

**Highway Maintenance
Specification Sections**

**4-400 Roadside Fence
Maintenance**

Available at:

http://www.th.gov.bc.ca/BCHighways/contracts/maintenance/Schedule_21_Maintenance_Specifications.pdf

5.12 Roadside Fence Maintenance

Control of wildlife movement onto highways is important for both wildlife and public safety. Roadside fences are required to restrict wildlife, livestock, game, and pedestrian access to Highway right-of-ways. Fence that is in disrepair may not contain wildlife and livestock and allow animal movement onto highways endangering both animals and motorists. Damaged fence and gates may also injure animals. Maintenance of roadside and wildlife exclusion fencing is therefore needed to restore functionality to sections that have deteriorated or been damaged by motor vehicle accidents, vandalism, or natural events.



Environmental Issues

Primary environmental issues relating to roadside fence maintenance activities are summarized in the following table. It should be noted that site-specific conditions might present additional issues you will need to address in planning and undertaking your works.

Work Activity	Potential Environmental Impacts	Performance Standards and Legal Requirements
Repair Works	May release deleterious substances (cement-based products, wood preservatives, etc.) to a watercourse	No release of any substance that could be deleterious (toxic) to fish or fish habitat (<i>Fisheries Act</i> , Sections 34(1) and 36(3)). Deleterious substances include, but are not limited to, gasoline, oils, sealants, concrete leachate, preservatives and sediment.
	May disturb riparian habitat by impacting the banks or removing vegetation	No harmful alteration, disruption or destruction of fish habitat without authorization (<i>Fisheries Act</i> , Section 35(1)). No alteration of a stream and associated riparian habitat unless authorized by a <i>Water Act</i> approval, licence, or order (<i>Water Act</i> , Section 9), or through a Notification (<i>Water Act</i> Regulation, Part 7).

Roadside Fence Maintenance

Work Activity	Potential Environmental Impacts	Performance Standards and Legal Requirements
Repair Works	May disturb wildlife species (e.g., birds)	No injury, molestation or destruction of a bird, its egg, and occupied nest, or the nest of an eagle, Peregrine Falcon, Gyrfalcon, Osprey, heron, or Burrowing Owl, unless the species is listed under Schedule C as exempt from this protection (<i>Wildlife Act</i> , Section 34). No killing, capturing, injuring, taking or disturbing migratory birds or damaging, destroying, removing or disturbing their nests, unless permitted under the <i>Act</i> (<i>Migratory Birds Convention Act</i>).
	May contaminate surface waters, groundwater, and soils through improper storage or disposal of materials	Reporting of any polluting substance spills (<i>Environmental Management Act</i> , Section 79(5)) and disposal of all waste materials in accordance with the <i>Act</i> (<i>Environmental Management Act</i> , Waste Disposal Regulation).
	May contribute to the spread of noxious weeds or invasive plants if disturbed areas are not re-vegetated with desirable material	No dispersal of noxious weeds or their seeds (<i>Weed Control Act</i> , Weed Control Regulation).



Environmental Best Practices

The following BPs are provided as guidelines to help you ensure your routine works are completed in compliance with the performance standards and environmental legislation. Please note that the general BPs provided apply for most work activities within this category; if BPs specific to the activity are available they are also noted below.

Regulatory Agency Contact

- Prior to beginning your fence management activities, identify any sensitive habitat areas including watercourses—streams, lakes and marine foreshores—found within your work area.
- Determine how much impact your required works will have on the identified areas.
- Meet with the appropriate regulatory agency contact, as listed in Section 8, to discuss site-specific environmental protection measures. Refer to Section 7 for information on the Memorandum of Understanding with MoE and the recommended protocol for maintaining regular communications with regulatory agencies.

Site Management

- Wildlife exclusion fencing and associated components, such as one-way gates and ungulate guards, are to be inspected and repaired at least once per calendar year in late spring or early summer.

- Repairs to fencing should be made before the onset of winter as snowfalls may restrict access to the fencing or further damage weakened fencing.
- Fallen trees must be removed from fences as soon as possible. Fallen or sagging fence must be raised or replaced to maintain the designed fence height and prevent wildlife from breaching the fence.
- Broken fence mesh, wooden posts and cross-members, bent metal poles and broken or bent gate tynes must be repaired or replaced with identical materials.
- Post or poles must be relocated to more stable ground if soil erosion or failure undermines or destabilizes fence or post/pole foundations.
- Wildlife exclusion fencing and gate areas must be kept clear of vegetation (trees, shrubs) to a width of 3 metres on either side to ensure access and proper functioning
- Should your works involve the disturbance of soils, create areas of exposed soils, or the use of wet cement near watercourses, prevent the transport of sediment through the installation of appropriate erosion and sediment control BPs and devices.
- Be aware that vegetation clearing can negatively impact nesting birds in spring and early summer. Inspect your work area for any occupied bird nests, eggs, or nests of species protected under the *Wildlife Act* and *Migratory Bird Convention Act* during this period.
- Ensure all noxious weed/invasive plant materials are transported and disposed of in accordance with the *Weed Control Act* Regulations and any local area protocols.

Equipment Use

- Select appropriate equipment and work access routes to reduce damage to riparian vegetation and watercourse bank.
- If working near a watercourse, ensure all equipment used on site is well maintained and free of fluid leaks. Refuel and lubricate equipment on dry land away from watercourses. Use drip trays to contain any spillage during equipment maintenance.

Roadside Fence Maintenance



Key Information Sources

The documents and websites listed below are recommended resources for highway incident and vandalism response activities. They can provide examples of existing protocols and management strategies, as well as additional information on specific operational BPs (e.g., erosion and sediment control techniques).

MoT Technical Circulars:

There are no relevant Technical Circulars authored to-date for this activity.

All Technical Circulars are available at:

http://www.th.gov.bc.ca/Publications/Circulars/Current_technical.asp

Locally Developed BPs

(Provide any locally-developed BPs):

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Other Resources:

Wildlife Exclusion Fencing – Section 700 – 2008 Standard Specifications for Highway Construction. 2008. BC Ministry of Transportation and Infrastructure.

http://www.th.gov.bc.ca/Publications/const_maint/contract_serv/standard_specs/2009_Stand_Specs_Vol_2.pdf

Fence Construction – Section 741 – 2008 Standard Specifications for Highway Construction. 2008. BC Ministry of Transportation and Infrastructure.

http://www.th.gov.bc.ca/Publications/const_maint/contract_serv/standard_specs/2009_Stand_Specs_Vol_2.pdf

Riparian Management Area Guidebook. 1995. Forest Practices Code. Ministry of Forests. 1995.

<http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/riparian/Rip-toc.htm>

BC Weed Control Act: Noxious Weeds in BC Website. Pest Management, Ministry of Agriculture, Food and Fisheries and Lands.

<http://www.agf.gov.bc.ca/cropprot/noxious.htm>

T.I.P.S.: Targeted Invasive Plant Solutions. Invasive Plant Council of British Columbia. 2008.

<http://www.invasiveplantcouncilbc.ca/resources/targeted-invasive-plant-solutions-tips>

Maintenance of Riparian Vegetation in Existing Rights-of-Way – Pacific Region Operational Statement. 2008. Fisheries and Oceans Canada (DFO).

http://www-heb.pac.dfo-mpo.gc.ca/decisionsupport/os/os-riparian_veg_maint_e.htm

Wildlife Exclusion Systems for Accident Mitigation on British Columbia Highways, 2005. Leonard E. Sielecki, BC Ministry of Transportation <http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1339&context=jmie/roadeco>



Checklist for Environmental Protection Requirements

- Is your proposed work considered a “routine” maintenance activity? If not, approvals or permits may be required. Contact your local municipal, provincial, or federal regulatory agency staff.
- Has this project been discussed with local environmental regulatory staff? In addition to the BP information presented, other site-specific conditions may apply.
- Have site-specific environmental protection requirements been identified? List below:
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