## II. APPENDIX D - DESCRIPTION OF THE LAND

### I. Appendix D-9 - Wildlife (see Guideline No. 5)

The permit area contains 1,770.6 acres. 15 acres are presently part of a limited mining operation. The remainder of the proposed permit area is grazing land. The overall topography is hilltops. Elevations within the permit area, including the access road, range from 4,000’ to 4,553’ above sea level.

Wildlife Habitat

Consultation with Wyoming Game and Fish Department (WGFD) personnel in Cheyenne established that the permit area is outside of Greater Sage-Grouse Core Area Protection, as well as Wyoming Mule Deer and Antelope Migration Corridor Protection, and Big Game Crucial and Parturition Ranges areas.

The WGFD did request further analysis on a few identified Species of Greatest Conservation Need. Mullinax Inc. contracted Grouse Mountain Environmental Consultants to complete this analysis and their findings are attached.

Grouse Mountain Environmental Consultants submitted their wildlife report to the Wyoming Game and Fish Department. Their response is included in this appendix.

A copy of the correspondence with the WGFD and the U.S. Fish & Wildlife Services (USFWS) on these topics are included at the end of this Appendix.

Mullinax Inc. commits to:

a. Notify the LQD Sheridan District III Office and the WGFD Buffalo District Biologist if any of the information in this Appendix is known to have significantly changed as the mining operation progresses.
b. Secure a permit from the USFWS to “take” a raptor nest if such a project is ever required. Mullinax Inc. would also notify the LQD Sheridan District III Office of this USFWS permit.
c. Based on the responses from Wyoming Game and Fish & the US Fish and Wildlife Service, we are committed to following the recommended conservation measures to reduce our impact to protect the wildlife and their habitats.

# 2023

# Wildlife and Habitat Surveys

*Forbes Pit*

**Prepared For**:

Mullinax Inc.
P.O. Box 2044
Sheridan, WY 82801

**Prepared By**:
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**August 30, 2023**

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## Attachments

## FIGURES



## APPENDICES

# 1.0 INTRODUCTION

Grouse Mountain Environmental Consultants, LLC (Grouse Mountain) was contracted by Mullinax Inc. to conduct wildlife surveys for the Forbes Pit located in Sheridan County, Wyoming. Grouse Mountain assessed habitat and conducted species-specific wildlife surveys during the spring and summer of 2023. Grouse Mountain surveyed a total of 5,503 acres within 0.5 mile of the proposed mine permit boundary including approximately 1,766 acres within the proposed mine permit boundary. Habitat types surveyed included rolling hills, rock outcroppings, dirt cliff banks, and grasslands.

# 2.0 ENVIRONMENTAL SETTING

The Forbes Pit is located approximately 3.5 miles southwest of Sheridan, Wyoming. The local climate is characterized by long cold winters and short hot summers. Average temperatures range from 6.3 °F to 32.5 °F in January and from 53.5 °F to 87.8 °F in July. Mean annual precipitation is 14.92 inches (WRCC 2016). Elevation of the surveyed area is approximately 4,300 feet. The surveyed area is primarily rolling hills and grasslands. Livestock grazing is the predominant land use in the area.

# 3.0 METHODS AND RESULTS

Grouse Mountain used Wyoming Game and Fish (WGFD) consultation letter WER 14938.00a (Attachment 1) and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool to guide desktop analysis and survey needs. Prior to conducting surveys, Grouse Mountain obtained records of known bald and golden eagle nests, raptor nests, sharp-tailed grouse leks, black-tailed prairie dog colonies, and other pertinent biological information pertaining to the project area from the USFWS and WGFD. Survey methodologies were adapted from the WGFD Handbook of Biological Techniques (WGFD 2007). All surveys were conducted on foot or UTV with the aid of binoculars and spotting scopes. Field data was collected using Field Maps for ArcGIS on a Samsung Galaxy Tab Active2 device with an internal global positioning system (GPS). Habitat features were documented with a digital camera.

## 3.1 Non-Eagle Raptor Nest Survey

### *3.1.1 Methods*

IPaC analysis indicated potential impacts to non-eagle raptor Birds of Conservation Concern (BCC) protected by the Migratory Bird Treaty Act (MBTA) including ferruginous hawk (Buteo regalis) and prairie falcon (Falco mexicanus). Grouse Mountain conducted searches for undocumented raptor nests and documented all raptor observations noting species, behavior observed, and location within 0.5 mile of proposed permit boundary. Searches for undocumented nests were conducted with special attention given to standing trees, rock outcrops, cliffs, ridges, knolls, and in areas where the likelihood of detecting raptor nests increased. To mitigate disturbance to nesting raptors, nests were approached cautiously and observed from a distance using binoculars or a spotting scope to determine status.

### *3.1.2 Results*

Available data indicated no previously documented raptor nests located within 0.5 mile of the permit boundary during desktop analysis. No new non-eagle raptor nests were identified during surveys. Two red-tailed hawks (*Buteo jamaicensis*) were observed flying low near the edge of the permit boundary. (Figure 1) No nest or suitable nesting substrate was located in the area of the observation. Suitable nesting habitat including tees, drainage edges and hilltops occur within 0.5 mile of the

permit boundary. Additionally, black-tailed prairie dog colonies located within the permit boundary provide sufficient prey base for nesting and hunting raptors.

## 3.2 Bald and Golden Eagle Survey

### *3.2.1 Methods*

IPaC analysis indicated potential impacts to bald and golden eagles protected by the Bald and Golden Eagle Protection Act (BGEPA). (IPaC 2023) Grouse Mountain conducted searches for undocumented eagle nests and documented all eagle observations noting behavior observed and location within 0.5 mile of proposed permit boundary. Searches for undocumented nests were conducted with special attention given to standing trees and cliffs in areas where the likelihood of detecting eagle nests increased. To mitigate disturbance to nesting eagles, nests were approached cautiously and observed from a distance using binoculars or a spotting scope to determine status.

### *3.2.2 Results*

Current available information indicated no known bald or golden eagle nests located within 0.5 mile of the proposed permit boundary during desktop analysis. Grouse Mountain identified one previously undocumented golden eagle nest. Nest ID 558512SESE01 was occupied and located in an aspen tree (*Populus tremuloides*) approximately 70 feet from the edge of one of the Phase 2 affected areas. One adult golden eagle was incubating on the nest and a second adult was perched on the ground below the nest tree. During a subsequent visit to the nest in late July the nest was unoccupied and lacked the sign typically indicative of a successful nest. One bald eagle was observed perched on a power pole within 0.5 mile of the proposed permit boundary. Some stands of eastern cottonwoods (*Populus deltoides*) located in creek bottoms within 0.5 mile of the proposed permit boundary could provide sufficient nesting structure for bald and golden eagles. (Figure 1)

## 3.3 Sharp-tailed Grouse Breeding Survey

### *3.3.1 Methods*

Plains sharp-tailed grouse "occupy habitats ranging from lower elevation agricultural lands to mixed mountain shrub communities at mid-elevations. In general, the species is most abundant within open, grass-dominated habitats often lacking shrub cover… dancing grounds are also found in a variety of habitats ranging from large openings in mountain shrub stands to wheat stubble strips. Many leks in southeast Wyoming are on grazed rangelands near CRP tracts that provide nest and escape cover. Lek sites are typically locations with open visibility, but relatively close to escape cover, and are usually on slight rises." (WGFD 2007)

Sharp-tailed grouse "begin displaying as early as mid-February, however counts and surveys should coincide with the peak of breeding activity between 1 April and 15 May. Begin counts 0.5-hour before sunrise and terminate them 0.5-half hour after sunrise. Some birds may remain on leks up to 2 hours after sunrise, however, counts later than 0.5- hour after sunrise produce inconsistent results and may not capture the maximum attendance of that day…Allow 7-10 day intervals between counts" (WGFD 2007)

### *3.3.2 Results*

Suitable breeding and nesting habitat is located throughout the proposed permit boundary. According to the Wyoming Game and Fish database, no previously documented sharp-tailed grouse leks occur within the proposed permit boundary.

Grouse Mountain conducted two ground surveys for sharp-tailed grouse activity and new sharp-tailed grouse leks. One previously undocumented potential sharp-tailed grouse lek was located during surveys. At the time of initial discovery and the subsequent lek count survey, the presence of mule deer and pronghorn within the lek disrupted grouse displays. Ten sharp-tailed grouse were

flushed by pronghorn during the first visit/initial detection. The area was searched for sign after the morning leking period. Two groups of three birds were flushed in the general area of the potential new lek. Feathers and pellets were also present in the area. Mule deer and pronghorn were already present within the lek area at the time of the second lek count. The area was again searched for sign after the morning leking period. Two birds flushed in the general area of the lek, and fresh feathers and pellets were also present. (Figure 1)

## 3.4 Black-tailed Prairie Dog Survey

### *3.4.1 Methods*

Grouse Mountain conducted searches for prairie dog colonies within the proposed permit boundary. New prairie dog colonies were delineated and mapped to reflect the size of the colony and to aid in identifying potential burrowing owl and long-billed curlew habitat. The perimeters of prairie dog colonies were delineated per Wyoming Game and Fish protocol (WGFD 2007). Each identified colony was classified based on activity level, density of active burrows, and total colony size.

### *3.4.2 Results*

Extensive black-tailed prairie dog colonies occur throughout the proposed permit boundary. At the time of surveys, a few open burrows were located on the edge of one of the affected areas. Grouse Mountain delineated two black-tailed prairie dog colonies adjacent to the affected areas. Due to the size of the abandoned, active, and expanding colonies throughout the proposed permit boundary, Grouse Mountain did not attempt to delineate all colonies and focused on only active colony boundaries adjacent to the affected areas. Colony ID – PD_558407SESW01 was approximately 0.47 acres and consisted of a few individuals expanding out from nearby larger colonies without direct connectivity. Colony ID – PD_558407SWSE01 was of medium density and approximately 16.41 acres mapped to the fence line south of the affected area. The colony continued south of the fence line. (Figure 1)

## 3.5 Burrowing Owl Breeding / Nesting Habitat Survey

### *3.5.1 Methods*

“Burrowing Owl is generally found in open terrain such as grasslands, prairies, shrub-steppe, and deserts, preferring well-draining or gently sloping areas with low vegetation and a high percentage of bare ground. Burrowing Owl requires burrows for nesting, escape cover, prey caching, and vigilance and prefers areas with a high density of available burrow in close proximity. Although some subspecies of Burrowing Owl can excavate their own burrows, Western Burrowing Owl does not. Instead, owls in western North America must nest in burrows previously excavated by mammals 1 . In Wyoming, Colorado, Nebraska, and South Dakota, Burrowing Owl is primarily found in prairie dog (Cynomys spp.) colonies, both active and inactive. Burrows made by ground squirrels (Spermophilus spp.), American Badgers (Taxidea taxus), marmots (Marmota spp.), and Coyotes (Canis latrans) can also be used. Grasslands and similar habitats surrounding nest burrows provide foraging areas” (WGFD Burrowing Owl Species Account)

“Surveys are conducted during the periods when burrowing owls will be above ground so that individuals present in a particular area of interest are not missed or underrepresented. In Wyoming, these dates are generally from 15 April-7 August. However, seasonal restrictions for ground disturbing activities in suitable burrowing owl breeding habitat may extend outside these dates to guarantee protection of nesting adults and young that have not yet fledged from nest burrows” (WGFD 2007)

### *3.5.2 Results*

Extensive black-tailed prairie dog colonies occur throughout the proposed permit boundary, providing ample suitable burrowing owl breeding/nesting habitat. Abandoned prairie dog colonies and areas outside of active prairie dog colonies were less suitable due to increased grass height and cover. At the time of surveys, a few open burrows were located on the edge of one of the affected areas. Two call-back surveys for burrowing owls were conducted within the permit boundary in May. Weather and site conditions prevented conducting a third survey in June or early July. Foot surveys were conducted within prairie dog colonies adjacent to the affected areas to search for signs of burrowing owl occupancy in late July. No burrowing owls were detected during call-back surveys or prairie dog colony searches. (Figure 1)

## 3.6 Non-Raptor Migratory Birds

### *3.6.1 Methods*

IPaC analysis was used to determine potential impacts to migratory birds protected under the Migratory Bird Treaty Act (MBTA). Desktop analysis and habitat evaluation were used determine potential for impacts to migratory birds. No formal non-raptor migratory bird surveys were conducted. (IPaC 2023)

### *3.6.2 Results*

IPaC analysis indicated potential impacts to three species of non-raptor Birds of Conservation Concern (BCC) including bobolink (*Dolichonyx oryzivorus*), Franklin's gull (*Leucophaeus pipixcan*), and western grebe (*Aechmophorus occidentalis*). Suitable habitat for Franklin's gull and western grebe are not present within the affected areas. A small stock pond located in the drainage running through the center of the permit boundary is not of sufficient size to provide suitable habitat for either species but could potentially be used as a stopover location during migration. Suitable habitat for bobolink does occur within the permit boundary and affected areas, primarily as mixed-grass prairie. No non raptor BCC species were identified during surveys. Suitable habitat for mixed-grass prairie and grassland migratory bird species is present within the affected areas. To prevent occupied nesting habitat removal of non-raptor migratory birds, Grouse Mountain recommends nest clearance surveys if any land clearing/habitat removal activities will occur between April 1 and August 31. Surveys should be conducted no more than 14 days prior to activities in suitable habitat within direct line of disturbance. If land clearing is expected to occur during that time period, we recommend mowing or surface scraping of the disturbance area prior to April 1 to remove the potential for non-raptor migratory bird nesting conflicts.

## 3.7 Long-billed Curlew Breeding / Nesting Habitat Survey

### *3.7.1 Methods*

"Long-billed curlews prefer large, open [>820 feet (250 meters) wide] patches of suitable habitat in a wide variety of grassland types comprised mainly of lower-growing grasses with open ground and relatively flat terrain." (WGFD 2007)

Two separate surveys for long-billed curlew were conducted using listening/observation points within suitable curlew habitat April 21-May 15. Surveys were conducted from 30 minutes before sunrise to 4-6 hours after sunrise. Survey points were no more than 0.5-mile apart. Each point was visited for five minutes while listening and scanning for curlew with at least 7-power binoculars. All curlew detections were recorded as observed only, heard only, and both observed and heard. (WGFD 2007)

### *3.7.2 Results*

The proposed permit boundary is located within suitable long-billed curlew habitat consisting of flat, open patches of short grass prairie with extensive prairie dog colonies. Suitable habitat within the development phases is grassland with abandoned and mostly overgrown prairie dog burrows.

No long-billed curlews were detected or observed during the surveys. One incidental observation of a long-billed curlew was recorded during black-tailed prairie dog town mapping. (Figure 1)

## 3.8 Upland Sandpiper Breeding / Nesting Habitat Survey

### *3.8.1 Methods*

"Upland Sandpiper is associated with grassland habitats. In particular, native prairie habitats are preferred. Habitat use in Wyoming has not been studied, though is likely similar to habitat use in nearby states. In the Great Plains, the species uses native grasslands, fields held in the Conservation Reserve Program, agricultural fields, grazed pastures, hayfields, and mountain meadows. Suitable breeding habitat is characterized by moderately tall, dense vegetation for nest concealment." (WGFD Upland Sandpiper Species Account)

"Surveys are conducted to coincide with the peak in the upland sandpiper breeding season. In Wyoming, sandpipers are typically found on their breeding grounds from June to mid-July. A minimum of 1 survey is conducted along each route on approximately the same date each year. If possible, 1 or 2 replicates can also be conducted, with a minimum of 10 and maximum of 14 days between replicates to incorporate the range of the upland sandpiper breeding season and facilitate detection. Surveys begin 20 minutes before local sunrise, and should be completed within 5 hours of the start time. Each stop consists of a 5-minute listening and observation period, separated into 2 count segments, 0-3 minutes and 3-5 minutes, to aid in compatibility with the Breeding Bird Survey (BBS) protocol (Robbins and Van Velzen 1970). The observer should use binoculars (at least 7-power) to visually scan in a 360 degree circumference during each count segment. If needed, a spotting scope can be used to follow up on specific sightings. Visual and auditory counts of sandpipers are made during each stop, and the distance band (<400 m or >400 m) from the first detection of each sandpiper is recorded, again for compatibility with the BBS protocol." (WGFD 2007)

### *3.8.2 Results*

Suitable breeding/nesting habitat for upland sandpiper does occur within the proposed permit boundary. Specifically, areas of abandoned black-tailed prairie dog colonies with taller, thicker grass cover occur within the permit boundary and the affected areas. Due to weather and site conditions, upland sandpiper surveys could not be conducted during the identified survey window. Biologists listened and searched for upland sandpiper during surveys conducted for other species outside the identified upland sandpiper survey window. Additionally, two upland sandpipers were recorded during an incidental aural detection. (Figure 1)

## 3.9 Endangered Species

### *3.9.1 Methods*

IPaC analysis determined the potential for one species protected under the Endangered Species Act (ESA), the monarch butterfly (Danaus plexippus), to occur within the permit boundary. IPaC did not identify and critical habitat for the species within the permit boundary. (IPaC 2023) Suitable habitat searches were conducted within the affected areas.

### *3.9.2 Results*

Grouse Mountain did not observe any monarch butterflies or suitable habitat within the affected areas. Some suitable habitat may be present within the permit boundary outside of the affected areas within riparian habitats. Grouse Mountain does not see a need for further consultation with the USFWS for compliance with the ESA.

## 3.10 Reptiles and Amphibians

### *3.10.1 Methods*

Wyoming Game and Fish consultation indicated the potential for occurrence of Great Plains Toad (Anaxyrus cognatus), Northern Leopard Frog (Lithobates pipiens), Plains Spadefoot (Spea bombifrons), Northern Rubber Boa (Charina bottae), and Plains Hog-nosed Snake (Heterodon nasicus) within the proposed permit boundary. Incidental observations of these species were documented.

### *3.10.2 Results*

No incidental observations of reptiles or amphibians were made during surveys for other species.

# 4.0 RECOMMENDATIONS

Grouse Mountain conducted a desktop review of known resources associated with the proposed action and conducted surveys and assessed habitat to ground truth existing data and search for previously undocumented habitat and resources. The results of the desktop and surveys are summarized below with recommendations.

- Available data contained no previously documented non-eagle raptor nests within 0.5 mile of the proposed action. Grouse Mountain did not identify new non-eagle raptor nests during surveys. Grouse Mountain recommends annual surveys be conducted for new surface disturbing and disruptive activities conducted during the USFWS recommended buffers and dates outlined in the 2022 Wyoming Ecological Services Field Office Raptor Guidelines (Attachment 2)
- There were no previously documented bald eagle nests within 1-mile or golden eagle nests within 0.5 mile of the proposed action. Grouse Mountain identified one previously undocumented golden eagle nest within the permit boundary. Grouse Mountain recommends no surface disturbing or disruptive activity occur during the USFWS recommend 0.5 mile buffer of an active golden eagle nest between January 15 and July 31 (Attachment 2). Additionally, Grouse Mountain recommends consultation with the USFWS Wyoming Ecological Services Field Office to determine if a "take" permit is required prior to project activities.
- There are no previously documented plains sharp-tailed grouse leks within the proposed permit boundary. Grouse Mountain identified one potential new lek within the affected area. Grouse Mountain recommends consultation with WGFD prior to conducting surface disturbing and disruptive activities during the leking and breeding period for plains sharp-tailed grouse.
- Two prairie dog colonies were delineated adjacent to the affected areas. Additionally, extensive prairie dog colonies occur throughout the permit boundary. No disturbance to prairie dog colonies will occur during Phase 1 development. Minimal disturbance will occur within prairie dog colonies during Phase 2 development. Given the extensive prairie dog colonies throughout the permit boundary, Grouse Mountain has no further recommendations for black-tailed prairie dogs.
- Potential breeding/nesting habitat for long-billed curlew does exist within the permit boundary and phase developments. One long-billed curlew was observed during prairie dog town mapping. Grouse Mountain recommends mowing/removal of vegetation outside the long-billed curlew breeding season approximately April 1 through July 31 (WGFD Long-Billed Curlew Species Account) or as recommended by Wyoming Game and Fish Biologists.

- Potential breeding/nesting habitat for upland sandpiper does exist within the permit boundary and phase developments. Two upland sandpipers were heard during wildlife surveys. Grouse Mountain recommends mowing/removal of vegetation outside the upland sandpiper breeding season approximately May 1 – July 31 (WGFD Upland Sandpiper Species Account) or as recommended by Wyoming Game and Fish Biologists.
- No monarch butterflies or suitable habitat were observed within the phase development or the majority of the permit boundary. Some suitable habitat may occur along riparian/pond areas. Grouse Mountain does not recommend further consultation with USFWS for endangered species.
- Grouse Mountain did not observe any sensitive reptiles of amphibians during wildlife surveys.
- Suitable habitat for mixed-grass prairie and grassland migratory bird species is present within the affected areas. To prevent occupied nesting habitat removal of non-raptor migratory birds, Grouse Mountain recommends nest clearance surveys if any land clearing/habitat removal activities will occur between April 1 and August 31. Surveys should be conducted no more than 14 days prior to activities in suitable habitat within direct line of disturbance. If land clearing is expected to occur during that time period, we recommend mowing or surface scraping of the disturbance area prior to April 1 to remove the potential for non-raptor migratory bird nesting conflicts.

## 5.0 REFERENCES

Wyoming Game and Fish Department (WGFD). 2007. Handbook of Biological Techniques. Third Edition. August 2007. Cheyenne, Wyoming.

Wyoming Game and Fish Department (WGFD). Wyoming Species Account: Burrowing Owl *Athene cunicularia*. https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/SWAP/Birds/Burrowing-Owl_1.pdf

Wyoming Game and Fish Department (WGFD). Wyoming Species Account: Long-billed Curlew *Numenius americanus*. https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/SWAP/Birds/Long-Billed-Curlew.pdf

Wyoming Game and Fish Department (WGFD). Wyoming Species Account: Upland Sandpiper *Bartramia longicauda*. https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/SWAP/Birds/Upland-Sandpiper.pdf

United States Fish and Wildlife Service (USFWS). Information for Planning and Consultation (IPaC) accessed March 2023. https://ipac.ecosphere.fws.gov/

Western Regional Climate Center (WRCC). 2016. Period of Record Monthly Climate Summary: SHERIDAN FLD STN, WYOMING (488160) Accessed March 2023. < https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?wy8160 >

# 6.0 QUALIFICATIONS

**Gregory Shedd** holds a B.S. in Wildlife Biology (2002) from Unity College. He is currently a Wildlife Biologist with Grouse Mountain Environmental Consultants based in Buffalo, Wyoming. Mr. Shedd has over 20 years of experience in the wildlife field. He specializes in private consulting in Wyoming and surrounding states performing surveys, monitoring and applied research for various stakeholders including private landowners, government agencies, and industry. More specifically, Mr. Shedd has over 12 years of experience conducting surveys in accordance with BLM wildlife survey protocols for nesting raptors, sage-grouse and sharp-tailed grouse leks, mountain plover, pygmy rabbits, and other sensitive species in Wyoming.

**Kevin McCartney** holds a B.S. degree in Mathematics and Computer Science (2001) from Colorado School of Mines and a M.S. degree in Ecology (2017) from Colorado State University. He is currently a Geographic Information Systems (GIS) Analyst and Database Developer with Grouse Mountain Environmental Consultants based in Buffalo, Wyoming. Mr. McCartney has 3 years' experience working in environmental consulting and 12.5 years in software engineering. His wildlife GIS experience includes developing field data collection solutions with ESRI mobile applications, processing and managing wildlife spatial data, and developing custom maps for mobile or desktop use. Mr. McCartney's database experience includes designing and developing relational databases from the ground up using Microsoft technologies, and creating and managing six in-house databases for Grouse Mountain. During his tenure with Grouse Mountain, Mr. McCartney has executed on projects with all departments in the company, state and federal agencies, and clients in industry.

# Attachments

**Attachment 1. Wyoming Game and Fish consultation letter WER 14938.00a**

WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006

Phone: (307) 777-4600 Fax: (307) 777-4699

wgfd.wyo.gov



December 30, 2022

WER 14938.00a
Mullinax, Inc.
Forbes Pit
Small Mining Permit
Sheridan County

Katie Schultz
Mullinax, Inc.
615 Fort Road
Sheridan, WY 82801
permitting@mullinax-inc.com

Dear Ms. Schultz,

The staff of the Wyoming Game and Fish Department (Department) has reviewed the proposed Forbes Pit located in T55N, R85W, Section 12, 13; T55N, R84W, Section 7, 8, and 18. The Department is statutorily charged with managing and protecting all Wyoming wildlife (W.S. 23-1-103). Pursuant to our mission, we offer the following comments for your consideration.

Mullinax Inc. is in the process of obtaining a Small Mining Permit from the Wyoming Department of Environmental Quality, on approximately 1,677.22 acres of private lands in Sheridan County, approximately 6 miles west of Sheridan. The property consists of rolling grass-shrub rangeland habitat which is currently used for livestock grazing.

**Executive Order 2019-3 Greater Sage-Grouse Core Area Protection (SGEO)**
The proposed project is outside of sage-grouse core area and further than 2 miles from the nearest occupied non-core area sage-grouse lek. As such, the Department has no concerns regarding compliance with the SGEO.

**Executive Order 2020-1 Wyoming Mule Deer and Antelope Migration Corridor Protection (MCEO)**
The proposed project is outside of all designated migration corridors, and as such, the Department has no concerns regarding compliance with the MCEO.

**Big Game Crucial and Parturition Ranges**
The proposed project is outside of all delineated big game crucial and parturition ranges, and as such, the Department has no concerns regarding compliance with stipulations for big game crucial and parturition ranges.

**Terrestrial Recommendations:**

*Federally Protected Species*
The proponent should consult with the U.S. Fish and Wildlife Service regarding raptors, migratory birds, and species listed under the Endangered Species Act.

*Species of Greatest Conservation Need*
The project area contains modeled distribution for several Tier I and Tier II Wyoming Species of Greatest Conservation Need (SGCN).

| Name | Scientific | SGCN Tier | Minor taxa |
|---|---|---|---|
| Burrowing Owl | *Athene cunicularia* | I | Birds |
| Great Plains Toad | *Anaxyrus cognatus* | II | Amphibians |
| Northern Leopard Frog | *Lithobates pipiens* | II | Amphibians |
| Plains Spadefoot | *Spea bombifrons* | II | Amphibians |
| Upland Sandpiper | *Bartramia longicauda* | II | Birds |
| Long-billed Curlew | *Numenius americanus* | II | Birds |
| Sharp-tailed Grouse | *Tympanuchus phasianellus* | II | Birds |
| Northern Rubber Boa | *Charina bottae* | II | Reptiles |
| Plains Hog-nosed Snake | *Heterodon nasicus* | II | Reptiles |
| Black-tailed Prairie Dog | *Cynomys ludovicianus* | II | Mammals |

Mining activity within the project area should be designed to spatially and temporally minimize impacts to SGCN known to occur in the project area (e.g., avoiding nesting, roosting, and foraging areas, active burrows, denning habitat, ephemeral water bodies, etc.). Species pre-development survey and inventory data should be used by the project proponent to inform project design and to avoid and minimize impacts where possible. Dependent upon the presence of potential suitable habitat within the project area, we recommend the following surveys. A data summary describing which species were observed and observation locations should be provided to the Department for review.

*Prairie Dogs*
A desktop analysis of National Agriculture Imagery Program (NAIP) imagery of the area suggests prairie dog colonies may exist within the proposed project area boundaries.

- Delineate boundaries of active colonies during the summer months, ideally from May through July, to coincide with green-up and prairie dog activity.

- Whenever possible, site surface disturbing activities to fall outside of active colony boundaries.

*Burrowing Owl*

- Conduct inventories from mid-April through early August to determine the presence of nesting pairs of burrowing owls using standardized roadside point-counts and a call-broadcast technique (protocol and datasheet available upon request). A desktop habitat suitability assessment may be run for the project area and surveys may be limited to areas of potentially suitable habitat.
- For project areas lacking a road network, a walking survey grid should be established to conduct burrowing owl inventories.
- Minimize human disturbance during the nesting season (April 1 – September 15) within 0.25 mile of occupied burrows.
- Protect all nest burrows from destruction, as burrowing owls often return to the same burrow to nest in subsequent years.

*Upland Sandpiper*

- Conduct targeted upland sandpiper surveys in areas of potentially suitable habitat, such as moderately tall, dense grassland vegetation in June using a standardized point-count method (protocol and datasheet available upon request). A desktop habitat suitability assessment may be run for the project area and surveys may be limited to areas of potentially suitable habitat.
- Minimize surface occupancy during the breeding season (May-July) or habitat conversions within 0.25 mile of known breeding concentrations.

*Long-billed Curlew*

- Conduct targeted long-billed curlew surveys in areas of potentially suitable habitat, such as sparsely-vegetated shortgrass or mixed-grass prairie with flat or gently sloping topography, (protocol and datasheet available upon request). A desktop habitat suitability assessment may be run for the project area and surveys may be limited to areas of potentially suitable habitat.
- Conduct inventories to determine the presence of breeding concentrations of curlews from 21 April through 15 May using a standardized roadside point-count method (protocol and datasheet available upon request). For project areas lacking a road network, a walking survey grid should be established to conduct inventories.
- Minimize the surface occupancy during the breeding season (April-July) or habitat conversions within 0.25 mile of known breeding concentrations.

*Sharp-tailed Grouse*

- Conduct targeted sharp-tailed grouse surveys during the latter half of April to search for the presence of leks in areas of potentially suitable habitat, such as sparsely-vegetated shortgrass or mixed-grass prairie with flat or gently sloping topography (protocol and

datasheet available upon request). A desktop habitat suitability assessment may be run for the project area and surveys may be limited to areas of potentially suitable habitat.
- Avoid surface disturbance or occupancy within 0.25 mile of the perimeter of occupied sharp-tail grouse leks.
- Avoid surface disturbing activities in potential nesting and early brood-rearing habitat within two miles of an occupied sharp-tail grouse lek from April 1 - July 15.

*Amphibians and Reptiles*

- Document incidental observations of SGCN amphibians and reptiles. A data summary describing which species were observed and observation locations should be provided to the Department for review.

**Aquatic Recommendations:**

Within the permit area, all surface disturbing activities should maintain a minimum 500-foot buffer around wetland features, including intermittent and ephemeral waterbodies, as well as the greater of a 500-foot or 100-year floodplain buffer for waterways, to minimize impacts to fisheries and herpetofauna.

**Noxious Weeds and Invasive Annual Grasses:**

Invasive Annual Grasses (IAGs) are not native to Wyoming and can cause significant harm to the ecosystem when introduced. IAGs establish and spread quickly. They significantly reduce the quality of wildlife habitat and their presence increases the probability of catastrophic wildfire. The potential economic impacts to the State of Wyoming are severe, and once IAGs become established eradication is difficult and costly. Prevention of establishment remains the best way to keep Wyoming's habitats free of IAGs.

The most significant known threat to Wyoming is from cheatgrass, medusahead, and ventenata. To prevent the spread of IAGs, we recommend the following:

- Prevent IAG introduction and establishment by cleaning vehicles and equipment prior to movement to a new location in order to minimize the potential for transporting seeds.
- Work with land managers to develop and implement a plan to assess, treat, and monitor for IAGs at the project scale and in the adjacent landscape where they are present.
- Work with the local Weed and Pest district to implement and fund long-term plans for successful restoration of disturbed sites.

Additional information on prevention and treatment options for these grasses can be found at https://wyagresearch.org/imagine.

Thank you for the opportunity to comment. If you have any questions or concerns please contact Will Schultz, Habitat Protection Supervisor, at 307-777-4587.

Sincerely,

Will Schultz
Habitat Protection Supervisor

WS/ct

cc: U.S. Fish and Wildlife Service
Tim Thomas, Wyoming Game and Fish Department
Eric Maichak, Wyoming Game and Fish Department
Chris Wichmann, Wyoming Department of Agriculture

**Attachment 2. 2022 Wyoming Ecological Services Field Office Raptor Guidelines**

**Protections for Raptors**

Raptors, or birds of prey, and the majority of other birds in the United States are protected by the Migratory Bird Treaty Act, 16 U.S.C. 703 (MBTA). A complete list of migratory bird species can be found in the Code of Federal Regulations at 50 CFR 10.13. Eagles are afforded additional protections under the Bald and Golden Eagle Protection Act, 16 U.S.C. 668 (Eagle Act). In addition to the MBTA and the Eagle Act, the U.S. Fish and Wildlife Service (Service) works with federal agencies to promote the conservation of migratory birds, including eagles and other raptors, on lands under their jurisdiction through Executive Order 13186 (66 FR 3853; January 17, 2001).

The MBTA protects migratory birds, eggs and nests from possession, sale, purchase, barter, transport, import, export, and take. The regulatory definition of take, defined in 50 CFR 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect a migratory bird. Activities that result in the intentional, unpermitted take of migratory birds or their eggs are illegal and fully prosecutable under the MBTA. On October 4, 2021, effective December 3, the Service published a final rule revoking the January 7, regulation that limited the scope of the MBTA. The Service is again implementing the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent and long-standing agency practice prior to 2017. Removing or destroying active nests (i.e., nests that contain eggs or young) or causing abandonment of an active nest with intent could constitute a violation of the MBTA, the Eagle Act, or both statutes. Therefore, if nesting migratory birds are present on or near a project area, project timing is an important consideration during project planning. For additional information concerning nesting birds and protections under the MBTA, please see the Service's Migratory Birds Program page at https://www.fws.gov/program/migratory-birds. As discussed below, the Eagle Act provides additional protections for bald and golden eagles and their nests.

The Service's Wyoming Ecological Services Field Office works to raise public awareness about the possible occurrence of birds in proposed project areas and the risk of killing or injuring birds or destroying active nests. Our office provides recommendations to minimize the likelihood that injury or death will occur. We encourage you to coordinate with our office before conducting actions that could lead to the death or injury of a migratory bird, their young, eggs, or the abandonment or destruction of active nests (e.g., construction or other activity in the vicinity of an active nest). If nest manipulation is proposed for a project in Wyoming, the project proponent should contact the Service's Migratory Bird Management Office in Lakewood, Colorado at 303-236-8171 to see if a permit can be issued. Permits generally are not issued for an active nest of any migratory bird species, unless removal of the nest is necessary to address human health and safety. If a permit cannot be issued, the project may need to be modified to avoid impacting migratory birds, their young or eggs.

For infrastructure (or facilities) that have potential to cause direct avian mortality (e.g., wind turbines, guyed towers, airports, wastewater disposal facilities, transmission lines), we recommend locating structures away from high avian-use areas such as those used for nesting, foraging, roosting or migrating, and the movement zones between high-use areas. If the wildlife survey data available for the proposed project area and vicinity do not provide the detail needed to identify normal bird habitat use and movements, we recommend collecting that information prior to determining locations for any infrastructure that may create an increased potential for avian mortalities. Please contact the Service's Wyoming Ecological Services Field Office for project-specific recommendations.

**Additional Protections for Eagles**

The Eagle Act protections include provisions not included in the MBTA, such as the protection of unoccupied nests and a prohibition on disturbing eagles. Specifically, the Eagle Act prohibits knowingly taking, or taking with wanton disregard for the consequences of an activity, any bald or golden eagle or their body parts, nests, chicks or eggs, which includes collection, possession, molestation, disturbance, destruction, or killing. The term

"disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that 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" (50 CFR 22.3 and see also 72 FR 31132).

The Eagle Act includes limited exceptions to its prohibitions through a permitting process. The Service has issued regulations concerning the permit procedures for exceptions to the Eagle Act's prohibitions (81 FR 91494; December 16, 2016), including permits to take golden eagle nests which interfere with resource development or recovery operations (50 CFR 22.25). The regulations identify the conditions under which a permit may be issued (i.e., status of eagles, need for action), application requirements, and other issues (e.g., mitigation, monitoring) necessary in order for a permit to be issued.

In Wyoming we recommend a 1.0-mile buffer for bald eagles due to the sparse tree cover and the limited number of bald eagles in the state. For additional recommendations specific to Bald Eagles please see our national Eagle Management web page.

**Recommended Steps for Addressing Raptors in Project Planning**

Using the following steps in early project planning, agencies and proponents can more easily minimize impacts to raptors, streamline planning and permitting processes, and incorporate measures into an adaptive management program:

1. Coordinate with appropriate Service offices, Wyoming Game and Fish Department, tribal governments, and land-management agencies at the earliest stage of project planning.
2. Identify species and distribution of raptors occurring within the project area by searching existing data sources (e.g., Wyoming Game and Fish Department, Wyoming Natural Diversity Database, federal land-management agencies) and by conducting on-site surveys.
3. Plan and schedule short-term and long-term project disturbances and human-related activities to avoid raptor nesting and roosting areas, particularly during crucial breeding and wintering periods.
4. Determine location and distribution of important raptor habitat, nests, roost sites, migration zones and, if feasible, available prey base in the project impact area.
5. Document the type, extent, timing, and duration of raptor activity in important use areas to establish a baseline of raptor activity.
6. Ascertain the type, extent, timing, and duration of development or human activities proposed to occur, and the extent to which this differs from baseline conditions.
7. Consider cumulative effects to raptors from proposed projects when added to past, present, and reasonably foreseeable actions. Ensure that project mitigation adequately addresses cumulative effects to raptors.
8. Minimize loss of raptor habitats and avoid long-term habitat degradation. Mitigate for unavoidable losses of high-valued raptor habitats, including (but not limited to) nesting, roosting, migration, and foraging areas.
9. Monitor and document the status of raptor populations and, if feasible, their prey base post-project completion, and evaluate the success of mitigation efforts.
10. Document meaningful data and evaluations in a format that can be readily shared and incorporated into wildlife databases (contact the Service's Wyoming Ecological Services Field Office for details).

Protection of nesting, wintering (including communal roost sites), and foraging activities is considered essential to conserving raptors. To promote the conservation of migratory bird populations and their habitats, federal agencies should implement those strategies directed by Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds" (66 FR 3853).

## Raptors of Conservation Concern

The Service's Birds of Conservation Concern (2021) report identifies "species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing" under the Endangered Species Act (16 U.S.C 1531 et seq.). This report is intended to encourage coordinated and proactive conservation actions among federal, state, and private partners. The Wyoming Partners in Flight Wyoming Bird Conservation Plan identifies priority bird species and habitats, and establishes objectives for bird populations and habitats in Wyoming. This plan also recommends conservation actions to accomplish the population and habitat objectives. We encourage project planners to develop and implement protective measures for the Birds of Conservation Concern as well as other high-priority species identified in the Wyoming Bird Conservation Plan.

## Recommended Seasonal and Spatial Buffers to Protect Nesting Raptors

Because many raptors are particularly sensitive to disturbance during the breeding season, we recommend implementing spatial and seasonal buffer zones to protect individual nest sites/territories (Table 1). The buffers serve to minimize visual and auditory impacts associated with human activities near nest sites. Ideally, buffers would be large enough to protect existing nest trees and provide for alternative or replacement nest trees. The size and shape of effective buffers vary depending on the topography and other ecological characteristics surrounding the nest site. In open areas where there is little or no forested or topographical separation, distance alone must serve as the buffer. Adequate nesting buffers will help ensure activities do not result in the death of breeding birds, their young or eggs. For optimal conservation benefit, we recommend no temporary or permanent surface occupancy occur within species-specific spatial buffer zones. For some activities with very substantial auditory impacts (e.g., seismic exploration and blasting) or visual impacts (e.g., tall drilling rig), a larger buffer than listed in Table 1 may be necessary; please contact the Service's Wyoming Ecological Services Field Office for project-specific recommendations on adequate buffers.

As discussed above, for infrastructure that may create an increased potential for raptor mortalities, the spatial buffers listed in Table 1 may not be sufficient to reduce the incidence of raptor mortalities (for example, if a wind turbine is placed outside a nest disturbance buffer, but inadvertently still within areas of normal daily or migratory bird movements); therefore, please contact the Service's Wyoming Ecological Services Field Office for project-specific recommendations on adequate buffers.

Buffer recommendations may be modified on a site-specific or project-specific basis based on field observations and local conditions. The sensitivity of raptors to disturbance may depend on local topography, density of vegetation, and intensity of activities. Additionally, individual birds may be habituated to varying levels of disturbance and human-induced impacts. Modification of protective buffer recommendations may be considered where biologically supported and developed in coordination with the Service's Wyoming Ecological Services Field Office.

Because raptor nests are often initially not identified to species (e.g., preliminary aerial surveys in winter), we first recommend a generic raptor nest seasonal buffer of January 15th to August 15th. Similarly, for spatial nesting buffers, until the nesting species has been confirmed, we recommend applying a 1-mile spatial buffer around the nest. Once the raptor species is confirmed, we then make species-specific and site-specific recommendations on seasonal and spatial buffers (Table 1).

Activities should not occur within the spatial/seasonal buffer of any nest (occupied or unoccupied) when raptors are in the process of courtship and nest site selection. To help conserve raptor populations, long-term land-use activities and human-use activities should not occur within the species-specific spatial buffer of occupied nests. Short-term land use and human-use activities proposed to occur within the spatial buffer of an occupied nest should only proceed during the seasonal buffer after coordination with the Service, state, and tribal wildlife resource management agencies, and/or land-management agency biologists. If, after coordination, it is determined that due to human or environmental safety or otherwise unavoidable factors, activities require temporary incursions within the spatial and seasonal buffers, those activities should be planned to minimize impacts and monitored to determine whether impacts to birds occurred. Mitigation for habitat loss or degradation should be identified and planned in coordination with applicable agencies.

Please contact the Service's Wyoming Ecological Services Field Office if you have any questions regarding permit requirements, or if you require technical assistance regarding the MBTA, Eagle Act, or the above recommendations. The below spatial and seasonal buffers are voluntary (unless made a condition of permit or license) and are not regulatory, and they do not supersede provisions of the MBTA, Eagle Act, the Destruction and Relocation of Migratory Bird Nest Contents memorandum, dated June 14, 2018, and Endangered Species Act. Assessing legal compliance with the MBTA or the Eagle Act and the implementing regulations is ultimately the authority and responsibility of the Service's law enforcement personnel. Our recommendations also do not supersede federal, state, local, or tribal regulations or permit conditions that may be more restrictive.

| **Table 1. Service's Wyoming Ecological Services Field Office's Recommended Spatial and Seasonal Buffers for Breeding Raptors** | | |
|---|---|---|
| **Raptors of Conservation Concern (see below for more information)** | | |
| **Common Name** | **Spatial buffer (miles)** | **Seasonal buffer** |
| Golden Eagle | 0.50 | January 15 - July 31 |
| Ferruginous Hawk | 1.00 | March 15 - July 31 |
| Swainson's Hawk | 0.25 | April 1 - August 31 |
| Bald Eagle | see Bald Eagle information web page[1] | |
| Prairie Falcon | 0.50 | March 1 - August 15 |
| Peregrine Falcon | 0.50 | March 1 - August 15 |
| Short-eared Owl | 0.25 | March15- August 1 |
| Burrowing Owl | 0.25 | April 1 – September 15 |
| Northern Goshawk | 0.50 | April 1 - August 15 |
| **Additional Wyoming Raptors** | | |
| **Common Name** | **Spatial buffer (miles)** | **Seasonal buffer** |
| Osprey | 0.25 | April 1 - August 31 |
| Cooper's Hawk | 0.25 | March 15 – August 31 |
| Sharp-shinned Hawk | 0.25 | March 15 – August 31 |
| Red-tailed Hawk | 0.25 | February 1 – August 15 |
| Rough-legged Hawk (winter resident only) | ---- | ---- |
| Northern Harrier | 0.25 | April 1 - August 15 |
| Merlin | 0.50 | April 1 - August 15 |
| American Kestrel | 0.125 | April 1 – August 15 |
| Common Barn Owl | 0.125 | February 1 – September 15 |
| Northern Saw-whet Owl | 0.25 | March 1 - August 31 |
| Boreal Owl | 0.25 | February 1 – July 31 |
| Long-eared Owl | 0.25 | February 1 – August 15 |
| Great Horned Owl | 0.125 | December 1 – September 30 |
| Northern Pygmy-Owl | 0.25 | April 1 – August 1 |
| Eastern Screech -owl | 0.125 | March 1 – August 15 |
| Western Screech-owl | 0.125 | March 1 – August 15 |
| Great Gray Owl | 0.25 | March 15 – August 31 |

[1] https://www.fws.gov/species/bald-eagle-haliaeetus-leucocephalus

## Additional Planning Resources


Avian Power Line Interaction Committee (APLIC). 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. Edison Electric Institute and APLIC. Washington, D.C.

Avian Power Line Interaction Committee (APLIC). 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA.

Edison Electric Institute's Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service. 2005. Avian Protection Plan Guidelines.

U.S. Fish and Wildlife Service. 2020. Eagle Management. https://www.fws.gov/library/collections/bald-and-golden-eagle-management

U.S. Fish and Wildlife Service. 2013. Eagle Conservation Plan Guidance Module 1 – Land-based Wind Energy Version 2. Arlington, Virginia. 118 pp.

U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. United States Department of Interior, Fish and Wildlife Service, Arlington, Virginia. 23 pp.

U.S. Fish and Wildlife Service. 2000. Siting, Construction, Operation and Decommissioning of Communications Towers and Tower Site Evaluation Form (Director's Memorandum September 14, 2000), Arlington, Virginia.

## References

50 CFR 10.12 – Code of Federal Regulations. Title 50--Wildlife and Fisheries, Chapter I--United States Fish and Wildlife Service, Department of the Interior, Part 10--General Provisions.

50 CFR 10.13– Code of Federal Regulations. Title 50--Wildlife and Fisheries, Chapter I--United States Fish and Wildlife Service, Department of the Interior, Part 10--General Provisions.

50 CFR 22.3 – Code of Federal Regulations. Title 50--Wildlife and Fisheries, Chapter I--United States Fish and Wildlife Service, Department of the Interior, Part 22—Eagle Permits.

50 CFR 22.25– Code of Federal Regulations. Title 50--Wildlife and Fisheries, Chapter I--United States Fish and Wildlife Service, Department of the Interior, Part 22—Eagle Permits.

66 FR 3853 - Presidential Documents. Executive Order 13186 of January 10, 2001. Responsibilities of Federal Agencies To Protect Migratory Birds. Federal Register, January 17, 2001.

72 FR 31132 - Protection of Eagles; Definition of ''Disturb''. Final Rule. Federal Register, June 5, 2007.

74 FR 46836 - Eagle Permits; Take Necessary To Protect Interests in Particular Localities. Final Rule. Federal Register, September 11, 2009.

81 FR 91494 - Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests. Final Rule, Federal Register, December 16, 2016.

U.S. Fish and Wildlife Service. 2003. Migratory Bird Permit Memorandum, MBMP-2, Nest Destruction (Directors Memorandum April 15, 2003), Washington, D.C.

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp.

# FIGURES

**Figure 1. 2023 Forbes Pit Wildlife Survey Map**

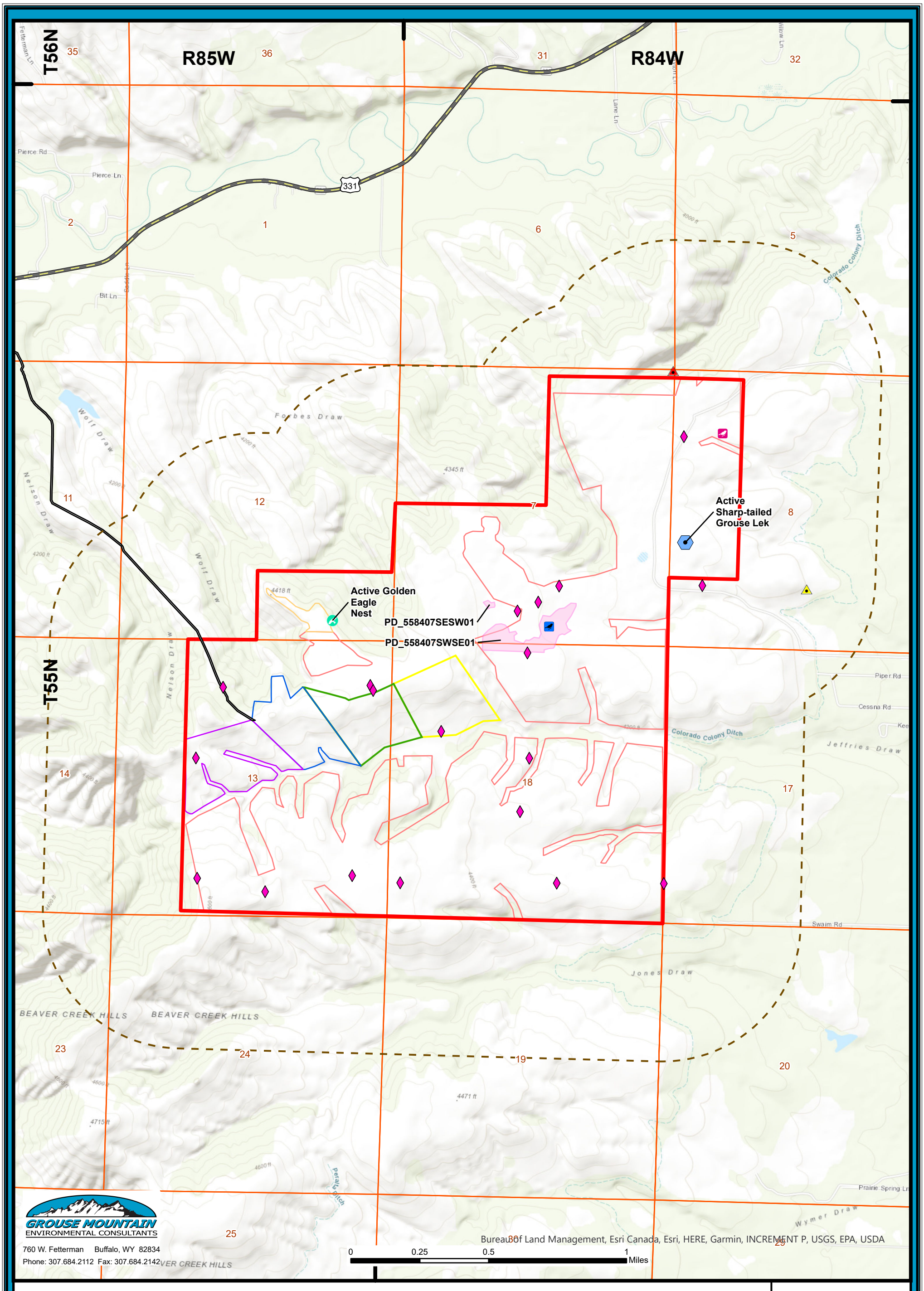


**Figure 1. 2023 Forbes Pit Wildlife Survey Map**

- Active Golden Eagle Nest
- Active Sharp-tailed Grouse Lek
- Long-Billed Curlew Observation
- Upland Sandpiper Observation
- Delineated Prairie Dog Colony
- Red-tailed Hawk Observation
- Bald Eagle Observation
- Wildlife Survey Point
- 0.5 Mile Survey Buffer
- Existing Road
- Highway
- Permit Boundary
- Area 1
- Area 2
- Area 3
- Area 4
- Area 5
- Area 6

Coordinate System: NAD 1983 UTM Zone 13N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter
Scale: 1:20,000
Date: 9/11/2024
Created by: gshedd
File Name: Forbes_Pit_Wildlife_2023

# Appendix A.
## Eagle Nest Photographs

**Forbes Pit Active Golden Eagle Nest Photo A**
**Easting: 338674 meters; Northing: 4957113 meters**

**Forbes Pit Active Golden Eagle Nest Photo B**
**Easting: 338674 meters; Northing: 4957113 meters**

# Appendix B.
## Sharp-Tailed Grouse Lek Photographs

**Forbes Pit Active Sharp-Tailed Grouse Lek Photo A**
**Easting: 340733 meters; Northing: 4957568 meters**

**Forbes Pit Active Sharp-Tailed Grouse Lek Photo B**
**Easting: 340733 meters; Northing: 4957568 meters**

# WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006
Phone: (307) 777-4600 Fax: (307) 777-4699
wgfd.wyo.gov




October 9, 2024

WER 14938.00b
Mullinax Inc.
Forbes Pit Regular Mine Permit Application
Wildlife Surveys
Sheridan County

Greg Shedd
Wildlife Biologist
Grouse Mountain
760 W. Fetterman St.
Buffalo, WY 82834
gshedd@gmecwy.com

Dear Mr. Shedd,

The staff of the Wyoming Game and Fish Department (Department) has reviewed the proposed Forbes Pit Regular Mine Permit Application Wildlife Surveys in Sheridan County. The Department is statutorily charged with managing and protecting all Wyoming wildlife (W.S. 23-1-103). Pursuant to our mission, we offer the following comments for your consideration.

Mullinax Inc. is developing an application for a Department of Environmental Quality Regular Mine Permit to mine gravel in Sections 7, 8, and 18, T55N, R84W and Sections 12 and 13, T55N, R85W. The proposed project is sited on 1,766 acres of private land in prairie grasslands habitat approximately 3.5 miles southwest of Sheridan. The proposed permit boundary overlaps with the distribution of 73 Wyoming Species of Greatest Conservation Need. The mine site is located outside of habitat designated as a Core Population Area for sage-grouse and is more than 2-miles from the nearest occupied non-core sage-grouse lek. There is no project overlap with delineated crucial winter range for big game species or a designated Migration Corridor for mule deer and antelope.

The Department appreciates the proponent's continued consultation and commends the proponent for following baseline survey recommendations detailed in WER 19938.00a. Surveys were conducted in the project study area during the spring and summer of 2023. Given the results of these surveys, we recommend the following conservation measures to reduce project impacts to wildlife and wildlife habitat:

**Plains Sharp-tailed Grouse**
Suitable breeding and nesting habitat was identified throughout the study area and a previously undocumented potential sharp-tailed grouse lek was located within the proposed permit boundary in the NWSW, Section 8, T55N, R84W. To reduce impacts from mining activities and protect breeding, nesting, and brood-rearing plains sharp-tailed grouse, we recommend:

- Conducting annual ground-based lek monitoring to document lek status and attendance between April 1 and May 15. Coordinate survey efforts and results with Erik Maichak, Sheridan District Biologist, 307-675-5476, and refer to the Department's Handbook of Biological Techniques, Chapter 14, for lek monitoring protocol.
- Avoiding surface disturbance and occupancy within 0.25 miles of the perimeter of an occupied sharp-tailed grouse lek.
- Avoiding vegetation removal and topsoil stripping within suitable nesting and brood-rearing habitat within 2 miles an occupied sharp-tailed grouse lek from April 1 to July 15. Production and maintenance activities between April 1 and July 15 are permissible once the vegetation is removed outside the seasonal stipulation time period.

**Species of Greatest Conservation Need (SGCN)**
Suitable habitat was identified within the proposed permit boundary for burrowing owl, long-billed curlew, and upland sandpiper. To reduce impacts to these SGCN species, the Department recommends:

- *Burrowing Owl*
    - Conducting clearance surveys for occupied burrows prior to vegetation removal or topsoil stripping in and within 0.25 miles of potential suitable habitat if disturbance occurs from April 1 to September 15. Clearance surveys should be conducted no more than 72 hours prior to disturbance activities.
    - Minimizing human disturbance within 0.25 miles of an occupied burrow until young have fledged or the burrow is abandoned.

- *Long-Billed Curlew*
    - Conducting clearance surveys for occupied nests prior to vegetation removal or topsoil stripping in and within 0.25 miles of potential suitable habitat if disturbance occurs from April 1 to July 31. Clearance surveys should be conducted no more than 72 hours prior to disturbance activities.
    - Minimizing human disturbance within 0.25 miles of an occupied nest until young have fledged or the nest is abandoned.

- *Upland Sandpiper*

    - Conducting clearance surveys for occupied nests prior to vegetation removal or topsoil stripping in and within 0.25 miles of potential suitable habitat if disturbance occurs from April 1 to July 31. Clearance surveys should be conducted no more than 72 hours prior to disturbance activities.
    - Minimizing human disturbance within 0.25 miles of an occupied nest until young have fledged or the nest is abandoned.

**Protect Nesting Raptors**
The project is within the projected distribution of multiple raptor species and the proponent has identified a golden eagle nest within the proposed permit boundary in the S1/2SE, Section 12, T55N, R85W. The Department recommends consulting with the U.S. Fish and Wildlife Service in regards to raptor survey guidance and seasonal and spatial buffers associated with raptor nests. Additional information and guidance can be found at https://www.fws.gov/media/wyoming-ecological-services-field-office-raptor-guidelines-2022.

**Avoid the Spread of Noxious Weeds and Invasive Annual Grasses**
Noxious weeds and invasive annual grasses (IAGs) can cause significant harm to the ecosystem when introduced. Ground-disturbing activities can create an environment which facilitates establishment of these unwanted species. They significantly reduce the quality of wildlife habitat and their presence increases the probability of catastrophic wildfire. The potential economic impacts to the State of Wyoming are severe, and once these species become established, eradication is difficult and costly. Prevention of establishment remains the best way to keep Wyoming's habitats free of noxious weeds and IAGs.

The project is located within the Northeast Wyoming Invasive Grass Working Group's designated Ventenata Containment Zone. Ventenata rapidly outcompetes native vegetation, has little or no forage value for wildlife and livestock, and dramatically reduces forage production, potentially up to 70% (USDA Natural Resources Conservation Services). The Department recommends the following to prevent the spread ventenata, other IAG's, and noxious weeds.

- Prevent introduction and establishment by cleaning vehicles and equipment prior to movement to a new location in order to minimize the potential for transporting seeds.
- Work with land managers to develop and implement a plan to monitor for and control noxious weeds and invasive plants at the project scale and in the adjacent landscape where they are present.
- Contact the Sheridan County Weed and Pest district for additional resources and to implement and fund long-term plans for successful restoration of disturbed sites.

Thank you for the opportunity to comment. If you have any questions or concerns please contact Chris Henkel, Habitat Protection Biologist, at 307-777-2533.

Sincerely,

Will Schultz
Habitat Protection Supervisor

WS/ch/kgb

cc: U.S. Fish and Wildlife Service
Chris Wichmann, Wyoming Department of Agriculture

Emailed 12-20-22

**MULLINAX**

Sand - Gravel - Custom Crushing
Construction Supply - Irrigation
*Sheridan, Wyoming*

December 20, 2022

To Whom It May Concern:
U.S. Fish and Wildlife Service
334 Parsley Boulevard
Cheyenne, WY 82007

**RE: Forbes Pit Small Mining Permit**

To Whom It May Concern,

Mullinax Inc. is in the process of obtaining a Small Mining Permit with the WDEQ on property owned by W. Cameron Forbes and SunSource LLC. approximately 6 miles west of Sheridan, WY on Big Goose Rd, Sections 12 & 13, T55N, R85W as well as Sections 7, 8, and 18, T55N, R84W in Sheridan County. Please find attached a map showing the exact location of the area. The map reflects the area that we are working on permitting.

The permit requirements direct that we communicate with you and request your input concerning our project. Specifically;

1) Is there any significant potential for federally listed threatened or endangered animal species inhabiting lands within or adjacent to our proposed permit area?

2) Is there any significant potential that migratory Birds of High Federal Interest (MBHFI), nest within or adjacent to the proposed permit area?

3) It is our determination that there are no prairie dog towns within our permit area. Do you have any information to the contrary?

The Small Mining Permit is for 1,677.22 acres. The area to be disturbed is grazing land.

Would you please research your records relating to the area and address the above questions?

If we have not heard from you within 30 days, we will assume that you have no concerns.

We appreciate your assistance with our permitting process.

Sincerely,

Katie Schultz

Katie Schultz

615 Fort Rd. P.O. Box 2044 Sheridan, WY 82801
Phone: (307) 674-4466 ext. 106 permitting@mullinax-inc.com

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
334 Parsley Boulevard
Cheyenne, Wyoming 82007

In Reply Refer to:
2023-0031551

February 7, 2023

Ms. Katie Schultz
Mullinax, Inc.
P.O. Box 2044
Sheridan, Wyoming 82801

Dear Ms. Schultz:

Thank you for your letter dated and received in our office on December 20, 2022, regarding Mullinax Inc.'s (Mullinax) Small Mining Permit (SMP) (Project). Mullinax is in the process of obtaining a SMP for the development of a gravel pit and requested that the U.S. Fish and Wildlife Service (Service) provide input regarding the questions within their correspondence. The proposed permit area will cover 1,677.22 acres of grazing land located at Township 55 North, Range 85 West, in Sections 12 and 13, and Township 55 North, Range 84 West, in Sections 7, 8, and 18, in Sheridan County, Wyoming. Our office has reviewed Mullinax's questions and the information within their correspondence and provides the following response pursuant to the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq)*. In addition, we provide comments under the Migratory Bird Treaty Act (MBTA), 16 U.S.C. 703 and the Bald and Golden Eagle Protection Act (Eagle Act), 16 U.S.C. 668.

To obtain a current list of endangered, threatened, proposed, and candidate species and their designated and proposed critical habitat that occur in or may be affected by actions associated with your proposed project please use the Service's Information, Planning, and Consultation (IPaC) system (https://ipac.ecosphere.fws.gov/). This website will provide you with an immediate response and include information regarding other Service trust authorities. When entering a project location in IPaC, be sure to define the action area, not just the project footprint. The action area includes all areas to be affected directly or indirectly by the action and not merely the immediate area involved in the action [50 CFR 402.02].

A preliminary desktop review of the proposed permit area using IPaC shows that the threatened Ute ladies'-tresses (*Spiranthes diluvialis*) (ULT) and the monarch butterfly (*Danaus plexippus plexippus*), which is a candidate for listing, may occur within or near the proposed permit boundaries. If there is suitable habitat for ULT within permit area, we recommend a botanist, trained in conducting rare plant surveys, survey for the species before ground disturbance occurs to verify absence. If there is no ULT suitable habitat, then the Service has no further ESA concerns for this species. The Wyoming Ecological Services Field Office has elected not to conference on the monarch butterfly while it is under candidate status unless the proposed action will jeopardize the continued existence of the species or if future listing of the species would potentially result in substantial project modification.

In your correspondence, it was requested that we also address the potential for Migratory Birds of High Federal Interest (MBHFI) to nest within or adjacent to the proposed permit area and if we have information on prairie dog towns occurring within the proposed permit area. The Service does not maintain site-specific information on the nesting locations of MBHFI or prairie dog towns; however, our office has been notified that sharp-tailed grouse and nesting eagles have been sighted near the proposed permit area. Site-specific nest location or other wildlife occurrence information may be available from the Bureau of Land Management (BLM) Buffalo Field Office (https://www.blm.gov/office/buffalo-field-office), Wyoming Game and Fish Department (WGFD), applicable land management agencies, or through species-specific surveys conducted on site. If site-specific information indicates that MBHFI do occur at or in the vicinity (e.g., 1 mile) of the proposed Project area, we can provide additional site and species-specific recommendations. Our office does not have additional information on prairie dog towns within the permit area; however, we recommend that Mullinax contact the BLM or the WGFD to see if they have site specific data.

The Service provides the following information for use in your analysis of the Project area. Our comments include information on (1) migratory birds and (2) wetland and riparian areas. Protective measures for migratory birds are provided in accordance with the MBTA, and the Eagle Act. Wetlands are afforded protection under Executive Orders 11990 (wetland protection) and 11988 (floodplain management), as well as section 404 of the Clean Water Act.

**Migratory Birds:**

The MBTA, enacted in 1918, prohibits the taking of any migratory birds, their parts, nests, or eggs except as permitted by regulations, and does not require intent to be proven. Section 703 of the MBTA states, "Unless and except as permitted by regulations ... it shall be unlawful at any time, by any means or in any manner, to ... take, capture, kill, attempt to take, capture, or kill, or possess ... any migratory bird, any part, nest, or eggs of any such bird..." The Eagle Act, prohibits knowingly taking, or taking with wanton disregard for the consequences of an activity, any bald or golden eagles or their body parts, nests, or eggs, which includes collection, molestation, disturbance, destruction, or killing.

Work that could lead to the take of a migratory bird or eagle, their young, eggs, or nests (i.e., road construction, blasting, or other activities that can cause noise disturbance), should be coordinated with our office before any actions are taken. Removal or destruction of such nests or causing abandonment of a nest could constitute violation of one or both of the above statutes. Removal of any active migratory bird nest or nest tree is prohibited. For golden eagles, inactive nest permits are limited to activities involving resource extraction or human health and safety. Mitigation, as determined by the local Service field office, may be required for loss of these nests. No permits will be issued for an active nest of any migratory bird species, unless removal of an active nest is necessary for reasons of human health and safety. Therefore, if nesting migratory birds are present on, or near the Project area, timing is a significant consideration and needs to be addressed in Project planning.

If nest manipulation is proposed for this Project, the project proponent should contact the Service's Migratory Bird Office in Denver at 303-236-8171 to see if a permit can be issued for

this Project. No nest manipulation is allowed without a permit. If a permit cannot be issued, the Project may need to be modified to ensure take of a migratory bird or eagle, their young, eggs or nest will not occur.

**Wetlands:**

The functions and values of wetlands are well documented and are especially important in the arid west. Substantial degradation diminishes the effectiveness of wetlands to function as food, cover, and breeding sites for wetland dependent species; sediment transport systems; water retention/storage sites; contaminant sinks; and chemical exchange sites. To ensure the Service has sufficient information to assess Project impacts on wetlands, assessments should include:

1. An enumeration of the acreage of wetlands, by type, impacted by the proposed action.
2. A discussion of why wetlands cannot be avoided.
3. A description of the functions and values of the wetlands, including sediment transport, water storage, habitat for aquatic and terrestrial organisms, and contaminant sinks, as well as the potential risks of water removal for these functions and values.
4. Measures that will reduce or eliminate adverse impacts to wetlands such as a mitigation plan to offset unavoidable impacts, protective buffers, seasonal and physical restrictions, maintenance of the natural hydrograph, and development and implementation of a monitoring program to track the effectiveness of mitigation measures.
5. The anticipated short- and long-term effects to wetland and riparian areas during and after Project completion.

This Project should be re-analyzed if new information reveals effects of the action that may affect listed species or designated or proposed critical habitat in a manner or to an extent not considered in this letter; if the action is subsequently modified in a manner that causes an effect to a listed or proposed species or designated or proposed critical habitat that was not considered in this letter; and/or if a new species is listed or critical habitat is designated that may be affected by this project.

We appreciate Mullinax's efforts to ensure the conservation of endangered, threatened, and candidate species and migratory birds. If you have questions regarding this letter or your responsibilities under the ESA and/or other authorities or resources described above, please contact Lea Crisostomo of my office at lea_crisostomo@fws.gov or by phone at (307) 757-3727.

Sincerely,

NATHAN DARNALL
Digitally signed by NATHAN DARNALL
Date: 2023.02.07 13:16:25 -07'00'

*for* Tyler A. Abbott
Field Supervisor
Wyoming Field Office

cc: WGFD, Statewide Habitat Protection Program, Cheyenne, WY (wgfd.hpp@wyo.gov)