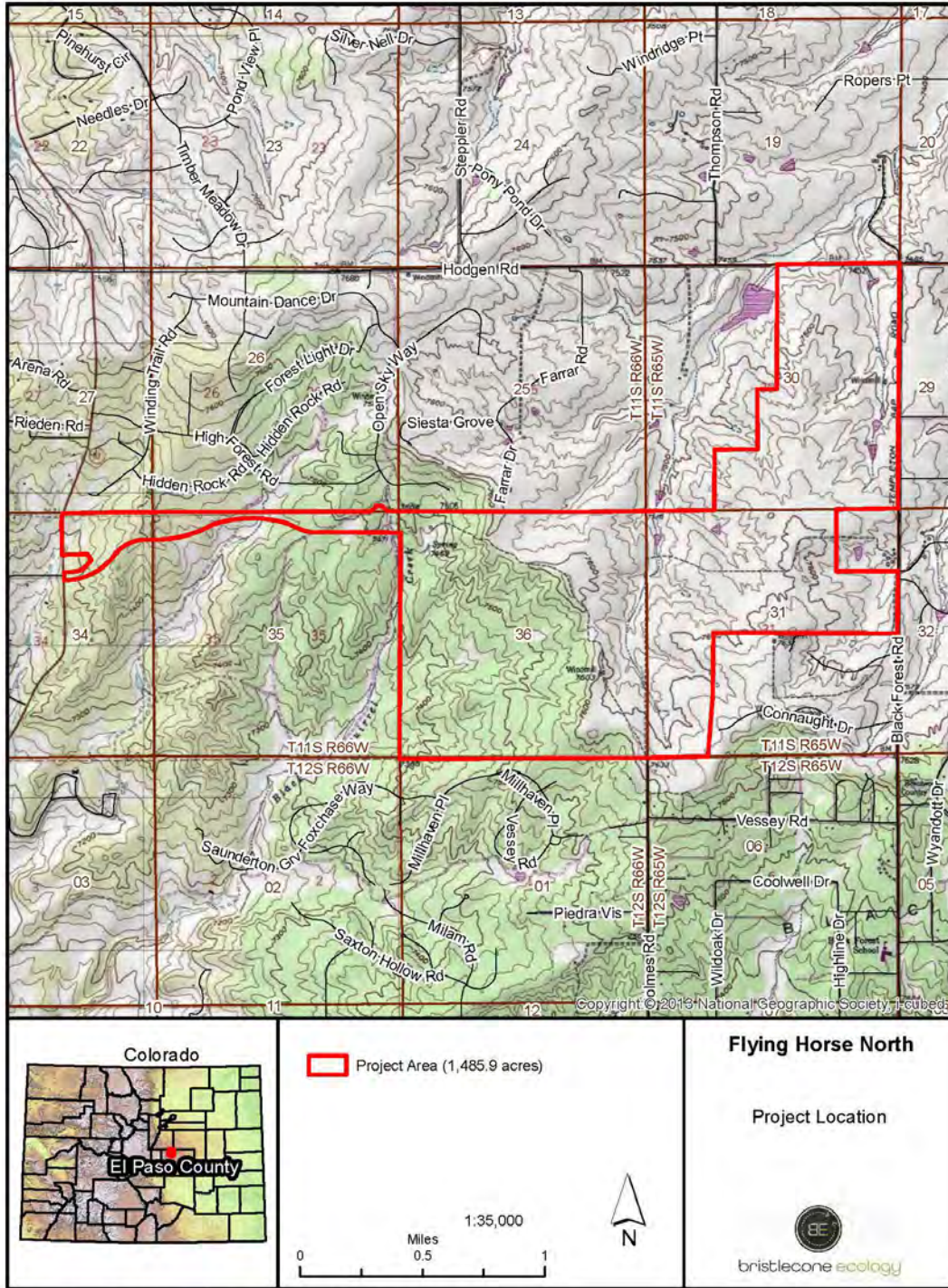
1.0 INTRODUCTION AND PROJECT LOCATION

Flying Horse North Development (“Applicant”) retained Bristlecone Ecology, LLC (“Bristlecone”) to prepare a Noxious Weed Management Plan (“Plan”) for the proposed Flying Horse North mixed use development project (“Project”) located in El Paso County (EPC), Colorado. The Project would develop approximately 1,571 residential lots, a hotel with approximately 225 rooms, a 19-hole golf course, commercial space, open space tracts, stormwater detention facilities, arterial roads, utilities, and other associated facilities and infrastructure. The Project is located on approximately 1,486 acres of undeveloped land southwest of the intersection of Hodgen Road and Black Forest Road and is bounded by scattered rural residential development on all sides (**Figure 1: Project Location Map**). The site is located on portions of Sections 30 and 31 in Township 11S, Range 65W, and in portions of Sections 34, 35, and 36 in Township 11S, Range 66W, and can be found on the U.S. Geological Survey’s (USGS) Black Forest 7.5-minute quadrangle and Monument 7.5-minute quadrangle (USGS 2020).

The Project area is located on the border of two ecoregions: the Foothill Grasslands ecoregion and the Pike-Oak Woodlands ecoregion (Chapman et al. 2006). Topography of the Project consists mainly of rolling grasslands and ponderosa pine (*Pinus ponderosa*) forests with some steeper gulches, and is bordered on all sides by rangeland and scattered rural residential development. The pine woodlands of the Black Forest cover roughly the western half of the site, while grasslands dominate the eastern and northern portions of the property. The Foothills Grasslands Ecoregion is composed of a mixture of tall and mid-grasses and isolated pine woodlands; conversely, the Pine-Oak Woodlands are mainly forests of both pines and scrubby oaks that form a mosaic with the prairies to the east (Chapman et al. 2006). Dominant species in both ecoregions include little bluestem (*Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), yellow Indiangrass (*Sorghastrum nutans*), Junegrass (*Koeleria macrantha*), mountain muhly (*Muhlenbergia montana*), needle-and-thread (*Hesperostipa comata*), and Gambel oak (*Quercus gambelii*) (Chapman et al. 2006).

Elevations of the Project site range between approximately 7,360 and 7,620 feet above mean sea level (AMSL). The Project site contains no Colorado Natural Heritage Conservation Areas or Potential Conservation Areas according to the CNHP (2022), and according to the USFWS’ Information for Planning and Conservation (IPaC; 2022), does not contain Wildlife Refuges or Hatcheries. The area has been used historically as rangeland, but residential and commercial development is increasing steadily.

Figure 1: Project Location Map



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2.0 NOXIOUS WEED MANAGEMENT BACKGROUND

The spread of invasive species roughly mirrors the rise in human travel and commerce (Mack *et al.* 2000 and Sheley *et al.* 1996). Many noxious weeds have been identified as aggressive, weather resistant, escaped ornamentals from residential landscapes (Westbrooks 1998). *The Federal Noxious Weed Act* (7 U.S.C. 2801 *et seq.*; 88 Stat. 2148) was enacted in 1975 in an effort to halt the spread of noxious weeds across the country. Following guidelines set forth by the *Federal Noxious Weed Act*, Colorado passed the *Colorado Noxious Weed Act* (“Act”; C.R.S. 35-5.5-103) in 1990. The Act identified noxious weeds particular to the landscape of Colorado. As defined in the Act, noxious weeds are any non-native plant that:

- aggressively invades or is detrimental to economic crops or native plant communities;
- is poisonous to livestock;
- is a carrier of detrimental insects, diseases, or parasites;
- or is detrimental, either by direct or indirect effects, to the environmentally sound management of natural or agricultural ecosystems.

The Act was amended in 2002 to require counties to establish individual management plans relevant to local municipalities. EPC developed the *El Paso County Noxious Weed Management Plan* in 2003 (updated in 2017) to identify county-level noxious weed management practices that would preserve the economic and environmental value of EPC lands (EPC 2017a). Disturbed areas are vulnerable to infestation from noxious weeds due to the aggressive nature by which noxious weeds can spread. Construction activities including clearing, grading, and excavation promote the establishment of noxious weed species before native vegetation can reestablish within the cleared area. As such, the *EPC Noxious Weed Management Plan* requires integrated management plans for any activities requiring dirt moving activities within El Paso County (EPC 2017a). Project-specific integrated management plans should include methods to prevent, control, and monitor the spread of noxious weeds and should take into account the multiple methods by which noxious weeds germinate. Annuals typically reproduce through seed which can easily attach to equipment during construction activities. Perennials often propagate through an extensive root system. Ground disturbing activities have the potential to redistribute root sections that could quickly propagate in other areas. Because of the multiple methods by which noxious weeds spread and propagate, integrated management plans should outline education and native revegetation methods, in addition to chemical control methods (EPC 2017a).

3.0 NOXIOUS WEED MANAGEMENT PLAN

3.1 Purpose and Goals

Construction of Project facilities will occur over several months. Upon completion of construction, the Project will consist of approximately 1,571 residential lots, a hotel with approximately 225 rooms, a 19-hole golf course, commercial space, open space tracts, stormwater detention facilities, arterial roads, utilities, and other associated facilities and infrastructure. It is anticipated that noxious weeds will concentrate along road medians and highly trafficked areas within the development areas. As such, this integrated management plan includes construction and maintenance methods to prevent, control, and monitor the spread of identified noxious weed populations within the Project. It will be the responsibility of the Homeowners' Association (HOA), should one be formed, or other controlling entity, to establish covenants to prevent and control the spread of noxious weeds. Typically, an HOA will contract a licensed herbicide applicator to seasonally survey and spray for noxious weeds throughout the development as necessary. Additionally, communal landscaped areas should be regularly mowed and treated for noxious weeds. Integrated management methods shall include the following:

- surveys to inventory and map established noxious weed populations;
- sharing of data with EPC to aid in EPC level inventory;
- chemical treatment of all identified noxious weed populations;
- and periodic post-construction treatment as needed and as determined by the HOA or other controlling entity.

Management methods identified within this Plan will comply with *Chapter 6: General Development Standards of the EPC Land Development Code (EPC 2017b)*, the *EPC Noxious Weed Management Plan (EPC 2017a)* and the Act (Colorado Revised Statutes 35-5.5-103). Biological control methods are not included due to the prohibition of their use on plants targeted for eradication by the Colorado Weed Management Association (CWMA) (2015). Noxious weed species targeted would be those identified in the Act, with special consideration for those species listed in the *EPC Noxious Weeds and Control Methods (EPC 2018)*.

3.2 Regulated Species

The Act identifies three levels of priority for control of noxious weeds throughout the State of Colorado ("State"). The CWMA maintains an updated list of noxious weeds known to occur in the State. CWMA also maintains a "watch list" of noxious weeds that occur in proximity to State borders and/or those species with a distribution that is not yet understood (**Appendix I: Colorado State Noxious Weed List**). List A noxious weeds are those species targeted for eradication. List A noxious weed populations are typically isolated in nature or rare throughout much of the State (*Colorado Revised Statutes 35-5.5-103*). Eradication and reporting of List A populations is required by law (Colorado Department of Agriculture [CDA] 2006). List B species are discretely distributed throughout the State and must be eradicated, contained, or suppressed (*Colorado Revised Statutes 35-5.5-103*). EPC requires control of all List B noxious weed populations located within the Project area (EPC 2017a). List C noxious weed populations are widespread and well established. EPC requires control of List C species through education of the public and/or chemical control (EPC 2017a).

3.3 Construction

Noxious weed management protocols during construction include prevention and treatment. Prevention and treatment shall be accomplished at the Project through surveys of construction easements, followed by primary chemical treatment. Initial inventory surveys shall occur separately from treatment, but both shall be completed before initial ground disturbing activities commence.

Noxious weed surveys shall be conducted within all construction easements prior to any ground disturbing activities. Surveyors shall use GPS units to collect data on noxious weed populations. Data collected for List C populations shall include species and general coordinates of population; data collected for List A and List B populations shall include species, coordinates for the approximate center of each identified population, and the approximate radius of the infestation. EPC shall receive a map of identified noxious weed populations within the Project. Should surveyors locate List A species, the specific data collected shall be sent to EPC. Treatment type shall be selected depending on the priority rank of the noxious weed species (List A, B, or C), and the location and density of the infestation. Chemical treatment shall include herbicide application; the suggested chemical treatment protocol is described below.

List A species must be eradicated by law (USDA 2006). Should surveyors identify List A species, a plant sample shall be collected for positive identification through EPC's Environmental Division. Upon positive confirmation of a List A species, hand pulling of the population shall be performed to remove the mechanism for creation of a seed-bank. Chemical treatment shall be applied to the area and shall be selected in compliance with the *EPC Noxious Weeds and Control Methods* (EPC 2018). List B species shall be chemically treated with an herbicide selected in compliance with the *EPC Noxious Weeds and Control Methods* (EPC 2018). Herbicide selection may vary depending upon the time of year and the life cycle of the plant. All herbicide application shall occur concurrent with initial ground disturbing activities. The herbicide applicator shall treat noxious weed populations with EPC recommended chemicals (EPC 2017a). Bristlecone recommends not treating List C noxious weeds; List C noxious weeds are well established and difficult to treat since many have hardy seed beds that are not affected by herbicide application. Rather than completely eradicate List C populations, herbicide applicators manage populations with continued seasonal treatments. A more efficient protocol would be to avoid List C weeds to the greatest extent possible during construction. It is anticipated that an HOA or other controlling entity will treat all noxious or weedy species within development areas post-construction, including List C species, and will maintain a weed-free landscape within the Project.

Additional construction phase noxious weed management protocols shall include prevention and maintenance. Contractors shall prevent the spread of noxious weeds through the use of clean equipment and through treatment of all List A and List B populations concurrent with initial ground disturbing activities. Heavy equipment used on the site shall be washed and sprayed before mobilization on the Project. Doing so shall ensure that soils and seeds are not transported from other sites. Noxious weed treatment shall occur to areas slated for ground disturbance or immediately after initial ground disturbance activities. Doing so will ensure that active List A and List B noxious weed populations will become inactive and/or effectively managed throughout the construction phase of the Project.

It is anticipated that portions of the Project will be landscaped, including open spaces. Top-soil sources for landscaped areas shall be provided from native, on-site top-soil. Any salvaged top-soil piles shall be treated for noxious weeds and maintained and protected from erosion and/or noxious weed establishment during construction through Best Management Practices (BMPs) identified in the Project's Grading, Erosion, and Sediment Control (GESC) Plan.

3.5 Post-Construction

Post-construction noxious weed management protocols shall be limited to maintenance treatment, as needed and as determined by the HOA or other controlling entity. It is anticipated that any landscaped areas of the Project, including private lots, will require seasonal noxious weed treatment and maintenance. Bristlecone notes that any existing List A and List B noxious weed populations should be treated concurrent with construction. Treatment of the site concurrent with initial ground disturbing activities may halt the spread of List A and List B noxious weeds in the immediate vicinity of the Project. However, noxious weed populations may persist on the Project's periphery. It shall be the HOA's responsibility to identify and treat any persistent noxious weed populations on the Project site.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Noxious weeds are present on the Project site in several areas ranging from widespread but limited distribution to isolated, but no large concentrations are present. There were no large, monotypic stands of noxious weeds present. Other scattered populations of noxious weeds were found throughout various portions of the site. Noxious weeds that were detected during the site reconnaissance included:

List B

- Scotch thistle
- Diffuse knapweed
- Spotted knapweed

List C

- Common mullein (*Verbascum thapsus*)

Scotch thistle was sparsely distributed in isolated pockets throughout uplands. Both diffuse knapweed and spotted knapweed were observed in small quantities throughout most of the site. It is possible that additional noxious weed populations may be present on the site. A site inventory to identify and map noxious weeds during the growing season would be required to accurately catalogue all populations on the site.

The Flying Horse North Noxious Weed Management Plan was written to comply with guidelines in the Colorado Noxious Weed Act (Colorado Revised Statutes 35-5.5-103) and the EPC Noxious Weed Management Plan. Bristlecone recommends that the Applicant conduct sitewide surveys for all noxious weed populations and treat any List A and List B noxious weed populations observed within the Project area. The HOA (or other controlling entity) shall be responsible for maintaining a weed-free property following construction. Typically, chemical treatment is applied between late spring and early fall depending on the recommended treatment protocols for each noxious weed species (EPC 2017a).

Should you have any questions regarding this or any other matter, please feel free to contact our office at (971) 237-3906.

Sincerely,
Bristlecone Ecology, LLC



Daniel Maynard

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APPENDIX I

COLORADO STATE NOXIOUS WEED LIST



Colorado Noxious Weeds (including Watch List), effective March 31, 2017

List A Species (25)

<i>Common</i>	<i>Scientific</i>
African rue	<i>(Peganum harmala)</i>
Bohemian knotweed	<i>(Polygonum x bohemicum)</i>
Camelthorn	<i>(Alhagi maurorum)</i>
Common crupina	<i>(Crupina vulgaris)</i>
Cypress spurge	<i>(Euphorbia cyparissias)</i>
Dyer's woad	<i>(Isatis tinctoria)</i>
Elongated mustard	<i>(Brassica elongata)</i>
Flowering rush	<i>(Butomus umbellatus)</i>
Giant knotweed	<i>(Polygonum sachalinense)</i>
Giant reed	<i>(Arundo donax)</i>
Giant salvinia	<i>(Salvinia molesta)</i>
Hairy willow-herb	<i>(Epilobium hirsutum)</i>
Hydrilla	<i>(Hydrilla verticillata)</i>
Japanese knotweed	<i>(Polygonum cuspidatum)</i>
Meadow knapweed	<i>(Centaurea nigrescens)</i>
Mediterranean sage	<i>(Salvia aethiopsis)</i>
Medusahead	<i>(Taeniatherum caput-medusae)</i>
Myrtle spurge	<i>(Euphorbia myrsinites)</i>
Orange hawkweed	<i>(Hieracium aurantiacum)</i>
Parrotfeather	<i>(Myriophyllum aquaticum)</i>
Purple loosestrife	<i>(Lythrum salicaria)</i>
Rush skeletonweed	<i>(Chondrilla juncea)</i>
Squarrose knapweed	<i>(Centaurea virgata)</i>
Tansy ragwort	<i>(Senecio jacobaea)</i>
Yellow starthistle	<i>(Centaurea solstitialis)</i>

List B Species (40)

<i>Common</i>	<i>Scientific</i>
Absinth wormwood	<i>(Artemisia absinthium)</i>
Black henbane	<i>(Hyoscyamus niger)</i>
Bull thistle	<i>(Cirsium vulgare)</i>
Bouncingbet	<i>(Saponaria officinalis)</i>
Canada thistle	<i>(Cirsium arvense)</i>
Chinese clematis	<i>(Clematis orientalis)</i>
Common tansy	<i>(Tanacetum vulgare)</i>
Common teasel	<i>(Dipsacus fullonum)</i>
Corn chamomile	<i>(Anthemis arvensis)</i>
Cutleaf teasel	<i>(Dipsacus laciniatus)</i>
Dalmatian toadflax, broad-leaved	<i>(Linaria dalmatica)</i>
Dalmatian toadflax, narrow-leaved	<i>(Linaria genistifolia)</i>
Dame's rocket	<i>(Hesperis matronalis)</i>
Diffuse knapweed	<i>(Centaurea diffusa)</i>

List B Species (40) continued

<i>Common</i>	<i>Scientific</i>
Eurasian watermilfoil	(<i>Myriophyllum spicatum</i>)
Hoary cress	(<i>Cardaria draba</i>)
Houndstongue	(<i>Cynoglossum officinale</i>)
Jointed goatgrass	(<i>Aegilops cylindrica</i>)
Leafy spurge	(<i>Euphorbia esula</i>)
Mayweed chamomile	(<i>Anthemis cotula</i>)
Moth mullein	(<i>Verbascum blattaria</i>)
Musk thistle	(<i>Carduus nutans</i>)
Oxeye daisy	(<i>Leucanthemum vulgare</i>)
Perennial pepperweed	(<i>Lepidium latifolium</i>)
Plumeless thistle	(<i>Carduus acanthoides</i>)
Russian knapweed	(<i>Acroptilon repens</i>)
Russian-olive	(<i>Elaeagnus angustifolia</i>)
Salt cedar	(<i>Tamarix chinensis, T. parviflora, and T. ramosissima</i>)
Scentless chamomile	(<i>Tripleurospermum perforata</i>)
Scotch thistle	(<i>Onopordum acanthium, O. tauricum</i>)
Spotted knapweed	(<i>Centaurea stoebe</i>)
Spotted x diffuse knapweed hybrid	(<i>Centaurea x psammogena = C. stoebe x C. diffusa</i>)
Sulfur cinquefoil	(<i>Potentilla recta</i>)
Wild caraway	(<i>Carum carvi</i>)
Yellow nutsedge	(<i>Cyperus esculentus</i>)
Yellow toadflax	(<i>Linaria vulgaris</i>)
Yellow x Dalmatian toadflax hybrid	(<i>Linaria vulgaris x L. dalmatica</i>)

List C Species (16)

<i>Common</i>	<i>Scientific</i>
Bulbous bluegrass	(<i>Poa bulbosa</i>)
Chicory	(<i>Cichorium intybus</i>)
Common burdock	(<i>Arctium minus</i>)
Common mullein	(<i>Verbascum thapsus</i>)
Common St. Johnswort	(<i>Hypericum perforatum</i>)
Downy brome	(<i>Bromus tectorum</i>)
Field bindweed	(<i>Convolvulus arvensis</i>)
Halogeton	(<i>Halogeton glomeratus</i>)
Johnsongrass	(<i>Sorghum halepense</i>)
Perennial sowthistle	(<i>Sonchus arvensis</i>)
Poison hemlock	(<i>Conium maculatum</i>)
Puncturevine	(<i>Tribulus terrestris</i>)
Quackgrass	(<i>Elymus repens</i>)
Redstem filaree	(<i>Erodium cicutarium</i>)
Velvetleaf	(<i>Abutilon theophrasti</i>)
Wild proso millet	(<i>Panicum miliaceum</i>)



Watch List Species (24)

<i>Common</i>	<i>Scientific</i>
Asian mustard	<i>(Brassica tournefortii)</i>
Baby's breath	<i>(Gypsophila paniculata)</i>
Bathurst burr, Spiney cocklebur	<i>(Xanthium spinosum)</i>
Brazilian egeria, Brazilian elodea	<i>(Egeria densa)</i>
Common bugloss	<i>(Anchusa officinalis)</i>
Common reed	<i>(Phragmites australis)</i>
Garden loosestrife	<i>(Lysimachia vulgaris)</i>
Garlic mustard	<i>(Alliaria petiolata)</i>
Himalayan blackberry	<i>(Rubus armeniacus)</i>
Hoary alyssum	<i>(Berteroa incana L.)</i>
Japanese blood grass/cogongrass	<i>(Imperata cylindrica)</i>
Meadow hawkweed	<i>(Hieracium caespitosum)</i>
Onionweed	<i>(Asphodelus fistulosus)</i>
Purple pampas grass	<i>(Cortaderia jubata)</i>
Scotch broom	<i>(Cytisus scoparius)</i>
Sericea lespedeza	<i>(Lespedeza cuneata)</i>
Swainsonpea	<i>(Sphaerophysa salsula)</i>
Syrian beancaper	<i>(Zygophyllum fabago)</i>
Water hyacinth	<i>(Eichhornia crassipes)</i>
Water lettuce	<i>(Pistia stratiotes)</i>
White bryony	<i>(Bryonia alba)</i>
Woolly distaff thistle	<i>(Carthamus lanatus)</i>
Yellow flag iris	<i>(Iris pseudacorus)</i>
Yellow floatingheart	<i>(Nymphoides peltata)</i>



APPENDIX III

ENDANGERED SPECIES ACT CONSULTATION REQUEST LETTER



U.S Fish and Wildlife Service
Colorado Ecological Services Field Office
134 Union Boulevard, Suite 670
Lakewood, CO 80228

January 19, 2022

**RE: Informal Endangered Species Act Consultation
Flying Horse North Development
El Paso County, Colorado
TAILS: 06E24000-2016-TA-0664**

To Whom It May Concern:

This consultation request is being submitted in accordance with the requirements for initial consultation pursuant to the Endangered Species Act (ESA). Flying Horse Development, LLC (“Applicant”) is planning a mixed-used development project (“Project”) to be located along Stagecoach Road between Black Forest Road and State Highway 83 in unincorporated El Paso County (“County”), Colorado (**Attachment A:** Project Location Map). The Project will be located on approximately 1,444 acres and will consist of up to 1,275 total low, medium, and high density residential lots, as well as a 19-hole golf course and golf club, a hotel complex, commercial parcels, arterial and local roads, stormwater detention facilities, and other attendant infrastructure and facilities. The Project has previously been submitted to the County for review and permitting, and 81 low density estate lots and much of the golf course have been completed on the west side of the site. As a referral agency to the County during platting, the U.S. Fish and Wildlife Service (USFWS), in a letter dated August 29th, 2016, determined that the Project would be unlikely to directly affect listed species (TAILS Number: 06E24000-2016-TA-0664). Since the initial consultation with USFWS is dated, and at the Applicant’s request for verification that the proposed Project will not affect threatened or endangered species, Bristlecone Ecology, LLC (“B.E.”) has prepared this request for an ESA consultation and effects determination. Attached please find supporting location information, including a description of the anticipated environmental impact area (EIA), and anticipated impacts to threatened and endangered species (including proposed and candidate species) and their respective habitats. The Applicant is requesting technical assistance and an effects determination for the eastern portion of the site which has not been developed.

After reviewing the lists of threatened, endangered, proposed, and candidate species/critical habitat developed by the USFWS and considering the effects of the proposed activity within the anticipated EIA, B.E. has determined that no species warranting protection under the ESA would be affected by the subject activity for the following reason:

- A qualified ecologist with B.E. has determined that there is no potential to impact federally protected species/critical habitat and has provided supporting documentation.

B.E. reviewed the USFWS' Information for Planning and Consulting (IPaC) database for information regarding the potential for threatened, endangered, proposed, and candidate species to occur at the Project site and the EIA (USFWS 2022a). IPaC identified nine species as having the potential to occur at the site or in the EIA. Four of these species (piping plover [*Charadrius melodus*], whooping crane [*Grus americana*], pallid sturgeon [*Scaphirhynchus albus*], and Western prairie fringed orchid [*Platanthera praeclara*]) are listed under a conditional effects analysis, and only need to be considered if a project will involve water-related activities and/or use in the N. Platte, S. Platte, or Laramie River basins. These species may be primarily impacted by activities that cause water depletions in the greater Platte River system, activities which are demonstrated to result in adverse effects to these species downstream in Nebraska. A portion of the Project drains to East Cherry Creek, a tributary of the S. Platte River, but because the Project will not deplete water from East Cherry Creek, listed species in Nebraska will not be impacted by development.

The five remaining species listed in the IPaC query were four federally threatened species and one candidate for listing: Preble's meadow jumping mouse (*Zapus hudsonius preblei* or Preble's), greenback cutthroat trout (*Oncorhynchus clarkii stomias* or GCT), Eastern black rail (*Laterallus jamaicensis* ssp. *jamaicensis*), Ute ladies'-tresses orchid (*Spiranthes diluvialis* or ULTO), and monarch butterfly (*Danaus plexippus*). B.E. assessed the Project site for potential habitat to support Preble's meadow jumping mouse, GCT, Eastern black rail, ULTO, and monarch butterfly; each species is discussed individually below.

There is designated Critical Habitat for Preble's approximately 0.30 mile due west of the southwest corner of the Project site. Because the project is not expected to have a federal nexus, the Critical Habitat designation for Preble's will not affect development (**Attachment B**: Preble's Meadow Jumping Mouse Habitat Map). Colorado Parks and Wildlife (CPW) has mapped the estimated occupied range (EOR) for Preble's along the headwaters of Black Squirrel Creek to the west of the Project site, and a small area of the EOR (approximately 1.80 acres) extends into the Project area (**Attachment B**). This portion of the site is entirely in ponderosa pine (*Pinus ponderosa*) forest on a ridgeline, and does not provide suitable habitat for Preble's. Furthermore, the entire site was inspected in 2016 by Core Consultants and USFWS subsequently issued a determination that the development would be unlikely to directly affect listed species (**Attachment C**: Prior USFWS Correspondence). USFWS expressed concerns that the increased stormflow from the development could impact Preble's habitat downstream in the Black Squirrel Creek drainage and provided recommendations for reducing impacts and protecting Black Squirrel Creek's headwaters (**Attachment C**). These recommendations, which included implementing the City of Colorado Springs Drainage Criteria Manual's four-step process, were implemented during the construction of the western portions of the Project, which have largely been completed.

The remaining phases of the Project will develop areas that drain to East Cherry Creek to the north and east rather than Black Squirrel Creek. This portion of the Project site is not suitable habitat for Preble's based on the fact that it is entirely in uplands and not associated with the riparian corridors required to support the species (see **Attachment D: Representative Site Photos**). Because habitat is not present on the site, direct impacts to Preble's are not anticipated. Any potential indirect or cumulative impacts to Preble's will be avoided and minimized by adhering to USFWS guidance for ensuring that stormwater runoff from increased impervious surfaces does not impact habitat downstream in the East Cherry Creek watershed. The attached concept plan shows the proposed location of planned development activities in relations to Filings 1, 2, and 3, which have already been completed (**Attachment E: Proposed Site Plan**).

GCT inhabit cold, clear, gravely headwater streams and mountain lakes that provide an abundant food supply of insects. There are no perennial streams on the site meeting these characteristics. Furthermore, genetic sampling has confirmed that the only remaining native pure-strain population occurs in a four mile stretch of creek outside of its native range in Bear Creek, a small tributary in the Arkansas River Basin (Metcalf et al. 2012). Though the Project is located within the Arkansas River Basin, there is no habitat present suitable for GCT.

Eastern black rail is a subspecies of black rail that occurs east of the Rocky Mountains in North America. Black rails are small, cryptic marsh/wetland specialists, and depend entirely upon these habitats to support their resource needs. They require dense overhead cover (usually cattails [*Typha* spp.] or bulrushes [*Schoenoplectus* / *Scirpus* spp.]) and moist to saturated soils. Eastern black rails have been expanding their range in Colorado over the last decade. The Project area is entirely composed of pine forests and foothills grasslands and does not support any marshes. Since there is no habitat on the Project site that could support Eastern black rails, impacts to the species are not anticipated.

ULTO is a flowering herb that grows in sandy soils in a variety of wet areas associated with streams. It primarily occurs along seasonally flooded river terraces, sub-irrigated or spring-fed abandoned stream channels or valleys, and lakeshores. It may also occur along irrigation canals, berms, levees, irrigated meadows, excavated gravel pits, roadside borrow pits, reservoirs, and other human-modified wetlands. Development of the Project will not affect habitats of this type. In addition, the species is unknown from sites above 7,000 feet in elevation. There are no known populations in El Paso County, and the entire site is above the 7,000-foot elevation where surveys would be required (USFWS 1992; USFWS 2022b). Therefore, impacts to the species are not anticipated and no further investigation is warranted.

Monarch butterfly is a candidate species for listing under the ESA following a status review in December 2020 that determined listing the species was warranted but precluded by work on higher



priority listing actions. The species will remain a candidate for listing and its status will be reviewed on a yearly basis. There are no formal Section 7 requirements for candidate species, but due diligence is encouraged. Similar to Preble's, while there may be accidental obligate host milkweed plants (*Asclepias* spp.) to support monarch butterflies on the site, habitat is very limited, and impacts are not anticipated.

It is B.E.'s professional opinion that no threatened or endangered species (or proposed and candidate species) or their respective critical habitats would be impacted by this proposed activity. Should you determine any disagreement with this assessment please contact Dan Maynard with B.E. at dmaynard@bristleconeecology.com or 971.237.3906. We will await your prompt response before proceeding with the proposed action. Thank you for your attention to this matter.

Sincerely,

Bristlecone Ecology, LLC

Dan Maynard
Owner/Ecologist

CC: Drew Balsick, Flying Horse Development, LLC DrewB@classichomes.com



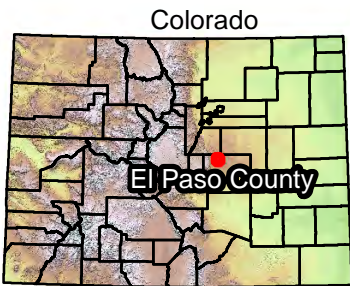
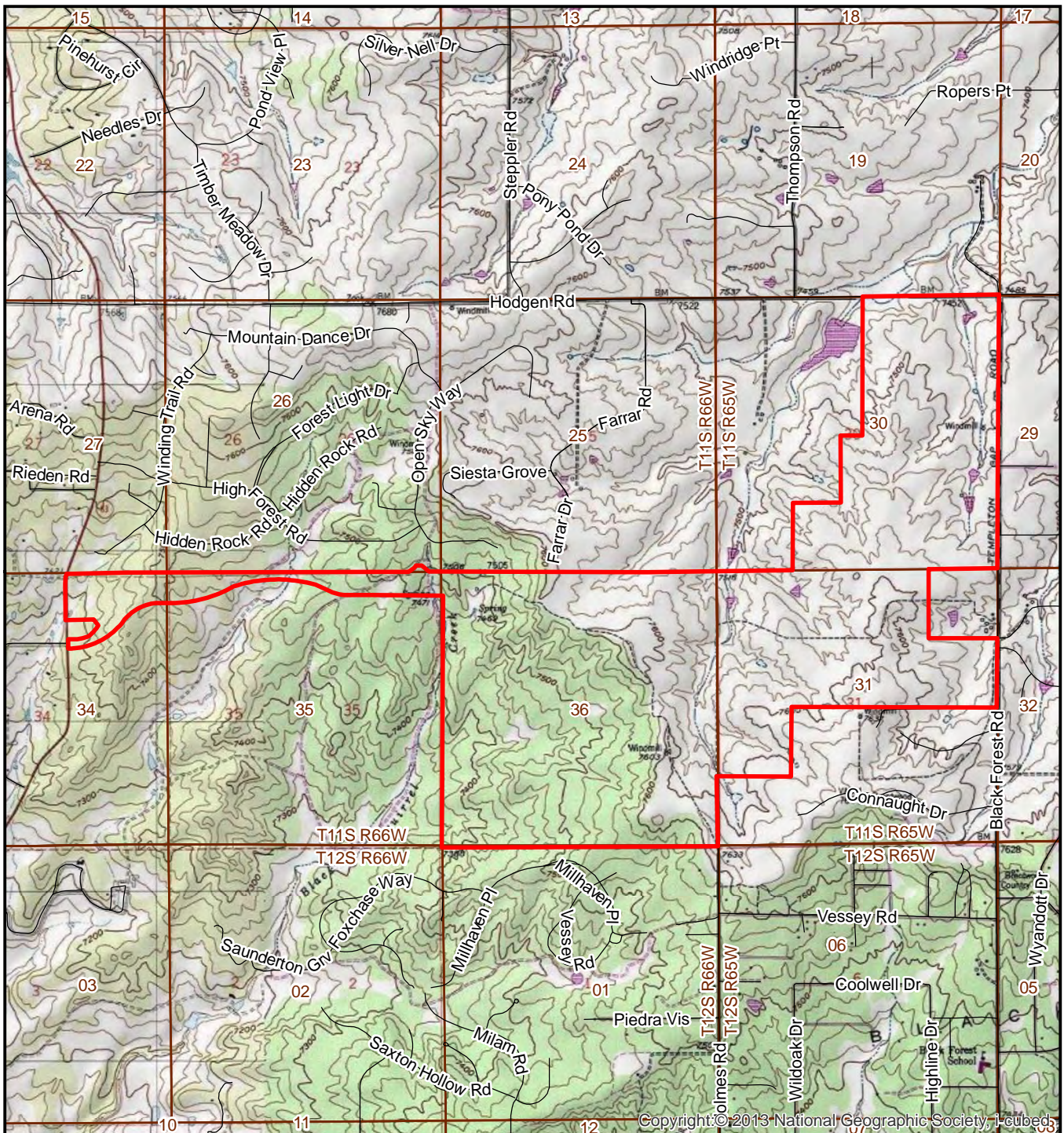
References

- Metcalf, J. L., S. Love Stowell, C. M. Kennedy, K. B. Rogers, D. McDonald, J. Epp, K. Keepers, A. Cooper, J. J. Austin, and A. P. Martin. 2012. Historical Stocking Data and 19th Century DNA Reveal Human-Induced Changes to Native Diversity and Distribution of Cutthroat Trout.” *Molecular Ecology* 21, no. 21 (November 1, 2012): 5194–5207. doi:10.1111/mec.12028.
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- USFWS. 2018. Critical Habitat Portal. Accessed January 13, 2022.
http://ecos.fws.gov/tess_public/profile/speciesProfile? spcode=E00F.
- USFWS. 1992. Interim Survey Requirements for Ute Ladies-tresses’ Orchid (*Spiranthes diluvialis*). https://www.fws.gov/utahfieldoffice/Documents/Plants/SPDI_interimSurveyRequirements_1992.pdf

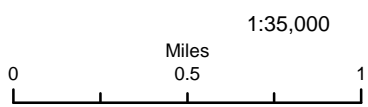


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ATTACHMENT A:
PROJECT LOCATION MAP



 Project Area (1,443.5 acres)



Flying Horse North

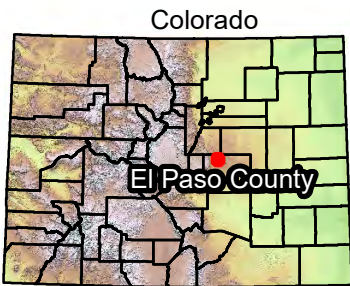
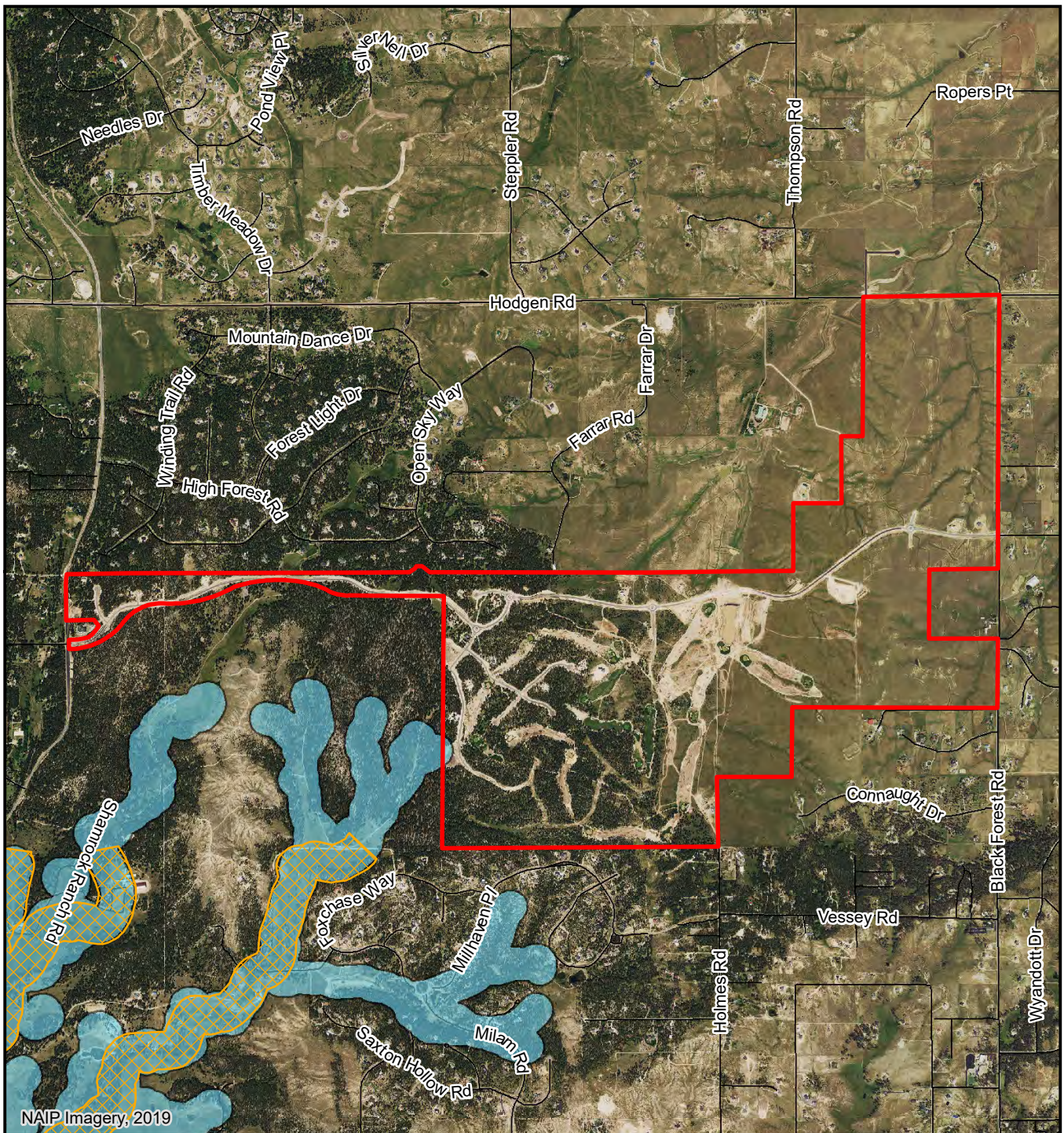
Project Location



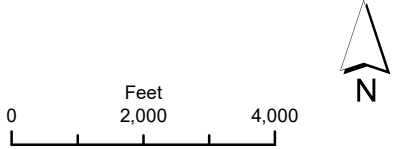


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ATTACHMENT B:
PREBLE'S MEADOW JUMPING MOUSE HABITAT MAP



- Project Area
- CPW Preble's Meadow Jumping Mouse Occupied Range
- USFWS Critical Habitat



Flying Horse North

Preble's Meadow Jumping Mouse Habitat Map



bristlecone ecology



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ATTACHMENT C:
PRIOR USFWS CORRESPONDENCE



United States Department of the Interior

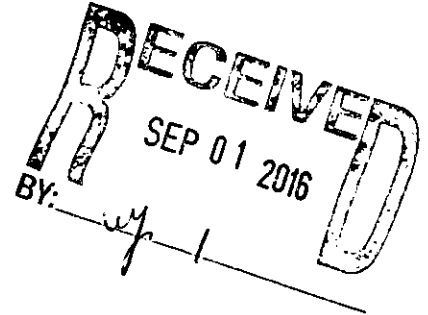


FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
P.O. BOX 25486, Denver Federal Center, Mail Stop 65412
Denver, Colorado 80225-0486

IN REPLY REFER TO
TAILS: 06E24000-2016-TA-0664



AUG 29 2016



Mr. Mike Hrebenar
Project Manager
El Paso County Development Services
2880 International Circle, Suite 110
Colorado Springs, Colorado 80910

Dear Mr. Hrebenar:

Thank you for your Review Agency Comment Sheet (File Number PUD-16-002) dated April 21, 2016, and follow-up letter dated July 28, 2016 to the U.S. Fish and Wildlife Service (Service) regarding the Flying Horse North Planned Unit Development project located in El Paso County, Colorado.

We appreciate the inclusion of an assessment of the proposed project and we interpret your letter to be for technical assistance regarding the likelihood of the described project resulting in effects to threatened or endangered species ("listed species"). Section 9 of the Endangered Species Act as amended (16 USC 1531 et seq.) prohibits any action that would likely result in "take" of a listed species (take is defined by the Act as to harass, harm, pursue, hunt, shoot, wound kill, trap, capture, or collect or attempt to engage in any such conduct of listed species). Based on the information presented in your assessment, and the Service's understanding of the nature of the project, local conditions, and current information on listed species and their habitat, it seems unlikely that the project will result in direct effects to listed species within the project area. However, we are concerned that the addition of the project's increase in impervious surfaces could increase stormflow in the watershed and impact habitat for the federally threatened Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*) downstream on Black Squirrel Creek.

Due to this potential for impacts downstream of the project area, we strongly encourage adherence to, and maximum implementation of the drainage control requirements outlined in the City of Colorado Springs Drainage Criteria Manual's "four-step process". Specifically, this should include (1) widespread integration of Low Impact Development (LID) and Minimize Directly Connected Impervious Area (MDCIA) techniques in the development master plan, (2) extensive use of full-spectrum detention to reduce runoff peaks and volumes, (3) incorporation of full-spectrum Water Quality Capture Volume (WQCV) facilities that maximize both water quality and volume reduction benefits, and (4) stabilization of drainageways, to include Constructed Wetland Channels and Constructed Natural Channels to mitigate the effects of hydro-modification and to enhance habitat values. This is fully explained in the attached Drainage Criteria-Volume 2 document.

Protecting the headwater of Black Squirrel Creek is important for sustaining the remaining high-value habitat for the Preble's Meadow Jumping Mouse. Conservation of the headwater drainages will also make future habitat restoration projects - especially those downstream that reconnect a habitat linkage with Monument Creek - more viable and sustainable. In this regard, we also recommend that it would be beneficial for you to engage with the Monument Creek Watershed Flood Restoration Master Plan team to discuss in detail specific watershed protection projects and strategies.

We appreciate your request for assistance, so to provide you information at the earliest planning stages as possible, we have also attached a list of locally developed recommendations for the species that may occur in or near the project area. We recommend that wherever possible, these measures, in addition to those outlined above, be incorporated into project planning and implementation. The intent of these recommendations is to increase compatibility between species' conservation and the proposed project.

We encourage you to contact us again if the scope of the project changes or new information indicates that the project may result in take of listed species. If you have any questions on this matter, please contact Sarah Backsen, Acting Deputy Field Supervisor, at 303-236-4779.

Sincerely,

A handwritten signature in black ink, appearing to read "Drue L. DeBerry". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

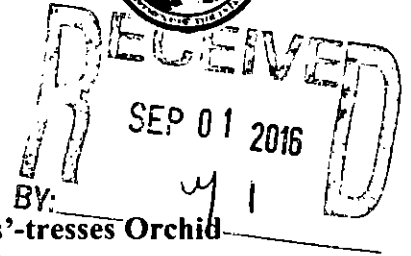
Drue L. DeBerry
Acting Colorado Field Supervisor

Enclosures: Conservation Recommendations; Drainage Criteria-Volume 2



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
P.O. BOX 25486, Denver Federal Center, Mail Stop 65412
Denver, Colorado 80225-0486



Attachment – Conservation Recommendations

Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*), Ute Ladies'-tresses Orchid (*Spiranthes diluvialis*), Colorado butterfly plant (*Oenothera coloradensis*)

PRE-CONSTRUCTION DESIGN:

1. Design the project to avoid and minimize the permanent and temporary impacts to riparian and adjacent upland habitats.

- a. Before construction, identify and prioritize riparian and adjacent upland habitats within the project area. Design the project so that it avoids these habitats whenever possible.
- b. Minimize the amount of concrete, riprap, bridge footings, and other "hard," impermeable engineering features within the stream channel and riparian or adjacent upland habitats.
- c. Use bioengineering techniques to stabilize stream banks.
- d. Minimize the number and footprint of access routes, staging areas, and work areas.
- e. Locate access routes, staging areas, and work areas within previously disturbed or modified non-habitat areas.
- f. Maintain habitat connectivity under bridges or through culverts by installing ledges or dry culverts adjacent to the culverts with water flow.
- g. Avoid fragmenting linear riparian corridors.

2. Install limits of work fencing (e.g., orange barrier netting or silt fencing), signage, or other visible markers to delineate access routes and the project area from habitats. Use this fencing to enforce no-entry zones.

3. Hold a preconstruction briefing for onsite personnel to explain the limits of work and other conservation measures.

4. Follow regional storm water guidelines and design best management practices (BMPs) to control contamination, erosion, and sedimentation, such as silt fences, silt basins, gravel bags, and other controls needed to stabilize soils in denuded or graded areas, during and after construction.

5. Locate utilities along existing road corridors, and if possible, within the roadway or road shoulder.

- a. Bury overhead utilities whenever possible.
- b. Directionally bore utilities and pipes underneath habitats.

6. Develop and implement a habitat restoration plan that addresses site preparation, planting techniques, control of non-native weeds, native seed mixtures, and post-construction monitoring.

PROJECT IMPLEMENTATION:

- 7. Contact the Service immediately by telephone at (303) 236-4773 if a Preble's is found alive, dead, injured, or hibernating within the project area. Please also contact the Service if any other listed species are found within the project area.
- 8. To the maximum extent practicable, limit disturbing (e.g., crushing, trampling) or removing (e.g., cutting, clearing) all vegetation, such as willows, trees, shrubs, and grasses within riparian and adjacent upland habitats.
 - a. Restrict the temporary or permanent removal of vegetation to the footprint of the project area.
 - b. Minimize the use of heavy machinery and use smaller equipment when possible.
 - c. Soil compaction: Temporarily line access routes with geotextiles or other materials, especially in wet, unstable soils to protect roots and the seed bank.
- 9. Use the attached table to track the acres or square feet of riparian and upland habitats temporarily or permanently affected by the response activities.
 - a. Temporary Impacts: Native vegetation and habitats will reestablish following rehabilitation (e.g., access route that is rehabilitated with native, weed-free seeds and plants).
 - b. Permanent Impacts: Riparian or upland habitats will not return as a result of project activities (e.g., road surface, concrete footings)
- 10. Track the volumes of any water from onsite sources stored or used for dust abatement, soil compaction, concrete mixing, or other activities.
- 11. Locate, store, stage, operate, and refuel equipment outside of riparian or adjacent upland habitats.
 - a. Operate equipment from previously disturbed or modified roadbeds or road shoulders above the riparian habitats.
 - b. Limit the number of entrance and exit points leading into the project area.

- c. Stockpile topsoil and debris outside the riparian corridor and protect from stream flows or runoff.
12. During the Preble's active season (May 1 through November 1), work only during daylight hours to avoid disrupting Preble's nocturnal activities.
 13. Promptly remove waste to minimize site disturbance and avoid attracting predators.
 14. Cover exposed holes or piles of loose dirt with boards, tarps, or other materials to prevent entrapment.
 15. Use best management practices (BMPs) to limit construction-related disturbance, such as soil compaction, erosion, and sedimentation, and to prevent the spread of invasive weeds;
 - a. Soil compaction: Establish one access route for workers, vehicles, and machinery, preferably along a previously disturbed surface or route.
 - b. Soil compaction: Temporarily line access routes with geotextiles or other materials, especially in wet, unstable soils.
 - c. Weed control: Wash and inspect vehicles and equipment before entering or leaving the project area so that they are free of noxious weed seeds and plant parts.
 - d. Weed control: Use only weed free certified materials, including gravel, sand, top soil, seed, and mulch.
 16. Complete construction before beginning restoration or enhancement activities.

POST-CONSTRUCTION:

17. Upon project completion, revegetate all disturbed areas with native shrubs, trees, and grasses.
 - a. Rip compacted access routes prior to replanting with native vegetation.
 - b. Fill and reseed with weed free material and native seed mixtures.
 - c. Consult the Service before finalizing a seed and plant list.
18. Bury riprap, then plant with native riparian vegetation.
19. Rehabilitate adjacent habitats impacted by floodwaters to restore connectivity and prevent future impacts from erosion or sedimentation.
20. Consider monitoring the revegetated areas for success. The Service can help establish success criteria during the consultation process.



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ATTACHMENT D:
REPRESENTATIVE SITE PHOTOS



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ATTACHMENT E:
PROPOSED SITE PLAN

LEGEND

- FILING 1
- FILING 2
- FILING 3
- REMAINING FILINGS

