Preapproved Routine Impact Assessment East Gate Catchment Maintenance

Mt Revelstoke & Glacier national parks
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).

Project activities covered under the scope of this PRIA are specifically targeting the routine clearing (excavation) of the catchment area at the East Gate Landslide.

It does not apply to any other activity in this area (specifically vegetation clearing) or other areas of Mount Revelstoke or Glacier national parks. Project managers are responsible to ensure the terms and conditions described as mitigation measures within this PRIA are followed and implemented as applicable.

Scope of Application:

This PRIA includes (but is not limited to):
Catchment clearing for increasing or maintaining capacity, routine maintenance as well as the loading, hauling, dumping and storage/stockpiling of east gate landslide material at the site.

Conditions and Exceptions:

This section specifies circumstances when the PRIA would not apply or should be used in conjunction with additional analysis such as a Basic Impact Analysis (BIA), including the following:

- The project permanently alters the characteristics of a water body[1] (e.g., temperature, pH, turbidity, flow, water level, water body bed).
    - This includes fill placed in a water body or permanently increasing a physical work's footprint below the high water mark; dredging; and construction of a permanent diversion channel.

- The project results in **residual** adverse effects on migratory birds or their nests.
    - Refer to the draft- *Parks Canada Guidance on Reducing Risk to Migratory Birds* and associated draft- *Conservation Measures for Minimizing Impacts to Migratory Birds During the Nesting Period*.

- The project results in **residual** adverse effects on an individual, a residence or the critical habitat of a listed species at risk under the *Species at Risk Act*.
    - Determine if mitigations are needed to ensure no residual adverse effects to species at risk. Such mitigations should be included in the Supplementary Mitigations section.

- The project is likely to require an authorization under the *Fisheries Act* (s.35(1) or 36(3)). Check if your projects needs a review.
- The project involves the removal of or causes damage to cultural resources of heritage value, for example, heritage buildings designated by the Federal Heritage Buildings Review Office, archaeological sites, historical and archaeological objects, or cultural landscapes.
- The project results in loss or reduction in size of a wetland.
- 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.
- Any other circumstance where this PRIA does not address known environmental issues that are reasonably associated with the proposed work, or; circumstances where the potential environmental impacts of the proposed work are reasonably uncertain.

Approved geographic areas of application:

This PRIA may be used in:
Glacier national park, specifically at the East Gate Landslide Catchment area. The East Gate Landslide/catchment area is located along the TCH near the east end of Glacier National Park. It is approximately 61 km west of Golden, BC, 19 km east of Rogers Pass, Glacier National Park, BC and 87 km east of Revelstoke, BC. Figures 1 and 2 below show the approximate location of the catchment area on a map as well as aerial photographs taken in 2007 and 2018.

To request a copy of this document with images, please contact ia-ei@pc.gc.ca.

Figure 1 – East Gate Landslide Location

Figure 2 – Aerial Photographs (2007 and 2018) of East Gate Landslide, note the increasing catchment basins (upper/east side of TCH) and deposition/storage area (lower/west side of TCH).

Figure 3 – Approved "Deposition/Storage" Area (as of 2019), depicted by Purple Dotted Line

Valued Components and Effects Analysis

Aquatic ecosystems (includes lakes, rivers, streams, wetlands and surrounding riparian zones)

- Increased sedimentation;
- Reduced stream channel stability;
- Contamination from fuels and lubricants, increased pollutants from overland flow;
- Adverse modifications to surface drainage patterns;
- Reduced water quality due to increased erosion, sedimentation, transportation of debris and contamination (i.e. from leaks and accidental spills, etc.).

Terrestrial vegetation

- Introduction and/or spread of invasive alien plants (IAP);

Terrestrial wildlife

- Wildlife habituation/attraction to artificial food sources;
- Impeded/ altered wildlife movement;
- Damage to nests/disruption of nesting animals;
- Mortality from project activities;
- Sensory disturbance due to increased ambient noise levels causing displacement/ habitat avoidance.

Soils and Landforms

- Increased soil compaction;
- Exposed soil may lead to greater erosion potential;
- Less infiltration during heavy rainfall events leading to overland flow and increased sedimentation/erosion;
- Contamination from spills or leaks of fuels or lubricants;
- Change in slopes, landforms and landscape;
- Soil compaction and rutting;
- Slope instability due to increased soil exposure and improper excavation and storage.

Air quality

- Decreased ambient air quality (i.e. from dust, emissions, etc.);
- Increased ambient noise levels;
- Increased levels of C02 and other pollutants;
- Increased particulate levels on roads/highways used for hauling.

Visitor experience

- Visual impacts: appearance of active worksite may be visually unappealing to visitors;
- Noise Pollution from use of heavy equipment/machinery;
- Traffic Delay;
- Dangers to public safety while work is being conducted.

Cultural resources

- Damage or undermining cultural resources.

Indirect effects to aboriginal and non-aboriginal peoples

- No anticipated adverse effects.

Mitigation Measures

Table 1: Environmental Timing Windows Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Fish	AVOID INSTREAM WORK					Least risk window for work in and around freshwater, June 01 – Sept 01 – SPECIES DEPENDANT				AVOID INSTREAM WORK		
Birds	Reduced risk for harm to birds			AVOID VEGETATION REMOVAL Bird Nesting Period: April 01 – August 31					Reduced risk for harm to birds			
Bats	Bat in Hibernacula			Bats Nursing Pups					Reduced risk for harm to bats: Sept 01 – Nov 15		Bat in Hibernacula	

Table 2: Environmental Timing Windows

Consideration	Applicable	Restricted Window	Notes
Migratory Bird General Breeding Period	✓	April 1 to August 31	
Bat Maternity Roost Activity Period	✓	April 1 to August 31	
Bat in hibernacula	✓	November 15 – March 31	
Bull Trout Restricted Work Periods	✓	August 15 to August 31	Different fish species have different instream work windows, consult with IAO
Additional Timing Considerations (e.g., weed seed set, soil protection)	✓	Dry late summer and fall conditions	Before plants have gone to seed, generally around July. Before mowing, timing must be approved by IAO

General

1) All Contractors must attend an environmental briefing prior to work commencement.
2) Parks Canada staff performing activities described in this PRIA should receive annual spring training from Resource Conservation that will cover the obligations within these guidelines, including but not limited to, information on ensuring protection of cultural resources, species at risk and migratory birds.
3) Workers and equipment will not trespass outside the project limits.
4) Work that extends outside of the existing right-of-way width (including a new laydown area) requires approval of the Impact Assessment Coordinator (IAC) and the Departmental Representative.
5) Flag or fence the work area(s) to delineate work site and clearly identify access and egress locations.
6) Stage equipment on existing hardened surfaces.
7) Equipment movements and worker's vehicles shall be restricted to the footprint of the construction area.

Aquatic Ecosystems

8) No east gate land slide material shall be placed closer than 30m to the Beaver River. Sensitive habitats have been delineated and will be avoided (See Figure 3). If there is uncertainty regarding where sensitive habitats are located, contact the IAC.
9) Ensure that no materials are pushed, fall or are eroded into any streams or wetlands.

10) If absolutely necessary, limit crossing (fording) a stream or watercourse to a one-time event (i.e., over and back), and only if no alternative crossing method is available. If repeated crossings of the watercourse are required, construct a temporary crossing structure in compliance with the Fisheries Act and consultation with the IAC.
11) The MRG Aquatic Invasive Species (AIS) Decontamination Protocol applies to all in-stream work, water withdrawal or works in wet areas.
12) Hazardous or toxic products shall be stored no closer than 100 meters from water.
13) The Contractor and/or sub-contractors shall prevent any deleterious and objectionable materials from entering streams, rivers, wetlands, water bodies or watercourses that would result in damage to aquatic and riparian habitat.
14) A spill kit capable of contain 110% of available fuel should be available on site at all times and staff working at the site trained in its correct use.
15) Report all spills (regardless of size) to Resource Conservation Environmental Surveillance Officer (ESO).

Terrestrial Vegetation

16) All machinery should arrive on site in a clean condition and is maintained free of fluid leaks, invasive species, noxious weeds and soils from off site.
17) Removal of vegetation is not permitted under this BMP (seek additional approvals through the IAC).
18) The EIA Coordinator may include additional mitigations if invasive species, noxious weeds or rare plant species are present in the worksite.

Terrestrial Wildlife

19) No killing, capturing, injuring, taking or disturbing migratory birds or damaging, destroying, removing or disturbing their nests.
20) Report Wildlife sightings to Resource Conservation (ungulates, bears, wolverines, amphibians, etc.).
21) Stop work if any large animals are observed in the work area, give the animal(s) space and allow them to leave the project area at their own pace, contact Recourse Conservation.

Soils and Landforms

22) Erosion control measures that prevent sediment from entering any waterway, water body or wetland in the vicinity of the work site are a critical element of the project and shall be implemented by the Contractor.
23) If necessary, on-site sediment control measures shall be constructed and functional prior to initiating activities.
24) The regular monitoring and maintenance of all erosion control measures shall be the responsibility of the Contractor. If the design of the control measures is not functioning effectively they are to be repaired.
25) The site will be secured against erosion during any periods of project inactivity or shutdown.
26) The Contractor shall prevent any deleterious and objectionable materials from natural terrestrial environments that would result in damage to soils, landforms, terrestrial vegetation and/or habitat.

Air Quality

27) Minimize vehicle and equipment idling, whenever possible.

28) Implement dust suppression techniques, as required, to reduce airborne particulate.

Visitor Experience

29) Use temporary fencing, signs or close an area, as necessary, to ensure visitor safety.
30) Minimize disruptions and closures to the TCH as best as possible.
31) All Contractors and sub-contractors are to act as stewards to the National Parks and treat visitors with due respect.
32) Inform all visitors to contact or visit the Rogers Pass Discover Center or Parks Canada Revelstoke office for any questions, inquiries, issues, etc.

Cultural Resources

33) Consult with the Cultural Resource Officer prior to start of work in areas with designated cultural resources.
34) If suspected cultural resource is discovered, halt work and contact the Cultural Resource Management (CRM) Advisor immediately.
35) The MRG Accidental Finds Protocol applies to all project activities.

Supplementary Mitigations

36) In addition to the specifications/mitigation measures described above, Park staff, Contractor(s) and sub-contractors are expected to comply with all park regulations, policies, guidelines, travel restrictions, area closures, established reservation systems or other directives issued by Parks Canada for the purpose of mitigating environmental effects or ensuring public/visitor safety.
37) Contractor(s) and sub-contractors are expected to act as stewards, set proper examples, educate workers on the importance of keeping areas pristine, monitor worker actions and ensure that minimal impact practices are implemented.
38) Further reference materials to be considered include the Parks Canada PRIA: Roadway, Highway and Parkway Infrastructure.

Approval

Original document approved and signed by Nicholas Irving, Field Unit Superintendent, on February 20, 2020.

References:

Mount Revelstoke, Glacier, Rogers Pass Management Plan, 2010.

Parks Canada National Best Management Practices – Road, Highway, Parkway and Related Infrastructure, 2015.

BMP Direction for Permitted Users conducting water-related activities in MRGNP – Aquatic Invasive Species (AIS) Decontamination Protocol, 2019.

Mount Revelstoke and Glacier Field Unit Accidental Finds Protocol, 2018.