



ROAD SALT MANAGEMENT

CAPE BRETON HIGHLANDS NATIONAL PARK OF CANADA

Cape Breton Highlands National Park is modernizing the way it stores and applies road salt. Next winter (2007/2008), CBHNP will become the first national park in Canada to fully implement the Environment Canada code of practice for road salt. So why are we doing this?

Salt is known to have negative effects on ground water and wetlands. It is expected that changes in practices will reduce the amount of salt applied to road surfaces, resulting in better protection of the environment of northern Cape Breton. These changes will reduce contamination of ground water and help better protect sensitive habitats such as wetlands.

Public safety remains the number one objective of the winter road maintenance program. Changes in road salt management include the construction of state-of-the art salt storage and vehicle wash facilities and best management practices such as pre-wetting of salt and the use of remote weather information stations to help determine how much salt to apply.

CBHNP will follow best practices consistent with those used across

North America and employ the latest winter maintenance technologies. All salt spreading trucks will be equipped with Electronic Spreader Controls (ESC). The ESC allows the operator to control the amount and location of salt placed on the road, resulting in more efficient salt usage.

The winter road salt management plan will also see the implementation of 'pre-wetted' salt applied to the roads of CBHNP. Brine, a salt-water solution, will be sprayed on the salt as it is placed on the road. Pre-wetted salt stays on the road better and works faster than dry salt. Brine spraying equipment will be installed on all salt spreaders.

The brine used by the salt spreaders will be a bi-product of the new vehicle wash facilities, which will be located in the Ingonish and Cheticamp park maintenance compounds. These facilities will re-use the water washed from the trucks, separate the contents of the wash and store the brine until it is required for use by the salt spreaders. New salt storage facilities at the Ingonish and Grande Anse compounds, similar to the provincial facilities in Cheticamp,

will allow loading directly onto trucks inside the building, thus minimizing leaching into the environment.

To further ensure the protection of the environment and the safety of travelers, road weather information stations (RWIS) will be installed at French Mountain and South Mountain. The RWISs will provide real-time road conditions via the Nova Scotia Department of Transportation website and will help Parks Canada better manage the use of road salt. The RWISs will provide real-time images of the highway as well as information such as precipitation, air and pavement temperature, moisture readings and wind direction and speed.

If you would like more information on the salt management plan or the community meetings, please contact (902) 285-2270 or email cbhnp.info@pc.gc.ca.

Aussi disponible en français.





LEVELS OF SERVICE

WINTER ROAD MAINTENANCE

The defined Level of Service for the Cabot Trail, a level 1B road, is essentially bare pavement within 12 hours after a storm has abated (i.e. it has stopped snowing and drifting). Road safety is top priority and the Level of Service Standards will not change with modernization of road salt storage and application.

Cape Breton Highlands National Park's Level of Service Standards are based on the Nova Scotia Department of Transportation and Public Work's Winter Maintenance Standards:

Road Category	Primary Objective	Frequency of coverage	Start of Plowing after Accumulation	Maximum Accumulation	Salting Procedure	Plowing Procedure
Level 1B (Cabot Trail)	Essentially bare pavement within 12 hours after end of storm	4 hours (circuit length)	2.5 cm	10 cm	Beginning of storm and during; maximum 800 kg Cl/km	Every 4 hours

While this Maintenance Standard establishes Level of Service, conditions may occur which temporarily prevent achieving levels assigned. In such cases, attempts shall be made to keep the Cabot Trail open by utilizing all available equipment. At cold temperatures below -10°C in the day and -7°C in the night, salt does not melt snow or ice and therefore is not usually applied until conditions change. Frequent snowfall and winds coupled with low temperatures may result in snow-packed or centre-line bare road surfaces for significant periods of time, especially on South, French, MacKenzie and North Mountains.

ROAD CREW SHIFTS

National park winter road shifts are from early December to the end of March, in Ingonish from 5 am to 9 pm and in Cheticamp, 5 am to 9:30 pm

on weekdays and 6 am to 10 pm on weekends with standby and overtime as required.

DAILY WINTER ROAD REPORTS

Winter road conditions are reported to local radio stations from early December to late March daily by 7 a.m. and updated when conditions change significantly. They are also available by calling (902) 733-2338.

Road reports are based on road surface conditions and visibility, separately for four sections of the Cabot Trail within the national park:

- Cheticamp to Pleasant Bay (Mackenzie and French Mountains)
- Pleasant Bay to Big Intervale (North Mountain)
- South Harbour to Neil's Harbour (South Mountain)
- Neil's Harbour to Ingonish

CABOT TRAIL CLOSURE

Sections of the highway may become impassable when conditions are extreme because of:

- zero visibility, blizzard conditions
- road blocked by extensive drifts (e.g. French, North Mountain)
- extremely icy throughout
- North Mountain must be left in order to provide adequate service on French Mountain
- removal of snow crews from operation due to extreme conditions or equipment breakdown

ROAD CLOSURE SIGNS AND BARRICADES

When North Mountain and/or the Cheticamp to Pleasant Bay section (French/MacKenzie Mountain) becomes impassable the road closure lights will be activated and radio stations and emergency services will be notified.



WINTER DRIVING TIPS

VEHICLE

- Keep your vehicle in top mechanical condition – being stranded in the winter can be very serious, especially if in a remote location where traffic volume is low.
- Use winter tires on all four wheels. All season tires were not designed for winter on the Cabot Trail.
- Check tire pressure on a regular basis – cold air contracts, so pressure may have to be adjusted. Correct tire pressure affects gas mileage, vehicle control and braking.
- Always keep the gas tank at least three-quarters full and check wipers, headlights & mirrors before you drive. Top up transmission, brake and windshield-washer fluids.



- Good visibility can prevent an accident – completely clear snow and ice from all windows and check the heater and defogger functions.
- Turn on your vehicle's full lighting system so your car is more visible. This is especially important in low light & reduced visibility conditions.
- Drive well within the reach of your high beams. This may mean less than the posted speed limit.

DRIVER

- Listen for the winter Cabot Trail road report on local radio stations after 7 a.m. For updated road conditions call 733-2338.
- Give yourself extra time for travel and, if weather is bad, wait for conditions to improve – better late than dead.
- Once underway, if the conditions worsen, turn back or seek refuge.
- Let someone know where you're going and when you expect to arrive.
- Even if you have four-wheel drive, you cannot stop any quicker on a slippery road surface. Having four-wheel drive may create a false sense of security. Drive cautiously.
- Drive defensively and be prepared for any situation.
- Read the vehicle's operators manual – it contains information unique to your vehicle.
- Don't use cruise control during the winter months, unless you are positively sure that the road is straight and dry.
- Be alert, well rested and sober behind the wheel.

WINTER DRIVING HAZARDS

Weather

- Slow down in less than ideal conditions – posted speed limits are meant for bare pavement with good visibility. Snow packed roads, centre-line bare, blowing snow, ice and fog are common winter driving conditions on the Cabot Trail.

- Most winter accidents are related to speeds too high for conditions – reduce your speed by more than half for packed snow and slow to a crawl on ice.



- It takes longer to stop on a slippery road – braking too hard in icy conditions results in skidding. Anticipate when you have to slow down, such as on curves, so it can be done in advance through easing off the gas pedal, gradually applying pressure to the brake pedal (avoid locking up the brakes) and/or gearing down.
- If your vehicle has an antilock braking system (ABS), press the brake steadily and firmly. Do NOT pump your brakes.
- It is important to leave plenty of space between you and the vehicle ahead. A guide to safe spacing under normal driving conditions is the two-second rule. The rule works this way: as the vehicle ahead of you passes an object, such as a road sign, power pole, or guard rail, begin counting to yourself "one thousand and one, one thousand and two." If you pass that same spot before you finish the two-second count, you are following too closely.





WINTER DRIVING TIPS

(CONTINUED)

In winter, and especially during poor weather conditions, increase the two-second following rule.

- Road surfaces are far more slippery near 0°C than at colder temperatures of -10°C or -20°C. Make only slight and gentle movements with your brake, accelerator, and steering wheel. Sudden braking or accelerating could cause a skid.
- Snow removal equipment – slow down and give them wide-berth.

Mountains

- Mountains in the Cabot Trail have steep grades. Gear down to 2nd or 1st before you start up or down the mountains, even in an automatic. You have more control of the car in these gears. Changing gears once car is going too fast may result in a skid.

Moose

- Moose are common in northern Cape Breton and frequent the road corridors, especially from May to October and when there is lots of snow. They are attracted to roadsides to browse, avoid deep snow and because of road salt.
- Always be aware of the danger – moose cross the road randomly, not just at moose crossing signs. The signs simply denote areas of higher frequency.
- Moose are more active at dusk and night.
- The hood of most vehicles fits under the belly of a moose – the moose's full weight (1000–1500 lbs) will fall on your car, resulting in severe damage to the automobile and occupants.
- Moose eyes DO reflect light, but they are higher than the beam of your headlights and you may not see them. When they are facing the other way, they are virtually invisible.
- Moose are 6 feet tall at the shoulder – your headlights are apt to shine right through their legs, which are the same color as the pavement, and their dark bodies camouflage them at night.
- Be on the lookout on the shoulders of the roads at all times, especially at dusk or after dark when they are more active and harder to see.
- Moose are extremely unpredictable – don't assume the moose has seen you and will wait until you pass to cross the road. Give moose ample space and time to cross or leave the road – often there is more than one moose.
- When threatened, a moose may stand his ground, run in the opposite direction of the danger (your car), or run to the right or left.



- Moose have been known to charge a vehicle. Don't challenge a moose that refuses to leave the road by approaching it too closely or trying to pass it. Headlights may trigger an aggressive reaction so if the animal appears agitated, turn off the lights temporarily (i.e. turn off the car). Otherwise, activate hazard lights to alert other vehicles.

IN CASE OF EMERGENCY

- Carry a winter emergency kit that includes: extra windshield-washer fluid; a flashlight and extra batteries; blankets; a candle; matches; hazard markers or flares; a snow shovel; booster cables; extra hats and mitts; and water and non-perishable food supplies.
- Carry a cell phone – they work on top of the mountains but not everywhere.
- There are emergency huts on North, MacKenzie and French Mountains equipped with woodstoves. Emergency phones are located at the French & MacKenzie Mountain cabins and beside the road at Big Intervale.
- Carry a winter coat & boots – be prepared to be outside if your car gets stuck.
- Keep a bag of sand or kitty litter in your vehicle - it adds weight and can also be used to add traction if the vehicle gets stuck.
- Take a winter/defensive-driving course.

Aussi disponible en français.

