

RESTORATION OF ABANDONED ROADS

BEST ENVIRONMENTAL MANAGEMENT PRACTICES

These best environmental management practices aim at proponents undertaking a project under the Hunting, Fishing and Trapping rights of the James Bay and Northern Quebec Agreement. Restoration of abandoned roads enables Crees to use them safely for traditional activities. Restoring a road may cause some impacts on the environment. Implementing best practices listed in this document will help mitigate impacts.

POTENTIAL IMPACTS OF THE ACTIVITIES OR WORKS

Brush cutting for the road maintenance

Brush cutting for road maintenance can lead to certain impacts:

- Loss of wildlife habitat;
- Risk of oil spills through the use of motorized equipment (i.e. loader, chainsaw, small wood chipper, snowmobile and ATV).

Borrow pit exploitation for road maintenance

Borrow pits exploitation for the use of material to maintain the road can lead to certain impacts:

- Soil erosion;
- Impairment of water quality as a result of input of soil debris or oil spills.

Stream crossing / culverts maintenance

Stream crossing can lead to certain impacts:

- Loss of spawning sites;
- Impairment of water quality as a result of input of soil debris or oil spills;
- Disturbance of stream banks.

CONSERVING THE ENVIRONMENT AND WILDLIFE HABITAT

Activities and work that you undertake to restore the road may affect the environment. Several components are sensitive and need to be preserved.



Fauna and flora

Some areas or ecosystems, whether legally protected or not, must be preserved when work is undertaken due to their unique features and because they fulfill an important function for animal and plant communities.

Soil and water quality

Soil and water sustain life. Protecting their quality is essential in order to avoid any negative effects on human health and direct impacts on fish and other living organisms.

Fish spawning site

Fish spawning sites are fragile and eggs can be buried and destroyed by eroded soil particles settling in the water. Encroachment on spawning sites can affect future productivity of fish.

Stream banks (shorelines)

Several small mammals and birds inhabit streambanks. These areas contain potential spawning habitats for many species of fish (i.e. pike). Particular plant communities thrive here as they are ecological buffer zones between the terrestrial and aquatic ecosystems. These plant communities provide feeding areas for a variety of animals, such as beaver, waterfowl, moose, snowshoe hare, ptarmigan and muskrat. Stream banks are watering points for animals. Banks are important sediment filters that keep them from reaching the aquatic environment.

STREAM CROSSING AND CULVERT MAINTENANCE

When the road crosses a stream with a culvert:

What to do

- Report any collapsing culvert to your Local Niskamoon Coordinator or Forestry Programs Officer;
- Make sure that the culvert allows water to flow, that there are no debris in the culvert (logs, branches, rocks, etc);
 - If this is not the case: routinely check the state of the culvert and remove all debris in the pipe in order to ensure water and fish circulation;
- Make sure that the stream banks are stable (without signs of landslide);
 - If this is not the case: do not operate motorized equipment close to these banks;
- Make sure that the inlet and the outlet of the culvert are in good state;
 - If this is not the case: reinforce eroding inlet and outlet by installing clean rip-rap (large angular rocks). Ensure that rip-rap does not create a barrier for fish and water circulation. If motorized equipment is needed to transport and install rip-rap, always operate this equipment on land. After the installation of rip-rap, the culvert must extend beyond it without exceeding 30 centimeters (1 foot);
- If a beaver dam is found close to the culvert, relocate it by harvesting the beaver or by destroying the dam;
- Choose to do maintenance activities listed above outside the spawning season of fish (Table page before) and during the lowest water level period.

What to avoid

- Avoid blocking fish passage;
- Avoid doing maintenance work during rainy days in order to minimize erosion;
- When rip-rap is needed, avoid taking rocks below the natural high water mark of any waterbody.

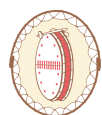


For more information, contact your Local Niskamoon Coordinator or your Forestry Programs Officer

Available best environmental management practices

- Construction or upgrading of trails
- Construction, upgrading and relocating of cabins
- Construction of boat ramps and boat landings
- Construction and clearing for a goose pond or goose corridor
- Restoration of abandoned roads

The leaflet has been produced by the Cree Nation Government the Forestry Programs Prioritization Committee and Niskamoon Corporation with the collaboration of Teconsult Inc.



FORESTRY PROGRAMS
PRIORITIZATION
COMMITTEE



RESTORATION OF ABANDONED ROADS



In order to keep works and activities from affecting the environment, several practices must be respected or avoided. These practices do not deal with the use of heavy machinery, if heavy machinery is needed to complete your project, please contact your Local Niskamoon Coordinator or your Forestry Programs Officer.

BRUSH CUTTING FOR ROAD MAINTENANCE

What to do

- Choose the smallest motorized equipment available to cut brush (i.e. chainsaws and ATV's);
- Leave small wood debris and branches on the side of the road and pile them in small stacks of a height of 60 centimetres maximum (2 feet), they will be used as shelter by small animals. Larger wood logs will be removed and used for other purposes (firewood);
- Bring oil and gas containers back to the village for proper storage.

What to avoid

- Avoid brush cutting within 10 meters (33 feet) of any permanent stream, lake, river or wetland; **A**
- Avoid piling wood waste within 20 meters (66 feet) of any stream, lake, river or wetland; **B**
- At all time, between the abandoned road and any watercourse or wetland, avoid leaving unattended motorized equipment or vehicles, avoid refuelling and avoid changing oil. Never wash any motorized equipment in or near a watercourse or wetland. Avoid oil spills in the ground or in the water. Never encroach on any watercourse or wetland when manoeuvring your motorized equipment or vehicles; **C D**
- Keep wood debris from falling into a waterbody; **E**
- Avoid burning wood debris; they will be use as shelter by small animals; **F**
- Avoid smoking while brush cutting and tree clearing to reduce the risk of forest fire.

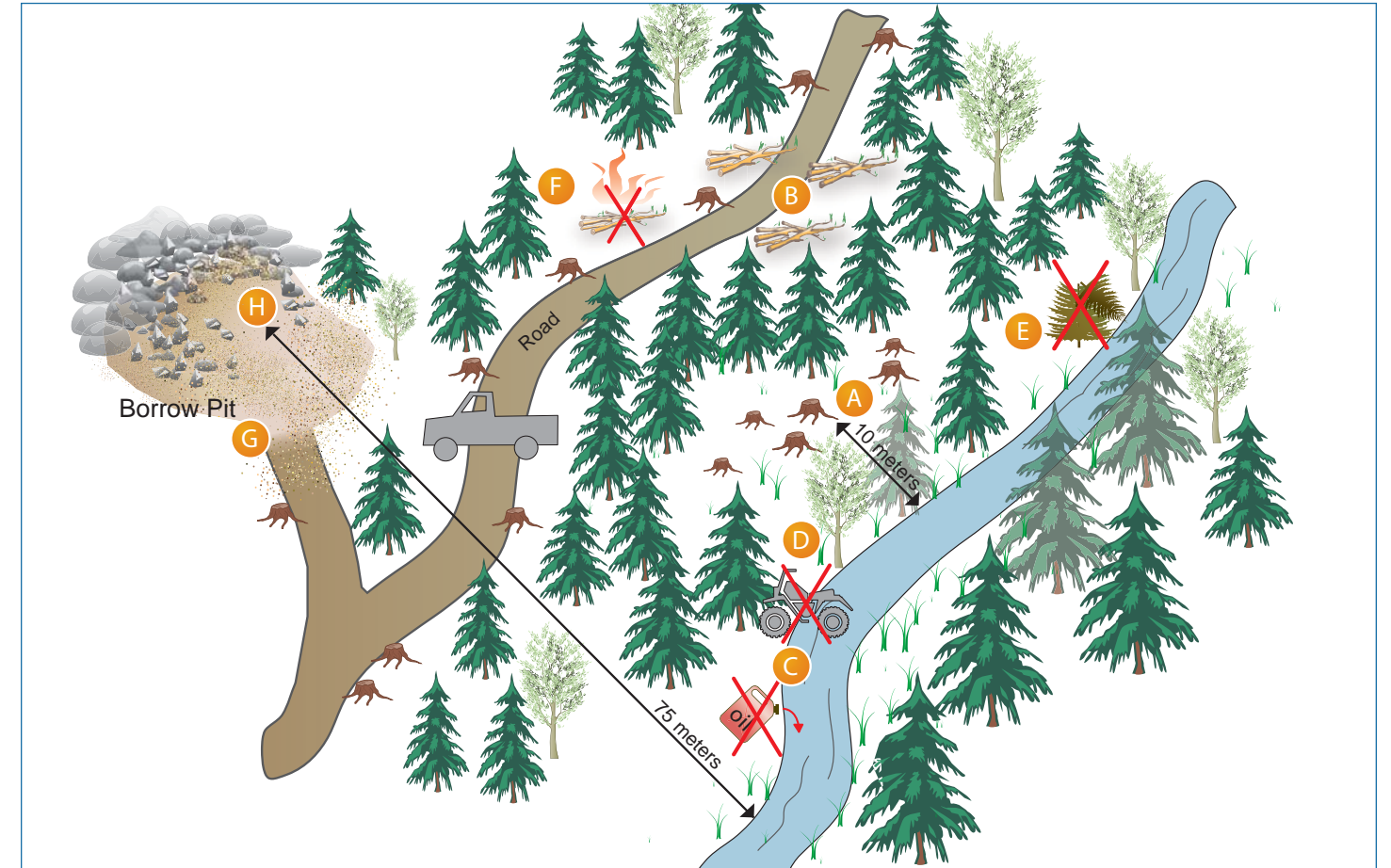
BORROW PIT EXPLOITATION FOR ROAD MAINTENANCE

What to do

- When borrow material is needed, choose an existing borrow pit in order to minimize negative impacts from tree clearing and erosion; **G**
- Choose the closest borrow pit from the road;
- With the approval of the tallyman, proponents may create goose ponds in borrow pits after they have been abandoned;
- Limit tree clearing around the pit.

What to avoid

- Avoid exploiting a borrow pit less than 75 meters (250 feet) from any waterbody; **H**
- Avoid storing excavated material less than 20 meters (66 feet) from any waterbody;
- Avoid piling up or dumping soil, debris and material outside the limit of the road right-of-way (the right-of-way covers a maximum width equivalent to 4 times the width of the roadway);
- Avoid leaving garbage and machinery on the site, especially when the excavation is over;
- Avoid piling wood waste within 20 meters (66 feet) of any river, stream, lake or wetland; **B**
- At all time, between the abandoned road and any watercourse or wetland, avoid leaving unattended motorized equipment or vehicles, avoid refuelling and avoid changing oil. Never wash any motorized equipment in or near a watercourse or wetland. Avoid oil spills in the ground or in the water. Never encroach on any watercourse or wetland when manoeuvring your motorized equipment or vehicles; **C D**
- Avoid burning wood debris; they will be used as shelter by small animals. **F**



No Construction Period

Fish spawning season

	April		May		June		July		Aug.		Sept.		Oct.	
	1-15	16-30	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	1-15	16-31
Suckers														
Yellow walleye														
Sauger														
Lake sturgeon														
Northern pike														
Goldeye and Mooneye														
Lake Cisco														
Lake whitefish														
Brook trout														
Lake charr														

Spawning season, period of work restriction

