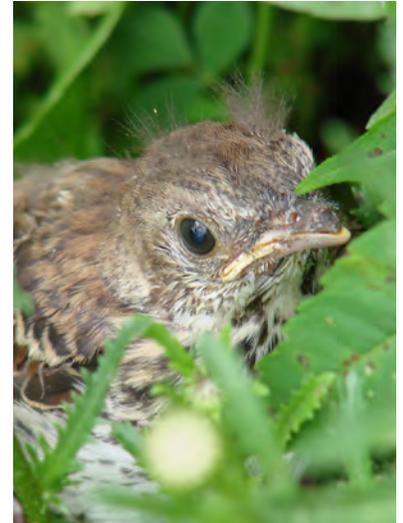


PROTOCOL FOR
WILDLIFE PROTECTION
DURING CONSTRUCTION



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Planning and Growth Management Department

City of Ottawa Protocol for Wildlife Protection during Construction

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City of Ottawa Protocol for Wildlife Protection during Construction

1 Introduction

This protocol is intended to help reduce the direct impacts of development on wildlife that occur during construction. It also provides some guidance to developers on how they can help reduce post-construction conflicts between residents and wildlife. The protocol complements and supports the City's Environmental Impact Statement Guidelines, which address impact assessment and mitigation in a more general way during the development planning and review process. Topics addressed in this protocol include sensitive timing windows for clearing, pre-stressing, site clearing, construction site management, wildlife encounters, wildlife-proofing, and owner awareness.

1.1 Application of protocol

This protocol will apply to all plans of subdivision, plans of condominium, and site control plans for properties that include or are located adjacent to wildlife habitat, including:

- areas of tall grass;
- shrubs;
- trees or woodlands;
- watercourses;
- wetlands; or,
- complex features such as rock piles, junk heaps, or vacant structures.

A Wildlife Mitigation Plan (WMP; see Section 2.1) shall be required as a condition of approval for all such projects, to demonstrate how the protocol will be implemented. Applicants will be advised of the protocol's requirements at pre-consultation.

If a proposed development requires an Environmental Impact Statement (EIS) under Section 4.7.8 of the Official Plan, any recommendations in the EIS related to mitigating impacts to wildlife from construction activity must meet or exceed the standard of protection established in this protocol. Typically, these recommendations will need to be generalized since the details of project scheduling are not usually known at the time the EIS is prepared. The need to complete a Wildlife Mitigation Plan, to address the details of how recommendations are to be implemented, shall be noted. The WMP itself should be completed at a later stage of planning when information on the project's scheduling is available.

This protocol also provides useful reference information for City staff and members of the public, which can be applied to other projects, such as the development of single lots under a building permit, the construction of new infrastructure, or in non-development related vegetation clearing.

1.2 Other Legislative Requirements

This protocol provides direction on what the City expects developers to do to protect Ottawa's wildlife. There are several legislative requirements for the protection of various species or groups of wildlife (e.g., provincial *Fish and Wildlife Conservation Act, 1997* and *Endangered Species Act, 2007*; federal *Species at Risk Act, Migratory Birds Convention Act, and Fisheries Act*). It remains the responsibility of the property owners and their agents to ensure that their actions comply with all applicable legal requirements.

2 Requirements and Recommendations

2.1 Wildlife Mitigation Plan

A project-specific wildlife mitigation plan (WMP) shall be prepared by a qualified professional (i.e., environmental consultant or biologist) to demonstrate how the requirements of this protocol will be met. It will include the following information:

- Proposed construction schedule, with reference to any applicable sensitive timing windows (see Section 2.2 and Table 1 below);
- Schedule and description of pre-construction activities such as inspections for wildlife, installation of protective fencing and pre-stressing where required;
- Construction Site Management Plan (CSMP; drawing) that incorporates any relevant recommendations made in the EIS and/or Tree Conservation Report (TCR) for the project, and clearly shows:
 - Natural areas, trees or other features to be retained;
 - Placement and specifications of required protection measures (e.g., fencing, signs);
 - Phasing and direction of site clearing activities;
 - Internal access routes for vehicles and other heavy equipment; and,
 - Designated areas and specific instructions for vehicle parking, materials staging, fuel storage and handling, etc.
- Detailed description of wildlife mitigation measures to be used during construction, including contingency plans for wildlife encounters and arrangements for dealing with injured or orphaned wildlife;
- Identity of individual(s) who will be tasked with ensuring wildlife protection measures are implemented (i.e., construction staff or specialist on contract);
- Draft information handout for on-site personnel; and,
- Draft Owner Awareness Package, where required (see Section 2.8).

The City has prepared a Wildlife Mitigation Plan template (see Appendix 1) for consultants to use in developing their project-specific WMPs.

The Wildlife Mitigation Plan will normally be required as a condition of approval, but a preliminary version may need to be submitted earlier in the development review process if early servicing or other site preparation activities are proposed in advance of approval. This can be done in conjunction with the Tree Conservation Report

requirements, where applicable. Such preliminary versions of the WMP do not need to include the Owner Awareness Package.

The WMP should be considered a living document, which may need to be modified based on changes in the proposed construction schedule, or on the results of pre-construction inspections for wildlife on site, based on the recommendations of the project's environmental consultant or wildlife service provider. A copy of the most current version of the WMP shall be kept on-site throughout the construction process. The City shall also be provided with copies of the updated WMP.

2.2 Sensitive Timing Windows

There is no ideal time to undertake construction in wildlife habitat, but in most cases, late summer and early fall are the least disruptive and therefore preferred. During the winter, overwintering and hibernating wildlife may be physically unable to escape from construction, or may freeze or starve to death if forced to leave their dens and food caches. In the spring and summer, most species are more mobile, but mothers will have young to protect and nurture. The most profound impacts to wildlife occur when they are displaced from their habitat at such critical times during their life cycle. Legislated timing restrictions applied to activities that could affect various species at risk are designed to protect them during these sensitive times. Table 1 identifies sensitive times of the year for various habitat types and wildlife. Where possible, site clearing (the commencement of construction) should be planned to occur outside of these sensitive times.

These timing windows are provided for guidance only, and should not be relied upon in cases where legislated restrictions apply (e.g., under the *Endangered Species Act, 2007*). The *Migratory Birds Convention Act*, contrary to popular belief, does not refer to specific timing windows for the protection of migratory birds; it simply prohibits the taking of nests and eggs. The Canadian Wildlife Service provides information on [bird breeding seasons](#) in Canada in order to assist proponents in their project planning; however, these are not legislated dates, and the prohibitions apply throughout the year.

In all cases, the site must be inspected by a biologist prior to clearing, to identify any potential wildlife issues (occupied nests or dens, etc.) and allow for any necessary modifications to the Wildlife Mitigation Plan and its implementation. The timing and scope of this inspection will vary depending on the type and extent of habitat to be affected, the availability of existing information about the wildlife on the site, and the anticipated timing for the on-site work. For example, in cases where an EIS has already identified the types of wildlife and wildlife habitat present on-site, and work is proposed to occur outside of any applicable sensitive times, then a relatively brief inspection can occur within a few days prior to clearing. In cases where less information is available, then a more detailed inspection will be needed two to three weeks in advance of clearing. If wildlife are found in areas that will be disrupted by site alteration or construction, then pre-stressing should be used to encourage them to leave the area (see Section 2.3, Pre-stressing below). A follow-up inspection should be carried out the day before clearing is scheduled to begin, to determine whether wildlife are still present (see Section 2.4 below for more information).

Table 1: Sensitive times for wildlife in various habitats, with recommendations for reducing impacts of construction

Habitat Type	Wildlife	Sensitive time(s)	Recommendations*
Grasslands and old fields	<p>Migratory birds and raptors Small mammals and other wildlife</p> <p>Note: several Species at Risk birds use grasslands and open habitats; consult Ministry of Natural Resources and Forestry (MNRF).</p>	<p>April through mid-August (breeding season for most species)</p> <p>Mid-October through March (for overwintering woodchucks)</p>	<p>Reduce potential wildlife usage by mowing outside of breeding season, then maintain as mowed grass until on-site work begins.</p> <p>Woodchucks, if present, may persist on mowed sites. Avoid construction during sensitive times for this species, where possible.</p>
Shrubs or trees (growing as individuals or in small clumps)	<p>Migratory birds and raptors Small mammals and other wildlife</p>	<p>The following only apply if wildlife are actually using the habitat:</p> <p>March through mid-August (breeding season for most species)</p> <p>Mid-October through March (for cavity trees or other den sites)</p>	<p>Retain a biologist to inspect habitat. If no active nests or dens are present, clearing should be done within a few days of inspection (at any time of year).</p>
Thickets or woodlands	<p>Migratory birds and raptors Mammals and other wildlife</p> <p>Note: several Species at Risk use thicket, edge and woodland habitats; consult MNRF.</p>	<p>March through mid-August (breeding season for most species)</p> <p>Mid-October through March (for overwintering wildlife)</p>	<p>Do not clear during sensitive times of the year.</p> <p>The Canadian Wildlife Service does not support relying on inspections for migratory bird nests in such habitats, due to the difficulty of locating all nests and the risk to the birds.</p>

Table 1: Sensitive times for wildlife in various habitats, with recommendations for reducing impacts of construction

Habitat Type	Wildlife	Sensitive time(s)	Recommendations*
Complex features (e.g., piles of rock or wood, stone walls, derelict vehicles, junk heaps, etc.)	Mammals and other wildlife	March through July (breeding season for most species) October through March (for overwintering wildlife)	Retain a biologist to inspect habitat for occupancy prior to removal. In cases where occupancy is uncertain, disassemble slowly (by hand where possible) to reduce potential impacts and allow wildlife time to relocate.
Vacant buildings or other structures	Some birds Small mammals and other wildlife Note: some Species at Risk, including barn swallows and little brown bats, use buildings and other structures; consult MNRF.	March through mid-August (breeding season for most species) Mid-October through March (for overwintering wildlife)	Retain a biologist to inspect habitat for occupancy prior to removal. In cases where occupancy is uncertain, some demolition may need to be done by hand to reduce potential impacts and allow wildlife time to relocate.
Wetlands and waterbodies	Migratory birds, including waterfowl Mammals Aquatic reptiles and amphibians Fish Note: many Species at Risk use wetlands and other aquatic habitats; consult MNRF.	March through August (breeding season for most species); note that this includes regulated in-water timing restriction for warmwater fishes Mid-October through April (for overwintering wildlife)	Do not clear during sensitive times of the year. Exclusion fencing can be useful when working around these habitats, to prevent wildlife (especially turtles) from entering work areas. Aquatic wildlife may need to be relocated prior to commencing work (permits required from MNRF for relocation).

*These recommendations do not address Species at Risk requirements under the Endangered Species Act, 2007. For situations involving Species at Risk, additional time constraints, mitigation measures or compensation requirements may apply. Consult the Ministry of Natural Resources and Forestry for more information.

In cases where recommended (i.e., non-legislated) timing restrictions cannot be respected, diligent site inspection and pre-stressing by qualified professionals, beginning at least three weeks prior to clearing, will be essential to reduce impacts on wildlife. The WMP must address how impacts to wildlife will be minimized to the extent possible (e.g., how will hibernating animals or nursing mothers and their young be protected?). Potential mitigation measures include:

- Installation of appropriate nesting boxes around the periphery of the site;
- Provision of supplemental food sources in safe locations away from the work space;
- Retention of qualified agents to provide on-site monitoring, and/or on-call advice and assistance;
- Pre-arrangements made with wildlife rehabilitators and qualified veterinarians to ensure appropriate care of orphaned or injured wildlife.

2.3 Pre-stressing

“Pre-stressing” is a term used to describe actions taken to encourage wildlife to move away from a site prior to the onset of construction. Common methods of pre-stressing include having one or more people walk the site while talking loudly or playing loud music, or placing pieces of cloth or other objects that carry a strong human scent into animal dens. To be effective, these measures may need to be combined and repeated several times over the course of two to three weeks. Some common pre-construction activities, such as surveying, or installing protective fencing, can contribute to pre-stressing. In urban areas where wildlife are already accustomed to human presence, pre-stressing using human sounds and scents may be less effective; other repellants may be needed.

Note: for sites located within or adjacent to existing developed areas, nearby residents should be informed about the pending development and the onset of pre-stressing activities. The City’s Noise By-law shall be respected.

2.4 Site Clearing

Vegetation clearing (including mowing of tall grass) should proceed in phases, generally moving from the most disturbed part of the site (closest to existing development) towards the least disturbed part of the site. Even on small sites that can be cleared in a single day, it is important to follow this pattern in order to “herd” wildlife out of the site into adjacent undisturbed habitat, or towards the nearest habitat. Some examples of possible scenarios are provided below. Vegetation removal should be timed to avoid disturbance of habitat areas during sensitive times of the year (see Section 2.2) where possible.

Scenario 1: The work space directly abuts a natural area or open space that will be protected and retained.

The Construction Site Management Plan should demonstrate how site clearing activities will be phased, beginning at the far side of the property from the retained natural area and proceeding towards it. The

goal is to ensure that any wildlife within the work space can retreat into the retained natural area without having to cross cleared lands.

Scenario 2: There is an existing natural connection (stream corridor, hedgerow or other natural linkage) between the work site and a nearby natural area.

The construction site management plan should demonstrate how site clearing activities will be phased to funnel wildlife towards the existing connection. Areas of habitat within the work space should not be permitted to become isolated from the connection during this process.

Scenario 3: The site includes one or more isolated areas of habitat to be cleared, with no existing connection to other natural areas nearby.

The construction site management plan should identify one or more open “escape routes” between the habitat and the edge of the site that will be maintained until the final phases of vegetation clearing are completed. These escape routes should be defined on the site with fencing to ensure they stay open, and to help channel wildlife movement. Clearing should begin at the far side of the habitat and proceed towards the designated escape route. Vegetation removal should be timed to avoid disturbance of habitat areas during sensitive times of the year where possible.

In all cases, each area to be cleared should be inspected (and, if necessary, pre-stressed) one more time the day before clearing, to determine whether any trees or other habitat features are still being used by wildlife. Any occupied (or potentially occupied) trees/features should be flagged for temporary retention for at least one additional day, to allow wildlife a last chance to move out. If they do not leave on their own, then it may be necessary to have a professional wildlife service provider relocate them, in accordance with applicable laws. Relocation is not an option for some species (e.g., migratory birds) and it may be necessary to alter the phasing plan or even the overall construction schedule if these species persist on the site.

Any fencing between the work space and the natural habitat to which wildlife are being directed during site clearing must allow for wildlife passage; otherwise, wildlife will be trapped on the site. Acceptable fencing options are those which provide low gaps at the bottom of the fence to permit passage by small to medium species, and which are no more than 1.2 m (4 feet) high for larger species such as deer to leap over. Plastic snow fencing can be used, if suitable gaps are provided at intervals along the bottom edge (these can be cut out, or natural gaps caused by uneven terrain at the base of the fence). Once the work space has been cleared, a more secure perimeter fence can be installed to reduce the risk of wildlife returning to the site.

2.5 Construction Site Management

Construction sites are normally managed to promote safety, efficiency and legal compliance. Site management is a key factor in reducing the overall environmental impact of the project, by controlling the risks of environmental contamination, soil compaction, and damage to trees and other natural features intended for retention. It also helps to reduce the risks to wildlife, by controlling the activities on-site that could directly or indirectly harm them. The Construction Site Management Plan will establish the physical layout of the site and its protective measures. The successful implementation of the overall Wildlife Mitigation Plan will also require other site management measures to be adopted and carried out by the on-site personnel.

All personnel must be briefed at the outset of the project. The briefing needs to provide an overview of the WMP and the CSMP, as well as instructions on what to do if and when wildlife are encountered during the work. It should also include information on any species at risk that may be present, and what to do if one is seen. A current copy of the WMP, the CSMP and a laminated handout summarising key information on wildlife protection must be kept on-site at all times for reference by staff (see example of a handout in Appendix 2). The handout should be tailored to suit the needs of each specific project. It must address the following subjects:

- General provisions – e.g., do not harm, feed or unnecessarily harass wildlife; drive slowly and avoid hitting wildlife where possible; keep site tidy and secure
- Species at risk – basic identification tips and recommendations (needs to be modified to address species most likely to be encountered at the site)
- Contact information for:
 - Project biologist / wildlife service provider
 - Ministry of Natural Resources and Forestry, Kemptville (for species at risk)
 - Wildlife rehabilitators and veterinarians (for orphaned or injured wildlife)

The management of the site needs to specifically address how to avoid attracting wildlife to the work space. Although on-site activities will generally discourage wildlife from entering the work space during the day, they may be drawn to the site at night (or on weekends) if it appears to provide sources of food, water or shelter. The following common attractants need to be controlled or eliminated:

- Food wastes and other garbage – do not permit littering; keep all trash secured in wildlife-proof containers, and remove it from the site promptly (especially in warm weather).
- Water – ensure proper site drainage to limit standing pools of water; fence off temporary storm ponds and other waterbodies within the work space (do not permit wildlife access to any potentially contaminated waterbodies). Use appropriate sediment and erosion control measures to protect the quality of surface water adjacent to or downstream of the work space.
- Shelter – cover or contain piles of soil, brush, rocks and other loose materials; cap ends of pipes to keep wildlife out; ensure that trailers, bins, boxes, and vacant buildings are secured at the end of each work day to prevent access by wildlife.

While all personnel must be aware of the wildlife protection measures, one or more people should be specifically tasked with ensuring that those measures are properly implemented, by performing the following duties:

- Checking the work site (including previously cleared areas) for wildlife, prior to beginning work each day;
- Regularly inspecting protective fencing or other installed measures to ensure their integrity and continued function; and,
- Monitoring construction activities to ensure compliance with this protocol and any other applicable requirements.

For simple, low-risk projects, construction staff may be able to undertake this work (with help from contracted professionals if any issues arise). Large-scale or complex projects may benefit from the presence of a part or full time specialist such as an environmental officer, biologist or wildlife service provider. Professional expertise is required in cases where site clearing is being carried out during sensitive times of the year.

2.6 Wildlife Encounters

Ideally, the mitigation measures described above would allow all local wildlife to vacate the site before or as it was cleared, and no wildlife would return until the project was completed. In reality, however, it is very likely that wildlife will be encountered on-site at some point during the construction process. Wildlife may return to the site after dark, seeking the habitat that used to be there. They may also be attracted to the site if it appears to provide food, water or shelter, as previously described in Section 2.5. Proper site management will reduce the risk of wildlife trying to move back onto the site, while daily inspections before work begins will reduce the risk of harm to any wildlife that has wandered in overnight.

Any wildlife encountered during site clearing or subsequent construction activities should be allowed to exit the site on their own, via safe routes. Construction staff should not attempt to capture or handle most kinds of wildlife, unless an animal is in imminent peril or is injured and cannot wait for rescue by qualified personnel. Removal and relocation of mammals, in particular, should only be done by qualified wildlife service providers working in accordance with applicable laws.

Useful equipment for wildlife encounters:

- Work gloves
- Push broom for gently redirecting small mammals, reptiles or amphibians
- Clean (uncontaminated) towels or blankets and assorted containers such as plastic sweaterboxes, cat carriers, and a large bin or garbage can for capturing and transporting injured or orphaned wildlife

Scratches and bites from animals, whether domestic or wild, can result in serious infections and/or transmit diseases. Immediate medical treatment should be sought for any injuries inflicted by an animal.

2.7 Wildlife-proofing

Wildlife can cause significant property damage and even health and safety issues when they seek shelter in, on or under buildings. Wildlife-proofing measures have been developed to address these problems, but many of these measures are typically installed by building owners in response to an issue, rather than being installed proactively during the construction of the building. The Ontario Building Code (OBC) does not address the subject of wildlife-proofing in great detail. It does require that sources of natural ventilation (other than windows) be constructed to provide protection from insects and weather, and that outdoor air intakes and exhaust outlets should be screened to prevent entry of animals and insects. However, these requirements alone may not protect a building from wildlife determined to find a way in. The most common access points are through vents, chimneys, roofs and eaves; wildlife will also frequently seek shelter underneath porches, stairs and raised decks.

Developers are encouraged to go beyond the requirements of the OBC and provide their clients with additional built-in protection against wildlife. This could include upgrading materials to use more wildlife-resistant metal components instead of plastic. Heavy screening or other exclusion measures could be installed to keep wildlife out of crawl spaces under porches or exterior stairs. Developers should also ensure that their quality assurance programs include checking for any loose fittings or gaps that could allow access by wildlife.

2.8 Owner Awareness

Once construction has been completed, the potential conflicts between people and wildlife living in the new development can generally be best handled through education. “Owner Awareness Packages” are commonly required as a mitigation measure for new developments in or adjacent to natural areas. These packages are intended to inform residents about the environmental significance and sensitivities of the natural areas, and also to provide guidance on how to avoid having (or causing) problems, including conflicts with wildlife. There are many available sources of information to draw upon when assembling such packages (see Section 4). The finished product may consist of a simple brochure or one-pager, or may be a more comprehensive handbook. It should include:

- Basic information about common wildlife that may be expected to occur in the area;
- Information about any species at risk that residents should be aware of, and the legal protections associated with these species;
- Recommendations for maintenance of any wildlife-proofing measures included in the building;
- Suggestions on other ways to avoid or reduce human-wildlife conflicts;
- Sources of additional information.

3 Conclusion

By following this protocol, developers should be able to reduce construction-related impacts on Ottawa's wildlife, and help the future occupants of their buildings to avoid problems with wildlife in the longer term.

4 Additional Resources

City of Ottawa – information on Ottawa's wildlife and conflict avoidance at <http://ottawa.ca/en/residents/water-and-environment/animals-ottawas-wildlife>

Environment Canada (Canadian Wildlife Service) – information on avoiding incidental take of migratory birds, including technical data on breeding seasons, at <http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=C51C415F-1>

Ministry of Natural Resources and Forestry – information on Species at Risk in Ontario at <http://www.ontario.ca/environment-and-energy/species-risk>

Ottawa-Carleton Wildlife Centre – information on commonly encountered species and conflict avoidance at <http://wildlifeinfo.ca/index.html>

Ottawa Humane Society – emergency response for injured wildlife, guidance on common wildlife issues, and information on wildlife service providers at <http://www.ottawahumane.ca/protection/wildlifeissues.cfm>

Ottawa Stewardship Council – Species at Risk Handbook for Ottawa at <http://www.ottawastewardship.org>

Rideau Valley Wildlife Sanctuary – wildlife rehabilitation centre; information on what to do for apparently orphaned or injured wildlife at <http://www.rideauwildlife.org/index.html>

Wild Bird Care Centre – wild bird rehabilitation centre; information on avoiding conflicts with birds and what to do for apparently orphaned or injured birds at <http://wildbirdcarecentre.org/index.php>

Appendix 1: Wildlife Mitigation Plan Template

Project:	
Site Address:	
Application No.:	
Project Proponent (name & contact information):	
Lead Contractor (name & contact information):	

Required attachments:

Construction Site Management Plan
 On-site Reference Handout
 (Owner Awareness Package)

Site Description

Total size (ha):

Please specify units of measurement for each habitat type below (e.g., m² or ha, numbers of trees, etc.)

Habitat Type	Extent	Habitat Type	Extent	Habitat Type	Extent
Mowed lawn		Thickets		Complex*	
Tall grass		Woodlands		Structures	
Trees / shrubs		Wetlands		Other**	

*Complex = piles of rocks/logs/brush/junk, old rock walls, etc.

**Other (describe):

Known/expected wildlife:

Species at Risk:

Sensitive times:

(Specify any legislated timing windows that may apply, otherwise refer to Table 1 in City's Protocol for Wildlife Protection during Construction)

Source(s) of information:

(e.g., Environmental Impact Statement/Tree Conservation Report, site visit, other)

Proposed Construction Schedule

Start of site clearing:

Conflict with sensitive times (Y/N)?:

Start of construction:

Completion:

Note: schedules which conflict with legislated timing restrictions or which would otherwise contravene provincial or federal legislation for the protection of wildlife shall be adjusted to ensure compliance. Schedules which conflict with non-legislated sensitive times of the year for wildlife may be permitted to proceed, but will require additional mitigation measures to reduce the impacts on wildlife to the extent possible (e.g., more intensive pre-clearing inspections and pre-stressing; on-site supervision by wildlife specialist; provision of suitable alternative sources of food and/or shelter; prior arrangements with local rehabilitation and veterinary services).

Proposed Pre-clearing Activities

(Provide dates and descriptions of all site inspections, pre-stressing activities, and other preparations, e.g., installation of protective fencing).

Date	Description of Activity

- For projects with no timing conflicts, good wildlife information and/or little habitat to be affected (low risk): one site inspection combined with pre-stressing a few days prior to clearing
- For projects with no timing conflicts, poor information and/or larger areas of habitat being affected (moderate risk): first site inspection 2-3 weeks in advance, with pre-stressing and follow up inspections as needed based on results; final inspection/pre-stressing on the day before clearing for each phase
- For projects with timing conflicts (high risk): first site inspection 3+ weeks in advance with multiple pre-stressing and follow up inspections; final inspection/pre-stressing on the day before clearing for each phase

Construction Site Management

Phasing of Site Clearing *(add more rows to table if needed):*

Phase	Proposed Start Date	Description (equipment, direction of travel, etc.)
1		
2		
3		
4		
5		
6		

Describe other measures that will be implemented to protect wildlife and wildlife habitat to be retained (if any) during site clearing and construction:

Note: for projects during sensitive times, these measures must include provision of suitable alternative sources of food and/or shelter, as well as details of arrangements for dealing with injured, orphaned or otherwise vulnerable wildlife.

Who will be responsible on-site for ensuring that these wildlife protection measures are implemented? (Provide name and/or position and affiliation for each):

Note: for projects during sensitive times, on-site supervision by qualified wildlife professionals will be required.

Describe any wildlife-proofing measures that will be incorporated into the new construction:

Appendix 2: Example of On-site Reference

General Provisions:

- Watch out for wildlife while driving, and avoid hitting them, provided that it is safe to do so.
- Ensure sediment and erosion control measures (i.e., silt fencing) and other protective measures are in place prior to beginning work. Inspect them regularly, and particularly after storm events, to ensure their continued effectiveness.
- Prior to beginning work each day, check for wildlife by conducting a thorough visual inspection of the work space and immediate surroundings.
- Restrict all activities, vehicles and materials to the designated work space as specified in the Construction Site Management Plan. Do not disturb areas identified for retention.
- Secure stockpiled materials, vehicles and structures against wildlife entry.
- Litter and other waste materials must be appropriately contained and disposed of.
- Do not feed any wildlife or leave food out where it could attract them.

For health and safety reasons, and for protection of animals, removal and relocation of mammals must only be done by qualified and properly equipped personnel. Call the wildlife service provider at (613) XXX-XXXX for assistance.

For injured wildlife, call the Ottawa Humane Society Emergency Services at (613) 725-1532. For injured birds, call the Wild Bird Care Centre at (613) 828-2849.

Scratches and bites from animals, whether domestic or wild, can result in serious infections and/or transmit diseases. Seek medical treatment immediately for any injuries inflicted by an animal.

Wildlife Encounters:

- **Do not harm any wildlife.** Many species are protected under provincial and/or federal legislation. Legal protection of egg-laying species applies to their eggs as well. Penalties for contravening these Acts can be severe.
- **Stand back** and allow the animal to leave the site. Wildlife may be encouraged to move away from the work area by shouting, waving of arms, clapping of hands or gentle redirection using a push broom. Contact project biologist / wildlife service provider for assistance if needed. Do not unnecessarily harass any wildlife.
- **Turtles** may need to be helped to safety. Our most common species, Painted and Snapping Turtles, are protected under the *Fish and Wildlife Conservation Act, 1997*. If one of these turtles is found in the work area, it can be gently removed to a safe location nearby. Wear gloves, or use a broom to steer the turtle into a bucket or other container. Handle with care to avoid injury to the turtle or yourself, particularly when dealing with Snapping Turtles, which may bite or scratch. Turtles may also wet themselves when handled.
- All of Ottawa's **snakes** are protected under the *Fish and Wildlife Conservation Act, 1997*. None of them are venomous, so their bites are not dangerous. Some produce a foul-smelling musk when handled, instead of biting. Snakes will usually try to escape or hide when disturbed, and only defend themselves when trapped. If a snake is found in the work area, it should be gently herded out to a safe location.
- **Stop work immediately** if any species protected under the *Endangered Species Act, 2007* are seen in or near the work site (see attached sheet for tips on identifying some commonly encountered species). Take a photograph if possible, to confirm the sighting, and contact the project biologist at (613) XXX-XXXX and the Ontario Ministry of Natural Resources and Forestry – Kemptonville District, at (613) 258-8204. Additional mitigation measures may be required by the Ministry before work can restart.

Commonly Encountered Species Protected under the Endangered Species Act, 2007

For more information on Ottawa's species at risk, refer to <http://www.ottawastewardship.org>

Barn Swallow

Dark metallic blue above, buff to orange below. Long, deeply forked tail and pointed wings. Very quick and agile in flight. Cup-shaped nests built of mud and plant fibres on buildings and other structures, including bridge supports and culverts.



Male



Female



Nest

Blanding's Turtle

Bright yellow chin and throat. Highly domed, speckled shell up to 28 cm (11 in) in length.

Eggs small, oval and white. Usually less than 12 eggs per nest.



^ Photo courtesy of R. van de Lande

Bobolink

Males black with white back and cream hood during spring and summer breeding season. Females and non-breeding males streaky brown. Nests on the ground in open grasslands and hayfields.



Butternut

Also known as White Walnut. Each leaf has several pairs of leaflets on either side of the main stalk, and one leaflet at the tip. Leaves and twigs grow in an alternating pattern along the branches. The nuts resemble limes or lemons in shape, and have greenish-yellow fuzzy rinds covering a hard, brown ridged shell.



Butternut tree (centre)



Butternut leaves and fruit



Opened shell of butternut (without rind)

The closely related Black Walnut, which is not a species at risk, has round nuts like tennis balls. Its leaves are very similar to Butternut's leaves, but the terminal leaflet at the tip of each leaf is often much smaller than the other leaflets, or missing entirely. Ash trees may also appear similar to Butternut at first, with very similar leaves, but ash leaves and twigs grow in opposite pairs rather than alternating.

Eastern Meadowlark

Streaky grayish-brown bird with bright yellow front marked by black "V." Short tail has white edges on each side. Nests on the ground in open grassy areas; often seen perching on fence posts or shrubs.



All photos by A. MacPherson unless otherwise specified.