

U.S. Fish and Wildlife Service (USFWS), Region 6 Wildlife Buffer Recommendations for Wind Energy Projects

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Version 3.0

Note: The buffer described in these recommendations are minimum distances suggested to be used to separate any of the following features and proposed wind turbine locations, unless otherwise noted below. These USFWS recommendations are for wind energy projects in Region 6 only (Colorado, Utah, Wyoming, Montana, North Dakota, South Dakota, Nebraska, and Kansas). This USFWS Region 6 voluntary guidance includes recommended buffers for a variety of wildlife and wildlife habitat features that may, or may not, be present within the project area for a given wind energy project. We recommend that the following buffer distances be implemented for all wildlife species or wildlife habitat features addressed below and present within the project area.

1. Raptor nest buffers (non-eagle):

Nesting raptor species commonly encountered at proposed wind energy project sites in Region 6 are addressed in this section. We recommend that existing raptor nests documented as occupied through recent pre-construction surveys for the project be buffered as follows: Swainson's hawk 800 meters, ferruginous hawk 1,600 meters, red-tailed hawk 800 meters, great-horned owl 400 meters, peregrine falcon 1,600 meters, and prairie falcon 800 meters. Ferruginous hawk, peregrine falcon, and prairie falcon are all USFWS Birds of Conservation Concern (USFWS 2008) and thus there are additional considerations in conserving their nest sites. If nests for other raptor species, besides those listed here, have also been documented as occupied through recent pre-construction surveys within the wind project area, USFWS Region 6 can provide additional buffer recommendations for them.

2. Greater Sage-Grouse buffers:

The greater sage-grouse is primarily managed by state wildlife and conservation agencies as well as by the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) on BLM and USFS-administered lands. Where state-designated greater sage-grouse habitat occurs in the proposed project limits or vicinity, the recommends project coordination with the appropriate state agency(s) regarding any applicable required or recommended compliance with state sage-grouse laws, executive orders, policies, and conservation strategies, including lek and other sage-grouse habitat buffers. Projects with BLM or USFS involvement that are proposed near state, BLM, or USFS-designated sage-grouse habitats should additionally coordinate with the administrating BLM or USFS office regarding applicable compliance with sage-grouse elements of governing federal land use plans.

3. Lesser Prairie-Chicken buffers:

We recommend conducting a risk assessment of the project area for lesser prairie-chickens following USFWS guidance documents (USFWS July, 2016 Recommendation for the Characterization of Effects of Wind Energy on the Lesser Prairie-Chicken, and

USFWS December, 2014 Guidelines for the Establishment, Management, and Operation of Permanent Lesser Prairie-Chicken Mitigation Lands). Once the results of the assessment and risk for prairie-chickens in the project area are known, the USFWS can provide further recommendations, if warranted.

4. Greater Prairie-Chicken buffers/ Sharp-tailed Grouse buffers:
Many state Fish and Wildlife Agencies have management recommendations for these species. Hence, we recommend that wind project proponents contact their state Fish and Wildlife Agencies regarding potential recommended buffers for these species in relation to your project.
5. Mountain Plover nest buffers:
Mountain plover is a USFWS Bird of Conservation Concern. We recommend that existing mountain plover nests documented as active through pre-construction surveys be buffered as follows: if the nest is within a prairie dog colony then a buffer of 800 meters should be applied to that colony and if the nest is located outside of a prairie dog colony then apply a buffer of 230 meters should be applied around the documented active nest.
6. Other USFWS Birds of Conservation Concern buffers:
Bird species designated as BCC by USFWS (USFWS 2008). If your wind energy project survey work documents that there are other USFWS BCC birds present and nesting within the project area USFWS, Region 6 may provide other species-specific buffer recommendations for the project.
7. Playas and wetlands:
For playas/wetlands within the project area we recommend applying a buffer of 500 meters. Hence, in general, no wind turbines should be constructed within 500 meters of playas/wetlands that occur within the project area. Adjustments to the size of the buffer may be warranted based on the size, quality, and raptor/avian use of the playa/wetland. For playas/wetlands that are larger, or higher quality, and with greater avian use, a buffer larger than 500 meters may be warranted. For playas/wetlands that are smaller in size, of lower quality, and have less avian use, a buffer less than 500 meters may be appropriate.
8. Native grasslands and prairie:
For areas or blocks of land that protect intact native grassland/prairie habitats, whether they are private lands enrolled in one of several conservation programs or public lands that protect these habitats, our recommendation is to apply a buffer of 500 meters. Hence, in general, no wind turbines should be constructed within 500 meters of native grasslands/prairie habitat that occur within the project area. Lands that consist mostly or completely of native prairie, have greater ecosystem value due to their higher biodiversity. These grassland/prairie habitats are increasingly rare and thus these habitats and should be prioritized for buffers.
9. Setback distances for topographic features such as ridgelines, cliff edges, mesa edges, buttes, (etc):
These topographic features create areas of wind uplift used by many raptor species. Placing wind turbines too close to such topographic features creates risk that raptors will

of collide with wind turbine blades resulting in death or injury. Therefore, we recommend a minimum setback distance (buffer) be applied for all wind turbines from all such topographic features. This recommended minimum setback distance should be equal to the greatest height of the largest wind turbine model used in building the wind energy project (measured from the turbine base to the highest tip of the turbine blade when directly vertical).

10. Burrowing Owl Colonies:

Burrowing owl is a USFWS BCC. For any prairie dog colonies where pre-construction surveys document that burrowing owls are also present, apply a buffer of 800 meters around these colonies.

11. Prairie Dog Colonies:

Prairie dog colonies are foraging areas for many raptor species. Hence, we recommend that all active prairie dog colonies be buffered from wind turbines. For prairie dog colonies we generally recommend applying a buffer of 500 meters. Region 6 overlaps the ranges of the black-tailed, white-tailed, Utah, and Gunnison's prairie dogs. There are ecological differences between these species which include the timing of annual activity and the related risk this may pose to predators (including raptors) that forage on them. Of greatest concern are black-tailed prairie dogs since they are active year round. Region 6 is open to discussions for individual projects per what prairie dog species are present and how our basic buffer recommendations may be adapted based on this.

12. We also recommend that contacting the appropriate state Fish and Wildlife Agency, based on the energy project location, to acquire other state agency- based conservation recommendations for your project.