



Magino Gold Project

Finan Township, Algoma  
District, Ontario

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## CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN:

# SECTION 4: WILDLIFE AND VEGETATION MANAGEMENT PLAN

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The logo for Northern Bioscience Ecological Consulting, featuring the words "NORTHERN BIOSCIENCE" in a large, green, serif font above the words "ECOLOGICAL CONSULTING" in a smaller, green, sans-serif font, all set against a white background with a green horizontal bar above the text and a green diagonal line to the right.

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**EMP/OPERATIONAL STANDARD REVISION RECORD**

EMP Name	Revision Number	Revision Date	Summary of Revision
Wildlife and Vegetation Management Plan	V1	October 30, 2020	N/A
Wildlife and Vegetation Management Plan	V2	November 13, 2020	Consistency Check
Wildlife and Vegetation Management Plan	V3	January 15, 2021	Consistency Check, addressed relevant authority comments, permitting update

## LIST OF ACRONYMS

ATV	all-terrain vehicle
CEMP	Construction Environmental Management Plan
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
IAAC	Impact Assessment Agency of Canada
MECP	Ministry of Environment Conservation and Parks (Ontario)
MNRF	Ministry of Natural Resources and Forestry (Ontario; formerly MNR/Ministry of Natural Resources)
MNO	Métis Nation of Ontario
SAR	Species at Risk

## 4.1. INTRODUCTION

### 4.1.1. Purpose and Objectives

This *Wildlife and Vegetation Management Plan* (the Plan) is one of the Environmental Management Plans (EMPs) that Prodigy Gold ('Prodigy') has developed for the Magino Gold Project ('the Project'), as per the Environmental Impact Statement (EIS) commitments (posted to the Impact Assessment Agency of Canada's (IAAC) Registry in December 2018<sup>1</sup>), as well as the Environmental Assessment (EA) conditions issued to Prodigy by the federal Minister of the Environment on January 24, 2019 in the Decision Statement<sup>2</sup>. These EMPs form part of the *Construction Environmental Management Plan* (CEMP).

Prodigy is committed to protecting the environment, safe operations, and the health and safety of employees, contractors, and the communities in which Prodigy operates. The purpose of this Plan is to document the processes to be implemented at the Project site (site) to mitigate adverse environmental effects to wildlife and terrestrial vegetation during construction and operation of the Project.

## 4.2. ROLES AND RESPONSIBILITIES

Role	Responsibility (See Section 4.5 Procedures for Details)
Environmental Manager	<ul style="list-style-type: none"><li>• Responsible for directing all aspects of Prodigy's environmental programs for the construction of the project and reports to the Mine Manager;</li><li>• Responsible for ensuring appropriate site personnel (contractors and staff) are aware of the CEMP and follow the guidance contained herein;</li><li>• Issue directive to alter or suspend work activities if needed to ensure environmental protection;</li><li>• Responsible for implementation of best management practices for the CEMP;</li><li>• Responsible for ensuring that staff are familiar with the applicable regulatory and other requirements as outlined in this Plan and other sections of the CEMP with relevance to this Plan;</li></ul>

<sup>1</sup> Prodigy Gold Inc. December 2018. *Magino Project Commitments List*. <https://iaac-aeic.gc.ca/050/documents/p80044/125783E.pdf>

<sup>2</sup> Canadian Environmental Assessment Agency. January 2019. *Decision Statement Issued Under Section 54 of the Canadian Environmental Assessment Act, 2012 for the Magino Gold Project*. <https://iaac-aeic.gc.ca/050/documents/p80044/126612E.pdf>

Role	Responsibility (See Section 4.5 Procedures for Details)
	<ul style="list-style-type: none"> <li>• Provide interpretation or guidance in the event of uncertainty around permit requirements or other actions which may have the potential for environmental harm;</li> <li>• Responsible for communications to senior mine management and coordinating communications with Indigenous communities and potentially affected members of the public;</li> <li>• Responsible for ensuring required reporting has been completed and submitted to regulatory authorities; and</li> <li>• Maintaining records relevant to the implementation of the conditions in the federal Decision Statement.</li> </ul>
Construction Mine Manager	<ul style="list-style-type: none"> <li>• Responsible for ensuring all contractors and construction staff are aware of the requirements in the CEMP;</li> <li>• Responsible for ensuring all contractors and construction staff are aware of and following best practices when handling materials or when conducting work on-site;</li> <li>• Responsible for coordinating communications with Prodigy senior management;</li> <li>• Responsible for ensuring that all staff are familiar with appropriate permitting;</li> <li>• Responsible for coordinating with all contractors for delivery of materials to the work site;</li> <li>• Responsible for notification prior to any blast events, and notification of the all-clear after blast events; and</li> <li>• Responsible for ensuring the blast zone is appropriately cordoned off prior to blast events, and removal of any access barriers after the all-clear is given.</li> </ul>
All employees/ contractors	<ul style="list-style-type: none"> <li>• Follow best practices and appropriate guidance in this document;</li> <li>• Responsible for following direction of Environmental Manager and/or the Construction Manager as indicated in this Plan; and</li> <li>• Responsible for ensuring they are familiar with the applicable regulatory and other requirements as outlined in this Plan and other sections of the CEMP with relevance to this Plan.</li> </ul>

### 4.3. RELATED DOCUMENTS

This Plan has linkages to other EMPs which take into consideration aspects related to these activities. In particular, the following CEMP sections have some relation to wildlife and vegetation management:

- *2: Accident and Malfunction Response Plan*



- 3: Air/Atmospheric Environment Management Plan
- 6 Water Management Plan
- 8: Site Security, Roads and Traffic Management Plan
- 9: Drilling/Blasting, Fuel and Geotechnical Plan
- 10: Sediment and Erosion Control Plan
- 11: Hazardous Substances Management Plan
- 13: Non-Hazardous Waste Management Plan

#### 4.3.1. Birds

The following documents provide information about best management practices related to birds:

- Environment and Climate Change Canada's *Avoidance Guidelines* (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/guidelines.html>)
- *Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (Stand and Site Guide)* (Ministry of Natural Resources (MNR) 2010) (<https://www.ontario.ca/document/forest-management-conserving-biodiversity-stand-and-site-scales>)
- *Habitat Management Guidelines for Ontario's Forest Nesting Accipiters, Buteos, and Eagles* (MNR 1984) (<https://docs.ontario.ca/documents/2792/guide-buteos.pdf>)
- *Guidelines for the Protection of Forest-nesting and Wetland-nesting Bird Habitat by means of Modified Management Areas* (MNR 1985) (<https://docs.ontario.ca/documents/2810/guide-wetland-birds.pdf>)
- *Habitat Management Guidelines for Waterfowl in Ontario* (MNR, 1985) (<https://docs.ontario.ca/documents/2809/guide-waterfowl.pdf>)
- *Ontario Landbird Conservation Plan* (Environment Canada, 2008) ([http://nabci.net/wp-content/uploads/BCR-12-ON-FINAL\\_June2014.pdf](http://nabci.net/wp-content/uploads/BCR-12-ON-FINAL_June2014.pdf))
- *Ontario Woodlot Association Extension Notes* (<https://www.ontariowoodlot.com/publications-and-links/owa-publications/extension-notes>)
- *Habitat Management Guidelines for Birds of Ontario Wetlands* (MNR 1985) (<https://docs.ontario.ca/documents/2810/guide-wetland-birds.pdf>)
- *Guide on the limitation of the effects of obtrusive light from outdoor lighting installations* (Commission Internationale de l'Éclairage 2003) (<http://cie.co.at/publications/guide-limitation-effects-obtrusive-light-outdoor-lighting-installations-2nd-edition>)
- *Suggested Practices for Avian Protection On Power Lines: The State Of The Art In 2006* (<https://www.aplic.org/>)

### 4.3.2. Wildlife

The following documents provide information about best management practices related to wildlife:

- *Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (Stand and Site Guide)* (MNR 2010) (<https://www.ontario.ca/document/forest-management-conserving-biodiversity-stand-and-site-scales>)
- *Guide on the limitation of the effects of obtrusive light from outdoor lighting installations* (Commission Internationale de l'Éclairage 2003) (<http://cie.co.at/publications/guide-limitation-effects-obtrusive-light-outdoor-lighting-installations-2nd-edition>)

### 4.3.3. Bears

The following documents provide information about best management practices related to bears:

- Bear Wise (<https://www.ontario.ca/page/prevent-bear-encounters-bear-wise#section-2>)
- *Guide on the limitation of the effects of obtrusive light from outdoor lighting installations* (Commission Internationale de l'Éclairage 2003) (<http://cie.co.at/publications/guide-limitation-effects-obtrusive-light-outdoor-lighting-installations-2nd-edition>)

### 4.3.4. Moose

The following documents provide information about best management practices related to moose:

- *Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales (Stand and Site Guide)* (MNR 2010) (<https://www.ontario.ca/document/forest-management-conserving-biodiversity-stand-and-site-scales>)
- *Guide on the limitation of the effects of obtrusive light from outdoor lighting installations* (Commission Internationale de l'Éclairage 2003) (<http://cie.co.at/publications/guide-limitation-effects-obtrusive-light-outdoor-lighting-installations-2nd-edition>)
- *Timber Management Guidelines for the Provision of Moose Habitat* (<https://dr6j45jk9xcmk.cloudfront.net/documents/2800/guide-moosehabitat.pdf>)

### 4.3.5. Species at Risk – Bats

The following documents provide information about best management practices related to bats:

The following documents provide information about best management practices related to bats:

- *Bat and Bat Habitats: Guidelines for Wind Power Projects* (MNRF 2019) (<https://www.ontario.ca/page/bats-and-bat-habitats-guidelines-wind-power-projects#section-4>)

Canadian National White-nose Syndrome Decontamination Protocol for entering bat hibernacula. (Canadian Wildlife Health Cooperative 2016) ([http://www.cwhc-rscf.ca/docs/WNS\\_Decontamination\\_Protocol-Nov2016.pdf](http://www.cwhc-rscf.ca/docs/WNS_Decontamination_Protocol-Nov2016.pdf))

#### 4.3.6. Turtles

The following documents provide information about best management practices related to turtles:

MNR. 2013. *Reptile and Amphibian Exclusion Fencing: Best Practices*, Version 1.0. Species at Risk Branch Technical Note. Prepared for the MNR, Peterborough, Ontario. 11 pp. [https://files.ontario.ca/environment-and-energy/species-at-risk/mnr\\_sar\\_tx\\_rptl\\_amp\\_fnc\\_en.pdf](https://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_tx_rptl_amp_fnc_en.pdf)

### 4.4. CONCERN

#### 4.4.1. Birds

The site supports up to 188 species of birds including songbirds, waterfowl, and raptors. Most species are summer residents, which migrate into the area to breed. Birds contribute to maintaining healthy, functioning ecosystems and support recreational activities and hunting. Some birds are protected under the federal *Migratory Birds Convention Act* (1994) and others under the provincial *Fish and Wildlife Conservation Act, 1997*. Several Species at Risk (SAR) have been observed at the site but none are considered to be residents.

Construction activities could impact bird species in the following ways:

- Habitat loss through site clearing and preparation of infrastructure;
- Loss or disturbance to nests during vegetation clearing;
- Noise disturbance (e.g., blasting);
- Light disturbance (e.g., building lights);
- Collisions with vehicles;
- Spills;
- Attraction to human food and garbage; and/or
- Exposure to altered water quality in treatment wetlands.

The procedures outlined in this Plan aim to prevent or mitigate these potential impacts.

#### 4.4.2. Wildlife

#### 4.4.3. Bears

The site provides foraging habitat for Black Bears and they are often seen in spring along roads and trails. Bears play an essential role as predators in the food-web and are an important game species. Bears are often of high cultural significance to Indigenous communities.

Construction activities could impact bears in a number of ways including through:

- Loss of foraging habitat through site clearing and preparation of infrastructure;
- Noise disturbance (e.g. blasting);
- Light disturbance (e.g., building lights);
- Collisions with vehicles;
- Increased hunting pressure and human harassment;
- Spills;
- Attraction to human food and garbage; and/or
- Exposure to altered water quality in treatment wetlands.

The procedures outlined in this Plan aim to prevent or mitigate these potential impacts.

#### 4.4.4. Moose

Moose use the site throughout the year. Specific habitats used at different seasons include calving areas, aquatic feeding areas, late winter cover, and travel corridors. Moose are an important game species and of high cultural significance to Indigenous communities.

Construction activities could impact Moose in the following ways:

- Loss of habitat through site clearing and preparation of infrastructure;
- Noise disturbance (e.g. blasting);
- Light disturbance (e.g., building lights);
- Dust deposition on vegetation;
- Collisions with vehicles;
- Increased hunting pressure and human harassment;
- Spills; and/or
- Exposure to altered water quality in treatment wetlands.

The procedures outlined in this Plan aim to prevent or mitigate these potential impacts.

#### 4.4.5. Species at Risk – Bats

Two endangered species of bats, Northern Myotis and Little Brown Myotis, have inhabited the site.

Northern Myotis and Little Brown Myotis have used the historical adit at the site as a hibernaculum (hibernation habitat). The surrounding forests, lakes, and wetlands provide maternity roosting, roosting, and foraging habitat. Although Whitenose Syndrome (a fungal

disease) has greatly reduced populations of these bats at the site and throughout North America, the adit is still considered to be potential habitat.

Note: Construction of the Project will remove the historical adit and over 1000 ha of foraging and breeding habitat. An artificial hibernaculum and roosts will be installed within one year following the removal of the hibernaculum in the existing mine adit as conditions of an Overall Benefit permit under the *Endangered Species Act*. Foraging habitat will be restored through revegetation as part of progressive rehabilitation and site closure activities for the Project.

#### **4.4.6. Turtles**

Snapping Turtles inhabit marshes, ponds, lakes, rivers, and small streams. In spring, females lay their eggs on shorelines, beaches, roadbeds, and similar sites with well-drained soils. Although Snapping Turtles have not been observed at the site, their range encompasses the area and suitable habitat is present. Snapping Turtles are listed as a Special Concern species on Schedule 1 of the *Species at Risk Act* and on Ontario's *Endangered Species Act*.

Construction activities that could impact turtles include:

- Imposing barriers between aquatic habitat and nest sites;
- Disturbance to nesting turtles;
- Destruction of nests;
- Loss of aquatic habitat;
- Collisions with vehicles;
- Spills; and/or
- Exposure to altered water quality in treatment wetlands.

The procedures outlined in this Plan aim to prevent or mitigate these potential impacts.

#### **4.4.7. Terrestrial Vegetation**

Diverse vegetated areas provide a variety of habitat components for a number of terrestrial and avian wildlife which occur in the project area. During the construction and operations phases of the Project, various activities entail the removal of vegetation, revegetation of work areas, or the protection of existing vegetation.

#### **4.4.8. Wetlands**

A number of wetland areas within the project boundary will be unavoidably overprinted as a result of project development. The procedures described in this document are intended to provide protection or mitigation of those wetland habitats which are not overprinted.

## 4.5. PROCEDURES

### 4.5.1. Birds

The following procedures are to be implemented during construction, and focus on the protection of birds and their habitat during construction activities. They are consistent with the direction provided in EA conditions (4.1 to 4.3) January 2019<sup>3</sup> and EIS Commitments (26 through 31) December 2018<sup>4</sup> (see Table 4-1 below) as well as best practices.

1. Harming, killing, or disturbing migratory birds or destroying, disturbing, or taking their nests or eggs is prohibited.
2. Avoid clearing vegetation during the nesting season (between April 20 to August 29).
3. If vegetation clearing must take place between April 20 to August 29, nest sweeps must be completed by a qualified biologist. If nests are discovered, apply appropriate buffers. A 3 m radius surrounding the nest is required for most bird species. Larger buffers apply for raptors, herons, and other species. Refer to the *Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales* for details.
4. All construction activities must comply with noise control guidelines (refer to the 'Noise' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). On-site vehicles and equipment will be equipped with original noise control measures (e.g., mufflers) and maintained in good working order.
5. Lighting required during construction must be used in a manner to avoid adverse environmental effects on migratory birds, while meeting health and safety requirements (refer to the 'Light' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). Where possible, lighting fixtures will be fully shielded (i.e., full cut-off) to minimize uplight to the atmosphere or toward adjacent wildlife habitat.
6. Best management practices to minimize the potential for collisions and electrocution with power lines will be implemented.
7. All staff/contractors must comply with speed limits on the site roads to limit the potential for vehicle collisions with birds and other wildlife. Any collisions with birds or other wildlife must be reported (see reporting, section 4.8 below) (refer also to the *Site Security, Roads and Traffic Management Plan* in the CEMP (section 8)).
8. Exclude birds and other wildlife from kitchen waste disposal areas, dining facilities, and human activity where food might be available.
9. Staff are prohibited from feeding wildlife.
10. Hunting and fishing on the mine property are prohibited.

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<sup>3</sup> Canadian Environmental Assessment Agency. January 2019. *Decision Statement Issued Under Section 54 of the Canadian Environmental Assessment Act, 2012 for the Magino Gold Project*. <https://iaac-aeic.gc.ca/050/documents/p80044/126612E.pdf>

<sup>4</sup> Prodigy Gold Inc. December 2018. *Magino Project Commitments List*. <https://iaac-aeic.gc.ca/050/documents/p80044/125783E.pdf>

11. All construction activities must comply with the procedures outlined in Project EMPs (e.g., *Accident and Malfunction Response Plan* (section 2), *Drilling, Blasting, Fuel and Geotechnical Plan* (section 9), *Hazardous Substances Management Plan* (section 11) all in the CEMP) to ensure that spills are contained and cleaned up effectively to minimize the exposure of birds to potential contaminants.

*Table 4-1: EA Conditions/EIS Commitments Related to Migratory Birds (January 2019, December 2018)*

EA Conditions/EIS Commitments Related to Migratory Birds (January 2019, December 2018)	
Condition/ Commitment #	Action Required
EA Condition 4.1	“The Proponent shall carry out the Designated Project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's Avoidance Guidelines and the risk of incidental take. The Proponent's actions when carrying out the Designated Project shall be in compliance with the <i>Migratory Birds Convention Act, 1994</i> , the <i>Migratory Birds Regulations</i> and with the <i>Species at Risk Act</i> .”
EA Condition 4.2	“The Proponent shall control lighting required during all phases of the Designated Project, including direction, timing and intensity, to avoid adverse environmental effects on migratory birds, while meeting health and safety requirements.”
EA Condition 4.3	“The Proponent shall undertake, in consultation with Indigenous groups and relevant authorities, progressive reclamation of the project study area. The Proponent shall identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, plant species native to the area of the Designated Project to use for revegetation as part of the progressive reclamation, including species suitable to create habitat for migratory birds.”
EA Condition 4.4	<p>“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the use by migratory birds of surface water facilities in the project study area. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>4.4.1 monitor, at times migratory birds may be present in the project study area, the use by migratory birds of the tailings management facility and the water quality control pond during all phases of the Designated Project until such time that water quality in the tailings management facility and the water quality control pond meet legislative requirements and water quality objectives. The water quality objectives are to be established using an ecological risk based approach, developed in consultation with Indigenous groups and relevant authorities;</p> <p>4.4.2 monitor, at times migratory birds may be present in the project study area, the use by migratory birds of the open-pit lake during decommissioning. The Proponent shall determine, in consultation with indigenous groups and relevant authorities, the frequency and duration of the monitoring during decommissioning; and</p> <p>4.4.3 if results of the monitoring referred to in conditions 4.4.1 or 4.4.2 indicate that migratory birds use the tailings management facility, the water quality control pond or the open-pit lake, develop, in consultation with Indigenous groups, and implement deterrence measures pursuant to condition 2.7. The Proponent shall submit these measures to the Agency before implementing them.”</p>

EA Conditions/EIS Commitments Related to Migratory Birds (January 2019, December 2018)	
Condition/ Commitment #	Action Required
EA Condition 4.5	<p>“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures to avoid harm to migratory birds, their eggs, and nests, including the mitigation measures used to comply with conditions 4.1 to 4.3. As part of the development of the follow-up program, the Proponent shall identify performance indicators that shall be used by the Proponent to evaluate the effectiveness of the progressive reclamation referred to in condition 4.3. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the implementation of the follow-up program, the Proponent shall:</p> <p>4.5.1 conduct migratory bird surveys annually for the first three years following completion of construction to assess changes in migratory bird populations caused by the Designated Project. The Proponent shall determine the methodology for the migratory bird surveys in consultation with Indigenous groups and relevant authorities. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the initial surveys, if additional surveys are required after the first three years following completion of construction and at what frequency and in which locations these additional surveys shall occur; and</p> <p>4.5.2 monitor the effectiveness of the progressive reclamation referred to in condition 4.3, including the establishment of native plant species to create habitat for migratory birds, annually during operation and during the first three years of decommissioning and every five years thereafter. The Proponent shall monitor the effectiveness of the progressive reclamation referred to in condition 4.3 until the Proponent has determined, in consultation with Indigenous groups and relevant authorities, that the performance indicators have been met.”</p>
EIS Commitment 26	“Best management practices will be used where practical to minimize the potential for collisions and electrocution.”
EIS Commitment 27	<p>“There will be a breeding birds and canopy warblers monitoring plan that will:</p> <ul style="list-style-type: none"> <li>- Determine and verify the predictions of potential effects of the project on breeding birds and canopy warblers.</li> <li>- Evaluate the effectiveness of the proposed mitigation measures.</li> <li>- Detect and measure changes in avian species diversity, density and richness. Monitoring will be conducted immediately after closure and repeated on a regular frequency.”</li> </ul>
EIS Commitment 28	<p>“The objectives of the raptors follow up monitoring plan are to:</p> <ul style="list-style-type: none"> <li>• Determine and verify the predictions of potential effects of the project on raptors.</li> <li>• Evaluate the effectiveness of the proposed mitigation measures, such as habitat restoration.</li> <li>• Detect and measure changes in raptor species diversity, density and richness.</li> </ul> <p>Monitoring will be conducted immediately after closure and repeated on a regular frequency.”</p>
EIS Commitment 29	“Prodigy will consider Métis Nation of Ontario (MNO) recommendations regarding breeding bird preservation consistent with both Canadian Wildlife Service and MNRF regulations.”



EA Conditions/EIS Commitments Related to Migratory Birds (January 2019, December 2018)	
Condition/ Commitment #	Action Required
EIS Commitment 30	<p>“Mitigation measures are identified below which could further avoid or reduce the severity of the adverse effects on Migratory and Breeding Birds:</p> <ul style="list-style-type: none"> <li>• Activities with the potential to destroy migratory birds, including vegetation clearing, filling, and demolition/removal of structures used by cavity nesters, shall not take place in migratory bird habitat during the breeding season, generally defined (for different habitat types) as May 1 to July 31 for this region.</li> <li>• The Emergency Response and Spills Control Plan will ensure that spills are contained and cleaned up effectively to minimize exposure of birds to potential contaminants.</li> <li>• Compliance with speed limits on the site roads will be strictly enforced to limit the potential for vehicle collisions with wildlife in the area. New roads on the site which may be required will be designed to maximize line of site to provide safety for vehicle and wildlife collisions.</li> <li>• Hunting on the mine property will be prohibited. Only mine designated personnel responsible for wildlife control will be allowed.</li> <li>• Lighting should be directed downward and not toward adjacent wildlife habitat.”</li> </ul>
EIS Commitment 31	<p>“Additional mitigation measures are identified below to further avoid or reduce the severity of the adverse effects specific to Significant Wildlife Habitat. These include</p> <ul style="list-style-type: none"> <li>• Timing of removal of habitat to adhere to the requirements of <i>the Migratory Birds Convention Act</i>. Removal of active nests will be prohibited, and typically clearing should not occur between May 15 and July 31 (additional restrictions apply to Threatened and Endangered Species).</li> <li>• Restoring forest at the mine site should include objectives for habitat elements that are important to SSC such as mixed shelterwood woodlands and floating-leaved wetlands for moose; open woodlands with rock barren openings for Common Nighthawk; and sources of a water supply and shrubby understory for Canada Warbler.”</li> </ul>

#### 4.5.2. Wildlife

The following procedures related generally to wildlife are to be implemented during construction, and focus on the protection of wildlife and their habitat during construction activities. They are consistent with the direction provided in EA condition 6.5 January 2019<sup>5</sup> (see Table 4-2 below), EIS Commitments (20 through 24) December 2018<sup>6</sup> (see Table 4-3 below) and best practices. Refer also to other sections for procedures/monitoring for specific species or habitat: 4.5.1 (Birds), 4.5.3 (Bears), 4.5.4 (Moose), 4.5.5 (Species at Risk - Bats), 4.5.6 (Turtles), 4.5.7 (Terrestrial Vegetation) and 4.5.8 (Wetlands).

Procedure(s):

1. To the extent practical, beaver dam or den removals should occur in late summer when young will be moving away from upland dens to reduce mortality. The draining of waterbodies and the removal of semi-aquatic species need to be timed to avoid dens

<sup>5</sup> Canadian Environmental Assessment Agency. January 2019. *Decision Statement Issued Under Section 54 of the Canadian Environmental Assessment Act, 2012 for the Magino Gold Project*. <https://iaac-aeic.gc.ca/050/documents/p80044/126612E.pdf>

<sup>6</sup> Prodigy Gold Inc. December 2018. *Magino Project Commitments List*. <https://iaac-aeic.gc.ca/050/documents/p80044/125783E.pdf>

- freezing in winter (i.e., no draining or removals after October 1 in order to allow beavers and River Otters to move to alternate habitats and accumulate food caches).
2. To the extent practical, clearing should occur from headwaters/upstream locations toward downstream location to allow mammals associated with watercourses and wetlands (e.g., mink, beaver, shrew) to migrate to larger bodies of water downstream as opposed to being stranded in terrestrial habitat upstream where they will be more vulnerable to predation.
  3. To the extent practical, retain woody debris during clearing and grubbing operations. Create piles of slash (birch and alder are particularly useful) at created edges to provide winter caches of food for disturbed furbearers and small mammals.
  4. All construction activities must comply with noise control guidelines (refer to the 'Noise' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). On-site vehicles and equipment will be equipped with original noise control measures (e.g., mufflers) and maintained in good working order.
  5. Lighting required during construction must be used in a manner to avoid adverse environmental effects on wildlife, while meeting health and safety requirements (refer to the 'Light' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). Where possible, lighting fixtures will be fully shielded (i.e., full cut-off) to minimize light pointed toward adjacent wildlife habitat.
  6. All staff/contractors must comply with speed limits on the site roads to limit the potential for vehicle collisions with wildlife. Any collisions with wildlife must be reported (see reporting, section 4.8 below) (refer also to the *Site Security, Roads and Traffic Management Plan* in the CEMP (section 8)).
  7. Harassing wildlife, hunting, and fishing on the mine property are prohibited. Only mine designated personnel responsible for wildlife control will be allowed.
  8. Snowmobiles and all-terrain vehicles (ATVs) will be strictly limited for specific uses such as remote sampling, and only by personnel trained in their use. Training will include speed and noise caution to avoid wildlife harassment. Recreational use of such vehicles by mine personnel will be strictly prohibited.
  9. Where technically and economically feasible, measures will be implemented to exclude access by mammals to water quality ponds.

All construction activities must comply with the procedures outlined in Project CEMP sections (e.g., *Accident and Malfunction Response Plan* (section 2), *Drilling, Blasting, Fuel and Geotechnical Plan* (section 9), *Hazardous Substances Management Plan* (section 11) all in the CEMP) to ensure that spills are contained and cleaned up effectively to minimize exposure of wildlife to potential contaminants.

10. Staff will be educated to maintain clean facilities, store food in places not accessible to mammals and under no circumstances make wildlife human tolerant by feeding them.

*Table 4-2: EA Conditions Related to Wildlife - General (January 2019)*

EA Conditions Related to Wildlife - General (January 2019)	
Condition #	Action Required
EA Condition 6.5	<p>“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes caused by changes in the use of the project study area by mammals, including black bear (<i>Ursus americanus</i>) and moose (<i>Alces alces</i>). As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of mammals, in addition to black bear (<i>Ursus americanus</i>) and moose (<i>Alces alces</i>), that shall be monitored. If the results of the monitoring indicate that these mammal species use the property, the Proponent shall implement modified or additional mitigation measures pursuant to condition 2.7 to prevent the identified species of mammals from accessing Designated Project components”</p>

*Table 4-3: EIS Commitments Related to Wildlife – General (December 2018)*

EIS Commitments Related to Wildlife – General (December 2018)	
Commitment #	Action Required
EIS Commitment 20	<p>“Management plans will include measures to protect moose and bear and other mammals that will frequent the site.”</p>
EIS Commitment 21	<p>“Mitigation measures are identified below to further avoid or reduce the severity of the adverse effects on mammals and their habitat:</p> <ul style="list-style-type: none"> <li>• Timing of removal of habitat should be sensitive to the life cycles of mammals on this landscape. For instance, timing beaver dam or den removals to late summer when young will be moving away from upland dens may reduce mortality. Timing of draining of waterbodies and the removals of semi-aquatic species needs to be timed to avoid dens freezing in winter (i.e., no draining or removals after October 1 in order to allow beaver and otter to move to alternate habitats and accumulate food caches).</li> <li>• To the extent practical, clearing should occur from headwaters/upstream locations toward downstream to allow mammals associated with watercourses and wetlands (e.g., mink, beaver, shrews) to migrate to larger bodies of water downstream as opposed to being stranded in terrestrial habitat upstream where they will be more vulnerable to predation.</li> <li>• Retain woody debris during clearing and grubbing operations. Create piles of slash (birch and alder is particularly useful) at created edges to provide winter caches of food for disturbed furbearers and small mammals.</li> <li>• Compliance with speed limits on the site roads will be strictly enforced to limit the potential for vehicle collisions with wildlife in the area. New roads on the site which may be required will be designed to maximize line of site to provide safety for vehicles and reduce wildlife collisions.</li> <li>• The use of facility owned snowmobiles and ATV’s will be strictly limited for specific uses such as remote sampling, and only by personnel trained in their use. Training will include speed and noise caution to avoid wildlife harassment. Recreational use of such vehicles by mine personnel will be strictly prohibited.</li> <li>• Hunting and fishing on the mine property will be prohibited. Only mine designated personnel responsible for wildlife control will be allowed.</li> <li>• Where technically and economically feasible, measures will be implemented to exclude access by mammals to water quality ponds.</li> </ul>

EIS Commitments Related to Wildlife – General (December 2018)	
Commitment #	Action Required
	<ul style="list-style-type: none"> <li>• Soils or sediments contaminated during operations shall be removed or capped to sequester contamination.</li> <li>• Lighting will be directed downward and not toward adjacent wildlife habitat.</li> <li>• The seed collection program in support of restoration may include Dwarf Raspberry (<i>Rubus pubescens</i>), Pin Cherry (<i>Prunus pensylvanica</i>), Velvet-leaf Blueberry (<i>Vaccinium myrtilloides</i>), and Dwarf Blueberry (<i>Vaccinium caespitosum</i>) plus other species that may be recommended by Indigenous communities in the area.</li> <li>• Ensure that putrescent garbage is managed to avoid attracting omnivores such as bear, raccoons and fox. Staff will be prohibited from feeding wildlife.”</li> </ul>
EIS Commitment 22	“Staff will be educated to maintain clean facilities, store food in places not accessible to mammals and under no circumstances make wildlife human tolerant by feeding them.”
EIS Commitment 24	<p>“Monitoring shall be undertaken to confirm the effectiveness of:</p> <ul style="list-style-type: none"> <li>• Wildlife exclusion from kitchen waste disposal areas; dining facilities and human activity where food might be available.</li> <li>• Wildlife/human interactions that include wildlife use of water quality ponds and the pit, the mortality due to vehicular collisions, and the use of ecopassages.”</li> </ul>
EIS Commitment 31	<p>“Additional mitigation measures are identified below to further avoid or reduce the severity of the adverse effects specific to Significant Wildlife Habitat. These include</p> <ul style="list-style-type: none"> <li>• Timing of removal of habitat to adhere to the requirements of the Migratory Birds Convention Act. Removal of active nests will be prohibited, and typically clearing should not occur between May 15 and July 31 (additional restrictions apply to Threatened and Endangered Species).</li> <li>• Restoring forest at the mine site should include objectives for habitat elements that are important to SSC such as mixed shelterwood woodlands and floating-leaved wetlands for moose; open woodlands with rock barren openings for Common Nighthawk; and sources of a water supply and shrubby understory for Canada Warbler.”</li> </ul>

### 4.5.3. Bears

The following procedures are to be implemented during construction, and focus on the protection of bears and their habitat during construction activities. They are consistent with the direction provided in EA condition 6.5 January 2019<sup>7</sup> (see Table 4-4 below), EIS Commitments (20 through 24) December 2018<sup>8</sup> (see Table 4-5 below) and best practices. Refer also to other sections for procedures/monitoring for wildlife generally (4.5.2) or habitat (4.5.7 Terrestrial Vegetation, and 4.5.8 Wetlands).

1. All construction activities must comply with noise control guidelines (refer to the ‘Noise’ section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). On-site vehicles and equipment will be equipped with original noise control measures (e.g., mufflers) and maintained in good working order.
2. Lighting required during construction must be used in a manner to avoid adverse environmental effects on bears and other wildlife, while meeting health and safety

<sup>7</sup> Canadian Environmental Assessment Agency. January 2019. *Decision Statement Issued Under Section 54 of the Canadian Environmental Assessment Act, 2012 for the Magino Gold Project*. <https://iaac-aeic.gc.ca/050/documents/p80044/126612E.pdf>

<sup>8</sup> Prodigy Gold Inc. December 2018. *Magino Project Commitments List*. <https://iaac-aeic.gc.ca/050/documents/p80044/125783E.pdf>

requirements (refer to the 'Light' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). Where possible, lighting fixtures will be fully shielded (i.e., full cut-off) to minimize light pointed toward adjacent wildlife habitat.

3. All staff/contractors must comply with speed limits on the site roads to limit the potential for vehicle collisions with bears and other wildlife. Any collisions with bears or other wildlife must be reported (see reporting, section 4.8 below) (refer also to the *Site Security, Roads and Traffic Management Plan* in the CEMP (section 8)).
4. Staff will be educated to maintain clean facilities, store food in places not accessible to mammals and under no circumstances make wildlife human tolerant by feeding them.
5. Exclude bears and other wildlife from kitchen waste disposal areas, dining facilities, and human activity where food might be available.
6. Staff are prohibited from feeding wildlife.
7. Harassing bears and other wildlife, hunting, and fishing on the mine property are prohibited. Only mine designated personnel responsible for wildlife control will be allowed.
8. Snowmobiles and ATVs will be strictly limited for specific uses such as remote sampling, and only by personnel trained in their use. Training will include speed and noise caution to avoid wildlife harassment. Recreational use of such vehicles by mine personnel will be strictly prohibited.
9. Where technically and economically feasible, measures will be implemented to exclude access by mammals to water quality ponds.

All construction activities must comply with the procedures outlined in Project CEMP sections (e.g., *Accident and Malfunction Response Plan* (section 2), *Drilling, Blasting, Fuel and Geotechnical Plan* (section 9), *Hazardous Substances Management Plan* (section 11) all in the CEMP) to ensure that spills are contained and cleaned up effectively to minimize exposure of bears and other wildlife to potential contaminants.

*Table 4-4: EA Conditions Related to Bears (January 2019)*

EA Conditions Related to Bears (January 2019)	
Condition #	Action Required
EA Condition 6.5	“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes caused by changes in the use of the project study area by mammals, including black bear ( <i>Ursus americanus</i> ) and moose ( <i>Alces alces</i> ). As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of mammals, in addition to black bear ( <i>Ursus americanus</i> ) and moose ( <i>Alces alces</i> ), that shall be monitored. If the results of the monitoring indicate that these mammal species use the property, the Proponent shall implement modified or additional mitigation measures pursuant to condition 2.7 to prevent the identified species of mammals from accessing Designated Project components.”

*Table 4-5: EIS Commitments Related to Bears (December 2018)*

EIS Commitments Related to Bears (December 2018)	
Commitment #	Action Required
EIS Commitment 20	“Management plans will include measures to protect moose and bear and other mammals that will frequent the site.”
EIS Commitment 21	<p>“Mitigation measures are identified below to further avoid or reduce the severity of the adverse effects on mammals and their habitat:</p> <ul style="list-style-type: none"> <li>• Timing of removal of habitat should be sensitive to the life cycles of mammals on this landscape. For instance, timing beaver dam or den removals to late summer when young will be moving away from upland dens may reduce mortality. Timing of draining of waterbodies and the removals of semi-aquatic species needs to be timed to avoid dens freezing in winter (i.e., no draining or removals after October 1 in order to allow beaver and otter to move to alternate habitats and accumulate food caches).</li> <li>• To the extent practical, clearing should occur from headwaters/upstream locations toward downstream to allow mammals associated with watercourses and wetlands (e.g., mink, beaver, shrews) to migrate to larger bodies of water downstream as opposed to being stranded in terrestrial habitat upstream where they will be more vulnerable to predation.</li> <li>• Retain woody debris during clearing and grubbing operations. Create piles of slash (birch and alder is particularly useful) at created edges to provide winter caches of food for disturbed furbearers and small mammals.</li> <li>• Compliance with speed limits on the site roads will be strictly enforced to limit the potential for vehicle collisions with wildlife in the area. New roads on the site which may be required will be designed to maximize line of site to provide safety for vehicles and reduce wildlife collisions.</li> <li>• The use of facility owned snowmobiles and ATV’s will be strictly limited for specific uses such as remote sampling, and only by personnel trained in their use. Training will include speed and noise caution to avoid wildlife harassment. Recreational use of such vehicles by mine personnel will be strictly prohibited.</li> <li>• Hunting and fishing on the mine property will be prohibited. Only mine designated personnel responsible for wildlife control will be allowed.</li> <li>• Where technically and economically feasible, measures will be implemented to exclude access by mammals to water quality ponds.</li> <li>• Soils or sediments contaminated during operations shall be removed or capped to sequester contamination.</li> <li>• Lighting will be directed downward and not toward adjacent wildlife habitat.</li> <li>• The seed collection program in support of restoration may include Dwarf Raspberry (<i>Rubus pubescens</i>), Pin Cherry (<i>Prunus pensylvanica</i>), Velvet-leaf Blueberry (<i>Vaccinium myrtilloides</i>), and Dwarf Blueberry (<i>Vaccinium caespitosum</i>) plus other species that may be recommended by Indigenous communities in the area.</li> <li>• Ensure that putrescent garbage is managed to avoid attracting omnivores such as bear, raccoons and fox. Staff will be prohibited from feeding wildlife.”</li> </ul>
EIS Commitment 22	“Staff will be educated to maintain clean facilities, store food in places not accessible to mammals and under no circumstances make wildlife human tolerant by feeding them.”
EIS Commitment 24	<p>“Monitoring shall be undertaken to confirm the effectiveness of:</p> <ul style="list-style-type: none"> <li>• Wildlife exclusion from kitchen waste disposal areas; dining facilities and human activity where food might be available.</li> <li>• Wildlife/human interactions that include wildlife use of water quality ponds and the pit, the mortality due to vehicular collisions, and the use of ecopassages.”</li> </ul>

#### 4.5.4. Moose

The following procedures are to be implemented during construction, and focus on the protection of moose and their habitat during construction activities. They are consistent with the direction provided in the EA condition 6.5 January 2019<sup>9</sup> (see Table 4-6 below), EIS Commitments (20 through 22, 24, and 31) December 2018<sup>10</sup> (see Table 4-7 below) and best practices. Refer also to other sections for procedures/monitoring for wildlife generally (4.5.2) or habitat: (4.5.7 Terrestrial Vegetation, and 4.5.8 Wetlands).

1. All construction activities must comply with noise control guidelines (refer to the 'Noise' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). On-site vehicles and equipment will be equipped with original noise control measures (e.g., mufflers) and maintained in good working order.
2. Lighting required during construction must be used in a manner to avoid adverse environmental effects on bears and other wildlife, while meeting health and safety requirements (refer to the 'Light' section of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)). Where possible, lighting fixtures will be fully shielded (i.e., full cut-off) to minimize light pointed toward adjacent wildlife habitat.
3. Dust control measures will be employed to minimize dust deposition on moose browse (refer to the 'Air Quality and Dust Control' section of the *Air / Atmospheric Environment Management Plan* in the CEMP (section 3)).
4. All staff must comply with speed limits on the site roads to limit the potential for vehicle collisions with moose and other wildlife. Any collisions with moose or other wildlife must be reported (see reporting, section 4.8 below) (refer also to the *Site Security, Roads and Traffic Management Plan* in the CEMP (section 8)).
5. Harassing moose and other wildlife, hunting, and fishing on the mine property are prohibited. Only mine designated personnel responsible for wildlife control will be allowed.
6. Staff are prohibited from feeding wildlife.
7. Staff will be educated to maintain clean facilities, store food in places not accessible to mammals and under no circumstances make wildlife human tolerant by feeding them.
8. Snowmobiles and ATVs will be strictly limited for specific uses such as remote sampling, and only by personnel trained in their use. Training will include speed and noise caution to avoid wildlife harassment. Recreational use of such vehicles by mine personnel will be strictly prohibited.
9. Where technically and economically feasible, measures will be implemented to exclude access by mammals to water quality ponds.

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<sup>9</sup> Canadian Environmental Assessment Agency. January 2019. *Decision Statement Issued Under Section 54 of the Canadian Environmental Assessment Act, 2012 for the Magino Gold Project*. <https://iaac-aeic.gc.ca/050/documents/p80044/126612E.pdf>

<sup>10</sup> Prodigy Gold Inc. December 2018. *Magino Project Commitments List*. <https://iaac-aeic.gc.ca/050/documents/p80044/125783E.pdf>

All construction activities must comply with the procedures outlined in Project CEMP sections (e.g., *Accident and Malfunction Response Plan* (section 2), *Drilling, Blasting, Fuel and Geotechnical Plan* (section 9), *Hazardous Substances Management Plan* (section 11) all in the CEMP) to ensure that spills are contained and cleaned up effectively to minimize exposure of moose and other wildlife to potential contaminants.

*Table 4-6: EA Conditions Related to Moose (January 2019)*

EA Conditions Related to Moose (January 2019)	
Condition #	Action Required
EA Condition 6.5	<p>“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects of the Designated Project on the current use of lands and resources for traditional purposes caused by changes in the use of the project study area by mammals, including black bear (<i>Ursus americanus</i>) and moose (<i>Alces alces</i>). As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of mammals, in addition to black bear (<i>Ursus americanus</i>) and moose (<i>Alces alces</i>), that shall be monitored. If the results of the monitoring indicate that these mammal species use the property, the Proponent shall implement modified or additional mitigation measures pursuant to condition 2.7 to prevent the identified species of mammals from accessing Designated Project components”</p>

*Table 4-7: EIS Commitments Related to Moose (December 2018)*

EIS Commitments Related to Moose (December 2018)	
Commitment #	Action Required
EIS Commitment 20	<p>“Management plans will include measures to protect moose and bear and other mammals that will frequent the site.”</p>
EIS Commitment 21	<p>“Mitigation measures are identified below to further avoid or reduce the severity of the adverse effects on mammals and their habitat:</p> <ul style="list-style-type: none"> <li>• Timing of removal of habitat should be sensitive to the life cycles of mammals on this landscape. For instance, timing beaver dam or den removals to late summer when young will be moving away from upland dens may reduce mortality. Timing of draining of waterbodies and the removals of semi-aquatic species needs to be timed to avoid dens freezing in winter (i.e., no draining or removals after October 1 in order to allow beaver and otter to move to alternate habitats and accumulate food caches).</li> <li>• To the extent practical, clearing should occur from headwaters/upstream locations toward downstream to allow mammals associated with watercourses and wetlands (e.g., mink, beaver, shrews) to migrate to larger bodies of water downstream as opposed to being stranded in terrestrial habitat upstream where they will be more vulnerable to predation.</li> <li>• Retain woody debris during clearing and grubbing operations. Create piles of slash (birch and alder is particularly useful) at created edges to provide winter caches of food for disturbed furbearers and small mammals.</li> <li>• Compliance with speed limits on the site roads will be strictly enforced to limit the potential for vehicle collisions with wildlife in the area. New roads on the site which may</li> </ul>



EIS Commitments Related to Moose (December 2018)	
Commitment #	Action Required
	<p>be required will be designed to maximize line of site to provide safety for vehicles and reduce wildlife collisions.</p> <ul style="list-style-type: none"> <li>• The use of facility owned snowmobiles and ATV's will be strictly limited for specific uses such as remote sampling, and only by personnel trained in their use. Training will include speed and noise caution to avoid wildlife harassment. Recreational use of such vehicles by mine personnel will be strictly prohibited.</li> <li>• Hunting and fishing on the mine property will be prohibited. Only mine designated personnel responsible for wildlife control will be allowed.</li> <li>• Where technically and economically feasible, measures will be implemented to exclude access by mammals to water quality ponds.</li> <li>• Soils or sediments contaminated during operations shall be removed or capped to sequester contamination.</li> <li>• Lighting will be directed downward and not toward adjacent wildlife habitat.</li> <li>• The seed collection program in support of restoration may include Dwarf Raspberry (<i>Rubus pubescens</i>), Pin Cherry (<i>Prunus pensylvanica</i>), Velvet-leaf Blueberry (<i>Vaccinium myrtilloides</i>), and Dwarf Blueberry (<i>Vaccinium caespitosum</i>) plus other species that may be recommended by Indigenous communities in the area.</li> <li>• Ensure that putrescent garbage is managed to avoid attracting omnivores such as bear, raccoons and fox. Staff will be prohibited from feeding wildlife."</li> </ul>
EIS Commitment 22	"Staff will be educated to maintain clean facilities, store food in places not accessible to mammals and under no circumstances make wildlife human tolerant by feeding them."
EIS Commitment 24	<p>"Monitoring shall be undertaken to confirm the effectiveness of:</p> <ul style="list-style-type: none"> <li>• Wildlife exclusion from kitchen waste disposal areas; dining facilities and human activity where food might be available.</li> <li>• Wildlife/human interactions that include wildlife use of water quality ponds and the pit, the mortality due to vehicular collisions, and the use of ecopassages."</li> </ul>
EIS Commitment 31	<p>"Additional mitigation measures are identified below to further avoid or reduce the severity of the adverse effects specific to Significant Wildlife Habitat. These include</p> <ul style="list-style-type: none"> <li>• Timing of removal of habitat to adhere to the requirements of the Migratory Birds Convention Act. Removal of active nests will be prohibited, and typically clearing should not occur between May 15 and July 31 (additional restrictions apply to Threatened and Endangered Species).</li> <li>• Restoring forest at the mine site should include objectives for habitat elements that are important to SSC such as mixed shelterwood woodlands and floating-leaved wetlands for moose; open woodlands with rock barren openings for Common Nighthawk; and sources of a water supply and shrubby understory for Canada Warbler."</li> </ul>

#### 4.5.5. Species at Risk – Bats

The following procedures are based on Overall Benefit permit NR-C-003-18 (November 30, 2020). They are consistent with EIS Commitment 32 (December 2018)<sup>11</sup>.

- EIS Commitment 32 states: "Mitigation measures for bats will be determined pending [Ministry of Natural Resources and Forestry (Ontario)] MNRF review of an Information Gathering Form through the *Endangered Species Act* permitting process."

<sup>11</sup> Prodigy Gold Inc. December 2018. *Magino Project Commitments List*. <https://iaac-aeic.gc.ca/050/documents/p80044/125783E.pdf>

The procedures focus on the protection of bats and their habitat during construction activities.

1. All construction staff entering the site must take training on bats.
2. A record of training must be kept including the number of people trained, dates, and manner of training.
3. A copy of the Overall Benefit permit will be kept on-site and made available for review by persons working on-site.
4. Act with due diligence to prevent killing, harming, or harassing Species at Risk (SAR) bats while carrying out construction activities and while fulfilling the conditions of the permit.
5. Destruction of the hibernaculum located in the existing mine adit and clearing trees within 200 m of the hibernaculum can only occur during the period from June 1 to August 31 (see Figure 4-1).
6. Clearing trees on the site shall not occur during the maternity period (May 15 to August 31) except within 200 m of the Hibernaculum.
7. Unauthorized access to the adit is not allowed during winter.

*Figure 4-1: Map of the hibernaculum and the 200m radius surrounding the hibernaculum*



Activities associated with creation of the artificial hibernaculum and roosts required as a condition of the Overall Benefit permit are not included here, as they apply to the operations phase (EIS Commitment 33: “Potentially provide alternate artificial hibernacula and roost sites for bats prior to removal of the existing hibernacula (the adit) to allow acclimation to new site conditions.”).

#### 4.5.6. Turtles

The following procedures focus on the protection of turtles and their habitat during construction activities.

1. If Snapping Turtles are observed in the project study area, implement additional mitigation measures, such as relocation and exclusion fences, to prevent Snapping Turtles from accessing active project components during construction. Refer to *section 4.6.6* for details.
2. All staff must comply with speed limits on the site roads to limit the potential for vehicle collisions with turtles and other wildlife. Any collisions with turtles or other wildlife must be reported (see reporting, section 4.8 below) (refer also to the *Site Security, Roads and Traffic Management Plan* in the CEMP (section 8)).
3. Harassing turtles and other wildlife, hunting, and fishing on the mine property are prohibited.

All construction activities must comply with the procedures outlined in Project CEMP sections (e.g., *Accident and Malfunction Response Plan* (section 2), *Drilling, Blasting, Fuel and Geotechnical Plan* (section 9), *Hazardous Substances Management Plan* (section 11) all in the CEMP) to ensure that spills are contained and cleaned up effectively to minimize exposure of turtles and other wildlife to potential contaminants.

4. Wildlife/human interactions that include wildlife use of water quality ponds, treatment wetlands and the pit as well as mortality due to vehicular collisions will be monitored through on-going incidental observations.

#### 4.5.7. Terrestrial Vegetation

To mitigate the potential for environmental harms associated with terrestrial vegetation, the following protection measures will be used which were committed to as part of the EA process or are conditions of project approval (see Table 4-8 and Table 4-9 below).

##### 4.5.7.1. Vegetation Clearing and Management

- 
- Avoid clearing vegetation, filling, and demolition/removal of structures used by cavity nesters during the nesting season (between April 20 to August 29).
- If vegetation clearing must take place between April 20 to August 29, nest sweeps must be completed by a qualified biologist. If nests are discovered, apply appropriate buffers. A 3 m radius surrounding the nest is required for most bird species. Larger buffers apply for raptors, herons, and other species. Refer to the *Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales* for details.
- Protect vegetated areas bordering working areas with temporary fencing. Equipment, storage of materials, and other construction activities will not be permitted outside of working areas (EIS Commitment 40);

- Restrict tree grubbing and removal to the working areas. Where possible, cut tree stumps flush to the ground and avoid grubbing to minimize soil disturbance, particularly in erosion-prone areas (EIS Commitment 40);
- Fell trees into the construction zone to avoid damaging standing vegetation that is to be preserved, and away from any watercourse where it is safe to do so (EIS Commitment 40);
- Retain woody debris during clearing and grubbing operations. Slash should be chipped and stockpiled, and large woody debris should be stockpiled for use in bioengineering and aquatic habitat improvement (EIS Commitment 40);
- Minimize the extent and width of construction and maintenance access roads and trails outside of the public bypass road (EIS Commitment 41);
- Apply wood chip material to created edges. This material will help retain soil moisture, promote germination of native seeds, and prevent weed spread (EIS Commitment 41);
- Undertake hazard tree management along the new edge as required (EIS Commitment 41);
- Wherever possible, mechanical means such as mowing, tilling, digging or pulling will be preferred for vegetation control over chemical methods. The use of herbicides should only be considered where other control methods have proven ineffective in weed management;
- Should herbicide application be selected as a method of invasive plant control, all herbicides must be applied by a licensed applicator in accordance with Ontario regulations; and
- If Black Birch (*Betula lenta*) and Muskeygoosh (*Valeriana uliginosa*) are encountered in the course of vegetation clearing, work is to stop in the area with the identified plants protected, and the Environmental Manager is to be notified. Prodigy will consult with Indigenous communities on mitigation measures to be implemented (EIS Commitment 39).

#### 4.5.7.2. Revegetation

- During site rehabilitation activities, any reseeded which takes place will occur with an approved native seed mix which has been sourced from a commercial supplier to ensure that no invasive species are introduced to the site;
- As identified in the EIS, where possible to acquire or collect appropriate seeds, Dwarf Raspberry (*Rubus pubescens*), Pin Cherry (*Prunus pensylvanica*), Velvet-leaf Blueberry (*Vaccinium myrtilloides*), and Dwarf Blueberry (*Vaccinium caespitosum*) (EIS Commitment 21, 23);
- Other species that may be recommended in consultation with Indigenous communities in the area may also be included in the seed mix (EA condition 4.3, 6.4.1); and
- See also the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3) for more information about the management of dust (EIS Commitment 111).

*4.5.7.3 Invasive Species Mitigation*

The following measures are in accordance with EA condition 6.4.2. See also the *Invasive Species Management Plan* in the CEMP (section 14).

- Soil disturbance will be minimized to the extent practicable, with disturbed work areas seeded with a native species seed mix and cover crop as soon as possible post disturbance;
- Grading will use clean fill material to reduce the potential for introducing or spreading invasive or non-native species;
- Identified invasive or non-native species will be targeted for removal through manual, mechanical and/or chemical methods; and
- Good housekeeping of vehicles will be implemented:
  - Vehicles and heavy equipment will stay on site roads to the extent practical;
  - During construction, prior to equipment entering areas where an access road has not yet been constructed, a visual inspection of machinery and equipment will be completed, with particular attention to inspecting the undersides, wheels, wheel arches, guards, radiator grills and other attachments as applicable; and
  - If foreign material, seed or other plant materials are found, cleaning/removal will take place by brushing, knocking or washing soil and debris from exterior surfaces of equipment. Removal will occur at least 30 m away from a watercourse, water body or natural vegetation, with the material contained for removal.

All measures described herein are subject to revision according to any final environmental approval/permit conditions, where applicable.

*Table 4-8: EA Conditions Related to Terrestrial Vegetation (January 2019)*

EA Conditions Related to Terrestrial Vegetation (January 2019)	
Condition #	Action Required
EA Condition 4.3	“The Proponent shall undertake, in consultation with Indigenous groups and relevant authorities, progressive reclamation of the project study area. The Proponent shall identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, plant species native to the area of the Designated Project to use for revegetation as part of the progressive reclamation, including species suitable to create habitat for migratory birds.”
EA Condition 6.4	“As part of the progressive reclamation referred to in condition 4.3, the Proponent shall: 6.4.1 identify, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, species of interest to Indigenous peoples to use for revegetation as part of the progressive reclamation; and 6.4.2 develop, prior to the start of progressive reclamation and in consultation with Indigenous groups and relevant authorities, and implement, during all phases of the Designated Project, measures to manage the spread of invasive species. The Proponent shall submit these measures to the Agency before implementing them.”

*Table 4-9: EIS Commitments Related to Terrestrial Vegetation (December 2018)*

EIS Commitments Related to Terrestrial Vegetation (December 2018)	
Commitment #	Action Required
EIS Commitment 21	<p>“Mitigation measures are identified below to further avoid or reduce the severity of the adverse effects on mammals and their habitat:...</p> <ul style="list-style-type: none"> <li>• The seed collection program in support of restoration may include Dwarf Raspberry (<i>Rubus pubescens</i>), Pin Cherry (<i>Prunus pensylvanica</i>), Velvet-leaf Blueberry (<i>Vaccinium myrtilloides</i>), and Dwarf Blueberry (<i>Vaccinium caespitosum</i>) plus other species that may be recommended by Indigenous communities in the area...”</li> </ul>
EIS Commitment 23	<p>“A requirement for planting of berry-producing species will be included in the forest restoration plan.”</p>
EIS Commitment 31	<p>“Additional mitigation measures are identified below to further avoid or reduce the severity of the adverse effects specific to Significant Wildlife Habitat. These include...</p> <ul style="list-style-type: none"> <li>• Restoring forest at the mine site should include objectives for habitat elements that are important to SSC such as mixed shelterwood woodlands and floating-leaved wetlands for moose; open woodlands with rock barren openings for Common Nighthawk; and sources of a water supply and shrubby understory for Canada Warbler.”</li> </ul>
EIS Commitment 35	<p>“Prodigy Gold will forward MNO’s concern of herbicide use over the transmission line to the project proponent.”</p>
EIS Commitment 36	<p>“Tailings surface will potentially be stabilized with a dry vegetated cover, possibly with wetlands at the entrance of the spillway and other localized areas.”</p>
EIS Commitment 37	<p>“Vegetation monitoring will include ecosite classification and percent cover of vegetation strata including trees, shrubs, herbs, and mosses.”</p>
EIS Commitment 38	<p>“In consultation with Indigenous groups, vegetation trials will be undertaken during operations to assess best pioneer and long-term floral species to aid in natural area succession. A Progressive Restoration Plan will be developed to include the following key aspects:</p> <ul style="list-style-type: none"> <li>• Test sites will be monitored for success, allowing intervention where regeneration has failed and the improvement of restoration techniques over time.</li> <li>• The establishment of communities capable of developing into representative, healthy, boreal forest and wetlands will be used as a restoration target. Forest and wetland restoration methods will be developed on a site by site basis utilizing the best techniques appropriate for each site.</li> <li>• The construction laydown areas and other disturbed areas not required for operations will be rehabilitated at an early stage of project operations.”</li> </ul>
EIS Commitment 39	<p>“Measures to be taken when Black birch and Mushkeygoosh are identified during construction or operation phases will be addressed in the Construction Environmental Protection Plan (CEPP).”</p>
EIS Commitment 40	<p>“The following mitigation measures as outlined in the Construction Environmental Protection Plan (CEPP) are designed to avoid the removal of, or damage to, terrestrial vegetation due to clearing or other physical disturbances beyond defined construction working areas:</p> <ul style="list-style-type: none"> <li>• Protect vegetated areas bordering working areas with temporary fencing. Equipment, storage of materials, and other construction activities will not be permitted outside of working areas.</li> <li>• Restrict tree grubbing and removal to the working areas. Where possible, cut tree stumps flush to the ground and avoid grubbing to minimize soil disturbance, particularly in erosion-prone areas.</li> <li>• Fell trees into the construction zone to avoid damaging standing vegetation that is to be preserved, and away from any watercourse where it is safe to do so.</li> </ul>

EIS Commitments Related to Terrestrial Vegetation (December 2018)	
Commitment #	Action Required
	<ul style="list-style-type: none"> <li>• Retain woody debris during clearing and grubbing operations. Slash should be chipped and stockpiled, and large woody debris should be stockpiled for use in bioengineering and aquatic habitat improvement.”</li> </ul>
EIS Commitment 41	<p>“The following additional mitigation measures have been identified to minimize any reduction in the quality / function of the retained portion of vegetation and habitat in the PS:</p> <ul style="list-style-type: none"> <li>• Minimize the extent and width of construction and maintenance access roads and trails outside of the public bypass road.</li> <li>• Apply wood chip material to created edges. This material will help retain soil moisture, promote germination of native seeds, and prevent weed spread.</li> <li>• Undertake hazard tree management along the new edge as required.</li> <li>• Prepare an Invasive Species Management Plan as part of an overall Environmental Management Plan.”</li> </ul>
EIS Commitment 70	<p>“Prodigy indicated that the Company would present possible options for terrestrial restoration, including reclamation objectives prior to preparation of the Closure Plan.”</p>
EIS Commitment 71	<p>“The percentage of habitat that can be restored will be described in the Closure Plan.”</p>
EIS Commitment 84	<p>“Through consultation, the principal post-closure habitats will be identified and reference sites will be used to develop the Progressive Rehabilitation plan.”</p>
EIS Commitment 111	<p>“Dust will be managed by watering and the progressive re-vegetation of stockpiles, TMF and MRMF.”</p>
EIS Commitment 112	<p>“Mitigation measures are identified below which consider the design of the Project and the results of the effects analysis, to avoid or reduce the severity of effects on water quality:</p> <ul style="list-style-type: none"> <li>• Implementation of Erosion and Sediment Control through BMPs and engineering design to limit erosion and mobilization of sediments, promote settling of sediments and mitigate the migration of suspended solids into nearby surface water features. BMPs for erosion and sediment control include: the use of earthwork methods to minimize slope length and grade, ditching, sediment ponds/traps, use of natural vegetation buffers, re-vegetation of disturbed soil, natural channel design, and runoff controls (i.e., sediment fencing and small check dams). These will be implemented through all phases of the Project (Site Preparation through Post-Closure) to limit the change to water quality from erosion and runoff and will be documented in an Environmental Management Plan for the Project.</li> <li>• Monitoring to assess effectiveness of mitigation and enhancement measures”</li> </ul>

#### 4.5.8. Wetlands

To mitigate the potential for unnecessary environmental harm to wetlands, the following procedures will be carried out. (See Table 4-10 and 4-11 for the EA conditions and EIS Commitments related to wetlands):

- Wetland areas bordering working areas will be protected with sediment fencing. Storage of equipment, or materials, and other construction activities will not be permitted in these areas (refer also to the *Sediment and Erosion Control Plan* in the CEMP (section 10));

- Contractors will implement best management practices to control dust deposition (refer to the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3)) (EIS Commitment 45); and
- Staging areas, laydowns, vehicle movement, and where possible, vegetation clearing will not occur within 50 m of a wetland which is not to be overprinted by project components.

*Table 4-10: EA Conditions Related to Wetlands (January 2019)*

EA Conditions Related to Wetlands (January 2019)	
Condition #	Action Required
EA Condition 7.1	“The Proponent shall restore a minimum of 40 hectares of wetland within the property boundary. The Proponent shall determine, in consultation with Environment and Climate Change Canada, methods for restoration that are technically and economically feasible and that are appropriate for the project study area.”
EA Condition 7.2	“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to determine the effectiveness of restoration referred to in condition 7.1. As part of the development of the follow-up program, the Proponent shall identify performance indicators that shall be used by the Proponent to evaluate the effectiveness of the restoration. The Proponent shall monitor the effectiveness of the restoration from the start of the restoration until performance indicators are met.”
EA Condition 7.3	“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the presence of snapping turtle ( <i>Chelydra serpentina</i> ) or snapping turtle eggs within the project study area. The Proponent shall implement the follow-up program during construction and operation. If the Proponent observes snapping turtle or snapping turtle eggs, the Proponent shall develop, in consultation with Indigenous groups and relevant authorities, modified or additional mitigation measures pursuant to condition 2.7, which shall include, at a minimum, the installation of exclusion fences around snapping turtle habitat, if technically feasible, or the relocation of snapping turtles outside of the project study area. The Proponent shall submit these measures to the Agency before implementing them.”

*Table 4-11: EIS Commitments Related to Wetlands (December 2018)*

EIS Commitments Related to Wetlands (December 2018)	
Commitment #	Action Required
EIS Commitment 21	“Mitigation measures are identified below to further avoid or reduce the severity of the adverse effects on mammals and their habitat: <ul style="list-style-type: none"> <li>• Timing of removal of habitat should be sensitive to the life cycles of mammals on this landscape. For instance, timing beaver dam or den removals to late summer when young will be moving away from upland dens may reduce mortality. Timing of draining of waterbodies and the removals of semi-aquatic species needs to be timed to avoid dens freezing in winter (i.e., no draining or removals after October 1 in order to allow beaver and otter to move to alternate habitats and accumulate food caches).”</li> </ul>



EIS Commitments Related to Wetlands (December 2018)	
Commitment #	Action Required
EIS Commitment 31	<p>“Additional mitigation measures are identified below to further avoid or reduce the severity of the adverse effects specific to Significant Wildlife Habitat. These include...</p> <ul style="list-style-type: none"> <li>• Restoring forest at the mine site should include objectives for habitat elements that are important to SSC such as mixed shelterwood woodlands and floating-leaved wetlands for moose; open woodlands with rock barren openings for Common Nighthawk; and sources of a water supply and shrubby understory for Canada Warbler.”</li> </ul>
EIS Commitment 43	<p>“Prodigy will determine if wetlands can be created along the water collection and diversion channels.”</p>
EIS Commitment 44	<p>“Prodigy can work with Indigenous communities to develop a wetland mosaic, within the tailings management area and other disturbed locations.”</p>
EIS Commitment 45	<p>“The following mitigation measures have been identified to minimize the reduction in the quality/function of the retained wetlands in the PSA</p> <ul style="list-style-type: none"> <li>• Wherever possible, retain wetlands in areas within the PSA by not requiring grading or other work (e.g., Water Body 10).</li> <li>• Minimize extent and width of construction and maintenance access roads and trails outside of the public bypass road.</li> <li>• Protect wetland areas bordering working areas with sediment fencing. Storage of equipment, or materials, and other construction activities will not be permitted in these areas.</li> <li>• Implement Best Management Practices to control dust deposition.”</li> </ul>

## 4.6. MONITORING AND FOLLOW-UP PROGRAMS

### 4.6.1. Birds

Observations of breeding birds and canopy warblers / raptors will be recorded on the Wildlife Observation Form and contribute to the data used to determine the potential effects on these species and evaluate the effectiveness of the mitigation measures. The following monitoring/follow-up programs are consistent with EA conditions 4.4 and 4.5 (see Table 4-1 above) with respect to follow-up programs for migratory birds.

#### 4.6.1.1. Surface water facilities use by migratory birds follow-up program

##### Survey Methods

##### Methodology

Migratory bird monitoring at surface water facilities will be conducted on-site by trained environmental staff / contractors. Incidental observations by all staff in the area will also be compiled. The surface water facilities include the tailings management facility (TMF) and the water quality control pond (WQCP, later in the construction phase and during operations), and the open pit lake during the decommissioning phase. The program described below focuses on the TMF and the WQCP; however a similar approach would be used for the open pit lake during the decommissioning phase.

Monitoring methods will consist of visual surveys of the TMF and WQCP. The waterbodies will be quietly approached to a shoreline observation point. From this location, the entire waterbody and shoreline will be slowly scanned using binoculars.

The number and species of birds present will be noted along with any relevant behaviour such as feeding or courtship. Where possible, the sex and age (adult or immature) will be recorded.

### **Location**

Monitoring will be conducted on-site at the Magino Project at the TMF and the WQCP late in the construction phase (once the facilities have been constructed, but prior to operations), and during the operations phase.

### **Frequency, Timing, and Duration**

Monitoring will be conducted daily when the TMF and WQCP are at least partially free of ice during the spring (April, May) and fall (September, October) migration periods and weekly during June, July, and August.

The duration of monitoring will extend until water quality in the TMF and the WQCP meet legislative requirements and water quality objectives. Water quality objectives will be established as part of provincial permitting requirements for the operations phase. Cyanide is likely to be the parameter of primary interest for migratory birds. The EA is committed to limit the concentration of weak acid dissociable cyanide in the mill discharge to the tailings facility, to a value of <5 mg/L. The WQCP and the pit lake at closure would have cyanide values much below those of the TMF pond.

### **Reporting Results**

#### **Scope and Content**

Monitoring reports will include survey dates, locations, and results including numbers and species of migratory birds observed along with sex and age and any relevant behaviour such as feeding or courtship.

Incidental observations of migratory birds using the TMF and WQCP will be reported by all staff (See the Wildlife Observation Form in Appendix 4-A).

#### **Frequency**

Monitoring results will be reported annually included as part of annual reporting to IAAC on EA condition implementation.

#### **Change from Baseline**

The levels of environmental change relative to baseline conditions that would require the implementation of modified or additional mitigation measure(s):

- Migratory birds use the TMF or the WQCP before water quality meets legislative requirements and water quality objectives

### **Mitigation Measures**

Mitigation measures will be implemented immediately if migratory birds are found to be using the surface water facilities. These include deterrence measures to prevent birds from using the surface water facilities (Greer and O'Connor 1994, Transport Canada 2010). Depending on the bird species using the surface water facilities and the design of the facilities themselves, potential techniques include:

- Mylar streamers suspended at regular intervals from ropes over the surface water facilities to act as visual repellents
- Netting or overhead lines to prevent birds from landing
- Bangers, air horns or sirens to deter birds from landing

### **Literature Cited**

Greer, R.D. and D.J. O'Connor. 1994. Waterbird Deterrent Techniques. Exxon Biomedical Sciences, Inc. Marine Spill Response Corporation, Washington, D.C. MSRC Technical. Report Series 94-003, 38 p.

Transport Canada. 2010. Evaluation of the Efficacy of Products and Techniques for Airport Bird Control (03/1998) - TP 13029. Website: <https://tc.canada.ca/en/aviation/publications/evaluation-efficacy-products-techniques-airport-bird-control-03-1998-tp-13029> Accessed January 2021.

#### *4.6.1.2. Migratory Birds Diversity – Follow-up Program*

### **Survey Methods**

#### **Methodology**

Monitoring is intended to measure potential changes in migratory bird species diversity, density and richness caused by sensory disturbance and potential exposure to contaminants adjacent to the project (the 'impact site'). Monitoring will also be conducted at a control site that is unimpacted by forest fragmentation, human disturbance, noise, and dust caused by the project. The direct impacts of clearing vegetation on migratory birds are not included here but progressive vegetation reclamation is described in the Closure Plan. Revegetation monitoring will verify that the forest is recovering as designed, through soil sampling and analysis for nutrients and soil pH, use of quadrats to document plant species and percent cover progressing, and referenced photography, with annual sampling at same time of year for the first 5 years post closure, and at 5 year intervals thereafter until the forest canopy reaches 10 m in height. Once inspections have indicated vegetation has become successfully established, inspections will take place annually in the summer to determine if any maintenance work is

required and to monitor the progress of ecosystem development. Repair / revegetation work will be completed as needed.

Migratory bird monitoring will consist of ten-minute point counts in undisturbed vegetation. Each individual bird is entered in the first minute interval in which it was detected. Estimated distances from observers to each bird will be recorded as: 0-50 m, 50m-100 m, and beyond 100 m. Thirty point counts will be completed in the impact site and 30 point counts in the control site. Two visits to each point count will be completed, the first in late May to mid June and the second from late June to mid-July. Monitoring will be completed by trained environmental staff / contractors skilled in bird identification by sight and sound.

Identification of impact and control sites will be completed following site reconnaissance in 2021-2022. Data analysis and statistical techniques will be developed concurrently.

### **Location**

Monitoring will be conducted at the impact site adjacent to the project site and at a control site that is unimpacted by forest fragmentation, human disturbance, noise, and dust caused by the project. The control site will have similar vegetation, soil, and terrain as the impact site.

### **Frequency, Timing, and Duration**

Monitoring will commence following completion of construction and be conducted annually for three years. Monitoring will be completed between late May and early July.

### **Reporting Results**

#### **Scope and Content**

Monitoring reports will include survey dates, locations, and results including numbers and species of migratory birds. Statistical analysis will compare species diversity, density and richness at the impact site adjacent to the mine with the control site.

#### **Frequency**

Monitoring results will be reported annually included as part of annual reporting to IAAC on EA condition implementation and summarized at the end of the third year of monitoring.

#### **Change from Baseline**

The levels of environmental change relative to baseline conditions that would require the implementation of modified or additional mitigation measure(s):

- Three years of monitoring indicate that migratory bird species diversity, density and/or richness in the impact site are statistically significantly lower than the control site.

## **Mitigation Measures**

Mitigation measures will be implemented following completion of three years of monitoring if migratory birds are found to have declined significantly in diversity, density and richness in the impact site compared to the control site. In addition to the mitigation described in Section 4.5.1, additional mitigation could include:

- Revising water quality, noise, dust, and lighting mitigation measures.
- Ensure progressive revegetation measures are creating habitat suitable for migratory birds
- See also vegetation monitoring (Section 4.6.7).

### **4.6.2. Wildlife**

Wildlife/human interactions that include wildlife use of water quality ponds, treatment wetlands, the pit, and ecopassages as well as mortality due to vehicular collisions will be monitored through on-going incidental observations, and documented using the Wildlife Observation Form, Ecopassage Environmental Monitoring & Inspection Form, and Wildlife Vehicle Collisions Monitoring Form.

Effectiveness of wildlife exclusion from kitchen waste disposal areas; dining facilities and human activity where food might be available will be monitored through on-going incidental observations, and documented using the Wildlife Observation Form.

Note that the follow-up program required under EA condition 6.5 related to bear and moose is described elsewhere in sections 4.6.3 and 4.6.4, respectively.

### **4.6.3. Bears**

Effectiveness of wildlife exclusion from kitchen waste disposal areas; dining facilities and human activity where food might be available will be monitored through on-going incidental observations and documented using the Wildlife Observation Form.

The following monitoring/follow-up program is consistent with EA condition 6.5 with respect to the follow-up program on the current use of lands and resources for traditional purposes caused by changes in the use of the property by mammals, including black bear (*Ursus americanus*) and moose (*Alces alces*).

Wildlife/human interactions that include wildlife use of water quality ponds, treatment wetlands and the pit as well as mortality due to vehicular collisions, and the use of ecopassages will be monitored through on-going incidental observations, and documented using the Wildlife Observation Form, Ecopassage Environmental Monitoring & Inspection Form, and Wildlife Vehicle Collisions Monitoring Form.

Data from incidental observations of moose and bear will be used by Prodigy to identify the need for additional mitigation measures.

#### **4.6.4. Moose**

Effectiveness of wildlife exclusion from kitchen waste disposal areas; dining facilities and human activity where food might be available will be monitored through on-going incidental observations, and documented using the Wildlife Observation Form.

The following monitoring/follow-up program is consistent with EA condition 6.5 with respect to the follow-up program on the current use of lands and resources for traditional purposes caused by changes in the use of the project study area by mammals, including black bear (*Ursus americanus*) and moose (*Alces alces*).

Wildlife/human interactions that include wildlife use of water quality ponds, treatment wetlands and the pit as well as mortality due to vehicular collisions, and the use of ecopassages will be monitored through on-going incidental observations, and documented using the Wildlife Observation Form, Ecopassage Environmental Monitoring & Inspection Form, and Wildlife Vehicle Collisions Monitoring Form.

Data from incidental observations of moose and bear will be used by Prodigy to identify the need for additional mitigation measures.

#### **4.6.5. Species at Risk – Bats**

Post-construction monitoring of bat use of the artificial hibernaculum and roost boxes will be conducted as condition of the Overall Benefit permit, and is not included in this construction-related document.

There are no follow-up programs required with respect to bats.

#### **4.6.6. Turtles**

The following monitoring/follow-up program is consistent with EA condition 7.3 with respect to follow-up program for snapping turtles and their eggs.

##### **Survey Methods**

##### **Methodology**

Although Snapping Turtles have not been observed at the Magino site, their range encompasses the area and suitable habitat is present.

Snapping Turtle monitoring will be conducted on-site by trained environmental staff / contractors. Incidental observations by all staff in the area will also be compiled. Monitoring methods will include visual surveys for adult turtles and evidence of nest diggings on roadsides, shorelines, and other suitable nesting habitat.

### **Location**

Monitoring will be conducted on-site at the Magino Project where there is project activity adjacent to ponds, lakes, rivers, and wetlands .

### **Frequency, Timing and Duration**

Monitoring will be conducted once a day during daylight hours in June and July, during all project phases.

### **Reporting Results**

#### **Scope and Content**

Monitoring reports will include survey dates, locations, and results including both turtle / turtle egg observations and null results.

Incidental observations of Snapping Turtles or their eggs on the Project site and include location, habitat, behaviour, date, time, and number of individuals observed. Records will be submitted to immediately to Prodigy environmental staff and MNRF.

#### **Frequency**

Monitoring results will be reported annually. If Snapping Turtles are observed and require relocation outside of the Project site, MNRF and ECCC will be contacted immediately (see Mitigation Measures, below).

#### **Change from Baseline**

The levels of environmental change relative to baseline conditions that would require the implementation of modified or additional mitigation measure(s):

- Discovery of any Snapping Turtles or eggs at or adjacent to on-site roads or project activities/facilities .

#### **Mitigation Measures**

If Snapping Turtles or eggs are found at or adjacent to on-site roads or project activities/facilities the following mitigation measures will be applied:

- If feasible, an exclusion fence will be installed between construction activities and the water body. The fence shall be at least 60 cm high and buried to a depth of 20 cm. Further details are available in *Reptile and Amphibian Exclusion Fencing* (OMNR 2013).
- If installation of an exclusion fence is not feasible, and subject to approval of MNRF, Snapping Turtles will be relocated outside of the Project site.

**Literature Cited**

Environment and Climate Change Canada. 2016. Management Plan for the Snapping Turtle (*Chelydra serpentina*) in Canada [Proposed]. Species at Risk Act Management Plan Series. Ottawa, Environment and Climate Change Canada, Ottawa, iv + 39 p.

OMNR. 2013. Reptile and Amphibian Exclusion Fencing: Best Practices, Version 1.0. Species at Risk Branch Technical Note. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. 11 pp.

*Table 4-12: EA Conditions / EIS Commitments Related to Turtles (January 2019, December 2018)*

EA Conditions/EIS Commitments for Related to Turtles (January 2019, December 2018)	
Condition #	Action Required
EA Condition 7.3	“The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to verify the accuracy of the environmental assessment as it pertains to the presence of snapping turtle ( <i>Chelydra serpentina</i> ) or snapping turtle eggs within the project study area. The Proponent shall implement the follow-up program during construction and operation. If the Proponent observes snapping turtle or snapping turtle eggs, the Proponent shall develop, in consultation with Indigenous groups and relevant authorities, modified or additional mitigation measures pursuant to condition 2.7, which shall include, at a minimum, the installation of exclusion fences around snapping turtle habitat, if technically feasible, or the relocation of snapping turtles outside of the project study area. The Proponent shall submit these measures to the Agency before implementing them.”
EIS Commitment 134	“The CEPP will include a protocol and mitigation measures if turtles or turtle eggs are detected during construction and operations.”

**4.6.7. Terrestrial Vegetation**

The following activities will be carried out to ensure the effectiveness of the measures outlined in this Plan. No formal follow-up program is prescribed under the conditions in the EA decision statement.

- Vegetation trials will be undertaken at the site to determine the most appropriate plants and seed mixes for the site;
- Vegetation monitoring will include ecosite classification and percent cover of vegetation strata including trees, shrubs, herbs, and mosses (EIS Commitment 37);
- Dustfall monitoring will be carried out under the guidance of the *Air/Atmospheric Environment Management Plan* in the CEMP (section 3) to determine the effectiveness of dust suppression mitigative measures for vascular plants;
- Forest restoration planning for the site will include objectives for habitat elements that are important to species of special concern such as mixed shelterwood woodlands and floating-leaved wetlands for moose; open woodlands with rock barren openings for Common Nighthawk; and sources of a water supply and shrubby understory for Canada Warbler (EIS Commitment 31); and



- Site restoration planning and progressive rehabilitation will include the creation of pathways of connectivity for terrestrial species, such as the planting of low-growing vegetation along project roadways which lead toward water sources or other habitat components.

#### **4.6.8. Invasive Species**

- Areas which have been disturbed as a result of construction activities, select areas adjacent to project roadways and those areas which have been recently revegetated will be monitored in the spring and late summer for invasive vegetation in coordination with site vegetation monitoring;
- Monitoring activities for invasive vegetation will include inspection within 30 m of targeted areas;
- Any observations of invasive vegetation will be recorded, including location with coordinates, the estimated extent of spread, and any identifying characteristics (or identification if known). The observations will also include photographs to aid with identification;
- Areas with confirmed observations of invasive vegetation will be marked and protected with temporary fencing and signage to avoid unintentional spread, if immediate removal of the plant and all parts (including roots, runners, etc.) is not possible. Plants which are not immediately removed will be documented and a timeline for removal established; and
- Removal will be through manual, mechanical and/or chemical methods and proper disposal.

#### **4.6.9. Wetlands**

Prodigy has committed to restore a minimum of 40 hectares of wetland within the property boundary. Prodigy will determine, in consultation with Environment and Climate Change Canada, methods for restoration that are technically and economically feasible and that are appropriate for the project study area (EA condition 7.1).

Monitoring of surfacewater levels and water quality, and groundwater levels and quality will be carried out under the direction of the Surfacewater Monitoring Plan and the Groundwater Monitoring Plan (both within the *Water Management Plan* in the CEMP (section 6)).

##### *4.6.9.1. Wetland Restoration*

A follow-up program to evaluate the effectiveness of wetland restoration is provided in Appendix 4-A in accordance with EA condition 7.2.

## **4.7. RELEVANT EMP-SPECIFIC AUTHORIZATIONS AND PERMITS FOR THE MAGINO PROJECT**

#### 4.7.1. Birds

None.

#### 4.7.2. Wildlife

None.

#### 4.7.3. Bears

None.

#### 4.7.4. Moose

None.

#### 4.7.5. Species at Risk – Bats

- Overall Benefit Permit # NR-C-003-19 under the *Endangered Species Act* issued November 30, 2020

#### 4.7.6. Turtles

None.

#### 4.7.7. Terrestrial Vegetation

The applicable regulatory requirements or permits/approvals that require the implementation of protective measures for terrestrial vegetation include the following:

- Forest Resource Licences issued by the MNRF (for tree clearing)
- Closure Plan (for progressive and final rehabilitation of the site)
- *Lakes and Rivers Improvement Act* (for establishment of vegetation along riparian zones of diversion channels)

#### 4.7.8. Wetlands

None.

### 4.8. REPORTING

#### 4.8.1. Birds

If vegetation clearing takes place during the nesting season, a report documenting the search effort and results will be prepared. The report will be submitted to the Prodigy environmental staff.

Staff will record any incidental observations of Chimney Swifts, Eastern Whip-poor-will, or other SAR on the Project site and include location, habitat, behaviour, date, time and number of

individuals observed on the Species Encounter Reporting Form (Appendix 4-B). The form will be submitted to the Prodigy environmental staff. Records will be submitted to MNRF ([NHICrequests@ontario.ca](mailto:NHICrequests@ontario.ca)) and MECP ([SAROntario@ontario.ca](mailto:SAROntario@ontario.ca)) within 30 days of the encounter.

Wildlife collisions and the use of water quality ponds and the pit will be documented, including the species, time of use/collision, proximity to water features and the adjacent vegetation community. The completed Wildlife Observation Form (Appendix 4-A) and Wildlife Vehicle Collisions Monitoring Form (Appendix 4-D) will be submitted to the Prodigy environmental staff.

#### **4.8.2. Wildlife - General**

Staff will report any incidental observations of wildlife (including but not limited to bears, moose, and turtles) on the Project site and include location, habitat, behaviour, date, time, and number of individuals observed on using the Wildlife Observation Form (Appendix 4-A). The form will be submitted to the Prodigy environmental staff. Records will be submitted to the MNRF annually. Records will be submitted to the Prodigy environmental staff.

A form for documenting wildlife collisions and the use of water quality ponds, ecopassages, and the pit should be instituted that includes the species, time of use/collision, proximity to water features and the adjacent vegetation community. The completed Wildlife Observation Form (Appendix 4-A), Ecopassage Environmental Monitoring & Inspection Form (Appendix 4-C) and the Wildlife Vehicle Collisions Monitoring Form (Appendix 4-D) will be submitted to the Prodigy environmental staff.

Any recorded observations of Snapping Turtles, either incidental observations, or during wildlife surveys, will be included in the annual report to the IAAC.

#### **4.8.3. Species at Risk – Bats**

1. If a SAR bat is killed or found dead, the bat shall be collected and stored in a safe and refrigerated place. The circumstances shall be documented using the Species Encounter Reporting Form (Appendix 4-B) and reported to MECP by email at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) referencing Permit NR-C-003-19, before the end of the next business day.
2. If a SAR Bat is observed on the site, the observation shall be recorded on the Species Encounter Reporting Form (Appendix 4-B) to MECP by email at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) and the Natural Heritage Information Centre at [NHICrequests@ontario.ca](mailto:NHICrequests@ontario.ca) within 30 days of the encounter. Within 30 days of completing the removal of the hibernaculum located in the existing mine, the Proponent shall notify the MECP of the date of completion by email at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) referencing Permit NR-C-003-19.

#### **4.8.4. Terrestrial Vegetation**

Reporting requirements which are related to activities described in this Plan are anticipated to be captured by the following:

- Annual reporting requirements associated with the Closure Plan will include documentation of site clearing and development activities, including any progressive rehabilitation;
- Annual reporting in accordance with the conditions of the EA Decision Statement; and
- Any related reporting requirements to be established under provincial or federal project approvals.

#### **4.8.5. Wetlands**

None.

### **4.9. FORMS**

#### **4.9.1. Wildlife - General**

- Observations/collisions with wildlife (including but not limited to bears, moose, turtles, as well as birds and bats, which are not Species at Risk) will be documented using the Wildlife Observation/Vehicle Collision Monitoring Form included as Appendix 4-A;
- Wildlife collisions will be documented on the Wildlife Vehicle Collisions Monitoring Form included as Appendix 4-D; and
- Ecopassage use will be documented using the Ecopassage Environmental Monitoring & Inspection Form included as Appendix 4-C.

#### **4.9.2. Wildlife - Species at Risk**

##### *4.9.2.1. Birds*

Observations of Chimney Swifts, Eastern Whip-poor-will, or other SAR will be documented on the SAR Encounter Form included as Appendix 4-B and reported to MECP by email at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) and the Natural Heritage Information Centre at [NHICrequests@ontario.ca](mailto:NHICrequests@ontario.ca) within 30 days of the encounter.

##### *4.9.2.2. Bats*

SAR bat observations will be recorded on the Species Encounter Reporting Form (Appendix 4-B).

#### **4.9.3. Terrestrial Vegetation**

None applicable.

#### 4.9.4. Wetlands

None applicable.



## APPENDIX 4-B: SPECIES ENCOUNTER REPORTING FORM

### Species Encounter Reporting Form

<b>Permit Number:</b> NR-C-003-19	<b>District (Region):</b>
<b>Organization/Company Name:</b>	
<b>Contact Name:</b>	
<b>Contact Information:</b>	

**SPECIES ENCOUNTER**

<b>Name and contact information of Observer</b>		
<b>Date of Observation</b>		
<b>Location of Observation (in UTM coordinates)</b>	<b>Easting</b>	<b>Northing</b>
<b>Species Name</b>		
<b>Time of day (EST)</b>		
<b>Number of Individuals observed</b>		
<b>General Description of Observation (including the scenario under which the encounter took place)</b>	[e.g. During corridor maintenance, our trained spotters encountered three (3) Blanding's turtles under the hydroelectric lines.]	
<b>Actions taken to minimize/mitigate for any adverse impacts to the individual(s) (if required)</b>	[e.g. Due to the potential for adverse impacts to the individual Blanding's turtles, we ceased activities in this area and allowed sufficient time for them to disperse. When we returned (24 hours later) to continue corridor maintenance, the turtles were no longer present.]	



**Photographic documentation of Species Encounters**

**[SPECIES 1] Encounter**

**[SPECIES 2] Encounter**

## APPENDIX 4-C: ECOPASSAGE ENVIRONMENTAL MONITORING & INSPECTION FORM

This form is to be completed by the Environmental Coordinator on a monthly basis for all months of construction and operations. This form will require revision as ecopassages are added/removed.

Month: \_\_\_\_\_

Inspected By: \_\_\_\_\_

<b>Ecopassage Reference</b>	<b>Location GPS or Descriptor</b>	<b>Item</b>	<b>Comments (include comment on any damage observed, type of animal observed using/deceased nearby)</b>	<b>Checked (Yes/No)</b>
Ecopassage #1		Perimeter Fencing		
		Security Notices/Signage/Camera		
		Evidence of Use (footprints, fur etc.)		
		Evidence of Mortality		
Ecopassage #2		Perimeter Fencing		
		Security Notices/Signage		
		Evidence of Use (footprints, fur etc.)		
		Evidence of Mortality		
Ecopassage #3		Perimeter Fencing		
		Security Notices/Signage		
		Evidence of Use (footprints, fur etc.)		
		Evidence of Mortality		
Ecopassage #4		Perimeter Fencing		
		Security Notices/Signage		
		Evidence of Use (footprints, fur etc.)		
		Evidence of Mortality		

**Notes: Include comment on any required maintenance or clearing of culvert debris, fence repairs, cutting back vegetation and repairing erosion / wash-outs**



## APPENDIX 4-E: WETLANDS RESTORATION FOLLOW-UP PROGRAM

# Wetlands Restoration Follow Up Plan



Wood Environment & Infrastructure Solutions  
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160 Traders Boulevard East, Suite 110  
Mississauga, Ontario L4Z 3K7  
Canada

**Revision Date:** October 22, 2020

T: 905.568.2929

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### OVERVIEW

The This follow up plan has been developed in compliance with the Magino Gold Project Decision Statement Issued under Section 54 other Canadian Environmental Assessment Act, 2012. Prodigy has committed to the restoration of a minimum of 40 ha of wetland as part of the Project to offset the wetland habitat lost to the necessary project footprint of the mine. This plan will describe follow up plan that will be implemented to demonstrate the accuracy of the predictions of the EA and the completeness of the commitments made towards Wetland Restoration.

### METHODOLOGY

The definition of wetland as per the Ontario wetland Evaluation System, Northern Manual 1st edition, Version 1.3, 2014 as:

*"Lands that are seasonally or permanently flooded by shallow water as well as lands where the water table is close to the surface; in either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic or water tolerant plants".*



Monitoring of the restored wetlands will consist of the following:

1. Delineate the restored wetlands from aerial imagery.
2. Ground truth/ confirm the eco-element (ELC code) description of the wetland as per the Ecological Land classification system for Northern Ontario (Ecoregion 3E)
3. Consistent with EA assessment classifications, wetlands will be classified as organic peat accumulating, or Mineral wetlands.
4. Asses the quality of the developing wetland as poor, good or high.

Document and track the restored wetlands in the table provided in Section 3.

**PLEASE NOTE:** If there is any comment or amendment to be made to these meeting notes, they must be brought to the notice of Wood Environment & Infrastructure Solutions within 24 hours of issue and confirmed in writing.

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**LOCATION**

Specific locations of the monitoring program will be determined and updated as the Project progresses and wetland restoration areas are completed. As specified in the EA IR#2, Comment 29.2 the wetland habitat restoration would be developed in association with the rehabilitated WQCP area, Water Body 6, and the flooded pit perimeter zone. There is also wetland habitat included in the ultimate TMF reclamation. As these areas are developed (mostly during site restoration at the end of operations) they will be delineated on mapping and tracked in the following table. The identification and tracking of the restored wetlands will be the responsibility of the Site Environmental Manager.

<b>Wetland Identification (and Organic or Mineral Type)</b>	<b>Wetland Type (ELC Code)</b>	<b>Area (ha)</b>	<b>Location Centroid</b> (UTM NAD 83, Zone 16U)	<b>Reference Map</b>
<i>Example. (Org_Fen_01)</i>	<i>Example (ES40)</i>	<i>Example (1.2 ha)</i>	<i>E.688386, N.5350692</i>	<i>Figure x.</i>

Wetland area will be evaluated by available aerial imagery current enough to clearly show the constructed / restored area of wetland. In the event that the boundary of the wetland cannot be delineated with reasonable accuracy from the imagery, ground verification will be completed by estimating the percent presence of hydrophytic or water tolerant plants.

**FREQUENCY AND TIMING**

The development of restored wetlands will occur mostly at the end of mine life (WQMP, open pit and TMF. Other areas such as waterbody 6, and the wetland margins associated with the fish habitat compensation areas (McVeigh Creek realignment, Waterbody 10 realignment and Goudreau Lake basin) will occur relatively early in mine development. As such speed development of wetlands as part of the project will be evaluated and documented on a periodic basis i.e, every three years. Evaluation of constructed wetlands will occur in years 3, 6, 9, 12, 15, etc. until 40 ha of restored wetland has been demonstrated as present.

**DURATION**

The proposed life of mine is 15 year with 3 years of construction and 3 years of closure. With the majority of wetland restoration occurring as part of closure and site restoration, the anticipated duration of the follow up plan would be as follows:

- Follow up monitoring as per this plan every three years starting in 2023; extending until the end of operation in approximately 2038. Note, specific timing of surveys may be harmonized with other site monitoring programs (e.g., birds and vegetation surveys).
- In the event that operation is shorter or longer than currently proposed the duration of monitoring will be adjusted and reported in writing to IAAC and the Indigenous groups.

- The duration of monitoring will extend a minimum of one period (3 years) following confirmation that 40 ha of wetland has been restored to confirm the ongoing maintenance of the areas.

### **PREDICTED ENVIRONMENTAL CHANGE**

During the Environmental assessment it was predicted that 199 ha of organic peat accumulating wetlands and 16 ha of mineral wetlands would be lost or altered by the project. To offset this impact 40 ha of wetland (not differentiated by type) would be restored.

In the event that either the actual impacts are greater than predicted (as per the main Vegetation / Wetland monitoring plan) or the restored wetlands are less than 40 ha, then additional consultation and discussion with IACC, other responsible agencies and Indigenous and agreement as to a modified restoration approach to meet the commitments made during the EA.

### **MITIGATION MEASURES**

Successful restoration of the wetland habitats is primarily dependent on water levels, topography and resulting water depth. Mitigation measure to address poor development or establishment of wetland habitat would be to assess each underperforming feature on a case by case basis. In each case where a proposed wetland feature is not developing in terms of wetland characteristics or extent, a qualified wetland specialist (e.g., certified OWES) will assess the feature and determine existing limitations. The wetland specialist will then work with Prodigy to develop a feature specific mitigation plan. If it is determined by the wetland specialist that the feature has a low probability of developing into a functional wetland habitat due to the determined limitation; and, if the loss of the feature results in a total wetland restoration area of less than 40 ha; then then prodigy will work with the wetland specialist to select an alternate area of wetland development to meet the total commitment of 40 ha of wetland. In the event of new wetland areas requiring development, monitoring of the new wetland features will continue for a minimum of 3 year post development to confirm wetland features are developing and sustained.

The standard typeface for any Wood communication is Segoe UI, 9pt, black. Text size can be adjusted for legibility if required. Consistent formatting helps to present the company in a professional manner so it is important that you keep to these guidelines, including margins and gutters as set.

Should you have any questions regarding this memo, please do not hesitate to contact the undersigned.

Sincerely,

**Wood Environment & Infrastructure Solutions**  
**a Division of Wood Canada Limited**

Signatory 1, Designation  
Title

Signatory 2, Designation  
Title