



Protection of the Environment - Breeding Bird Nest Survey Protocol

January 2025

This protocol has been developed to provide guidance to Contractors on due diligence recommended to comply with the Canada *Migratory Birds Convention Act* and associated regulations and the BC *Wildlife Act*. Additional advice should be provided by an Appropriately Qualified Professional as required.

1. Survey Requirements for Areas to be Cleared and Grubbed

Both vegetated habitats and non-vegetated habitats (i.e., rock outcrops, cliff faces, banks) have the potential to support nesting birds, although bird abundance is generally greater in heavily vegetated areas. In addition, many artificial structures such as retention ponds, bridges, buildings, utility towers, and larger culverts have the potential for nesting bird activity.

2. Survey Timing

a) Year-Round Protected Nest Surveys: Where there is potential for a Schedule 1 species of the *Migratory Birds Regulations, 2022, SOR/2022-105 (MBR 2022)*¹ to occur (i.e., suitable habitat and within species range), or potential for nests protected under the BC *Wildlife Act*, targeted nest² surveys should begin as early as possible within the project footprint. The time of year of these surveys is irrelevant as the purpose is to identify and locate protected nest structures.

b) General Bird Nest Surveys (Protected when Occupied): General bird nest surveys should be conducted during the appropriate seasonal timing window, depending on the habitats present and species expected to occur (e.g. A1 zone forested habitat nesting window is March 12 to August 17 of any given year)³. These surveys should occur no more than 48 hours prior to vegetation clearing.

Bird nest surveys should be carried out within the first 3 to 4 hours after sunrise. Surveys should not be undertaken during periods of inclement weather (e.g., heavy rain, light rain, or snow⁴), under windy conditions (i.e., >2 on the Beaufort scale), or when air temperatures are below certain thresholds.⁵

¹There are 18 species listed on Schedule 1 of the MBR 2022 whose nests are protected year-round unless determined to be abandoned. To be deemed abandoned, the nest must be registered on Environment and Climate Change Canada's (ECCCs) electronic Abandoned Nest Registry and the nest must remain unoccupied for the minimum number of months per species. The most notable of these species in British Columbia are the pileated woodpecker (36 months) and the great blue heron (24 months). The regulations are available at <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-105> including the Schedule 1 species.

² The term 'nest' is used broadly to include stick nests, ground nests, seabird colonies, heronries, pileated woodpecker nest cavities, or any nest structure of a migratory nesting bird.

³ See General Nesting Periods of Migratory Birds in Canada (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods>) to refine the window. Non-passerine species, such as raptors or owls, may have different seasonal nesting window and are active at different times of the day. If environmental assessments have identified the potential for non-passerine species to be present, alternative survey timing may be required. Refer to Develop with Care (2014) and Guidelines for Raptor Conservation during Urban and Rural land Development in British Columbia (2013) Develop with Care 2014 - Province of British Columbia (gov.bc.ca)

⁴ <http://www.spc.noaa.gov/faq/tornado/beaufort.html>

⁵ Standards for Components of British Columbia's Biodiversity No 15. Inventory Methods for Forest and Grassland Songbirds. Version 2.0.



Protection of the Environment - Breeding Bird Nest Survey Protocol

January 2025

3. Team Member Qualifications

All nest surveys must be conducted by, or be completed under the direction of, an Appropriately Qualified Professional (AQP)⁶ who will be responsible for sign-off on all surveys. The survey team members must be skilled and experienced observers and have sufficient experience with bird biology and identification (by sight and sound).

4. Survey Effort

Unless otherwise approved by the Ministry Representative, survey duration must be a minimum of 1 hour per hectare and may be longer if searches are occurring in complex habitats. The AQP will be responsible for determining the effort required.

Survey team members will walk parallel transects and systematically cover the area to be cleared to search for bird nests and nesting activity. Where appropriate, surveyors should also use additional survey techniques to increase the likelihood of finding nests such as behavioural cues and bird song identification.

Surveys should be conducted both within the clearing and grubbing limits and, where feasible and appropriate, up to 30 meters beyond these limits to record birds nesting nearby that may be impacted by the work activity.

All surveys should also be looking for and recording the nests of MBR 2022 Schedule 1 species (occupied or not occupied), so that they may plan ahead and exercise caution so as not to disturb or destroy these nests at any time.

5. Determining Nest Status

Under the MBR and BC *Wildlife Act*, most bird nests are protected only if they contain a live bird or viable egg. As such, each nest observed must be designated as either occupied (contains a live bird or viable egg) or unoccupied (empty nests). Unoccupied nests may be eligible for removal or destruction (except MBR 2022 Schedule 1 or *Wildlife Act* Section 34 species).

While it is preferable to look directly into a nest to determine its contents, this is often not practical (for cavity nests, nests that are high in trees or otherwise inaccessible) and doing so can result in undue disturbance. In many cases, it may be necessary to determine nest contents using bird behaviour. For example, the consistent presence of an adult on the nest, or an adult bringing food or removing fecal sacs from the nest would indicate it is occupied. Nest building behaviour usually indicates eggs are not yet present (nest is unoccupied), however some species (notably doves, herons, and osprey) may continue nest building after egg-laying has commenced. There may be very little activity to and from a nest that is in the laying or incubation phase, and the status of these nests may be difficult to determine if their contents (or incubating adult) aren't visible.

If a nest structure of a MBR 2022 Schedule 1 species, or a nest protected under Section 34 of the BC *Wildlife Act*, is located, and the nest cannot be avoided during construction, the Ministry should be contacted for further guidance on next steps.

Nests that are in good condition, but whose contents are not visible and whose active/inactive status cannot be determined at the time of the survey require additional observation. A minimum of two 1-hour observation periods on consecutive days with no activity at the nest is recommended before designating it as inactive. More observation time may be necessary depending on species, time of year, nest visibility etc., as determined by the AQP.

⁶ AQP is defined in the 2020 Standard Specifications for Highway Construction, Section 165: Protection of the Environment



Protection of the Environment - Breeding Bird Nest Survey Protocol

January 2025

If there is any doubt regarding the contents of an active nest that is designated for removal, additional observation time is required. If a nest is suspected to be unoccupied based on bird behaviour, a final visual confirmation of contents should be conducted wherever possible before the nest is removed or destroyed. If the contents of an active nest cannot be verified it should be assumed as occupied and protected.

6. Nest Removal or Destruction

Note that the nest of a bird cannot be considered unoccupied when an adult is physically in or on it, and care must be taken to not harm or harass an adult or juvenile bird. Chasing or flushing an adult or juvenile bird from its nest may contravene the BC *Wildlife Act* and the MBR prohibition on harassment and should be avoided.

The unoccupied nest of a bird is eligible to be damaged, destroyed, disturbed, or removed if it meets the following criteria:

- It was not constructed by a species listed on Schedule 1 of the MBR.
- It is not constructed by a species listed in Section 34 of the BC *Wildlife Act*.
- It does not contain a live bird or viable egg (see section 5 above).
- It is not protected by other provincial or federal legislation, notably the *Species at Risk Act* (SARA). For migratory birds listed as Endangered, Threatened, or Extirpated on [Schedule 1](#) of the *Species at Risk Act* [protection of residences](#) (Section 33) applies to active nests. For some SARA-listed species (including Lewis's woodpecker and Williamson's sapsucker) residence protection also applies to nests that are not active but may be re-used in subsequent years.

Additional considerations when considering the removal or destruction of an unoccupied migratory bird nest might include:

- If the nest is not removed, is the planned work likely to harm it?
- Are there any other appropriate and acceptable mitigation measures?
- Are there measures in place to prevent the birds from re-nesting?
- Can the nest be removed safely?
- Can the nest be removed in a timely manner before any eggs are laid and without harassing the adult birds?

7. Active Nest Buffer

A No Work Zone buffer must be applied to any active nests identified. The Contractor's AQP is responsible for developing and implementing a nest management plan including an appropriate buffer width, buffer marking, and mitigation measures for the duration of the nest occupancy. Buffer zones may be determined based on factors such as surrounding vegetative cover, topography, species sensitivity to disturbance, existing disturbance in the area, and proposed construction activities in the vicinity of the nest.

⁷ Eagle, peregrine falcon, gyrfalcon, osprey, heron, or burrowing owl



Protection of the Environment - Breeding Bird Nest Survey Protocol

January 2025

8. Year Round Protected Nest Buffers

The nests of the 18 species listed in Schedule 1 of the MBR 2022 as well as the 6 species⁷ listed in Section 34 of the BC Wildlife Act, are protected year-round and cannot be damaged, destroyed, removed or disturbed, even when they are unoccupied, unless the conditions of the regulations and Act have been met. In certain situations, it may be possible to obtain a permit to relocate or destroy the unoccupied nest of Section 34 *BC Wildlife Act* species, or a MBR 2022 Schedule 1 species prior to the scheduled wait period.

A No Work Zone buffer must be applied to any active or inactive nests of MBR 2022 Schedule 1 species identified, as per the measures outlined in Section 7 above.

9. Survey Cycles

a. New Surveys

Unless otherwise approved by the Ministry Representative, areas to be cleared must be surveyed a minimum of 3 times over a 5-day period with no more than 1 survey in any given day. Consecutive days are preferred. Vegetation clearing must begin within 48 hours of the end of the survey cycle. Clearing and grubbing can be undertaken for up to 10 days after the end of the survey cycle, if the AQP determines that ongoing construction activities will preclude additional nesting activity.

b. Survey Extensions

If vegetation clearing does not begin within 48 hours of the end of the survey cycle or cannot be completed within the 10-day clearing window, then additional survey work will be required.

- i) If vegetation clearing is delayed for 2-5 days following the last survey, 1 replicate survey (1 nest survey in 1 day) will be required within this 2-5-day period.
- ii) If vegetation clearing is delayed for 6-9 days following the last survey, 2 replicate surveys (2 nest surveys over 2 consecutive days) will be required within this 6-9-day period.

If the above procedures are not implemented (i.e., the survey is not extended), a new survey cycle must be initiated before vegetation clearing can commence.

c. Reassessment of Active Nests

A minimum of 14 days after a nest is designated as active, the nest can be reassessed.

Reassessment will consist of a minimum 1-hour nest observation period on 2 separate days, with the timing for these reassessments based on the likelihood of observing birds at the nest. Additional observation time may be required, at the discretion of the AQP; for instance, if the nest is likely to be in the laying or incubation phase. Potential disturbance of birds must be minimized during the observation period. If watches have been conducted and no bird presence and/or breeding activity is noted, nest status can change from active to inactive. As a final verification of inactivity, the nest may be approached and inspected. The No Work Zone buffer can also be removed.

For any nest found to be active during clearing or construction works, the AQP will determine the appropriate buffer and initiate the active nest procedure outlined above.



Ministry of
Transportation
and Transit

Protection of the Environment - Breeding Bird Nest Survey Protocol

January 2025

Nest structures of MBR 2022 Schedule 1 species should be reassessed for occupancy until the designated wait period is up. The MBR 2022 does not dictate a required level of monitoring, although to determine if a nest is unoccupied and potentially abandoned, it is necessary that verification occurs during a period when the nest could reasonably be expected to be in use. This may include observing the structure during the expected nest period of the species and during the nest period of potential secondary nesters. Documentary evidence (e.g., dates, times, photographs, observation notes) should be collected throughout the monitoring period. If the nest remained unoccupied throughout the designated wait period, it may be removed without further notification.

If a nest is reused by a migratory bird during the wait time, it is no longer considered unoccupied, and the notice becomes void. In this case, the original abandoned nest notification must be canceled. If the nest again becomes unoccupied, a new notification may be submitted to restart the waiting period.
