

Condition 4: Migratory Birds

4.1.1 The Proponent shall carry out all phases of the Designated Project in a manner that avoids harming or killing migratory birds, or disturbing, destroying or the taking of nests or eggs, with consideration of guidance provided in: Environment Canada's policy on Incidental Take of Migratory Birds in Canada.

Status: Ongoing

Supporting Analysis

In order to educate New Gold Employees and site contractors, the Rainy River Mine Environmental Team has implemented site wide notices regarding the breeding bird window and the requirements for bird sweeps in new construction areas or areas that have been inactive for periods of time. A bird sweep is a method of walking an area in a grid system to ensure that no birds are nesting on the ground or resting in tall grass areas. The department is also the primary contact for any incidents or mortalities to birds, nests or eggs.

In 2017, there was one incident of mortality of a Barn Swallow which was found in the mill building. The mill was still under construction during the bird breeding window therefore implementing mitigation measures to seal off work areas to prevent birds from entering was not possible. In the fall of 2017 construction on the mill building was complete and mitigation measures such as keeping all doors closed when not in use have been implemented.

Transitioning into 2018 the monitoring programs will continue and the Environmental team will continue to provide education to staff and site contractors.

4.1.2 The Proponent shall carry out all phases of the Designated Project in a manner that avoids harming or killing migratory birds, or disturbing, destroying or the taking of nests or eggs, with consideration of guidance provided in: Environment Canada's avoidance guidelines on General Nesting Periods of Migratory Birds in Canada.

Status: Ongoing

Supporting Analysis:

Starting in 2015 members of the Rainy River Mine Environmental Team have been trained by qualified professionals on conducting bird sweeps and identifying bird species classified as Species at Risk (SAR). During 2017, 71 bird sweeps were conducted between April and August in construction areas to ensure the absence of nesting birds or species at risk prior to disturbance.

In areas where nests were found, appropriate buffers were flagged off around the perimeter of the buffer zone and the nests were monitored on a weekly basis until the nests were abandoned. Buffer zones were established based on input from consulting expertise in conjunction with discussions with the Ministry of Natural Resources and Forestry. Furthermore the clearing of vegetation was prohibited during the breeding bird window. This program will continue in 2018.

4.2 The Proponent shall, at all times, implement noise reduction measures to control sound levels from machinery to avoid harassing migratory birds.

Status: Ongoing

Supporting Analysis:

During 2017 noise reduction measures employed were compliant with the EA commitments. Reducing the size of blasts where appropriate and maintaining tree buffers, where applicable, provided other solutions to noise mitigation. Furthermore, vegetation clearing and constructing development in known nesting areas and treed areas was prohibited through the breeding bird window (May 1 to August 15).

In 2017 New Gold hired a qualified consulting firm to conduct Species at Risk Monitoring which included sound level monitoring in Eastern Whip-poor-will Receptor Habitats during May and June. The same firm was hired to update the current acoustics model. Results indicated that there were no exceedances of the hourly sound criteria threshold at any receptor that were attributable to Project related activities.

4.3 The Proponent shall install and use site lighting fixtures in a manner that reduces light pollution in the surrounding environment to avoid disturbance to nocturnal species, such as the Common Nighthawk (Chordeiles minor).

Status: Ongoing

Supporting Analysis:

In the current phase of the project there are limited permanent lightning fixtures installed on the project. Some temporary light plants are solar powered.

Temporary light plants are used only in areas where employees are working a night shift or if required for safety purposes. Light plants are designed so that lights can be angled toward the ground. During routine field inspections members of the Rainy River Environmental Department check lighting plants to ensure they are angled appropriately and used only when necessary. Monitoring and consideration of this condition will continue to be implemented as the project advances.

4.4 The Proponent shall deter migratory birds from using the tailings management area.

Status: Ongoing

Supporting Analysis:

On September 14, 2017 the first tailings were deposited in Tailings Management Area (TMA) Cell 1. During the fall of 2017 the area was inspected daily by mill operators for birds as well as other potential issues. The current protocol is that Mill Operators are to contact the New Gold Environmental Department if birds are identified anywhere on Cell 1. Additional inspections are conducted by the Environmental Department on a weekly basis. To date no birds have been found to be within Cell 1. A progressive deterrent plan is in place should birds begin to utilize

this area which involves the use of certified bird hazing techniques (flares, noise making devises). The Environmental Department is reviewing the current process to see if adjustments are necessary for 2018.

*4.5 The Proponent shall provide comparable replacement artificial nesting structures for Barn Swallows (*Hirundo rustica*) prior to the removal of existing nesting structures.*

Status: Ongoing

Supporting Analysis:

At the commencement of construction in 2015 four artificial nesting structures were put in place April 2015, prior to the 2015 breeding season. New Gold has been monitoring the success of these nesting structures each year since 2015. Further information related to the monitoring program can be found in condition 4.8.

Following the breeding bird window this year, New Gold was required to remove a house and a garage from the property that served as habitat for barn swallows. As the project advances additional homes and outbuildings will need to be torn down. At that time the need to develop additional artificial nesting structures will be investigated. If there is found to be an increase in use of artificial nesting structures and competition for nesting habitat is observed more nesting structures will be built.

4.6 The Proponent shall monitor migratory birds, breeding activity and mortality, to evaluate the effectiveness of mitigation measures under conditions 4.1 to 4.3. If monitoring demonstrates an inconsistency with those conditions, then document how this has been rectified. Monitoring starts at construction and ceases at the end of the decommissioning phase.

Status: Ongoing

Supporting Analysis:

During 2017 the RRM obtained the professional assistance of AMEC Foster Wheeler to conduct appropriate monitoring of migratory birds and breeding activity in addition to site activities.

Studies and activities included;

- Ongoing visual inspections of four artificial barn swallow nesting structures. The structures were installed on April 2015. Nesting in a structure occurred in 2016 but did not reoccur in 2017;
- Development of a detailed Wildlife Monitoring Plan, approved by MNRF in the spring of 2016 and implemented in 2016. The plan includes Species at Risk Monitoring and includes monitoring during the operations phase as well as post mine closure;
- Acoustic monitoring in areas of non whip-poor-will presence to ensure sound decibels are within an appropriate range;
- Targeted point count surveys for diurnal SAR including Golden-winged Warbler, Barn Swallow and Bobolink and for woodland area-sensitive breeding birds in suitable habitat. Point counts will be based on standardized survey protocols as described in the Ontario

Breeding Bird Atlas Guide for Participants (OBBA 2001) so as to be consistent with baselines study methodology;

- Incidental data collection for SAR and provincially rare species which are currently present at lower abundance including: Canada Warbler, Olive-sided Flycatcher, Short-eared Owl, American Pelican, Bald Eagle and Black-billed Magpie;
- Targeted twilight surveys for Eastern Whip-poor-will in suitable habitat. Whip-poor-will monitoring efforts will follow standardized survey protocols as outlined in the whip-poor-will Roadside Survey Participant's Guide (BSC 2012);
- Concurrent data collection for Common Nighthawk to be undertaken during targeted Eastern Whip-poor-will surveys as described above since no standardized survey protocols have been developed specifically for this species;
- Annual monitoring of active Bald Eagle nests which occur in close proximity the RRM site. Monitoring will attempt to establish fledging success;
- Implementation of a wildlife log of general breeding bird observations at the RRM site by employees (focused on raptors, raptor nests, and SAR species); and in regard to mitigation strategies that are being implemented on the project to assist in monitoring and reduce adverse effects that these include;
- Acquiring of 1468 hectares of lands to provide Eastern Whip-poor-will breeding territories and 348 hectares of field habitat suitable for Bobolink breeding habitat. These offset benefit lands are to compensate for habitat lost during the construction of the mine. Monitoring the success of these areas and potential impacts to the bird species is conducted through three phases; visual monitoring, monitoring of habitat use in the offset benefit lands and monitoring or rehabilitation plans during mine closure;
- Reduction of speed limits on the project to reduce vehicle collisions with birds;
- Restricting habitat displacement for mine infrastructure to periods outside the breeding bird season (May 1 to August 15);
- In order to track mortality New Gold RRM has an onsite reporting system for employees to report any road collisions with birds and wildlife. During 2017 there was one bird mortality reported, a juvenile barn swallow found in the mill (additional information related to this incident can be found in condition 4.1.1)

4.7 The Proponent shall monitor use of the tailings management area by migratory birds under condition 4.4 from the start of the operations phase to the end of the decommissioning phase.

Status: Ongoing

Supporting Analysis:

September 14, 2017 was the first day tailings were deposited into Cell 1 of the Tailings Management Area. From that day forward, Cell 1 has been monitored at minimum once a day for the presence of birds. Birds were not found to visit Cell 1 in 2017.

*4.8 The Proponent shall monitor the effectiveness of the artificial nesting structures created for Barn Swallows (*Hirundo rustica*).*

Status: Ongoing

Supporting Analysis:

2017 marked the second year that the New Gold RRM Environmental team implemented the Bird Studies Canada Nest Watch protocol for monitoring the four artificial nesting structures located on site. Routine bi-weekly monitoring was completed between May and August 2017. There were no nesting attempts in 2017.

Supporting Documentation

There is no support documentation for Section 4.0