



Parks Canada Basic Impact Analysis Template

Instructions for this form are available (see the [Guidance and Tools section](#) of the Parks Canada Impact Assessment intranet site or request from Parks Canada impact assessment staff).

1. PROJECT TITLE & LOCATION

Sinclair Canyon, Electrical Upgrades and Site Rehabilitation

Highway 93S, Sinclair Canyon, Kootenay National Park (KNP)

Project area is 2.05km long from the Park Boundary at chainage 0+000 to north of the Radium Hot Spring Pools at chainage 2+050

2. PROPONENT INFORMATION

Project Manager: Moses Young –PWGSC; Moses.Young@pwgsc-tpsgc.gc.ca; 403-292-4795

Project Lead: Darren McNamara – PCA; Darren.mcnamara@pc.gc.ca; 403-497-4130

Consultant: Tyler Shellenberg – Stantec; Tyler.Shellenberg@stantec.com; 403-261-5561

3. PROPOSED PROJECT DATES

Planned commencement: 2016-09-05

Planned completion: 2018-01-18

4. INTERNAL PROJECT FILE

2016-008K

5. PROJECT DESCRIPTION

As a follow up to a previous engineering assessment completed in 2010, Parks Canada has a desire to rehabilitate both civil and electrical features in Sinclair Canyon adjacent to the Radium Hot Springs Pool site in an effort to improve the visitor experience by upgrading the site's existing civil and electrical infrastructure outside of the building. The improvements will consist of replacements or upgrades to railings and handrails, catch basins, curbs, gutters, and sidewalks to improve pedestrian movement throughout the site. In addition to these works, replacement of an existing retaining wall will also take place to improve public safety and environmental protection.

Further to the civil scope of work Parks Canada will update the on-site lighting providing functional lighting levels, addressing maintenance concerns, and complimenting the local Radium Hot Springs's historical structure throughout the Canyon area from the current location of the park gates to the Iron Gates.

The following are key components of the project:

- Site preparation and access activities off Highway 93S including preparation for works to the retaining wall, lights and fencing;
- Disposal of existing lights, retaining wall, fencing, installation of new lights, and construction of new retaining wall, fencing, sidewalk and 100mm conduit through the 2.05km length of the project;
- Rehabilitation/remediation of any disturbed vegetated areas

Site Description

The project site is in the Sinclair Canyon covering an area from the West Park Gate to the north side of the Radium Hot Springs Pools in Kootenay National Park (KNP). The project area falls within the Wycliffe Ecosite within the greater Montane Ecoregion of the Rocky Mountain Natural Region. This ecosite is characterized by Mountane Douglas Fir and grassland vegetation such as hairy wild rye. The semiarid soils reflect a warm and dry mesoclimate within KNP. This ecosite is restricted to elevations <1250m on benchlands and lower walls of the Columbia River valley in southwestern KNP. This ecosite is important to Mule Deer and Big Horn Sheep particularly in the winter as it provides important foraging and movement habitat. High availability of prey in this area makes it important winter habitat for carnivores such as coyotes, cougars and lynx (Achuff et al. 1984).





Sinclair Canyon is one of two watersheds in KNP where Little Brown Myotis are present, and ecolocation calls have been detected and/or observed at the Radium Hot Springs and west gate area (Poll et al. 1984). However it is considered unlikely that the Little Brown Myotis hibernate in KNP (Parks Canada Agency, 2012). This species was emergency listed under COSEWIC in 2012 as endangered as a result of severe population reductions from White-nose Syndrome.

Rubber Boa is a snake species listed as special concern under Schedule 1 of the Federal Species at Risk Act (SARA) and is at its northern habitat extent in the Radium Hot Springs Pools area of KNP.

Sinclair Creek runs along the east side Highway 93S and is within 100m of the project site. It flows in a westerly direction and eventually converges with the Columbia River. Brook Trout are known to inhabit this watercourse and though it is considered invasive in KNP, it is still afforded protection under the Federal Fisheries Act. Rebuilding of the retaining wall will take place within 100m of Sinclair Creek and there is a slight risk of sedimentation to the watercourse, however the remedial option of constructing the retaining wall using Pile Wall installation methods is expected to be less disruptive as large excavations are not expected to be required, reducing the required footprint. Through the implementation of appropriate sediment and erosion control methods, negative effects to Sinclair Creek are not anticipated.

Site Access

Site access will be largely attained through existing infrastructure (Highway 93S, existing sidewalks and parking lots) within KNP. Activities and construction of the project components will take place in September 2016 which is outside the high season of visitation to the Park. No new access roads or paths are anticipated to complete the project works. Construction equipment will be stored on hard surfaces overnight. The Radium Hot Springs Pools are considered an environmentally sensitive site, however the project is restricted to the sidewalks, curbs and gutters of the highway and does not encroach on the unique geology, flora and/or fauna of this area.

6. CULTURAL RESOURCE IMPACT ANALYSIS (CRIA)

Currently there are no anticipated negative impacts on cultural or archeological resources. The low rock-faced historical retaining walls that border the sidewalk in sections are not expected to be impacted by this work. They will be avoided and not touched. There are several CMT (Culturally modified trees approximately 200 years old) found adjacent to the work area. These will clearly be identified so as to be avoided. The excavation work will be in previously disturbed locations on or along the previously built up/in-filled roadbed and adjacent locations. In a previous test borehole location between the roadway and the hot pool retaining walls, only clean fill was found in that area so it is assumed that in this project the same material will be found in areas of excavation. If any unexpected cultural or archeological artifacts are encountered, the ESO will be notified and works will be stopped until a Parks Canada archeologist or the Cultural Resource Management Advisor is notified.

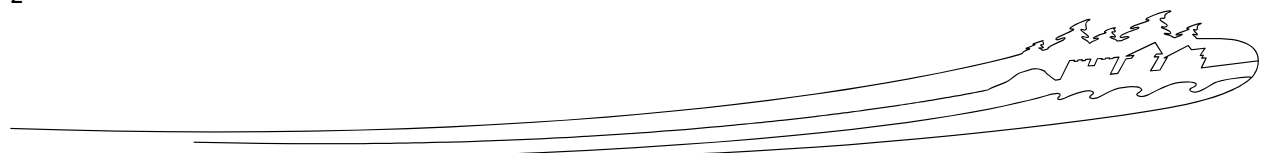
7. VALUED COMPONENTS LIKELY TO BE AFFECTED

Valued components (VC) that may be affected include air quality, soil and landforms, flora and fauna including the provincially blue listed (special concern) Rocky Mountain Bighorn Sheep (*Ovis Canadensis*), SARA listed Rubber Boa (*Charina bottae*), SARA listed Little Brown Myotis (*Myotis lucifungus*), and visitor experience. A portion of isolated project area will take place within the vicinity of the Radium Hot Springs pools which is a federally registered Classified Heritage Building (FHBRO). Part of the reason for this designation to the building is the proximity to Sinclair Canyon which contributes to the heritage character of the building. Visitor experience may be negatively affected during construction, however the final outcome will be result in an enhanced experience through improved access, better facilities and visitor safety.

8. EFFECTS ANALYSIS

Air Quality

There will be minor increases in the vehicle and heavy machinery use with associated increases in emissions. There will be no significant negative effects to air quality.





Soils and Landforms

The footprint of construction is not expected to extend beyond the footprint of the existing infrastructure. Demolition of the existing retaining wall, sidewalks and hand rails will impact soil and landforms. However, these are already manipulated landscapes so impacts will only improve existing landforms for stability, visitor experience and safety.

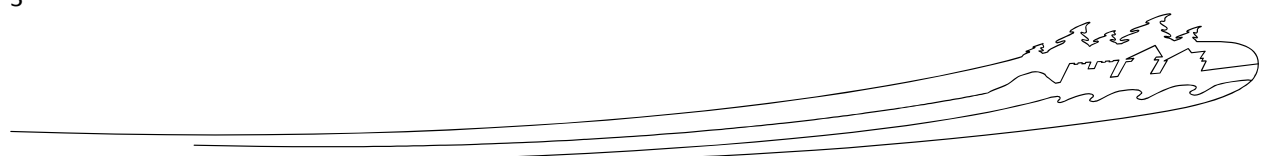
Wildlife

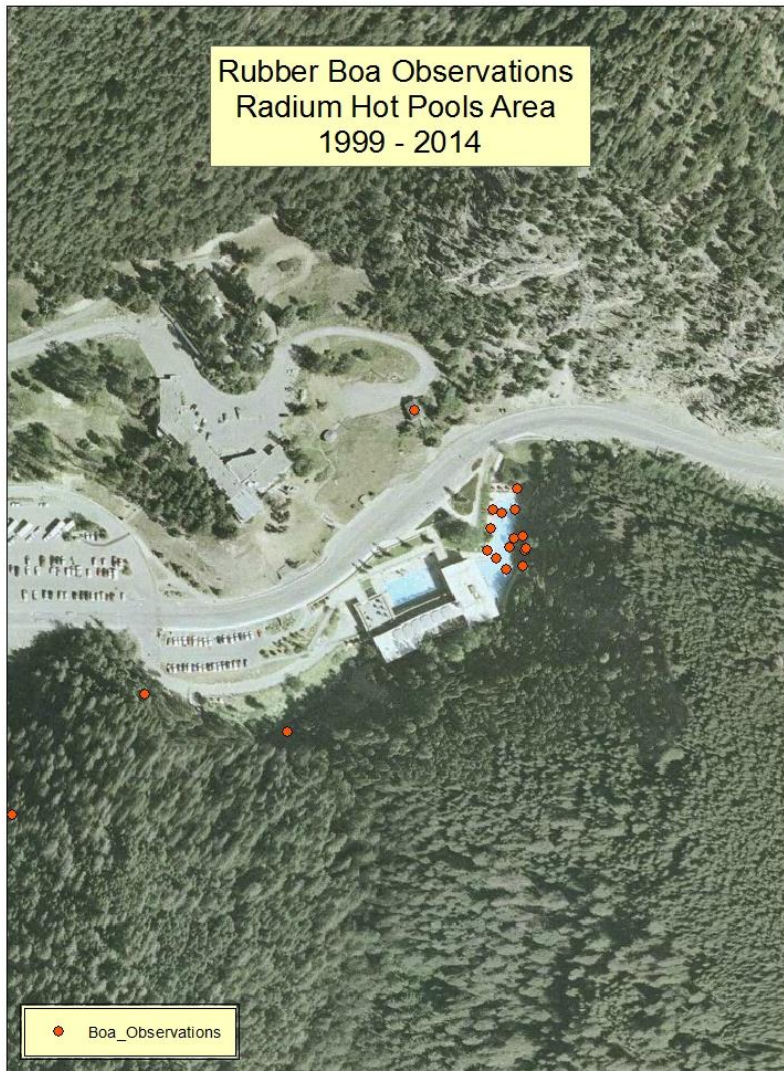
The project is likely to cause minimal disturbance to wildlife and cause minor habitat avoidance for the duration of the construction period.

Bighorn Sheep (*Ovis Canadensis*) are provincially blue listed species, equating to a status of special concern. They are frequently around the town of Radium Hot Springs and are habituated to human presence. They use the highway as part of their migration corridor. Works in this area, in the traditionally quieter months (Sept-Nov) may alter their regular movements through the area due to noise and activity however long term impacts are not expected.

Rubber Boa (*Charina bottae*) are a nocturnal fossorial snake species which attains its northern habitat limits in the Sinclair Canyon region. It is likely able to persist at this location by exploiting the thermal advantage of the pools. The Rubber Boa is regularly observed in around the hot pools (Figure 1). The exact location of the hibernacula is unknown, however based on anecdotal observations, they may hibernate along the natural east cliff face in the hot pool although this has never been confirmed. Construction and works for this project are not expected to extend into the areas of regular observation of this species or potential areas of its hibernacula. However, as a precaution, when works approach the northern end of the hot pools, construction crews will be advised of the potential of this species on site, and the ESO officer may conduct regular inspections to ensure that no disturbance to this species or its critical habitat (ie hibernacula) is incurred. No negative effects or disturbances are expected for this species.

Figure 1. Rubber Boa observations near the Radium Hot Pools facility

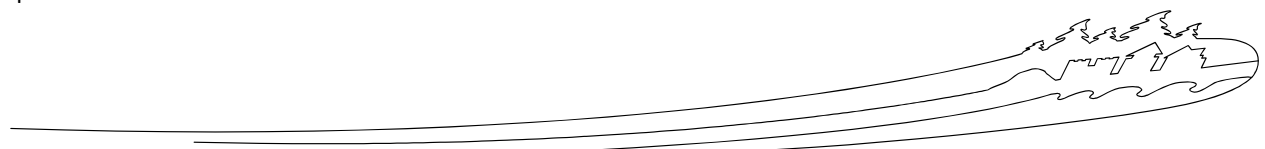




Little Brown Myotis (*Myotis lucifugus*) was emergency SARA listed in 2015 as endangered and if on site, SARA requires that we protect individuals, residences (roosts) and once identified, their critical habitat. The most significant threat to this species has been identified as 'White Nose Syndrome'. Other threats to this species include destruction or degradation of roosts, light pollution and collisions with vehicles (COSEWIC, 2015). According to the recovery strategy for this species, the threat from both light pollution and collision with vehicles have low causal certainty¹ and unknown levels of concern² on the species. These bats are suspected to use the area around and through the Sinclair Canyon. Construction for this project will take place outside of the maternity roosting period for this species (April 15-Sept 1st), therefore no impacts to roosting habitats are anticipated. Hibernation for this species beings from October 1st-April 15th however Little Brown Myotis are not likely to hibernate in this area (Parks Canada, 2012). Lighting for this project is utilizing downward projecting LED's at heights of approximately 9m high and 12m at pedestrian crosswalks. These lighting specifications are in line with preferences as set out by the Best Practices and

¹ Causal certainty: reflects the degree of evidence that is known for the threat

² Level of Concern: signifies that managing the threat is of (high, medium or low) concern for the recovery of the species, consistent with the population and distribution objectives.





Specifications for Outdoor Lighting at Parks Canada. The Sinclair Canyon area is a high traffic area regularly used by through traffic and human use. Negative impacts to this species are not anticipated from the implementation of lighting structures or infrastructure upgrades in this area (Seth Cherry, personal comm. 2016).

Visitor Experience

Visitor experience may be negatively affected during the construction phase of the project. The visual impact of construction may be perceived by some visitors as displeasing. Traffic may be negatively affected by the presence of construction equipment in the area. Construction is scheduled outside of the high visitation season (September). However upon completion, visitor experience will be positively impacted through the improvement of access and lighting from the existing gate, through the canyon and to the hot pools. This will encourage pedestrian traffic in the area, alleviate vehicle traffic and improve the accessibility and safety to facilities for visitors.

Visitor Safety

Excavations and heavy equipment present a public safety risk during construction and demolition activities. Visitor safety will be improved upon completion of this project by providing appropriate lighting from the existing gate, through the canyon, to the hot pools. Improvement to sidewalks and retention wall will also improve safety for visitors by ameliorating the quality and life span of these structures for vehicle and pedestrian traffic.

Cultural Resources

The Sinclair Canyon Electrical Upgrades and Site Rehabilitation project is located in the immediate environment of the Radium Hot Springs Aquacourt Classified federal heritage building and must respect its heritage character. The building's Heritage Character Statement describes its heritage values and character-defining elements. Specifically, it states that: *'the heritage character of the Radium Hot Springs aquacourt resides in its modernist design, the nature of its materials, and its relationship with the creek, pools and hot springs in its dramatic setting in the basin of a gorge.'*

With respect to the **proposed lamp posts and their physical impact on the Aquacourt**, it is recommended that the installation be undertaken in a way that ensures:

- that 'light spill', glare and hotspots are minimized to reduce the negative impact on the Aquacourt and its site; and
- that the new lighting does not interfere with proposed lighting for the Aquacourt complex.

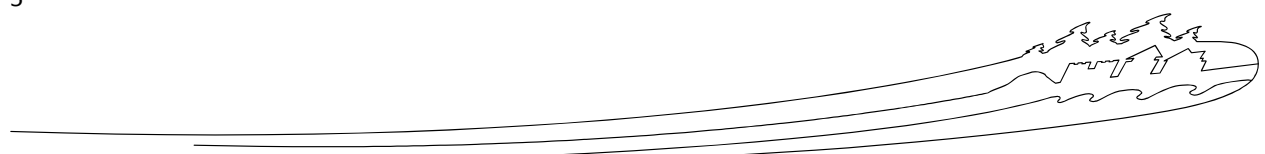
With respect to **other site improvement components**, it is recommended that the installation of the 'jersey barriers' and the replacement of the 'sidewalk, rail and retaining wall' are coordinated in a way to ensure a clean and uninterrupted interface between all existing and new components.

See attached Built Heritage Preliminary Advice, Cherine Nounou, Senior Built Heritage Advisor and Archeological Overview Assessment (AOA), Sinclair Canyon Electrical Upgrades and Site Rehabilitation, Kootenay NP, LLYK Field Unit, Gwyn Langemann, Archaeologist,

9. MITIGATION MEASURES

General

- All employees must attend a briefing with the Environmental Surveillance Officer (ESO) before beginning work at the site to review and explain the mitigation measures that are conditions of the project approvals
- Minimize ground disturbance by staging on existing hardened areas wherever possible
- Control materials that might attract wildlife (e.g. petroleum products, human food and garbage)
- Notify the ESO immediately about wildlife activity or encounters on or around the site. Sightings of large carnivores (e.g. wolves, bears, cougars) are to be immediately reported to Banff dispatch (403)-762-1470





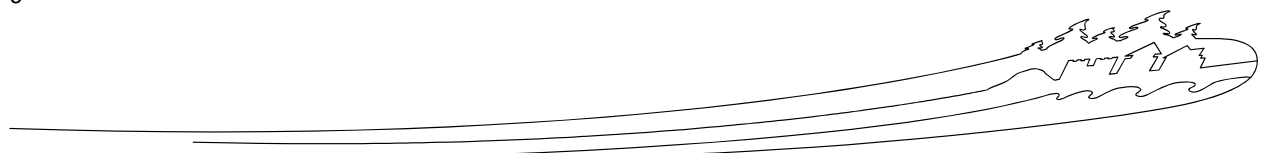
- When work involves the disturbance of soils or other erodible materials, prevent the transport of sediment by installing appropriate erosion and sediment control measures
- An Environmental Protection Plan that includes an Erosion and Sediment Management Plan and a Spill Response Plan
- Ensure machinery arrives on site in a clean condition and is maintained free of fluid leaks and invasive species, noxious weeds and soils from off site.
- Spill kits shall be provided at re-fuelling, lubrication, and repair locations that are capable of dealing with 110% of the largest potential spill and shall be maintained in good working order. Site staff shall be informed of the location of the spill response kit and be trained in its use.
- If potentially hazardous materials (e.g. cement-based products, sealants or paints) are used on site ensure raw material, mixed compounds and wash water are not released to any watercourse or soils. Measures such as collection/drip trays and berms lined with occlusive material such as plastic and a layer of sand, and double-lined fuel tanks can prevent spills into the environment
- Hazardous or toxic products shall be stored no closer than 100m from streams, wetlands, water bodies or waterways
- There may be cultural resources present in the project area that have not yet been discovered. If staff or construction workers observe any significant cultural resources while they are working, they should stop work in the immediate area, and contact the project manager, or a Parks Canada archaeologist or cultural resource advisor, to discuss any protective actions that might be needed. Isolated historic items are quite likely to be found, such as bottles or cans, but these are not reason to stop work. Significant resources in this context could include historic cabin foundations or dumps, concentrations of turn of the century bottles or cans, structural features related to early road construction such as masonry walls, or pre-contact resources such as concentrations of butchered animal bone, hearths, stone features, or artefacts.

Air Quality

- Minimize idling of vehicles
- Stabilize soil and other material storage piles against wind erosion
- Cover and contain fine particulate materials during transportation to and from the site
- Minimize vehicle traffic on exposed soils
- Wet down exposed soil and dry areas
- Confine construction to daylight hours
- Avoid site preparation during wet conditions

Soils and Landforms

- Use existing roadways or disturbed areas to access and travel within the site
- Identify and avoid soils susceptible to compaction (e.g. fine textured organic soils)
- Store construction materials in one area of the site. Flag clearly to reduce the area of disturbance and limit soil compaction
- Keep site clearing to a minimum and stay within project footprint
- Phase work to minimize exposure of disturbed areas
- Direct runoff and overland flow away from working areas and areas with exposed soils
- If a prolonged period of exposure is expected, protect soils with temporary cover (e.g. mulch, gravel, erosion blanket, vegetation cover)
- Halt activity on exposed soils during periods of high rainfall and runoff

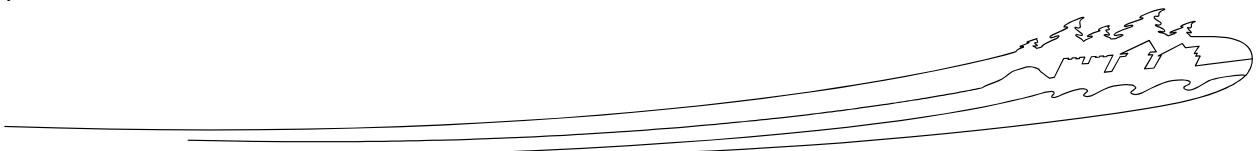




- Assess site for erosion control requirements and implement control measures as required (e.g. tarps, straw bales, erosion blankets etc.)
- Identify and handle all toxic/hazardous materials as required under the Canadian Environmental Protection Act, Transportation of Dangerous Goods Act and Workplace Hazardous Materials Information Service.
- Ensure backfilling is undertaken using suitable materials and that adequate soil compaction is conducted to avoid ground subsidence.
- Provide additional backfill where subsidence has occurred
- Minimize changes to the surface that could affect infiltration and runoff characteristics and maintain effective surface drainage to limit direct runoff into surface waters
- Any outside soils are to be certified as weed free
- All temporary excavations undertaken at the retaining wall location should be in accordance with the applicable WorkSafe BC Occupational Health and Safety regulations
- Excavations should be conducted with side slopes no steeper than 2H:1V
- Excavations should be inspected regularly for signs of seepage and instability and be flattened as required
- Sloped excavations with more than 3.0 m depth should be subject to detailed slope stability assessment
- If groundwater is encountered during construction, it should be controlled by a system of sump pumps and shallow trenches. Groundwater levels should be maintained a minimum of 0.5m below excavation grade at all times
- Control of surface water run-off will be required throughout the work. It is recommended to slope any prepared surface at approximately 2% to direct water away from construction areas and sealing the surfaces of fill zones at the end of each day to keep water out

Wildlife

- Observe local speed limits and take due care while driving in the project area as sheep are often using roadways in this area. Observing local speed limits is also expected to help minimize chances of vehicle collisions with Little Brown Myotis.
- Maintain escape routes for sheep throughout the project area so that animals are not confined to the road
- Fence excavations to prevent injury to wildlife
- All food and food waste will be stored in a locked vehicle until it can be disposed of in a bear-proof garbage bin. Waste materials and garbage will not be allowed to accumulate on the construction site or at staging areas. The contractor will ensure that vehicles are not leaking fluids, particularly engine coolant, which can be an attractant. Crews will not feed animals or engage in other activities that could increase habituation
- Construction will occur outside the maternity roosting period for bats (April 15th-September 1st)
- Construction will take place outside of the breeding bird window (April 15-August 31st) so any vegetation clearing will not pose threats to nesting birds
- Lighting fixtures will be timed to be turned on 2 hours before the opening hours of the hot pools and remain on for an additional 2 hours after the closure of the pools to minimize light pollution and potential impacts to Little Brown Myotis
- To minimize the risk of disease, if a bat is found Banff Dispatch is to be contacted immediately (403)-762-1470





- Areas of suspected Rubber Boa habitat are not anticipated to be affected, however if snakes are encountered, work in the area will stop until the Parks Canada Wildlife Specialist is contacted for further guidance and the ESO has conducted a thorough search for nearby snakes.
- The ESO will educate crews on the importance of Rubber Boa at the beginning of the project and if a snake is observed in the project area, workers will not disturb or handle the snake. Any sightings will be immediately reported to the ESO.
- No blasting works will be allowed within the vicinity of the Radium Hot Springs Pools
- No tree or shrub removal is anticipated and works are scheduled to occur outside the breeding bird window (April 15-August 31) however if tree or shrub removal is required within this period, a breeding bird survey must be conducted will in advance of any removals or nest disturbance activities including on human made structures.

Restoration

- All disturbed areas will be restored using a Parks Canada approved seed mix
- Use sod in high traffic areas or places that need extra erosion control. Source sod grown from native species (often called fescue sod) and ensure adequate anchoring and watering is in place

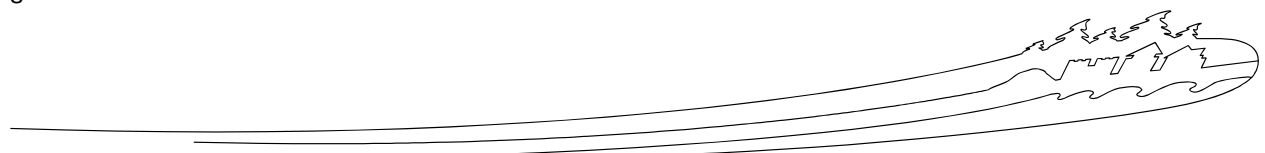
Visitor Experience and Safety

- Works are scheduled to take place during low visitation periods (beginning September) and will occur during daylight hours and restricted to weekdays unless otherwise permitted
- Minimize noise near the Hot Pools area while it is operational (ex. Schedule loud works when the pools are closed)
- The contractor will be responsible to develop and implement a dust management plan
- All materials on site are to be stored in a well arranged, neat and orderly manner and waste and removal plan will be developed by the contractor
- A communication plan will be developed to ensure the public is aware of the project and any temporary disruptions
- Any open/excavated areas will have fences around them overnight. Temporary closers will be in place where necessary to prevent visitor access into work zones
- Special attention by equipment operators and downslope protection may be required to prevent debris from rolling onto the highway or towards Sinclair Creek

10. OTHER Considerations

Check all that apply

- ☐ Public/stakeholder engagement
- ☐ Aboriginal engagement or consultation
- ☒ Surveillance
- ☐ Follow-up monitoring, required to evaluate effectiveness of mitigation measures and/or assess restoration success
- ☐ Follow-up monitoring, required by legislation or policy (indicate basis of requirement e.g. required by the *Species at Risk Act*)





☐ SARA Notification

For any of the boxes checked above, briefly describe what was done, how the results were incorporated into the BIA and/or outline plans for what is needed.

11. SIGNIFICANCE OF RESIDUAL ADVERSE EFFECTS

12. EXPERTS CONSULTED

Include Parks Canada experts. Add as many entries as necessary for the project.

Department/Agency/Institution: Parks Canada	Date of Request: 2016-05-05
Expert's Name & Contact Information: Seth Cherry, 250-347-6158	Title: Ecologist Team Leader
Expertise Requested: Expected impact and mitigation measures for wildlife in the area including SAR	
Response: Incorporated into BIA	
Department/Agency/Institution: Parks Canada	Date of Request: 2016-05-03
Expert's Name & Contact Information: Pippa Shephard, 604-666-7378	Title: Species Conservation Specialist
Expertise Requested: Expected impact and mitigation measures for wildlife in the area including SAR	
Response: Incorporated into BIA	
Department/Agency/Institution: Parks Canada	Date of Request: 2016-05-05
Expert's Name & Contact Information: Shelley Humphries	Title: Aquatic Specialist
Expertise Requested: Fish community data for Sinclair Creek	
Department/Agency/Institution: Parks Canada	Date of Request: 2016-05-05
Expert's Name & Contact Information: Cherine Nounou	Title: Built Heritage Advisor
Response: Incorporated into BIA and Preliminary Built Heritage Advice	
Department/Agency/Institution: Parks Canada	Date of Request: 2016-05-05
Expert's Name & Contact Information: Gwyn Langemann	Title: Archeologist
Expertise Requested: archeological data for Sinclair Canyon and the Radium Aquacourt	
Response: Incorporated into BIA and AOA	
Department/Agency/Institution: Parks Canada	Date of Request: 2016-05-05
Expert's Name & Contact Information: Karen Lassen and Gwénaëlle Le Parlouër	Title: CRM Advisors
Expertise Requested: CRM policy advice	
Response: Incorporated into BIA	

13. DECISION

Taking into account implementation of mitigation measures outlined in the analysis, the project is:






- ☒ not likely to cause significant adverse environmental effects.
☐ likely to cause significant adverse environmental effects.

FOR SARA REQUIREMENTS:

- ☒ There are no residual adverse effects to species at risk and therefore the SARA-Compliant Authorization Decision Tool was not required
OR, the SARA-Compliant Authorization Decision Tool ([Appendix 2](#)) was used and determined:
☒ There is no contravention of SARA prohibitions
☐ Project activities contravene a SARA prohibition and CAN be authorized under SARA
☐ Project activities contravene a SARA prohibition and CANNOT be authorized

14. RECOMMENDATION AND APPROVAL

(Add additional blocks as required)

Prepared by: EIA author (name & position): Marla Bojarski Environmental Assessment Scientist	Date:
Recommended by: Functional manager of the project (name):	Date:
Approval signature: Name & position (<i>Field Unit Superintendent, Director of a Waterway</i>): A. Kolesch, Manager, ILUPP 	Date: August 15, 2016

15. ATTACHMENTS

15.1. BMPS

Parks Canada National Best Management Practices Roadway, Highway, Parkway and Related Infrastructure (Parks Canada Agency, May 2015)

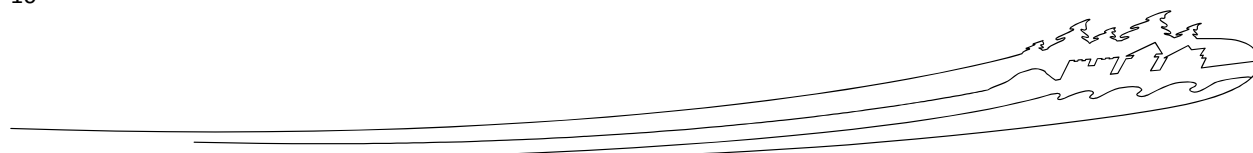
Model Class Screening Report For Routine Frontcountry Projects In Lake Louise and Yoho and Kootenay National Parks (Parks Canada Agency, Winter 2012)

15.2. Other (e.g., project area diagrams, sensitive area maps, project execution plan, previous analysis)

Best Practices and Specifications for Outdoor Lighting at Parks Canada (Parks Canada Agency, March 2008)

Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. ix + 110 pp.

Stantec, 2016. Geotechnical Investigation Sinclair Canyon Site Rehabilitation





Stantec, 2016. Sinclair Canyon, Electrical Upgrades and Site Rehabilitation PWGSC Project #- R.067256.802 Pre-Design Report

Cherine Nounou, Senior Built Heritage Advisor, Built Heritage Preliminary Advice, 2016.05.11

Gwyn Langemann, Archaeologist, Archeological Overview Assessment (AOA), Sinclair Canyon Electrical Upgrades and Site Rehabilitation, Kootenay NP, LLYK Field Unit, 2016.06.16

16. NATIONAL IMPACT ASSESSMENT TRACKING SYSTEM

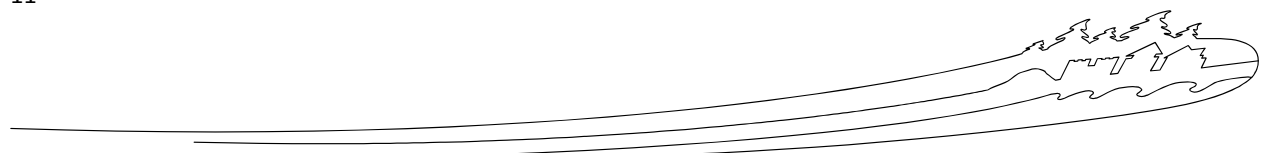
- ☒ Project registered in [tracking system](#)
- ☐ Not yet registered (*CEAA 2012 requires PCA submit a report to Parliament annually. EIAs must be entered in the tracking system **by the end of April** to enable reporting.*)

*****Ensure that all required mitigation measures and conditions (e.g. follow-up monitoring requirements) are included in project permits and authorizations*****

References

Achuff PL, Holland WD, Coen GM and van Tighem K (Eds). Ecological Land Classification of Kootenay National Park, British Columbia Vol. I: Integrated Resource Description. Alberta Institute of Pedology, University of Alberta.

Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. ix + 110 pp.





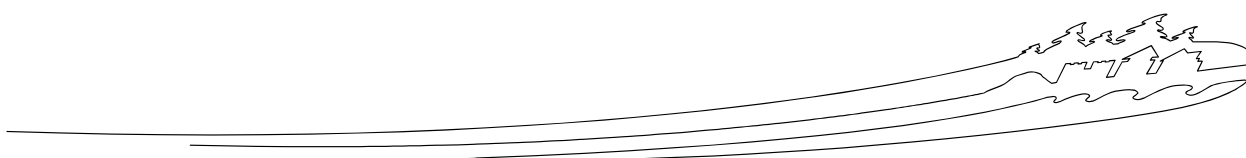
Parks Canada Agency (PCA). 2015. Parks Canada National Best Management Practices Roadway, Highway, Parkway and Related Infrastructure

Parks Canada Agency (PCA). 2012. Model Class Screening Report For Routine Front Country Projects In Lake Louise and Yoho and Kootenay National Parks.

Appendix 1 : Effects Identification Matrix (optional)

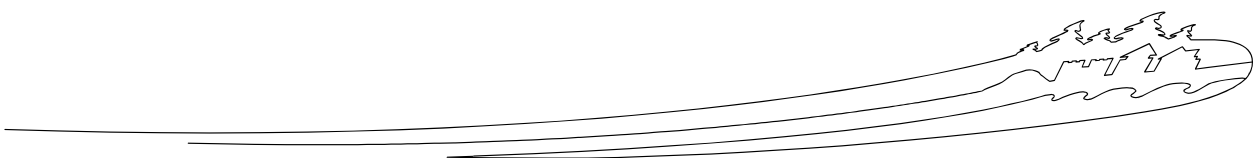
Section A focuses on direct effects of the project and **Section B** on indirect effects that are caused by changes to the environment.

A. Direct Effects									
	<i>You may wish to change the components listed under the headings to specify the natural or cultural resources that are priority considerations for your PCA site or for the specific project being reviewed.</i>		Valued components potentially directly affected by the proposed project						
			Natural Resources					Cultural Resources	
			Air	Soil & landforms	Water (surface, ground, crossings, etc.)	Flora (specify, including SAR)	Fauna (specify, including SAR)	Sinclair Canyon (Rock Cut)	Radium Hot Springs Pools
	Phase	Examples of Associated Activities							
Project Components	Preparation / Construction / Operation / Decommissioning	Supply and storage of materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Burning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Clearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Demolition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Disposal of waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Blasting/ Drilling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Dredging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Excavation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Backfilling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Use of machinery	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Transport of materials/ equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Building of fire breaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



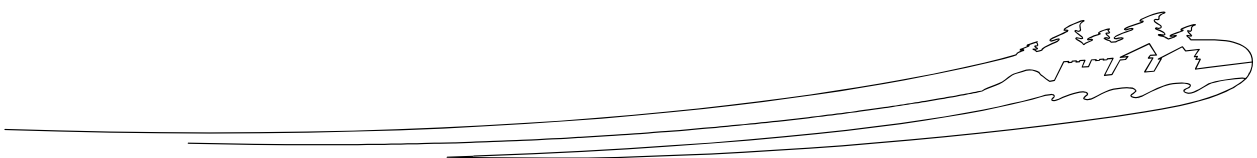


		Use of Chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Set up of temporary facilities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Other...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





A. Direct effects continued									
<p><i>You may wish to change the components listed under the headings to specify the natural or cultural resources that are priority considerations for your PCA site or for the specific project being reviewed.</i></p>		Valued components potentially affected by the proposed project							
		Natural Resources					Cultural Resources		
		Air	Soil & landforms	Water (surface, ground, crossings, etc.)	Flora (specify, including SAR)	Fauna (specify, including SAR)	Sinclair Canyon (Rock Cut)	Radium Hot Springs Pools	
Phase	Examples of Associated Activities								
Project Components	Preparation / Construction / Operation / Decommissioning	Waste disposal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Wastewater disposal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Use/Removal of temporary facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Use of Chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Active fire stage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Prescribed burn cleanup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Planting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Culling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Vehicle Traffic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Other...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

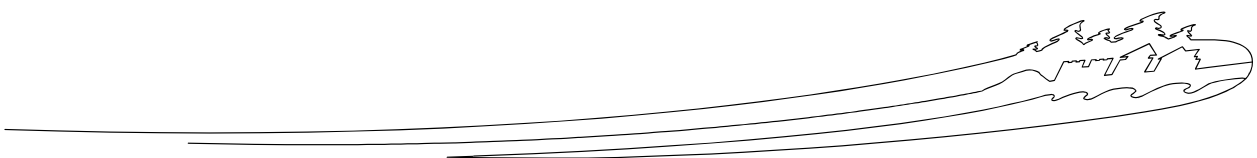




Section B of the matrix should be used to identify potential indirect effects that may result from impacts of the project to components of the environment you have identified on the preceding pages (see Section A - direct effects to natural resources). Consideration of indirect effects is required under CEAA 2012 Sections 5(1)(c) and 5(2)(b), and by the PCA mandate. For example:

- if the proposed project could lead to adverse effects to water quality and quantity, could this then effect the quantity and quality of water resources (e.g. potable water) used by an Aboriginal community?
- could there also be adverse socio-economic effects to a community that relies on recreational fishing tourism?
- could changes to the environment (e.g. digging, clearing) affect visitor access, opportunities, or safety?

B. Indirect Effects (all phases)							
<p><i>You may wish to change the components listed under the headings to specify the natural or resources that are priority considerations for your PCA site or for the specific project being reviewed.</i></p>		Impacts as a result of changes to the environment					
		With respect to non-Aboriginal peoples:	With respect to Aboriginal peoples:		With respect to visitor experience		
		Health and socio-economic conditions	Health & socio-economic conditions	Current use of lands and resources for traditional purposes	Access & services	Recreation & accommod'n opportunities	Safety
Phase	Natural resource components affected by the project						
Preparation /construction operation/implementation/decommissioning	Could impacts to <u>air</u> lead to adverse effects on...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Could impacts to <u>soils</u> and <u>landforms</u> lead to adverse effects on...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Could impacts to <u>water</u> (e.g. surface, ground water and water crossings) lead to adverse effects on...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Could impacts to <u>flora</u> (including SAR) lead to adverse effects on...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Could impacts to <u>fauna</u> (including SAR) lead to adverse effects on...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

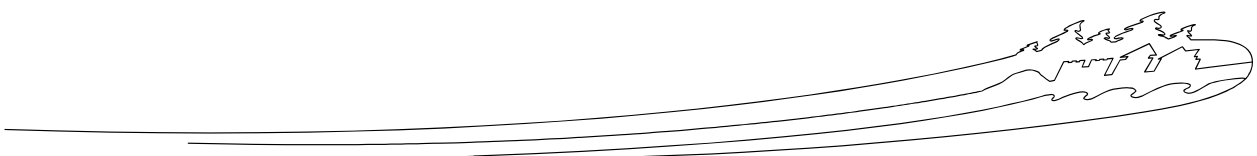




Appendix 2: SARA-Compliant Authorization Decision Tool

- **This tool is for use when the BIA has determined that project activities will lead to residual adverse effects to THR, EN, or EX species at risk** (i.e. even after mitigation measures are applied, there are effects to individuals, residences or critical habitat of THR, EN or EX species at risk).
- This tool provides a structured process to determine if a SARA authorization is required, if it can be issued, and how to issue it.
- **Guidance for each question is provided within the form and should be deleted from the final version.**
- Consultation with a representative of the [Species Conservation and Management \(SCM\)](#) team is encouraged to help ensure consistent application of this tool.

Part A – Does a SARA authorization need to be considered for this activity?
1. Will the activity lead to residual adverse effects that contravene a SARA prohibition for a listed endangered (En), threatened (Th) or extirpated (Ex) species at risk, its residence or its critical habitat? (Clearly indicate if the activity will affect one/or more listed species).
SARA prohibitions: s.32 - Cannot: kill, harm, harass, capture, or take individuals; possess, collect, buy, sell or trade individuals or parts of individuals; s.33 – Cannot damage or destroy residences; s.58 – Cannot destroy any part of critical habitat; s.80 - Cannot carry out an activity that is prohibited under a protection order.
<input type="checkbox"/> Yes. Residual adverse effects of the activity will contravene a SARA prohibition. Document how activities will contravene a SARA prohibition. Then continue to Question 2.
2. Is the activity authorized under S. 83 of SARA?
<input type="checkbox"/> Yes. A SARA authorization is NOT required. The activity is authorized in a recovery strategy or action plan; OR <input type="checkbox"/> Yes. A SARA authorization is NOT required. The activity is required for public safety, health or national security AND authorized by or under another Act of Parliament. <u>Document below:</u> <ul style="list-style-type: none"> • The specific section of the published recovery strategy or action plan that makes reference to section 83 of SARA OR <ul style="list-style-type: none"> • Why the activity is needed for public safety, health or national security and reference the Act of Parliament under which the activity is authorized (<i>you MUST consult a member of the SCM team if you plan to use the section 83 exception</i>). If all activities that would contravene a SARA prohibition are already authorized under SARA s.83, check the first box in Part D and submit for approval.
<input type="checkbox"/> No. A SARA authorization is required. Continue to Part B.





Part B – Is the activity eligible for authorization under SARA?

****Complete ONLY if you have answered NO to Question 2, above****

3. Does the activity fall into one of the following three categories?

Select the appropriate box (check only one) and **continue to Question 4** OR, If the proposed activity DOES NOT fit in any of the three categories below the activity CANNOT be authorized, and you can check the second box in **Part D** and **submit for approval**.

- ☐ The activity is scientific research related to the conservation of the species and conducted by qualified persons; **OR**
- ☐ The activity benefits the species or is required to enhance its chance of survival in the wild ; **OR**
- ☐ Affecting the species is incidental to the activity (i.e. the purpose of the activity is not to engage in an activity that is prohibited under SARA (e.g., kill, harm, harass...an individual; destroy a residence or critical habitat). For example, fishing for a listed species cannot be permitted, but accidental by-catch may be.

4. Alternatives that would reduce the impact(s) on the species have been considered and the best solution adopted

Document below and **continue to Question 5**. *This question is an additional requirement to the questions in the BIA template.*

- Identify and explain all reasonable alternatives considered to reduce the impact(s) on the species (alternatives to the project and alternative means of carrying out the project, including a “no action” alternative).
- This explanation must demonstrate that the best solution has been adopted.

5. All feasible measures must be taken to minimize the impact of the activity

Ensure that the mitigations identified in Section 8 of the BIA template to address effects to species at risk are as comprehensive as possible, and continue to **Question 6**.

6. Will the activity jeopardize the survival or recovery of the species?

Document here your analysis of whether the activity will jeopardize survival or recovery of the species. The analysis must consider and refer to relevant SARA recovery documents (e.g. COSEWIC status reports, recovery strategies, action plans), and/or Parks Canada Detailed Assessments for the species, if available. In particular, refer to the population and distribution objectives, the threats to the species, and the identification of critical habitat (including the location, amount - if available, biophysical attributes, and the activities likely to destroy).

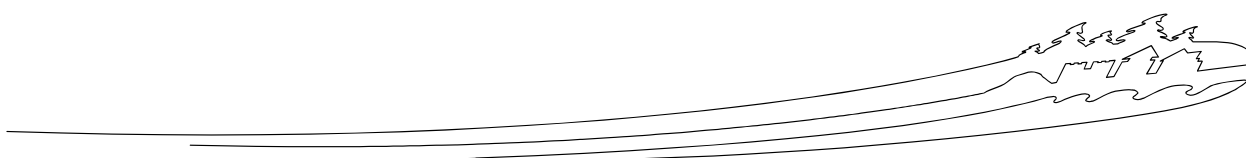
NOTE: *If the BIA determines there are no alternatives or mitigation measures that can prevent destruction of critical habitat or non-compliance with a protection order, you **MUST** consult a member of the [SCM team](#) for further advice.*

- ☐ **Yes. The activity CANNOT be authorized.**

Check analysis with the [SCM team](#). Then check the second box in **Part D** and submit for approval. **ENSURE THIS CONCLUSION IS TAKEN INTO CONSIDERATION IN SECTION 10 OF THE BIA TEMPLATE (SIGNIFICANCE OF RESIDUAL ADVERSE EFFECTS) AND DOCUMENTED IN THE BIA TEMPLATE, SECTION 15 – DECISION.**

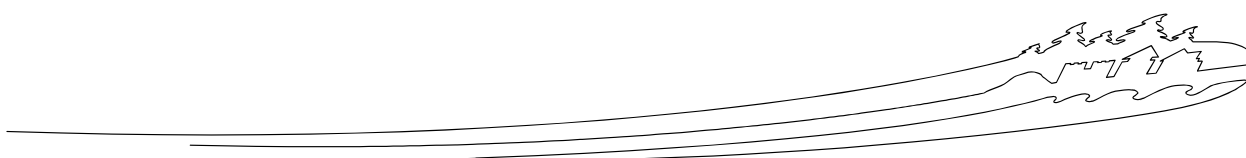
- ☐ **No. The activity CAN be authorized.** Complete explanation and continue to **Part C**.

Clearly document how you considered potential jeopardy to the survival or recovery of the species. Check analysis with the [SCM team](#).





Part C - Prepare the SARA authorization and posting explanation
7. Prepare the authorization
The authorization will be issued using the EIA process and SARA s.74
Issue the SARA authorization using the template on the intranet and complete Question 8 to prepare the posting for the SAR Public Registry .
8. Provide description for posting
<i>SARA requires that an explanation of why a SARA authorization is issued be posted in the SARA Public Registry in both official languages within 30 days of the authorization being issued. Prepare the explanation, using the information you entered in the BIA and previous sections of this Appendix. Your regional SCM representative will have the explanation translated and will publish it on the SARA registry.</i>
<p>Regional or Local Number: Provide the authorization number issued by Parks Canada (in this instance, the file number of the EIA)</p> <p>Purpose – select the answer indicated in Section 3 of this Appendix:</p> <ul style="list-style-type: none"> ➤ Affecting the species is incidental to the activity; OR ➤ The activity is necessary of beneficial to the species, OR ➤ The activity is scientific research related to the conservation of the species and conducted by qualified persons <p>Description of the Activity Provide a one-paragraph summary of the activity and how it will affect the listed species (using the information in sections 5 & 10 of the BIA template)</p> <ul style="list-style-type: none"> ➤ Start Date of Authorization: XXX End Date of Authorization: XXX ➤ Issuing Authority: Parks Canada Agency ➤ Authority Used: (see section 7 of this Appendix) ➤ Location of Activity (province, territory or ocean): XXX ➤ Affected Species: Limit your list to potentially affected species that are listed under SARA as Extirpated, Endangered or Threatened <p>Pre-Conditions - limit your explanation to species for which the authorization will be issued: Provide a half-page summary of proposed mitigation measures and the significance of residual effects (from the BIA) and provide summary of sections 4, 5 and 6 of this Appendix.</p> <p>Contact Person(s) Provide name and coordinates of a PCA contact.</p>





Part D – SARA Authorization Decision

Select the appropriate answer and continue to Part E.

- ☐ This activity does not require a SARA authorization, as indicated in Questions 1 and 2.
- ☐ This activity requires a SARA authorization but CANNOT be authorized because it does not fit into one of the three required categories (see response to Question 3) OR it does not meet one of the SARA pre-conditions (see responses to Questions 4-6).
- This activity meets the SARA authorization requirements; an authorization may be issued (see response to Questions 3-6). The residual adverse effects (effects remaining after mitigations have been applied) MAY contravene the following SARA prohibition:
- ☐ s.32 - Cannot: kill, harm, harass, capture, or take individuals; possess, collect, buy, sell or trade individuals or parts of individuals;
 - ☐ s.33 – Cannot damage or destroy residences;
 - ☐ s.58 – Cannot destroy any part of critical habitat;
 - ☐ s.80 - Cannot carry out an activity that is prohibited under a protection order

Part E – SARA Authorization Recommendation and Approval

Prepared by <i>(add additional blocks as required):</i> Name & Position of Author(s), Collaborator(s), Reviewer(s):	Date: YYYY-MM-DD
Recommended by: Name & Position:	Date: YYYY-MM-DD
Decision Approval	
Name & Position <i>(FUS/Director of a Waterway, or Delegate):</i>	
Signature:	Date: YYYY-MM-DD

