

**Highway Maintenance Specification Sections**

**1-190 Debris Removal**

Available at:

[http://www.th.gov.bc.ca/BCHighways/contracts/maintenance/Schedule\\_21\\_Maintenance\\_Specifications.pdf](http://www.th.gov.bc.ca/BCHighways/contracts/maintenance/Schedule_21_Maintenance_Specifications.pdf)

**5.4 Debris Removal**

Debris removal activities include the removal of litter, rubbish, vegetation, fallen rocks, dead animals, spilled materials, brush, branches and other tree parts, or other items that are not part of the highway from the road surface.



**Environmental Issues**

Primary environmental issues relating to routine debris removal 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
Rock and Soil Removal	May introduce sediment or other deleterious substances to a watercourse through removal activities	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)).
	May damage roadside riparian vegetation or other significant habitats through the side casting of rock or soils	No harmful alteration, disruption or destruction of fish habitat without authorization ( <i>Fisheries Act</i> , Section 35(1)).  No alteration of a stream unless authorized by an approval, licence, or order ( <i>Water Act</i> , Section 9), or through a Notification ( <i>Water Act Regulation</i> , Part 7).
	May damage habitat through the improper location of disposal sites in ditches, wetlands, or other significant habitat areas	No harmful alteration, disruption or destruction of fish habitat without authorization ( <i>Fisheries Act</i> , Section 35(1)).  No alteration of a stream unless authorized by an approval, licence, or order ( <i>Water Act</i> , Section 9), or through a Notification ( <i>Water Act Regulation</i> , Part 7).

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Work Activity	Potential Environmental Impacts	Performance Standards and Legal Requirements
Wildlife Carcass Handling and Disposal	Improper handling of wildlife carcasses may be harmful to human health. Handling of carcasses in accordance with MoT's Advisory for Handling Wildlife Carcasses	May cause a threat to both wildlife and public safety through the attraction of wildlife to highway rights-of-way and storage/disposal locations
	May cause a threat to both wildlife and public safety through the attraction of wildlife to highway rights-of-way and storage/disposal locations	Storage and disposal of carcasses in a manner that will not attract dangerous wildlife ( <i>Wildlife Act</i> , local bylaws)
	May pose a threat of disease through improper storage or disposal of roadkill	Disposal and storage of carcasses in accordance with local public health regulations and bylaws
	May contaminate surface waters, groundwater, and soils through improper storage or disposal of materials	Disposal of all waste materials in accordance with the <i>Act</i> ( <i>Environmental Management Act</i> , Waste Disposal Regulation)
Abandoned Vehicle Removal	May contaminate surface waters, groundwater, and soils through disturbance or improper disposal of abandoned vehicles	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)



### Environmental Best Practices

The following BPs are provided as guidelines to help you ensure your 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 debris removal activities, identify any sensitive habitat areas, including wetted ditches and natural watercourses (streams, lakes and marine foreshores), found within your work area that may be of concern to regulatory agencies.
- 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.
- Local agency staff may also be able to provide options for the appropriate removal and disposal of rock and soil, carcasses, or abandoned vehicles from highway rights-of-way.

#### Emergency Works – Rock and Soil Removal

On some occasions, your maintenance activities may be required as part of an emergency response to mass earth movement events such as landslides or bank failures.

Should such work be required, contact your local agency representatives to advise them of your works.

Document the actions you take to ensure you meet debris removal performance standards and legal requirements (i.e., erosion and sediment controls).

### Timing of Works

For most work activities, the following general BPs apply:

- Works are preferably undertaken during periods of dry weather (e.g., summer) as this allows easier control of sediment. Typically this is also a less sensitive period for fish and wildlife than other seasons. If the work schedule requires working in the rain, your area of work must be isolated and appropriate sediment controls must be installed to prevent the release of sediment-laden water or any other deleterious substances.
- If your maintenance activities require work instream, you must schedule them to coincide with your region's instream work window. Contact your local MoE and DFO offices for further information on timing windows in your District.

### Site Management

- If machinery will be working on site, have a spill response plan in place and spill kits on site.
- Ensure equipment used is clean and free of fluid leaks.

### Waste and Materials Management

#### Rock and Soil Removal

- Prevent sediment and other potentially harmful materials from entering into road drains and watercourses during removal activities (this may be accomplished by temporarily blocking road drains or constructing containment berms).
- Remove material to an appropriate storage or disposal site: do not simply flush materials into roadside ditches or side cast debris.
- Ensure removed rock and soil is placed in a location that will prevent the introduction of sediment or other potentially harmful materials to a watercourse.

#### Carcass Handling and Disposal

- Remove carcasses as soon as possible. If carcasses must be stored before disposal, do so in a manner that will not attract animals to the remains, and that will prevent any possible contamination of ground and surface water.
- Do not store or bury carcasses near water bodies, watercourses, or any sources of drinking water.
- Use appropriate personal protective equipment for carcass handling (e.g., gloves). When lifting larger animals, consider the use of mechanical assistance devices (e.g., winches). Refer to MoT's *Advisory for Handling Wildlife Carcasses*, under Other Resources.

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### Abandoned Vehicle Removal

- Take care while removing a vehicle to ensure that potentially harmful materials, including vehicle fluids (i.e., gasoline, motor oil), are contained and prevented from contaminating soils and ground and surface waters.
- Have a spill response plan in place and spill kits on site.
- Ensure that the vehicle is transported to an appropriate storage or disposal facility.



### Key Information Sources

The documents and websites listed below are recommended resources for debris removal. They can provide examples of existing protocols and management strategies, as well as additional information on specific operational best management practices (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](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:

*Abandoned Vehicle Process – Transportation Act.* Construction and Maintenance Branch. BC Ministry of Transportation

<http://www.th.gov.bc.ca/hired-equipment/hiredequip.htm/>

*Abandoned\_Vehicle\_Process.pdf*

*Advisory for Handling Wildlife Carcasses.* 2008. BC Ministry of Transportation and Infrastructure.

[http://www.th.gov.bc.ca/publications/eng\\_publications/environment/references/Advisory\\_Handling\\_Wildlife\\_Carcasses.pdf](http://www.th.gov.bc.ca/publications/eng_publications/environment/references/Advisory_Handling_Wildlife_Carcasses.pdf)



### 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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