



# Preapproved Routine Impact Assessment Large-field Restoration

Grasslands National Park  
IAA 2019

Preapproved Routine Impact Assessments (PRIA) are pre-determined environmental management and mitigation measures for a defined class of routine, repetitive projects or activities with well understood and predictable effects. Approved PRIAs are an acceptable Impact Assessment pathway as they fulfill Parks Canada's obligations as a manager of federal lands under the *Impact Assessment Act* (IAA).

Restoration of suitable nesting and/or brood rearing habitat for the greater sage-grouse (*Centrocercus urophasianus*) has been identified as a recovery action in the GNP Multi-species Action Plan (Parks Canada Agency 2016) and in GNP's 2020 Park Management Plan as an objective under **Key strategy 2: Species at Risk and Resource Management**. To support these objectives, GNP has proposed to restore hayfields and large cultivate fields in the West Block of the Park to native vegetation communities. While these fields typically do not offer high quality habitat for most species, restoration work may violate prohibitions of the Emergency Order for the Protection of the Greater Sage-grouse (EPO) against killing or moving sagebrush plants, native grasses or native forbs or other provisions of the Species at Risk Act. To allow restoration in EPO areas, an authorization was issued under s. 73 of the Species At Risk Act (SARA), permit no. SSFU-2019-003-GNP. This PRIA provides the conditions required for large-field restoration within EPO areas to be compliant with the SARA permit but does not cover any projects that may destroy any critical habitat for the Greater Sage-grouse (see Conditions and Exception section).

**Berm** refers to the earthen berms along the Frenchman River in Grasslands National Park that were created during hayfield establishment in order to influence hydrology favourable for hayfield growth and harvest. These berms were built in the early 20<sup>th</sup> century prior to park acquisition and are typically less than 3 meters wide and 3 meters tall.

**High water mark** is the usual or average level to which a body of water rises at its highest point and remains for a sufficient time so as to leave a mark on the land. In flowing waters (rivers, streams) this refers to the "active channel/bank-full level" which is often the 1:2 year flood flow return level. In inland lakes, wetlands or marine environments it refers to those parts of the water body bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs this refers to normal high operating levels (Full Supply Level). DFO operational statement: Bridge Maintenance Fisheries and Oceans Canada, Nunavut Operational Statement Version3.0 DFO/2007-1329.

**Large field** means any cultivated field that was broken for "range improvement" (e.g., for cropping, for increasing productivity, for planting to tame forage for livestock feed), that does not fall into the "Early Detection Rapid Response" (EDRR) protocol as outlined in the 2020 Invasive Plant Management Plan, and typically is either bare ground or is dominated by nonnative species. Although "large" implies a size, it can typically mean any sized field that can be reasonably restored using industry-standard restoration tools, such as cultivators, drill seeders, harrows, etc. Standard restoration tools would not be suitable for something that is a "small field" simply

because this machinery will not fit in those fields. EDRR is reserved for individual invasive plants that are not yet widespread and primarily invading native prairie.

**Project Manager:** The Parks Canada Agency Ecologist who has been delegated by the Resource Conservation Manager to administer the Hayfield Restoration Program.

**Road** refer to any road that is paved, oiled, graded or levelled using heavy machinery and that is for the use of motor vehicles.

**Waterbody** includes a lake, a canal, a reservoir, an ocean, a river and its tributaries and a wetland, up to the annual high water mark, but does not include sewage or waste treatment lagoon, a mine tailings pond, an artificial irrigation pond, a dugout or a ditch that does not contain fish habitat as defined in subsection 2(1) of the Fisheries Act.

### **Scope of Application:**

This PRIA includes all large-scale restoration activities conducted within Grasslands National Park on areas that have previously been seeded to tame grasses and have been historically cropped or managed for agricultural purposes. This includes all constructed hayfields adjacent to the Frenchman River (often utilizing historical earth works to increase water saturation within the field, i.e., berms/ditches) as well as upland areas that contain a delineated boundary where native prairie was previously broken and seeded to non-native plant species.

Components of large-field restoration include:

General:

- Vehicle and equipment operation off-road
- Refueling vehicles in the field
- Working within/near riparian zones or native prairie

Site preparation and field maintenance:

- Soil and/or vegetation sampling
- Partial decommissioning of earthen berms (i.e., installing a culvert or punching a ~3 ft hole in berm to restore hydrology) \*
- Removal of rock piles and other debris\*
- Seed bed prep (haying, harrowing, spraying, heavy rollers, cultivating, soil inputs, etc.)
- Pesticide storage, transport and application
- Post-native seeding management (mowing, targeted herbicide use, reseeding, etc.)

\* Berms, rock piles, and certain types of debris may form part of the cultural landscape and should be included in the cultural resources review before initiating restoration activities. Alteration beyond partial berm decommissioning (as described above), may require a separate process to address potential impacts to natural and cultural resources outside the scope of this PRIA.

## Planting

- Planting annual cereal crops for weed control
- Seed selection, sourcing, and storage
- Planting native seed mixture
- Plug planting

## Clean-up:

- Disposal of weeds
- Disposal of chemical containers
- Monitoring vegetation community structure and composition

## **Conditions and Exceptions:**

This PRIA does not apply under the following exceptions/conditions:

### General:

- Projects that have not been screened by Cultural Resources Management.
- Projects that have not been screened by the functional managers at Grasslands National Park.
- Ground disturbing activities (excavating, tilling, etc.) in any area other than fields historically broken for “range improvement” (e.g., for cropping, for increasing productivity, for planting to tame forage for livestock feed). Sources of information to determine areas that were historically broken include: aerial photos, LiDar, ground-truthing.
- The use of vehicles, machinery or other equipment outside of the approved restoration project area. If new access trails are required for project, the alignment and decommissioning plan must be included in the restoration plan for the field.
- Prescribed Fire, which requires an approved Prescribed Fire Plan as well as the application of a separate PRIA and SARA authorization.

### Species At Risk

- The project results in adverse residual effects to an individual, a residence or the critical habitat of a listed species at risk under the *Species at Risk Act*.

### Cultural and Heritage Resources

- The project involves the removal of or causes damage to buildings with national or local heritage value or cultural landscapes.
- The project involves the removal of or causes damage to known paleontological resources.
- The project adversely impacts sites of significance to Indigenous peoples or current access and use of areas where hunting, fishing or gathering rights are exercised by Indigenous peoples

## **Other considerations**

Use of the PRIA may not be appropriate in circumstances such as:

Alteration to berms beyond partial berm decommissioning may require a separate process to address potential impacts to natural and cultural resources outside the scope of this PRIA.

## **Approved geographic areas of application:**

This PRIA may be used in:

All cultivated or tame forage fields previously used for and managed for agricultural use within Grasslands National Park that were historically seeded to tame species, or were historically cultivated fields.

## **Valued Components and Effects Analysis**

### *Soil/Land Resources*

- Soil contamination from hazardous materials (e.g., pesticides, fuel)
- Soil compaction and rutting
- Wind and water erosion and loss of topsoil
- Slope instability from vegetation removal
- Mixing of topsoil and subsoil

### *Water Quality and Aquatic Habitat*

- Reduced water and aquatic habitat quality due to increased erosion, sedimentation, transportation of debris and contamination (i.e. from vegetation removal, application of chemical herbicides, leaks and accidental spills, etc).

### *Vegetation*

- Introduction of invasive species, or expansion of existing populations
- Damage to and removal of vegetation, disturbance of adjacent natural areas

### *Wildlife, Species at Risk and Migratory Birds*

- Wildlife sensory disturbance causing displacement/habitat avoidance
- Disturbance or damage to nests, roosts and/or dens and disruption of nesting, roosting and/or denning animals, particularly those species that are known to use hayfield habitat, or that forage/shelter under the litter layer
- Damage or destruction of key biophysical or sensory habitat components considered necessary for species at risk maintenance and/or recovery
- Removal of silver sagebrush, native grasses, and forbs may contravene the Emergency Order for the Protection of the Greater Sage-grouse

### *Cultural, Heritage and Paleo Resources*

- Impacts to above- and below-ground archaeological resources (known or potential) from displacement or destruction, resulting in loss of heritage value

#### *Visitor Experience and Safety*

- Reduction in quality of visitor experience due to noise, presence of equipment, and large-scale visual impact of vegetation modification (burned, mowed, sprayed, sparsely vegetated during re-establishment)
- Reduced accessibility to portions of the site where work is taking place
- Hazard to visitors and staff due to operation of equipment and potential exposure to agricultural chemicals
- Timing of project may conflict with other projects, events, or operations.

### **Mitigation Measures**

#### **Pre-Project Planning:**

- 1) Activities must be part of a restoration plan approved by the field unit superintendent.
- 2) A detailed Restoration Plan will be developed for each unique project (extent may be defined by: area affected, habitat targets, project goals, timelines, funding, etc.). The project lead will engage function managers in early stages to identify and reduce conflicting programming and to increase the value added of the project. Important items to discuss include goals, locations of restoration work (including staging areas), timing, access trails, fencing, confirm availability of resources, and potential impacts to heritage values.
- 3) Temporary access trails created for work must be decommissioned upon project completion; a plan for decommissioning will be created ahead of project commencement.
- 4) Clearly identify and avoid sensitive environmental features and habitats in the work area and schedule work to avoid applicable critical wildlife life stages (see Environmental Timing Windows Table 1).
- 5) Work with a Cultural Resource Management (CRM) Advisor and CRM specialists (archaeologists, historians, and built heritage advisors) to assess the impact of intervention to cultural resources and identify necessary mitigation measures.
- 6) Where possible, schedule operations to avoid wet, windy and rainy periods or very dry periods that may increase erosion and sedimentation.
- 7) Work within the vicinity of waterbodies or wetlands may require a site specific Erosion and Sediment Control Plan.
- 8) All work and activities will comply with Fisheries and Oceans Canada measures to protect fish and fish habitat and will not release deleterious substances into a waterbody.
- 9) When possible, schedule operations to avoid conflict with visitor programs and activities, if they occur near the project area.

Table 1: Critical Wildlife Timing Windows

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Amphibians	Hibernation at overwintering sites			Migration to and concentration of individuals around breeding pools (esp. ephemeral ponds)			Migration and dispersal from ponds	Migration to overwintering water bodies		Hibernation at overwintering sites		
Bats	Overwintering in Hibernacula			Avoid maternity roosts. Bats Nursing Pups				Overwintering in Hibernacula				
Birds	Reduced risk for birds			Nesting April 15 – August 15				Reduced risk for birds				
Snakes	Overwintering in Hibernacula			Migration		Avoid ground disturbance. Population peak following breeding and emergence of young.		Migration		Overwintering in Hibernacula		
Sage Grouse / EPO	Overwintering habitat		Lekking, Nesting			Brood-rearing			Overwintering habitat			
				Seasonal EPO prohibitions April 1 – May 30								
	Year-round EPO Prohibitions											

**Work Site Preparation/Staging/Laydown:**

- 10) People working on the project/activities must review the mitigation measures and any site-specific considerations (i.e., approved restoration plan) with designated Parks Canada staff before work begins.
- 11) Staging areas, material/equipment drop sites, and parking areas must be identified ahead of work by the project manager, within an existing disturbed footprint where possible (e.g., roadway, gravel surface, previously disturbed area with high resilience).
- 12) Use existing roadways, trails, disturbed areas, or other areas as approved by the project manager for site access, travel within the site, and restoration activities.
- 13) Do not leave open holes that may trap wildlife or pose a risk to people or equipment.
- 14) Locate buried utilities before digging near roads or serviced infrastructure.

**Equipment operations:**

- 15) Limit work to daylight hours on week days, wherever possible while meeting program goals. Working on weekends or in the dark must be pre-approved by the project manager to avoid programming conflict or increased risk to natural/cultural resources
- 16) All equipment must be washed prior to entering the park to minimize risk of introducing invasive weed species. Third party equipment should be inspected by PCA.
- 17) Vehicles, equipment and tools must be properly tuned, clean and free of contaminants, in good operating order, free of leaks (e.g., fuel, oil or grease), prior to arrival on site.

- 18) Ensure all motorized vehicles are equipped with a fire extinguisher.
- 19) Use low pressure or rubber tracked equipment or access matting where feasible to minimize soil compaction and ground disturbance.
- 20) Use temporary crossing structures or other practices to cross streams or water bodies with steep and highly erodible (e.g., dominated by organic materials and silts) banks and beds. Other practices could include working on frozen ground/snow/ice, using rig mats, putting in temporary tote roads further up/down stream to cross at more stable location, using alternate routes.
- 21) Plan activities to minimize the length of time that bare soil is exposed.
- 22) If machinery is stored, maintained, or refueled in the field, it must be on a flat surface at least 30m away from waterbodies, as measured from the High Water Mark. Increase the buffer zone depending on level of risk and site specific conditions. Use drip trays to prevent spills. Leaks and spills during refueling must be cleaned up and contaminated materials must be disposed of appropriately. Fuel must never be dispelled or deposited into the environment or any water body.
- 23) Cleaning of tools and equipment should be done in a site pre-approved by the project manager, and not within 30 m of a waterbody.

### **In-water Equipment Operations**

- 24) If work needs to be done within 5 meters of a stream bank, contact the Water Security Agency (Saskatchewan) to see if an Aquatic Habitat Protection Permit is required.
- 25) Limit machinery crossing (fording) of streams or watercourses to a onetime event (i.e., over and back), and only if no alternative is available. If repeated crossings of the watercourse are required, construct a temporary crossing structure in compliance with the Fisheries Act.
- 26) For fording equipment without a temporary crossing structure, use stream bank and bed protection methods (e.g., swamp mats, pads) if minor rutting is likely to occur during fording.

### **Hazardous Material Management & Chemical Application:**

- 27) Before mobilizing vehicles, equipment or chemicals to site, fill out Appendix A – Spill Response Plan and have it approved by PCA.
- 28) Spill containment equipment must be present on-site. A spill contingency response kit including sorbent material and berms to contain 110% of the largest possible spill related to the work must be available on site at each location of potential spills (sites where equipment is working and at re-fuelling, lubrication, and repair locations).
- 29) Ensure that all on-site workers receive a briefing about the Spill Response Plan and are aware of the location and use of spill kits and containment devices.
- 30) All spills of toxic materials (e.g., fuels, chemicals) must be contained and cleaned-up as soon as it is possible to safely do so, and must be reported immediately to designated park staff as per the spill response plan (see Appendix A). Any spill that may harm the environment or pose a risk to public health or safety (such as a spill near a waterway) must be reported within 24 hours to the Saskatchewan Spill Control Centre at 1-800-667-7525. Large spills of toxic materials (>100 L) require both verbal and written reporting to the Spill Control Centre. All work must stop until the spill has been adequately contained and cleaned up.
- 31) Identify and handle all toxic/hazardous materials as required under the *Canadian Environmental Protection Act*, *Transportation of Dangerous Goods Act* and Workplace Hazardous Materials Information System.

- 32) The application of pesticides/herbicides on federally managed lands requires an Integrated Pest Management plan signed by the Field Unit Superintendent prior to application.
- 33) In Saskatchewan, [the Pest Control Products \(Saskatchewan\) Act](#) requires any person purchasing or using federally registered restricted or commercial class pesticides for hire or reward, or any person who employs a person that is paid a wage to apply pesticides, to hold a Saskatchewan Pesticide Applicators Licence or be supervised by a person holding a Pesticide Applicator's License. If an employee with a Saskatchewan Pesticide Applicators Licence is supervising an equipment operator, the supervision must be provided on site (not over radio). If there is no employee supervising with a Saskatchewan Pesticide Applicators Licence, then the equipment operator must carry valid Saskatchewan Pesticide Applicators Licence. Some restricted and commercial pesticides state on the label that users must hold a pesticide applicators licence or be pest control operators, in which case only a Saskatchewan Pesticide Applicator Licence holder can purchase and use the pesticide.
- 34) Every holder of a Saskatchewan Pesticide Applicator Licence is responsible for keeping records on a daily basis of each operation they perform that involves pesticide use or application, on forms acceptable to the Ministry of Agriculture. Records must be kept for a minimum of 3 years from the application date.
- 35) Always follow label instructions.

**Hazardous Material Management & Chemical Application (cont.):**

- 36) Avoid chemical application to areas with moderate (10-15%) to steep ( $\geq 16\%$ ) gradients (Soil Landscapes of Canada Working Group, 2010. Soil Landscapes of Canada version 3.2. Agriculture and Agri-Food Canada. ([digital map and database at 1:1 million scale](#)). If required, consider potential for erosion and sedimentation before application in case control measures are needed, and use application methods that reduce the chance of drift, runoff.
- 37) Avoid chemical application when rain is forecasted within the window indicated on the chemical label.
- 38) Plan herbicide applications to avoid planned water releases from the Val Marie Reservoir when working in hayflats along the Frenchman River. Contact Southwest Water User's Group (office in Val Marie) to check for planned water releases.
- 39) Opt for herbicides with zero to low volatility at all temperatures to reduce spray drift potential, low water solubility and high soil adsorption coefficient (Koc) to reduce potential for leeching into groundwater, and short half-life in both soil and water (see appendix 2).
- 40) When possible opt for herbicides without POEA surfactants, which are highly toxic to amphibians.
- 41) Where possible, maintain a buffer of vegetation between the treated area and the water's edge.
- 42) Do not operate boom sprayers or other vehicle-mounted sprayers within 15 meters of the water's edge. This distance can be reduced by using shrouds or cones on nozzles (This distance can be reduced by 70% when using shrouds or 30% when using cones according to several SDS sheets for glyphosate based herbicides (ex. Startup 540). If spraying within 15 meters of water's edge is required for program outcomes, methods to reduce potential impacts to riparian area must be pre-approved by project manager and EA officer.
- 43) To reduce spray drift, use flat fan spray nozzle and low pump/spray pressure and avoid spraying on days when wind exceeds 15 km/h.
- 44) The area being sprayed should be closed off to the public during application and for at least 24 hours after application is complete. Communicate spraying activities with Visitor Experience, Asset, and Resource Conservation management and coordinate with Visitor Safety Officer ahead of time to increase the reach of safety messaging and to reduce risk of visitors/staff being accidentally exposed to herbicides.



- 45) Follow approved Safe Operating Procedures for emptied chemical containers and transport to an approved recycling facility or chemical distributor facility (refer to the [Saskatchewan Ministry of Agriculture's Guide to Crop Protection](#) for the current year and [www.cleanfarms.ca](http://www.cleanfarms.ca)).
- 46) Petrochemical products, paints, and chemicals must be stored a minimum of 30 meters away from waterbodies and, if left overnight, they must be secured. If storing on site, site must be equipped with containers suitable for the secure, temporary storage of hazardous wastes, separated by type.
- 47) If hazardous waste or potentially contaminated material is uncovered during restoration activities, work must stop and excavated materials must be secured onsite in a manner that prevents contamination of the surrounding environment, including leaching. The Parks Canada Resource Conservation Manager must be contacted for further direction.

### **Materials**

- 48) Ensure all seed mixes, soil, gravel, erosion and sediment control products (e.g., hay, straw, mulch), or other applicable materials imported from outside the protected heritage place have been approved by the project manager and comply with restoration plans to reduce the risk of introducing noxious or invasive plant species.
- 49) To reduce the likelihood of spreading noxious or invasive plant species, organic material (e.g., topsoil, borrow and fill material, gravel) taken from the restoration site will not be used in other parts of the protected heritage place unless approved by the project manager.
- 50) Seed collection sites and methods must follow the recommendations identified in GNP's Native Seed Acquisition Strategy or be approved by a Parks Canada ecologist. Seed collection and seeding records should be kept in the appropriate location on GNP's G: drive. Large-scale collection sites should be communicated to other program leads to prevent conflicting program overlap.

### **Site Clean-up**

- 51) Where necessary, restore gradients and contours where they have been altered during work (e.g. stockpiles, ruts).
- 52) Re-vegetate and/or install erosion controls as required to stabilize the site to prevent erosion.
- 53) Ensure location data of work (including modified or restored areas) is captured for GNP geomatics database.
- 54) Do not leave temporary markers, debris, trash, containers, hazardous materials, or equipment in the field. Locations of any permanent markers should be discussed with the Resource Conservation manager (ensure people are aware the markers are there and why, decrease risk of markers being moved and decrease risk of certain types of markers damaging vehicles or equipment during other operations such as wildfire response).
- 55) Erosion control materials and other materials left on site should be checked each season and restored to functional condition or removed if no longer serving the intended purpose.
- 56) Incinerating organic waste must be done in an incinerator approved for use by the project manager.

### **Wildlife and SAR Management:**

- 57) Minimize the use of vehicles and equipment off-road.
- 58) Amphibians use the area under the litter layer as well as burrows, deep-rooted plants and ant mounds for foraging and shelter, and may show site fidelity despite changes in surrounding available habitat, making them vulnerable to burning and haying. Species' presence should be noted and communicated to the project manager.

- 59) Amphibians are most susceptible to pesticides during egg, tadpole and juvenile stages. Avoid chemical application near breeding pools and waterways. Where chemical application is required to meet project targets, use application methods that minimize drift (e.g. wick, hand spraying), and chemical types that are less likely to be residual and/or migrate into waterway.
- 60) If mass migrations of reptiles and/or amphibians are observed, shut down any work using vehicles and heavy equipment until migration is over. Mass movement of salamanders and/or frogs between overwintering sites and breeding sites typical occur following spring melt, from August-October, and immediately before, during, or immediately after significant rain events particularly during juvenile dispersal in July-August.
- 61) Schedule spraying, mowing, cultivating, and other ground-disturbing activities to avoid the bird breeding window where feasible while still meeting program goals (please see Appendix B for breeding windows). When ground disturbing activities are necessary within the breeding bird window to meet program goals, use the following guidance for planning:
- Tame hayfields that have tall (>25 cm by mid/late May), dense smooth brome-dominated vegetation cover with >2 cm litter depth, is considered poor quality habitat and low risk of impacting breeding birds (Northern leopard frog also avoid areas with veg >30 cm when foraging in upland areas (COSEWIC 2009).
  - Where vegetative characteristics in tame fields are likely to be suitable for nesting birds at the beginning of the breeding season (height <25cm by mid/late May, more mixed species composition, litter depth <2 cm), initiate spraying, mowing, cultivating or other ground-disturbing activities before mid-May for moist hayfield habitats and before late April/early May for open habitats. Based on Environment Canada's nesting calendar for region B4 and on nesting query tool from Bird Studies Canada. Nesting calendars show the proportion in % of federally protected species that are predicted to be actively nesting on a given date from March to Sept for three habitat types: wetlands, open and forest. See [long description](#). Open habitats are those that are not wetlands or forested. Moist hayfield habitat dates result from a custom-built nesting calendar created using Bird Studies Canada, choosing species we expect to use hayfields, see Appendix B.
  - Minimizing the time between ground-disturbing treatments within the bird breeding window helps deter birds from re-nesting in the treatment area. Two weeks is generally considered the maximum advisable interval between disturbances (Parks Canada. 2017. Parks Canada Guidance on Managing Migratory Birds (Draft).
  - Once native plant species have been seeded, ongoing weed control may be needed. Site visits to assess weed populations and ideal timing of control measures should be accounted for in restoration planning. Care should be taken to ensure wildlife windows are followed, when possible, without compromising the long-term establishment of planted species.
  - The mowing height for post-seeding field management will be adjusted based on weed species present and height of establishing native species.
  - Post-seeding spraying activities will be minimized and targeted towards weed species of concern that are known to impact the long-term establishment of planted species.

### **Wildlife and SAR Management (cont.):**

- 62) Avoid operating vehicles and machinery in riparian areas and ephemeral pools (areas that typically stay moist for most of summer, where ground is generally wet and soft and vegetation type changes to hydrophilic species such as sedges, rushes, cattails, etc.). These areas are particularly sensitive to soil compaction, contamination, and offer important habitat for nesting birds and dispersing amphibians.

- 63) Record any incidences of disturbed, damaged or destroyed wildlife, nests or eggs and report to the project manager/Parks Canada ecologist.
- 64) Do not travel to site or operate motorized vehicles/equipment during greater sage-grouse lekking window, which is 90 minutes before sunset until 90 minutes after sunrise April 1 to May 30<sup>th</sup>.
- 65) Temporary signage should be under 1.2 m tall and follow guidelines in GNP's Signs PRIA.
- 66) If preliminary site visit conducted by parks staff indicates that sagebrush cover is likely greater than 5% of the site, consult with the Grasslands National Parks ecologist and Parks Canada's Species Conservation Management team before proceeding with project.
- 67) Do not operate field machinery in concentric circles moving from the outside of the field to the inside, as this reduces the ability of small wildlife to escape the area.
- 68) Vehicle and Equipment operators must always do an inspection of the ground around the outside and under vehicles and equipment that have been parked (stopped, motor turned off) before moving them, to prevent running over wildlife.
- 69) All wildlife attractants must be secured (e.g., petroleum products, human food, recyclable drink containers, and garbage) in wildlife-proof containers, a secure building, or vehicle. When possible, keep food waste separate from construction waste and remove daily.
- 70) Report any incidental sightings of species at risk in the work area immediately to the project manager. Any observations must be recorded on Parks Canada's databases and the applicable data centre (e.g., Nature Serve).
- 71) If active nests or dens are discovered during the operation of vehicles and machinery, stop work and contact the project manager. Additional mitigations will likely be required to start work (e.g. set back distances).
- 72) If wildlife is observed at or near the work site, allow the animal(s) the opportunity to leave the work area. In the case of aggressive behaviour or persistent intrusion, stop work and evacuate the area.
- 73) Do not remove any buffaloberry trees over 1.5 m tall as these are potential nest trees for loggerhead shrikes.

**Visitor Experience and Safety:**

- 74) Consult with Visitor Experience manager before moving/removing heritage features (e.g. modern features such as signs, benches, markers **or** historic features such as building foundations, tools, machinery, rock piles, etc.) to reduce chances of programming conflict.
- 75) Call VE before initiating operations that may impact the general public (e.g. work next to visitor nodes, use of chemical pesticides).
- 76) As much as possible, schedule noisy activities to minimise impacts to visitors, especially around campgrounds and other high visitor-use areas.
- 77) Close and mark the work site with appropriate signage while active construction, repair or maintenance is underway; consider temporary detours or reroutes as appropriate.
- 78) Secure and clearly mark unattended safety hazards (e.g., excavations, debris piles) with fencing, warning signs, area closures, or combination thereof.
- 79) If closing the area is not possible, maintain a safe working distance between work activities and visitors. If traffic control is required, a flag person should manage traffic through the construction/hazard area.
- 80) Visitor access trails and roads outside the restoration area must be free of construction materials, waste, machinery, and equipment.

**Cultural Resources:**

- 81) Consult with the local SSFU Cultural Resources Management representative and PCA's archaeology division prior to disturbing the ground or surface features (e.g. earthworks, stone features).
- 82) Apply additional mitigations that are assigned to the project as a result of the Cultural Resources Impact Assessment, if applicable.
- 83) There is a chance that cultural features or artifact concentrations will be encountered. If cultural features, artifact concentrations, or human remains are encountered, work should cease in the immediate area. The feature/artifact will be left in situ, flagged and reported to the Project Manager and/or Surveillance Officer. The feature and the surrounding work area should be photographed and geo-referenced. The project manager will contact Parks Canada's Terrestrial Archaeology section for advice and assessment of significance that will in turn determine what will be required to mitigate the chance find.

**Paleontological Resources:**

- 84) If paleontological artifacts are encountered, work should cease in the immediate area. The artifact will be left in situ, flagged and reported to the Project Manager and/or Surveillance Officer. The feature and the surrounding work area should be photographed and geo-referenced. The project manager will contact Parks Canada's Resource Conservation Manager for direction.

**Approval**

Original document approved and signed by Adriana Bacheschi, Field Unit Superintendent, on June 8, 2020.

# Appendix A – Spill Response Plan

**PROJECT:**

**PROJECT MANAGER:**

- 1) Ensure safety of all personnel
- 2) Put on appropriate personal protective equipment (PPE)
- 3) Assess spill hazards and risks (refer to MSDS sheets with label and WHMIS)
- 4) Remove all sources of ignition
- 5) Stop the spill if safely possible (e.g. shut off pump, replace cap, tip container, plug leaking hole). Use the contents of the nearest spill kit to aid in stopping the spill if it is safe to do so. Remember PPE (e.g. gloves)
- 6) Notify project manager and resource conservation:
  - Project Manager:
  - Resource Conservation through Jasper Dispatch: 1-877-852-3100
  - In the event of a major spill, call the first contact authority:

	FIRST CONTACT AUTHORITY	TELEPHONE
Saskatchewan	Saskatchewan Ministry of Environment	1-800-667-7525

- 7) Contain the spill
  - Use contents of spill kits to place sorbent materials on the spill to contain until advised by project manager.
  - On Land: initiate at far end of spill and move toward the centre of the spill. Take into note slope of terrain.
  - On Water (creek): Every effort should be made to prevent materials from entering the creek if occurs on land. If spill occurs in creek booms located in spill kits should be stretched the length of the creek immediately downstream from the spill.

**Expected Equipment Onsite:**

**Expected Chemicals, Waste or Petroleum Products Onsite:**

**Will there be fuelling on site? If so, describe (i.e. size of tank and location), include fueling procedures:**

**Type, Size and Location of Spill Kits:**

**Spill prevention procedures** (i.e., containment and storage of materials, security, handling, use and disposal of empty containers, surplus product or waste generated in the application of these products in accordance with all applicable federal and provincial legislation).

## Appendix B – Bird Breeding Window

*To request a copy of this document with images, please contact [ia-ei@pc.gc.ca](mailto:ia-ei@pc.gc.ca).*

Based on Environment Canada's nesting calendar for region B4 and on nesting query tool from Bird Studies Canada. Nesting calendars show the proportion in % of federally protected species that are predicted to be actively nesting on a given date from March to Sept for three habitat types: wetlands, open and forest. See [long description](#). Open habitats are those that are not wetlands or forested.