

Eagle Environmental, Inc.



Expertise in Natural Resource Science

**Statement for Boulder County Parks and Open Space
Concerning Bald Eagles in relation to
Revised Management Plan for
Carolyn Holmberg Preserve at Rock Creek Farm (CHPRCF)**

**Prepared for:
Front Range Nesting Bald Eagle Studies**

by

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The Bald Eagle (*Haliaeetus leucocephalus*), as our national bird, was a charismatic mega-faunal driver for the passage of the Endangered Species Protection Act of 1966 and the more comprehensive Endangered Species Act of 1973. The Bald Eagle was removed from the Endangered Species List in 2007 because the species had rebuilt breeding populations in the lower 48 states (U.S. Fish and Wildlife Service 2007). Long before endangered species became a catch phrase, however, the Bald Eagle Protection Act of 1940, later amended to become the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), prohibits anyone, unless with valid U.S. Fish and Wildlife Service permit, to “take” either eagle. Take is defined as “pursue, shoot, attempt to shoot, ...molest, or disturb”. The Act further defines “Disturb” to mean: “to agitate or bother a bald or golden eagle to a degree that it causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (U.S. Fish and Wildlife Service 2020). Potential disturbance to nesting Bald Eagles at Rock Creek Farm is the primary purpose of this statement. Note that the Bald and Golden Eagle Protection Act provides nearly the same protection for eagles as the Endangered Species Act did.

Bald Eagles are among the most scientifically studied bird species (Buehler 2020). Multiple researchers have made efforts to quantify the effects of human disturbance on Bald Eagle behaviors, including breeding effort and success (Anthony et al. 1995). Humans on foot can elicit the strongest negative responses (ie., McGarigal et al. 1991), with particular reference to pedestrians and nesting eagles (Fraser et al. 1985, Grubb and King 1991). These authors have recommended buffer zones around occupied nests of 400-600 m wherein no human activity should be allowed during the breeding season. The U.S. Fish and Wildlife Service (2020) refers web visitors to a Colorado Parks and Wildlife PDF that recommends a buffer zone that excludes surface activities (beyond that which historically occurred in the area) for occupied Bald Eagle nests of one quarter mile year-round and one half mile during the breeding season (October 15 and July 31; Colorado Parks and Wildlife 2008). These recommendations are “more extensive than the National Bald Eagle Management Guidelines (USFWS 2007) due to the generally open habitat used by Colorado's nesting bald eagles.”

Breeding Bald Eagles first occupied the Stearns Lake territory between 2010 and 2012. They nested successfully during 5 of 7 seasons in their original nest tree from 2012 to 2019 (Figure 1; pre-2020 nest). Not only was this nest on private land, but it was also in a finger of the City and County of Broomfield, though surrounded by Boulder County, which remains a party to the conservation easement on that land. Construction of townhomes near the original nest tree in 2013-2014 corresponded with abandonment of the nest in May 2014; this was immediately followed by nest construction at or near Perch D, just south of Stearns Lake (Figure 1). After townhouse construction was completed in early fall of 2014, the eagles returned to resume nesting in their original nest location (FRNBES unpub. data, 2020). A large housing construction project within 200 m of the original nest in 2018-2019 was likely the reason the eagles chose to begin to build a nest at Perch F in October 2019 (Figure 1). There is a shortage of suitable nest trees in their near-nest area (Figure 1; FRNBES unpub. data, 2020); therefore the

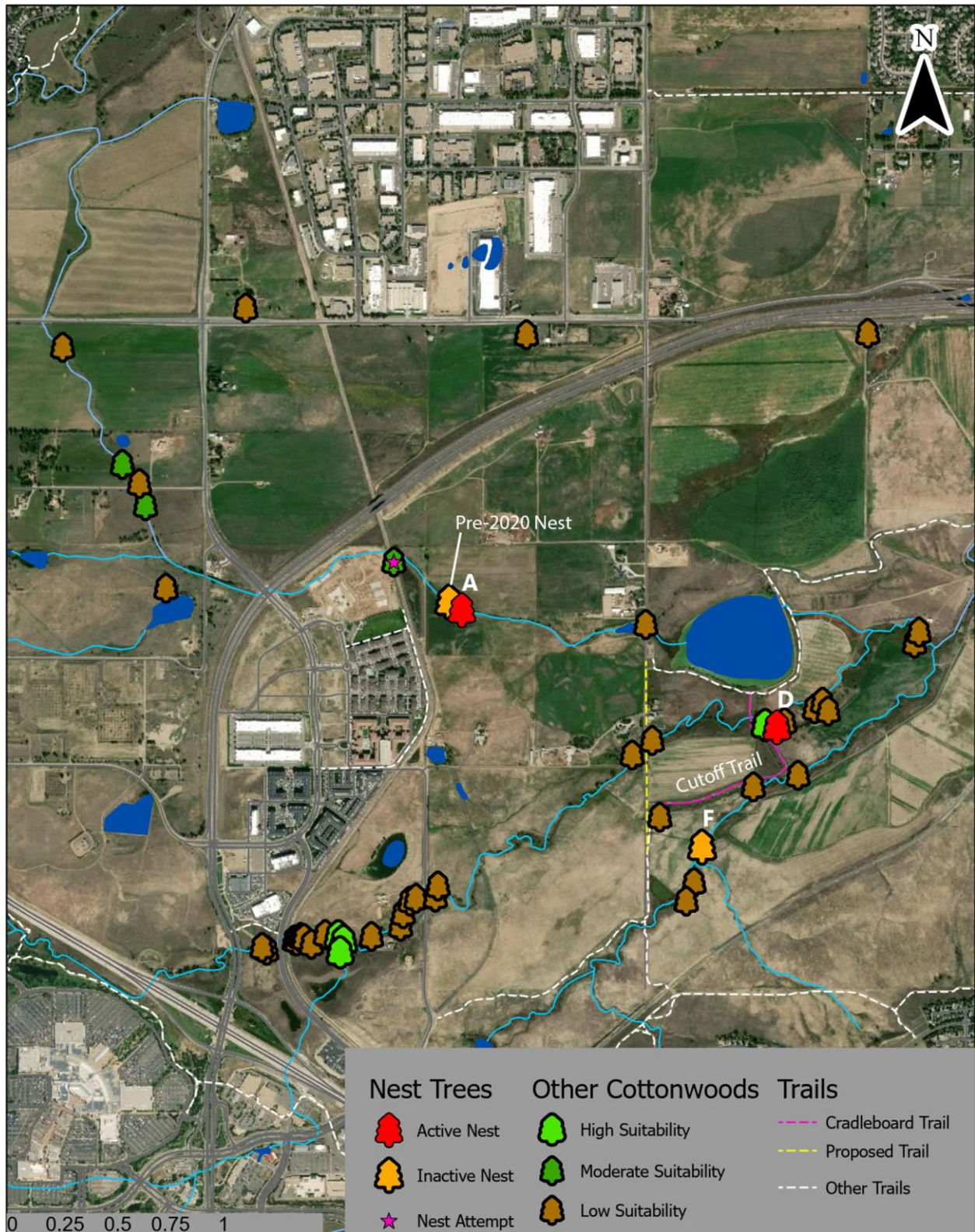


Figure 1. Perch/Nest locations of Stearns Lake Bald Eagles, 2012-2020. Includes an evaluation of nest site suitability (FRNBES unpub. data, 2020)

eagles built the new nest in a nearly dead old-growth cottonwood with poor supporting limbs for the nest. Weekly (or nearly so) photographs documented the westward collapse of the nest (FRNBES, unpub. data, 2020), which finally gave way on 18 April 2020, causing the loss of two nestlings.

Boulder County Parks and Open Space (BCPOS) closed the nearly 800-meter long “Cutoff Trail” (Figure 1) in mid-November 2019, because the nest was only about 150 m from the trail. The nesting eagles began utilizing the areas east and west of the “Cutoff Trail following trail closure to derive nest materials, as well as for hunting and perching (FRNBES, unpub. data, 2020). The precaution of the trail closure met CPW (2008) guidelines, even though there were typically few users on this Rock Creek Farm trail through 2019 (FRNBES, oral commun., 2020). The eagles were successful in hatching young, but the structural failure of the nest doomed the effort. The Cutoff Trail was re-opened after Nest F failed (22 April), and COVID-induced local hiking increased there almost exponentially. Most of the work by the eagles on the Perch D nest occurred during inclement weather 10-11 May when there were few hikers. FRNBES (unpub. data, 2020) staff and volunteers documented 37.5 hikers/hour in 6 hours of observation in 12-17 May 2020. The eagles also attempted to build a nest in Perch A during April and May, 2020; however, only a few sticks accumulated, likely due to the dense canopy and poor crotch support afforded. Nest building at perch D has been only sporadic and largely confined to the early morning since mid-May (FRNBES unpub. data, 2020). Nest D is only 80 m from the Cutoff Trail, so it will be necessary to close the trail year-round to encourage the eagles to nest there in 2021. The post-COVID use of the Cutoff Trail is not historical use, so year-round closure is necessary to give this eagle pair the best chance of success in 2021 and beyond.

This recommendation of closure of the “Cutoff Trail” (Figure 1) is consistent with the guiding principles of the Boulder Valley Comprehensive Plan (BVCP), 2015 Update (City of Boulder 2015). According to the BVCP, the city and county will emphasize the protection and enhancement of critical wildlife habits and local species of special concern. Local species of special concern, as identified in the BVCP, include nesting Bald Eagles and thus a management plan to protect their critical habitat is consistent with guidance under this plan. Furthermore, the previous planning documents for CHPRCF (BCPOS, 2002) prioritizes preservation of critical wildlife habitat; wetlands and riparian areas; unique stands of shortgrass prairie; historic/archaeological resources; and to maintain agricultural production. In terms of trail usage, the guidance in the report advises to “provide compatible recreational use” in reference to the above stated protections. Closure of the ~800 meter-long “Cutoff Trail” would be consistent with these priorities, and still maintain the goals for this property and the BVCP (City of Boulder 2015), which state that “a county-wide trail system shall be promoted to serve transportation and recreation purposes”.

For a possible long-term solution, I recommend FRNBES work with BCPOS to consider if a sturdy artificial base and sticks (i.e., Hunter et al. 1997) could be added to an ideally located but currently unsuitable cottonwood in Rock Creek Farm. If placed in a cottonwood more removed from the trail, and if the Bald Eagles were to move to the artificial nest, they could have sufficient distance from the trail that it would not need to be closed.

THE IMPORTANCE OF PRAIRIE DOGS TO COLORADO BALD EAGLES

Black-tailed Prairie Dog (*Cynomys ludovicianus*) are a keystone species in native grasslands of eastern Colorado (BCPOS 2016). They were also the predominant prey during the 1980s expansion of Colorado's breeding population of Bald Eagles (Kralovec et al 1991) and are the predominant prey at Boulder County eagle nests (FRNBES unpub. data, 2020). FRNBES data also documented continued use of the Broomfield City/County field with Perch A, because of the extensive prairie dog town there, while the eagles were not nesting. Because this land is private, continued existence of this valuable prey source can never be assured. During the past year, in fact, the private landowner removed all prairie dogs from the 40 to 60-acre conservation easement parcel immediately south of the pre-2020 nest tree (FRNBES, written commun., 2020).

For Rock Creek Farm, BCPOS (2016) reported 99 acres of HCA (Habitat Conservation Area), to be managed as prairie dog habitat, and 291 acres of MOA (Multiple Objective Area), to be managed for prairie dogs as well as compatible activities. The remainder of the 967 acres was either unsuitable or was to be managed as NPD (No Prairie Dogs) Area. But most foraging flights from occupied nests by Colorado Front Range Bald Eagles are 3 minutes or less in duration, so FRNBES observations suggest that most foraging occurs within one-half mile of occupied nests (FRNBES unpub. data, 2020). Foraging flights in southwest Colorado in good prairie dog habitat were of similar length (Stahlecker, pers. observations). There are only NPD zones within one quarter mile of the nest in Perch D and the only MOA area within a half mile is to the west of the track road/proposed trail (Figure 1). In order to improve the likelihood of a successful nesting at Perch D, manipulative kill of prairie dogs within that MOA should be reduced or eliminated and only reinstated if there are clear issues between prairie dog numbers and other resources in that MOA.

RECOMMENDATION FOR A SITE-SPECIFIC WILDLIFE MANAGEMENT PLAN FOR NESTING BALD EAGLES AT CHPRCF

The *BCPOS Cropland Policy* (BCPOS 2017) requires a site-specific management plan for sensitive wildlife occurring on cropland including species such as Bald Eagles and burrowing owls. Currently, there is no Critical Wildlife Management plan for nesting Bald Eagles at CHPRCF, nor is such a plan mentioned in the current BCPOS planning documents or maps. Since nesting eagles are now new to the Holmberg preserve, I recommend that BCPOS formulate a wildlife management plan as advised in the *BCPOS Cropland Policy*. Such a plan should be specific to nesting Bald Eagles and ensure that nesting activity is not disturbed by human encroachment, and that clear, adaptive plans for Bald Eagle management as suggested in the *BCPOS Cropland Policy* are developed to prevent future conflicts.

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Brief on Dale Stahlecker: Dale grew up in Colorado and graduated from Colorado State University with B.S. (1973) and M.S. (1975) in Wildlife Biology. Throughout his career as an agency and then consulting biologist, his interest in raptors (particularly eagles) have been predominant. Settling in New Mexico in 1980, long-term monitoring of breeding by raptors became his forte'. He was lead author on seven chapters of the "Raptors of New Mexico", published in 2010, including a summary of Bald Eagle breeding and wintering ecology in the U.S.'s fifth largest state. For more information, see his bio and a list of publications by him and other Eagle Environmental Biologists at: <http://www.eagleenvironmental.net>