



Natural Features and Wetland Report for the Grandview Reserve Project in El Paso County, Colorado

August 12, 2020

Prepared for:

4 Site Investments
1271 Kelly Johnson Blvd., Ste. 100
Colorado Springs, CO 80920

Prepared by:



1455 Washburn Street
Erie, Colorado 80516
(p): 970-812-3267

Project Number: 2018-15-1



3.7 Wildlife Communities

The stated purpose and intent of the “El Paso County Development Standards” section on wildlife is to ensure that proposed development is reviewed in consideration of the impacts on wildlife and wildlife habitat, and to implement the provisions of the Master Plan (El Paso County, 2018b). Ecos has determined that the wildlife impact potential for development of the Site is expected to be low.

The Site currently provides poor to moderate habitat for wildlife. There are two primary vegetation types on the Site, including shortgrass prairie and wetlands.

The project would develop most of the shortgrass prairie, however the drainages and adjacent short grass prairie would be preserved as Open Space. A noxious weed management plan will be implemented per State and County requirements to improve wildlife habitat; and a native plant re-vegetation plan for the Open Space is recommended to provide additional benefit to wildlife habitat.

The habitat preferences of the observed species are reflective of the habitat on Site. Two species of raptors were observed and appear to either be residents or frequent hunters to this Site: ferruginous hawk (*Buteo regalis*) and great horned owl (*Bubo virginianus*). Sandhill crane (*Grus canadensis*) were observed flying over during their migration, although they are not likely to utilize the Site. Prairie species such as jackrabbit (*Lepus townsendii*), pronghorn (*Antilocapra americana*), black-tailed prairie dog (*Cynomys ludovicianus*) and thirteen-lined ground squirrel (*Ictidomys tridecemlineatus*) were present. The remaining species are considered generalists and included mourning doves (*Zenaida macroura*) and American crows (*Corvus brachyrhynchos*). The Site provides very limited tree nesting habitat for raptors; however, ferruginous hawks may also use ground nests. No existing nest sites for any raptors were noted during the Site visit.

The Site provides habitat for mammals including rodents, antelope, and carnivores. The site provides foraging and breeding habitat for predators such as coyote and fox. The Site also provides good habitat for reptiles but limited habitat for amphibians due to the lack of persistent standing and flowing water. No other species were observed by ecos during our field assessment.

The Site contains no Wildlife Refuges or Hatcheries according to the USFWS IPaC Trust Resources Report (USFWS, 2020b) (Appendix D).

4.0 FEDERAL LISTED SPECIES

A number of species that occur in El Paso County are listed as candidate, threatened or endangered by the USFWS (USFWS, 2020b) under the Endangered Species Act (ESA). Ecos compiled the Federally-listed species for the Site in Table 3 based on the Site-specific, USFWS IPaC Trust Resources Report we ran for the Project (Appendix D); and our onsite assessment. Ecos has provided our professional opinion regarding the

probability that these species may occur within the Site and their probability of being impacted by the Project.

The likelihood that the Project would impact any of the species listed below is very low to none. Most are not expected occur in the Project area or on the Site; nor will they be affected by the indirect effects of the project. The Preble’s meadow jumping mouse is discussed in more detail below because there is USFWS designated Critical Habitat in the County.

TABLE 3 - FEDERAL LISTED SPECIES ASSESSED FOR THE PROJECT			
Species	Status	Habitat Requirements and Presence	Probability of Impact by Project
FISH			
Greenback cutthroat trout (<i>Oncorhynchus clarki stomias</i>)	Threatened	Cold, clear, gravely headwater streams and mountain lakes that provide an abundant food supply of insects.	None. Suitable habitat does not exist on the Site.
Pallid sturgeon (<i>Scaphirhynchus albus</i>)	Endangered	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	None. The proposed project is not in the watershed for any of the listed river basins.
BIRDS			
Least tern (<i>Sternula antillarum</i>)	Endangered	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	None. The proposed project is not in the watershed for any of the listed river basins.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Threatened	Mature, old-growth forests of white pine, Douglas fir, and ponderosa pine; steep slopes and canyons with rocky cliffs. The closest USFWS designated Critical habitat is over 15 miles southwest of the Site in mountainous terrain.	None. Suitable habitat does not exist on the Site.

TABLE 3 - FEDERAL LISTED SPECIES ASSESSED FOR THE PROJECT

Species	Status	Habitat Requirements and Presence	Probability of Impact by Project
Piping plover (<i>Charadrius melodus</i>)	Threatened	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	None. The proposed project is not in the watershed for any of the listed river basins.
Whooping crane (<i>Grus americana</i>)	Endangered	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	None. The proposed project is not in the watershed for any of the listed river basins.
MAMMALS			

TABLE 3 - FEDERAL LISTED SPECIES ASSESSED FOR THE PROJECT

Species	Status	Habitat Requirements and Presence	Probability of Impact by Project
<p>Preble's meadow jumping mouse <i>(Zapus hudsonius preblei)</i></p>	<p>Threatened</p>	<p>Inhabits well-developed riparian habitat with adjacent, relatively undisturbed grassland communities, and a nearby water source. Well-developed 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 out as 100 meters beyond the 100-year floodplain.</p>	<p>None. Unlikely to occur on Site due to: 1) the absence of habitat required to support the life requisites of the species; 2) negative trapping results reported by USFWS adjacent to the Site; 3) 10.22-mile distance from closest CPW "Potential" Occupied Habitat (west/northwest of the Site in Colorado Springs); 4) 6.5-mile distance from closest USFWS Critical Habitat (southwest of the Site along Black Squirrel Creek in Colorado Springs); and 5) lack of habitat connection corridor from known habitat to the Site.</p>
<p>PLANTS</p>			

TABLE 3 - FEDERAL LISTED SPECIES ASSESSED FOR THE PROJECT

Species	Status	Habitat Requirements and Presence	Probability of Impact by Project
Ute ladies'-tresses orchid <i>(Spiranthes diluvialis)</i>	Threatened	Primarily occurs along seasonally flooded river terraces, sub-irrigated or spring-fed abandoned stream channels or valleys, and lakeshores. May also occur along irrigation canals, berms, levees, irrigated meadows, excavated gravel pits, roadside borrow pits, reservoirs, and other human-modified wetlands.	Very Low. Unlikely to occur as the Site is situated between 6,860 and 7,020 feet above mean sea level, which is higher than the 6,500-foot elevation limits documented for the species and recommended for conducting surveys by the USFWS.
Western prairie fringed orchid <i>(Platanthera praeclara)</i>	Threatened	Occurs in tallgrass prairie in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Oklahoma. Upstream depletions to the Platte River system in Colorado and Wyoming may affect the species in Nebraska.	None. The proposed project will not alter or deplete flows to the South Platte.

4.1 Preble’s meadow jumping mouse

4.1.1 Natural History

The Preble's meadow jumping mouse (PMJM) is a small mammal approximately 9-inches in length with large hind feet adapted for jumping, a long bicolor tail (which accounts for 60% of its length), and a distinct dark stripe down the middle of its back, bordered on either side by gray to orange-brown fur (USFWS, 2016). This largely nocturnal mouse lives primarily in the foothills of southeastern Wyoming, and south to Colorado Springs, along the eastern edge of the Front Range of Colorado. PMJM are true hibernators. They usually enter into hibernation in September or October and emerge in May of the following spring.

PMJM typically inhabits areas characterized by well-developed plains riparian vegetation with relatively undisturbed grassland and a water source in close proximity (Armstrong et al. 1997). PMJM regularly range into adjacent uplands to feed, hibernate, and avoid flooding. Radio-tracking studies conducted by CPW have documented PMJM using upland habitat adjacent to wetlands and riparian areas (Shenk and Sivert 1999).

4.1.2 Threats

Threats to PMJM and their habitat include habitat alteration, degradation, loss, and fragmentation resulting from human land uses including urban development, flood control, water development, and agriculture. Habitat destruction may impact individual PMJM directly or by destroying nest sites, food resources, and hibernation sites; by disrupting behavior; or by forming a barrier to movement. Invasive non-native and noxious weeds can alter habitat and decrease its value.

4.1.3 Critical Habitat

Critical habitat is specific areas identified by the USFWS as being essential to the conservation of PMJM (USFWS, 2016). In determining which areas to designate as critical habitat, the USFWS must use the best scientific and commercial data available and consider physical and biological features (primary, constituent elements) that are essential to conservation of the species, and that may require special management consideration and protection. The primary constituent elements for the PMJM include those habitat components essential for the biological needs of reproducing, rearing of young, foraging, sheltering, hibernation, dispersal, and genetic exchange. Thus, critical habitat includes riparian areas located within grassland, shrub land, forest, and mixed vegetation types where dense herbaceous or woody vegetation occurs near the ground level, where available open water exists during their active season, and where there are ample upland habitats of sufficient width and quality for foraging, hibernation, and refugia from catastrophic flooding events. Section 7 of the Endangered Species Act prohibits destruction or adverse modification of a critical habitat by any activity funded, authorized, or carried out by any Federal agency, and Federal Agencies proposing actions affecting areas designated as critical habitat must consult with the USFWS on the effects of their proposed actions, pursuant to Section 7(a)(2) of the Act.

4.1.4 Potentially Occupied Range

Colorado Parks and Wildlife (CPW) mapped areas of “potential” PMJM occupied range (CPW, 2005). The occupied range mapping is based on known occurrences of PMJM (i.e., trapping data) and mapped riparian vegetation (i.e., potential habitat that was not necessarily trapped or verified). For each known PMJM location, a one-mile buffer is applied to riparian areas both upstream and downstream. This includes both the main channel and side channels. Additionally, a 100-meter lateral buffer is applied which, in general, represents foraging and hibernaculum habitat. This buffer serves as a general guideline. Site specific topographic and vegetative features may increase or decrease the area considered locally as foraging and hibernaculum habitat. Where riparian vegetation maps don't exist, the stream centerline is buffered laterally by 100 meters.

4.1.5 Summary

PMJM are very unlikely to occur on the Site or be affected by the Project due to:

- 1) the absence of onsite habitat required to support the life requisites of the species;
- 2) negative trapping results reported by USFWS adjacent to the Site;
- 3) 10.22-mile distance from closest CPW “Potential” Occupied Range (west/northwest of the Site in Colorado Springs);
- 4) 6.5-mile distance from closest USFWS Critical Habitat (southwest of the Site along Black Squirrel Creek in Colorado Springs); and
- 5) lack of a habitat connection corridor from known habitat to the Site.

Refer to Figure 8 – USFWS PMJM Trapping Map and Figure 9 – PMJM Habitat Map.

Figure 8

USFWS PMJM Trapping Location Map

Legend

- Grandview Reserve Site
- Trapped

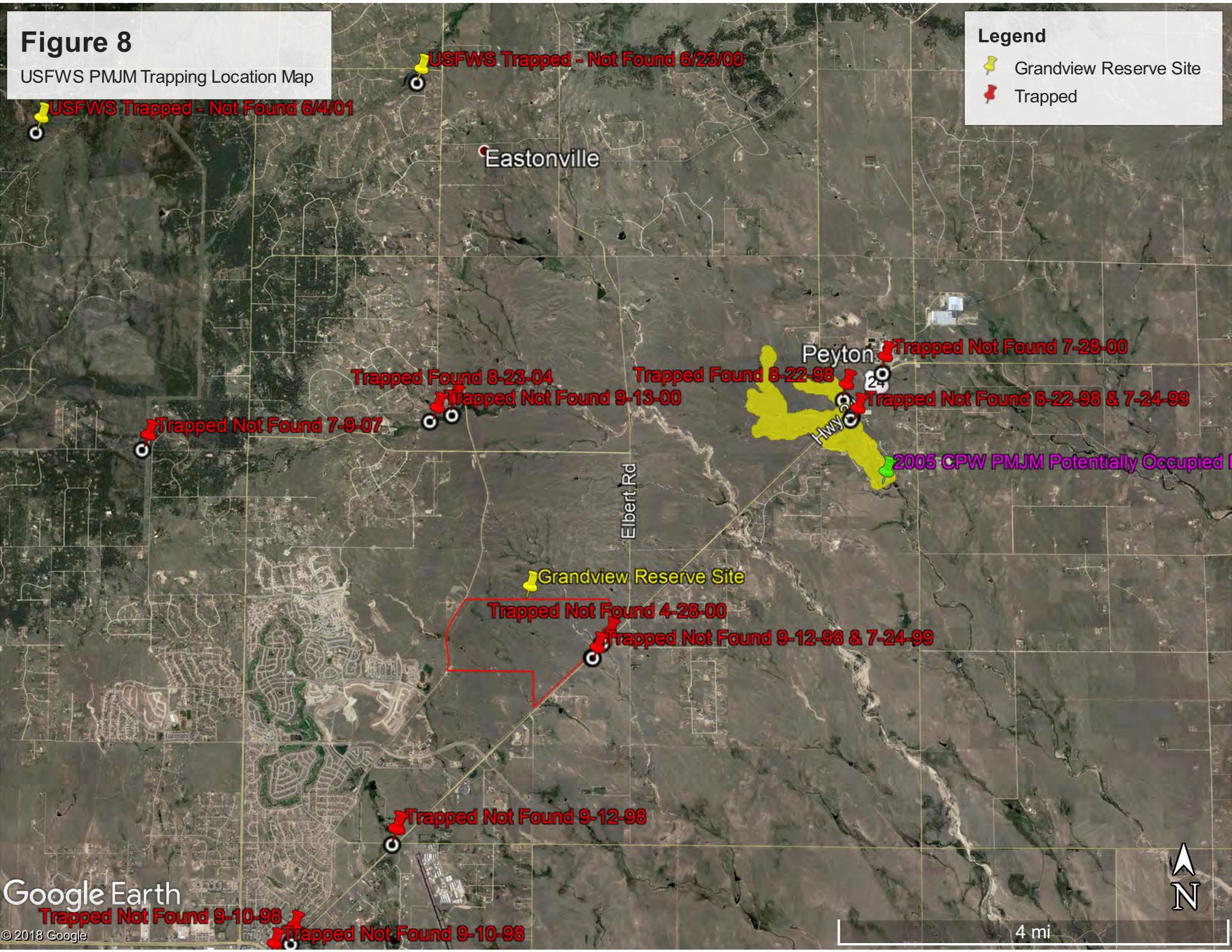
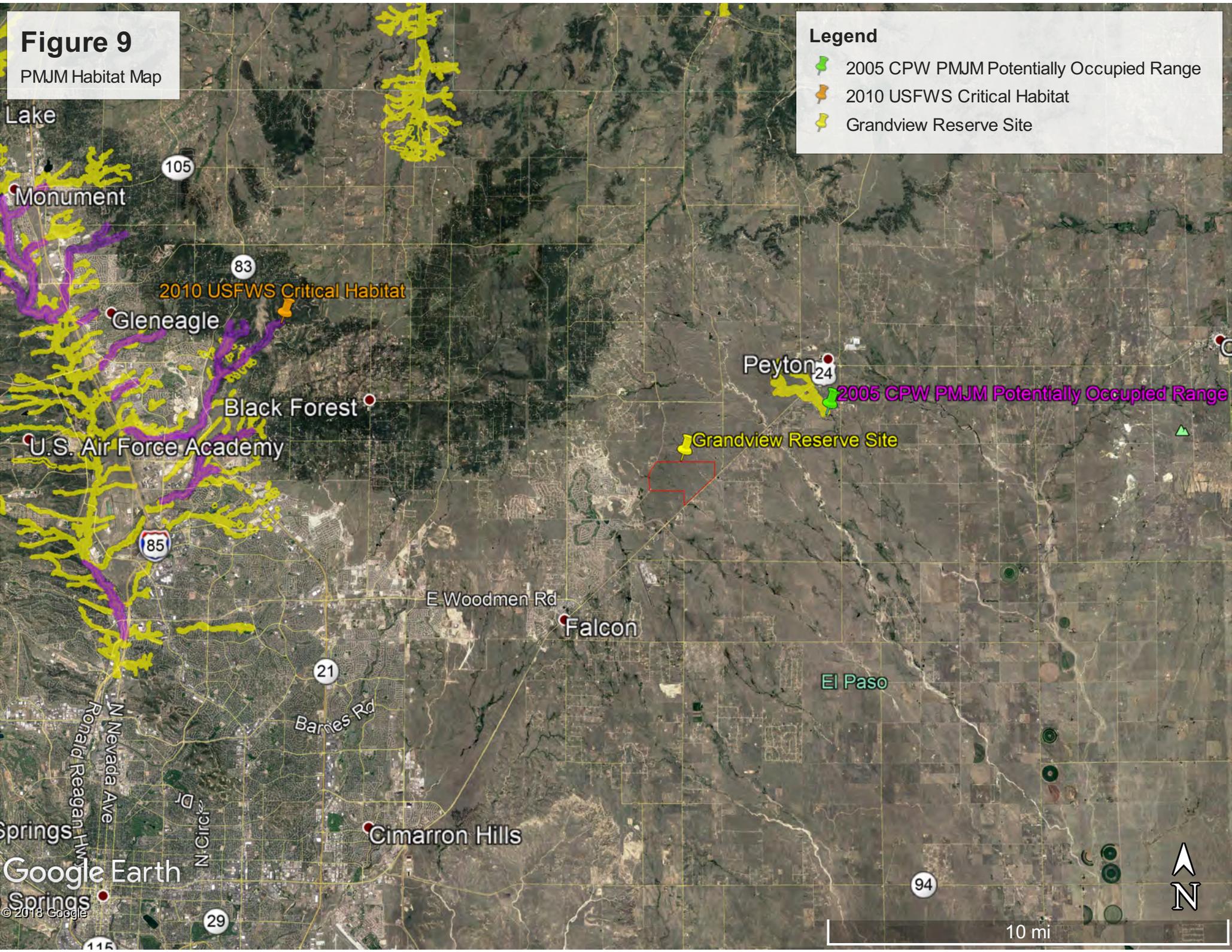


Figure 9

PMJM Habitat Map

Legend

-  2005 CPW PMJM Potentially Occupied Range
-  2010 USFWS Critical Habitat
-  Grandview Reserve Site



5.0 RAPTORS AND MIGRATORY BIRDS

Raptors and most birds are protected by the Colorado Nongame Wildlife Regulations, as well as by the federal Migratory Bird Treaty Act and/or the Bald and Golden Eagle Protection Act. No raptor nests have been mapped within one mile of the Site (COGCC, 2020). No raptor nests were observed during the site visit. However, the short grass prairie and wetland habitats are valuable nesting and foraging habitat for birds.

6.0 SUMMARY OF POTENTIAL IMPACTS

6.1 Mineral and Natural Resource Extraction

The previous project engineer researched the records of the El Paso County Clerk and Recorder and established that there is not a mineral estate owner on the Site (Appendix E). **This research will be replicated for this current iteration of the Project and provided prior to Preliminary Plan submittal.** However, Mineral or Natural Resource Extraction will not occur as a part of this Project, and no associated impacts to habitat will occur.

6.2 Vegetation

There are two main types of vegetation on Site; wetlands and short-grass prairie. Long-term cattle grazing has degraded vegetation by increasing weeds (although mild) in many areas and severely reducing woody riparian vegetation along the drainages. Direct negative impacts to vegetation will result from the construction of roads, trails, and homes; and indirect negative impacts will result such as spreading weeds to new areas or alteration of wetland hydrology. Since the project will preserve the onsite drainages and an open space area, there is good potential to improve vegetation in these areas. The following recommendations are intended to minimize negative impacts and increase positive impacts:

1. Create a habitat restoration and management plan for the drainages and Open Space areas that begins as soon as possible, continues through construction, and is taken over and implemented by the Metropolitan District following construction.
2. Increase native vegetation in the disturbed shortgrass prairie areas by seeding with native species. Another option would be to spread ~1" of salvaged topsoil obtained/stockpiled from any non-weedy shortgrass prairie area that would be impacted by infrastructure construction, such as roads and associated disturbances, and use it in undisturbed areas.
3. Include requirements in the Codes, Covenants and Restrictions (CCRs) to preserve native vegetation and minimize non-native landscaping and irrigation.
4. Implement a stormwater management system that does not significantly increase flows into the drainages and prepare a natural channel stabilization plan for all drainages.

6.3 Wetland Habitat and Waters of the U.S.

Drainages A and D are both jurisdictional WOUS, including adjacent wetlands; therefore, potential regulatory impacts to these drainages are discussed below:

Drainage A is the western-most drainage located between Parcels E and F (Medium Density) along the west side; and Parcels C, D and G (Medium Density) along the east side. The Sketch Plan (Figure 2) illustrates an Open Space buffer along both sides of the drainage that will assist in ameliorating the effects of residential runoff. This buffer area should be planted with multi-story palette of native upland and riparian species to supplement the regrowth and regeneration of previous woody vegetation (now that grazing has been removed), provide shading to regulate pH and water quality, and assist in stabilizing the streambanks. Given that Parcels E and F are proposed to be accessed via Eastonville Road to the west and the Waterbury project to the south, it does not appear that a road crossing of Drainage A will be necessary. Utility lines will need to cross Drainage A to get service to all lots; however, this impact may be avoided by boring beneath the drainage. A Detention Pond is proposed along the downstream, west side of the drainage that will require an outfall into the drainage. However, with proper location and alignment, impacts for this outfall should be minimal and primarily restored in-place.

Drainage D is the eastern-most drainage located between Parcels M (Medium-High Density), R (Medium Density) and Q (Low Density) along the west side; and Parcels N (Medium Density) and P (Low Density) along the east side. The Sketch Plan (Figure 2) illustrates an Open Space buffer along both sides of the drainage that will assist in ameliorating the effects of residential runoff. This buffer area should be planted with multi-story palette of native upland and riparian species to supplement the regrowth and regeneration of previous woody vegetation (now that grazing has been removed), provide shading to regulate pH and water quality, and assist in stabilizing the streambanks. A road crossing is proposed over the upstream reach of Drainage D that may cause impacts to WOUS and wetlands; however, these impacts may be significantly reduced if a free-span bridge is used. Utility lines will need to cross Drainage D to get service to all lots; however, this impact may be avoided by boring beneath the drainage or minimized by including them in the road crossing ROW. Three Detention Ponds are proposed along the drainage, one upstream and two downstream, all of which will require outfalls into the drainage. However, with proper location and alignment, impacts for these outfalls should be minimal and primarily restored in-place.

All Drainages: Project phasing should be used to avoid Site-wide, over-lot grading and related impacts from runoff, erosion and pollutant discharge into the drainages. Given the proposed density of development, strategic stormwater control before, during and after construction will be required to avoid these impacts and the associated channel incision and streambank degradation. Stormwater runoff from streets and impervious surfaces should be treated via vegetated swales, separators, (e.g., “Stormceptors” or similar oil and sediment separators) and/or the proposed detention basins prior to discharge into the drainages.

6.4 Weeds

Weeds observed on Site included three List B noxious weed species and one List C noxious weed species (CDA, 2018a). Suppression is required for all List B species. Site development typically causes weeds to increase due to increased earth disturbance and new weeds being brought in (on vehicles and shoes, in soil and fill material, in landscaping supplies, etc.). The following recommendations are intended to minimize negative impacts and increase positive impacts:

1. Introduce biological control agents for weed control as soon as possible.
2. Implement an integrated noxious weed management plan that begins as soon as possible, continues through construction, and is taken over and implemented by the Metropolitan District following construction. Control of List B species should be the highest priority, particularly knapweed.
3. Include requirements in the CCRs that landowners manage weeds on their property per the Colorado Noxious Weed Act and El Paso County guidelines.
4. Prohibit importation of fill dirt and landscaping material from other locations unless it is certified as weed free.

6.5 Wildfire Hazard

The Site is comprised entirely of herbaceous prairie and wetland vegetation designated as “Low Hazard – Non Forested” and has no forested (high hazard) areas (Figure 7). Therefore, it is not subject to the wildland areas requirements and does not require the preparation of a Wildland Fire and Hazard Mitigation Plan.

6.6 Wildlife Communities

The impact to wildlife is similar to that for vegetation. Species that occur in wetland and riparian habitat are expected to benefit from Open Space protection. Implementation of the stormwater management plan will assist in protecting water quality in the drainages, to ameliorate development impacts on aquatic wildlife species. Many shortgrass prairie specialist species avoid areas with buildings, overhead powerlines, and trees; thus, the project is expected to have the most significant negative impact on these species. The following, additional recommendations are intended to reduce impacts to wildlife:

1. Limit the use of herbicides, pesticides, and fertilizers as they can negatively impact aquatic wildlife species.
2. **Ecos has recommended that the Project minimize the installation of fencing to avoid injury to wildlife. When fencing is needed, we have specified the use of wildlife friendly fences or the inclusion of specific wildlife crossings along fence lines. Pronghorn are of particular concern because they do not jump over fences and can be injured by barbed-wire fences. The El Paso County, Community Services Department, Environmental Division has requested that fencing be installed to “avoid negative conflicts with pronghorn”. Therefore, ecos will**

discuss this with the County and if deemed to be in the best interest of pronghorn protection, work with the Applicant to prepare a fencing plan in accordance with Colorado Parks and Wildlife guidelines.

3. Road crossings over the drainages should be designed to enable wildlife underpass and allow use of the drainages as movement corridors to reduce collisions with vehicles.
4. Dogs should be kept in fenced pens and be leashed when on walks. At least one designated off-leash area for dogs should be provided, as this will increase compliance with leash rules in other areas.
5. Cats should not be allowed outdoors because they kill birds and native rodents. Cats may also be eaten by foxes and coyotes.

6.7 Federal Listed Species

The Site is not located within any USFWS designated critical habitat or known occupied habitat for federally designated threatened or endangered species, including the Preble's meadow jumping mouse. Therefore, no direct or indirect impacts to federally designated threatened or endangered species are expected to occur from the Project.

6.8 Raptors and Migratory Birds

The Project is expected to have minimal impacts on raptors and migratory birds. Preservation of Open Space along the drainages will likely have a positive impact on the birds that use this habitat. The project is expected to have slight negative impact on shortgrass prairie birds due to habitat alteration and increased disturbance by people, dogs, and cats. Negative impacts can be minimized by following the recommendations in the vegetation and wildlife sections.

7.0 REGULATIONS AND RECOMMENDATIONS

7.1 Clean Water Act

Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into waters of the U.S. (including wetland habitat) without a valid permit. Ecos identified jurisdictional wetland habitat and WOUS along Drainages A and D. However, the majority of the WOUS and wetlands on the Site will be set aside and included in Open Space with buffers; and no jurisdictional wetlands or waters will occur within private lots. Therefore, it is evident that impact minimization has been incorporated since the early stages of the design process. Any proposed impacts to WOUS or wetlands resulting from road or utility crossings, stormwater outfalls, channel stabilization, grading operations or other associated development disturbances should be avoided or minimized to the extent feasible. 4 Site Investments will need to obtain Clean Water Act (CWA) Section 404 Permit authorization from the USACE prior to construction to authorize development-related impacts. At the Sketch Plan phase, detailed data are not available to assess cumulative impacts and assign the type of 404 Permit that may be

applicable. However, if feasible, the cost and timeframe associated with the Project may be minimized if cumulative impacts are avoided and minimized to the extent that they meet the requirements for Nationwide Permit 29 for Residential Developments.

7.2 Endangered Species Act

The Site is not located within any USFWS designated critical habitat or known occupied habitat for federally designated threatened or endangered species, including the Preble's meadow jumping mouse. Therefore, no direct or indirect impacts to federally designated threatened or endangered species are expected to occur from the Project. Therefore, 4 Site Investments is not required to initiate consultation with the USFWS under the ESA. A "Clearance Letter" dated May 25, 2019 was obtained from the USFWS for the previous iteration of this Project that concurred with ecos' findings and "cleared" the entire Site. Ecos requested an updated, 2020 Endangered Species Act (ESA) Clearance Letter from USFWS. The USFWS issued a Concurrence response to our 2020 ESA Clearance Request that states, ""Ute ladies-tresses orchid and Preble's mouse are not likely to occupy the project site. Project is still consistent with the section 7 conclusions from 2019." The Agency has indicated that they have "No Concern" with our findings under the ESA and therefore no further action is required under the ESA (refer to Appendix F)

7.3 Migratory Bird Treaty Act & Bald and Golden Eagle Protection Act

No raptor nests have been mapped within one mile of the Site (COGCC, 2020) and no migratory bird nests were observed within the Site during ecos' assessment. However, given the transitory nature of these species ecos recommends a nesting bird inventory immediately prior to construction to identify any new nests within the Site or within the CPW recommended buffers of the Site. **Therefore, the Applicant will perform two surveys for migratory birds and their nests: 1) approximately one to two months prior to construction; and 2) one week prior to construction.** If these species are found to be present, construction activities **will** be restricted during the breeding season near any newly identified nests **to ensure the avoidance of take.**

7.4 Colorado Noxious Weed Act

In order to ensure Project compliance with the Act, the Noxious Weed Management Plan referenced in Section 3.5.3 of this Report should be implemented, and further site-specific weed management should be implemented on an ongoing basis, starting as soon as feasible.

8.0 REFERENCES

- Armstrong, D.M., M.E. Bakeman, A. Deans, C.A. Meaney, and T.R. Ryon. 1997. Report on habitat findings of the PMJM meadow jumping mouse. Boulder, Colorado. Report to the U.S. Fish and Wildlife Service and Colorado Division of Wildlife.
- CDA (Colorado Department of Agriculture). 2020a. Noxious Weed Species. Available at: <https://www.colorado.gov/pacific/agconservation/noxious-weed-species>.
- CDA (Colorado Department of Agriculture). 2020b. Request-A-Bug. Available at: <https://www.colorado.gov/pacific/agconservation/request-bug>.
- Chapman, S.S, G.E. Griffith, J.M. Omernik, A.B. Price, J. Freeouf, and D.L. Schrupp. 2006. Ecoregions of Colorado (color poster with map, descriptive text, summary tables and photographs): Reston, Virginia, U.S. Geological Survey.
- COGCC (Colorado Oil and Gas Conservation Commission). 2020. COGCC GIS Online.
- Colorado Code of Regulations. 2018. Conservation Services Division Code of Colorado Regulations. Rules Pertaining To The Administration And Enforcement Of The Colorado Noxious Weed Act (8 CCR 1206-2).
- CNHP (Colorado Natural Heritage Program). 2020. Colorado Wetland Inventory Mapping Tool. Available at: <http://www.cnhp.colostate.edu/cwic/location/viewSpatialData.asp>.
- CPW, 2005. "Preble's Meadow Jumping Mouse - Colorado Occupied Range 2005." Published by Colorado Division of Wildlife on October 12, 2005.
- El Paso County. 1996. El Paso County Master Plan for Mineral Extraction. El Paso County Land Development Code Chapter IV - Section 35.13, *Development Requirements for Mineral and Natural Resource Extraction Operations*, available at: <http://dev.adm2.elpasoco.com/planning/ldc/LDC-Sec35-13.asp>
- El Paso County, 2007. El Paso County Wildfire Hazards Based on CVCP Indicators. El Paso County, Colorado. December, 2007.
- El Paso County. 2018a. Noxious Weeds and Control Methods. Prepared by the Community Services Department - Environmental Division. Available at: <https://communityservices.elpasoco.com/wp-content/uploads/Environmental-Division-Picture/Noxious-Weeds/Noxious-Weed-Control-Book.pdf>
- El Paso County. 2018b. Land Development Code: Chapter 6. General Development Standards. Effective January 1, 2018.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- FFPD (Falcon Fire Protection District), 2020. Falcon Fire Department website.
- NTCHS (National Technical Committee for Hydric Soils). 1994. *Changes in Hydric Soils of the United States* (including the NTCHS definition of Hydric Soil). Federal Register Volume 59, Number 133. Wednesday, July 13, 1994.

Shenk, T.M. and M.M. Sivert. 1999. Movement patterns of Preble's meadow jumping mouse (*Zapus hudsonius preblei*) as they vary across space and time. Unpublished report of the Colorado Division of Wildlife.

USACE (U.S. Army Corps of Engineers). 2010. Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys and Coasts Region (Version 2) (USACE, 2010).

USDA (U.S. Department of Agriculture). 2020. USDA PLANTS Database. Available at: <http://plants.usda.gov/>.

USDA, Natural Resources Conservation Service (NRCS). 2010. Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 7.0. L.M. Vasilas, G.W. Hurt and C.V. Noble (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

USDA, NRCS. 2020. Web Soil Survey. Available at: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

USFWS (United States Fish and Wildlife Service). 2016. USFWS Mountain-Prairie Region Endangered Species description for the Preble's Meadow Jumping Mouse. Available at: <https://www.fws.gov/mountain-prairie/es/preblesMeadowJumpingMouse.php>

USFWS. 2020a. National Wetland Inventory, Wetlands Mapper. Available at: <http://www.fws.gov/wetlands/Data/Mapper.html>.

USFWS. 2020b. Information, Planning, and Conservation System. Available at: <https://ecos.fws.gov/ipac/>.

Weber, William A. and R.C. Wittmann. 2012. Colorado Flora: Eastern Slope, Fourth Edition. University Press of Colorado, Boulder, Colorado.

White, G.C. and T.M. Shenk. 2000. Relationship of Preble's meadow jumping mouse densities to vegetation cover. Unpublished report of the Colorado Division of Wildlife. May 12, 2000.

Whitson, Tom D. L.C. Burrill, S.A. Dewey, D.W. Cudney, B.E. Nelson, R.D. Lee, and R. Parker. 2004. Weeds of the West, 9th Edition. Western Society of Weed Science, Western United States Land Grant Universities Cooperative Extension Services, and the University of Wyoming, Jackson Hole, Wyoming.

Wingate, Janet. L. 1994. Illustrated Key to the Grasses of Colorado. Wingate Consulting, Denver, Colorado.

**Informal Consultation Request**

April 10, 2020

Mr. Drue DeBerry
Acting Colorado Field Supervisor
U.S. Fish and Wildlife Service
Colorado Ecological Services Field Office
134 Union Blvd., Suite 670
Lakewood, Colorado 80228

RE: Request for Technical Assistance Regarding the Likelihood of Take of Federally-listed Threatened and Endangered Species resulting from the proposed development of the Grandview Reserve Project in El Paso County, Colorado

Dear Mr. DeBerry:

Ecosystem Services, LLC (ecos) has prepared the enclosed habitat evaluation on behalf of 4 Site Investments to describe the physical/ecological characteristics of the Grandview Reserve site (Site) and evaluate the potential effects of the proposed development project (Project) on the Federally-listed threatened and endangered (T&E) species protected under the Endangered Species Act (ESA).

The El Paso County Environmental Division has completed its review of the Project and has requested that 4 Site Investments provide a "Clearance Letter" obtained from the U.S. Fish and Wildlife Service (USFWS) to the Planning and Community Development Department prior to project commencement "where the project will result in ground disturbing activity in habitat occupied or potentially occupied by threatened or endangered species and/or where development will occur within 300 feet of the centerline of a stream or within 300 feet of the 100 year floodplain, whichever is greater."

At this time there is no Federal action and no Federal agency is making a formal effects determination under Section 7 (a)(2) of the ESA. Therefore, ecos is requesting technical assistance from USFWS regarding 4 Site Investments' (i.e., the non-federal party) responsibilities under the ESA, and specifically the likelihood of the Project (described herein) resulting in take of listed species. If the USFWS concurs with the findings presented herein we request that you issue an informal letter of concurrence for use in the El Paso County Project review process.

1.0 SITE LOCATION and PROJECT DESCRIPTION

The Site is located in the Falcon/Peyton area of El Paso County and is bounded along the north by 4 Way Ranch Phase I, along the south by Waterbury, along the southeast by Highway 24, and along the west by Eastonville Road. There are no existing structures, roads, or other infrastructure on the Site. The Site is located approximately 4.14 miles southwest of Peyton, 4.16 miles northeast of Falcon and 4.66 miles south of Eastonville, in El Paso County, Colorado. The Site is generally located within the south ½ of Section 21, south ½ of Section 22, the north ½ of Section 27, and the north ½ of Section 28, Township 12 South, Range 64 West in El Paso County, Colorado. The center of the Site is situated at approximately Latitude 38.98541389 north, - 104.55472222 east (refer to Figure 1).

