Parks Canada National Best Management Practices

Campground and Day Use Area Maintenance and Modification

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# Mitigation Measures

# 1. Common Activities

# Work Site Conditions/Staging/Laydown

- 1. All people working on the project, including subcontractors, must attend an environmental briefing and review the mitigation measures and site specific considerations with the Environmental Assessment Officer before work begins.
- 2. Staging and parking areas for material and equipment must be identified, including duration of use, within an existing disturbed footprint (e.g., roadway, gravel surface, previously disturbed area with high resiliency).
- 3. Material drop sites must be approved by designated Parks Canada staff.
- 4. Cover construction material with weighted tarps when appropriate. Minimise damage to adjacent plant material and rehabilitate if necessary.
- 5. Use existing roadways, trails, disturbed areas or other areas as approved by Parks Canada staff for site access, travel within site and construction activities (e.g., sawing wood).

- 6. Clearly mark work site and restricted areas with stakes, biodegradable flagging tape or other means; remove when project is completed.
- 7. Keep disturbance footprint as small as possible and limit access to essential vehicles only.

## **Equipment Operations**

- 8. 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. All new-to-site equipment must be inspected by the Environmental Assessment Officer upon arrival, prior to being used.
- 9. During construction, any required cleaning of tools and equipment must be done greater than 30 meters from waterbodies to prevent the release of wash water that may contain deleterious substances.
- 10. Equipment operators must be fully trained and experienced.
- 11. 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).
- 12. Use low pressure/rubber tracked equipment or access matting where feasible to minimize soil compaction and ground disturbance.
- 13. Heavy equipment operating on paved surfaces should be equipped with street pads; damage to paved surfaces must be restored to original conditions.
- 14. Minimize idling of engines, contingent on operating instructions and temperature consideration.
- 15. Machinery (e.g., excavators, bobcats, chainsaws, generators) must be stored, maintained and refuelled on a flat surface, outside the drip line<sup>1</sup> of trees and a minimum of 30 meters from waterbodies, as measured from the High Water Mark; increase the 30 meter buffer depending on level of risk and site specific conditions. Refueling must take place on a tarp or portable berm, or on compacted ground.
- 16. Consider using bio-degradable chain oil/vegetable oils in chain saws especially when working within 30 meters of a waterbody.
- 17. If operating chain saws directly over or adjacent to waterbodies is unavoidable, use measures such as tarps to trap and prevent debris entering waterbody as much as possible.
- 18. 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 150% of the volume of fuel in the generator.

### Construction Materials and Practices

- 19. Ideally, use timber that contributes to sustainable practice, such as recycled old growth or certified materials (e.g., Forest Stewardship Council certification).
- 20. When building with unfinished wood, consider using species native to the area as directed by designated Parks Canada staff.
- 21. Use natural material and environmentally-friendly finishes (e.g., paints and stains) and products whenever possible.
- 22. When practical, consider pre-fabrication at an approved off-site location to minimize on-site construction impacts.
- 23. When practical, treatment of wood products (e.g., preservatives, paints, stains) should be done at an approved location prior to transport to the site. Field treatments should be applied over tarps or in another approved contained area and not be applied over or within 30 meters of water. Treatments must be approved by designated Parks staff.

<sup>&</sup>lt;sup>1</sup> The area defined by the outermost circumference of a tree canopy where water drips from and onto the ground.

- 24. Treated wood must be handled, installed, and disposed of according to the <u>Parks Canada Guide for the Use, Handling and Disposal of Pressure Treated Wood 2009</u> or contact the Parks Canada <u>Environmental Management Team</u> for advice.
- 25. Minimise the number of saw cuts made to treated wood in the field. If unavoidable, cut treated wood away from waterbodies and over tarps to catch debris; cuttings, sawdust and other treated wood waste material must not enter waterbodies.
- 26. All cuttings, sawdust and other treated wood waste material must be collected and disposed of at an approved disposal facility.
- 27. Treated wood must not be burnt or left onsite to decay.

## **Invasive Species**

- 28. All equipment and machinery new-to-site must be inspected by the Environmental Assessment Officer upon arrival, prior to being used. Equipment and machinery as well as footwear and clothing coming into contact with the terrestrial or aquatic environment must be free of invasive species vegetation, seeds, propagules (i.e., any other material that may cause the spread of the species) and pathogens. In particular:
  - o Equipment from outside the protected heritage place must be pressure washed/steam cleaned prior to arrival, with particular attention to tracks and digging components that will be in contact with the soil layers.
  - Ensure that footwear, clothing and equipment are free of invasive alien species (e.g., seeds, propagules) when travelling between invaded and uninvaded terrestrial and aquatic sites within the protected heritage place.
- 29. All soil, gravel, untreated lumber, erosion and sediment control products (e.g., mulch), or other materials from outside the Park must be from a certified weed-free source.
- 30. Ensure any organic material (e,g., topsoil, borrow and fill material, gravel) taken from the construction site is free of invasive alien species before using in other parts of the Park.
- 31. Minimise ground disturbance and vegetation removal, as practical and within project requirements.

#### Waste

- 32. All wildlife attractants must be secured (e.g., petroleum products, human food, recyclable drink containers and garbage). Keep food waste separate from construction waste and remove daily; if daily removal is not possible, secure until it can be removed.
- 33. Contain and stabilize waste material (e.g., dredging spoils, construction waste and materials, vegetation) above the High Water Mark to prevent it entering any waterbody.
- 34. All construction materials must be removed from the site on project completion (e.g., refuse material, waste petroleum, unused concrete bases).
- 35. Contain wastes and transport to an approved waste landfill site outside the Parks Canada protected place, unless otherwise directed; cover waste loads during transportation.
- 36. If required, portable sanitary facilities must be serviced on a regular basis and accumulated waste disposed at a waste disposal facility. The facilities must have sufficient capacity and be managed to ensure waste is not discharged to the receiving environment.

### Hazardous Material

- 37. Prevent the release of hazardous substances into the environment, including but not limited to, petroleum products and their derivatives, antifreeze or solvents.
- 38. All on-site personnel must be briefed on reporting requirements for hazardous materials spills; spills must be reported immediately to the Environmental Assessment Officer.

- 39. All construction sites must be equipped with containers suitable for the secure, temporary storage of hazardous wastes, separated by type.
- 40. A spill contingency response kit (or kits) including sorbent material and berms to contain 110% of the largest possible spill (i.e., fuel or other toxic liquids) related to the work must be available on site at all times. On-site personnel must be aware of location and trained in its use. Any contaminants must be recovered at source and disposed according to applicable laws, policies and regulations.
- 41. 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.
- 42. Petrochemical products, paints and chemicals must be stored a minimum of 30 meters away from waterbodies and secured overnight in a Parks Canada approved enclosed area under lock and key; increase the 30 meter buffer depending on level of risk and site specific conditions.
- 43. Any hazardous waste or contaminated material uncovered during excavation / construction, must be investigated, source identified, removed and disposed of outside the protected heritage place at an approved facility. Disposal documentation must be provided to designated Parks Canada staff.

#### Wildlife

- 44. Schedule operations to avoid critical wildlife life stages (breeding, nesting, roosting, etc.). Consult with designated Parks Canada staff to discuss site-specific wildlife concerns.
- 45. Follow Reducing Risk to Migratory Birds guidance from Environment and Climate Change Canada, including avoiding vegetation clearing during site-specific migratory bird timing windows. Consult with designated Parks Canada staff for specific approaches to avoiding impacts on migratory birds (e.g., nest surveys on buildings, area avoidance).
- 46. Should any active nests, dens, roosts or calving areas be discovered, stop work and contact the Environmental Assessment Officer immediately for direction.
- 47. Conduct activities during daylight hours, avoiding critical foraging times (dusk and dawn).
- 48. Minimize the time excavations remain open and cover or fence when left unattended to reduce the potential for wildlife injury.
- 49. Never approach or harass wildlife (e.g., feeding, baiting, luring).
- 50. If wildlife is observed at or near the work site, allow the animal(s) the opportunity to leave the work area and away from areas of potential conflict.
- 51. 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.

## Visitor Safety and Experience

- 52. If possible, schedule construction activities outside peak visitor times.
- 53. The work site will be closed and marked while active construction, repair or maintenance is underway; consider temporary detours or reroutes as appropriate.
- 54. If closing the area is not possible, maintain a safe working distance between work activities and visitors; consider the use of lookouts to manage traffic through the construction/hazard area.
- 55. As much as possible, schedule noisy activities to minimise impacts to visitors, especially around campgrounds and other high visitor use areas.
- 56. Secure and clearly mark unattended safety hazards (e.g., excavations, stored equipment, debris piles) with fencing, warning signs, area closures or combination thereof.

#### Cultural Resources

57. If cultural resources are encountered, work must cease in the immediate area and designated Parks Canada (Environmental Assessment Officer) staff notified.

# 2. Building Maintenance and Modification

#### General

- 58. Concrete mixing activities must take place over tarps and a minimum of 30 meters from waterbodies. Fresh, wet, uncured concrete and concrete dust must not come into contact with waterbodies.
- 59. Contain and remove any associated concrete waste to an approved disposal facility.
- 60. Fixtures and materials (e.g., benches, building material) should be reclaimed and considered for re-use if appropriate.
- 61. Ensure signs of construction on the surrounding environment (e.g., fresh saw or axe marks) are reduced or eliminated.
- 62. Maintain clean roofs and gutters on infrastructure for wildfire risk reduction.

### Application of Paint, Sealant or End Cut Treatments

- 63. When practical, treatment of wood products (e.g., preservatives, paints, stains) should be done at an approved location prior to transport to the site. Field treatments should be applied over tarps or in another approved contained area and not be applied over or within 30 meters of water. Treatments must be approved by designated Parks staff.
- 64. Use plastic drip tarps to capture and contain paint drips, spills and spray.
- 65. Transfer of paint or other sealants from storage and mixing containers into application containers or devices must be conducted over tarps; consider using secondary containment vessels with a minimum holding capacity of 110% of the paint containing vessel to minimize the risk of spillage.
- 66. Cleaning of painting equipment will be conducted in a location approved by Parks Canada; washwater must not be permitted to enter any waterbody.
- 67. All waste paint and paint-solvent solutions must be disposed of in accordance with applicable federal, provincial, and municipal legislation; no disposal of waste paint or paint-solvent mixtures is permitted at the project site.
- 68. If paint will be applied by spray, equipment must be adjusted to minimize spray drift.
- 69. On-site personnel will only carry minimum quantities of paints and solvents required in the work area.

## 3. Demolition

- 70. Prior to commencement of demolition activities, all structures must be surveyed by experienced personnel from within or approved by Parks Canada for the presence of wildlife (e.g., roosting bats, nests, dens). Work should not take place during critical wildlife stages. Should wildlife be discovered, work will cease in the immediate area and designated Parks Canada staff contacted for further direction.
- 71. Prior to commencement of demolition activities, water and septic systems, lines and/or fields must be identified and precautions taken during the operation of heavy equipment to avoid damaging them.

- 72. Residual septic systems, water lines and wells of no further use must be removed, capped or decommissioned according to the appropriate federal or provincial legislation.
- 73. All salvageable, non-combustible and non-hazardous materials will be removed, reused and recycled to the greatest extent possible. Remaining material considered to be waste and demolition debris is to be disposed of at an approved disposal facility.
- 74. Any hazardous material (asphalt shingles, creosote treated wood, asbestos, lead paint, moulds, animal excrement, paints, automotive products, electrical equipment) and pollutants such as fuels and solvents found on-site will be separated and removed to an approved disposal facility.
- 75. Burning or burying of hazardous materials or any materials (e.g., plastics) which may be harmful to the environment is prohibited.
- 76. If undocumented contamination is found, cease work immediately and contact designated Parks Canada staff.
- 77. Ensure that well closures are completed as quickly as possible according to the appropriate federal or provincial legislation and are securely covered if left unattended.
- 78. Consult with designated Parks Canada staff to determine whether full excavation and removal of all subsurface infrastructure (e.g., pipes, cement structures, wires) is required. Backfill any excavation with clean, weed-free topsoil.
- 79. Ensure wastes from demolition activities do not enter waterbodies (e.g., use tarps to capture debris). Any waste that does fall into a waterbody will be immediately retrieved, provided worker safety is not compromised, and if removal can be done without excessive disturbance of bottom sediment.
- 80. Cover and contain fine particulate matter during transport to and from the site.

### 4. Rehabilitation

- 81. Ensure noticeable construction impacts (e.g., ruts, holes, depressions, compacted areas) are appropriately re-graded, back-filled with topsoil, re-contoured and capped in preparation for restoration. Shape any loosened soils to match the local terrain.
- 82. Use stockpiled topsoil from site if necessary to facilitate rehabilitation activities.
- 83. All exposed soil, following completion of construction activities, will be stabilized and/or re-seeded as soon as possible using native plants, soils, seed mix and seed application 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.
- 84. Disturbed and re-vegetated areas will be monitored for several growing seasons to ensure native vegetation is growing successfully and invasive alien species spread is prevented.
- 85. Reclaim eroded areas and ensure long term erosion control measures are identified and installed as required.