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CITY OF WESTMINSTER WESTMINSTER WATER 2025 PRELIMINARY DESIGN PROJECT WESTMINSTER, JEFFERSON COUNTY, COLORADO TREE REMOVAL PLAN

The Migratory Bird Treaty Act (MBTA) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization from the U.S. Fish and Wildlife Service (USFWS). In support of the MBTA and to prevent impacts to migratory birds for the Westminster Water 2025 Preliminary Design Project, the City of Westminster (City) will conduct tree clearing activities on the Water Treatment Facility site between September 1 and November 15, so that the clearing occurs outside the typical nesting season for small birds and raptors in Colorado as well as Colorado Parks and Wildlife (CPW) seasonal restrictions for bald eagle winter roost locations. By clearing trees within the Project site between September 1 and November 15, the City will prevent potential raptor nesting activities occurring on site during the nesting season the following year.

If small tree clearing must occur between April 1 and August 31 (the typical nesting season for small birds in Colorado), the City will conduct a migratory bird nest survey within 7 days prior to planned tree clearing to identify any active nests within the trees to be cleared. If active nests are identified, a construction buffer will be placed around the active nest(s) and the tree(s) within the required buffer, and those trees will be monitored weekly and not be cleared until the chicks have fledged the nest and the nest becomes inactive (this is typically 4-6 weeks).

If any large trees containing potential raptor nests are planned to be cleared at any time, the City will conduct a raptor nest survey prior to tree clearing to identify whether a raptor nest is active. If the nest is identified as inactive, the City will remove the tree within 7 days of the raptor nest survey. CPW recommends specific buffer zones and seasonal restrictions for active raptor nests, dependent on the species occupying the nest. If an active raptor nest is identified, the City will adhere to CPW's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (2020) (copy attached). If the City's tree clearing plans conflict with CPW's recommendations for an active raptor nest, the City will consult with CPW.

Below is a step-by-step guide to tree removal for the Westminster Water 2025 Preliminary Design Project:

 To the extent possible, the City will conduct tree clearing between September 1 and November 15 (which is outside the typical nesting season for small birds and raptors in Colorado, as well as CPW seasonal restrictions for bald eagle winter roost locations). This is always the preferred approach for scheduling tree clearing and does not require a migratory bird nest survey in advance of tree clearing.



- 2) If small tree clearing cannot occur between August 31 and April 1, the City will conduct a migratory bird nest survey within 7 days prior to the planned tree removal.
 - a. If no nests are identified, the City will remove trees within 7 days of the migratory bird nest survey.

Note: If tree clearing is delayed beyond 7 days from the date of the original migratory bird nest survey, an additional migratory bird nest survey will be performed within 7 days of the planned tree clearing (as nest surveys are only valid for 7 days).

- b. If a nest is identified, the City will:
 - i. Delay tree removal to occur between August 31 and April 1, or
 - ii. Adhere to the recommended nest buffer (which is species specific) until the nest is no longer active, and remove the occupied tree after the chicks have fledged/the nest has become inactive, or
 - iii. Consult with CPW on the recommended buffer around an active nest (which varies by the species present).
- 3) If any large trees containing potential raptor nests are to be removed, the City will conduct a raptor nest survey before tree clearing to determine whether the potential raptor nest is active.
 - a. If the nest is identified as inactive, the City will remove the tree within 7 days of the raptor nest survey.
 - b. If the nest is identified as active, the City will delay tree removal until the nest is no longer active, adhere to CPW's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (2020) (copy attached), and consult with CPW before tree removal.

The information presented in this Tree Removal Plan applies to both living and dead/dying trees on site as both provide suitable habitat for bird nests. Similarly, the information contained herein applies to native and non-native/invasive tree species on the Westminster Water 2025 Preliminary Design Project site as birds do not discern between the two.

Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors (2020)



RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS FOR COLORADO RAPTORS (2020)

OVERVIEW

Colorado Parks and Wildlife (CPW) is routinely asked for recommendations on ways to avoid and minimize disturbance to nesting, wintering, and resident raptors in Colorado. These guidelines were originally developed by Colorado Division of Wildlife in 2002 and updated in 2008. We recently (2020) undertook a periodic review of our guidelines to ensure that they are the most up to date based on the best available science and professional judgement. Further revisions of this document may become necessary as additional information is published or becomes available.

Background on Disturbance

The term "disturbance" is ambiguous and experts disagree on what actually constitutes a disturbance. Reactions may be as subtle as elevated pulse rate or as obvious as vigorous defense or abandonment of a nest site. Impacts of disturbance may not be immediately evident. A pair of raptors may respond to human intrusion by defending the nest, but well after the disturbance has passed, the male may remain in the vicinity for protection rather than forage to feed the nestlings. Golden eagles rarely defend their nests, but merely fly a half mile or more away and perch and watch. Chilling and overheating of eggs or chicks and starvation of nestlings can result from human activities that appeared not to have caused an immediate response.

Tolerance limits to disturbance vary among as well as within raptor species. As a general rule, Ferruginous Hawks and Golden Eagles respond to human activities at greater distances than do Ospreys and American Kestrels. Some individuals within a species also habituate and tolerate human activity at a proximity that would cause the majority of the group to abandon their nests. Other individuals can become sensitized to repeated encroachment and react at greater distances. The tolerance of a particular pair may change when a mate is replaced with a less tolerant individual and this may cause the pair to react to activities that were previously ignored. Responses will also vary depending upon the reproductive stage. Although the level of stress is the same, the pair may be more secretive during egg laying and incubation and more demonstrative when the chicks hatch. Recognizing that there is individual variability, the buffer areas and seasonal restrictions suggested here reflect an informed opinion that if implemented, should assure that the majority of individuals within a species will continue to occupy the area. Also, in order to allow for individual variability and renesting pairs, CPW recommends seasonal restrictions continue to be implemented until the chicks have fledged. Other factors such as intervening terrain, vegetation screens, and the existing cumulative impacts of activities should also be considered.

A 'holistic' approach is recommended when protecting raptor habitats. While it is important for land managers to focus on protecting nest sites, attention should also focus on defining important foraging areas that support the pair's nesting effort. Hunting habitats of many raptor species are extensive and may necessitate interagency cooperation to assure continued nest occupancy. Unfortunately, basic knowledge of habitat use for individual nesting pairs is often lacking.

RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS

CPW recommends consultation with local CPW staff early in the planning phase of project proposals in order to assess and develop site-specific recommendations based on pre-existing conditions (e.g. existing development, topography, vegetation, and line-of-sight to nest). CPW maintains a leadership role with respect to raptor management in Colorado; however it is important to keep in mind that the primary authority for the regulation of take and the ultimate jurisdiction for most of these species rests with the U. S. Fish and Wildlife Service (USFWS) under the Migratory Bird Treaty Act (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). Therefore, CPW also recommends early consultation with the U.S. Fish and Wildlife Service to comply with the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the 2016 U.S. Fish and Wildlife Service Eagle Permits Rules as applicable (USFWS 2016).

BALD EAGLE

Nest Site: No Surface Occupancy (NSO) beyond that which historically occurred, within ¹/₄ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ¹/₂ mile (2640 feet, 800 meters) radius of active nest sites from December 1 through July 31. The majority of bald eagle chicks in Colorado have fledged by July 31; however, for late-nesting or potential re-nesting bald eagles, CPW recommends seasonal restrictions beyond July 31 if chicks are still present in the nest. CPW's recommended buffer is more extensive than the National Bald Eagle Management Guidelines (USFWS 2007) due to the generally open habitat used by Colorado's nesting bald eagles.

If surface occupancy cannot be avoided within ¹/₄ mile of the nest AND the nest is located within a Highly Developed Area, then the recommended NSO extends ¹/₈ mile (660 feet, 200 meters) from the nest site. No permitted, authorized, or human encroachment activities within ¹/₄ mile radius of active nests from December 1 through July 31. This buffer recommendation matches the USFWS 2007 Guidelines in the instances where eagles have demonstrated the ability to tolerate previous levels of human encroachment and surface occupancy.

Winter Night Roost and/or Communal Roost: No permitted, authorized, or human encroachment activities within ¼ mile (1320 feet, 400 meters) radius of an active night and/or communal roost from November 15 through March 15 if there is no direct line of sight between the roost and the activity. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of an active night or communal roost from November 15 through November 15 through March 15 if there is a direct line of sight between the roost and the activity.

If an active winter night roost is located within a Highly Developed Area, then no permitted, authorized, or human encroachment activities within ¹/₈ mile (660 feet, 200 meters) radius from November 15 through March 15 if there is no direct line of sight between the roost and the activity. No permitted, authorized, or human encroachment activities within ¹/₄ mile (1320 feet, 400 meters) radius from November 15 through March 15 if there is a direct line of sight between the roost and the activity. Note: Communal roosts are relatively rare in Colorado and have disproportionately high biological value. Therefore a reduced buffer within a Highly Developed Area does not apply to communal roosts.

If periodic visits (such as oil well maintenance work) to preexisting facilities are required within the buffer zones described above, activity should be restricted to the period between 1000 and 1400 hours from November 15 to March 15.

GOLDEN EAGLE

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ¹/₄ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ¹/₂ mile (2640 feet, 800 meters) radius of active nests from December 15 through July 15.

FERRUGINOUS HAWK

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of active nests from February 1 through July 15. This species is especially prone to nest abandonment during incubation if disturbed.

RED-TAILED HAWK

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within $\frac{1}{3}$ mile radius of active nests. No permitted, authorized, or human encroachment activities within $\frac{1}{3}$ mile radius of active nests from February 15 through July 15. Some individuals of this species have adapted to urbanization and may exhibit a high tolerance to human habitation and activities within 100 yards of their nest. Development that encroaches on rural nest sites is more likely to cause abandonment.

SWAINSON'S HAWK

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ¹/₄ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ¹/₄ mile (1320 feet, 400 meters) radius of active nests from April 1 through July 31. Some members of this species have adapted to urbanization and may tolerate human habitation to within 100 yards of their nest.

PEREGRINE FALCON

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) mile of the nest cliff(s) from March 15 to July 31. Due to propensity to relocate nest sites, sometimes up to ½ mile (2640 feet, 800 meters) along cliff faces, it is more appropriate to designate 'Nesting Areas' that encompass the cliff system and a ½ mile (2640 feet, 800 meters) buffer around the cliff complex.

PRAIRIE FALCON

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of active nests from March 15 through July 15.

NORTHERN GOSHAWK

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ½ mile (2640 feet, 800 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800 meters) radius of active nests from March 1 through September 15.

OSPREY

Nest Site: No surface occupancy (beyond that which historically occurred in the area) within ¹/₄ mile (1320 feet, 400 meters) radius of active nests. No permitted, authorized, or human encroachment activities within ¹/₄ mile

(1320 feet, 400 meters) radius of active nests from March 15 through August 15. Some osprey populations have habituated and are tolerant to human activity in the immediate vicinity of their nests.

MEXICAN SPOTTED OWL

No surface occupancy (beyond that which historically occurred in the area) within USFWS designated Critical Habitat and within Protected Activity Center (PAC). No permitted, authorized, or human encroachment activities within ½ mile (2640 feet, 800m) buffer of Protected Activity Center from March 1 through August 31.

BURROWING OWL

Nest Site: No permitted, authorized, or human encroachment activities within ½ mile (660 feet, 200 meters) of the nest site during the nesting season March 15 through August 31. For large industrial disturbances (drilling rig, residential construction, etc.), no permitted, authorized, or human encroachment activities within ¼ mile (1320 feet, 400 meters) of the nest site during the nesting season March 15 through August 31. Although Burrowing Owls may not be actively nesting during this entire period, they may be present at burrows up to a month before egg laying and several months after young have fledged. Therefore, it is recommended that efforts to eradicate prairie dogs or destroy abandoned towns not occur between March 15 and October 31 when owls may be present. Because nesting Burrowing Owls may not be easily visible, it is recommended that targeted surveys be implemented to determine if burrows are occupied. More detailed recommendations are available in a document entitled "Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls," which is available from the CPW.

DEFINITIONS

Active nest – Any nest that is frequented or occupied by a raptor during the breeding season, or which has been occupied in any of the five previous breeding seasons. Many raptors use alternate nests in various years. Thus, a nest site may be active even if a particular structure is not occupied in a given year.

Winter night roost and/or communal roost – Areas where bald eagles and sometimes golden eagles perch overnight or gather to perch or forage. Individuals, pairs, and groups of eagles demonstrate site fidelity to winter night roosts and communal roosts throughout the winter season and year after year. Communal roost sites have more than 15 eagles for the majority of the roosting season and are usually in large trees (live or dead) that are relatively sheltered from wind and are generally in close proximity to foraging areas. Winter night roost and communal roosts may also serve a social purpose for pair bond formation and communication among eagles.

Permitted, authorized, or human encroachment activities- Any activity that brings humans in the area. Examples include construction activities, oil and gas development and production, driving, facilities maintenance, boating, trail access (e.g., hiking, biking), etc.

Surface Occupancy – Any physical object that is intended to remain on the landscape permanently or for a significant amount of time. Examples include houses, oil and gas wells, tanks, wind turbines, solar developments, roads, tracks, trails, etc.

Highly Developed Area – An area where existing density from the cumulative development of oil and gas facilities, home sites, subdivisions, commercial buildings, malls, apartment complexes, gravel pit operations, etc. exceed 10 or more daily occupied facilities within a ¹/₄ mile (1320 feet, 400 meters) radius of the nest. Determination of whether or not a nest site is within a highly developed area will be done in consultation with CPW.

Mexican Spotted Owl Critical Habitat – Critical habitat is defined as areas of land and water with physical and biological features that are essential to the conservation of a threatened or endangered species, and that may require special management considerations or protection. Defined by U.S. FWS Final Rule 2004.

Mexican Spotted Owl Protected Activity Center (PAC) – An area established around an owl nest (or sometimes roost) site, for the purpose of protecting that area. Management of these areas is largely restricted to managing for forest-health objectives.

CONTACT

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Recommended Buffer Zones and Seasonal Restrictions Around Raptor Use Sites

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Bald Eagle													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
ACTIVE NEST HIGHLY DEVELOPED AREA - No Surface Occupancy	1⁄8 Mile												
ACTIVE NEST HIGHLY DEVELOPED AREA - No Human Encroachment	1⁄4 Mile												
ACTIVE WINTER NIGHT ROOST without a direct line of sight- No Human Encroachment	1⁄4 Mile												
ACTIVE WINTER NIGHT ROOST with a direct line of sight - No Human Encroachment	½ Mile												

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Golden Eagle													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Osprey													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	1⁄4 Mile												
Ferruginous Hawk													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Red-tailed Hawk													
ACTIVE NEST - No Surface Occupancy	⅓ Mile												
ACTIVE NEST - No Human Encroachment	¹ / ₃ Mile												
Swainson's Hawk													
ACTIVE NEST - No Surface Occupancy	1⁄4 Mile												
ACTIVE NEST - No Human Encroachment	¼ Mile												

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Peregrine Falcon													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Prairie Falcon													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Northern Goshawk													
ACTIVE NEST - No Surface Occupancy	½ Mile												
ACTIVE NEST - No Human Encroachment	½ Mile												
Burrowing Owl													
ACTIVE NEST - No Human Encroachment	1⁄8 Mile												
ACTIVE NEST INDUSTRIAL ACTIVITIES -													
No Human Encroachment	¹ ⁄4 Mile												
Recommend against prairie-dog eradication or conduct surveys													

Species and Use	Buffer	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Mexican Spotted Owl													
Critical Habitat and Protected Activity Center (PAC) - No Surface Occupancy													
Critical Habitat and Protected Activity Center (PAC) - No Human Encroachment	½ Mile												
		= time period for which seasonal restrictions are in place.											