



# Parks Canada National Best Management Practices Common Activities

## **Parks Canada National Best Management Practices for Common Activities**

**Approved by**

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The Best Management Practice (BMP) pathway is applied when there is a suite of routine, repetitive projects or activities, with well understood and predictable effects. This fulfils Park's Canada's obligations under the *Canadian Environmental Assessment Act 2012* as a manager of federal land (see the [Guide to the Parks Canada EIA Process](#)). The BMP maximizes efficiency through creation of a pre-approved impact assessment for the defined suite of projects, to which standard mitigation and environmental management measures can be applied.

National BMPs can be applied in the following ways:

- Direct application: Use as is when the proposed project falls within the scope of the BMP(s) and its application will ensure there are no significant residual adverse effects.
- Application along with supplemental mitigations: *This will likely be the case when using a National BMP.* Slight modifications will likely be required to ensure all potential impacts are mitigated and to provide project-specific clarifications (e.g., critical timing windows, contact information, SAR or cultural resources considerations).
- Application as part of a Basic Impact Analysis (BIA) or Detailed Impact Analysis (DIA): where one or more BMPs may not address all the potential adverse effects of a proposed project, Field Units can apply the BMP(s) as part of a BIA or DIA.
- Develop a Field Unit specific BMP: use the National BMP as a resource to create a BMP to address site-specific needs. In this case, the new BMP must be signed off and approved by the Field Unit Superintendent.

The impact assessment officer (IAO) will review a proposed project and advise the functional manager of the project if and how this BMP should be applied. The IAO's advice will be based on whether the project falls within the scope of the BMP, and whether application of the mitigation measures in the BMP will adequately address potential adverse effects of the project. The IAO will also be responsible for adding any required supplemental mitigations to ensure site specific considerations are addressed.

Project Managers are responsible for ensuring all mitigation measures applicable to the project are added to the terms and conditions of any permits or contracts issued for the project.

The IAO must ensure the project, IA pathway applied and determination are recorded in the Parks Canada National Impact Assessment [Tracking System](#).

<b>Parks Canada National Best Management Practices for Common Activities</b>	
<b>Scope of application:</b>	<p>This Best Management Practice (BMP) applies to the common activities related to most projects (e.g., construction, demolition, maintenance or modification) taking place greater than 30 meters(m) from a waterbody<sup>1</sup> as measured from the High Water Mark<sup>2</sup> and outside of critical wildlife timing windows (e.g., nesting, breeding, migration, denning).</p> <p>Common Activities in this BMP include:</p> <ul style="list-style-type: none"> <li>• Project Planning</li> <li>• Worksite Conditions/Staging/Laydown</li> <li>• Equipment Operations (e.g., hand machinery, vehicles such as ATVs, mini-excavators, mini-dozers)</li> <li>• Site Clean-up and Waste Management</li> <li>• Spill Response Plan and Hazardous Material Management</li> <li>• Invasive Alien species</li> <li>• Wildlife Management</li> <li>• Visitor Experience and Safety</li> <li>• Cultural Resources</li> </ul>
<b>Exceptions:</b>	<p>This BMP does NOT apply to the following:</p> <ul style="list-style-type: none"> <li>• Work within a riparian buffer zone (i.e., within 30m from the High Water Mark) and below the High Water Mark of any waterbody.</li> <li>• Work taking place within critical wildlife timing windows (e.g., migratory bird nesting period)</li> <li>• Projects located within Zone I (Special Preservation) or within sensitive areas.</li> </ul> <p>If the project requires additional mitigation measures specific to aquatic resources, vegetation, species at risk, birds, wildlife, sediment and erosion control, or other non-common activities, consideration of another Impact Assessment (IA) pathway may be required i.e., Basic Impact Analysis (BIA) or Detailed Impact Analysis (DIA).</p>
<b>Approved geographic area of application:</b>	This BMP may be used in all Parks Canada administered protected heritage places.

<sup>1</sup> Waterbody: All aquatic ecosystems including, lakes, ponds, rivers, streams, wetlands and canals.

<sup>2</sup> High Water Mark: 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 (Fisheries and Oceans, 2016).

## Effects Assessment and Mitigation

<b>Components of the environment that may be affected:</b>	<p><b>Water Resources:</b></p> <ul style="list-style-type: none"><li>• Reduced water quality due to transportation of debris and contamination (i.e. from leaks and accidental spills, etc.)</li></ul> <p><b>Soil/Land Resources:</b></p> <ul style="list-style-type: none"><li>• Soil contamination from hazardous materials (e.g., construction waste, fuel)</li><li>• Soil compaction and rutting</li><li>• Soil erosion, loss of topsoil and exposure of subsoils</li><li>• Change in slopes, landforms and landscape</li></ul> <p><b>Air/Noise Quality:</b></p> <ul style="list-style-type: none"><li>• Temporary decreased ambient air quality (e.g., dust, equipment emissions)</li><li>• Increased ambient noise levels</li></ul> <p><b>Terrestrial Wildlife and Vegetation:</b></p> <ul style="list-style-type: none"><li>• Wildlife habituation/attraction to artificial food sources</li><li>• Impeded/altered wildlife movement</li><li>• Habitat destruction or alteration</li><li>• Mortality from project activities</li><li>• Introduction of invasive species, or expansion of existing populations</li><li>• Damage to and removal of vegetation, disturbance of adjacent natural areas, root exposure and physiological distress</li></ul> <p><b>Cultural Resources:</b></p> <ul style="list-style-type: none"><li>• Adverse effects to the heritage value or character defining elements of a cultural resource or a heritage place</li><li>• Impacts to archaeological resources (known or potential) from displacement or destruction, resulting in loss of heritage value</li><li>• Impacts to cultural landscapes, buildings, objects, engineering works</li></ul> <p><b>Visitor Experience/ Visitor Safety:</b></p> <ul style="list-style-type: none"><li>• Reduced quality of visitor experience due to noise and presence of construction equipment</li><li>• Visual impacts and landscape changes</li><li>• Reduced accessibility to portions of the site where work is taking place</li><li>• Hazard to visitors and staff due to construction activities</li></ul>
<b>Parks Canada Specialists</b>	<p><b>Impact Assessment advice:</b> If there are any questions on how to apply this BMP, consult a member of the <a href="#">Impact Assessment Team</a>.</p> <p><b>Cultural Resource advice:</b> If there is any uncertainty regarding potential adverse effects to known or potential cultural resources, consult a member of the <a href="#">Cultural Resource Management Protection Team</a> or, if applicable, the local Field Unit specialist.</p>

## Mitigation Measures

Review this section and delete the mitigation measures that may not apply to the project or copy the appropriate measures into the IA document.

<b>Mitigation Measures:</b>	<p><b>Project Planning:</b></p> <ol style="list-style-type: none"><li>1) Schedule construction during optimum times for reducing erosion, and outside of timing windows for sensitive species to maintain compliance with the <i>Migratory Birds Convention Act</i>, <i>Fisheries Act</i> and <i>Species at Risk Act</i>.</li><li>2) The impact assessment officer will review a proposed project and advise the functional manager of the project as well as if and how this BMP should be applied.</li></ol> <p><b>Work Site Conditions/Staging/Laydown:</b></p> <ol style="list-style-type: none"><li>3) Key contacts and their respective roles and responsibilities must be identified prior to work starting and communicated to all on-site workers.</li><li>4) People working on the project/activities must review the mitigation measures and any site specific considerations with designated Parks Canada staff before work begins.</li><li>5) Clearly mark the work site and restricted areas with stakes, biodegradable flagging tape or other means to minimize the disturbance footprint; remove when the project is completed.</li><li>6) Staging areas, material/equipment drop sites, and parking areas must be identified, including duration of use, within an existing disturbed footprint (e.g., roadway, gravel surface, previously disturbed area with high resiliency) or approved by designated Parks Canada staff.</li><li>7) Use existing roadways, trails, disturbed areas or other areas as approved by designated Parks Canada staff for site access, travel within the site and construction activities.</li><li>8) Wet down dry materials, if appropriate, and cover waste to prevent the wind from blowing dust and debris. Control dust on roads used by the on-site workers (including temporary roads).</li></ol> <p><b>Equipment Operations:</b></p> <ol style="list-style-type: none"><li>9) Use low pressure or rubber tracked equipment or access matting where feasible to minimize soil compaction and ground disturbance.</li><li>10) Select equipment appropriate to the nature of work being conducted (e.g., avoid using large scale machinery when hand tools or smaller scale machinery could be used).</li><li>11) Heavy equipment operating on paved surfaces should be equipped with street pads; damage to paved surfaces must be restored to original conditions.</li><li>12) Equipment must be properly tuned, clean and free of contaminants, in good operating order, free of leaks (e.g., fuel, oil or grease), and fitted with standard air emission control devices and spark arrestors prior to arrival on site.</li><li>13) Machinery must be stored, maintained and refuelled on a flat surface, outside the dripline<sup>3</sup> of trees and a minimum of 30m from waterbodies, as measured from the High Water Mark. Increase the buffer zone depending on level of risk and site specific conditions.</li><li>14) Refueling must take place on an impermeable fuel mat with a berm or within a container. 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.</li><li>15) Any required cleaning of tools and equipment should be done off-site. If it must be on-site, it must be in an appropriate area at least 30m from a waterbody.</li><li>16) Gas generators must be secured to prevent movement during operation and set up on an impermeable fuel mat with a berm or within a container that can contain 110% of the volume of fuel in the generator.</li></ol>
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<sup>3</sup> The area defined by the outermost circumference of a tree canopy where water drips from and onto the ground.

**Site Clean-up and Waste Management:**

- 17) 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.
- 18) Contain and stabilize waste material (e.g., construction waste and materials, vegetation) at a minimum of 30m from a waterbody.
- 19) Contain wastes and transport to an approved waste landfill site outside the Parks Canada protected heritage place, unless otherwise directed; cover waste loads during transportation. All construction materials must be removed from the site on project completion.
- 20) Burning is not permitted within the protected heritage place unless approved by Parks Canada.
- 21) Concrete mixing activities must take place over tarps and a minimum of 30m from waterbodies. Fresh, wet, uncured concrete and concrete dust must not come into contact with waterbodies. Secondary containment measures such as collection/drip trays and berms lined with air and water-tight material such as plastic and a layer of sand, and double-lined fuel tanks are required.
- 22) Excess concrete must be disposed of at an appropriate facility outside of the Parks Canada protected heritage place. If excess concrete from pump trucks must be dumped prior to transport outside the protected heritage place, it must be deposited in a location approved by Parks Canada and removed following hardening for disposal at an approved facility.
- 23) If present, portable sanitary facilities must be serviced on a regular basis and accumulated waste disposed of at a sanitary waste disposal facility. The portable facilities must have sufficient capacity and be managed to ensure waste is not discharged to the receiving environment.

**Spill Response Plans and Hazardous Material Management:**

- 24) A Spill Response Plan should be developed prior to work starting.
- 25) 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.
- 26) The Spill Response Plan will, at minimum, include the following information:
  - a) List of products and materials considered or defined as hazardous or toxic to the environment. Such products include, but are not limited to, waterproofing agents, grout, cement, concrete finishing agents, hot poured rubber membrane materials, asphalt cement, sand blasting agents, paint, solvents and hydrocarbons.
  - b) Required equipment on site.
  - c) Size, type and location of spill kits.
  - d) Fuelling procedures, fuel storage.
  - e) 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).
  - f) Spill response (i.e., containment, clean-up, disposal of contaminated materials, etc.).
  - g) Spill reporting procedure.
  - h) Up-to-date emergency response contact list including contact information for reporting spills.
- 27) Follow all applicable regulations and codes for the management and handling of hazardous waste.
  - a) 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*.
  - b) Dispose of contaminated materials at provincially or territorially certified disposal sites outside of Parks Canada land.
- 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

	<p>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).</p> <p>29) All spills must be contained and cleaned-up as soon as it is possible to safely do so. In the event of a major spill, all other work must stop until the spill has been adequately contained and cleaned up.</p> <p>30) Notify the designated Parks Canada staff and the emergency contact immediately of any spill. In the event of a major spill, call the first contact authority (see Appendix A).</p> <p>31) Contaminants must be recovered at source and disposed of according to applicable laws, policies and regulations. The site will be inspected by Parks Canada staff to ensure completion to expected standards.</p> <p>32) Petrochemical products, paints and chemicals must be stored a minimum of 30 meters away from waterbodies and, if left overnight, they must be secured.</p> <p>33) All construction sites must be equipped with containers suitable for the secure, temporary storage of hazardous wastes, separated by type.</p> <p>34) If hazardous waste or potentially contaminated material is uncovered during excavation / construction, work must stop and excavated materials must be secured onsite in a manner that prevents contamination of the surrounding environment, including leaching. The designated Parks Canada staff must be contacted for further direction.</p> <p><b>Invasive Alien Species:</b></p> <p>35) All construction equipment from outside the Parks Canada protected heritage place must be washed outside the site prior to arrival to minimize risk of introducing invasive weed species. Proof that this mitigation was applied may be requested before equipment is permitted into the protected heritage place.</p> <p>36) If invasive species are a serious issue, consider more effective cleaning methods as suggested by the US Department of Commerce, National Oceanic and Atmospheric Administration<sup>4</sup>.</p> <p>37) All soil, gravel, untreated construction lumber, erosion and sediment control products (e.g., hay, straw, mulch), or other applicable materials from outside the protected heritage place must be approved by the designated Parks Canada staff.</p> <p>38) Organic material (e.g, topsoil, borrow and fill material, gravel) taken from the construction site will not be used in other parts of the protected heritage place unless approved by the designated Parks Canada staff.</p> <p>39) Minimise ground disturbance and vegetation removal, when possible.</p> <p>40) Minimise bare soil exposure (e.g., cover stockpiled material with tarps, plant native species, cover with natural mulch/ground coverings).</p> <p>41) Stabilize and re-vegetate disturbed areas as soon as possible, ideally with native plants, soil and seed mix or otherwise approved by designated Parks Canada staff. If there is insufficient time remaining in the growing season, stabilize the site to prevent erosion and vegetate the following spring.</p> <p>42) Monitor disturbed and re-vegetated areas until the designated Parks Canada staff establishes that native vegetation is growing successfully and invasive alien species spread is prevented.</p> <p><b>Wildlife Management:</b></p> <p>43) On-site workers must be made aware of and subsequently report any incidental sightings of species at risk immediately to designated Parks Canada staff.</p> <p>44) If active nests, dens or roosts are discovered, stop work and contact designated Parks Canada staff immediately for direction.</p> <p>45) Cover or fence hazardous areas when left unattended to reduce the potential for wildlife injury.</p> <p>46) Never approach or harass wildlife (e.g., feeding, baiting, luring).</p>
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<sup>4</sup> [http://www.habitat.noaa.gov/pdf/best\\_management\\_practices/Cleaning%20of%20Land%20Vehicles%20and%20Equipment.pdf](http://www.habitat.noaa.gov/pdf/best_management_practices/Cleaning%20of%20Land%20Vehicles%20and%20Equipment.pdf)



- 47) If wildlife is observed at or near the work site, allow the animal(s) the opportunity to leave the work area.
- 48) Designated Parks Canada staff must be alerted immediately to any potential wildlife conflict (e.g., aggressive behaviour, persistent intrusion), distress or mortality. In the case of aggressive behaviour or persistent intrusion, stop work and evacuate the area.
- 49) On-site workers must receive any required wildlife awareness training, according to field unit policy.

**Visitor Experience and Safety:**

- 50) As much as possible, schedule noisy activities to minimise impacts to visitors, especially around townsites, campgrounds and other high visitor use areas.
- 51) Close and mark the work site with appropriate signage while active construction, repair or maintenance is underway; consider temporary detours or reroutes as appropriate.
- 52) Secure and clearly mark unattended safety hazards (e.g., excavations, debris piles) with fencing, warning signs, area closures or combination thereof.
- 53) 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.
- 54) Visitor access trails and roads outside the construction area must be free of construction materials, waste, machinery and equipment.

**Cultural Resources:**

- 55) Avoid known potential cultural resources and archaeological sites.
- 56) Apply any mitigation measures that may have been previously identified by a Parks Canada archaeologist or cultural resource advisor for the immediate area of work.
- 57) If cultural resources (i.e., structural remains and/or artifact concentrations) are encountered, work must cease in the immediate area, the site secured and the designated Parks Canada staff contacted for further direction.
- 58) The designated Parks Canada staff should ensure that on-site workers receive appropriate cultural resource awareness training.

**Supplementary Mitigations:**

In the application of National BMPs, supplementary mitigations will likely be required to ensure all potential impacts are mitigated. For example, a few site-specific mitigation measures that may have been previously identified by a Parks Canada archaeologist or cultural resource advisor, measures to protect vegetation or to provide contact information. NOTE: if the number of supplementary mitigations is considerable in extent and nature, it should be determined whether a Field Unit specific BMP is better suited to address the impacts or if another IA pathway should be selected.

In this circumstance, the relevant BMP should be indicated in the IA Requirement Checklist, with a note that application of the BMP will be supplemented through the addition of mitigation measures to address project or site-specific requirements. All relevant mitigations and project-specific clarifications should be included as terms and conditions in any permits and authorization documents (e.g., contracts) for the project.

Supplementary mitigation measures may be included here:



## References

Fisheries and Oceans Canada. *Self Assessment Criteria*. <http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html> Accessed November 2016.

National Oceanic and Atmospheric Administration (NOAA). National Marine Fisheries Service, NOAA Habitat Program. *Preventing Invasive Species: Cleaning Land Vehicles, Equipment, and Personal Gear*. [http://www.habitat.noaa.gov/pdf/best\\_management\\_practices/Cleaning%20of%20Land%20Vehicles%20and%20Equipment.pdf](http://www.habitat.noaa.gov/pdf/best_management_practices/Cleaning%20of%20Land%20Vehicles%20and%20Equipment.pdf). Accessed December , 2016.

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Parks Canada. 2015. *National Best Management Practices for Roadway, Highway, Parkway and Related Infrastructure*.

Parks Canada. 2016. Waterton Lakes National Park. *General Project Best Management Practices*.

Parks Canada. 2016. *National Best Management Practices for Campground and Day Use Area Maintenance and Modification*.

Parks Canada. 2016. *National Best Management Practices for Trail Maintenance and Modification*.

## Appendix A

In the event of a major spill, call the first contact authority:

PROVINCE/ TERRITORY	FIRST CONTACT AUTHORITY	TELEPHONE
<b>Newfoundland and Labrador</b>	Newfoundland and Labrador Regional Office Canadian Coast Guard Fisheries and Oceans Canada	709-772-2083 or 1-800-563-9089*
<b>Prince Edward Island</b>	Maritimes Regional Office Canadian Coast Guard Fisheries and Oceans Canada	902-426-6030 or 1-800-565-1633*
<b>Nova Scotia</b>	Maritimes Regional Office Canadian Coast Guard Fisheries and Oceans Canada	902-426-6030 or 1-800-565-1633*
<b>New Brunswick</b>	Maritimes Regional Office Canadian Coast Guard Fisheries and Oceans Canada	902-426-6030 or 1-800-565-1633*
<b>Quebec</b>	Environmental Protection Operations Directorate – Quebec Environment Canada	514-283-2333 or 1-866-283-2333*
<b>Ontario</b>	Spills Action Centre Ontario Ministry of the Environment	416-325-3000 or 1-800-268-6060*
<b>Manitoba</b>	Manitoba Department of Conservation	204-944-4888
<b>Saskatchewan</b>	Saskatchewan Ministry of Environment	1-800-667-7525
<b>Alberta</b>	Alberta Ministry of Environment	780-422-4505 or 1-800-222-6514*
<b>Nunavut</b>	Department of Environment and Natural Resources Government of the Northwest Territories	867-920-8130
<b>Northwest Territories</b>	Department of Environment and Natural Resources Government of the Northwest Territories	867-920-8130
<b>British Columbia</b>	British Columbia Provincial Emergency Program Ministry of Public Safety and Solicitor General	1-800-663-3456
<b>Yukon</b>	Yukon Department of Environment	867-667-7244