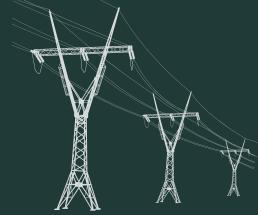


NESTING BIRD BEST MANAGEMENT PRACTICES



NELSON HYDRO





This document was compiled based on information gathered in a larger study for Nelson Hydro, **Best Management Practices for Nesting Birds During Vegetation Maintenance**.

The following Best Management Practices must be demonstrated in Nelson Hydro work areas. Federal ^{1,2} and Provincial ³ legislation protect breeding bird populations and their nests during species-specific breeding seasons. Furthermore, a Kootenay-Boundary Wildlife Habitat Features (WHF) Order ⁴ protects specific high-priority features (e.g., bird nests and bat nursery roosts and/or hibernacula in trees⁵) associated with wildlife species of regional management concern.

PROCEDURE

Vegetation management, and particularly clearing, should be avoided during the breeding period. Birds have species-specific breeding timing windows and the March 15 – August 15 period covers the breeding window for most bird species likely to be encountered in the Nelson Hydro Service Area (although some raptors and owls in particular may initiate breeding earlier). Some notable exceptions to this general breeding window are discussed in the Kootenay-Boundary WHF Order Field Guide (for Bald Eagle, Osprey, Flammulated Owl, Western Screech-Owl, Great Blue Heron, and Lewis's Woodpecker), which may occur in the Nelson Hydro Service Area.

If maintenance activities must be conducted within this breeding period, a breeding bird survey should be completed by a Qualified Professional (QP) prior to any vegetation clearing. A Qualified Professional is someone who has experience and training in the pertinent profession - in this case, a qualified biologist with bird expertise.

- Retain the services of a QP in advance of any planned vegetation clearing work within the breeding period.
- Prior to any clearing of mature trees Nelson Hydro personnel should look for stick nests, cavity nests and/or frequent bird activity and contact a QP if any of these are identified prior to conducting work.

[1] Migratory Birds Convention Act: <http://laws.justice.gc.ca/eng/acts/M-7.01/>; see also: <https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html>

[2] Canada Species at Risk Act: <http://laws-lois.justice.gc.ca/eng/acts/s-15.3/>.

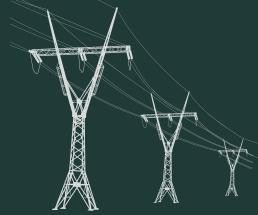
See, also, the Species at Risk Public Registry website for a wide range of information related to species at risk in Canada: <https://www.registrelepsararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1>

[3] Wildlife Act: http://www.bclaws.ca/Recon/document/ID/freeside/00_96488_01.

[4] Kootenay-Boundary Wildlife Habitat Features Order: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/legislation-regulation/frpa-pac/wildlife-habitat-features/wildlife_habitat_features_order_kootenay_boundary.pdf

[5] Kootenay-Boundary Wildlife Habitat Features Field Guide: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/legislation-regulation/frpa-pac/wildlife-habitat-features/whf_field_guide_kootenay_boundary.pdf





- Upon discovery of an active nest, stop work in the area immediately and notify a QP.
- Ensure that recommended mitigation measures are implemented to minimize impacts to nesting birds.

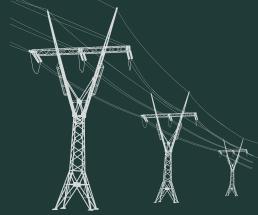
A QP must confirm that the nests are no longer active for work to resume in the area. Clearing must commence within 3 days from the last bird occupancy assessment, and within 7 days on the outside margins of the primary nesting period. If work is delayed beyond the recommended “approval” window, a replicate survey will need to be conducted prior to clearing.

Assessments must be made in small, sustainable work areas. For example, rather than assessing the entire city of Nelson at once, an assessment must be made for a smaller area that a crew can focus on for a two-week period, before moving on to another assessment and work area.

If tree clearing and/ or disturbing maintenance activities must be conducted within the sensitive bat rearing period (April 30 to September 1), Nelson Hydro personnel should be looking for high quality suitable trees for bat nursery roosting (i.e., trees >50 cm dbh with hollows, cavities or loose sloughing bark on south or southwesterly exposures). Where found, such trees should be assessed for occupancy, by looking for individuals with a flashlight, observing bat emergence at dusk and/ or confirming presence of guano. If occupancy is suspected but cannot be determined using these methods, the services of a QP with bat experience should be sought to provide site-specific management and mitigation recommendations.

Cutting crews must consult and adhere to the recommendations made by the QP before beginning their work.





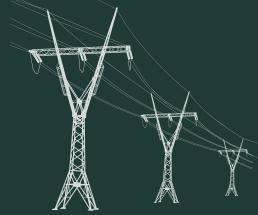
MITIGATION FOR ACTIVE NESTS

When an active nest is found, all work activities must cease immediately and the following steps must be taken:

- Establish a no-work buffer around the nest
 - *Songbirds*: A minimum buffer size of 30 m is recommended for most songbirds, however additional considerations apply for federally listed species addressed under SARA (e.g., Yellow-breasted Chat, Olive-sided Flycatcher, Evening Grosbeak, etc.).
 - *Woodpeckers, Sapsuckers and other Cavity Nesting Species* (e.g., swallows, swifts, ducks, etc.): A minimum buffer size of 30 m applies but additional protections may be required for these species depending on their federal and/or provincial conservation status and applicable legislation. Depending on the species, the Kootenay-Boundary WHF Order Field Guide and SARA should be considered.
 - *Great Blue Heron*: All brushing and thinning activities should be avoided within 300 m of an active heron nest until after the breeding season (August 31).
 - *Raptors*: Nest site buffer sizes vary depending on the nesting species and the site-specific conditions (e.g., slope, tree density, etc.) but generally range from 1.5 tree lengths to 500 m radius around the nest, with additional buffer distances applied during the breeding season (see Kootenay-Boundary WHF Order Field Guide and BMPs for Raptor Conservation in BC ⁶).
- Signage or flagging will be placed to inform crews of the nest buffer zone.
- Work activities deemed to be potentially disruptive to nesting birds should not occur within the established buffer area until the nest is no longer active.

[6] BMPs for Raptor Conservation during Urban and Rural Land Development IN BC: http://www.env.gov.bc.ca/lower-mainland/electronic_documents/raptor_bmp_final.pdf.





SCHEDULING ACTIVITIES

Nesting windows are bird species-specific but also vary depending on the biogeoclimatic subzone/variant, and associated habitat type, moisture regime and elevation. Bird species nesting in warmer, dryer, lower elevation areas will tend to breed earlier than in cooler, wetter, higher elevation sites. The timing of breeding at specific locations may also vary between years.

BIRD SPECIES	SENSITIVE PERIOD
Songbirds/Ground Nesters	March 15 – August 15
Bald Eagle*	January 1 – August 31
Great Blue Heron*	February 15 – August 31
Lewis's Woodpecker	May 1 – August 31
Osprey*	April 1 – September 1
Western Screech Owl	March 1 – August 31
Flammulated Owl	April 1 – August 31

*Nests of Bald Eagle, Great Blue Heron, and Osprey are protected year-round under the Wildlife Act and require a permit to re-locate. Nests of Lewis's Woodpecker, Western Screech-Owl and Flammulated Owl (as well as bat maternity roosts and hibernacula) are protected year-round under the Kootenay-Boundary WHF Order (i.e., they may not be damaged or rendered ineffective). Formal exemption requests can be submitted by proponents for consideration.

