Bald and Golden Eagle Protection Act (BGEPA)

What is it?

- *Enacted in 1940, the federal Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone from "taking" bald or golden eagles, their parts, nests or eggs.*
    - *"Take" is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."*
- *Disturbances are defined as actions that "agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause,*
    - *injury to an eagle,*
    - *a decrease in its productivity, by substantially interfering with normal breeding, feeding or sheltering behavior, or,*
    - *nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior."*
- *To comply with BGEPA, the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission have recommended that proposed projects determine whether the project would impact bald or golden eagles. If it is determined that either species could be affected by the proposed project, further coordination with the Service and Commission should take place.*

Why is it important to NDOR?

- *Since the bald eagle was federally delisted in 2007 (and also state delisted), the BGEPA is one of the laws that still provide protection for the bald eagle.*
- *The bald eagle is also protected under the Migratory Bird Treaty Act (MBTA) and the Lacey Act.*
- *Impacts to bald and golden eagles are federally prohibited. All NDOR projects must comply with the BGEPA, and must result in no "take" of bald or golden eagles.*
- *Violations of the BGEPA can result in a fine of $200,000 for organizations ($100,000 for individuals), imprisonment for 1 year, or both, for first offenses. Penalties increase substantially for additional offenses. A second violation of the BGEPA is a felony.*

Dates to remember:

- *Bald eagle breeding season: January 15 – July 15*
- *Golden eagle breeding season: Approximately January 15 –September 15*

How does it affect the project?

- *If bald or golden eagles are present within or near a project area, restrictions may be placed on the timing, location, and types of activities permitted to occur. These restrictions may include limited work during the breeding season, and construction activity "buffers" (no work zones) surrounding known bald and golden eagle nest sites.*

How does NDOR comply? How do you address this topic?

- *Determine if the project is within or near a known or potential bald or golden eagle nest site.*

    - *Access the Species Range Maps*
    - *Access the Natural Heritage data layer for the most recent known occurrences of bald eagles and golden eagles.*
- *Follow the Bald Eagle Survey Protocol, Golden Eagle Habitat Assessment Protocol, and NDOR's Avian Protection Plan*
- *Coordinate with local USFWS and NGPC biologists to ensure that the project will not result in a "take" of bald or golden eagles.*
- *Document that the project will not have any effects to bald and golden eagles through a No-Effect Memo (NEM), Eagle Survey Form (NDOR), Overview of Effects, or other document, as appropriate.*
- *As necessary, initiate and coordinate the use of appropriate construction activity avoidance and minimization of impacts (i.e., timing of construction, buffers around known nesting sites by working with project contractors or design).*

When do you consider this topic?

- *During scoping or scheduling*
- *Prior to advance plans*
- *During construction*

Helpful references:

NDOR's Avian Protection Plan

Bald Eagle Survey Protocol

Nebraska Natural Legacy Program

Wind Energy and Nebraska's Wildlife: Avian Assessment Guidance for Wind Energy Facilities Draft Version 3.1. February 2012, http://outdoornebraska.ne.gov/wildlife/pdfs/avianassessment3.pdf

Driscoll, D. E. 2010. Protocol for golden eagle occupancy, reproduction, and prey population assessment. American Eagle Research Institute, Apache Jct., AZ. 55pp.

Updated 12/9/2014

Bald Eagle Fact Sheet

Bald Eagles (*Haliaeetus leucocephalus*) are very large, brown raptors that utilize the mature, forested areas along the major river systems in Nebraska. Nets are typically built near rivers, lakes and reservoirs and are most often in large cottonwood trees. Nests are constructed with large sticks and can become 8 feet across and 12 feet deep. A breeding pair will often return to the same nest and add new material each year.

Adult Bald Eagle

Bald Eagle in Flight

Bald Eagle Nest

The bald eagle gained protection under the Bald and Golden Eagle Protection Act in the Federal Register on June 8, 1940. This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

Golden Eagle (*Haliaeetus leucocephalus*)
Order: *Accipitriformes*
Family: *Accipitridae*
Status: Protected by the Bald and Golden Eagle Protection Act

Description: L 35" W 80”. Sexes similar, but females are about 25% larger than males. Adults readily identified by white head and tail, large yellow bill. Feet are also yellow. Juveniles are mostly dark, with blotchy white patches. Require four or five years to reach full adult plumage.

Habitat: Wooded river corridors and larger lakes/sandpits with the presence of large cottonwoods for nesting/roosting. Solitary trees have been used for nesting, but are associated with prime fishing locations. Eagles may establish winter roosts miles from foraging areas. In Nebraska, some communal roost sites can have as many as 100 eagles.

Status/Range: Bald eagles can be found statewide in Nebraska, and are present throughout the year as they both breed and winter here. Wintering eagle numbers fluctuate, as there are often few locations that provide adequate resources for eagles during winter.

Call: Weak staccato of chirping whistles, “*kleek kik ik ik ik*”.

Similar Species: Immature bald eagles can be mistaken for golden eagles or turkey vultures.

Bald Eagle Survey Protocol
Nebraska Game and Parks Commission

Background

Bald eagles **(***Haliaeetus leucocephalus*) utilize the mature, forested areas along the major river systems in Nebraska. Eagles are present throughout the year in Nebraska as they both breed and winter in Nebraska. Nest building activity may begin as early as December. Nests are typically built near rivers, lakes and reservoirs and in Nebraska are most often in large cottonwood trees, although bald eagles use other types of trees nationwide. The nests are constructed with large sticks and lined with leaves and grasses. A breeding pair will often return to the same nest and add new material each year. Nests can become 8 feet across and 12 feet deep. Nesting activities begin with egg laying which occurs as early as February. Fledging takes place when the young are approximately 10 – 11 weeks old, however the young remain near the nest and are dependent on the adults for food for at least another 6 weeks. In Nebraska, the nesting season continues through August.

The bald eagle southward migration begins as early as October and the wintering period extends from December through March. Breeding pairs may stay at their nest site year round if food is available. Eagles are often most numerous from late February through early March, when wintering numbers are supplemented by migrants that wintered further south. All migrants that breed elsewhere typically leave by late March. Wintering eagle numbers fluctuate from year to year, but birds typically concentrate in areas with large open water where food is available and form winter roosts. In Nebraska, there are often few locations that provide adequate resources for eagles during the winter. Protection of these areas is important, as relocation during the winter may impact survival. Roosts may be in deciduous or coniferous trees, but in Nebraska, most are in cottonwood trees. Eagles may establish winter roosts miles from the foraging areas (Keister et al. 1985). Winter roosting may assist with finding resources (Knight and Knight 1983) and pair bond formation. In Nebraska, some communal roost sites can have as many as 100 eagles (Nebraska Game and Parks Commission 1993).

Purpose

Eagle surveys are designed to ensure awareness and resolution to any potential conflicts between bald eagle and potentially disruptive human activities. To document the presence or absence of bald eagles and their activities, two types of surveys are recommended: nest surveys and winter roost surveys. These should be considered when a disturbance will occur within 0.5 miles of areas of suitable habitat for bald eagles.

Nest Surveys

Bald eagle nests are usually conspicuous and distinctive, but it must be stressed that nests can be well concealed and very difficult to see, particularly when trees have foliage. Nest surveys should complete a full inspection of potential trees for bald eagle nests within 0.5 miles of the project in areas considered suitable habitat. Transects should be recorded using GPS. In addition to nests, any bald eagles observed during the survey and their behavior should be noted. Potential nests should be observed from a distant location that does not disturb the eagles to confirm the presence or absence of eagles. Nest surveys are to be conducted by a qualified

biologist. Results of surveys and transect locations should be sent to the Nebraska Game and Parks Commission and US Fish and Wildlife Service.

If construction will begin between February 1 and April 15, a nest survey must be completed at least 1 but not more that 14 days prior to construction. If construction will begin between April 15 and October 1, a nest survey completed in March is sufficient, as nests will likely already be constructed if nesting will occur that year. However a nest survey may be completed anytime during this timeframe, as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS will be required, so it is in the project proponent's best interest to complete the survey and notify the agencies as early as possible.

(See timing diagram page 3)

Winter Roost Surveys:
For the purposes of avoiding adverse impacts to wintering bald eagles, two types of roosts are defined. *Transitory roosts* are defined as 3 or more eagles, within 100 meters of each other, for at least 2 nights in an area with no previous knowledge of winter communal roosting. *Communal roosts* are defined as 6 or more eagles in a small area for extended periods of time or used for multiple years. Communal roosts in Nebraska are monitored, so typically their existence will be known and conservation measures established prior to construction.

If construction will be occurring in an area near suitable habitat (near open water with large trees present) where there is no prior knowledge of a communal roost site and construction will be occurring between October 1 and January 31 winter roost surveys are necessary. Winter roost surveys should begin at least 1 day prior to the first date of construction. Winter roost surveys should be conducted daily at dawn as the eagles are likely to leave the roost to forage within the first hour of daylight (depending on weather conditions). These surveys need only be conducted in the area of active construction, not the entire project area. Surveys may be completed by a trained individual using appropriate binoculars or spotting scope. Survey reports should be submitted weekly to the Nebraska Game and Parks Commission and US Fish and Wildlife Service. Evidence of a roost should be reported immediately.

Please note, eagles seen soaring over a construction site should be watched to observe potential nesting or roosting, but construction does not need to terminate due to soaring behavior.

(See timing diagram page 3)

References

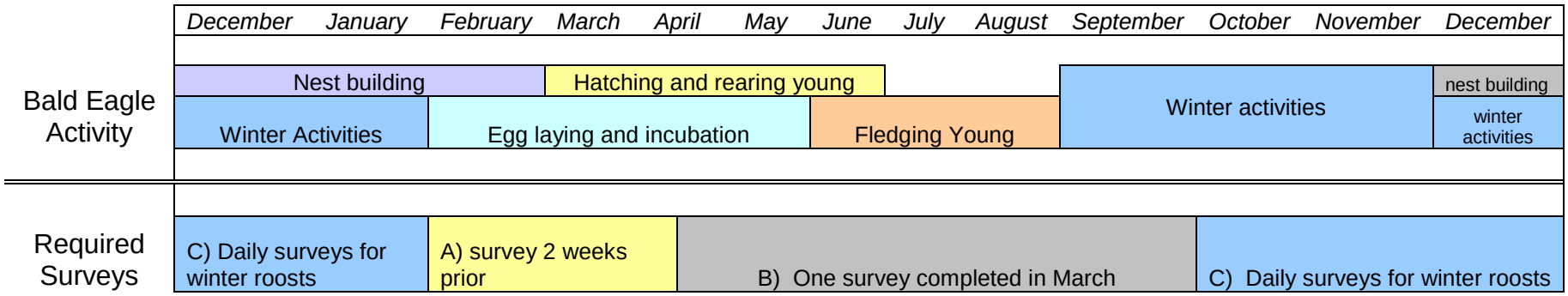
Buehler, D.A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), In The Birds of North America, No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Keister, G. P., Jr., R. G. Anthony and H. R. Holbo. A model of energy consumption in bald eagles: An evaluation of night communal roosting. The Wilson Bulletin. 97(2): 148-160

Knight, S. K. and R. L. Night. 1983. Aspects of food finding by wintering bald eagles. The Auk 100: 477-484.

Nebraska Game and Parks Commission. 1993. Nebraska's threatened and endangered species: Bald eagle. Nebraska Game and Parks Commission, Lincoln, Nebraska.

Bald Eagle Survey Recommendations
Timing Diagram
Standard Protocol prepared by NE Game and Parks Commission
January-07



A) Projects starting between February 1 to April 15 must have a nest survey completed 1-14 days prior to the start of construction
B) Projects starting between April 15 to October 1 need a nest survey completed as early as March, or before project begins
C) Projects starting between October 1 and December need daily winter roost surveys completed

NOTE: Surveys are only necessary in areas where the disturbance is near suitable eagle habitat

Timing of eagle activity references:

Draft National Bald Eagle Management Guidelines, US Fish and Wildlife Service, 2006,

Buehler, D.A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), In The Birds of North America, No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Nebraska Game and Parks Commission. 1993. Nebraska's threatened and endangered species: Bald eagle. Nebraska Game and Parks Commission, Lincoln, Nebraska.

Updated 12/9/2014

Golden Eagle Fact Sheet

Golden Eagles (*Aquila chrysaetos*) are very large, dark brown raptors of the arid open country of Nebraska's Panhandle. Their natural nesting habitat is on cliffs and rock escarpments. Golden eagles may also nest on the largest trees of forested stands, but often choose a nesting location that allows an unobstructed view of the surrounding habitat.

Adult Golden Eagle

Golden Eagle in Flight

Golden Eagle Nest

The golden eagle gained protection under the Bald and Golden Eagle Protection Act in the Federal Register on June 8, 1940. This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

Golden Eagle (*Aquila chrysaetos*)
Order: *Accipitriformes*
Family: *Accipitridae*
Status: Protected by the Bald and Golden Eagle Protection Act

Description: L 32" W 80". Sexes similar. Adults dark brown in color, with paler, golden color on the back of the crown and nape, and some grey on the inner-wing and tail. Bill is grey and yellow. Un-feathered portions of the feet are also yellow. Juveniles tend to be darker, appearing black on the back, and occasionally have white patches forming a crescent marking on the wings.

Habitat: Arid open country with grassland for foraging. Golden eagles generally nest on cliffs and rock outcroppings. Often avoid nesting near urban areas and do not generally nest in dense forest habitat.

Status/Range: Found in the western quarter of the state. Golden eagles are a regular spring and fall migrant and winter visitor in central Nebraska, but they are not commonly observed in the eastern third of the state.

Call: Have a tendency to be silent, but can quietly "*chirp*", "*seeir*", "*pssa*", "*skonk*", "*cluck*", "*wonk*" and "*hiss*".

Similar Species: Can be mistaken for immature bald eagles, turkey vultures and hawks.

Nebraska Transportation Habitat Assessment Protocol for Golden Eagle

Background

Golden eagles (*Aquila chrysaetos*) can be found in the tundra, throughout grasslands, woodland-brushlands, and forested habitat, south to arid deserts, including Death Valley, California (Kochert et al., 2002). They are aerial predators and eat small to mid-sized reptiles, birds, and mammals up to the size of mule deer fawns and coyote pups. They also are known to scavenge and utilize carrion. In Nebraska's Panhandle, golden eagles are found in arid open country with grassland for foraging, which covers approximately the western quarter of the state. These habitats are typically near buttes or canyons which serve as nesting sites. Golden eagle food sources often consist of prairie dogs and jackrabbits; however, eagles are opportunistic scavengers and will occasionally feed on any available animal carcass. Golden eagles are a regular spring and fall migrant and winter visitor in central Nebraska, but they are not commonly observed in the eastern third of the state.

Golden eagles build nests on cliffs, in the largest trees of forested stands, or on rock escarpments, allowing for an unobstructed view of the surrounding habitat (Beecham and Kochert 1975, Menkens and Anderson 1987, Bates and Moretti, 1994). Usually, sticks and soft material are added to existing nests, or new nests are constructed to create a strong, flat or bowl shaped platform for nesting (Palmer 1988, Watson 1997, Kochert et al., 2002). Golden eagles have been known to decorate multiple nests in a single year; continuing to do so until they lay eggs in a selected nest. The completed nest structure(s) can vary from large and multi-layered; or a small augmentation of sticks in caves with little material other than extant detritus (Ellis et al., 2009).

Golden eagles avoid nesting near urban areas and do not generally nest in densely forested habitat. Individuals will occasionally nest near semi-urban areas where housing density is low or in farmland habitat; however golden eagles have been noted to be sensitive to some forms of human presence (Pagel et al., 2010). Golden Eagles lay one to four eggs, with two eggs being common and four eggs being rare. The laying interval between eggs ranges between three to five days. Severe weather may delay the onset of egg-laying (Driscoll, 2010).

Phenology is not well understood in Nebraska; however nesting birds have been observed on eggs in April and young birds reported by the third week of May (Molhoff, 2001). The golden eagle breeding season generally occurs from mid-January to mid-September, but varies according to geographic area (Phillips et al., 1990, Verner et al., 1980).

Driscoll (2010) describes that breeding chronology begins with an increase in courtship flights and nest refurbishment in December and January. Some eagle pairs lay eggs as early as January; however, mid-February is more typical. Incubation is 45 days. Young hatch from mid-March through April and remain in the nest for 10 weeks, fledging in June. Fledglings remain in the breeding area for up to two months, during which the adults continue to feed them. Juveniles disperse from the breeding area during July and August.

Purpose

Golden eagles are legally protected by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and are considered a Tier II at-risk species (i.e., a species that is at-risk in Nebraska but doing well in other parts of its range) by the Nebraska Game and Parks Commission (NGPC) (Schneider et. al., 2011). The Nebraska Department of Roads (NDOR) and Federal Highway Administration (FHWA) has a need to demonstrate due diligence efforts that the transportation program is trying to avoid potential conflicts between eagles and potentially disruptive construction activities, as is already assessed and completed for bald eagles and migratory birds (Bald eagle survey protocol, 2007, NDOR APP, 2012). To document this effort for golden eagles, a habitat assessment process will be followed and coordinated with the NGPC and the U.S. Fish and Wildlife Service (USFWS).

Habitat Assessment Process

1) Similar to our Species Evaluation Process for listed species, NDOR will determine if a proposed project occurs in a county within the most current available breeding range map (2012 example attached) and if there are known nest observations identified by NGPC's Heritage Program or the Breeding Bird Atlas within a 0.5-mile radius of the project.

2) In addition to range & nest location data, other types of desktop (GIS) information could be analyzed to determine whether the Limits of Construction are within 0.5-mile of the following golden eagle habitat indicators:

- Undeveloped
- Native grassland
- Trees
- Steep terrain
- Biologically Unique Landscapes (Pine Ridge, Wildcat Hills, Panhandle Prairies, Kimball Grasslands, Oglala Grasslands)
- Rocky escarpments
- Cliffs
- Rock outcrop
- Shortgrass prairie
- Sandhills dune prairie with 400 foot high rolling dunes
- Prairie dog towns

(3) If a **known** nest does occur within 0.5-mile of the project, or the habitat within 0.5-mile of the project appears to suggest a strong likelihood for golden eagle occupancy, a planned site visit prior to construction should take place:

It is recommended that the dates of the site visit should be sensitive to the local nesting (i.e. laying, incubating, and brooding) and conducted during weather conditions favorable for observing from medium to long range distances (+300—700 meters) (Pagel et al, 2010). There is some unknown proportion of golden eagles that nest in trees in the panhandle (<10%) but these nests are not always detected as cliff-dwelling nests are but usually they are found in

fairly remote locations (Joel Jorgensen, pers comm). It seems likely that these tree nests should be detected by following the bald eagle nest survey protocol.

(4) If nests are identified, follow up coordination with the Service and Commission should take place.

Nest Surveys

Golden eagle nests are typically large and distinctive, but may be well concealed and difficult to see against cliff faces and within rocky areas, or if in a tree, when trees have foliage. Nest surveys should complete a full inspection of rock escarpments, buttes, cliff faces, and large trees within 0.5-mile of the project in areas considered suitable habitat. Identified nests should be recorded using GPS. In addition to nests, any golden eagles observed during the survey and their behavior should be noted on the survey report. Potential nests should be observed from a distant location that does not disturb the eagles to confirm presence or absence of eagle activity. Nest surveys are to be conducted by a qualified biologist. Surveys resulting in a positive nest location will be sent to the NGPC and USFWS.

If construction will begin between February 1 and April 15, a nest survey must be completed at least 1, but not more than 14 days prior to construction. If construction will begin between April 15 and November 1, a nest survey completed in March is sufficient, as nests will likely already be constructed if nesting will occur that year. However, a nest survey may be completed at any time during this timeframe, as long as it is completed prior to construction. If golden eagles are nesting in the area, consultation with USFWS will be required, so it is in the project proponent's best interest to complete the survey and notify the agencies as early as possible.

Identification resources

The field identification of North American eagles:
http://www.globalraptors.org/grin/researchers/uploads/155/eagle_i.d._1983.pdf

Good examples of differences between species (i.e. feet, bills, feathers and pictures):
http://www.hancockwildlife.org/forum/viewtopic.php?showtopic=132018

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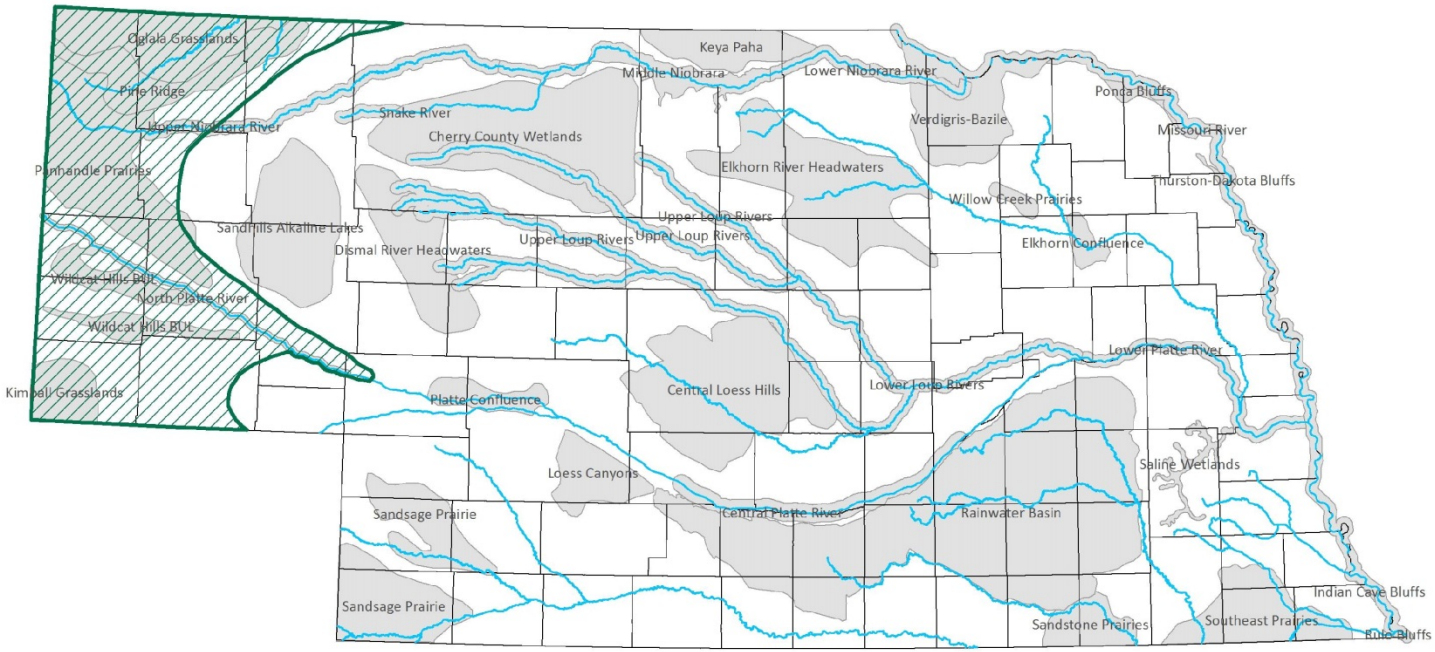
Current breeding range of Golden Eagle
(Aquila chrysaetos)



Nebraska Natural Heritage Program,
Nebraska Game and Parks Commission
September 2012

Adult Golden Eagle (USFWS)

Immature Bald Eagle (USFWS)

Golden Eagle (USFWS)

Turkey Vulture (USFWS)