



S. Natural Landforms, Vegetation, and Wetlands Report

For

Williams Creek Generating Station



NATURAL LANDFORMS, VEGETATION, AND WETLANDS REPORT

for

***Williams Creek Generating Station
El Paso County, CO***

PREPARED FOR:

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September 28, 2026

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1.0 INTRODUCTION

Colorado Springs Utilities (“CSU” or “Applicant”) has retained Bristlecone Ecology, LLC (“B.E.” or “Agent”) to perform field assessments and prepare a Natural Landforms, Vegetation & Wetlands Report for the proposed Williams Creek Generating Station (“Project”), located in unincorporated El Paso County (EPC), Colorado.

1.1. Purpose and Goals

The purpose of this report is to 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. EPC’s Land Development Code requires the preservation of natural landscapes and identification of potential environmental constraints, including:

- Vegetation, including noxious weeds and riparian habitats
- Soil suitability
- Significant topographic features
- Aquatic resources, i.e., wetlands/Waters of the U.S. (WOTUS)
- Potential wildfire hazards
- Potential flood hazards
- Potential wildlife impacts
- Potential occurrence of federal and state-listed threatened and endangered (T&E) species

1.2. Project Description and Site Location

The Project will involve the development of approximately 175 acres of land within El Paso County Parcel No. 5600000123. The Project area is located north of Irradiance Drive and east of Calhan Reservoir; it is bounded on all sides by open grassland, and on the north, south, and east sides by solar farms, a substation, and other attendant features (**Figure 1: Site Location Map**). The Project will consist of the construction of a generating station, control building, wastewater treatment facility, substation and tie-in, and associated facilities and infrastructure (storm water control, roads, site security, fence, etc.). The Project will also require improvements to existing roadways for a haul route. The site is located in portions of Section 25 and 26 in Township 16S, Range 65W, and can be found on the U.S. Geological Survey’s (USGS) Fountain and Fountain NE 7.5-minute quadrangles (USGS 2020). Elevations of the Project site range between approximately 5,420 and 5,455 feet above mean sea level (AMSL).

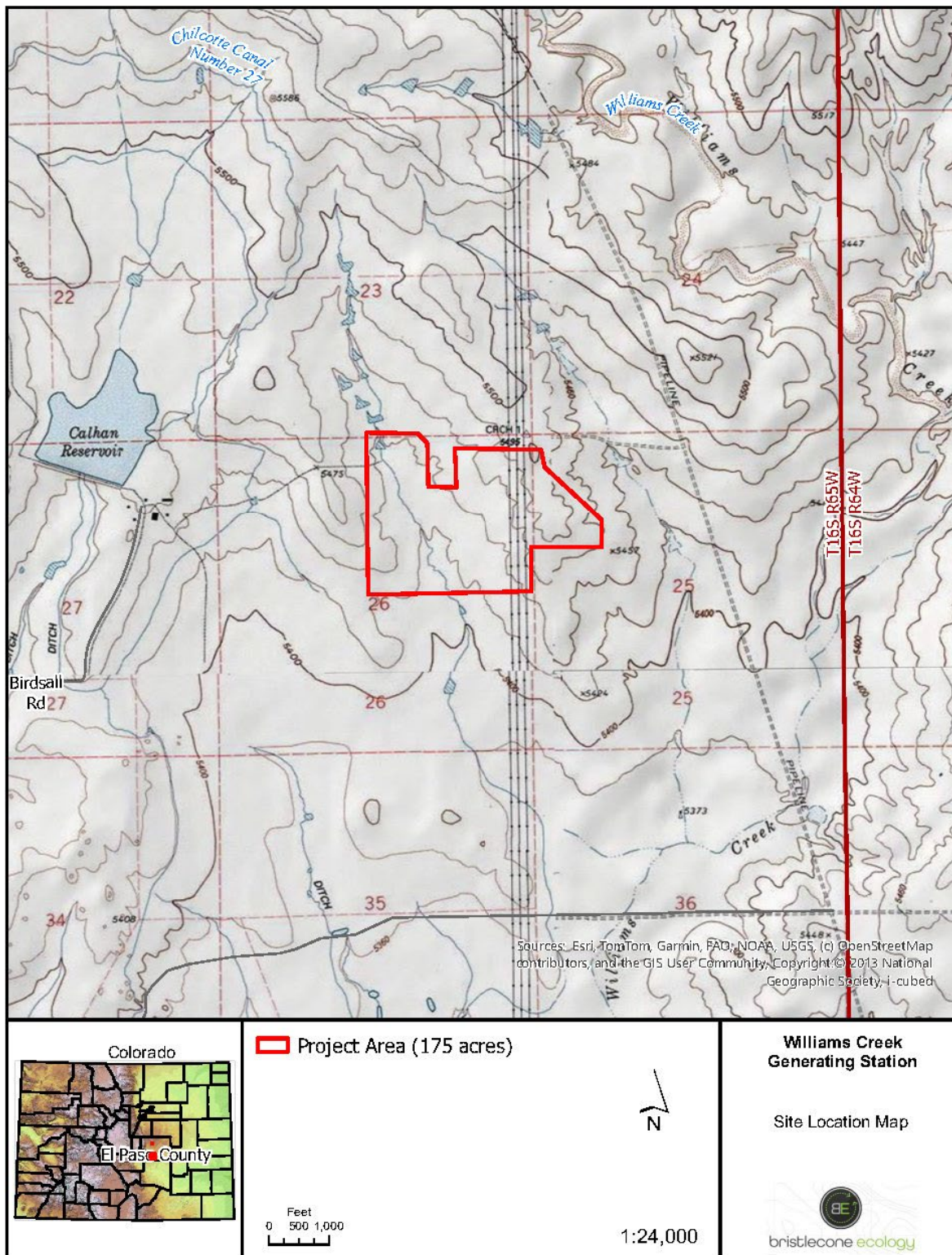
Additionally, three potential haul road alignment routes to access the site were included in this assessment in order to provide recommendations as to which route option would involve the fewest constraints and potential impacts. The three haul road options are:

1. The “Texas Route”, which runs along Birdsall Road and Irradiance Drive from Old Pueblo Road to the Project area;

2. A variation to the “Texas Route” which follows a similar path but also includes Offshoot Way near where Birdsall Road turns into Irradiance Road to avoid a property not currently available for access;
3. And the “Alternate Route”, which runs from east to west along the Squirrel Creek Road north of the Project area, then follows the existing access south to the site along Williams Creek Road.

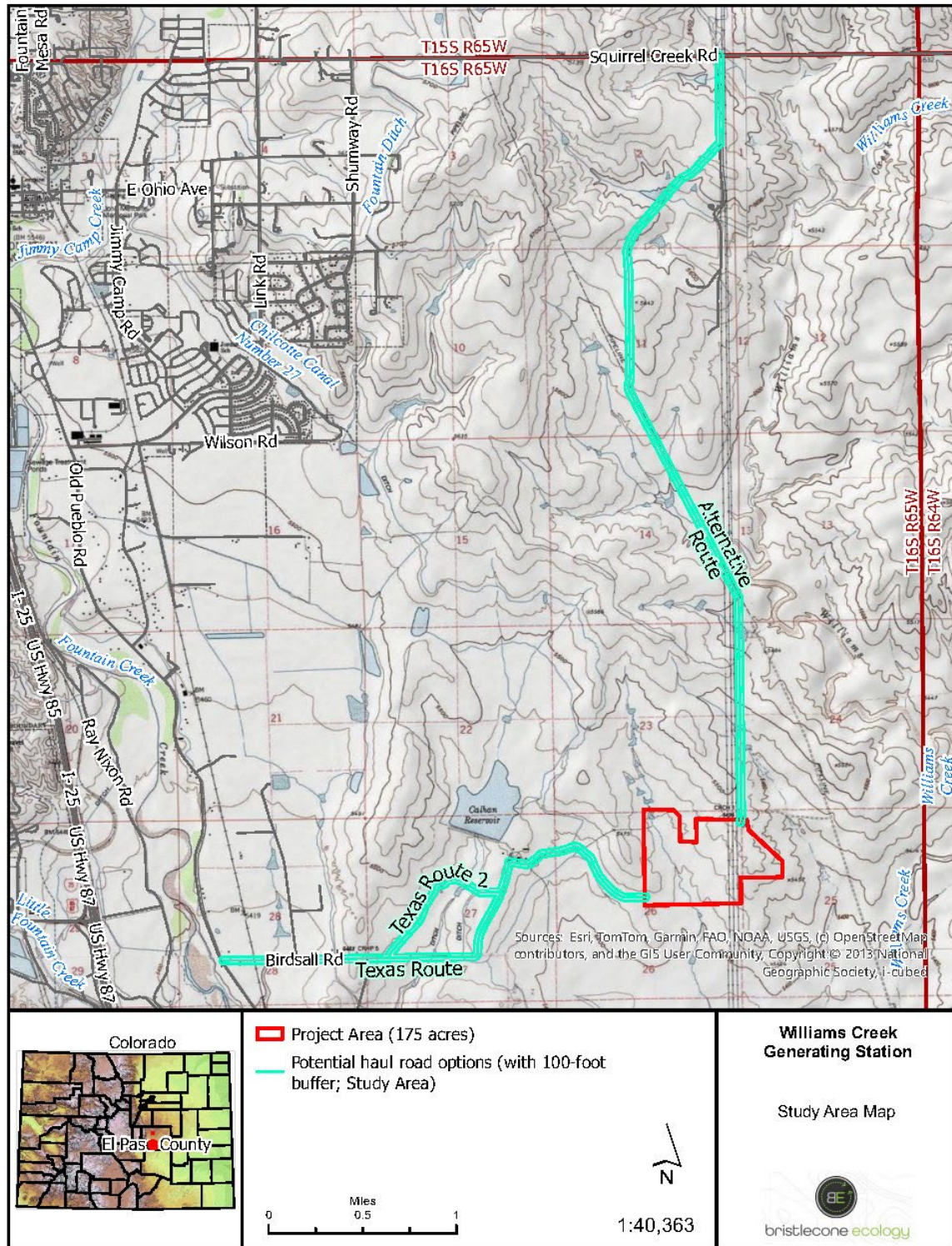
These route options plus the area where the generating station development will occur are referred to collectively as the “Study Area”, while the main 175 acres where the generating station will be developed (minus the haul routes) are referred to as the “Project Area” or “Project Site” throughout this document. **Figure 2: Study Area Map** depicts the locations of each of the haul road options.

Figure 1: Site Location Map



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Figure 2: Study Area 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's (USFWS) Information for Planning and Consultation (IPaC) data
- USFWS Critical Habitat Portal
- Species profiles and spatial data from Colorado Parks and Wildlife (CPW)
- USGS topographic maps
- 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 September 10th, 2026, to field-verify results of the review and identify potential impacts to resources and constraints to development. The field reconnaissance focused on identifying significant topographic and geologic features, on classifying vegetation communities on the site, and on identifying suitable wildlife habitat, particularly that which could support T&E and sensitive species. Photographs of the site visit can be seen in **Appendix A: Photographic Log**.

3.0 ENVIRONMENTAL ASSESSMENT

The Project area is located within the Piedmont Plains and Tablelands Level IV ecoregion in Colorado (Chapman et al. 2006). The Piedmont Plains and Tablelands Ecoregion is composed of irregular and dissected plains dominated by shortgrass prairie. Dominant species in the ecoregion include buffalograss (*Bouteloua dactyloides*), blue grama (*Bouteloua gracilis*), western wheatgrass (*Pascopyrum smithii*), galleta grass (*Pleuraphis gamesii*), alkali sacaton (*Sporobolus airoides*), sand dropseed (*Sporobolus cryptandrus*), sideoats grama (*Bouteloua curtipendula*), and soapweed yucca (*Yucca glauca*; Chapman et al. 2006).

The topography of the Project consists mainly of flat to rolling grasslands. Vegetation typical of grasslands within the Piedmont Plains and Tablelands ecoregion predominates within the site. The majority of the site is relatively undisturbed, short- and mid-grass rolling plains grasslands. Diversity is low for this ecoregion, and the structure of vegetation in the intact uplands is graminoid-dominated but well developed. The site is surrounded by scattered rural development and agriculture/ranchlands.

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 Consultation (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 & Riparian Analysis

An array of native and nonnative plants was observed during the site assessment. Dominant species in the uplands throughout the site included blue grama, western wheatgrass, sand dropseed, alkali sacaton, and annual ragweed (*Ambrosia artemisiifolia*). The majority of the site is mostly uniform, relatively undisturbed, rolling short- to mid-story grasslands, largely dominated by sand dropseed and blue grama. The main areas of existing development are the dirt roads that cross through the site and the existing fiber optic cable location in the south center of the site.

Within the Project site, there was no riparian or wetland vegetation. There is an erosional swale that runs from the northwest corner of the site to the southern border of the site, which contains similar vegetation to the rest of the grasslands within the site. No other unique or distinctive vegetation or riparian features were present on the Project site. There was, however, riparian and wetland vegetation within the Study Area, along the potential haul routes. Wetland vegetation was associated with either manmade stock ponds (along Williams Creek Road) or associated with the outlet of Calhan Reservoir, north of Birdsall Road. Vegetation within these wetlands included Baltic rush (*Juncus balticus*), narrowleaf cattail (*Typha angustifolia*), threesquare bulrush (*Schoenoplectus pungens*), smartweed (*Persicaria* sp.), alkali sacaton, and common spikerush (*Eleocharis palustris*), among others. There was also a line of trees forming a short riparian corridor along Birdsall Road, which was dominated by plains cottonwoods (*Populus deltoides*).

A few varieties of noxious weeds were present at the site, mostly scattered throughout the property in low densities. Noxious weed species observed included Canada thistle (*Cirsium arvense*), common teasel (*Dipsacus fullonum*), and field bindweed (*Convolvulus arvensis*). Noxious weeds are discussed further in **Section 3.4**.

B.E. reviewed CNHP data for the Fountain and Fountain NE 7.5-minute quadrangle, 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, and riparian corridors that could be found 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: Potentially Impacted Rare Vegetation Communities**.

Table 1. Potentially Impacted Rare Vegetation Communities (CNHP 2022)

Plant Community (Type)	Status ¹	Presence and Location	Probability of Impacts
<i>Artemisia filifolia</i> / <i>Bouteloua (curtipendula, gracilis)</i> Shrubland - Sand Sagebrush / Grama Shrubland	GNR, S1	Found on sandy rolling hills in the southern Great Plains. Ground surface is characterized by large patches of exposed soil and scattered grasses and litter. The shrub layer is dominated by <i>Artemisia filifolia</i> and <i>Chrysothamnus pulchellus</i> , and <i>Pinus edulis</i> and <i>Pinus ponderosa</i> are sometimes scattered in the tree layer. Short to medium grasses dominate the herbaceous layer.	None. While blue grama is codominant throughout the site, sand sagebrush is not present.

1 = Critically Imperiled; 2 = Imperiled; 3 = Rare or Uncommon; 4 = Widespread, Abundant, and Apparently Secure; 5 = Demonstrably Widespread, Abundant, and Secure; NR = Not Ranked

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 indicated that the site is composed primarily of Midway clay loam, dry (1-15% slopes; 82.4% of Project area), as well as Manzanola silty clay loam, saline (0-2% slopes, 12.5% of Project area), and Heldt clay loam (0-3% slopes, 5.1% of Project area) with a few additional minor components (NRCS 2022a; **Figure 3: NRCS SSURGO Soils**). These soils were identified as the primary series occupying the Project area; there are also 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 could influence the development of building sites for 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 some limitations for the specified type of construction, but that 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). Based on the soils present, the majority of the site was rated 'Somewhat Limited' for small commercial buildings (NRCS 2022b). The Heldt clay loam (5.1% of the site) was rated 'Very Limited' for small commercial buildings (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 of the primary soil series occurring on the site were described as having a low hydric to nonhydric rating in El Paso County, with each series rated as follows:

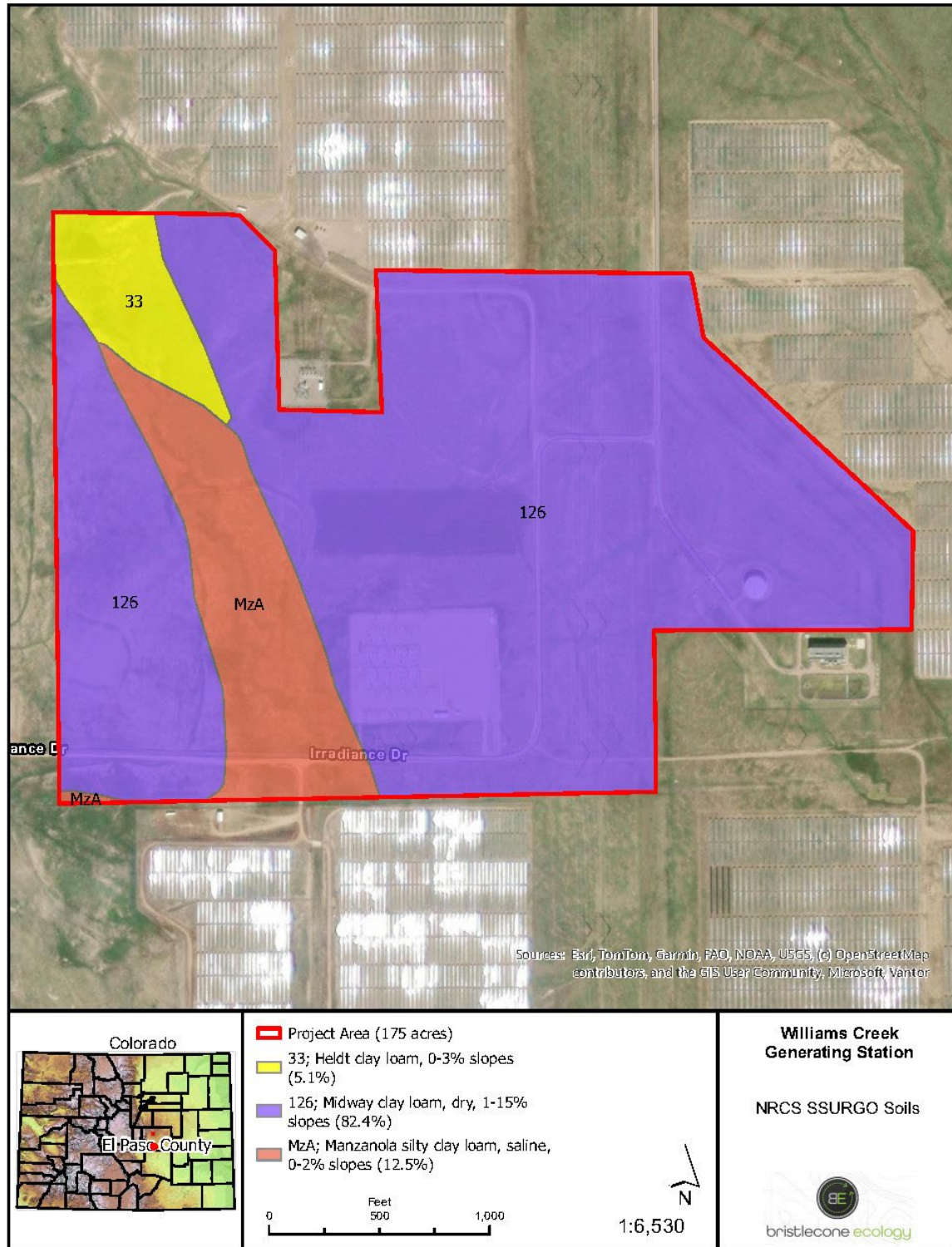
- Heldt clay loam (0 to 3 percent slopes)– hydric rating 1
- Midway clay loam, dry (1 to 15 percent slopes) – hydric rating 0
- Manzanola silty clay loam, saline (0 to 2 percent slopes) – hydric rating 0

Hydric ratings are on a scale of 1 to 100, with 100 having greater hydric components and zero having no hydric components (NRCS 2022a). The Pleasant soil series, a minor component of the Heldt clay loam 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). Pleasant soil may be found in depressions, swales, and other wetter areas where wetlands could occur. Based on these ratings, the overall suitability of the site to support the development of hydric soils, and thus the presence of wetlands, is very low throughout the site.

Along the haul routes, Fluvaquentic Haplaquolls were the predominant soil series present. Fluvaquentic Haplaquolls are rated as hydric in El Paso County with a hydric rating of 98. These soils are typically located in locations that would geomorphically support wetlands, such as flood plains, marshes, and swales. Wetlands along the haul routes were exclusively associated with these soils.

The Heldt clay loam and Manzanola silty clay are grouped into Hydrologic Group C, while the Midway clay loam is grouped into Hydrologic Group D (NRCS 2022d). The 'C' grouping includes soils that have slow infiltration rate, which results in the soil having a corresponding slow rate of surface and ground water transmission. The 'D' grouping includes soils that have a very slow infiltration rate, which results in the soil having a corresponding very slow 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 3: NRCS SSURGO Soils Data



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3.3. Significant Topography and Natural Landforms

The topography of the site is characterized by mostly flat grasslands, existing developed areas, an erosional swale feature on the western side of the site, and a manmade berm in the northwest corner of the site. The swale feature and the berm are the most significant topographical features on the site. Besides the above-described features, there were few other natural landforms or significant topography on the site. There were no rock outcroppings, cliffs, or other significant geologic features on the site. Generally, the site has a very gentle southwesterly slope and almost no topographically significant features.

3.4. Aquatic Resources

A wetland and aquatic resources determination was conducted by B.E. via a desktop survey and subsequent onsite wetland delineation to evaluate the site for aquatic resource characteristics and identify the locations of wetlands and watercourses. Aquatic resources include jurisdictional wetlands and other regulated 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.

Prior to the on-site assessment, a preliminary desktop analysis was performed to evaluate the overall aquatic resource characteristics of the Project area and Study Area. The U.S. Fish and Wildlife Service's (USFWS') National Wetland Inventory (NWI) and the U.S. Geological Survey's (USGS') National Hydrography Dataset (NHD) were reviewed for the possible presence of aquatic resources within the Project area. Additionally, aerial imagery (USDA 2015) was reviewed to locate potential aquatic features not depicted in the NWI and NHD datasets. Aquatic features noted in the datasets were inspected in the field to verify their presence/absence.

The NWI and NHD both show three features within the Project area. The main feature onsite in both datasets was depicted as a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland in the NWI and as a stream/river in the NHD, flowing from northwest to south through the entire site in the same location in both datasets (**Figure 4: NWI/NHD Map**). In the northwest corner of the site, a second feature is depicted as a riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH) wetland in the NWI and as a lake/pond and artificial path in the NHD. Just north of this, the aquatic feature resumes being depicted as an R4SBC wetland and river/stream in the NWI and NHD, respectively (**Figure 4**). No other features were noted in these datasets or in the aerial imagery.

B.E. conducted a formal wetland delineation on September 10th and September 22nd, 2026. The desktop review identified areas with the potential for wetlands (**Figure 4**), and the wetland delineation identified five wetlands and a non-jurisdictional linear feature, all of which were outside of the Project area itself but were located along the haul road alignment route options (**Figure 5: Aquatic Features Overview Map**). The NHD/NWI datasets were found to be inaccurate, as there were no aquatic features found within the Project area itself (**Figure 6: Aquatic Features Project area Zoom Map**). The wetlands delineated along the route options are further classified in **Table 2** below.

Table 2. Study Area Wetland Locations and Classifications

Wetland ID	Latitude	Longitude	Wetland Type	Size	Regulatory Status*
W1	38.625032°	104.657028°	PEM - Palustrine, emergent	0.19 acres	Presumed Jurisdictional
W2	38.642094°	104.627510°	PEM - Palustrine, emergent	0.43 acres	Potentially Non-Jurisdictional
W3	38.649611°	104.626473°	PEM - Palustrine, emergent	0.37 acres	Potentially Non-Jurisdictional
W4	38.630484°	104.653713°	PEM - Palustrine, emergent	0.32 acres	Presumed Jurisdictional
W5	38.630223°	104.653993°	PEM - Palustrine, emergent	0.11 acres	Presumed Jurisdictional

* Presumed status based on B.E.'s professional opinion. Only the USACE may determine the official regulatory status of aquatic features.

A total of eleven sample points were taken throughout the Study Area. Five sample points (SP1, SP4, SP5, SP7, and SP10) were taken in wetlands and six sample points (SP2, SP3, SP6, SP8, SP9, and SP11) were taken as paired upland sample points to confirm the extent of the wetland boundaries.

The five delineated wetlands are labeled as W1, W2, W3, W4, and W5 in **Figure 5**. W1 is along the primary haul route option, labeled as “Texas Route” in **Figure 5**, which extends from Old Pueblo Road to the site via Birdsall Road and Irradiance Road. There was also one presumed non-jurisdictional linear feature extending from W1 south towards Birdsall Road. W1 did not extend on the south side of Birdsall Road, as confirmed with SP6, but the non-jurisdictional linear feature does extend under Birdsall Road and continues to the southwest. W1 is associated with the outlet and wetland complex south of Calhan Reservoir. W4 and W5, located along the “Texas Route 2” haul road option as labeled in **Figure 5**, are also associated with the outlet and wetland complex south of Calhan Reservoir. W4 is north of Offshoot Way and W5 is south of Offshoot Way. These two wetlands remain hydrologically connected across Offshoot Way. W2 and W3 are located along the alternative haul route, labeled as “Alternative Route” in **Figure 5**, which extends from Squirrel Creek Road south to the Project area. W2 and W3 are both associated with manmade ponds located along the road which may not be jurisdictional.

The dominant vegetation at wetland locations were predominantly considered facultative (FAC), facultative wetland (FACW) or obligate (OBL) plants within the Great Plains Region (Lichvar et al. 2020). The sample point taken within W1 (SP1) was dominated by narrowleaf cattail (OBL), while the sample point taken just outside of the wetland, within the non-jurisdictional linear feature (defined swale) just south of W1 was dominated by western wheatgrass (FACU) and field bindweed (UPL). W2 and W3 were both dominated by Baltic rush (FACW) and W2 also co-dominated by smartweed. The sample points taken within W4 (SP10) and W5 (SP7) were dominated by threesquare bulrush (*Schoenoplectus pungens*; OBL), Baltic rush, and alkali muhly (*Muhlenbergia asperifolia*; FACW).

Soil samples were taken in the Manzanola Ustic Haplargids, Fluvaquentic Haplaquolls, and Midway Ustic Torriorthents soil series. Soil was primarily clay, sandy clay loam, and loamy sand.

Soils found in wetlands were exclusively Fluvaquentic Haplaquolls. Indicators of hydric soils were plentiful within the wetlands, including Depleted Matrix (F3), Redox Dark Surface (F6), Redox Depressions (F8), and High Plains Depressions (F16), while the uplands showed no indicators of hydric soils.

Wetland sample points also showed strong primary and/or secondary wetland hydrology indicators, including Oxidized Rhizospheres on Living Roots (C3), Presence of Reduced Iron (C4), Surface Soil Cracks (B6), Drainage Patterns (B10), Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and FAC-Neutral Test (D2). Some sample points taken near the upland-wetland boundary showed some indicators of wetland hydrology, but did not have any indicators of hydric soils, nor dominance of hydrophytes.

The two wetlands associated with constructed ponds (W2 and W3) may be non-jurisdictional because they are constructed features, while W1, W4, and W5 are all hydrologically connected and presumed to be jurisdictional. The linear feature that flows from W1 south to Birdsall Road and south of the road is described as a non-jurisdictional linear feature which maintains hydrologic connectivity but is not regulated. There are no other aquatic features present onsite or along the haul routes. There is a swale that runs through the main Project area from northwest to south (the feature shown in the NWI and NHD as a riverine system); however, this swale does not contain any aquatic features and is described as an ephemeral erosional feature.

Figure 4: NWI/NHD Map

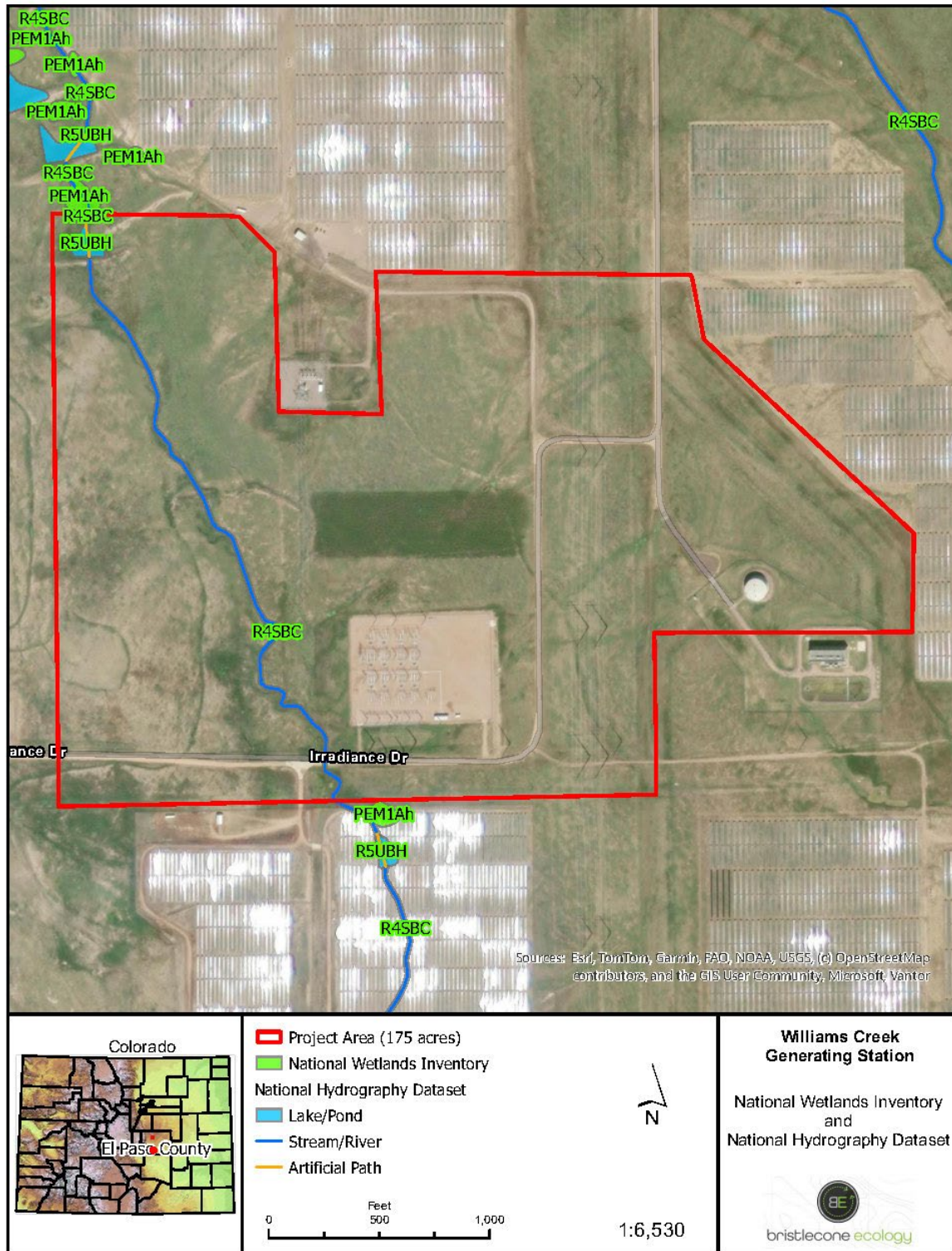
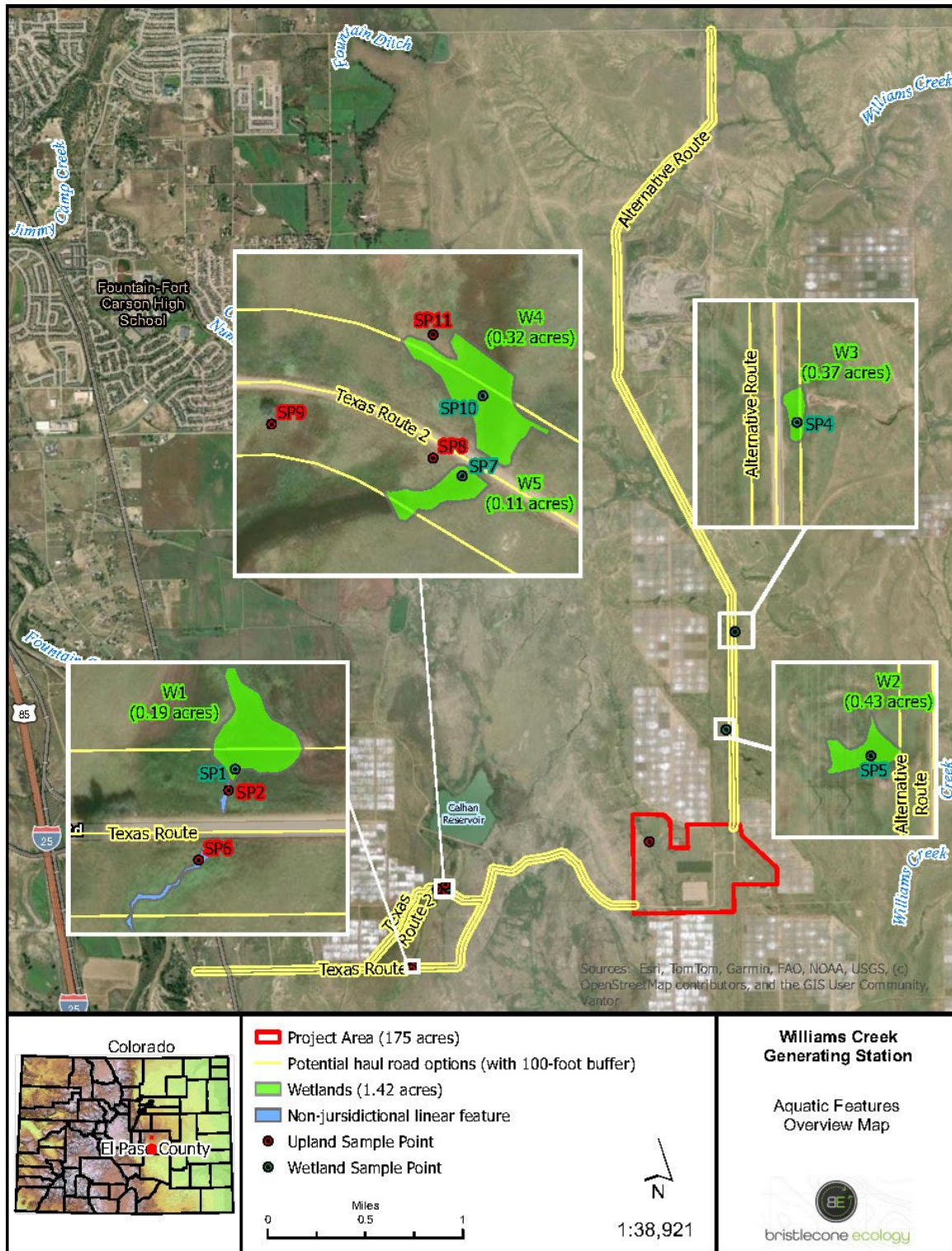
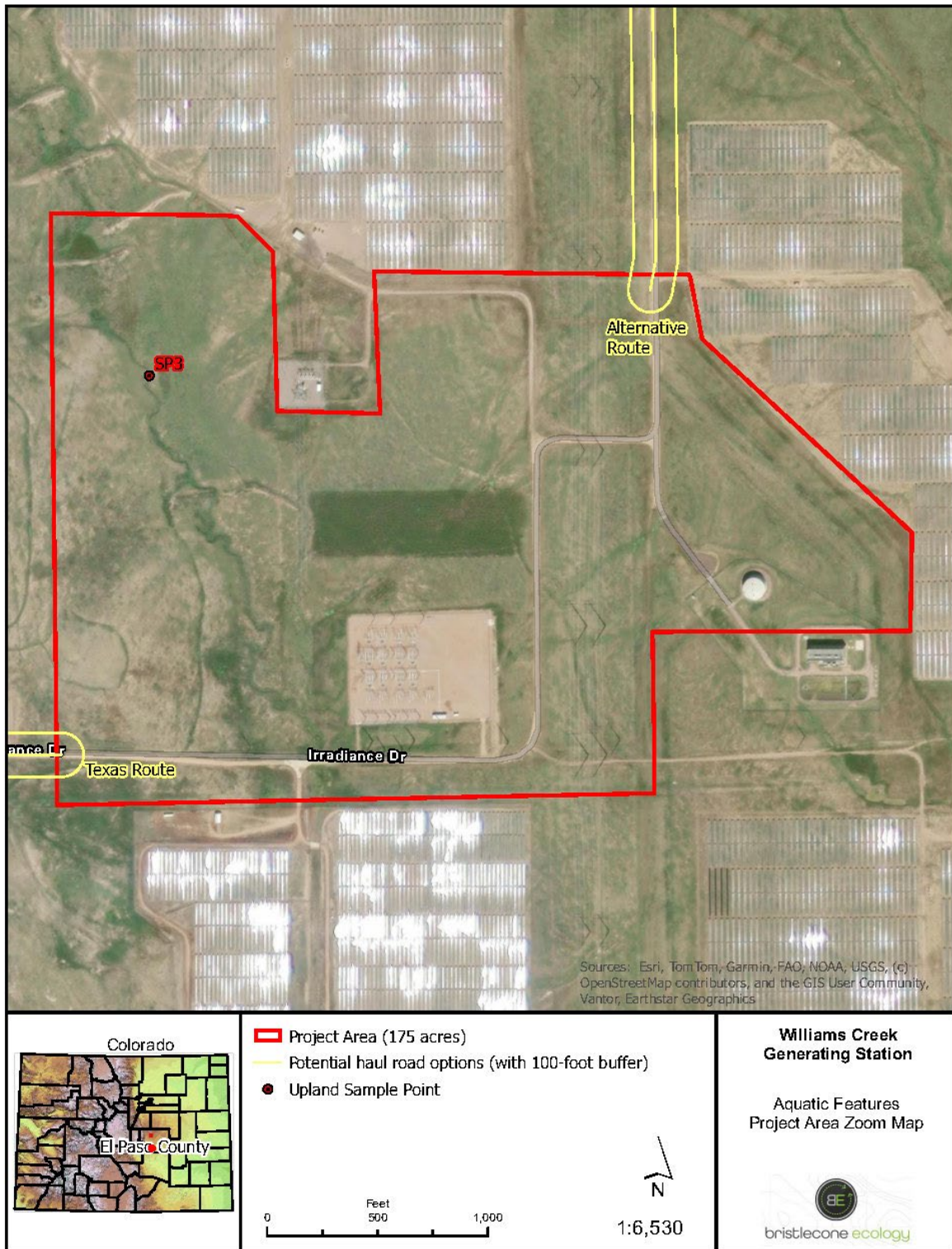


Figure 5: Aquatic Features Overview Map



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Figure 6: Aquatic Features Project Area Zoom Map



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3.5. Noxious Weeds

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 upon list category (A, B, or C). In addition, requirements have been 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 residential, commercial, or industrial projects that include ground disturbing activities submit a project-specific noxious weed management plan.

B.E. noted various noxious weed populations on the site with few areas of concentration. List B species observed included common teasel and Canada thistle, and List C species observed included field bindweed. There were generally very few noxious weeds in the Project area, though field bindweed was spread sparsely but regularly throughout the site. Thistles and teasels were most often found along the proposed haul routes and along roadways within the site. There were more noxious weeds along the potential haul road alignments, with thistles and teasels found commonly in wetter areas. Depending on which haul route alignment is ultimately selected, teasels and thistles should be inventoried and treated by a licensed herbicide sprayer to prevent and control the spread of noxious weeds during construction and post-construction. Further information about noxious weed management can be found in the Project's *Noxious Weeds Management Plan*.

3.6. Wildfire Hazards

In the 2018 El Paso County Development Standards, the stated purpose and intent for fire protection and wildfire mitigation is to ensure that any proposed development is reviewed for wildfire risks and adequate fire protection (EPC 2018b). No permit associated with development, construction, or occupancy shall be approved or issued until the provisions of these standards are satisfied, and a Wildland Fire and Hazard Mitigation Plan may be required. The Project area is located within the Hanover Fire Protection District (HFPD) coverage. There are three fire stations within the HFPD, located as follows:

- Station 1; 17550 South Peyton Highway, Colorado Springs, Co 80928 (22 miles from the site)
- Station 2; 13325 Old Pueblo Road, Fountain, CO 80817 (3.6 miles from the site)
- Station 3; 7960 Indian Village Heights, Fountain, CO 80817 (12 miles from the site)

In total, the HFPD has the following operations equipment available:

- 3 fire engines
- 3 water tenders
- 3 brush trucks
- 1 ambulance

Wildfire hazards for the Project site were evaluated using the Colorado State Forest Service's (CSFS) online Wildfire Risk Reduction Planner (WRRP; CSFS 2020). WRRP allows professionals,

planners, and the public to access the best scientific information regarding wildfire risk and establish prevention and mitigation measures accordingly. According to WRRP, the Wildfire Risk to Assets at the entire site is “Lowest” risk (CSFS 2020; **Figure 7: Wildfire Risk to Assets**). CSFS determines “Wildfire Risk to Assets” by combining the burn probability rating of a site with the values-at-risk rating. While the Project site has a very low rating of values and assets that would be adversely impacted by wildfire, the burn probability for nearly the entire site is rated at Level 4 “Moderately Low”, with only a small portion of the southwest corner rated as Level 5 “Moderate” (CSFS 2020; **Figure 8: Wildfire Burn Probability**). The Fire Intensity rating – a measure of fire behavior based on available fuels, weather, and topography – is a mix, with about 15% of the site rated as “Moderate Intensity”, 30% of the site rated as “Low Intensity”, and the remaining 55% of the site rated as “Lowest Intensity” (CSFS 2020; **Figure 9: Fire Intensity Scale**). The areas with “Low” and “Moderate” ratings are concentrated together, mostly in areas that are already developed, or are surrounding the swale that flows through the western side of the site.

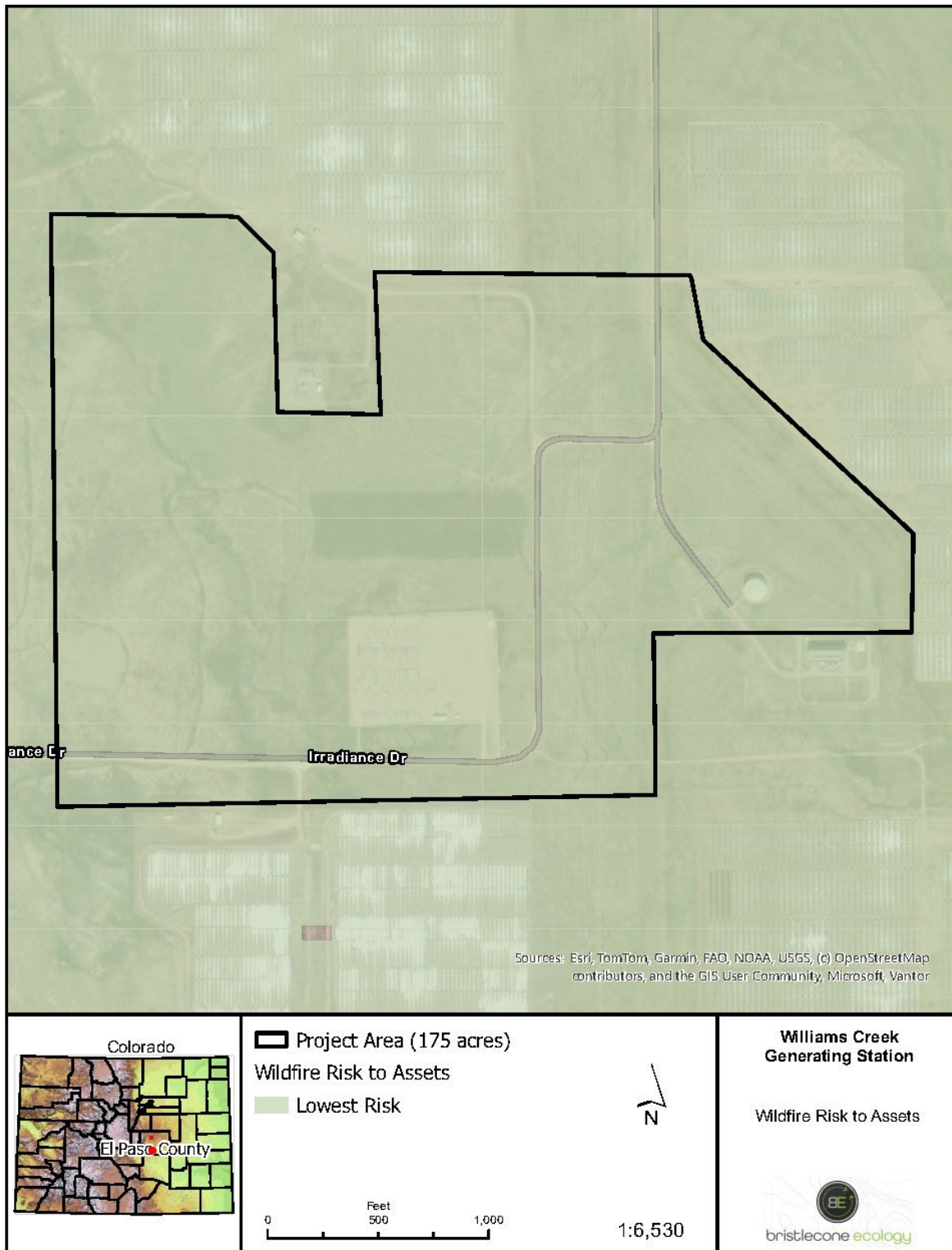
3.7. Flood Hazards

Flood hazard maps from the Federal Emergency Management Agency (FEMA) were reviewed to determine the potential for flood hazard at the site. The entire site is within Zone X, meaning that the area is deemed by FEMA to have minimum flood hazard “above the 500-year flood zone”. (**Figure 10: FEMA Flood Hazard Map**).

3.8. Slope

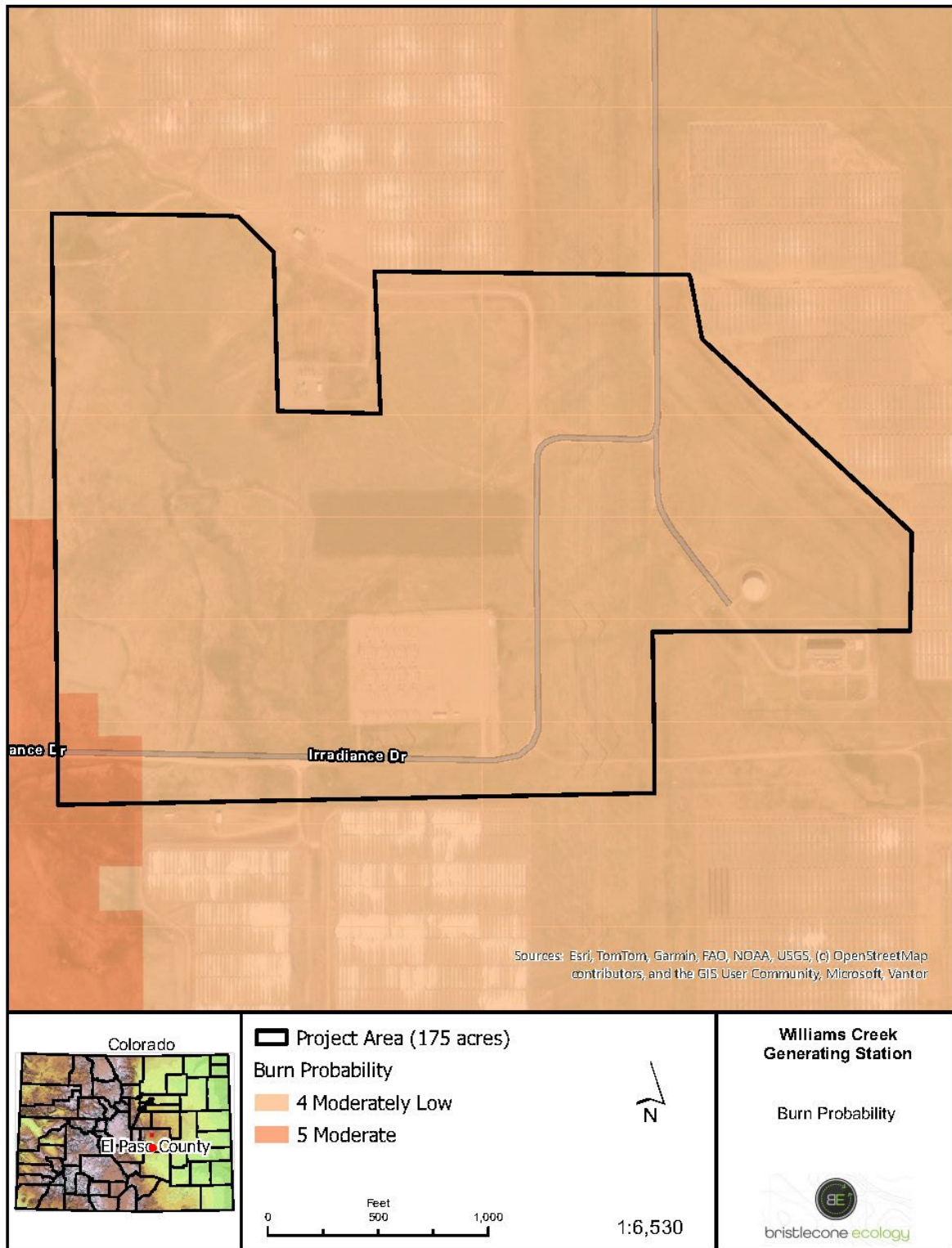
Slopes greater than 20 percent were mapped using topographic survey data and verified during the site reconnaissance (**Figure 11: Slope Analysis**). Slopes greater than 20% can affect developability as well as other factors such as fire spread and erosion potential. Based on the survey and light detection and ranging (LiDAR) data, slopes greater than 20 percent are depicted in light blue, green, orange, and red in **Figure 11**. Ten-foot contour lines are included to depict topography over an aerial background. There were very few areas with any slope greater than 20%, and any areas that did were either associated with the swale that flows across the site (mostly only in one small bend in the center of the site, or with areas already developed in the southeast corner of the site. All other areas of the site had moderate to low slopes under 20% grade, shown in blue in **Figure 11**.

Figure 7: Wildfire Risk to Assets



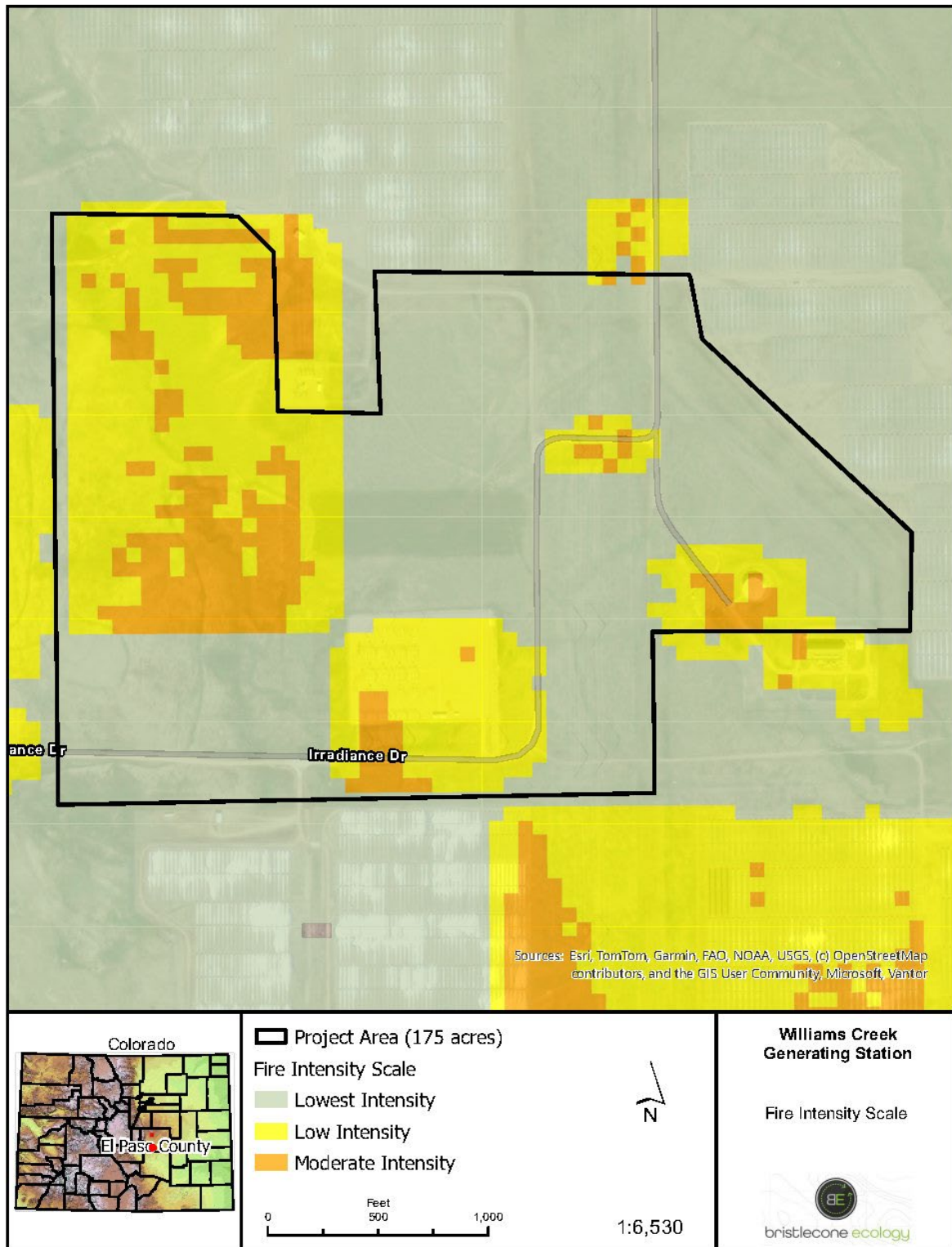
9/8/2026 D:\Data\GIS\Projects\Project Folders\26_011_WilliamsCreekGeneratingStation\26_011_WilliamsCreekGeneratingStation\26_011_WilliamsCreekGeneratingStation.aprx

Figure 8: Wildfire Burn Probability



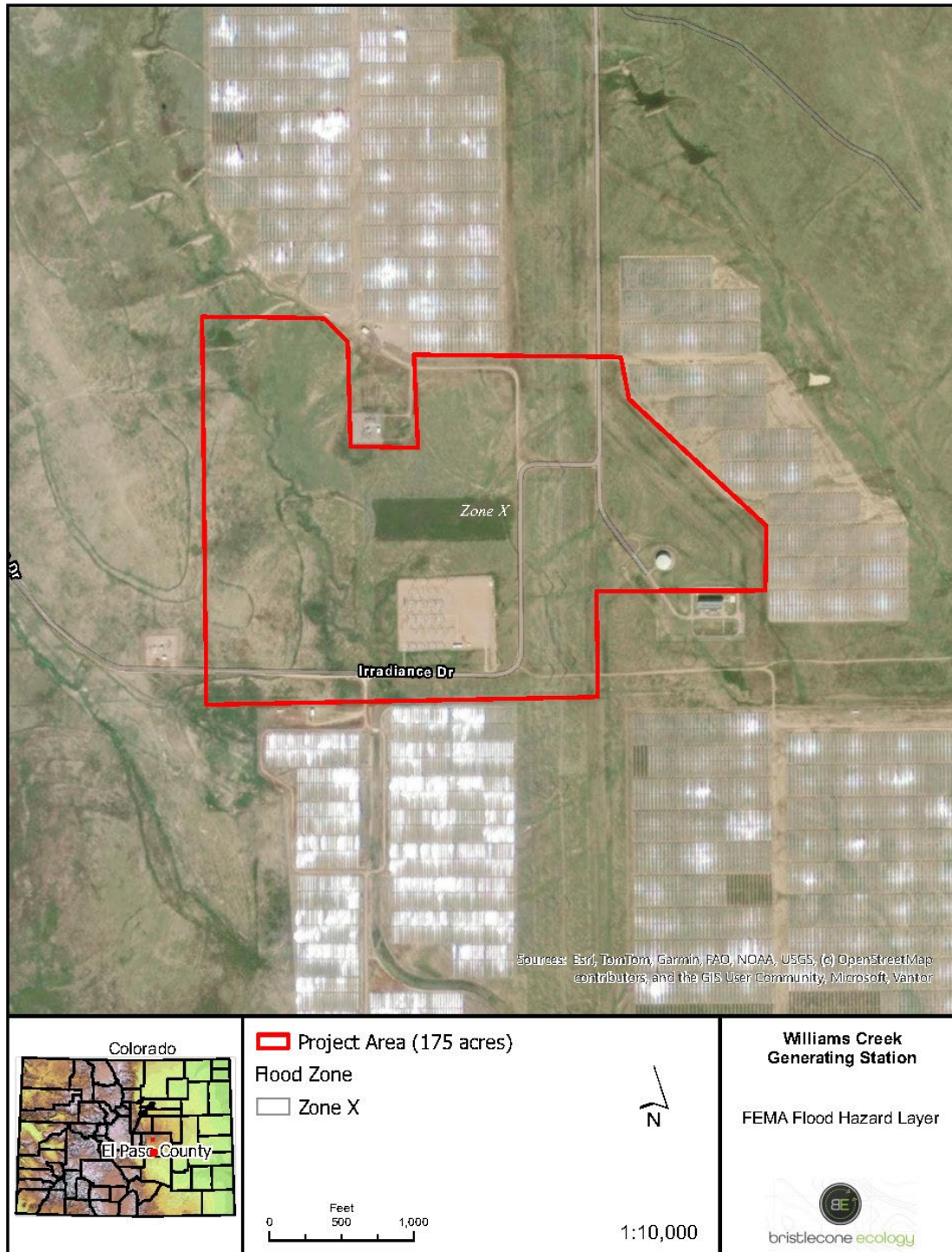
9/8/2026 D:\Data\GIS\Projects\Project Folders\26_011_WilliamsCreekGeneratingStation\26_011_WilliamsCreekGeneratingStation\26_011_WilliamsCreekGeneratingStation.aprx

Figure 9: Fire Intensity Scale



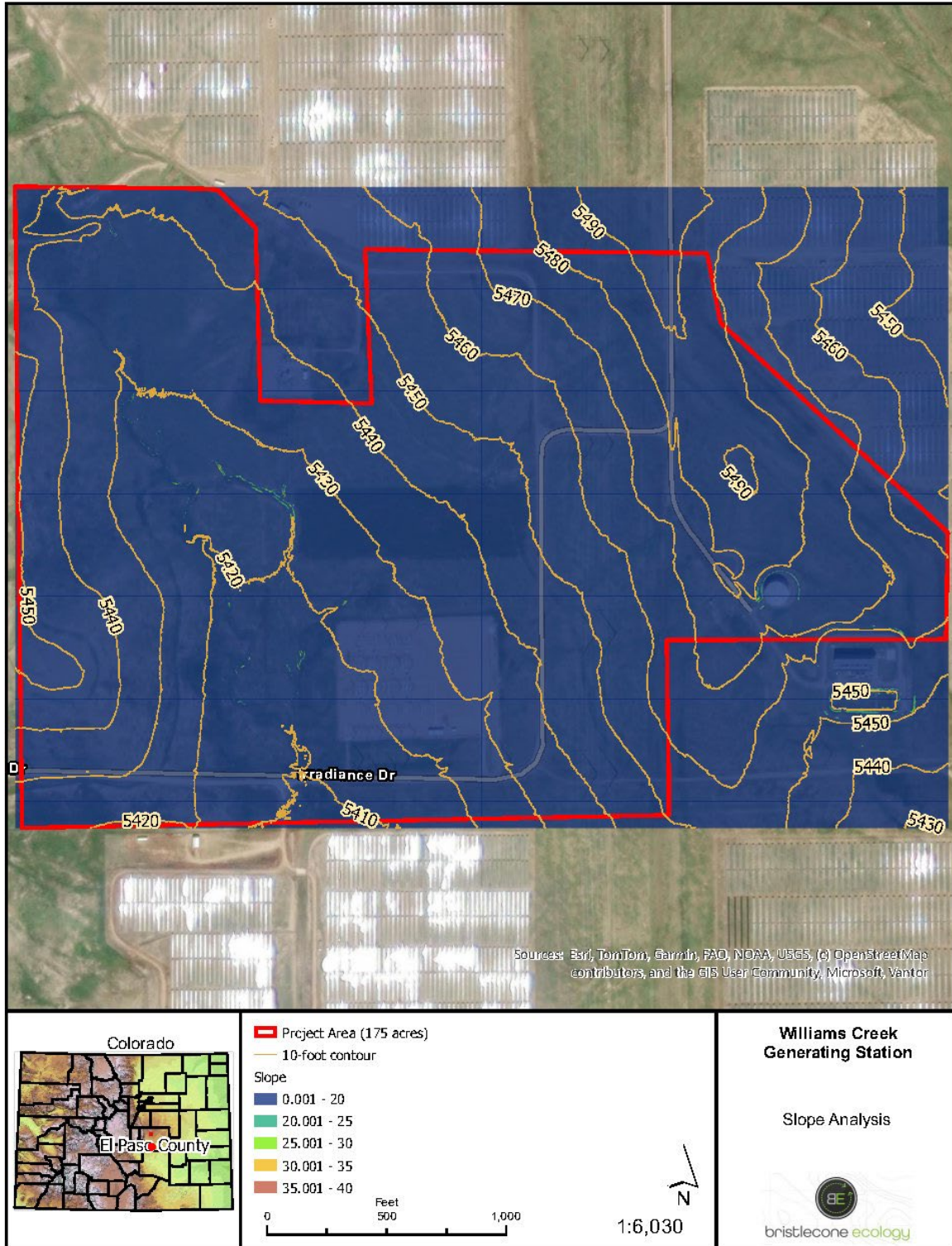
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Figure 10: FEMA Flood Hazard Layer



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Figure 11: Slope Analysis



3.9. Federally Listed T&E Species

The USFWS IPaC database (USFWS 2025) was used to determine the likelihood of occurrence for federally listed T&E species within the Project area. The IPaC query listed six species, including one mammal, two birds, two insects, and one flowering plant with the potential to occur within, or be affected by, development of 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 of T&E species at the Project site and their probability of being impacted by Project development. A concurrence letter for a determination of ‘not reasonably certain to adversely affect’ was requested from USFWS on September 28th, 2026.

Table 3. Federally Listed T&E Species Potentially Impacted by the Project (USFWS 2025)

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 corridors with a nearby water source and adjacent, relatively undisturbed grassland communities. Riparian habitat includes a dense combination of grasses, forbs, and shrubs; a taller shrub and tree canopy may be present. Has been found to regularly use uplands at least as far as 100 meters beyond the 100-year floodplain. Likelihood of impacts: None. There is no suitable habitat for this species as the site does not contain a perennial water source or riparian corridor.	FT
Birds			
Piping plover	<i>Charadrius melodus</i>	Listed under a conditional effects analysis for water depletions in the N. Platte, S. Platte and Laramie River Basins, which may affect listed species in Nebraska. Likelihood of impacts: None, the Project is located in the Arkansas River Basin.	FT
Eastern black rail	<i>Laterallus jamaicensis ssp. jamaicensis</i>	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. Likelihood of impacts: Unlikely if Project is designed to avoid W1. There is no suitable habitat available onsite for eastern black rail. There is, however, limited marsh habitat available south of Calhan reservoir (W1 and the area north of it) that may support the species. Should impacts to this marsh occur during the construction of the haul road, impacts could be possible. If avoided, impacts are very unlikely.	FT

¹FE= Federally Endangered; FT=Federally Threatened; ST=State Threatened; C=Candidate for Listing; PT= Proposed Threatened; PE=Proposed Endangered

Table 2 (cont.). Federally Listed T&E Species Potentially Impacted by the Project (USFWS 2025)

Common Name	Scientific Name	Habitat Requirements and Likelihood of Impacts	Federal Status ¹
Insects			
Monarch butterfly	<i>Danaus plexippus</i>	Monarch butterflies require milkweeds (<i>Asclepias</i> spp.) as a host plant. Caterpillars consume the plant, and adults lay their eggs on milkweed. Monarch butterfly is a Proposed Threatened species for listing under the ESA. While there are no requirements until a listing decision is made, a 4(d) Rule has been proposed and due diligence is encouraged. Likelihood of impacts: Possible, a few milkweed plants were present on the site, and more were present along the proposed haul routes. No requirements currently exist while the USFWS considers the proposal to list.	PT
Suckley's Cuckoo Bumble Bee	<i>Bombus suckleyi</i>	Suckley's cuckoo bumblebee is a social parasite that relies entirely on other species of bumblebees as hosts. The last confirmed sighting in the U.S. was in 2016 in Oregon (USFWS 2024). May be found anywhere robust bumblebee colonies are present. While there are no requirements until a listing decision is made, due diligence is encouraged. Likelihood of impacts: Very unlikely, site development is unlikely to affect bumblebee host colonies.	PE
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 there are no suitable habitats on the site. Likelihood of impacts: Unlikely, there are no known populations in EPC and there is no suitable habitat for the species on the site. Wet areas along the haul route options are marshy and generally not viable habitat. In addition, this species has been proposed for delisting and the USFWS is finalizing their decision to delist.	FT

¹FE= Federally Endangered; FT=Federally Threatened; ST=State Threatened; C=Candidate for Listing; PT= Proposed Threatened; PE=Proposed Endangered

3.10. Wildlife Communities & Sensitive Species

The Project site provides habitat for some grassland wildlife, including birds, mammals, and reptiles. Haul route options may provide some low-to-moderate quality wetland habitat for additional wildlife. Development of the site would inevitably affect some wildlife habitat. Those species 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 (CPW 2023). The Colorado Natural Heritage Program (2024) 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, 18 reptiles, and 19 birds, including one SC mammal, one state and federally threatened mammal, and one state threatened bird (**Table 3: SAM Wildlife Potential for Occurrence**).

In general, sensitive wildlife species and Colorado SC species do not receive statutory protections. Some of the species listed in the SAM data have additional designations that may afford them additional protections. The Project area does not intersect with big game migratory routes, though it does intersect with overall and peripheral range for mountain lion (*Puma concolor*), and overall range for mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*; CPW 2023). The Project area is within the overall range for black-tailed prairie dog (*Cynomys ludovicianus*), which is a Colorado SC, and whose colonies can provide nesting habitat for the state threatened burrowing owl (*Athene cunicularia*). The Project area is within the breeding range of burrowing owls, as well as the overall range for the state and federally threatened Preble's meadow jumping mouse (*Zapus hudsonius preblei*; CPW 2023). See **Table 4** for CPW's list of the sensitive species that have potential to occur onsite.

Following the review of the SAM data, a site reconnaissance was performed to field-verify the information provided in the data and to conduct a general wildlife survey. The proposed development may have varying impacts on wildlife depending on habitat quality across the site. The majority of the site is composed of undisturbed grasslands, which provides fairly uniform, moderate quality upland habitat.

In terms of sensitive species, some of the species listed in the SAM data are likely to occur on the site, though only five of the species listed were observed. The majority are either not expected to occur or may occur only infrequently based on available habitat. Prairie rattlesnake (*Crotalus viridis*), Brewer's sparrow (*Spizella breweri*), grasshopper sparrow (*Ammodramus savannarum*), Swainson's hawk (*Buteo swainsoni*), and Northern harrier (*Circus hudsonius*) were the only sensitive species for which CPW has mapped ranges that were observed in the Project area. Other species such as mule deer, white-tailed deer (*Odocoileus virginianus*), common lesser earless lizard (*Holbrookia maculata*), plains garter snake (*Thamnophis radix*), prairie lizard (*Sceloporus consobrinus*), and lark bunting (*Calamospiza melanocorys*), are species in the SAM data that could reasonably be expected to occur on-site in the appropriate seasons in the available habitat.

Golden eagles (*Aquila chrysaetos*), which nest mostly on cliffs in mountainous areas, and bald eagles (*Haliaeetus leucocephalus*), which are typically associated with large bodies of water, receive federal protection under the Bald and Golden Eagle Protection Act (BGEPA). Golden eagles may occasionally nest in large trees (primarily cottonwoods) on Colorado's eastern plains. There are no cliffs or large cottonwoods within the Project area, though there is a line of roadside cottonwoods within the Study Area, near the wetlands south of Calhan Reservoir along the Texas Route. These trees were surveyed for raptor nests, and the only potential nest site was a cavity that could support American kestrel (*Falco sparverius*). The closest body of water within the vicinity of the site is Calhan Reservoir, but it is unlikely that bald eagles would occur within the

Project area except accidentally. Raptor species may utilize the site for hunting. Northern harrier, a ground-nesting raptor species which was observed during the site visit, could nest in the wetlands south of Calhan Reservoir. No nests were observed within the main Project area, and no other nests were observed in any of the trees on or surrounding the site during the site visit.

Table 4. SAM Wildlife Potential for Occurrence (CPW 2023; CNHP 2024)

Common Name	Scientific Name	Type of Occurrence	Status ^{1,2}
Birds			
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
Canada goose	<i>Branta canadensis</i>	Breeding range, Winter range	n/a
Golden eagle	<i>Aquila chrysaetos</i>	Breeding range	BGEPA, S3S4B
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
Lewis' woodpecker	<i>Melanerpes lewis</i>	Breeding range	G4S4
McCown longspur	<i>Rhynchophanes mccownii</i>	Breeding range	G4, S2B
Mountain plover	<i>Charadrius montanus</i>	Breeding 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
Sandhill crane	<i>Antigone canadensis tabida</i>	Breeding range	G5T5, S2B, S4N
Scaled quail	<i>Callipepla squamata</i>	Breeding range	G5, S4
Swainson's hawk*	<i>Buteo swainsoni</i>	Breeding range	S5B
Veery	<i>Catharus fuscescens</i>	Breeding range	G5, S3B
Virginia's warbler	<i>Leiothlypis virginiae</i>	Breeding 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

*Species observed during the site visit are shown in bold

Table 4 (cont.). SAM Wildlife Potential for Occurrence (CPW 2023; CNHP 2024)

Common Name	Scientific Name	Type of Occurrence	Status ^{1,2}
Mammals			
Big brown bat	<i>Eptesicus fuscus</i>	Overall range	n/a
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	Overall range Low occurrence	SC, 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
Pronghorn	<i>Antilocapra americana</i>	Overall range	n/a
Red bat	<i>Lasiurus borealis</i>	Overall range	G3G4, S2S3B
Silver-haired bat	<i>Lasionycteris noctivagans</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
Reptiles and Amphibians			
Bullsnake	<i>Pituophis catenifer sayi</i>	Overall range	n/a
Coachwhip	<i>Masticophis flagellum</i>	Overall range	n/a
Common lesser earless lizard	<i>Holbrookia maculata</i>	Overall range	n/a
Hernandez short-horned lizard	<i>Phrynosoma hernadesi</i>	Overall range	n/a
Milksnake	<i>Lampropeltis elapsoides</i>	Overall range	n/a
North American racer	<i>Coluber constrictor</i>	Overall range	n/a
Ornate box turtle	<i>Terrapene ornata ornata</i>	Overall range	n/a
Prairie lizard	<i>Sceloporus consobrinus</i>	Overall range	n/a
Prairie rattlesnake*	<i>Crotalus viridis</i>	Overall range	n/a
Plateau fence lizard	<i>Sceloporus tristichus</i>	Overall range	n/a
Plains gartersnake	<i>Thamnophis radix</i>	Overall range	n/a
Plains hog-nosed snake	<i>Heterodon nasicus</i>	Overall range	G5, S4
Six-lined Racerunner	<i>Aspidoscelis sexlineata</i>	Overall range	n/a
Smooth greensnake	<i>Opheodrys vernalis</i>	Overall range	n/a
Snapping turtle	<i>Chelydra serpentina</i>	Overall range	n/a
Terrestrial garter snake	<i>Thamnophis elegance</i>	Overall range	n/a
Variable skink / many lined skink	<i>Plestiodon multivirgatus</i>	Overall range	n/a
Western rattlesnake	<i>Crotalus oreganus</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

*Species observed during the site visit are shown in bold

The Project area may also provide habitat for additional wildlife not listed in CPW's sensitive species list. Mammals, including rodents, ungulates, and carnivores likely utilize the site. No mammals were observed during the site reconnaissance, but mammal species may be expected to occur, including coyotes (*Canis latrans*), pronghorn, gray foxes (*Urocyon cinereoargenteus*), red foxes (*Vulpes vulpes*), and small fossorial mammals (*Geomidae* family).

No prairie dog (*Cynomys* spp.) colonies were present within the Project area, and no other burrows or dens were observed that would suggest nesting or roosting habitat for the state threatened burrowing owls. The Project area is within burrowing owl breeding range, and thus, burrowing owls could migrate through the area. However, the lack of nesting and roosting resources suggest burrowing owls are unlikely to use the site even in migration. The Project area does not have any suitable habitat for the state and federally threatened Preble's meadow jumping mouse, thus impacts to the species are not likely.

Several species of migratory birds were observed during the site visit, including horned lark (*Eremophila alpestris*), western meadowlark (*Sturnella neglecta*), vesper sparrow (*Pooecetes gramineus*), orchard oriole (*Icterus spurius*), lark sparrow (*Chondestes grammacus*), lesser goldfinch (*Spinus psaltria*), red-winged blackbird (*Agelaius phoeniceus*), and American robin (*Turdus migratorius*). These species all have the potential to breed on or use the Project site regularly. Additional non-breeding migratory bird species observed during the site visit included clay-colored sparrow (*Spizella pallida*) and Wilson's warbler (*Cardellina pusilla*).

No amphibians were observed during the survey, and it is unlikely any would occur except in the vicinity of W1, W2, and W3, which may support small open water areas within them where amphibian breeding could occur.

4.0 SUMMARY OF IMPACTS

4.1. Vegetation

Development of the Project site would unavoidably disturb existing vegetation within the Level IV Piedmont Plains and Tablelands ecoregion. Most of the site is composed of undisturbed grasslands, which would be directly affected by site development. Based on the site survey completed in September 2026, it is very unlikely that any sensitive plant communities will be impacted.

Additionally, some wetland vegetation could be disturbed along the haul road alignment, depending on the route chosen. Haul route improvements can be designed to avoid significant impacts to wetland and riparian vegetation. Specifically, W1, north of Birdsall Road, and the cottonwood trees within the riparian corridor surrounding the wetlands should be preserved if the Texas Route is used. Wetland vegetation along the Texas Route 2 alternative may need to incur minor impacts if that route is chosen. The Squirrel Creek route can likely avoid most or all impacts to wetland vegetation. Wetland vegetation observed during the assessment included mainly emergent vegetation of low-to-moderate quality.

4.2. Soils

Soils at the site included clay loams belonging predominately to the Midway series, Manzanola series, and Heldt series. The majority of the site is rated 'Somewhat Limited' for the development of small commercial buildings. Additionally, the Heldt series, which is found along the northwestern portion of the swale that flows through the Project area, is rated as 'Very Limited' for development of small commercial buildings. The main limitation to development on these soils is shrink-swell, as they are mainly clay soils. Soils may represent a constraint to development of the Project.

4.3. Significant Topography and Natural Landforms

No significant topography or natural landforms were present on the Project site. The only distinguishable natural landform identified during the site survey was the minor erosional swale in the western third of the site. The swale is not steep or even particularly noticeable, and it does not support any wetlands or show signs of conveyance such as an ordinary high-water mark. Overall, the site consists of mostly flat prairie grasslands and previously developed areas, lacking any significant geologic features that could affect or be affected by site development.

4.4. Aquatic Resources

There are no aquatic resources within the Project site, but there are six aquatic resources within the Study Area along the haul route options. W1, W4, W5, and the linear feature that drains W1 are all associated with the outflows from Calhan Reservoir. W2 and W3 are located along the Squirrel Creek route and area both associated with manmade ponds. W1, W4, and W5 are assumed to be jurisdictional wetlands and Waters of the U.S. and the State of Colorado. All other aquatic features are presumed to be non-jurisdictional, however, impacts to all aquatic resources should be avoided to the greatest extent possible.

4.5. Noxious Weeds

Noxious weeds are present on the Project site in several areas but in limited quantities. 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 noxious weeds that were detected during the site reconnaissance included:

List B:

- Canada thistle
- Common teasel

List C:

- Field bindweed

It is possible but unlikely that additional noxious weed populations are 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. In accordance with EPC requirements, noxious weeds on the site should be identified and controlled immediately prior to and following construction.

4.6. Wildfire Hazard

The entire Project area is rated as “Lowest” wildfire risk to assets. The site is rated almost entirely as Level 4 “Moderately Low” in terms of burn probability based on the available fuels at the site, which includes disturbed and undisturbed grasslands. Fire intensity is mixed throughout the site, with about 15% of the site rated as “Moderate Intensity”, 30% of the site rated as “Low Intensity”, and the remaining 55% of the site rated as “Lowest Intensity” (**Figure 9**; CSFS 2020). The areas with “Low” and “Moderate” ratings are concentrated together, mostly in areas that are already developed, or are surrounding the swale that flows through the western side of the site. The site is within the Hanover Fire Protection District, and the nearest fire response is Station 2, located about 3.6 miles from the site.

Development of the site would result in a reduction of the available fuels for wildfires and would potentially reduce fire intensity through the removal of grasslands, while simultaneously increasing the values and assets present on the site, as well as increasing potential ignition sources, as the development will increase the presence of vehicles and mechanical equipment and other electrical facilities onsite. As such, the overall wildfire risk index for the Project is expected to be slightly higher after development.

4.7. Wildlife

Similar to the impacts for vegetation, some wildlife will inevitably be affected by development of the Project area. Open, undisturbed grasslands are expected to be reduced overall, and no open space areas or tree plantings are planned as part of the Project.

Since grasslands are the dominant habitat type, grassland species are expected to experience the greatest adverse impacts. Deer, foxes, bears, and coyotes may experience adverse effects from the development 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. State SC black-tailed prairie dogs were not present, and thus the state-threatened burrowing owl is also not anticipated to be present on the Project site. The state and federally threatened Preble's meadow jumping mouse is not present on the Project site and would not be affected.

4.8. Federally Listed T&E Species

The IPaC identified six federally listed T&E species within the Project area. The likelihood of impacts to most these species within the Project area are all unlikely or nonexistent. Most listed species are either precluded because the Project is not in the Platte River watershed (piping plover) or because there is little to no suitable habitat present (Eastern black rail, Suckley's cuckoo bumblebee, and Ute ladies-tresses orchid). The only species with potential for impact is monarch butterfly, as milkweeds (*Asclepias spp.*), the obligate host plant for the species, was found in limited areas within the Project area and along the haul routes.

Additionally, within the Study Area there is potential for Eastern black rails along the Texas Route option for the haul road. This habitat is limited and rails are unlikely to occur, but the possibility of impacting this species would exist if W1 were to be impacted. This wetland is associated with a greater wetland complex downstream of Calhan Reservoir that has habitat suitable for Eastern black rail. Impacts to this species are unlikely, and risk would be entirely eliminated if project design avoids impacts to marsh wetlands.

5.0 RECOMMENDATIONS

Upon completion of a desktop review, site reconnaissance, and wetland assessment, 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. A formal wetland delineation was performed on September 10th, 2026, finding a total of 1.42 acres of palustrine emergent wetlands present within the Study Area. No wetlands were found within the Project area. Three wetlands are assumed to be regulated (W1, W4, and W5), and the Project should be designed to avoid impacts to any of the wetlands delineated within the Study Area. B.E. suggests selecting the Texas Route for the haul road, which could avoid the five wetlands altogether. A Section 404 permit would be required if wetlands along the haul routes are impacted by development.

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 any of the listed species identified in the IPaC data within this Project area, other than the proposed threatened species, monarch butterfly (**Appendix B**). Proposed threatened species are not protected by the take prohibitions of section 9, consistent with any protective regulations finalized under section 4(d) of the ESA, until the rule to list is finalized.

There is limited suitable habitat for Eastern black rail along the Texas Route haul road option; however, impacts can be avoided entirely if the wetlands along the route are not impacted. Other federally listed species are not supported in the available habitats at the site and along the haul routes. No impacts to any federally listed species are anticipated from site development. B.E. has requested concurrence from USFWS for a determination of ‘not reasonably certain to adversely affect’, and confirmation will be provided when it is received.

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 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 and eggs. There was one potential raptor nest, a cavity that could support American kestrel, in the riparian corridor near W1 along the Texas Route haul road option. No other nests were observed on the site. There was suitable nesting substrate for raptors only within this riparian corridor area, where there were trees large enough for raptors to nest in. Nesting substrates for other migratory birds are present in the form of open grasslands and marshes, which are expected to be used by some migratory birds during the breeding season.

It is recommended that vegetation clearing/grubbing/grading 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 nesting migratory bird survey during the breeding season to ensure impacts to nesting birds do not occur. In particular, ground nesting songbirds are expected to use the available grasslands at the site and surveys should be conducted to avoid disturbance.

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, the Project should be inventoried for weeds and the site-specific weed management plan developed by B.E. should be implemented. In particular, control of Canada thistle and common teasel (or any other List B noxious weeds observed on the site) is required by Colorado law. Mechanical and/or chemical control by a licensed herbicide applicator is recommended.

The CSU Noxious Weed Management Program provides a structured, adaptive framework to identify, control, and deter invasive plant species across CSU-controlled lands, watersheds, corridors, and operational facilities. Guided by the Colorado Noxious Weed Act and state environmental regulations, the program operates on a 5-step strategic cycle—combining systematic property surveys, risk-based prioritization, site-specific treatment, and long-term monitoring with preventative land management practices. Administered jointly by Environmental Services and Watershed Planning, the program utilizes licensed contractors to execute noxious weed surveys, multi-season treatments, and ensure detailed GIS and compliance reporting. Ultimately, the program protects local ecosystems, preserves watershed health, and mitigates wildfire and operational risks to safeguard critical utility infrastructure and support community resilience.

5.5. Non-Statutory Considerations

There is potential for some wildlife to occur within the site. However, no big game migratory routes traverse the Project, and few SC species were observed. Coordination with CPW is recommended to determine the appropriate avoidance measures to take during and after construction regarding general wildlife. B.E. has prepared a consultation letter and intends to initiate this consultation shortly. Impacts to wildlife should be reduced as much as is practical through the implementation of typical covenants, such as using 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

6.0 REFERENCES

- CDA (Colorado Department of Agriculture). 2006. 8 CCR 1206-2 – Rules Pertaining to the Administration and Enforcement of the Colorado Noxious Weed Act.
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APPENDIX A

PHOTOGRAPHIC LOG



PHOTO 1 – View facing north of W1, a marsh wetland just north of Birdsall Road within the potential haul route alignment. The marsh was dominated by narrowleaf cattail (*Typha angustifolia*), and could provide suitable, though minimal habitat for black rail. The wetland is drained by a non-jurisdictional linear feature that maintains hydrologic connection under Birdsall Road to downstream WOTUS.



PHOTO 2 – View facing north-northeast from Irradiance Road of the broad, undefined swale that goes through the entire Project area from northwest to south. This swale did not contain wetlands, and was dominated by Russian thistle (*Salsola tragus*) in this area. The swale did not have an ordinary high-water mark or other indications of conveying hydrologic flows.



PHOTO 3 – Another view of the undefined swale that flows through the Project site. This portion of the swale was dominated by western wheatgrass, sand dropseed, and blue grama, as is the rest of the site.



PHOTO 4 – Overview facing southeast of the typical vegetation found throughout the site, dominated by sand dropseed and blue grama. Existing infrastructure onsite can be seen in the background of the photo, including power lines and substation.



PHOTO 5 – View of W4 facing SSW from the high water crossing of Offshoot Way, along the Texas Route 2 haul route alternative. The wetlands here are mostly threesquare bulrush and Baltic rush, and do not offer enough cover to support black rails.



PHOTO 6 – Another view from the Offshoot Way high water crossing, facing NW toward W5. The area near the roadway is similar to W4, comprised mainly of threesquare bulrush, Baltic rush, and alkali sacaton. This habitat would not be suitable for black rails, but thicker marshes and denser vegetation can be seen a bit further north and should be avoided to avoid potential impacts to the species.



PHOTO 7 – View facing southwest of W2, a palustrine emergent wetland dominated by Baltic rush (*Juncus balticus*), found within a constructed pond. The boundary of the wetland can be seen in the toe of slope at the edge of the pond, in the midground of the photo.



APPENDIX B

IPAC RESOURCE LIST



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
Phone: (303) 236-4773 Fax: (303) 236-4005



In Reply Refer To:

08/12/2026 21:42:09 UTC

Project Code: 2026-0131207

Project Name: Williams Creek Generating Station

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to these species or critical habitats ([Colorado Ecological Services Field Office](#)). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. We recommend verification be completed by visiting the [IPaC](#) website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the [IPaC](#) system by completing the same process used to receive the enclosed list.

The purpose of the ESA is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations ([50 CFR 402](#)), Federal agencies are required to use their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation like a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends Federal agencies also address proposed species and proposed critical habitat within the consultation (see Conferencing below) and consider candidate species. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>.

Projects and activities without a Federal nexus (e.g., without Federal funding, permit, or authorization) should be evaluated for the potential to "take" listed wildlife. Take does not apply to listed plants and to designated critical habitat. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct ([ESA Section 3, Definitions](#)). Harm in the definition of "take" in the ESA means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering ([50 CFR 17.3](#)).

Conferencing: Conferencing for species proposed for Federal listing or for proposed critical habitat is only required if a proposed action is likely to jeopardize the continued existence of a species or will result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10). If an action agency determines that their action would not jeopardize the continued existence of the proposed species and/or would not result in the destruction or adverse modification of proposed critical habitat, the determination should be saved in the agency's project record. Agencies may request a voluntary conference to address adverse effects; however, at this time the Colorado Field Office intends to not conduct voluntary conferences for the species discussed in this cover letter.

For purposes of ESA section 7 consultation, we treat experimental populations (e.g., gray wolf in Colorado) as if they are proposed for listing, except on National Park Service and National Wildlife Refuge system lands, where they are treated as threatened. Evaluations for proposed species are completed under the regulations for conferencing ([50 CFR 402.10](#)).

Gray Wolf: On November 8, 2023, the Service promulgated an ESA section 10(j) (i.e., nonessential experimental population or NEP) rule (10(j) rule) for gray wolf (*Canis lupus*) within the State of Colorado ([88 FR 77014](#)). In the 10(j) rule, the Service determined that the loss of the Colorado NEP would not be likely to appreciably reduce the likelihood of survival of the species in the wild and that the establishment of the NEP would benefit recovery by increasing redundancy and representation. Furthermore, it is unlikely that typical agency actions in Colorado, especially those with temporary impacts to habitat, will result in any adverse effects to the gray wolf. Agencies may consider implementing voluntary conservation measures near active dens and rendezvous sites. See Conferencing above.

Colorado River Fish, Platte River Species, & Depletions: Formal interagency consultation under section 7 of the ESA is required for projects that may lead to depletions of water from any system that is a tributary to the Colorado River. Federal agency actions resulting in water depletions to the Colorado River system may affect the endangered bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), and the threatened humpback chub (*Gila cypha*), and their designated critical habitats. Similarly, formal consultation is required for projects that may lead to depletions of water from the Platte River, affecting the endangered pallid sturgeon (*Scaphirhynchus albus*), threatened piping plover (*Charadrius melodus*), threatened western prairie fringed orchid (*Platanthera praeclara*) the endangered whooping crane (*Grus americana*), and the whooping crane's designated critical habitat. Additional information on the Platte River Recovery Implementation Program is available here: <https://www.fws.gov/media/federal-depletions-plan-platte-river-recovery-implementation-program>.

Water depletions include evaporative losses and consumptive use of surface or groundwater within the affected basin, often characterized as diversions minus return flows. Project elements that could be associated with depletions include, but are not limited to: ponds, lakes, and reservoirs (e.g., detention, recreation, irrigation, storage, stock watering, municipal storage, and power generation); drilling, hydraulic fracturing and completion of oil and gas wells; hydrostatic testing of pipelines; water wells; dust abatement; diversion structures; and water treatment facilities. Any actions that may result in water depletions should be identified. An analysis of the water depletion should include: an estimate of the amount and timing of the average annual water use (both historic and new uses) and methods of arriving at such estimates; location of water use or where diversion occurs, as specifically as possible; if and when the water will be returned to the system; and the intended use of the water. Depending on Project details, the Service may have more specific questions regarding the potential consumptive use of the water.

The Service, in accordance with the Upper Colorado River Endangered Fish Recovery Program (<https://coloradoriverrecovery.org/uc/>), adopted a [de minimis policy](#), which states that water-related activities in the Upper Colorado River Basin that result in less than 10 acre-foot per year of depletions in flow have no effect on the Colorado River endangered fish species and their critical habitat, and thus do not require consultation for potential effects on those species and critical habitat. While no section 7 consultation is needed, the Service requests Federal agencies notify the Upper Colorado Fishes Coordinator of depletions between 0.1 and 10 acre-feet per year with the approximate location of the project (e.g., reference to the most proximate surface water or tributary), the water use (e.g., agricultural, oil and gas, energy), and the timing of and depletion amount. Similarly, detention basins designed to detain runoff for less than 72 hours, and temporary withdrawals of water outside of critical habitat (e.g., for hydrostatic pipeline testing) that return all the water to the same drainage basin within 30 days, are considered to have no effect and do not require consultation.

Suckley's Cuckoo Bumble Bee: On December 17, 2024, Suckley's cuckoo bumble bee (*Bombus suckleyi*) (Suckley's) was proposed for listing as an endangered species (89 FR 102074). Suckley's is an obligate social parasite of social bumble bees in the genus *Bombus*. Suckley's cannot successfully reproduce without the availability of suitable host colonies. It is a semi-specialist parasite and confirmed to usurp nests of Western bumble bee (*Bombus*

occidentalis) and Nevada bumble bees (*Bombus nevadensis*) (Service 2024). Based on the best available information, no Suckley's have been observed in Colorado since 2014 despite ongoing surveys. The Species Status Assessment (SSA) shows observations since 2018 occur only in northern latitudes, primarily in Canada ([Service 2024](#)), but the species may persist in high quality upper elevation habitats in western States.

While Suckley's is proposed for listing, there is no prohibition of "take" under Section 9 of the ESA; therefore, projects without a federal nexus, do not need to engage with the Service to exempt take under the ESA. However, we encourage everyone to incorporate conservation measures benefiting pollinators and pollinator habitat into projects. Examples include retaining suitable foraging (diversity and abundance of native floral resources), nesting (suitable host colony above or below ground), and overwintering habitat (loose substrates such as leaf litter, duff, rotting logs); maintaining habitat for host bumble bees by avoiding impacts to abandoned underground holes (rodent burrows); and revegetation efforts that include native seed mixes with a diversity of nectar plants (<https://www.xerces.org/monarchs/monarch-nectar-plant-guides>) to promote an abundance and diversity of native floral resources. Additionally, we recommend supporting and conducting general bumble bee and pollinator surveys. You may also consider tools that offer regulatory assurances should Suckley's become a listed species. For example, on January 22, 2026, the Service [Proposed a Nationwide Conservation Benefit Agreement for Bumble Bees](#).

At this time, the Colorado Field Office will not be participating in voluntary conferences for the species. Nationally, the Service is developing range-wide consultation guidance and streamlining tools for the Suckley's, and we will share these as they become available.

Monarch Butterfly: The monarch butterfly (*Danaus plexippus*) was proposed threatened under the Endangered Species Act (ESA) on December 12, 2024 (89 FR 100662). The proposed listing rule, including a special 4(d) rule, and proposed critical habitat in the California winter range, are available on the species webpage: <https://ecos.fws.gov/ecp/species/9743> and at <https://www.fws.gov/species/monarch-danaus-plexippus>. Two monarch butterfly populations occupy North America – the eastern population which is east of the Rocky Mountains, and the western population which is west of the Rocky Mountains. The eastern population supports well over 90% of the monarchs in North America. Colorado supports both populations. In Colorado, monarch butterfly habitat consists of grasslands, prairies, riparian areas, and urban gardens that support milkweed and a variety of nectar plants. We recommend agencies include proactive conservation measures into their projects such as restoring disturbed areas with local seed mixes with a diversity of nectar plants (<http://www.xerces.org/monarch-nectar-plants/>) and evaluating the full impact of their action (including conservation measures) when considering whether their project will jeopardize the species.

While the monarch butterfly is proposed for listing, there is no prohibition of "take" under Section 9 of the ESA; therefore, projects without a federal nexus, do not need to engage with the Service to exempt take under the ESA. However, we encourage everyone to include conservation measures to benefit monarch butterflies and other pollinators into projects. You may also consider tools that offer regulatory assurances should the monarch become a listed species such

as Conservation Benefit Agreements (CBAs), or you may qualify to enroll into the [Candidate Conservation Agreement with Assurances for the Monarch Butterfly](#).

At this time, the Colorado Field Office will not be participating in voluntary conferences for the species. It is unlikely that typical localized actions in Colorado, especially those with temporary impacts in migratory or breeding habitat, will jeopardize the species. Nationally, the Service continues to develop range-wide consultation guidance and streamlining tools for the Monarch butterfly and other pollinators.

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the ESA, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Code found in the header of this letter with any request for consultation or correspondence about your project that you submit to our office at ColoradoES@fws.gov.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Colorado Ecological Services Field Office

Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
(303) 236-4773

PROJECT SUMMARY

Project Code: 2026-0131207
Project Name: Williams Creek Generating Station
Project Type: Power Gen - Other
Project Description: Power generation station
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.630180949999996,-104.6296701840619,14z>



Counties: El Paso County, Colorado

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Preble's meadow jumping mouse <i>Zapus hudsonius preblei</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4090 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XJNQWM5B2NGUFMWCLWXVUG22KY/documents/generated/10776.pdf	Threatened

BIRDS

NAME	STATUS
Eastern Black rail <i>Laterallus jamaicensis jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XJNQWM5B2NGUFMWCLWXVUG22KY/documents/generated/10809.pdf	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened

INSECTS

NAME	STATUS
Monarch butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XJNQWM5B2NGUFMWCLWXVUG22KY/documents/generated/10810.pdf	Proposed Threatened
Suckley's cuckoo bumble bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

FLOWERING PLANTS

NAME	STATUS
Ute ladies'-tresses <i>Spiranthes diluvialis</i>	Threatened

NAME	STATUS
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XJNQWM5B2NGUFMWCLWXVUG22KY/documents/generated/10712.pdf	

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

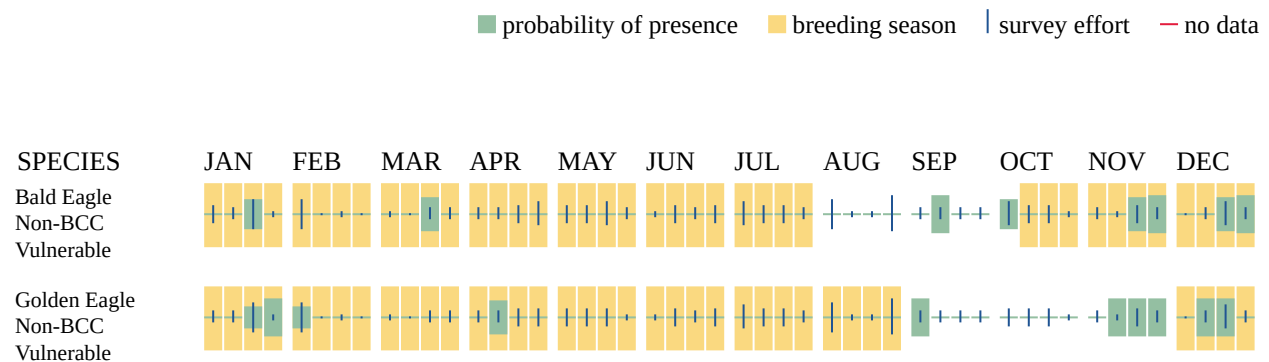
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31
Broad-tailed Hummingbird <i>Selasphorus platycercus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11935	Breeds May 25 to Aug 21
Chestnut-collared Longspur <i>Calcarius ornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9437	Breeds May 1 to Aug 10
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Ferruginous Hawk <i>Buteo regalis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6038	Breeds Mar 15 to Aug 15
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30

NAME	BREEDING SEASON
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Northern Harrier <i>Circus hudsonius</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8350	Breeds Apr 1 to Sep 15
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

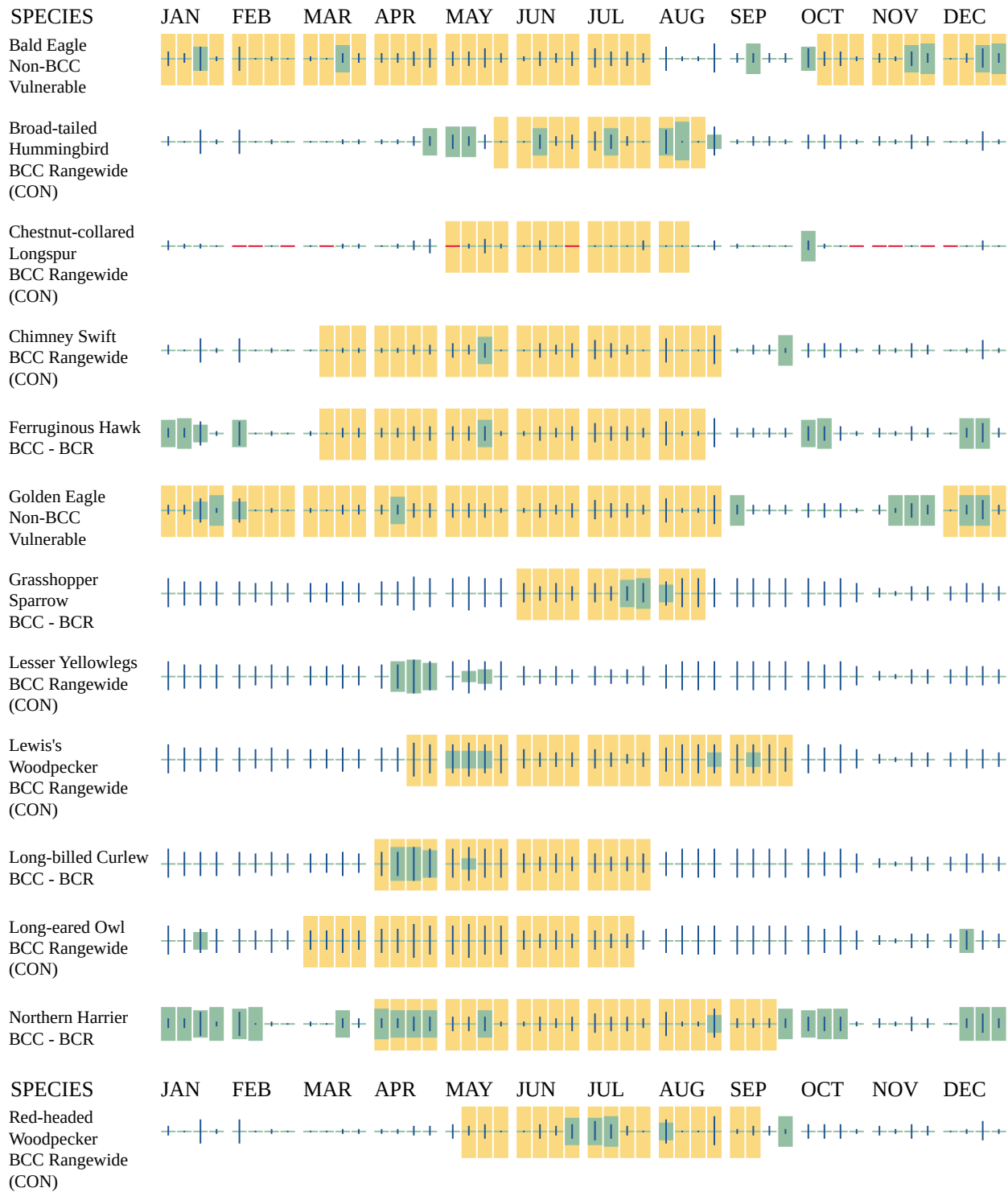
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>

- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R5UBH
- R4SBC
- R5UBFx

FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1Ah

IPAC USER CONTACT INFORMATION

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