

Appendix A
Annual Compliance Report
Condition Requirements
Condition 8

Condition 8:

Subsection 5(2) effects related to components of the Designated Project that may be associated with federal authorizations

Condition 8.1.1

"[The proponent shall, in implementing condition 3.7, take measures to avoid or lessen adverse effects on migratory birds and their habitats;]"

Status: Ongoing

Supporting Analysis:

Completed to date. Establishment of compensation-related habitat and a monitoring and maintenance plan has been initiated. New Gold RRP is aware and has taken extra care during the construction phase with regards to the potential for effects on migratory birds during nesting periods. In accordance with the nesting timing directed by the local MNRF office, 233 bird sweeps occurred some bird deterrent cannons were deployed and netting was used where feasible as mitigation efforts.

No tree clearing occurred during this time.



Figure 1: Overall Benefit Land ESA Sign near Dearlock, November 2016

Project Name:

Rainy River Project

Proponent:

New Gold Inc.

Decision Statement Issued:

Jan 12th 2015

CEARIS Ref Number:

80007

Reporting Period:

2016

Condition 8.1.2

On terrestrial species, including amphibians and reptiles, and their habitats;

Status: Ongoing

Supporting Analysis:

Completed to date. Establishment of compensation-related habitat has been initiated. New Gold RRP is aware and has taken care during the construction phase with regards to the potential for effects on terrestrial species and their habitats, consistent with the proposed mitigation measures described in the EIS. The occurrence of road related mortality for all terrestrial species can be found within this report as Table 1.

Table 1: 2016 Road Mortality

Date	Location Description	Wildlife Sighted
28-Jun-16	Roan Road near Batch Plant	Garter snake
27-Aug-16	Roan Road	Skunk
29-Aug-16	Korpi Road	Fox
30-Aug-16	East Access Road	Otter
2-Sep-16	Highway 600	Deer
7-Sep-16	Roan Road near Marr Site	Skunk
11-Sep-16	Teeple Road	Skunk
1-Nov-16	Pit Haul Road 8	Beaver
23-Nov-16	Near Pumphouse on Highway 617	Deer
19-Dec-16	East Access road 750m from Powerline	Deer



Figure 2: Snapping Turtle at Pinewood River, June 2016

Members of the New Gold RRP Environmental Team hold authorization licenses to collect and relocate reptiles and amphibians. One Snapping turtle was found on the plant site and successfully relocated.

For more information on relocation efforts see SD 8.1.2 Wildlife Scientific Collector's Report. For information regarding terrestrial wildlife monitoring, please review previous Condition 4.

Condition 8.1.3

On species at risk and their habitats;

Status: Ongoing

Supporting Analysis:

Completed to date. Establishment of compensation-related habitat has been initiated. New Gold RRP has taken extra care during the construction phase with regards to the potential for effects Species at Risk and their habitats, including completing activities in compliance with the Provincial Endangered Species Act permit. More information can be found in Condition 4.

Condition 8.1.4

On current use of lands and resources for traditional purposes by Aboriginal peoples;

Status: Ongoing

Supporting Analysis:

The construction which occurred during 2016 related to compensation-related habitat was consistent with the EIS and detailed project designs, which fully considered available Traditional Knowledge and New Gold RRP's understanding of traditional uses of local lands by local Aboriginal peoples.

Condition 8.1.5

On sites of cultural significance to Aboriginal peoples; and

Status: Ongoing

Supporting Analysis:

Establishment of compensation-related habitat initiated during 2016 did not impinge on any identified sites of cultural significance to Aboriginal peoples.



Figure 3: Deer at West Creek Diversion, October 2016

Condition 8.1.6

From potential sources of contamination (e.g. mercury, arsenic, cadmium and lead).

Status: Ongoing

Supporting Analysis:

Completed to date.

Establishment of compensation-related habitat is ongoing. There is no expectation that the compensation-related habitat will result in a potential source of contamination. A deer tissue monitoring program was initiated to gather baseline data for contaminate levels in the local deer population. This program will be repeated in 2017 and again in 2020 and every third year or as deemed necessary for life of mine. The results of the 2016 report will be available in 2017.

Condition 8.2

The Proponent shall, in implementing condition 6.3, take into consideration the habitat needs of species at risk consistent with final recovery strategies or action plans, or alternatively, rely on best available information where recovery plans or action plans for the species are not yet completed for the species at risk.

Status: Ongoing

Supporting Analysis:

No progressive habitat restoration has been completed to date as no areas were yet available to begin habitat restoration. New Gold RRP considered Species at Risk and the potential for habitat creation in site restoration activities to date, including in accordance with their Provincial Endangered Species Act permit.

As part of the 2016 Species at Risk Monitoring Program, AMEC Foster Wheeler reviewed the areas of sightings of Bobolink and Eastern-whip-poor-will to conduct a desk top study on soil conditions and vegetation types in preferred habitats. In 2016 a field study was conducted of the same areas. This information as well as information collected in future years will be used to assist in planning appropriate rehabilitation for Species at Risk bird species. For additional information related to this study refer to the 2016 Species at Risk Monitoring Report (Condition 4).

Condition 8.3

The Proponent shall provide about 1400 hectares of private land as habitat for Eastern Whip-poor-will (Antrostomus vociferous) and Bobolink (Dolichonyx oryzivorus).

Status: Completed

Supporting Analysis

Prior to project development the Ministry of Natural Resources and Forestry (MNRF) determined that 18 identified Eastern Whip-poor-will breeding territories could potentially be affected by the projects development and that 348 ha of Bobolink habitat had the potential to be impacted by the project. Based on this information to offset the loss of habitat New Gold obtained 1468.3 ha of lands to provide Eastern Whip-poor-will breeding territories and 348 ha of field habitat suitable for Bobolink breeding habitat.

Condition 8.4

The Proponent shall monitor the effectiveness of the habitat in condition 8.3.

Status: Ongoing

Supporting Analysis:

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 (OB Lands) and monitoring or rehabilitation plans during mine closure.

In 2016 monitoring of phase 1 and 2 were completed. Based on field research conducted it was determined that thirty-nine Whip-Poor-Wills were utilizing the OB lands in 2016. Ninety-four Bobolink were observed in the OB lands and they were observed in all but seven of the OB lands. For detailed information related to the 2016 study refer to the 2016 Species at Risk Monitoring Report (Condition 4).

Condition 8.5.1

"[The Proponent shall:

"maintain a fence around the tailings management area to prevent access by wildlife"

Status: Not applicable at this time.

Supporting Analysis:

This condition is not relevant to 2016 as the intent of this condition based on other communications, was to avoid potential wildlife interactions with the tailings and supernatant liquid, as no tailings have been produced or stored to date. There was no fence in place during 2016.

During the construction phase of the Tailings Management Facility in 2017 advancements will be made regarding the installation of fencing around the perimeter of the facility in preparation for tailings storage in late 2017.



Figure 4: Fox along Closed Portion of Hwy 600, October 2016

Condition 8.5.2

"implement measures to prevent Snapping Turtles (Chelydra serpentine) from entering the following components of the Designated Project:

- *tailings management area;*
- *water management pond;*
- *water discharge pond;*
- *constructed wetland;*
- *overburden pile;*
- *west mine rock pile; and*
- *sediment ponds 1 & 2."*

Status: Not applicable at this time.

Supporting Analysis:

Tailings Management Area: This condition is not relevant to the Construction Phase as the intent of this conditions based on other communications, was to avoid potential Snapping Turtle interactions with the tailings and supernatant liquid, as no tailings have been produced or stored to date. Similarly, no contact water has been discharged to the area. No mitigation measures were in place during 2016. Construction is scheduled for 2017.

Water Management Pond: This condition is not relevant for 2016 as the Water Management Pond has not as yet been constructed. No contact water has been discharged to the area. Construction completion is scheduled for 2017.

Water Discharge Pond: This condition is not relevant for 2016 as the Water Discharge Pond has not as yet been constructed. No contact water has been discharged to the area. Construction is scheduled for 2017.

Constructed Wetland: This condition is not relevant for 2016 as the Constructed Wetland has not as yet been constructed. No contact water has been discharged to the area. Construction is scheduled for 2017.

Overburden Pile: This condition is not relevant for 2016 as the Overburden Stockpile has not encroached on suitable habitat for Snapping turtles during their nesting or migration periods.

West Mine Rock Pond: This condition is not relevant for 2016 as the West Mine Rock Stockpile has not encroached on suitable habitat for Snapping turtles during their nesting or migration periods.

Sediment Ponds 1 and 2: This condition is not relevant for 2016 as Sediment Ponds 1 and 2 will not be constructed until 2017.



Figure 5: Beaver Dam and Beaver at West Creek Pond, October 2016

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Supporting Documentation

SD 8.1.2: 2016 Wildlife Scientific Collector's Report 2017.01.14



Annual Reporting Wildlife Scientific Collector's Authorization

Licence No. 1081168 Local Reference Number 2015-1289

Version 1

Originator; Cailey Anderson Environmental Specialist New Gold
January 5, 2017



Principal Contact: Darrell Martindale

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Annual Reporting Wildlife Scientific Collector's Authorization Licence No. 1081168

1.0 Objective

In 2016 the New Gold Rainy River Project Environmental Department obtained a Wildlife Scientific Collector's Authorization Licence No. 1081168, Local Reference No. 2015-1289 to permit for the relocation of snapping and painted turtles, gartersnakes, red-sided gartersnakes and red-bellied snakes on the project site. The intent of obtaining the authorization was to relocate species that could be impacted by construction and operational activities.

2.0 Methodology

Methodology for relocation was discussed and agreed upon between the MNRF and New Gold in 2015 following the approval of Local Reference No. 2015-708. During 2016 no painted turtles or snakes required relocation on site.

The following summarizes the methodologies used for the relocation of snapping turtles that was implemented in 2016. A full summary can be found in attached Appendix A.

- In May 2016 Cailey Anderson (Wildlife Authorization Licence Holder) presented to those individuals outlined on the approved Wildlife Authorization the required methodologies for relocating snakes and turtles, the requirements of the permit and data collection requirements. Kits containing appropriate relocation materials and labels were then developed.
- During the relocation of snapping turtles the following items were used; one clear plastic tote with lid and ventilation holes used for safe and secure transportation, a thermometer to track internal temperature of the tote, one paint marker to label the shell of the turtle and one broom used to guide the turtle into the tote.
- At the release site the tote was placed gently on its side in a grassy area along the bank of the river and the lid was removed. The turtle was then left to exit the tote on its own.

3.0 Species and Data Information

On September 4, 2016 one snapping turtle was found on the Processing Plant Site. The turtle was walking along Roen Road near the West Creek Pond. The shell of the turtle was covered in mud which leads us to believe that it may have been living in the pond. Due to construction activities occurring on Roen Road and around the West Creek Pond a decision was made to relocate the turtle to a safer environment. Turtle Relocation Area 1 as outlined on the attached map (Appendix C) and permitted under the authorization was chosen. However upon arrival to this location access was not achievable and it was found that there was no water.

At this point the turtle had been in captivity for approximately 25 minutes so a decision to move the turtle to the Pinewood River on Heatwole Road was made. This decision was based on the following;

- Health of the turtle. To travel to the other locations outlined in the authorization would have taken an additional 30 minutes (approximate)
- Water availability and appropriate habitat due to low rainfall season
- Previous observations of snapping turtles in the Pinewood River indicate that the area is suitable habitat
- Reduced vehicle traffic – ‘No Travel Zone’ for New Gold employees and contractors

The turtle was released successfully to a grassy area along the bank of the Pinewood River. Follow up monitoring was completed over a two day window however the turtle was not observed again

4.0 Additional Information

Please refer to Appendix B Relocation Data Sheet and Appendix C Collection and Relocation Map for further information.

5.0 Outcome vs Objective

New Gold feels that the relocation of the one snapping turtle discovered within a construction work zone in September 2016 was a success as the relocation was conducted in a timely manner with limited stress to the turtle. New Gold intends on re-applying for the authorization in 2017. As the project advances into the operational stage there are defined areas within the Environmental Compliance Approval where reptiles and amphibians are not permitted to take up residence (ie; the Tailings Management Area) and the company may find that the number of annual relocations will increase.

During the application phase of the 2017 authorization request New Gold would like to review the relocation areas with MNR. These decisions are based on; distance and access to current relocation areas. New Gold hopes that some of the fish habitat compensation ponds and rehabilitated lands on the East side of the project may provide suitable and adequate habitat allowing for a reduction in the time that the species are in captivity.

6.0 Closing

New Gold believes that this report provides the required detail as requested in Wildlife Authorization No. 1081168 Schedule A Conditions 1 and 2. If you require further information please contact Darrell Martindale at (807) 707-3497.

APPENDIX A

Memo – Draft for Discussion

Date: August 5, 2015

To: Nigel Fisher, New Gold

From: Matt Evans, Amec Foster Wheeler

CC: Sheila Daniel, Dave Simms, Dan Russell, Amec Foster Wheeler

Re: **Application for a Wildlife Scientific Collector's Authorization, Rainy River Project**

1.0 Introduction

This memo provides further information pertinent to the application to the Ministry of Natural Resources and Forestry (MNRF) for a *Wildlife Scientific Collector's Authorization (WSCA)* for the purposes of relocating turtles and snakes found within the Rainy River Project (RRP) footprint that are perceived to be in potential harm. This memo provides the following:

- A species list for reptile species that have the potential to occur within the Project footprint;
- An updated figure showing proposed reptile release sites (to be reviewed by the MNRF) and the criteria used to select these sites;
- Information on the proper and safe handling of turtles and snakes, taken directly from the *Ontario's Species at Risk Handling Manual: For Endangered Species Act Authorization Holders* (MNRF 2015);
- Information regarding marking relocated turtles for future identification; and
- Reference to the *Reptile and Amphibian Exclusion Fencing: Best Practices* (MNRF 2013) that provides guidelines should localized exclusion fencing be deemed necessary.

2.0 Reptile Species List

Listed below are reptile species that are thought to occur in the RRP area

Turtles

- Snapping Turtle (*Chelydra serpentina*); and

- Western Painted Turtle (*Chrysemys picta bellii*)

Snakes

- Eastern Gartersnake (*Thamnophis sirtalis sirtalis*);
- Red-sided Gartersnake (*Thamnophis sirtalis parietalis*); and
- Red-bellied Snake (*Storeria occipitomaculata*)

Both species of turtle were recorded during the RRP baseline studies (2009 to 2013). No snakes were observed during these studies. The majority of the Project site is considered to be coniferous swamp, and therefore, is not considered to be high quality snake habitat. Amec Foster Wheeler suspect the Eastern Gartersnake to be common in the drier, upland rocky areas.

3.0 Proposed Reptile Release Sites

Turtles

Figure 1 shows several proposed release sites for turtles. Criteria for selecting turtle release sites included the following:

- Streams, ponds, wetlands located downstream from the Project footprint;
- Crown land or lands owned by New Gold; and
- Easily accessible from the road (for ease of transporting and releasing larger, heavier adult Snapping Turtles, and for minimizing handling time and related stress on the animals).

Snakes

Figure 1 also shows several proposed release sites for snakes. Criteria for selecting turtle release sites included the following:

- Dry, upland habitat with nearby rocky outcrops or exposed rock;
- Crown land or lands owned by New Gold that are not located near residences; and
- Easily accessible from the road (for ease of transporting and releasing, and for minimizing handling time and related stress on the animals).

4.0 Animal Care and Handling Procedures

Animal care, handling procedures, and other safety considerations will follow those outlined in the *Ontario's Species at Risk Handling Manual: For Endangered Species Act Authorization Holders* (MNRF 2015) which are summarized in Appendix 1.

5.0 Marking Turtles for Future Identification

In order to identify individual turtles and to see if previously relocated individuals return to site, a green or black permanent marker will be used to place a small number on the back of the turtle shell (carapace) near the tail. The same number will also be placed on the belly (plastron) of the turtle.

Turtles shells are known to have unique markings such as color splotches, scars, nicks and malformed scutes that can also be used to identify individuals. Therefore, photographs will also be taken of the back (carapace) and belly (plastron) of each relocated turtle and will be kept on file for future comparisons. This photo-identification program will serve as a back-up in case the individual numbers wear off.

6.0 Exclusion Fencing

If reptiles are found to be common to a certain area of the RRP footprint, then localized fencing will be constructed, following guidelines outlined in the *Reptile and Amphibian Exclusion Fencing: Best Practices* (MNRF 2013), in order to keep these animals from entering the Project site. Weekly monitoring of these fenced sites will be conducted during the active turtle and/or snake season (April to October), with removal of individuals if needed.

7.0 References

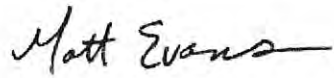
Ministry of Natural Resources and Forestry (MNRF). 2013. Reptile and Amphibian Exclusion Fencing: Best Practices, Version 1.0. Species at Risk Branch Technical Note. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. 11 pp.

Ministry of Natural Resources and Forestry (MNRF). 2015. Ontario's Species at Risk Handling Manual: For Endangered Species Act Authorization Holders. Accessed at http://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_tx_sar_hnd_mnl_en.pdf

8.0 Closing

Please do not hesitate to contact me if you have any questions or concerns regarding the information presented herein.

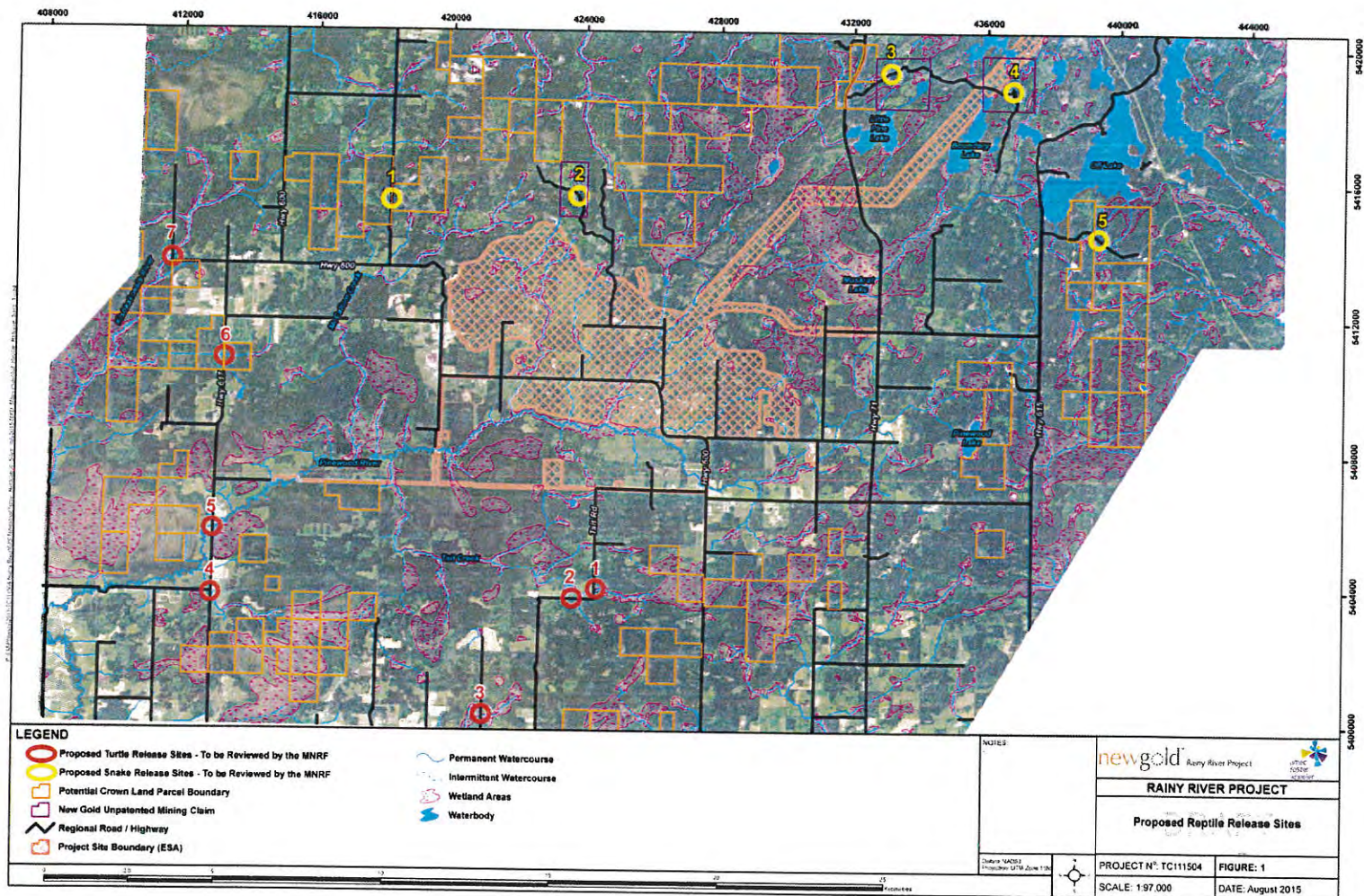
Sincerely,



Matthew Evans, Ph.D.

Senior Ecologist / Wildlife Biologist
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FIGURE 1
PROPOSED REPTILE RELEASE SITES



APPENDIX 1

Summary of Turtle and Snake Handling Procedures and other Safety Considerations

(Taken from the MNRF's *Ontario's Species at Risk Handling Manual: For Endangered Species Act Authorization Holders*; MNRF 2015)

1. Safe Handling of Turtles

1.1 Materials

a) The following materials are required for the handling, capture, temporary safe keeping and transport of turtles:

- » Large plastic bin and lid with air holes, a large bucket or a cloth/burlap bag. Ensure both sides of the container/bag and the lid are well marked with "live animal". See section 1.5 to determine when it is appropriate to use a specific type of container.
- » Thick work gloves
- » Thermometer
- » SAR Notification/Contact Schedule
- » SAR Encounter Reporting Form
- » Broom or broom handle with small paint brush roller attached to end.

b) Equipment must be maintained on each job site.

1.2 Safety considerations

a) Generally, there is little risk associated with handling turtles. However, all turtles can scratch and bite, and work gloves should be worn to help avoid minor injuries.

b) Snapping, Spiny Softshell and Eastern Musk Turtles cannot completely retract into their shell and are more likely to bite in defence. These species should be handled more cautiously and as follows:

- I. **Always keep your hands as close to the back of the turtle's shell as possible, and always behind the midpoint of the shell.** These species have a considerable reach above their shells. Snapping Turtles can reach the midpoint of the shell, and in some cases Spiny Softshell Turtles and Eastern Musk Turtles can almost reach the back of their shell.



- II. Always maintain a safe distance between the front of the turtle and other people.

c) Snapping and Spiny Softshell Turtles have a powerful and painful bite that is likely to bruise and may break the skin. However, it will almost never break bone. The damage inflicted by a Snapping Turtle bite is greatly exaggerated (such as being able to bite a boat oar or golf club in half). Forcing a Snapping Turtle to bite hard implements may result in an injury to the turtle. Wearing gloves will significantly reduce the risk of injury from these turtles.

d) If bitten by a turtle, remain calm and allow the turtle to relax and let go on its own. Pulling away from the turtle may cause further injury to you or the turtle.

e) Always wash your hands after handling a turtle. Turtles (and many other animals, including humans) carry potentially harmful bacteria in their gut. Although it is possible to contract salmonella from handling turtles, there are few reported cases of contracting these bacteria from wild turtles. Cases of salmonella poisoning from turtles are almost always limited to pet turtles, since these captive turtles are forced to live in the same small space that they defecate in.

Turtles

1.3 Capture and handling of turtles

Safely handle, move or capture a turtle by following these steps:

- a) Always handle turtles carefully and slowly, yet firmly. Rough handling may cause injury or stress to the turtle and/or the developing eggs and may cause the turtle to be more defensive (increased biting and scratching).
- b) With the exception of very small individuals, always handle turtles with both hands. Turtles are good at freeing themselves with a bit of wiggling, kicking, clawing and biting, and a good grip is essential to ensure no harm comes to you or the turtle.
- c) Never pick up a turtle by the tail. This can dislocate bones throughout the tail and is extremely painful for the turtle. For larger, heavier turtles this may result in dislocation of bones in the spinal cord as well.
- d) Wear gloves when handling turtles to minimize risk from scratches and bites. If gloves are not available, handle turtles with clean hands that are free of insect repellent, antibacterial hand sanitizer, sunscreen, etc.
- e) **Painted, Map, Wood, Blanding's and Spotted Turtles:** Pick up these species using both of your hands, one on each side of the shell, between the front and back legs.



f) **Snapping Turtle:** Always wear gloves when handling a Snapping Turtle and always keep your hands behind the midpoint of the top or sides of the turtle's shell. To pick up a Snapping Turtle:

- I. Hold it by the back of the shell, placing your thumbs on the top of the shell and your fingers in the hind leg pockets (the space between the upper shell and the hind legs). Your hands will be at approximately 5 and 7 o'clock.

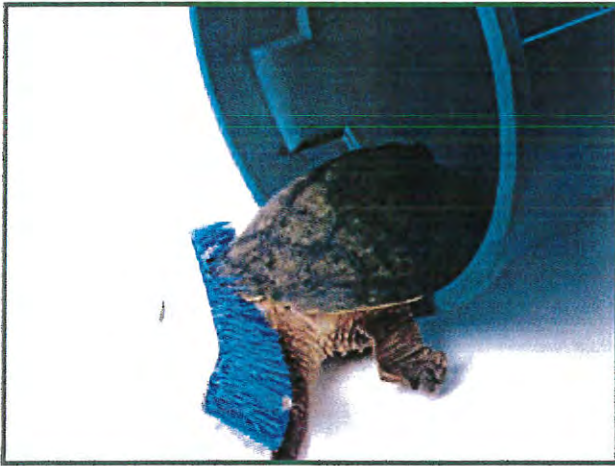


- II. Or use one hand to hold the base of the tail near the shell and slide your second hand under the turtle to support its weight. Lift the turtle using the hand underneath the turtle. Never pick up a turtle by the tail.



Turtles

- III. Or you can move it by guiding it into a pail or garbage can with a broom.



- IV. It is important to get a good, strong hold on the turtle's shell as the force that is exerted by the turtle snapping may result in an unexpected release. A good grip will ensure that both the turtle and the handler remain safe and uninjured.

g) **Eastern Musk Turtle:** Pick up Eastern Musk Turtles by the back of the shell. This turtle species can be held with one hand, as long as you ensure that you have a good grip.



h) **Spiny Softshell:** Always wear gloves when handling a Spiny Softshell, and always keep your hands well behind the midpoint of the top or sides of the turtle's shell. To pick up a Spiny Softshell turtle:

- I. Use both hands, one on each side of the shell, as close as possible to the back legs.



- II. Or place one hand under the turtle between its back legs (in the middle to balance its weight) and the other hand, also from behind, on the top of the turtle's shell (close to the back).

i) Turtles can be difficult to capture. If a turtle escapes or heads for cover, let it disperse on its own, ensuring it is safe from harm before allowing activities to continue. If continuing activities poses a threat to the turtle, postpone activities for up to 24 hours to allow the turtle to disperse. If it is not possible to leave the area for 24 hours, have a Qualified Member relocate the individual. Do not disturb any natural cover under which the turtle has retreated. If necessary, contact MNR for further direction using the SAR Notification/Contact Schedule.

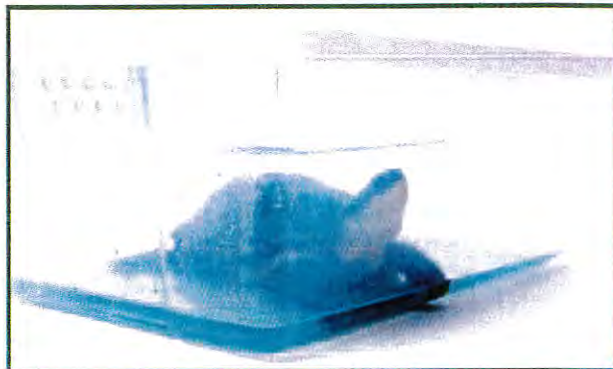
Turtles

1.4 Moving turtles out of harm's way (distances under 50 metres)

- a) If it is necessary to move a turtle more than 50 metres, refer to section 1.6 on turtle relocation.
- b) Turtles should only be moved when they are in imminent, unavoidable danger.
- c) If possible, allow the turtle to move on its own by walking toward the turtle in the direction that you want it to move. This will not work for Snapping Turtles, as they often turn to face a potential threat head-on rather than running away. If the turtle does not move on its own, you may have to pick it up and move it (see section 1.3).
- d) When moving a turtle a short distance, such as across a road, move the turtle in the direction that it was heading, regardless of what the habitat looks like. These animals often make intentional movements to specific areas, and if you put them back where they started they may simply turn around and start their journey again. If it is not clear which direction the turtle was headed, move the turtle to the closest suitable habitat that will not be disturbed. In this case, suitable habitat includes a water body or the vegetation/forest at the edge of the road allowance, disturbed area or clearing.
- e) If possible, release the turtle near a retreat site (somewhere the animal can seek shelter from the elements and avoid predators, such as water or dense vegetation) to allow it to take cover. Do not release it in the open where it could be exposed to inclement weather, extreme sunlight or predators.

1.5 Temporary safe keeping and transportation of turtles

- a) You are responsible for this animal. Remember, once you have put it in a container, it depends on you to keep it safe and at the right temperature.
- b) Always create air holes in the lid of a container prior to placing an animal in the container.
- c) If the turtle will be in captivity for **less than one hour**, place the turtle in a cloth or burlap bag, a large bucket or a large plastic bin with a lid that has adequate air holes. Cloth or mesh bags should not be used for snapping turtles as they can become tangled and strangle themselves. Always use large plastic bins or large buckets for snapping turtles.
- d) If the turtle will be in captivity for **more than one hour**, avoid the use of cloth or burlap bags. For adults, use a large plastic bin or bucket with a lid that has adequate air holes and a small amount of water (no more than an inch deep). Ensure that the turtle is not fully submerged, as it will drown if it cannot breathe. For hatchlings and juveniles, use an appropriately sized container with a lid that has air holes and line the bottom of the container with wet towels or paper towels. Never transport small juveniles or hatchlings in water.



Turtles

e) It is extremely important to monitor the air temperature regularly in the container to ensure it **never exceeds 30°C or drops below 5°C**. Never leave the container in direct sunlight or in a closed vehicle parked in the sun, as this will cause the turtle to overheat and could be fatal.

f) Never put more than one turtle in a container or bag at a time, especially in the case of Snapping Turtles. This will help to minimize stress and prevent injury to the turtles.

g) Once the turtle is in the container or bag, ensure that the lid is secure or that the bag is tied tightly.

h) **Never leave the container or bag unattended** in an unsecured location (e.g., side of road).

i) If using a bag, ensure that it is in a secure location where it cannot fall if the turtle moves the bag. The movement of a turtle within a bag can easily cause the bag to fall off of a table.

j) Do not offer the turtle any food. Turtles do not have to eat as often as mammals, and it is no problem for a turtle in temporary captivity to go a few days without food.

k) Turtles should be checked periodically (every hour should suffice). Hatchlings are especially susceptible to dehydration and must be carefully monitored during transport.

1.6 Relocation of turtles

a) A turtle should only be relocated if the destruction of its habitat is unavoidable or if it is not possible to release it at the capture location.

b) Transport and release the turtle within one hour of capture in order to minimize stress on the animal.

c) Turtles should not be relocated during their overwintering season. This varies depending on the species and location, but is generally from October to May. If you are unsure whether you should relocate the turtle or take it to a wildlife custodian, contact MNR for further direction using the SAR Notification/Contact Schedule.

d) If it is not possible to relocate the turtle due to the time of year (October to May) or other conditions, transport the turtle to a wildlife custodian per the SAR Notification/Contact Schedule.

e) **Turtles should never be moved more than 250 metres** from the location where they were found. Only move a turtle as far as necessary to avoid potential harm to the turtle, and avoid moving turtles more than 125 metres unless absolutely necessary. If it is not possible to relocate the turtle within 250 metres of the capture location, contact MNR for further direction using the SAR Notification/Contact Schedule.

f) If hatchlings are found and must be relocated, move them to the nearest permanent body of water. Never place hatchlings directly into water. Release the turtle at the shoreline of the appropriate habitat (see below). The turtle may or may not choose to enter the water; do not force it.

Turtles

g) Whenever possible, release the turtle in the same water body where it was found and in the same type of natural habitat as the capture site. To determine if the habitat is of the same type, consider the water depth, water current, substrate type (mud, rock, etc.) and vegetation type (cattails vs. lily pads vs. aquatic vegetation).

h) If possible, release the turtle near a retreat site (somewhere the animal can seek shelter from the elements and avoid predators, such as water or dense vegetation) to allow it to take cover. Do not release it in the open where it could be exposed to inclement weather, extreme sunlight or predators.

i) To release the turtle, gently pick up the turtle (per section 1.3) from the container and set it down in the new location. To release a Snapping Turtle or Spiny Softshell Turtle, you may wish to tip the container on its side and allow the turtle to move out on its own. Allow the turtle to disperse on its own at this new location.

1.7 Injured turtles

a) Use the methods outlined in section 1.3 to handle injured turtles whenever possible. If those methods are not applicable due to the turtle's injuries, use a shovel or other flat object to pick up the turtle. Ensure that any injured areas are supported.

b) Place the turtle in a large plastic bin or large bucket with a lid that has air holes. Darkness helps to reduce stress to the turtle. Do not place anything else in the container with the turtle, including water or other turtles.

c) Thoroughly wash your hands after handling injured turtles.

d) Immediately transport the turtle to a veterinarian or wildlife custodian per the SAR Notification/Contact Schedule, in order to increase its chances of survival.

2. Safe Handling of Snakes

2.1 Materials

a) The following personal protective equipment should be worn when working with Massasauga rattlesnakes:

- » High-ankle hiking or rubber boots
- » Thick pants (jeans) or baggy pants
- » Leather work gloves

b) The following materials are required for the handling, capture, temporary safe keeping and transport of snakes:

- » Pail, large garbage can or bucket (1 metre deep) with air holes in the lid. Ensure both the side of the container and the lid are well marked "live animal" or "caution rattlesnake".
 - » A snake bag (for non-venomous species only). A snake bag must be cloth. (A pillowcase works well.) Plastic and non-breathable materials are not appropriate. Ensure the bag is well marked "live animal".
 - » Broom or broom handle with small paint brush roller holder attached to end. Never use "snake pinchers".
 - » Thermometer
 - » SAR Notification/Contact Schedule
 - » SAR Encounter Reporting Form
- c) Equipment must be maintained on each job site.

2.2 Safety considerations

a) **The Massasauga is the only venomous snake in Ontario.**

The venom is an adaptation for hunting and is used to kill prey (primarily small rodents).

As a defence mechanism, Massasaugas may also bite when threatened, at which time they may or may not release venom. Camouflage, rattling and retreating are their primary defensive strategies, and they generally bite as a last resort.

Their maximum striking distance is about half of their body length. Generally, your safety zone is your height plus 50 centimetres away from the snake. (This accounts for the snake's striking distance to you if you fall.)

A Massasauga bite is generally not deadly. Only two people have ever died from a Massasauga bite in Ontario. Neither person received medical attention, and both cases were almost 50 years ago.

If you are bitten by a Massasauga, remain calm and seek medical attention immediately. Do not apply a tourniquet or try to suck out the venom. Never try to capture the snake to take it to the hospital; if you were bitten by a venomous snake in Ontario, we know it was a Massasauga. Have someone else drive you safely.

b) **Never under any circumstances pick up a Massasauga rattlesnake.** Massasaugas occur in very specific regions of the province, and if you are well outside of those regions it should be safe to handle any native snake you find. If you are working within a region where Massasaugas may occur, never pick up a snake unless you are absolutely certain that it is not a Massasauga.

c) All other Ontario snakes are non-venomous and harmless. Despite being harmless, many of Ontario's snakes will put on defensive displays to intimidate potential predators. These include:

Snakes

- I. Rearing up, hissing and striking.
- II. Eastern Hog-nosed Snakes will flatten out their necks like cobras, hiss loudly and pretend to strike (although their mouths remain closed).
- III. Eastern Foxsnakes, Milksnakes, Gray Ratsnakes and Eastern Hog-nosed Snakes sometimes vibrate their tails to imitate a rattlesnake. If their tails come into contact with rocks, dry leaves, or some other medium, they can produce a buzzing sound like that of a rattlesnake. Combined with their blotchy pattern, this mimicry is often very effective at fooling humans.

d) Holding the snake properly (see section 2.4) will significantly reduce stress to the snake and the likelihood that it will try to bite in self-defence.

2.3 Capture and handling of the *Massasauga rattlesnake*

Safely move a *Massasauga* by following these steps:

- a) Put on personal protective equipment (per section 2.1).
- b) Clear the area of unnecessary bystanders to lessen the stress on the animal.
- c) Determine your plan for capture to anticipate where the snake may move or retreat as well as any potential hazards you may encounter.
- d) If capturing injured snakes, avoid touching or manipulating injured areas.
- e) Tip the 1-metre-deep pail on its side.
- f) Use the broom to position the snake near the pail.
- g) Gently and slowly guide the snake into the pail, being careful not to push the snake too hard or lift it off the ground. Never pin a *Massasauga* or

use tools that constrict or pinch the snake. Quick, abrupt movements are threatening to the snake and may also cause it to make quick movements in an attempt to escape.



h) Be patient and gentle with the snake. Gravid (pregnant) females are carrying live young, and rough handling may cause damage to the developing snakes.

i) Once the snake is in the pail, slowly tip the pail upright and secure the lid.



j) Snakes can be difficult to capture. If a snake escapes or heads for cover, let it disperse on its own, ensuring it is safe from harm before allowing activities to continue. If allowing activities to continue is not safe for the snake, postpone activities for up

Snakes

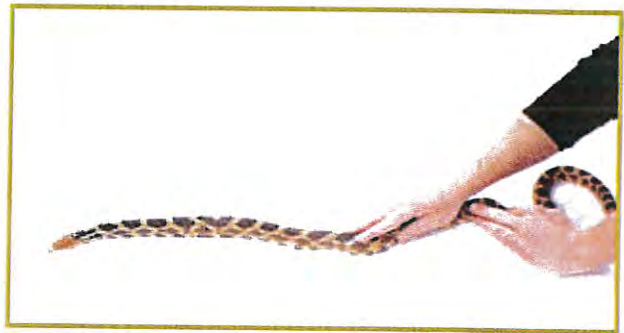
to 24 hours to allow the snake to disperse. If it is not possible to leave the area for 24 hours, have a Qualified Member relocate the individual. Do not disturb any natural cover under which the snake has retreated. If necessary, contact MNR for further direction using the SAR Notification/Contact Schedule.

2.4 Capture and handling of non-venomous snakes

- a) If you are uncomfortable handling large, non-venomous snakes with your hands, you can use the above method for capturing venomous snakes (section 2.3). However, it is much easier to capture most non-venomous snakes using your hands. Some of the smaller species, such as the Butler's Gartersnake, are almost impossible to capture with a stick and a pail.
- b) If you elect to use thick gloves, be very careful not to squeeze the snake too hard, as you can crush internal organs and kill it. Do not use gloves to capture small snakes, as the risk of accidentally crushing them is too high.
- c) Clear the area of unnecessary bystanders to lessen the stress on the animal.
- d) Determine your plan for capture to anticipate where the snake may move or retreat and to anticipate any potential hazards you may encounter.
- e) Never grab the snake behind the head or grip the snake tightly in order to restrain it. This may injure or scare the snake, cause it to struggle and encourage it to bite in self-defence.
- f) Always support the snake's body with both hands and never pick up a snake only by the tail. Holding a snake only by the tail can result in dislocated bones or other serious injury to the snake.

g) To capture a large snake (more than 30 centimetres in length):

- I. Gently grab it by the back of the body to prevent it from getting away.



- II. Holding the snake by the back end while it is still on the ground, slide your other hand underneath the snake to support its weight and lift it up. Do not lift it off the ground by the tail.
- III. As soon as the snake is off the ground, continue to support its weight by keeping both hands under the snake, with one hand about a third of the way back and one hand about two thirds of the way back along the snake's body.



Snakes

- IV. As the snake tries to move forward, reposition the hand from the back of the snake to the front of the snake, and continue to rotate your hands between the front and back of the snake to allow it to continue to crawl through your hands. Calm and slow movements will help the snake relax and make it move more slowly.
- V. Often a snake will stop moving once it no longer feels threatened. If the snake continues to move rapidly after a minute or so, you can try holding the back end of the snake more firmly to prevent it from continuing to move forward. Continue to support the unrestricted front half of the snake with your other hand.
- h) To capture a small snake (less than 30 centimetres in length):
 - I. Grasp the snake gently but firmly with one or both hands. It may be necessary to gently restrain it against the ground with your hands initially to prevent it from escaping. Never use a stick, snake hook or any other object to pin a snake.



- II. Hold the back end of the snake in one hand and support the front of the snake with your fingers or your second hand. Allowing the snake's front end to remain free helps the snake remain calm.



- III. For very small snakes, hold the snake in the palm of your hand using your thumb or fingers to gently apply only enough pressure to prevent the snake from wiggling free.

i) Snakes can be difficult to capture. If a snake escapes or heads for cover, let it disperse on its own, ensuring it is safe from harm before allowing activities to continue. If continuing activities poses a threat to the snake, postpone activities for up to 24 hours to allow the snake to disperse. If it is not possible to leave the area for 24 hours, have a Qualified Member relocate the individual. Do not disturb any natural cover under which the snake has retreated. If necessary, contact MNR for further direction using the SAR Notification/Contact Schedule.

2.5 Moving a snake out of harm's way (distances under 50 metres)

- a) If it is necessary to move a snake more than 50 metres, refer to section 2.7 on snake relocation.
- b) Snakes should only be moved when they are in imminent, unavoidable danger.
- c) If possible, allow the snake to move on its own by walking toward the snake in the direction that you want it to move. If the snake does not move on its own, you will have to pick it up and move it (see section 2.4). Unlike most snake species, Massasaugas may not

Snakes

move away when you walk toward them. Rather, they often adopt a defensive position (coiled), hold their ground and rattle (asking you to go the other way). To encourage a Massasauga to move away on its own, give it lots of space and observe it from a distance (ideally so the snake cannot see you).

d) When moving a snake out of harm's way, such as across a road, move the snake in the direction that it was heading, regardless of what the habitat looks like. These animals often make intentional movements to specific areas, and if you put them back where they started they will simply turn around and start their journey again. If it is not clear which direction the snake was headed, move it to the closest habitat that will not be disturbed. In this case, suitable habitat includes a rock pile or other cover that the snake can retreat under, or the vegetation at the edge of the road allowance, disturbed area or clearing.

e) If possible, release the snake near a retreat site (somewhere the animal can seek shelter from the elements and avoid predators: loose rocks, logs, rock crevices or dense vegetation) to allow it to take cover upon release. Do not release the snake in the open where it could be exposed to inclement weather, extreme sunlight or predators.

2.6 Temporary safe keeping and transportation of snakes

a) You are responsible for this animal. Remember, once you have put it in a container, it depends on you to keep it safe and at the right temperature.

b) Always use a pail, large garbage can or bucket (at least 1 metre deep) with adequate air holes in the lid for Massasaugas. Ensure the lid is properly secured, and always create the air holes before putting the snake in the container.

c) If using a snake bag:

- I. **Make sure it is properly closed.** To close the snake bag, gather the material at the opening together in one hand and run your other hand down the bag to ensure that the snake is in the bottom. Twist the neck of the bag and tie it into a tight knot. Never rely on a drawstring, as snakes can wiggle out of tight holes. When tying a snake bag, make sure the snake remains in the bottom of the bag so it does not get tangled in the part you are tying.



- II. **Make sure it is in a secure location** where it cannot fall if the snake moves the bag. The movement of a snake within a bag can easily cause the bag to fall off of a table.
- III. If transporting the snake or holding it for a longer time (over an hour), the closed snake bag should be placed in a well-ventilated hard container (such as plastic tub) for added protection.

Snakes

d) It is extremely important to monitor the air temperature regularly in the container or around the snake bag to ensure it **never exceeds 30°C or drops below 5°C**. Never leave the container or snake bag in direct sunlight or in a closed vehicle parked in the sun, as this will cause the snake to overheat and could be fatal.

e) **Never leave the container or snake bag unattended** in an unsecured location (e.g., side of road).

f) Do not offer the snake any food. Snakes do not have to eat as often as mammals, and it is no problem for a snake in temporary captivity to go a few days without food.

2.7 Relocation of snakes

a) A snake should only be relocated if the destruction of its habitat is unavoidable or if it is not possible to release it at the capture location.

b) Snakes should not be relocated during their overwintering season. This varies depending on the species and location, but is generally from October to May. If you are unsure whether you should relocate the snake or take it to a wildlife custodian, contact MNR for further direction using the SAR Notification/Contact Schedule.

c) If it is not possible to relocate the snake due to the time of year (October to May) or other conditions, transport the snake to a wildlife custodian per the SAR Notification/Contact Schedule.

d) Transport and release the snake within one hour of capture in order to minimize stress on the animal.

e) **Snakes should never be moved more than 250 metres** from the location where they were found. Only move a snake as far as necessary to avoid potential

harm to the snake, and avoid moving snakes more than 125 metres unless absolutely necessary. If it is not possible to relocate the snake within 250 metres of the capture location, contact MNR for further direction using the SAR Notification/Contact Schedule.

f) Release the snake in the same type of natural habitat as the capture site. If this is not possible, contact MNR for further direction using the SAR Notification/Contact Schedule.

g) If possible, release the snake near a retreat site (somewhere the animal can seek shelter from the elements and avoid predators: loose rocks, logs, rock crevices or dense vegetation) to allow it to take cover upon release. Do not release the snake in the open where it could be exposed to inclement weather, extreme sunlight or predators.

h) To release the snake from a pail, gently tip the pail onto its side, remove the lid, back away from the pail and allow the snake to leave on its own. If necessary, use the broom to gently guide the snake out of the pail or gently tip the pail on an angle to slide the snake out of the pail.



Snakes

- i) To release a non-venomous snake from a bag, untie the bag, gently tip the bag by holding one of the bottom corners (make sure you are not holding the snake) and gently slide the snake onto the ground.



2.8 Injured snakes

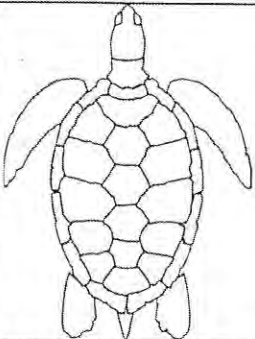
- a) If dealing with an injured Massasauga, ensure compliance with all instructions and safety considerations provided in sections 2.1-2.3.
- b) If the methods of handling snakes that are outlined in section 2.3 or 2.4 are not applicable due to the snake's injuries, use a shovel or other flat object to pick up the snake. Ensure that any injured areas are supported.
- c) Place the snake in a large plastic bin or bucket with a lid that has air holes (the darkness helps to reduce stress to the snake). You can place newspaper in the container to provide cover for the snake and help to reduce its stress. Do not place anything else in the container with the snake or offer it any food.
- d) Thoroughly wash your hands after handling injured snakes.
- e) Immediately transport the snake to a veterinarian or wildlife custodian per the SAR Notification/Contact Schedule, in order to increase its chances of survival.

APPENDIX B

SPECIES AT RISK ENCOUNTER REPORTING FORM

Name and position of observer:	CAILEY ANDERSON ENVIRONMENTAL SPECIALIST - NEW GOLD
Phone number:	807-707-3058
Date and time of observation:	2016-09-04 13:15
Location of observation (UTM coordinate and description):	ROEN RD 15U 426381 : 541650
General description of observation (ie. Nest, individual, behavior etc):	SNAPPING TURTLE WALKING DOWN ROEN RD TOWARD PLANT SITE.
Actions taken to minimize/mitigate adverse impacts (if required):	RELOCATED USING APPROVED EQUIPMENT IN MNRF LICENCE #1081168 TO PINWOOD RIVER @ HEATWOLE RD 15U 430987 : 5407634

* ADDITIONAL INFORMATION SEE ATTACHED WILDLIFE INCIDENT FORM *

Date (yyyy-mm-dd): 2016-09-04		Time: 13:15	
Environmental Team Member: C. ANDERSON		Weather: Cloudy +24°	
1. Incident Type (circle one) Vehicle/Equipment Mortality Mortality Cause Unknown <u>Species Relocation</u> Injury			
Note: dead animals found within the project footprint, which are not a direct result of road mortality shall be provided to the Fort Frances MNRF for further inspection (Contact Alex Hyatt). If dead animals are a result of road mortalities, a morphological assessment is to be conducted and the animal disposed of (Schedule A No. 5 Authorization No. 1081168). Species that are being relocated please follow AMEC E&I Guidance document in Wildlife Relocation Kit and complete this form). All records and photographs to be kept for annual report due to MNRF December 2016. If an animal is injured contact the MNRF office for direction.			
2. Incident Summary			
2.1. Location	ROEN RD	15U E 426381	N 5411650
2.2. Relocated to	PINWOOD RIVER @ HEATHWOLE RD	15U E 430987	N 5407634
2.3. Description of Incident and Outcome	SNAPPING TURTLE DISCOVERED BY C. ANDERSON WALKING DOWN ROEN RD TOWARD PLANT SITE. SEE ADDITIONAL COMMENTS BELOW.		
2.4. Could the Incident Have Been Avoided? (If yes, describe how)	No.		
3. Assessment for Reptilian Species (Mortality / Relocation)			
Turtle:	<u>Snapping Turtle</u>	Painted Turtle	Comments:
Carapace length (mm):	± 355mm (14")		
Pre-cloacal length (mm):			
Post-cloacal length (mm):			
Front claw length (mm):	± 25.4mm (1")		
Weight(kg):	NOT TAKEN		
Visible markings:	NONE		
Recapture: Yes / No	No		
Sex: Female / Male (See section 7)			
Relative Health:	NO INJURIES / AGGRESSIVE		
Photos Provided: Yes / No			
New Mark: Yes / No	# 1	Mark with black or green permanent marker on the top of the turtles shell near the tail	
Diagram	Show and distinctive features, and where you marked species NONE		
	ADDITIONAL COMMENTS TRIED TO RELOCATE TURTLE TO TAIT CREEK AS PER LICENCE HOWEVER RD ACCESS ISSUES AND LACK OF WATER. DUE TO LENGTH OF TIME TO TRAVEL TO OTHER APPROVED AREAS & TIME TURTLE HAD BEEN IN TRANSPORTATION CONTAINER WE DECIDED TO RELOCATE TO PINWOOD RIVER @ HEATHWOLE RD. HEATHWOLE IS A 'NO TRAVEL' ZONE FOR THE PROJECT (Excluding Enviro DEPT) ∴ SHOULD BE NO ISSUES.		

Snake: E. Gartersnake Red Sided Snake Red Bellied Snake	Comments:
Length(mm):	
Photos Provided: Yes / No	
4. Assessment for Mammals	Comments:
Species:	
Species at risk: Yes / No	
Number of Animals:	
Sex: (Male / Female)	
Photos Provided: Yes / No	
Delivered to MNRF: Yes / No	
5. Assessment for Birds	Comments:
Species:	
Species at Risk: Yes / No	
Number of animal:	
Photos provided: Yes / No	
6. Assessment for fish	Comments:
Species:	
Number of fish:	
Length of fish	
Relative behavior:	
Has pumping stopped: Yes / No	
7. Sexing a Turtle	
Male	Female ✓
Convex plastron	Flat or convex plastron
Shorter shell	Longer shell ✓
Notch on the carapace	Star shape cloaca base of her tail often hidden under her shell
Longer nails	
Longer slit like cloaca in the middle of tail	
Longer and thicker tail	

APPENDIX C

