Parks Canada Best Management Practice (BMP) for Commercially Guided Eco-tourism Activities in Nahanni and Nááts'įhch'oh National Park Reserves of Canada

Southwest Northwest Territories Field Unit

February 2018

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Canada

This Best Management Practice (BMP) examines potential interactions between the environment[1] and commercially guided eco-tourism activities in Nahanni National Park Reserve (hereafter Nahanni) and Nááts'įhch'oh National Park Reserve (hereafter Nááts'įhch'oh). **The BMP is a component of the preliminary screening process and mitigations will be applied as required to commercial guiding operations as a condition of their business licence.**

Impact Assessment Officers (IAOs) may recommend use of this BMP during Step 4 (Conduct Preliminary Screening) of PCA's Preliminary Screening Process under the *Mackenzie Valley Resource Management Act* (MVRMA). The IAO must ensure that the development is recorded in the Parks Canada National Impact Assessment Tracking System (northern section).

Name of Best Management Practice (BMP)	Parks Canada Best Management Practice (BMP) for Commercially Guided Eco-tourism Activities in Nahanni and Nááts'įhch'oh National Park Reserves of Canada, Southwest Northwest Territories Field Unit.
Scope of Application:	This BMP provides the preliminary screening assessment and mitigations required for the following activities: Commercially guided eco-tourism activities including: • Items common to all activities (e.g.: waste management) • Hiking (on and off established trails) • Mountaineering (rock/ice climbing, ski touring) • Overnight camping (only occurs in association with other activities and includes camping at established and random sites) • Non-motorized boating (rafting, canoeing, kayaking, stand up paddle board, pack raft [only on the Broken Skull, Little and South Nahanni, and Flat rivers], and associated portaging) • Fishing (only occurs in association with other activities) <u>APPLICATION OF THIS BMP</u> This BMP will be applied, as relevant, as part of the terms and conditions of the business licence for commercial guiding operations.
Exceptions:	This BMP must either be amended, or a preliminary screening form completed, to address additional effects if the commercially guided eco-tourism activity: • has the potential for residual adverse effects on an individual or a residence of a listed species at risk[2] (endangered, threatened, or

[1] Environment: land, water, air or any other component of the environment, as well as on wildlife harvesting, the social and cultural environment, and heritage resources (MVRMA, s 111(1)).

[2] Species at risk as listed on Schedule 1 of the *Species at Risk Act*

	extirpated status) or any adverse effects on the critical habitat of a listed species at risk. • requires a permanent or semi-permanent backcountry camp for the season; • is a large-scale operation (i.e.: greater than 15 people, excluding guides). • is a new type of commercially guided eco-tourism activity and/or is not listed in the "scope of application" section of this BMP. **Note:** Guided activities in the case of emergencies (e.g.: rescue of sick, injured, or stranded clients) are not subject to this BMP or to the Environmental Impact Assessment process. **Note:** **Impact Assessment advice:** If there is any uncertainty concerning the application of this BMP, consult a member of the Impact Assessment Team. **Species at Risk advice:** If there is any uncertainty regarding potential adverse effects to species at risk, consult a member of the Species and Conservation Management Team. **Cultural Resource advice:** If there is any uncertainty regarding potential adverse effects to cultural resources, consult Patrick Carroll (Cultural Resource Management Advisor, SW NWT Field Unit)
Approved geographic area of application:	This BMP is intended for use in Nahanni National Park Reserve of Canada and Nááts'įhch'oh National Park Reserve of Canada.

Effects Assessment (components of the environment that may be affected)

Potential effects from the commercially guided eco-tourism activities described in the "scope of application" section for Nahanni and Nááts'įhch'oh are well understood and predictable. They include:

Soil/Land Resources

- Soil compaction and rutting (from foot traffic and tent placement)
- Soil contamination (decomposition of garbage and solid human waste on the soil and spills of camp fuel, bleach etc. could release toxic chemicals that could leach into the soil)
- Soil and rock scarring/burning from fires
- Removal of fossils (Operators and/or clients may remove fossils from park)

Air/Noise Quality

- Decreased site-specific air quality (from campfire smoke)
- Site-specific noise pollution (talking/socializing by groups)

Aquatic Resources

- Compaction, rutting, and erosion of riparian areas (from human use and trampling at shoreline boat disembarkation and launching/pull up sites and at drinking/washing/cooking water collection locations)
- Decreased water quality (from improperly managed garbage and solid human waste and activities such as washing, bathing, and cooking)
- Negative impacts to fish populations (from overfishing, damage to habitat by foot traffic or decreased water quality, and the inadvertent introduction of non-native species (on waders and other gear)

Flora and Fauna

- Plant/berry collection
- Inadvertent introduction of non-native species (e.g.: seeds transported on footwear or clothing)
- Compaction of vegetation (from foot traffic and tent placement)
- Disturbance to plant and animal health (decomposition of garbage on the soil could release toxic chemicals that could be harmful to vegetation and wildlife)
- Conditioning of wildlife to human garbage and/or food (improperly managed solid waste and/or stored food/fuel are an attractant to wildlife, altering their behavior, movement patterns and natural feeding habits. Large wildlife (e.g.: bears) that receive food rewards are potential threats to public safety and may need to be relocated or destroyed)
- Wildlife disturbance (noise and wildlife viewing could cause displacement from habitat or alteration in the use of movement corridors)
- Disturbance, damage, or destruction of beds, roosts, or nests (by foot traffic or firewood collection)

- Human/wildlife conflict (camping and hiking near wildlife may result in human-wildlife conflict. If human life is in danger, the animal may need to be relocated or destroyed)
- Species at Risk: Although species at risk exist in both park reserves covered under this BMP it is not expected that commercially guided eco-tourism activities will result in residual adverse effects if the mitigations described in this BMP are applied.

Visitor Experience

- Decrease in wilderness and aesthetic experience (improperly disposed of garbage and/or human waste and disturbance to other visitors if groups are too numerous and/or closely spaced)

Social/Cultural Environment (including Wildlife Harvesting)

- Impacts to land use experience by Indigenous people (if visitor activities alter behaviours of harvested wildlife)
- Impacts to cultural and/or traditional renewable resource harvesting activities of Indigenous people (if visitor activities result in increased time and efforts for locating and harvesting wildlife)

Heritage Resources: (from MVRMA (s.2) - *archaeological or historic sites, burial sites, artifacts and other objects of historical, cultural, or religious significance, and historical or cultural records* and from PCA, 2013 - *a human work, an object, or a place that is determined, on the basis of its heritage value, to be directly associated with an important aspect or aspects of human history and culture*)

- Trampling or unauthorized removal/disturbance of heritage resources
- Spills from camp stove refueling could contaminate or damage heritage resources

Mitigation Measures

Mitigation Measures Common to all Commercially Guided Eco-Tourism Activities in Nahanni and Náátsʼjhchʼoh

Mitigations for Hiking and Mountaineering

Mitigations for Overnight Camping

Mitigations for Non-Motorized Boating

Mitigations for Fishing in Nahanni

Mitigation Measures Common to all Commercially Guided Eco-Tourism Activities in Nahanni and Nááts'įhch'oh

General

1. Check for, remove and dispose of into garbage containers any bur-like seedpods or mud from equipment, boots, clothing, and pets prior to departure to reduce risk of introducing invasive plant species.
2. Guides must inform clients that:
    i. Vegetation and natural objects (e.g.: bones, antlers, rocks, fossils, plants and berries) cannot be collected, removed, defaced, damaged, or destroyed.
    ii. If a dog is brought into the park, it must be kept on leash at all times and must not be left unattended. Immunizations must be up to date and waste must be dealt with the same way as human waste.
    iii. When approaching water sources, remain on durable materials and avoid trampling vegetation wherever possible to help reduce erosion.
    iv. Indigenous people can and may be exercising their traditional rights, including harvesting and motorized access, within park boundaries.
    v. Heritage resources (defined above) must not be removed or otherwise disturbed. It is important that artifacts are left in place as their relationship to each other and the landscape tells an interpretive story.
    vi. The discovery of a heritage resource must be reported to guides and Parks Canada. Include information on what was seen, the location of where the material was encountered and, if possible, a GPS coordinate and photograph.
    vii. Rocks must not be removed or disturbed from any features that look, even remotely, like they were human made. These include, for example, cairns (rock piles), tent rings, and food caches.
    viii. Inuksuks are not representative of the park or local Indigenous practises and should not be built.
    ix. Parks Canada maintenance equipment and boats must not be used by visitors or guides.

Management of Solid Waste and Food

3. Reduce litter by minimizing the amount of cans, bottles, tin foil, styrofoam, and other wrappers/packaging taken into the park.
4. Organics (e.g.: cardboard, food waste, paper) may be burnt where fires are permitted, all other solid waste/garbage must be packed out on the same trip as they were brought in. Ensure food particles are completely burned; any unburned items must be packed out.
5. All food, garbage (including used hygiene products), and scented and flavoured toiletries (minimize the amount brought in) must be stored and secured from wildlife using one of the following methods appropriate to the camping location:
    i. In sealed hard-sided containers.
    ii. Food caches are available at Gahnįhthah Mįe (Rabbitkettle Lake), Nájlįcho (Virginia Falls), and the park cabin at Glacier Lake.

6. All dishes and food utensils must be washed and stored immediately after use. Food particles must be strained from dishwater and stored with garbage, or burned.
7. Excess fuel, food, or other material must be packed out and disposed of at an approved facility.
8. When feasible, pick up litter left by others.
9. Report accumulations of solid waste or large items, such as empty fuel drums, to park staff.

Management of Human Waste

10. When pit privies, outhouses, or composting toilets are not available:
    i. Where possible, urinate and defecate at least 60 meters away from travel routes, camping areas, water bodies, and heritage resources. Rocky or gravely sites may reduce attraction of wild animals and are preferred sites for urination.
    ii. Bury solid human waste in a shallow hole 15 to 20 cm deep (in snow/glaciers bury as deep as possible) and at least 60 metres away from travel routes, camping areas, water bodies, and heritage resources. Cover and disguise the hole when finished; avoid disturbing plant communities.
    iii. Pack out or burn (in fire box or designated fire pit) all used toilet paper.
    iv. Pack out all used hygiene products.
    v. For larger commercial groups it is important to schedule “bathroom breaks” at random locations before arriving at well used or scenic viewpoints and campsites to reduce visual and aesthetic impacts and to avoid concentration of potential contaminants in one location.

Management of Grey Water and Fuel

11. At lake campsites, deposit strained grey water by dispersing widely on land at least 60 m away from water. At all other sites, deposit in fast moving river water. At Náįlįcho (Virginia Falls), deposit strained grey water into the river.
12. Minimize the use of soap for dishwashing, laundry and bathing. Wash at least 60m away from lakes. Use biodegradable soaps.
13. Store fuel in leak-proof containers with a secondary containment unit (e.g.: river barrel or dry bag) and use a funnel when pouring.
14. Refueling of camp stoves shall occur at least 30 m from the high water mark of any water body.
15. Fuel shall not be stored or decanted near heritage resources as spillage would contaminate soil and potential buried resources, and inhibit opportunity for specialized residue analysis or dating.

Management of Human/Wildlife Interactions

16. Manage groups during wildlife viewing opportunities such that the animal's normal behaviour is not disturbed:
    i. Do not approach and never feed, call, entice or disturb wildlife.
    ii. Do not block lines of escape. If the animal(s) approach, display signs of aggression or any behaviour changes, move away immediately. Be

especially suspicions if wildlife appears "friendly" or "tame" as it may be diseased or wounded.
   iii. Keep the group close together.
   iv. Use binoculars in situations where it is desirable to enhance viewing opportunities.

17. Avoid carcasses, wildlife den/nest sites, calving areas, concentrations of birds (i.e.: breeding colonies and moulting areas) or young animals. Where possible, remain at least 300 m from these areas.
18. Watch for bird nests and chicks so as to not step on them; many northern birds are ground nesters.
   i. The *Migratory Birds Convention Act* (1994) and its regulations protect migratory birds and prohibit the disturbance or destruction of migratory bird nests and eggs in Canada. For a list of migratory birds protected under the Act, see https://www.ec.gc.ca/nature/default.asp?lang=En&n=421B7A9D-1
   ii. Common Nighthawk are known to nest on the Prairie Creek Fan; nesting period begins in late May/early June and potentially extends to early August. This species nests in open areas, typically on sand if they can find it and may use a shrub or log as a backing object for their nest. Nests are difficult to locate, but they will have an adult on them during the day. To avoid stepping on a nest pay close attention while walking through an area of high risk, and if you flush a bird off the ground, back up and make a large circle around the area to avoid stepping on the eggs or nestlings. Once a location of a nest is known set up a no-disturbance buffer area; typically 50 to 100 m. Sightings of Common Nighthawk must be reported to Parks Canada.
19. Leave an area immediately if a den, nest, or young animal is accidentally encountered.
20. Report wildlife sightings and encounters, unusual wildlife behavior, injured animals, and carcasses to Parks Canada. Marked animals (radio collars, ear tags, leg bands on birds, neck bands on swans) shall also be reported.
21. No person shall enter a cave in the parks.
22. Adhere to the guidelines in the "*Nahanni National Park Reserve Bears and People*" brochure.

Management of Visitor Experience

23. All water to be used for drinking or cooking should be boiled, or filtered and treated chemically to eliminate water-borne pathogens.
24. Outfitters or individual guides do not have authority over management of visitors or visitation. Guides cannot compel or instruct non-guided visitors to stay away from popular campsites.
25. Lead guides are requested to complete the Nahanni river trip survey upon completion of each trip. These surveys assist with resource conservation and management planning.
26. Day visitors should bring their own filled water bottles to avoid having to pack in water purification equipment.

Mitigations for Hiking and Mountaineering

On-route travel

1. Make use of existing routes and established facilities where possible, appropriate, and available.
2. Where possible, remain on routes, do not use shortcuts or cut switchbacks and inform clients of the associated environmental impacts including vegetation damage, soil erosion, and damage to trail infrastructure.
3. Do not make markers, cairns, or inuksuks, and never damage vegetation to mark a route.
4. Concentrate rest stops in areas that are established for these purposes or that are resistant to impact (e.g.: gravel areas).

Off-route travel

5. Follow or utilize the most durable surfaces whenever possible (e.g.: rock, talus, gravel, sand and seasonally dry gravel stream bottoms). Snow is also a durable preferred travel surface provided that groups are equipped for comfort and safety.
6. Avoid concentrating use in sensitive areas such as wet meadows, steep slopes and riparian areas, or other areas close to water.

Zone 1 Areas

7. No person shall enter a Zone 1 Special Preservation Area in Nahanni unless specifically authorized by Parks Canada. These areas are:
    i. Gahnįhthah (Rabbitkettle Hotsprings)
    ii. Wildmint Hotsprings
    iii. Old Pots Hotsprings
    iv. Grotte Valerie
    v. Chitú (Yohin Lake)
    vi. Nintsí Daheda (Sand Blowouts)
    vii. Deadmen Valley Sheep Licks
8. No person shall enter the Zone 1 Special Preservation Area in Nááts’įhch’oh. This area is:
    i. Mount Nááts’įhch’oh (Mount Wilson)

Mountaineering

9. Pack out solid human waste from locations where proper disposal is not possible (e.g.; big walls, areas with no mineral soil in which to dig catholes).
10. Minimize the amount of gear left behind at anchor or rappel stations, where possible and safe.
11. Use dull or appropriately coloured anchors, bolt hangers, slings, or other gear when gear is necessarily left in place.
12. Do not leave behind fixed line and ropes, food caches, or broken equipment.
13. Use slings to protect trees used for anchors.

Mitigations for Overnight Camping

1. Make use of camping facilities where provided. Otherwise, select campsites in durable locations.
2. Do not dig trenches around tents or build rock wind breaks.
3. If rocks are used to secure tents, disperse after use.
4. Do not modify areas to create camping sites.
5. Portable stoves, fire boxes, and other cooking implements must be set up on durable, heat resistant surfaces and away from vegetation or litter where possible.
6. Disperse ashes from fire boxes into moving water.
7. Where fires are permitted they must be only in designated fire pits or in fire boxes. Fires must be kept small and noise around the fire minimized in campsites shared with other users.
8. At all lakes in Nááts'įhch'oh, it is prohibited to collect, remove, deface, damage, or destroy dead wood, drift wood or wood of any kind for the purpose of making fires.
9. At Nailicho, use wood supplied by parks staff.
10. For all other locations within the park reserves, the use of fallen dead wood / drift wood is permitted unless otherwise posted.
11. Do not use leftover construction material as firewood unless provided by Parks Canada staff.
12. Do not bring firewood into a national park[1].
13. For reasons of wildlife safety, cooking, eating, and supply areas shall be set up at least 50 m away from tenting areas where possible.

[1] As per Canadian Food Inspection Agency guidelines

Mitigations for Non-Motorized Boating

1. Maintain visual contact with all boats in a group and stay within easy calling distance, when feasible, to minimize the spatial extent of, and repeated impacts to, wildlife.
2. When viewing wildlife, move to the opposite side of the river, stay in the boat, and remain as quiet as possible.
3. Do not approach swimming animals as this may cause stress and endanger them.

Mitigations for Fishing in Nahanni*

These mitigations only apply in Nahanni, as fishing is currently not permitted in Nááts'įhch'oh.

A Parks Canada fishing license must be purchased and all park fishing regulations adhered to, under the *National Parks of Canada Fishing Regulations*. Guides are prohibited from fishing in Nahanni while carrying out duties for which they are employed as per Section 27 of the *National Parks of Canada Fishing Regulations*. In addition, the following mitigations are proposed to minimize negative impacts of fishing on aquatic environments:

1. Rubber-soled waders should be worn due to the difficulty in disinfecting felt-soled waders (creating the potential for unintentional introduction of exotic species).
2. Dispose of entrails by puncturing the swim bladder and depositing them into moving water downstream of camp[2].
3. Always clean your catch at least 50 m away from campsites, picnic sites, rest areas, or other facilities.
4. Do not play fish to exhaustion. Instead, use a landing net to bring fish under control before they're played out.
5. Catch and release fishing is discouraged in order to minimize stress to fish.

If catch and release fishing, the following guidelines apply:

6. Wet your hands when handling live fish. Dry hands and gloves will remove the protective mucous coating and scales.
7. Handle fish in the net. Grasp them across the back and head for firm but gentle control, keeping fingers away from the gills.
8. Use only barbless hooks and turn fish belly-up when removing hooks. This disorients them momentarily for easier, quicker handling.
9. Do not remove swallowed hooks. Instead, cut the line next to the fish's mouth.
10. Do not keep fish out of the water more than 10-15 seconds. Fragile gills are damaged after that, especially in cold weather.
11. Revive fish before releasing. Hold it under the belly and by the tail, keeping it in an upright position underwater. If you are fishing in a river or stream, hold the fish facing upstream in the current, gently moving it back and forth to move water past its gills. Be patient and give the fish as much time as it needs to recover and swim away on its own.
12. Choose wading locations where impacts to fish habitat may be minimized (e.g.: harder substrates).
13. Retrieve as many snagged hooks and lines as possible.

[2]This requires a superintendent's notice subject to s.26 (1) and s.26 (2) of the *National Parks of Canada Fishing Regulations.*

*Note that some of this information may be moved, at a future date, to the fishing brochure/information provided to visitors, which currently provides an overview of fishing

regulations as required by the *National Parks of Canada Fishing Regulations* (e.g. types of lures, hooks, and bait permitted; catch limits)

Approval

Name: Jonathan Tsetso (Superintendent, Nahanni NPR)	Date: February 21, 2018
Signature:	
Name: Laani Uunila (Superintendent, Nááts'įhch'oh NPR)	Date: February 21, 2018
Signature:	

Review Period

Review required: Every 3-5 years
Last reviewed: February 2018

References

In addition to receiving expert park-specific review and review by business licence holders, this BMP has been adapted from:

- Parks Canada Agency. March 2011. *Model Class Screening Report for Commercial Activities in the Northern National Parks of Canada (Aulavik National Park of Canada and Tuktut Nogait National Park of Canada).*
- Parks Canada Agency. April 2008 (original January 2005). *Model Class Screening Report for Aquatic-based Commercial Guiding Activities in the Mountain National Parks of Canada (Banff National Park of Canada, Jasper National Park of Canada, Kootenay National Park of Canada, Yoho National Park of Canada, and Waterton Lakes National Park of Canada).*
- Parks Canada Agency. October 2009. *Model Class Screening Report for Land-based Commercial Guiding Activities in the Mountain National Parks of Canada (Banff National Park of Canada, Glacier National Park of Canada, Jasper National Park of Canada, Kootenay National Park of Canada, Mount Revelstoke National Park of Canada, Yoho National Park of Canada, and Waterton Lakes National Park of Canada)*
- Parks Canada Agency. 2013. *Cultural Resource Management Policy.* Heritage Conservation and Commemoration Directorate, Parks Canada