

WILDLIFE MANAGEMENT PLAN

WMP RYLEY HAZARDOUS WASTE STORAGE FACILITY AND LANDFILL

MANAGEMENT PLAN	Wildlife	REVISION NO.:	00	PAGE:	1 of 10 + attachments
SUBCATEGORY:	All Activities	CREATION DATE:	September 2022	APPROVED DATE:	October 2022
				EXPIRY DATE:	October 2023

1.0 PURPOSE

The Wildlife Management Plan (WMP) is a condition of the approval amendment (Approval No. 10348-03-01) under the Alberta *Environmental Protection and Enhancement Act* (EPEA) for the construction, operation, and reclamation of a Class I and Class II Industrial Landfill and a Hazardous Waste/Recyclable Storage and Processing Facility (the Ryley Landfill) issued to Clean Harbors Canada Inc. (Clean Harbors) on June 21, 2022. The WMP is intended to provide Clean Harbors employees, contractors, and visitors with Standard Operating Procedures (SOPs) (3) to prevent, remove, and report wildlife sightings, including wildlife residences (dens, nests, roosts, hibernacula) and alert others of potentially dangerous or aggressive animals.

This WMP applies to all wildlife and/or wildlife residences seen on the landfill facility, including roads, pad sites, temporary laydowns, and/or wherever workers are present.

2.0 DEFINITIONS

Aggressive Animal: threatening animal behaviour that could result in actual or potential harm to people (e.g., animal does not flee when deterrents are used, flattened ears, bluff-charge, attack).

Deterrent: a noise, visual, or physical stimuli used towards/on an animal with the intent of repelling.

Food Conditioned: wildlife that has learned to associate people, waste storage areas, and landfill activities as potential food sources. Wildlife can become food conditioned after obtaining a food item even the once and can become an aggressive animal.

Habituated: wildlife can become habituated to people and landfill activities after repeated exposure without negative consequence. Habituated wildlife respond to people and/or activities onsite with little fear (respond weakly or not at all) and can become an aggressive animal.

Potentially Dangerous Animal: any of the big game species (black bear [*Ursus americanus*], cougar [*Puma concolor*], Canada lynx [*Lynx canadensis*], moose [*Alces alces*], elk [*Cervus canadensis*], white-tailed deer [*Odocoileus virginianus*], and mule deer [*Odocoileus hemionus*]), as well as coyote [*Canis latrans*]) have the potential to become dangerous to people.

Property Damage: any incident in which the property of the Ryley Landfill, its employees, contractors, and/or visitors is damaged by an animal and requires repair or replacement.

Qualified Environmental Professional: a Qualified Environmental Professional (QEP) is an experienced wildlife biologist who is appropriately trained in the identification of wildlife species, the federal and provincial regulatory requirements, and has experience with the management and mitigation of human-wildlife interactions. The QEP may be a Clean Harbors employee or contractor.

Wildlife Attractant: a substance or item that could be reasonably expected to attract an animal, including, but not limited to food and petroleum products. Natural food sources, such as a carcass and other putrescent waste are also attractants.

Wildlife Incident: all wildlife incidents are reported to the Facility General Manager with potential escalation of reporting. A reportable wildlife incident includes:

- Wildlife mortality and/or injury due to, or suspected from landfill activities;
- Accidental destruction of a wildlife residence (den, nest);
- Human-wildlife interactions that present a risk to either people or animals, including incidents of an aggressive animal and wildlife-caused property damage;
- Any big game species has, or potentially has, gained access to a man-made attractant; and
- Anytime that deterrent action is taken.

Wildlife Residence: nests, dens, roosts, hibernacula.

3.0 BACKGROUND

The Ryley Landfill is located approximately two kilometres north of the Town of Ryley, Alberta. The landscape surrounding the facility is prairie parkland, including a mix of agricultural lands, another waste management facility, and pockets of aspen forests and wetlands. This location appears to be outside of the black bear distribution range in the province according to Alberta Environment and Parks (AEP)¹, however, Ryley is within the black bear range identified in Mammals of Alberta², and the nearby Beaver Hills area has recent confirmed sightings of black bear in the area. Therefore, it is considered highly likely that black bears are in the area and should be considered in wildlife management planning. There are several additional big game species with potential to occur in the area, including cougar, moose, elk, white-tailed deer, and mule deer. Smaller mammals with potential to occur in the area which may require management/mitigation include striped skunk (*Mephitis mephitis*), common raccoon (*Procyon lotor*; as their range expands into central Alberta), rabbits and hares, and American badger (*Taxidea taxus*). Other wildlife which may be found within the Ryley Landfill includes birds, amphibians, and reptiles, some of which may be protected under federal and provincial legislation, including the Alberta *Wildlife Act*, federal *Migratory Birds Convention Act*, and/or the federal *Species at Risk Act*.

The primary mitigation measure for wildlife management in place at the Ryley Landfill Facility is a 6-foot fence (1.8 metres) with three strings of barbed wire at the top which encloses the entire facility. Access

¹ Government of Alberta. 2022. Black Bear Management – Overview. Available at: <https://www.alberta.ca/black-bears-overview.aspx>. Accessed September 19, 2022.

² Pattie, D. and Fisher, C. 1999. Mammals of Alberta. Lone Pine Publishing: Edmonton, Alberta. 240 pp.

to the facility is via a gate with a similar structure to the fence. The gate is always closed, except when access is required by vehicles. Areas of grass/vegetation within and around the facility is mowed as required and the waste streams accepted within the facility typically do not attract vermin, including:

- Hazardous waste: petroleum products, solvents, paints, inorganic waste, organic chemicals, contaminated soils from spills, etc.
- Non-hazardous waste: inorganic sludges, slurries, solids, inert inorganic waste, organic chemicals, activated carbon, contaminated soil and debris, etc.

4.0 RESPONSIBILITIES

4.1 Facility General Manager

- Ensures this WMP is communicated to on-site employees, contractors, and visitors.
- Provides appropriate training.
- Ensures this plan is updated, implemented, and followed.
- Identifies when a QEP is required to provide support for wildlife incidents and/or take action for potentially dangerous and/or aggressive animals following procedures outlined in *SOP #2 Reporting and Responding to a Wildlife Sighting and Deterrent Use*.
- Ensures wildlife sightings and actions are recorded, as required.

4.2 Qualified Environmental Professional

- Has and maintains appropriate training. The QEP may be a Clean Harbors employee or a contractor.
- Records wildlife sightings and residences on the Wildlife Observation Logs following these procedures, including those seen by others and previously reported when asked to do so.
- Takes necessary action to avoid destruction of and disturbance to nests, dens, roosts, and hibernacula following these procedures.
- Notifies and take advice from regulatory authorities, as required, when nests, dens, and roosts/hibernacula have the potential to be destroyed/disturbed.
- Issues temporary stop-work and setback distances, as appropriate with the Facility General Manager.
- Supports the Facility General Manager, when necessary, for actions regarding potentially dangerous and/or aggressive animals and follow procedures outlined in *SOP #2 Reporting and Responding to a Wildlife Sighting and Deterrent Use*.

4.3 All Employees, Contractors, and Visitors

- Understand and follow this procedure.
- Communicate the locations of wildlife to other employees, and travel with extra caution and restrict speeds in these areas.
- Report wildlife sightings and residences in the Wildlife Observation Log, as required.
- Take reasonable precaution to avoid disturbing wildlife, if any, on site.
- Ask the Facility General Manager for clarification of the WMP, when required.

5.0 STANDARD OPERATING PROCEDURES

In support of this WMP, SOPs have been developed for the identification, reporting, response, and preventative measures to reduce/mitigate wildlife interactions within the Ryley Landfill.

5.1 SOP #1 Wildlife Preventative Measures

This procedure is intended to provide Clean Harbors employees, contractors, and visitors with guidelines for reducing and managing wildlife attractants and reducing risk of wildlife habituation, injury, and mortality.

The purpose of this procedure is to provide direction to all on-site workers on how to reduce wildlife attractants and restrict access of wildlife to the Ryley Landfill. The proper storage, handling, and disposal of products that can attract wildlife is essential to reduce the risk of wildlife attraction and habituation to the facility. Failure to properly contain wildlife attractants may result in food conditioning and aggressive animal behaviour.

5.1.1 Waste Management

- All employees will follow the guidelines and recommendations in this WMP while on site at Ryley Landfill.
- Employees, contractors, and visitors will ensure that no litter, wildlife attractants, or hazardous materials are accessible to wildlife. This includes ensuring proper storage and use of any material that could be considered an attractant or hazard to wildlife.
- If possible, all personnel on site will collect litter, improperly stored attractants, and misdirected waste, and, if safe to do so, properly dispose of them.
- All personnel on site are prohibited from feeding wildlife or leaving food out for wildlife.
- All personnel who suspect wildlife is attracted to the worksite will report it to the Facility General Manager immediately.

5.1.2 Ryley Landfill Infrastructure

- The access gate will remain closed when not in use or will have a monitor to watch for potential wildlife ingress if the gate is left open for an extended period. If the gate is found open with no monitor present it will be reported to the Facility General Manager.
- The facility boundary fence and gate shall be routinely inspected for signs of damage or wildlife passage. Any locations where wildlife can access the facility will be reported to the Facility General Manager and they will implement the necessary maintenance.
- Facility infrastructure (e.g., building, light standards, etc.) shall be routinely monitored for signs of wildlife use (e.g., nests, roosts, feeding, sheltering). Any location of persistent wildlife use will be reported to the Facility General Manager. If necessary, a QEP may be required to provide support and determine mitigation measures to deter wildlife use.
- On-site personnel will inform the Facility General Manager of maintenance needs to prevent wildlife from sheltering.

5.2 SOP #2 Reporting and Responding to Wildlife Sightings

This procedure is intended to provide Clean Harbors employees, contractors, and visitors with guidelines to report wildlife sightings, including wildlife residences (dens, nests, roosts, hibernacula), safely respond to a wildlife sighting, use deterrents (including herding), and report actions taken.

This procedure applies to all areas of the Ryley Landfill, including the roads, pad sites, temporary laydowns, and/or wherever workers are present. In general, all wildlife should be left undisturbed. Many wildlife sightings won't require action, including when:

- The animal poses no danger because the species is not a risk to people or property (e.g., snowshoe hare);
- The animal (and its residence) is not in danger of harm; and
- The animal has not gained access to an attractant, such as a food reward.

Wildlife deterrents only work if there is an absence of food, shelter, and other rewards for animals at the facility. Refer to SOP #1 for procedures to reduce wildlife attractants. Should the situation permit, consultation with a QEP and/or AEP regarding appropriate use of deterrents prior to action is recommended.

- Everyone on site is to record wildlife observed within the perimeter fence, with the exception of birds, unless a nest is observed, or an improperly stored attractant is suspected. Records of wildlife sightings and wildlife residences are used to apply mitigations and avoid/reduce the likelihood of adverse wildlife effects.
- Enter the wildlife sighting into the Wildlife Observation Log daily (see attached Wildlife Observation Log). The log is kept at the Ryley Landfill office. Best practice is to fill out the log promptly upon returning to the office. Record the wildlife sighting only once.
- If a potentially dangerous or aggressive animal is observed, immediately alert others of the animal's location via radio and follow the procedures outlined in Section 5.2.1.
- If wildlife is reported on or near roads, traffic will stop for all wildlife seen crossing or attempting to cross. Headlights are to be turned off once the vehicle is stopped to allow the animal to cross, if applicable. All employees/contractors are to remain in the vehicle and shall not attempt to herd the animal off the road. Should the animal not move off the road, notify the Facility General Manager and they will respond, if required, following deterrent action outlined in Section 5.2.5.
- The Facility General Manager will ensure that Wildlife Observation Logs are available at the office.
- The Facility General Manager and/or designated person(s) is to review the Wildlife Observation Logs weekly to identify where wildlife is repeatedly sighted and to inform adaptive management. A repeat wildlife sighting may indicate an improperly stored attractant, a possible wildlife residence, or maintenance needs on the perimeter fence.
- Copies of the logs will be retained and filed at the office.

5.2.1 Aggressive Animal

Any employee, contractor, or visitor that encounters an aggressive animal is to immediately take refuge.

- Immediately alert others of the animal's location via radio.
- Get to and remain in a safe shelter or vehicle, until confirmation can be made that the area is clear.

- Immediately notify the Facility General Manager and provide the following information: the species, the animal's location, staff locations (including those nearby), and perceived risk to people.
- The Facility General Manager and/or designated person(s) will respond immediately to secure the site and people's safety.
- Consult with a QEP for advice and additional support to safely deter the animal away from the facility and people (refer to Section 5.2.5 Responding with Wildlife Deterrents).
- In the unlikely event that no deterrents are proving successful, and the aggressive animal remains in the area, the QEP will contact AEP for advice and/or additional support.
- The Facility General Manager, with support from the QEP, will follow the procedures in Section 5.2.6 including filling out a Wildlife Incident Report and reporting the aggressive animal incident to AEP within 24 hours.

5.2.2 Nest, Den, Roost, or Hibernaculum

Birds, bats, and other wildlife may nest, roost, den, or take refuge in man-made buildings, culverts, light standards, soil piles, as well as any natural habitat in/near the facility. No employee, contractor, or visitor shall disturb, destroy, or collect a nest (or egg), den, roost, or hibernaculum.

- Employees, contractors, and visitors will record a nest, roost, den, or hibernaculum seen or suspected in the Wildlife Observation Log and notify the Facility General Manager immediately of the observation.
- Once notified of the presence of a wildlife residence, the Facility General Manager will confirm the observation (if required), notify a QEP to determine any setback distances required, and restrict activity (if any activity present) within the appropriate setback distance to avoid disturbing the residence. No person shall destroy a nest, den, roost, or hibernacula at any time, even if unoccupied.
- The QEP to notify and consult with AEP **within 24 hours** of the observation if the wildlife residence was or has the potential to be destroyed or disturbed, by landfill activity (i.e., Project activities within the setback distances recommended by the QEP).
- The QEP, will discuss adaptive management actions with the regulatory authority on an appropriate setback distance to active worksites to minimize disturbances to a wildlife residence. In cases where the residence cannot be avoided, the QEP will discuss adaptive management actions, including any permit requirements, with the regulatory authority on how to proceed.
- The Facility General Manager, with support from a QEP, if applicable, will record the incident in a Wildlife Incident Report and provide a copy of the report to AEP **within 24 hours** when a wildlife residence was harmed because of landfill activities. The Facility General Manager will also investigate the cause of the incident and consider adaptive management action, evaluating if (and how) wildlife mitigation may have failed as outlined in Section 5.2.6. Mitigation methods will be updated to reduce the likelihood of the incident reoccurring, if applicable.

5.2.3 Animal Carcass or Injured or Sick Animal

- All employees, contractors, and visitors are to immediately report a sighting of an animal carcass, injured, or sick animal to the Facility General Manager, including if the animal was accidentally harmed by the observer.
- If the animal is behaving in ways that suggest that they may be infected with rabies (e.g., unusual aggression or boldness, excess saliva or foaming around the mouth, drooping head, and partial

paralysis) get to and remain in a safe shelter or vehicle, until confirmation can be made that the area is clear.

- If the animal was accidentally harmed by an employee, contractor, or visitor, all persons involved and/or witnesses are to remain on the scene and stay in a shelter or vehicle for safety.
- Provide the Facility General Manager with information such as the time, events leading up to the incident, condition of the animal and its location, cause of incident (if known), and staff involved which will be reported in the Wildlife Incident Report (see attached Wildlife Incident Report form).
- Once notified, the Facility General Manager is to immediately respond to an animal carcass and/or injured or sick animal, including those that look to have been harmed by a predator.
- In response to the incident the Facility General Manager will:
 - a) Assess the level of harm and safety risk to any person(s) involved in the incident and in the area. Injured animals may act aggressively. Implement a temporary shut-down of applicable work sites, if required;
 - b) If the animal remains on the scene, consider the animal's injuries, without touching the animal. If the animal has left the scene, assess the conditions through discussions with the person who reported the incident;
 - c) Consider the animal's behavior and general body condition. Animals behaving in ways that suggest that they may be infected with rabies include unusual aggression or boldness, excess saliva or foaming around the mouth, drooping head, and partial paralysis;
 - d) Look for an apparent cause of death (if applicable); and
 - e) Facility General Manager to contact a QEP and/or AEP for advice and/or additional support.
- The Facility General Manager and/or the QEP will notify AEP of the incident when carcasses resulting, or suspected, from the facility and consult with the regulators how to dispose of the carcass. Do not move the carcass of an animal possibly diseased until direction is provided by AEP. Appropriate personal protective safety measures must be taken when handling all carcasses.
- Should the incident involve an injured or sick animal, the Facility General Manager will notify AEP immediately and follow regulator direction. If the incident occurs during regular working hours, call the Camrose/Vegreville AEP Fish and Wildlife Office. If the incident occurs after working hours and is an emergency, call the Report a Poacher Line and/or 9-1-1.
 - **AEP Camrose/Vegreville Fish and Wildlife Office: 780-632-5410.**
 - **AEP 24-hour Emergency Line: 1-800-642-3800** (Report a Poacher Line, also used for wildlife emergencies).
- The Facility General Manager, with support from a QEP, if applicable, will follow the procedures in Section 5.2.6 including filling out a Wildlife Incident Report and provide a copy of the report to AEP **within 24 hours** when wildlife was harmed, or suspected, by the facility.

5.2.4 Animal-Related Property Damage

- If property damage from wildlife is identified, the employee who identified it will first determine if there are any wildlife still in the vicinity. If there is a potentially dangerous animal nearby, move to a secure location.

- Notify the Facility General Manager of the property damage and animal, if applicable.
- Once notified, the Facility General Manager to then respond to instances of animal-related property damage.
- If property damage is ongoing and/or a dangerous animal remains nearby, the Facility General Manager will use appropriate deterrent action to move the animal and secure the area (refer to Section 5.2.5). Should the situation permit, consultation with a QEP and/or AEP regarding appropriate use of deterrents prior to action is recommended.
- Once the area is secure, the Facility General Manager will conduct an inspection of the property damage, undertake the required maintenance (e.g., fix holes in/under the facility perimeter fence), and with support from the QEP, follow the procedures in Section 5.2.6 for a wildlife incident.

5.2.5 Responding with Wildlife Deterrents

Often deterrent action is not required, and the animal moves away on their own accord once aware of human presence. All employees, contractors, and visitors may make an animal aware of their presence by talking loudly or waving their arms.

Deterrent action may be required when:

- An animal is acting aggressively and/or poses an immediate threat to people or property;
- The animal is in a potentially hazardous location and not moving off on their own accord; and
- The animal has, or has the potential to, gain access to a food reward.

Herding is used to move wildlife away slowly and safely from potentially hazardous sites, such as active construction and/or operational sites where there is risk to harming and/or alarming an animal. Herding actions will always prioritize the safety of site personnel but must be conducted in a manner that minimizes the risk of injury to both wildlife and personnel and stress to the animal. Herding should be completed using a vehicle to ensure safety to people and the animal.

- The Facility General Manager will designate a responsible person to conduct the herding and notify any employees, contractors, and visitors in the area that wildlife herding is going to be undertaken and to clear the area.
- A safe exit pathway for the animal will be ensured (i.e., back through the perimeter fence or gate) prior to approaching the animal.
- Slowly (at a walking pace) use the vehicle to approach the animal to encourage the animal to move away out of the facility. Continue the approach until the animal begins moving. If the animal stops moving again the approach can be resumed until the animal has moved back through the facility boundary fence.
- Advancement towards the animal should be temporarily halted if the animal shows signs of alarmed response (fight or flight). The herder must be careful not to overstress the animal and must back off when the animal begins moving in the desired location. Undue harassment must be avoided. The vehicle horn can be used as an auditory deterrent only when the animal is not moving on their own accord.
- Advancement should not exceed closer than 30 m from the animal when herding with the vehicle.
- If the animal continues an approach towards humans, and/or will not move, the animal should be treated as though it may be aggressive (refer to Section 5.2.1).

- Should the situation permit, consultation with a QEP and/or AEP regarding appropriate use of deterrents prior to action is recommended.
- The location where the fence has been breached will be immediately repaired following confirmation that there are no other animals inside of the facility.

5.2.6 Incident Reporting

A Wildlife Incident Report must be filled out by the Facility General Manager when:

1. Wildlife mortality and/or injury due to, or suspected from, the landfill or activities at the facility;
2. Accidental destruction of a wildlife residence (den, nest);
3. Human-wildlife interactions that present a risk to either people or animals, including incidents of wildlife exhibiting aggressive behaviour (e.g., animal does not flee when deterrents are used, flattened ears, charge or bluff-charge, attack) or a wildlife-caused property damage;
4. Big game species has, or potentially has, gained access to a man-made attractant (food/shelter); and
5. Anytime deterrent action is taken.

In the event of a wildlife incident, the Facility General Manager, with support from a QEP, if applicable, will record the incident in a Wildlife Incident Report and will conduct an investigation to the cause of the incident, considerations for adaptive management action, and evaluating if (and how) wildlife mitigation may have failed. Mitigation methods will be updated to reduce the likelihood of the incident reoccurring, if applicable. If wildlife (or its residence) was harmed as a result of Project activities, the Facility General Manager will provide a copy of the incident report to AEP within 24 hours.

The Facility General Manager will also discuss the incident with personnel (e.g., safety memo, meeting), including what happened, how it was mitigated, and any lessons learned from the incident.

6.0 SUPPORTING DOCUMENTS

1. Wildlife Observation Log
2. Wildlife Incident Report

**Wildlife Observation Log
And
Wildlife Incident Report**

RYLEY LANDFILL WILDLIFE INCIDENT REPORT

INCIDENT REPORT NO.:

Location of Incident (e.g., detailed worksite location):

Date of Incident:	Time of Incident:	Incident Report No.:
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Name(s) of Individual(s) Involved:

Contact Number(s):

Nature of Wildlife Incident:

- Wildlife Mortality/Injury from Project; Euthanized? Yes; No
- Wildlife Attack
- Aggressive/Threatening Wildlife Behaviour
- Deterrent Used
- Property Damaged
- Wildlife Has, or Potentially Has, Accessed an Attractant
- Wildlife Residence Damaged
- Other: _____

Species: _____

of Animals Involved: _____

Cubs/Young Present? Yes; No

Evidence of Disease, Injury, or Malnourished? Yes; No. Explain: _____

Wildlife Behaviour (select multiple, if applicable): Predatory; Defensive; Curious/Approached;

Feeding; Food Conditioned Running/Traveling; Fled the Scene; Other: _____

Details of Incident (e.g., age and sex of wildlife, distinguishing features of the animal (colour, markings), the animal's direction of travel, aggressive behaviour, weather conditions, unsecured attractants, estimate how long the animal was dead, any other animals seen in the area, description of property damage, photographs):

RYLEY LANDFILL WILDLIFE INCIDENT REPORT

INCIDENT REPORT NO.:

Reason(s) for Deterrent Use (select multiple, if applicable):

- | | |
|---|---|
| <input type="checkbox"/> Inside Perimeter Fence | <input type="checkbox"/> Gained Access to a Food Reward |
| <input type="checkbox"/> Endangering Human Safety | <input type="checkbox"/> Involved in Previous Incident(s) |
| <input type="checkbox"/> Destroying Property | <input type="checkbox"/> Other (Specify): |

Deterrent(s) Used

- Herding with Vehicle
- Vehicle Horn
- Other: _____

Deterrent Success

(provide more info on back)

- Yes No
- Yes No
- Yes No

Damage by Wildlife*

- Human Injury Human Mortality
- Equipment/Supplies: _____
- Damage \$ _____
- Other: _____

*Describe the damage in the Details of Incident section

Report to Alberta Environment and Parks (AEP) anytime an animal is injured/harmed by the Project, caused damaged property, deterred, obtained food reward, involved in a human-wildlife conflict, when nest/den accidentally destroyed. If the incident occurs during normal working hours, call the Camrose/Vegreville AEP Fish and Wildlife Office. If the incident occurs after working hours and is an emergency, call the Report a Poacher Line and/or 9-1-1.

AEP Camrose/Vegreville Fish and Wildlife Office: 780-632-5410

AEP 24-hour Emergency Line: 1-800-642-3800 (Report a Poacher Line, also used for wildlife emergencies)

Discussion with Regulators

Date & Time Spoke to Regulator: _____

Regulator Contact: _____

Direction Provided by Regulator: (type of deterrent to use, carcass disposal, removal of attractant, reporting, etc.)

Report Completed by: _____

Date Report Submitted to AEP: _____

Report Submitted by: _____