5.0 SUB-CLASS 2 SERVICE LINES

Construction of New Service Lines and Modification, Operation, Maintenance or Repair, Abandonment and Decommissioning of Existing Lines

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5.1 Description of Class of Projects

This Sub-Class of the Routine Projects in the Town of Banff MCSR addresses the construction of new service lines including underground natural gas, water, sewage, power and communication. It also addresses the modification, operation, maintenance and repair, and abandonment and decommissioning of existing underground and aboveground lines to provide capacities outlined in the 1998 Banff Community Plan for the Town of Banff. The MCSR covers the following areas: the town of Banff and facilities outside the town boundary which are tied into the infrastructure of the town, including Banff Rocky Mountain Resorts, the Timberline Lodge, the Rimrock Inn, the Tunnel Mountain Campground, the Cave and Basin and Upper Hot Springs and the Banff Gondola (Figure 1.2).

Parks Canada is the Responsible Authority under the Act for all construction, modification, operation, maintenance or repair, and abandonment and decommissioning projects within the town of Banff and the outlying areas within Banff National Park (BNP). The Town of Banff Community Plan outlines the capacities of services permitted in the town of Banff related to various Land Use Districts. Within the town boundary, the Town provides development permits and inspections upon completion of projects. Parks Canada determines what capacities are permitted outside the town boundary and issues development permits.

Based on the *Canadian Environmental Assessment Act*, the following projects are included in this sub-class:

- Construction of all new service lines,
- Modification, operation, maintenance or repair of existing lines within the town of Banff where the projects (based on Schedule II, #12 of the *Exclusion List Regulation*):
  - Take place in areas that are not built-up (*i.e.* outside the town of Banff);
  - Involve the cutting of indigenous trees;
  - Involve the likely release of a polluting substance into the environment (A polluting substance is a substance, either natural or man-made, that can potentially have adverse effects on the environment);
  - Increase the operating capacity of the water, sewer, gas, electricity or telephone service lines; or
  - Present risk of physical harm to mammals.

  Note: Modification, operation, maintenance or repair of existing lines that do not involve any of the above do not require environmental assessment under the Act.
- Abandonment and decommissioning of existing lines.

  Note: Any project and its associated activities that are carried out in or on or within 30 m of a water body are not within the MCSR and therefore require an individual environmental assessment.

Utility service lines covered in this sub-class include:

- Water, stormwater and sanitary sewer services provided by the Town of Banff;
- Natural gas services provided by ATCO Gas;
- Electric power provided by Aquila Networks Canada; and
- Telephone and television cable services provided by Telus and Monarch Cable.

Both underground and aboveground services are included. Present utility services are provided for a resident population of 7,700 and an estimated 3.6 million annual visitors.

5.2 Typical Projects Associated with the Provision of Service Lines

Both underground and aboveground service lines for water, sanitary waste, storm water, natural gas, power and communication are present in the CSA, with all new construction occurring underground. Existing aboveground services are maintained and repaired as necessary, however it is planned that all services will eventually be underground.

Utilities, including water, sanitary sewer and storm water, and natural gas, which are provided in pipes, are usually located under roadways, or across development properties. Utilities provided in electrical cable are usually provided together in a conduit wherever feasible, frequently following roadways, either above or underground.

All projects in this sub-class involve a pre-planning component. Pre-planning activities include the preparation of Emergency Response Plans for potential contamination, Sediment and Erosion Control Plans and scheduling work such that it does not conflict with peak usage times and critical wildlife life stages.

5.2.1 Underground Services

The following projects occur during construction, operation, modification, maintenance or repair, and decommissioning and abandonment of underground service lines:

- **Site Preparation** includes:
  - Surveying and clearing of vegetation in the right-of-way;
  - Thawing of frozen ground during the winter through burning of propane;
  - Grading to reduce steep slopes;
  - Excavation of trenches by open cutting with backhoes, usually 1 to 3 m deep and 0.5 to 1 m wide, depending on the utility being installed. Smaller lines, such as electrical or phone lines, can use a trenching machine, which is less disturbing than a backhoe. Main line sewer and water lines, and storm sewers require larger trenches; and

  - Dewatering involves the removal of excess water from the site using pumps, hoses and sediment traps, and redirecting to stable vegetation.

- **Installation** of new utility lines, including electricity, natural gas, telephone and cable television, sanitary sewer, storm water, and water lines includes installing conduit, pipe or cable: for pipe this includes hauling, stringing, bending, welding, coating and lowering in. Trench breakers and subdrains are installed to prevent the movement of water down the trench. Projects that potentially have environmental impacts include:
  - Trenching, back filling and compacting: overburden is placed in the trench over the pipe, compacted and crowned over the trench to allow for subsidence. Final grading recontours the surface; and
  - Cable or telephone lines can be installed by a trenching machine, which opens the trench, lays the line and closes the trench in one pass.

- **Maintenance and Repair** of existing lines includes many of the same projects described under site preparation and installation. Additional projects include:
  - Annual inspection of lines and facilities for breaks, leaks or other malfunctions, and replacing damaged or broken lines, which includes the same activities as described above, but usually on a smaller scale;
  - Maintaining the right-of-ways, including mowing and removal of danger trees (inside the CSA and outside the town boundary); and
  - Stormwater system maintenance, including cleaning storm sceptors and disposing of any sediment and trapped oils.

- **Decommissioning and Abandonment** includes:
  - Disconnecting and **either** removing and disposing of underground line or pipe, **or** leaving the disconnected line or pipe in place (e.g. Telus and ATCO).

5.2.2 Aboveground Services

Electricity, telephone and cable television services, as well as street lighting, are provided by aboveground lines in some older areas within the town, and to Sulphur Mountain facilities (including the Rimrock Inn, the Upper Hot Springs and the Banff Gondola). The construction of new aboveground lines is not permitted within the town boundary, so only maintenance or repair, decommissioning and abandonment activities occur in relation to aboveground service lines. These activities can be divided into the following phases:

- **Maintenance and Repair** projects include:

  – Replacing poles and lines as necessary, including removing old poles, digging holes for new poles, planting poles and stringing, and replacing light bulbs; and

  – Maintenance of right-of-ways (outside town boundary), including mowing, clearing of shrubs, possible use of herbicides, and pruning or removal of danger trees.

- **Decommissioning and Abandonment** occurs when aboveground lines are replaced by underground service lines. This process involves:

  - Removal and disposal of aboveground poles and lines; and
  - Re-installation of underground services (see Section 5.2.1).

5.2.3 Aboveground and underground services

The following activities are applicable to aboveground and underground services.

- **Restoration or Reclamation** includes the overall clean up and reclamation of the site after construction or decommissioning and abandonment, involving:

  – Removal of all garbage and debris, and

  – Revegetation by seeding, sodding or planting of native trees and shrubs.

- **General activities**, including:

  – Materials Handling/Storage includes stockpiling overburden for use during filling and compacting.

  – Equipment Operation occurs during all phases. For aboveground lines, it includes the use of bucket trucks for pruning and line work. For underground services, it includes the use of jackhammers, compressors, compactors, backhoes, trenchers, trucks, vacuum trucks, water pumps and gas rectifiers.

  – Waste Production and Disposal occurs during all phases of the project. This involves the collection of all waste and its removal to appropriate facilities. Trade waste is to be disposed at the Bow Valley Waste Management Commission's Class III landfill and all other garbage at the Waste Transfer Facility in Banff. Vegetative material is to be chipped and re-used, or composted if possible. Diseased vegetation should be burned, and a burning permit obtained.

5.2.4 Typical Seasonal Scheduling and Construction Duration

Service line activities can occur during all seasons of the year. However, most planned activities occur between April and November, when the ground is thawed. If necessary, ground can be thawed during the winter months by burning propane on the surface, although this is usually only done for emergency underground repair activities. Aboveground repair activities can be carried out at all times of the year.

Duration of activities varies depending upon the type and size of the project. Construction of new service lines may take up to two months to complete for major projects, while major repairs may also take this long. Maintenance and minor repair activities can be done in a short period of time.

5.3 Description of Study Areas for Sub-Class 2

The MCSR is being prepared for projects that are conducted regularly and considered routine in nature, and the spatial and temporal extent of the impacts are well understood. Therefore, the potential size of the Study Area for each project subject to the MCSR has been defined below. The Study Areas are defined to include all the environmental components that could be affected by the proposed project.

Sub-Class 2 - Service Lines	Spatial Extent[(a)]	Temporal Extent
Construction of New Service Lines, and Modification, Operation, Maintenance and Repair, and Decommission and Abandonment of Existing Lines	• Include linear corridor that extends the length of the service line • Include width of Right-of-Way (for power and communication lines), or width of Right-of-Way plus 20 m from centre line on either side of Right-of-Way (for gas, sewage and water lines)	• **Construction** - Duration of Construction Phase (e.g. 2 weeks to 3 months) • **Modification, Operation, Maintenance or Repair** - Duration is Life of Service Line for operation, or duration of modification, maintenance or repair (e.g. 1 day to 2 weeks) • **Decommission and Abandonment, and Reclamation or Restoration** - Duration of Decommissioning and Abandonment Phase and time for site to re-establish vegetation for selected end land use (e.g. 3 weeks to 6 months)

[(a)] The size of the Study Area may need to be adjusted due to site-specific conditions as identified in the CSPR.

5.4 Typical Project Sites and Environmental Setting

Potential project sites are located within different ecosites in the town of Banff, and in designated outlying areas tied into the town's infrastructure (Figure 5.1). The ecosites in the CSA and their environmental characteristics and sensitivities are described in Table 5.1, Section 5.4.1 and shown in Figure 5.1. Further information on the environmental setting and sensitivities is provided in Appendix A and Appendix B. The main service lines located in each ecosite are listed in Table 5.1.

5.4.1 Athabasca Ecosite 1 (AT1)

AT1 is found on the lower slopes of Tunnel Mountain with slopes between 0 to 5%. This is a largely residential area, the majority of which has been developed. Consequently there are few areas of natural vegetation.

5.4.2 Fireside Ecosite 1 (FR1)

FR1 is located along Cave Road and around the Banff Rocky Mountain Resorts. Lodgepole pine forest occurs in the undeveloped areas. Landforms typically are alluvial fans, while slopes vary from 0 to 5% around Banff Rocky Mountain Resorts and from 5 to 15% near the Cave and Basin.

5.4.3 Hillsdale Ecosite 2 (HD2)

HD2 is found in the Commercial Service District, where the Town of Banff and Parks Canada Compounds are located. Landforms are typically alluvial fans, with slopes from 0 to 5%, and undeveloped areas are vegetated by open white spruce forests. Open grasslands are also typical of this Ecosite, but within the CSA mainly introduced species predominate.

5.4.4 Norquay Ecosite 1 (NY1) and 3 (NY3)

NY1 is typically found on the lower slopes of mountains, and in the CSA is located on Tunnel Mountain and along the road to the Norquay Ski area, where slopes range from 45 to 70%. This Ecosite is typically forested with either Douglas fir or lodgepole pine.

NY3 is found on the northern lower slopes of Tunnel Mountain, with slopes ranging from 45 to 70%. Typical vegetation includes white spruce - Douglas fir forests. The Tunnel Mountain Campground occurs within this Ecosite.

5.4.5 Patricia Ecosite 1 (PT1) and 5 (PT5)

PT1 is fairly extensive in the CSA, occurring mainly on the lower slopes of Mt. Norquay, Sulphur Mountain and Tunnel Mountain. Slopes in these areas range from 5 to 30%. Undeveloped sites are dominated by lodgepole pine forests. CSA facilities within the PT1 Ecosite include the Banff Centre, the Cave and Basin, the Middle Springs Residential Area and the Timberline Lodge.

The PT5 Ecosite consists of well drained upland segments, separated by poorly to very poorly drained wetland depressions. Slopes typically range from 5 to 15%. In the CSA, the south side of the Bow River is characterized as PT5, and includes residential and parkland areas and the Banff Springs Hotel. Lodgepole pine forests predominate, with some Douglas fir.

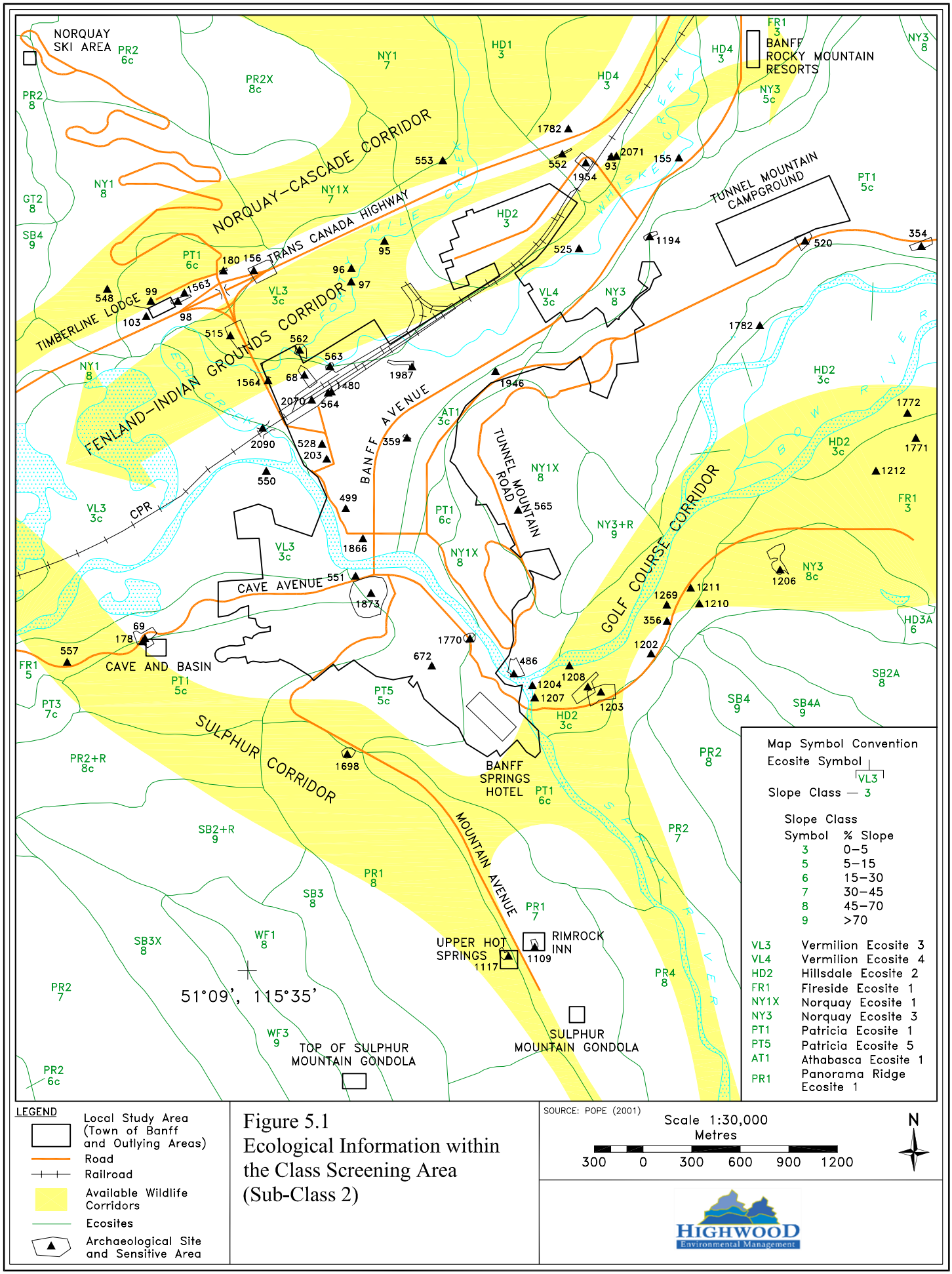

Figure 5.1
Ecological Information within the Class Screening Area (Sub-Class 2)

Table 5.1 Environmental Characteristics of Ecosites and Service Line Facilities in the Class Screening Area - Sub-Class 2.

Ecosection / Ecosite	Service/Utility[(a)] Facilities Present	Sensitivities [(b)]
Athabasca AT1 3c	• main underground conduit down Muskrat St. for telephone, power and cable • also contains aboveground lines • 2 ATCO rectifiers	• high water table
Hillsdale HD2 3	• AltaLink Banff sub-station located in Compound Area • 25 kV aboveground transmission line passes through Parks Compound • main telephone conduit and optical fibre passes • aboveground power lines • Town of Banff water well #2 located near the Parks Compound	• includes small areas of parkland and environmental protection (PE), that are ranked as highly important to wildlife; and includes portions of the Fenland-Indian Grounds Corridor.
Fireside FR1 3,5	• overhead power, telephone and cable lines	• includes natural areas that are ranked as highly important to wildlife, including a wildlife corridor • important wetlands near Cave and Basin
	• overhead power lines and underground telephone and cable	• situated on important elk habitat, used for feeding and bedding areas, especially in winter and early spring
Norquay NY1x 8		• steep and locally eroding slopes, old growth Douglas fir forests; shallow soils. • includes lands that are ranked as medium to very highly important to wildlife
NY3 8	• 2 overhead Aquila 69 kv and 25 kV transmission lines	

Table 5.1 Environmental Characteristics of Ecosites and Service Line Facilities in the Class Screening Area - Sub-Class 2 – *Continued*

Ecosection / Ecosite		Service/Utility[(a)] Facilities Present	Sensitivities[(b)]
Patricia	PT1 6c	• service lines mainly underground	• proximity to rivers, and ecosite that are ranked as highly important to wildlife; includes wet areas important for reptiles and amphibians. • steeper slopes and shallow soils in some sites present erosion and reclamation issues.
	PT1 5c	• some aboveground power, telephone and cable lines in older areas, otherwise underground	• the ecosite is rated as highly important to wildlife, and includes wet areas important for reptiles and amphibians; • includes areas of wildlife corridors
	PT5 5c	• some aboveground lines for power only, other services underground	• PT5 wet areas susceptible to soil degradation and drainage problems • adjacent to wildlife corridor • wetlands
Vermilion	VL3 3c	• ATCO rectifier	• seasonally high water table; poor drainage; soil may be susceptible to ponding and compaction; ranked as highly important to wildlife; includes wet areas important for reptiles and amphibians • adjacent to wildlife corridor N. of the Town
	VL4 3c	• dense concentration of all utility lines both above and underground	• high water table

Table 5.1 Environmental Characteristics of Ecosites and Service Line Facilities in the Class Screening Area - Sub-Class 2 – *Continued*

Ecosection / Ecosite	Service/Utility[(a)] Facilities Present	Sensitivities[(b]
Panorama Ridge PR1 7,8	• aboveground power and telephone lines • ATCO regulator stations	• ranked as highly important to carnivores and breeding birds. • steepness plus seepage areas (related to lateral shallow subsurface water) can affect stability, erosion and re-vegetation. • important wildlife corridor
PR2 6c	• aboveground power and telephone lines	• ranked as very highly important to carnivores - especially marten, weasel and mink. Deep snow in winter makes it less important for large carnivores.
Wildflower WF1 8	• aerial cables to top of gondola • aboveground water pipeline	• steep and locally unstable slopes; snow avalanches, shallow soils, steep slopes and rock outcrops can present erosion and re-vegetation issues.

(a) Feeder lines for all utilities occur in all ecosites in the Study Area. This column only highlights additional facilities.

(b) Other potential sensitivities are provided in Appendix B.

5.4.6 Vermilion Lake Ecosite 3 (VL3) and 4 (VL4)

VL3 encompasses wet level floodplains dominated by wet white spruce forest and shrub vegetation. There are two areas of VL3 within the town of Banff. One is located within the northwest sector of the town along Forty Mile Creek and Whiskey Creek. The second area is south west of the Bow River, beside the Recreation Grounds. This is a wetter site which is imperfectly drained.
VL4 also encompasses wet, level floodplains which are frequently poorly drained, and dominated by white spruce. The majority of downtown Banff is located in the VL4 Ecosite, on the floodplain to the east of the Bow River. However, this area is largely developed.

5.4.7 Panorama Ecosite 1 (PR1)

PR1 is found on the north side of Sulphur Mountain, where the Upper Hot Springs, the Rimrock Inn and the Banff Gondola are located. Slopes are typically 45 to 70%. Dominant vegetation is lodgepole pine.

5.4.8 Sawback Ecosite 3 (SB3)

SB3 is found on the slopes of Sulphur Mountain where the slope is between 45 and 70%. Vegetation cover is dominated by lodgepole pine.

5.4.9 Wildflower Ecosite 1 (WF1)

WF1 is typically found on steep valley walls, and in the CSA occurs at the top of the Banff Gondola, where slopes range from 45 to 70%. Vegetation is dominated by the Engelmann spruce-subalpine fir.

5.5 Potential Environmental Effects of Projects Associated with Service Lines

Based on the environmental conditions, location and other site-specific conditions in each ecosite in the CSA, potential effects of project activities have been identified.

An environmental matrix (Table 5.2) has been used to identify which project activities will likely impact each environmental component. The matrix identifies the potential range of magnitudes of the impacts that could result from construction, modification, maintenance or repair, and decommissioning and abandonment of service lines if no mitigation measures are implemented. Potential impacts are rated as high, moderate or low magnitude, or none. Only those activities with impacts are included in the table.

The highest magnitude potential **pre-mitigation** environmental effects as identified in Table 5.2 include:

- Impact on surface water quality from installation of underground service lines close to water bodies (but not closer than 30 m) and sedimentation from run-off during clearing and excavation activities, and dewatering into water bodies. Surface water runoff and increased sedimentation resulting from eroded soils can decrease the quality of surface waters that they enter. Changes in water quality can impact aquatic resources. Activities closer than 30 m to a water body are not covered by the MCSR, and require a separate environmental assessment;

- Potential impacts to soil, including:

  – Soil erosion during grading and excavation activities;

  – Soil compaction during equipment operation; and

  – Soil contamination from accidental spills and leaks from equipment operation and maintenance.

- Potential for loss or damage to adjacent vegetation from site clearing activities during site preparation.

- Impact on wildlife and wildlife habitat in previously undeveloped areas, including:

  - *Loss or fragmentation of habitat* where development occurs in or adjacent to previously undisturbed areas;

  - *Sensory disturbance* from noise and activity during site preparation, installation and equipment operation; and

  - *Disruption of wildlife movement corridors*, particularly in locations close to Middle Springs, Sulphur Mountain facilities, the Cave and Basin and the Timberline Lodge.

- General negative aesthetic impacts including visual, noise and odour effects, and loss of the wilderness experience.

Table 5.2 Matrix of Potential Pre-Mitigation Environmental Impacts from the Provision of Service Lines - Sub-Class 2.

Activity and Development Phase	Environmental Components						
	CEAA Trigger	Air Quality	Hydrology, Water Quality and Aquatic Resources	Landforms and Soil	Vegetation	Wildlife Habitat and Populations	Aesthetics (Vision, Noise)
Underground Services							
Site Preparation							
Clearing of vegetation	✓[a]	L	L-M	L	L-H	L-M	L-H
Thawing		L	—	—	—	—	L-M
Grading and excavation	✓	L	L-M	L-H	L-M	L-M	L-H
Dewatering			L		L	L	
Installation, maintenance and repair							
Trenching, backfilling, compacting, grading	✓	L	L	L-H	—	L-M	L
Right-of-way maintenance	✓[a]	L	L	—	—	L	—
Cleaning storm sceptors		—	L	L	—	—	—
Decommissioning and Abandonment							
Disconnection and removal of pipes/cables		—	L	L	—	—	L
Aboveground Services							
Maintenance and Repair							
Removal of poles and lines		—	—	L	—	L	P
Digging holes for replacement poles	✓	—	—	L	L	L	—
Planting poles and stringing		—	—	L	—	L	L-H
Right-of-way maintenance	✓[a]	L	L	—	L	L	—
Decommissioning and Abandonment							
Removal of wires and poles, refilling holes		—	—	P	P	P	P
Reclamation and Restoration[b]							
Revegetation		—	P	L	P	P	P
General Activities [c]							
Materials handling/storage		L	L	—	L	L	—
Equipment operation and maintenance		L	L-M	L-M	L	L-M	L
Waste management		—	—	P	—	P	L-M

Potential Magnitude of Impacts:
H = High
M = Moderate
L = Low
P = Positive
— = None

(a) If vegetation removal outside the town boundary.
(b) Applies to aboveground and underground service line projects after decommissioning and abandonment.
(c) Applies to aboveground and underground service line projects.

5.6 Mitigation Measures, Guidelines and Standards

Standard guidelines and procedures are available which significantly reduce the magnitude of these potential impacts.

Table 5.3 provides a summary of typical mitigation measures that should be used to address the potential environmental effects identified in Table 5.3. Mitigations associated with general activities should be fully considered in the pre-planning stage to ensure that they are the most effective while on-site. It is important to recognize that appropriate mitigation measures will depend on site-specific environmental characteristics, which can be determined from Table 5.1. Many of these outlined mitigation procedures are currently practised within the CSA.

Parks Canada and the utility companies operating in Banff National Park have documented specific mitigation measures to be used during project activity in Banff National Park. These are described in:

- Banff National Park, Directive 17: "Environmental Guidelines for Development Projects".
- Best Available Methods for Common Leaseholders Activities (Axys 1998).
- Environmental Protection Guidelines for Electrical Transmission Lines, Conservation and Reclamation Information Letter 95-2 (AENV 1995).

Utility companies and Town of Banff contractors in the CSA are required to be familiar with these recommended construction techniques, and to use them at all times to minimize the impact of their projects. Residual impacts should then be minimal.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects

Activity	Potential Impacts	Mitigation Measures
Pre-Planning		
General activities	Runoff / sedimentation; soil contamination	• Prepare an Emergency Response Plan for the worst case, i.e., heavy rainfall and runoff events, high winds, spills, fires, etc. • In the event of emergency operations (as defined in Section 5.10 of the MCSR), call 911. The Warden Dispatch can also be contacted (available 24 hours/day) at (403) 762-4506 or the Wardens Office at (403) 762-1470 to notify of any emergency procedures required. • Ensure all activities are conducted at least 30 m from waterbodies.
	Dust production	• Have a water source available to wet down exposed soil and dry areas.
	Wind and water erosion	• Prepare a satisfactory Sediment and Erosion Control Plan covering all construction and restoration periods. • Acquire necessary sediment control equipment (i.e., straw bales, landscaping fabric, sediment fences, etc.) and install prior to construction. • Extra planning should be used for areas with silty deposits (VL3 and VL4) and sloped areas with sandy deposits (see Figure 5.1).
	Compaction of soils	• Identify soils susceptible to compaction (fine textured and organic soils) • Wherever possible, use equipment of low bearing weight, low PSI tires, or tracked vehicles, especially in sensitive sites.
	Slope failure	• Assess slope stability (based on slope length, soil texture, steepness, soil depth) and adjust activities to avoid these areas if possible. Use appropriate setbacks. • Pay particular attention when planning for slopes of Class 6 (15-30%) or greater, especially where soils are shallow and likely to move with disturbance.
	Habitat loss and fragmentation or encroachment on wildlife movement corridor	• Identify wildlife habitat that may be impacted by activities and avoid sensitive areas. • Identify and avoid wetlands. • Ensure only necessary vegetation is removed and delineate areas to be avoided with biodegradeable flagging tape and/or temporary fences.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
General activities (continued)	Sensory disturbance and mortality of wildlife	When working adjacent to natural areas: • According to the wildlife that may be present, schedule high noise level activities and other intrusive construction activities to avoid critical life stages (breeding, nesting, rearing, migration). Consult with Parks Canada (403-762-1416) to discuss any localized wildlife concerns. • Confine "noise" activities to hours set out in Town of Banff Noise Bylaw. • Consider posting wildlife signs to reduce vehicle speeds and increase driver awareness near construction areas were wildlife mortality has or is likely to occur. • Educate workers to not harass or attract wildlife, keep the site free of food scraps, and dispose of garbage in bear proof containers.
	Disturbance of archaeological resources	• Determine whether there are archaeological sites in the area (see Figure 5.1). • Consult with Parks Canada (403-762-1416) if sites are identified. • If potential archaeological sites may be subject to ground disturbance, adapt activities to avoid them. • Educate workers to stop work immediately and to notify site supervisor upon finding any archaeological artefacts.
	Public safety	• Outline traffic control measures and assess the need for flagging personnel. • Call utility line companies to identify infrastructure locations (Alberta OneCall: 1-800-242-3447).
	Reduced aesthetics (visual and noise)	• Evaluate the site layout, access routes and construction activities to minimize their visual impact. • Plan work schedule to confine "noise" activities to hours set out in Town of Banff Noise Bylaw and, if possible, to periods of low visitation.
Underground Services		
Site Preparation		
Clearing of vegetation	Dust production	• Wet down dry, exposed soils, particularly during windy periods. • Ensure materials being stored or transported are covered with tarps or equivalent material.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Clearing of vegetation (continued)	Runoff / sedimentation	In all ecosites and on areas with a slope class of 5 (5-15%) or greater: • Minimize vegetation cover removal. • Assess slopes stability (based on slope length, soil texture, steepness, soil depth). • Use appropriate geo-technical control measures to stabilize slopes. • To ensure that site runoff is minimized, control overland flow up gradient and down gradient of exposed areas by use of diversion ditches, bales, vegetative filter strips, and/or sediment traps. • When possible, hand clear slopes > 35%. Wait to clear steep sloped areas until immediately before scheduled construction and reclaim immediately afterwards. • Periodically inspect erosion control structures for effectiveness.
	Wind and water erosion	Particularly in areas with silty deposits (VL3 and VL4) and sloped areas with sandy deposits (see Figure 5.1): • Clear minimum area necessary in ROW. Where possible, leave stumps and roots in place. • Protect exposed soils with granular materials, mulches, or straw. • Cover stockpiles of soil with polyethylene sheeting, tarps, or vegetative cover. • Minimize grubbing.
	Damage to adjacent vegetation	To protect undeveloped areas adjacent to development site: • A development permit from the Town of Banff Planning and Development Division (403-762-1215) is required before removing any trees. • Minimize area cleared. Clearly mark area to be cleared with biodegradable flagging tape and or temporary fences. • Ensure vertical (Rocky Mountain) juniper, Douglas fir and limber pine are protected. • Ensure excavated material does not damage or bury plant material that is to be retained on the site or in adjacent areas. • Hoarding around trees to be retained must be installed beyond the tree's drip line prior to commencement of site work. • Trees are to be cut so that they fall inside the cleared perimeters. • Care must be taken during grubbing and stripping to ensure that trees and roots on the edge of the cleared area are not disturbed. • Grubbing and stripping may not be permitted on steep slopes.
	Habitat fragmentation and wildlife corridor encroachment, loss of wilderness quality	When working adjacent to all undeveloped areas and areas bordering natural habitat, especially wildlife movement corridors and natural wetlands: • Clear only the minimum area required for construction activities. • Retain vegetation barriers where possible, especially trees and shrubbery.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Thawing	Decrease in ambient air quality due to emissions	• Only use ground thawing measures in emergency situations. • Minimize use of propane for thawing by scheduling activities for spring/summer/fall.
Grading and excavation	Dust production / aesthetics	• Wet down dry, exposed soils, particularly during windy periods. • Ensure fine materials being stored or transported are covered with tarps or equivalent material. • Minimize grading and excavation on windy days to limit dust production.
	Runoff/ sedimentation	• Halt construction activity on exposed soil during events of high rainfall intensity and runoff. • Assess slopes stability (based on slope length, soil texture, steepness, soil depth). • Use appropriate geo-technical control measures to stabilize slopes. • Cover stockpiles of soil with polyethylene sheeting, tarps, or vegetative cover. Sites close to waterbodies, but not closer than 30 m: • To ensure that site runoff is minimized, control overland flow up gradient and down gradient of excavated areas by use of effective diversion ditches, bales, vegetation filter strips, or sediment traps.
	Wind and water erosion	Particularly in areas with silty deposits (VL3 and VL4) and sloped areas with sandy deposits (see Figure 5.1): • Protect exposed soils with coarse granular materials, mulches, or straw. • Cover stockpiles of soil with polyethylene sheeting, tarps, or vegetative cover.
	Loss of top soil and/or top soil/subsoil mixing	• Use separate lifts and storage of topsoil and subsoil horizons, replacing them in the same order after completion of activity, wherever practical. • Topsoil will be stored away from any slopes, subsoils, spoil material, construction activities and day-to-day operations.
	Slope failure	• Avoid work on steep slopes, especially areas with slope Class 6 (15-30%) or greater. • Assess slopes stability (based on slope length, soil texture, steepness, soil depth). • Use appropriate geo-technical control measures to stabilize slopes. • Topsoil will be stored away from any slopes, subsoils, spoil material, construction activities and day-to-day operations.
	Non-point source hydrocarbon contamination	• When constructing and upgrading of storm sewers, install oil sumps.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Dewatering	Runoff / sedimentation	• Dewatering is not permitted into any waterbody, including the Bow River and Whiskey Creek. • Dewatering is permitted on previously disturbed vegetation or natural vegetation if the following conditions are met: 1. sediment controls are used (i.e., silt fences, silt bags, etc.). 2. water velocity is controlled to dissipate energy, prevent soil erosion and allow for infiltration. 3. dewatering structures are continuously monitored to ensure no damage is being done to soil or vegetation. • As an interim measure, the Town may allow silty water to be pumped into the sanitary system. A permit is required (403-762-1200). • Parks Canada does not allow dewatering into storm sewers unless it can be demonstrated (with aid of a laboratory) that the proponent has the methods and equipment to limit sediment entering the receiving waterbody. • Sediment from the traps may be used as fill on the construction site.
	Damage to adjacent vegetation	• For undeveloped areas adjacent to development site, ensure water and sediment is directed away from natural areas.
	Sensory disturbance and mortality of wildlife	When working adjacent to natural areas: • According to the wildlife that may be present, schedule high noise level activities and other intrusive construction activities to avoid critical life stages (breeding, nesting, rearing, migration). Consult with Parks Canada (403-762-1416) to discuss any localized wildlife concerns. • Confine "noise" activities to hours set out in Town of Banff Noise Bylaw. • Consider posting wildlife signs to reduce vehicle speeds and increase driver awareness near construction areas were wildlife mortality has or is likely to occur. • Educate workers to not harass or attract wildlife.
Installation, Maintenance and Repair		
Trenching, backfilling, compacting, grading	Dust production / aesthetics	• Minimize the amount of open trench at any given time. • Cover stockpiles of soil with polyethylene sheeting, tarps, or vegetative cover. • Wet down dry, exposed soils, particularly during windy periods. • Minimize trenching, backfilling and compacting on windy days.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Trenching, backfilling, compacting, grading (continued)	Runoff / sedimentation	• Assess slopes stability (based on slope length, soil texture, steepness, soil depth). • Use appropriate geo-technical control measures to stabilize slopes. • All excavations will remain free of water (see mitigations for "Dewatering"). Sites close to waterbodies, but not closer than 30 m: • To ensure that site runoff is minimized, control overland flow up gradient and down gradient of excavated areas by use of effective diversion ditches, bales, vegetation filter strips, or sediment traps. • Stockpiles related to excavations will be stored a minimum of 2 m from embankments, slumps, water bodies and containment sources to prevent material loss or degradation. • Following excavations, lightly tamp disturbed areas to minimize slumping and potential pooling or water.
	Non-point source hydrocarbon contamination	• When constructing and upgrading of storm sewers, install oil sumps.
	Erosion (wind and water)	• Install trench breakers of impervious material to direct groundwater seepage to the surface. • Minimize the length of exposed trench and the time of excavated soil exposure. • Use interceptor ditches or berms (bales) upgradient of construction to divert overland flow around exposed soil surfaces. • Line steep ditches with filter fabric, rock or polyethylene lining to prevent channel erosion.
	Trench collapse	• Delay trenching until just prior to lowering-in pipeline.
	Compaction	• Compact soil to approximate preconstruction conditions while allowing for settling.
	Habitat loss, fragmentation, wildlife mortality	• Minimize the length of open trench, and the time a trench is open to reduce its affect as a barrier or trap for terrestrial wildlife. • Fence trench if it is to be left unattended over night.
Right-of-way maintenance (outside town boundary)	Dust production / aesthetics	• Wet down dry, exposed soils, particularly during windy periods. • Ensure materials being stored or transported are covered with tarps or equivalent material. • Minimize trenching, backfilling and compacting on windy days.
	Loss of wilderness quality	• Retain vegetation barriers where possible, especially trees and shrubbery. • Minimize the amount of vegetation removed.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Right-of-way maintenance (outside town boundary) (continued)	Contamination from fertilizers and herbicides	• Accurately assess the need for chemicals during right-of-way maintenance. Use products and methods identified in Parks Canada Management Directive 2.4.1 (1985). • Avoid herbicide/fertilizer use in proximity to, or where runoff may reach waterbodies.
Cleaning storm sceptors (stormwater sewers)	Sedimentation/ contamination of water	• Ensure stormwater storm sceptors are cleaned regularly. • Dispose of sediment and trapped oils and debris at appropriate facilities.
Decommissioning and Abandonment		
Disconnection and removal of pipes/cables	Runoff / sedimentation	• Stockpiles related to excavations will be stored a minimum of 2 m from embankments, slumps, water bodies and containment sources to prevent material loss or degradation. • Following excavations, lightly tamp disturbed areas to minimize slumping and potential pooling or water.
	Wind and water erosion	• Begin revegetation immediately. • Protect exposed soils with coarse granular materials, mulches, or straw.
	Compaction	• Select appropriate equipment, especially in erosion/slump prone areas (see Figure 5.1). If possible, use wide tracked equipment, rubber tired vehicles and low bearing pressure weight equipment in sensitive areas.
Aboveground Services		
Maintenance and Repair		
Removal of poles and lines	Compaction	• Compact soil to approximate precondition conditions while allowing for settling. • Select appropriate equipment, especially in erosion/slump prone areas (see Figure 5.1). If possible, use wide tracked equipment, rubber tired vehicles and low bearing pressure weight equipment in sensitive areas.
Digging holes for replacement poles	Slope failure	• Assess slopes stability (based on slope length, soil texture, steepness, soil depth). • Use appropriate geo-technical control measures to stabilize slopes.
	Loss of or damage to vegetation, weed invasion	• Protect undisturbed land by only stockpiling materials on heavy canvas or polypropylene tarpaulins to protect native vegetation. Excavated material should not be permitted to damage or bury plant material that is to be retained on the RoW or in adjacent areas.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Planting poles and stringing	Heavy equipment and excavation activities may result in soil compaction, loss of organic matter, erosion and loss of topsoil	• Soil that has been temporarily shoved away from poles and temporarily placed on tarps will be shovelled back against the pole and lightly tamped to prevent slumping or pooling of water.
	Reduced aesthetics (noise)	• Confine "noise" activities to normal working hours or hours of Town of Banff Noise Bylaw.
Right-of-way maintenance	Dust production / aesthetics	• Wet down dry, exposed soils, particularly during windy periods. • Ensure fine materials being stored or transported are covered with tarps or equivalent material.
	Contamination from fertilizers and herbicides	• Accurately assess the need for chemicals during right-of-way maintenance. Use products and methods identified in Parks Canada Management Directive 2.4.1 (1985). • Avoid herbicide/fertilizer use in proximity to, or where runoff may reach waterbodies.
	Loss of wilderness quality	• Retain vegetation barriers where possible, especially trees and shrubbery. • Minimize the amount of vegetation removal.
Decommissioning and Abandonment		
Removal wires and poles, refilling holes	Heavy equipment and excavation activities may result in soil compaction, loss of organic matter, erosion and loss of topsoil.	• Soil that has been temporarily shoved away from poles and temporarily placed on tarps will be shovelled back against the pole and lightly tamped to prevent slumping or pooling of water.
	Weed invasion	• See mitigations for "Revegetation".
	Sensory disturbance	When working adjacent to natural areas: • According to the wildlife that may be present, schedule high noise level activities and other intrusive construction activities to avoid critical life stages (breeding, nesting, rearing, migration). Consult with Parks Canada (403-762-1416) to discuss any localized wildlife concerns. • Educate workers to not harass wildlife. • Trade waste will be disposed of at Bow Valley Waste Management Commission's Class III landfill.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Reclamation and Restoration		
Revegetation	Runoff/ sedimentation, wind and water erosion	• Initiate replanting of disturbed areas immediately after construction is completed. • Protect exposed soils with coarse granular materials, mulches, or straw.
	Contamination from fertilizers and herbicides	• Accurately assess the need for chemicals during right-of-way maintenance. Use products and methods identified in Parks Canada Management Directive 2.4.1 (1985). • Do not use fertilizers and herbicides in areas where residue or runoff may enter a waterbody or drainage pathway. • Do not over water.
	Compaction	• Cultivate affected areas before reclaiming, especially areas with fine textured or organic soils.
	Weed invasion	• Ensure topsoil is clean and weed free. If clean fill is unavailable, check on weeds or treat as needed for 3 years following landscaping and revegetation. • All construction equipment from outside Banff National Park will be steam cleaned prior to arrival to minimize the risk of introducing weeds. • Revegetate exposed areas at first opportunity.
	Habitat loss, fragmentation and wildlife corridor encroachment.	• Revegetate exposed areas at first opportunity.
	Attraction of wildlife to palatable, non-native species	• Seed with Parks Canada-approved seed mix (see Appendix C) and native plants that are non-palatable to wildlife.
Underground and Aboveground Services		
General Activities		
Materials handling/storage	Dust production	• Wet down dry soil or cover with tarp. • Ensure materials being stored or transported are covered with tarps or equivalent material.
	Runoff/ sedimentation	• Cover stockpiles with polyethylene sheeting, tarps, or vegetative cover.
	Damage to adjacent vegetation	• Excavated material will not be permitted to damage or bury plant material that is to be retained on the site or in adjacent areas. • Protect undisturbed land by only stockpiling materials on heavy canvas or polypropylene tarpaulins to protect native vegetation. Excavated material should not be permitted to damage or bury plant material that is to be retained on the construction site or in adjacent areas.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Equipment operation and maintenance	Decrease in ambient air quality due to emissions	• Ensure all equipment is properly tuned, free of leaks, in good operating order, and fitted with standard air emission control devices. • Minimize idling of engines at all times.
	Dust production	• Wet down dry and dusty roads. • Do not use oil-based dust suppressants. • Reduce speeds. • Ensure materials being stored or transported are covered with tarps or equivalent material.
	Contamination of soil and water from accidental spill	• In the event of emergency operations (as defined in Section 5.10 of the MCSR), call 911. The Warden Dispatch can also be contacted (available 24 hours/day) at (403) 762-4506 or the Wardens Office at (403) 762-1470 to notify of any emergency procedures required. • Avoid work in high risk areas, particularly in areas of high water table, steeply sloped sites or in close proximity to streams. • Have spill containment equipment on-hand and ensure that all personnel are trained in their use. • Ensure all construction equipment is free of leaks from oil, fuel or hydraulic fuels. • The crossing of any waterbody (including wetlands) by construction equipment, or the use of such equipment within waterbodies is strictly prohibited unless prior approval has been confirmed. • Designate refuelling areas at least 100 m away from any water body. Refuelling sites will be bermed with an impermeable liner to contain 125% of the anticipated fuel quantity. Any contaminated rainwater will be moved out of the park. • Refuelling activities should not be conducted where runoff could carry contaminants into drainage pathways (including storm sewers). • Dispose of contaminated materials at provincially certified disposal sites outside of the Park. No treatment of contaminated soils (e.g., bioremediation) is allowed in the Park. All applicable documentation demonstrating proper disposal should be obtained.

Table 5.3 Sub-Class 2: Service Lines - Mitigation for Reducing Impacts of Service Line Projects - *Continued*

Activity	Potential Impacts	Mitigation Measures
Equipment operation and maintenance (continued)	Compaction of soils	• Restrict vehicular travel and other equipment operation to the construction site and approved access routes. • Vehicle parking will be restricted to specialized areas on the construction site. • Minimize or halt construction traffic during wet conditions when the soil shows signs of ponding or rutting. • In sensitive areas, if possible, use equipment that minimizes surface disturbance including low ground pressure tracks/tires, blade shoes and brush rake attachments.
	Damage to adjacent vegetation	Undeveloped areas adjacent to development site: • Careful machine operation is required to ensure that damage to surrounding vegetation does not occur. • Excavated material must not be permitted to bury plant material that is to be retained. Snow fences may be used to prevent excavated material escaping into the surrounding forest.
	Weed invasion	• All construction equipment from outside Banff National Park will be steam cleaned prior to arrival to minimize the risk of introducing weeds. • Construction equipment from outside the Park will not be washed while in the Park.
	Sensory disturbance to wildlife	All undeveloped areas and areas bordering natural habitat, especially wildlife movement corridors and natural wetlands: • Use existing roadways, pathways and previously disturbed areas for site access and travel within the site. • Educate workers not to enter wildlife corridors. • Confine "noise" activities to hours set out in Town of Banff Noise Bylaw.
	Increased traffic levels	• Time construction activities to minimize vehicle conflicts on access roads and/or use flagging personnel.
Waste management (general)	Contamination of soil and water from accidental spill or improper disposal	• No rock, silt, cement, grout, asphalt, petroleum product, lumber, vegetation, domestic waste, or any deleterious substance shall be placed or allowed to disperse into any stream, river, pond, storm or sanitary sewer, or other water course.
	Aesthetics (visual and smell)	• Collect all waste, store appropriately and dispose trade waste at Bow Valley Waste Management Commission's Class III landfill, and household garbage at the Waste Transfer Station. • All garbage and food must be stored in bear-proof bins as per the Banff Waste Bylaw. • Construction sites must undergo thorough clean-up, including removal of general litter, survey stakes and flagging tape at project completion.

5.7 Residual Impacts

Residual impacts are those impacts remaining **after all appropriate mitigation has been implemented**.

The potential residual impacts likely to result from Sub-class 2 projects have been defined using the following terms:

- **Magnitude of Impact** refers to the percentage of a population or resource that may be affected. High, medium or low are the terms identified.
- **Direction** refers to whether an impact to a population or resource is considered to be positive, negative or neutral.
- **Duration** refers to the time it takes a population or resource to recover from the impact. It can be identified as short-term (< 3 to 6 months), moderate-term (6 months to 2 years) and long-term (> 3 years).
- **Frequency** refers to the number of times an activity is likely to occur and can be identified as once, intermittent, or continuous.
- **Geographical Extent** refers to the geographical area potentially affected by the impact and may be rated as local (within CSA), or regional (within Banff National Park) or provincial.
- **Degree of Reversibility** refers to the extent an adverse effect is reversible or irreversible over a 5 year period.
- **Significance Unknown** as the evaluation requires site-specific information.

If the appropriate measures are followed, most of the potential impacts identified in Table 5.3 and described in Section 5.5 should be reduced to insignificant levels.

After appropriate mitigation measures are taken, it is likely that the following residual impacts will remain:

- The likelihood of sedimentation from site preparation and dewatering activities and contamination of surface water from equipment operation should be reduced provided that contractors use appropriate mitigations as described in Table 5.3. These mitigations address equipment operation in proximity to water bodies, including using appropriate geotextile materials on steeper slopes, halting activities on steep slopes during heavy rainfall events, and ensuring an appropriate spill response plan is in place prior to operating equipment. Resulting effects would be low, negative, short-term, intermittent, local and reversible. This would be considered not significant.

- Following the mitigations in Table 5.3 during site preparation activities and equipment operation can reduce soil impacts such as erosion, compaction and contamination. Mitigations include restricting vehicular traffic and other equipment operation to designated areas and using equipment of low bearing weight, where possible. Provided these and other mitigations are followed, the residual impact to soil would be low, negative, short term, local and reversible. This would not be considered significant.

- Minimizing any unnecessary vegetation clearing and avoiding use of off-site areas for material storage or access can reduce loss of wildlife habitat. Fragmentation or encroachment on wildlife from project activities movement corridors is more difficult to mitigate. The major residual impacts to wildlife will occur in and in close proximity to previously undisturbed areas. Impacts in these areas will be low to moderate (depending on the specific location), negative, short-term, intermittent, local and reversible.

- Negative aesthetic impacts can be greatly reduced by adhering to noise restrictions and reducing facility-related visual impacts by careful placement. If this is done, aesthetic impacts should be insignificant. Any aesthetic impacts during site preparation will be negligible, negative, short term, local and reversible. This would not be considered significant.

In summary, appropriate mitigation should be effective in reducing potential impacts from service line projects to insignificant levels, except in or adjacent to previously undisturbed areas.

5.8 Malfunctions and Accidents

The likelihood of accidents and malfunctions occurring that would cause negative environmental impacts is minimal, as the projects associated with service lines are routine and their effects predictable. The likelihood of malfunctions occurring is reduced through use of appropriate operation and maintenance procedures. Examples of unlikely accidents or malfunctions that may occur include:

- Damage to or breakage of underground service lines during operation could result in flooding, gas leaks, explosions, etc. Normal safety procedures would reduce the likelihood of this occurring, and Emergency Response Plans minimize any environmental effects.

- Trees falling onto the line, lightning, and extreme ice and wind loading, and impacts from vehicles or birds could damage aboveground power lines. This could result in personal safety concerns.

- Wood pole structures can malfunction due to extreme weather situations. Wood poles also can malfunction due to loss of strength through rot.

- Substations malfunctions typically occur through mechanical failure.

- Heavy rains during construction or maintenance could lead to the unexpected erosion and overflow of sediment traps or exposure of pipeline or cable. Possible mitigation measures include the use of straw bales to contain and direct flow.

- Spills of petroleum products from equipment. Possible mitigation includes cleaning up spills using standard spill containment kits and procedures, and appropriate Emergency Response Procedures.

5.9 Effects of the Environment on the Project

Natural events including flooding, forest fire, heavy wind or snow have the potential to affect projects associated with service lines, and, in extreme cases, create emergency situations. These issues and concerns are considered to be mitigable through use of careful planning and Emergency Response procedures. Such measures should be included in Emergency Response Plan, as recommended under Table 5.3.

5.10 Emergencies

The Agency has advised Parks Canada "that pursuant to Section 7(1) of the Act, an environmental assessment is not required of a project where the project is to be carried out in response to an emergency and the project is carried out in the interest of preventing damage to property, the environment, or is in the interest of public health and safety. The scope and magnitude of actions taken by Federal Authorities in these circumstances will be defined by the powers that authorize the emergency actions. However, Federal Authorities should, as a matter of policy, attempt to ensure that environmental considerations are factored into their emergency response planning to the extent possible."

Emergencies within BNP, other than those of a national scale, include but are not limited to the actual occurrence of, and/or imminent threat of flooding, dam failure, extreme erosion, facility structural damage and forest fire, snow, rock or debris avalanche, natural gas leaks or explosions, train derailments and railway track failure, toxic materials release or spill, natural event blockage of the TransCanada Highway or CPR Mainline, and telephone or electrical failure to the town of Banff or the hamlet of Lake Louise. Initial actions or immediate containment will be approved but will require a post project environmental assessment and follow-up. If a longer-term project arises from the initial emergency, the normal environmental assessment protocol will apply to any further undertakings.

If a project would normally be covered by the MCSR, then it would also be covered if it resulted from emergency situations that occur within or proximate to the outlying areas of the town of Banff. Projects that would not normally be covered by the MCSR would not be covered in an emergency situation.

5.10.1 Emergency Situation Environmental Assessment Procedure

Protocols in the event of one of the above-specified emergencies include calling 911. The BNP Warden Office should also be informed of the nature and location of the emergency, initial action proposed and any subsequent follow-up. The 24 hour Banff Park Dispatch Office phone number is (403) 762-4506 and the Warden's office is (403) 762-1470.

The week following an emergency, a CSPR form must be completed and submitted to Parks Canada as outlined in Section 5.12.

5.10.2 Post Emergency Environmental Assessment

Should the emergency action require further long-term work already covered in the MCSR, a CSPR form may be used. When emergency repair is outside the activities included under the MCSR, an individual environmental assessment will be required. Upon submission, an individual environmental assessment will undergo a 14-day public review period.

5.11 Follow-Up Programs

Follow-up is required to ensure compliance with project mitigations, and to track whether the recommended mitigations are effective in reducing predicted impacts.

5.11.1 On-site Monitoring and Auditing during Construction

Before carrying out a project that requires a class screening project report (CSPR) in the town of Banff, it is the responsibility of the proponent to inform the Town of Banff Environmental Services Department of the project, to complete a CSPR form and to ensure an independent, qualified environmental monitoring professional is available on site to carry out monitoring of construction practices. The monitor shall ensure that the mitigations and any other conditions of the MCSR are implemented during construction/installation, and shall report to the Town of Banff Environmental Services Department pursuant to an approved monitoring plan and schedule.

For routine maintenance and repair projects, an on-site monitor will also be necessary to ensure practices comply with MCSR mitigations. However, where the proponent (utility company, their assigned construction company or the Town of Banff) can demonstrate there is an operational Environmental Management System (EMS) in place, and that the Operational Controls of the EMS comply with the MCSR mitigations, and are subject to quarterly review as part of the ongoing operation of the EMS, the requirement for an on-site monitor will be waived.

Parks Canada, as the Responsible Authority, will be responsible to audit compliance with this provision, by conducting site visits on an occasional basis, to confirm that environmental monitoring professionals are available when required and that recommended mitigations are being implemented.

5.11.2 Training of Construction Crews

It is the responsibility of the proponent to ensure that construction and maintenance crews are familiar with the mitigations and any other conditions of approval of the MCSR, and how they are to be implemented. Training of crews will be conducted by a qualified environmental professional, or by a construction supervisor familiar with the project-specific mitigations and how they apply in Banff National Park.

Parks Canada will be responsible to audit construction sites to confirm compliance with this provision.

5.11.3 Long-term Monitoring Programs

As the projects included in this sub-class are small scale and routine, long-term site specific monitoring is not required.

However, monitoring programs are already in place that can assist in tracking the accuracy of predicted impacts and the effectiveness of required mitigations. Monitoring projects in place which track changes in the environmental components impacted by sub-class 2 projects include:

- The spatial loss of habitat and disruption of wildlife movement corridors, conducted by Parks Canada (see Pope, Wendy. 2001. *Wildlife Corridors Around Developed Areas in Banff National Park. Progress Report Winter 2000/01*. Prepared for Parks Canada);

- Native vegetation communities in the town of Banff conducted by the Town of Banff (see Highwood Environmental Management. 2002. *Baseline Monitoring Report for Native Vegetation Communities in the Town of Banff. An Ecological Indicator for the Town of Banff's Environmental Management Project*. Report 2 of 6); and

- Water quality in the Bow River, conducted by the Town of Banff and Environment Canada (see Highwood Environmental Management. 2002. *Baseline Monitoring Report for Water Quality of the Bow River. An Ecological Indicator for the Town of Banff's Environmental Management Project.* Report 5 of 6).

- Aquatic resources in Whiskey Creek, conducted by the Town of Banff (see Highwood Environmental Management. 2002. *Baseline Monitoring Report for the Aquatic Resources of Whiskey Creek. An Ecological Indicator for the Town of Banff's Environmental Management Project.* Report 4 of 6.)

Long-term trends identified from such programs will enable future impacts to be more accurately predicted, and management procedures to be implemented.

5.12 Preparing the Class Screening Project Report

The information included in this report provides the background environmental and project information necessary to prepare the Class Screening Project Report. It is the responsibility of the project proponent to provide site-specific information necessary for Parks Canada, the Responsible Authority (RA), to reach a decision on project approval. This information will be provided through completion of a Class Screening Project Report, which includes completion of Class Screening Form A-2.

Form A-2 will be completed by the proponent, and submitted to Parks Canada. Depending upon the expected environmental effects of the individual project, the project will receive approval based on the information in Form A-2, or the proponent will be requested to either provide additional information or will require an individual assessment.

Projects that have:

- Significant adverse environmental impacts that are not or cannot be mitigated; or
- Uncertain environmental impacts;

will not receive approval under the MCSR but will be reclassified, and an individual environmental assessment will be required. Parks Canada will specify the scope of assessment required for these projects. This does not mean the project may not proceed. Instead, it means that the project activities and/or the environmental impacts are not covered under the MCSR.

Approval will be given within 14 calendar days of Form A-2 being submitted, or notification of reclassification will be provided within 14 calendar days.

5.12.1 Completing Form A-2

Form A-2 is to be completed by proponents of projects for any utility line construction, maintenance or removal in the town of Banff or its immediate vicinity, and submitted to the Banff Town Hall. Information and copies of forms can be obtained from:

- Environmental Services
  Banff Town Hall
  110 Bear St.
  P.O. Box 1260
  Banff, Alberta
  T1L 1A1
  Phone (403) 762-1215

- CEAA Coordinator
  The Banff National Park Warden's Office
  Hawk Ave.
  P.O. Box 900
  Banff, Alberta
  T1L 1K2
  Phone (403) 762-1416

5.13 Time Lines

Parks Canada, as the Responsible Authority, will review all projects and provide a response to the proponent within 14 days of submission.

Town of Banff Class Screening Project Report Form A-2
Sub-Class 2: Service Lines

COMPLETING A CLASS SCREENING PROJECT REPORT FORM

Forms can be obtained at Environmental Services at the Town of Banff Town Hall or at the Environmental Assessment Office at Banff National Park Warden's Office. Once completed, forms should be returned to one of these offices.

If you have questions about completing the form or the assessment process you should call the Environmental Assessment Office. The addresses and phone numbers for both the Town of Banff and Parks Canada's Environmental Assessment Office are provided below. Incomplete or improperly completed forms will be returned. In some cases you may be asked to supply additional information or to do an individual environmental assessment.

Parks Canada's Environmental Assessment Office will complete a review of the form within 14 days of its submission, and the proponent will be informed of the decision. If approved, a signed document, called the "Environmental Screening Approval Report," will be mailed or faxed to you. A Town of Banff Development Permit may be required once the environmental assessment has been approved.

Certain projects may not need an environmental assessment. Other projects may require a more detailed individual environmental assessment. Such projects are usually those that are located near environmentally sensitive areas, are within 30 m of a waterbody, are excluded from the MCSR or those where unproven mitigations are to be used. If your project requires an individual environmental assessment, you will be advised. An individual environmental assessment may need to be prepared by an individual or firm with experience in environmental assessment.

The Environmental Assessment Office Banff Warden's Office 238 Hawk St, Industrial Compound P.O. Box 900 Banff, Alberta T1L 1K2 Tel. (403) 762-1416	Environmental Services Banff Town Hall 110 Bear Street P.O. Box 1260 Banff, Alberta T1L 1A1 Tel. (403) 762-1215

This CSPR form is to be completed by the project proponent or the proponent's authorized agent for proposed service line activities within the town of Banff or areas adjacent to the town. It is the responsibility of the proponent to ensure that all information provided in this form is accurate and correct. Incomplete or inaccurate forms will be returned. To assist you in the preparation of the form, the following attachments have been provided:

- **Attachment 1**: Mitigation Information for Service Line Projects (Table 5.3)
- **Attachment 2:** Map of Wildlife Corridors, Ecosites, Archaeology and Land Use Districts (Figure 5.1)
- **Attachment 3:** Potentially Sensitive Sites in the Class Screening Area (Appendix B)

SUB-CLASS 2: SERVICE LINES

Projects in Sub-Class 2 include construction of new service lines (underground gas, water, sewage, electricity and communication [e.g. telephone and cable] and aboveground power lines), and operation, modification, maintenance or repair, and decommissioning and abandonment of existing lines (only applies when activities occur outside the town, or within the town and are carried out within 30 m of a waterbody; involve the likely release of a polluting substance into the environment; increase the operating capacity of the line; or involve a risk of physical harm to mammals.)

SECTION 1: DESCRIPTION OF THE PROJECT

This section is designed to determine whether you have a project as defined in the Canadian Environmental Assessment Act that requires an environmental screening.

1. Please provide a **summary description of your project** on a separate sheet and attach. Please provide a site plan of your proposed project. A one-page site plan is acceptable.

a. Does your project involve (check all of the following that apply)?

i. The construction of a new service line ☐ YES ☐ NO

ii. The disconnection of an existing service line ☐ YES ☐ NO

iii. The modification of an existing service line ☐ YES ☐ NO

b. If your project is the modification of an **existing service line**, will your project increase the carrying capacity of the water, sewer, gas, electricity or telephone service lines? ☐ YES ☐ NO

c. Will your project require excavation? ☐ YES ☐ NO

If YES,

i. Will the excavated material be re-used on site? ☐ YES ☐ NO

ii. What is the total quantity of material to be excavated? (specify units) _____

d. Will a new lease or a new right-of-way be required to accommodate your project? ☐ YES ☐ NO

e. If a lease is required, will the use of the site remain the same? ☐ YES ☐ NO ☐ N/A

SECTION 2: LOCATION OF PROJECT

This section is designed to determine if your projects fits into Sub-Class 2 (Service Lines) of the Model Class Screening Report (MCSR).

2. If your project is located:

a. Within the town of Banff please provide:
Street Address:

Ecosite (initials and name, *e.g.,* Norquay $\frac{\text{NY3}}{8}$ Refer to Attachment 2)

b. *Outside* the town of Banff:

i. If your project is located on the periphery of the town, or providing services in or to one of the areas listed below, please circle:

- Banff Rocky Mountain Resorts
- Rimrock Inn
- Upper Hot Springs
- Timberline Lodge
- Cave and Basin
- Banff Gondola

SECTION 3: DESCRIPTION OF THE ENVIRONMENTAL AND CULTURAL SETTING

This section is designed to determine whether your project could potentially impact any valued environmental or cultural components, and if it may cause any impacts not identified in the MSCR.

3.

a. Will your planned development be located on or adjacent to any of the potentially sensitive sites or special resources described in Attachment 3?

☐ YES ☐ NO

If **YES,** please identify the type of site or resource by clearly marking Attachment 3 and returning it with this form.

b. Is your proposed project located on or adjacent to any of the following?

i. Previously undisturbed or undeveloped land ☐ YES ☐ NO

ii. The perimeter of town ☐ YES ☐ NO

iii. Land with steep or unstable slopes ☐ YES ☐ NO

iv. Wildlife corridors (see Attachment 2) ☐ YES ☐ NO

v. Within 30 metres of a waterbody (river, stream, creek) ☐ YES ☐ NO

c. In what year or decade were the facilities/service lines now existing on site constructed?

_____
Year

d. Has any investigative work been done to determine:

i. Possible contamination of the site ☐ YES ☐ NO ☐ UNSURE

ii. The existence of hazardous materials on the site or in the soil (e.g., asbestos, lead, PCB) ☐ YES ☐ NO ☐ UNSURE

iii. The presence of fuel tanks, fuel storage etc. on the site (Fuel includes gasoline, propane, diesel, heating oil *i.e,* any hydrocarbon product)? ☐ YES ☐ NO ☐ UNSURE

If **YES,** please attach a list of the work done or copies of the reports or documents.

Note: *Parks Canada may request that a Phase I Environmental Site Assessment be completed as part of the environmental screening depending on the history of the site or neighbourhood.*

SECTION 3: ***Continued***

e. Are any historic or archaeological resources directly or indirectly affected by your project (see Attachment 2)? ☐ YES ☐ NO ☐ UNSURE

f. Is a federally or provincially designated heritage building or site affected by your project? ☐ YES ☐ NO

g. Will your project cause any impacts to the environmental or cultural/heritage setting that have not been identified below in Table SC-2? ☐ YES ☐ NO

h. If you answered **YES** to 3(g)**,** briefly describe those impacts not already identified. Attach a separate sheet to this form, if necessary.

Table SC-2: Potential environmental effects from service line projects

• Dust production	• Habitat loss, fragmentation
• Decrease in air quality	• Wildlife sensory disturbance
• Runoff/sedimentation of waterbodies	• Encroachment on wildlife movement corridors
• Soil and water contamination	• Increased traffic
• Soil compaction and erosion	• Risk to public safety
• Slope failure	• Waste production
• Loss of topsoil	• Hazardous materials
• Damage/loss of vegetation	• Use of resources
• Changes in noise/visual quality	• Impact to historical or archaeological resources

SECTION 4: MITIGATIONS

This section is designed to identify what mitigations will be used to remove or reduce the potential impacts identified above, and to determine the potential for impacts to remain after the mitigations are implemented.

4.

a. Will Standard MCSR mitigations as described in Attachment 1 be used? ☐ YES ☐ NO ☐ UNSURE

b. Will any environmental mitigations be undertaken *other than* or *in addition to* those listed in Attachment 1? ☐ YES ☐ NO ☐ UNSURE

If you answer **YES** or **UNSURE** to 4(b), please submit detailed information on your proposed mitigations on a separate sheet along with this form.

c. Will your project involve blasting, dredging, surface or groundwater dewatering, excavation of contaminated soil or disposal of any hazardous materials? If so, please specify on a separate sheet. ☐ YES ☐ NO

d. Will your project require geo-technical investigation - drilling, soil sampling, - to determine soil capacity, contamination, groundwater depth etc? ☐ YES ☐ NO

e. If you answer **YES** to 3(g), and you identified additional potential impacts in 3(h), please describe additional mitigations to be followed to address those impacts. Please attach a separate sheet if necessary.

SECTION 5: COMPLIANCE MONITORING

This section is designed to determine how you will ensure mitigations will be followed during your project.

5.

a. Will an environmental monitor be available on site to ensure the mitigation measures described in Attachment 1 and Section 4 are implemented? ☐ YES ☐ NO

b. Please indicate those groups/individuals you have informed about your project.

SECTION 6: APPLICATION SIGNATURE

As the developer of the proposed project or his/her authorized agent, I guarantee that to the best of my knowledge all information provided here is complete, correct and accurate.

Signature:	Date:
Name:	Phone:
Address:	

SECTION 7: FOLLOW-UP PROGRAM

(*Parks Canada to complete*)

7.

a. Is a follow-up program required for this project? ☐ YES ☐ NO

If you answered YES, describe any project specific follow-up activities that are warranted to verify the environmental effects or the effectiveness of mitigation measures. Describe responsibilities for follow-up activities.

SECTION 8: SIGNIFICANCE

(*Parks Canada to complete*)

8.

a. Is the project likely to cause significant environmental effects if all of the mitigations are followed? Please rate any remaining impacts as negligible, low, medium or high.

☐ NEGLIGIBLE ☐ LOW ☐ MED ☐ HIGH

Note: This form to be attached to the Banff National Park Environmental Screening Approval Report Form.

6.0 SUB-CLASS 3 ROADS

Modification, maintenance and repair of existing roads within existing rights-of-way or easements, and construction, modification, decommissioning and abandonment of sidewalks, boardwalks and parking lots up to 75 stalls.

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6.1 Description of Class of Projects

This Sub-Class of the routine projects in the Town of Banff MCSR addresses the modification, maintenance and repair of existing roads in the town of Banff and the construction, modification, decommissioning and abandonment of sidewalks, boardwalks and parking lots up to 75 stalls. The CSA includes the town of Banff and facilities outside the town boundary that are tied into the infrastructure of the town, including Banff Rocky Mountain Resorts, the Timberline Lodge, the Rimrock Inn and the Banff Gondola (Figure 6.1).

Parks Canada is the Responsible Authority under the Act for all construction activities within the town of Banff and the outlying areas within BNP. Within the town boundary, the Town's Environmental Services Department is responsible for Sub-Class 3 project activities, while in the outlying areas, Parks Canada is responsible for these activities. For larger projects, such as modification of roads, contractors may be used. All contractors must hold a valid Town of Banff Business Licence.

Based on the *Canadian Environmental Assessment Act*, projects included in this sub-class are:

- Modification of existing roads, including upgrading (e.g., paving of gravel roads), and the widening or moving of existing roads within the existing right-of-way. Construction of new roads requires individual assessment.

- Maintenance and repair of existing roads where the project may:
  - Result in the likely release of a polluting substance into a water body (A polluting substance is a substance, either natural or man-made, that can potentially have adverse effects on the environment),
  - Involve the application of a dust control product (oil or calcium chloride) or salt to the road, or
  - Involve the application of a control product (*i.e.*, herbicides/fertilizers) to the areas adjacent to the road.

  Note: Maintenance and repair projects of existing roads, which do not involve any of the above, do not require environmental assessment under the Act (Schedule II, #6 of the *Exclusion List Regulation*).

- Construction, modification, abandonment and decommissioning of sidewalks and boardwalks. Maintenance and repair activities for existing sidewalks or boardwalks do not require environmental assessment under the Act (Schedule II, #3 of the *Exclusion List Regulation*).

- Construction, modification, abandonment and decommissioning of parking lots up to 75 stalls. Parking lots proposed for undisturbed areas are not included in this sub-class and will require an individual environmental assessment. Maintenance and repair activities for parking lots do not require environmental assessment under the Act (Schedule II, #3 of the *Exclusion List Regulation*).

Roads are classified as major arterial (Banff Ave.), collector, and local depending on the level of use. Roads are typically 9 to 12 m in width, surfaced with asphalt, curbed, guttered, and have sidewalks. They are within a right-of-way which varies between 18 to 20 m in width. The majority of roads are two lanes wide, with the major arterial road (Banff Ave.) having four lanes. Main roads in the town are shown on Figure 6.2.

Lanes (alleys) are typically 4.0 to 6.0 m in width, gravel surfaced with unpaved shoulders, and without curbs, gutters or sidewalks. Some lanes are paved.

Sidewalks are typically 1.0 to 2.0 m in width, surfaced with asphalt or concrete and abutt paved roads. They are scattered throughout the town, principally on arterial and collector roads. Sidewalks are rarely, if ever, decommissioned in Banff.

Boardwalks are raised sidewalks usually constructed of wood, and located in environmentally sensitive areas, often wetlands. In the CSA, they are located in the Cave and Basin area.

Parking Lots typically accommodate less than 75 stalls and have an asphalt surface. Parking lots owned by the Town of Banff are located in the downtown area, while privately owned parking lots are scattered throughout the town. Parking lots are rarely, if ever, decommissioned in Banff.

All of these roadways, sidewalks, boardwalks and parking lots are included in the sub-class.

Roads servicing the outlying facilities include:

- Mountain Avenue to Sulphur Mountain facilities; 3 km,
- Cave Avenue to the Cave and Basin; 0.5 km,
- Banff Avenue to Banff Rocky Mountain Resorts; 1 km,
- Mt. Norquay Road; 8 km, and
- Tunnel Mountain Road to the Tunnel Mountain Campground; 1.5 km.

These roads are typically paved with unpaved shoulders and have no curbs, gutters or sidewalks. The typical road width is 8 to 10 m, within a right-of-way of approximately 14 m. The modification, maintenance and repair of these roads is the responsibility of Parks Canada, and they are not included in the MCSR.

There are paved **parking lots** at each of the outlying facilities included in the CSA. The size of these lots is beyond the threshold of this sub-class (75 stalls), except for the Timberline Lodge.

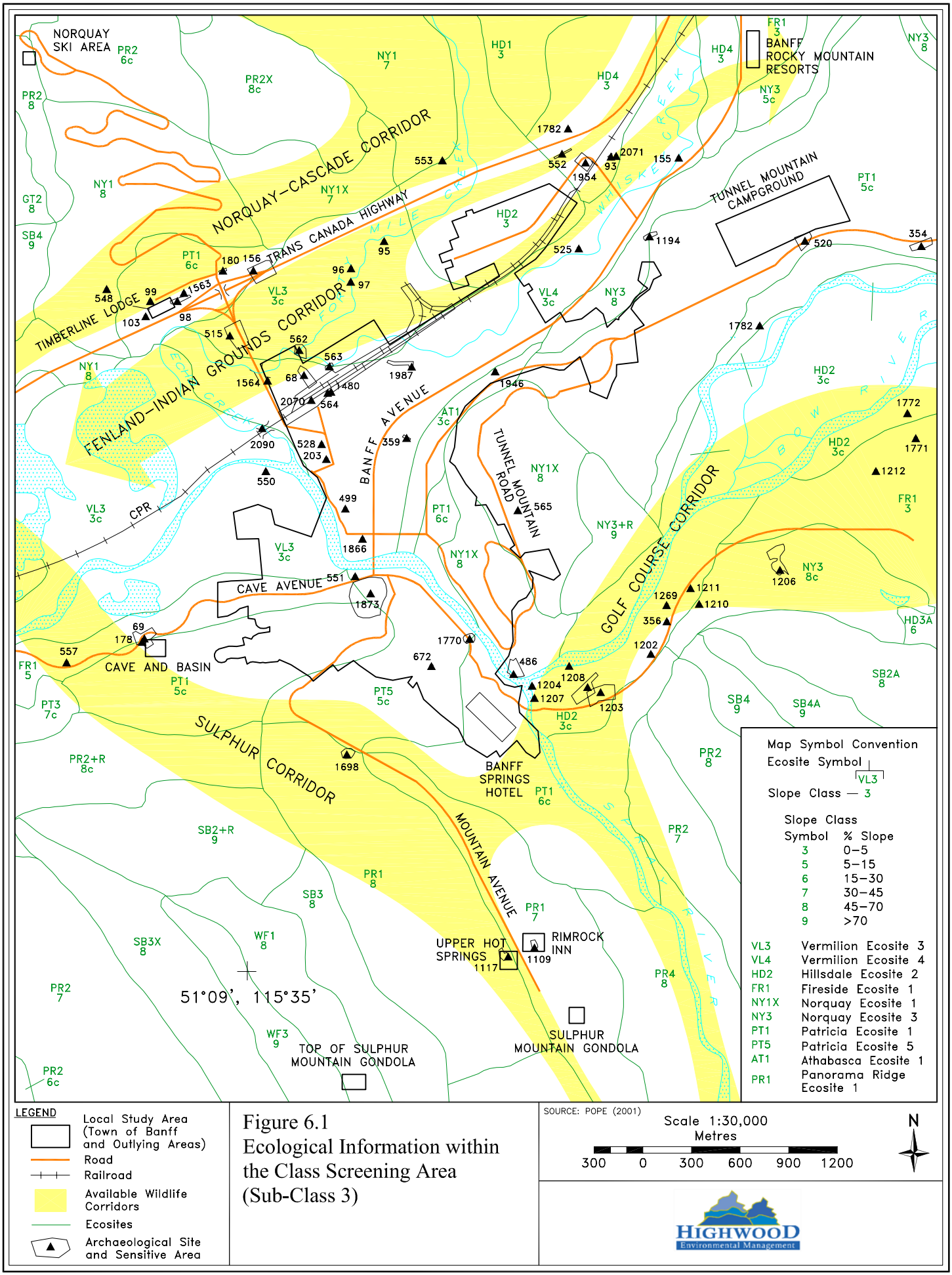
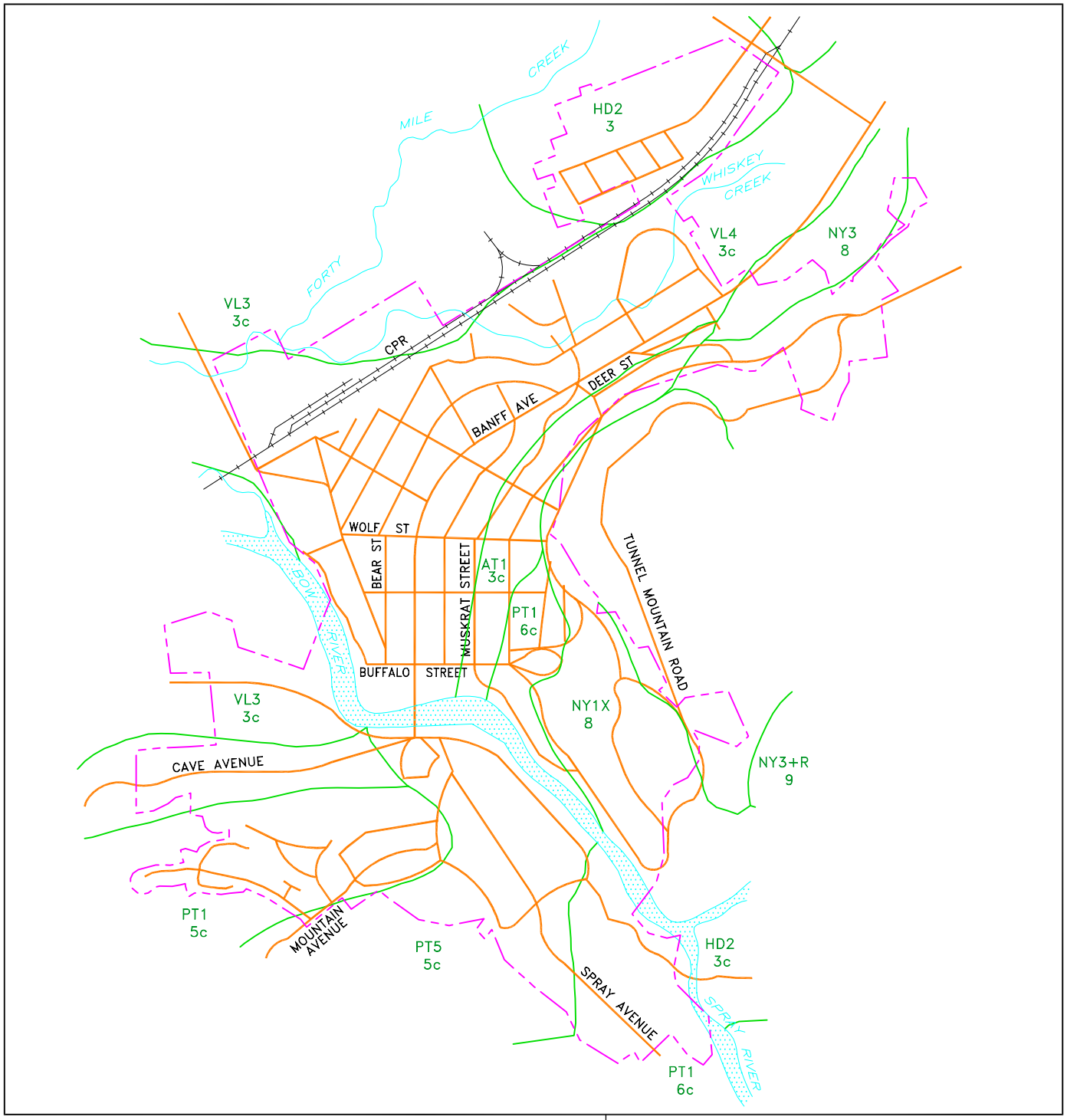


Figure 6.1
Ecological Information within the Class Screening Area (Sub-Class 3)



LEGEND

- Town Boundary
- Road
- Railroad
- Ecosites

Slope Class

Symbol	% Slope
	0–5
	5–15
	15–30
	30–45
	45–70
	>70

Symbol	Ecosite
VL3	Vermilion Ecosite 3
VL4	Vermilion Ecosite 4
HD2	Hillsdale Ecosite 2
FR1	Fireside Ecosite 1
NY1X	Norquay Ecosite 1
NY3	Norquay Ecosite 3
PT1	Patricia Ecosite 1
PT5	Patricia Ecosite 5
AT1	Athabasca Ecosite 1
PR1	Panorama Ridge Ecosite 1

Map Symbol Convention

Ecosite Symbol VL3

Slope Class — 3

Figure 6.2
Ecosites and Roads within the Town of Banff

Scale 1:20,000
Metres

300 0 300 600 900 1200

N

HIGHWOOD Environmental Management

6.2 Projects Associated with the Modification, Maintenance and Repair of Roads, and the Construction, Modification, Decommissioning and Abandonment of Sidewalks, Boardwalks and Parking Lots

Modification of existing roads includes the realignment of roads within the right-of way, the paving of gravel surface roads and the widening of existing roads within their right-of-way. Both gravel and paved roads are included. Project activities include:

- Re-surfacing of gravel roads and grading, including the removal of rocks or debris.
- Material stripping and excavation during the repair of subgrade, or during the installation or repair of storm sewers or culverts.
- Road shoulder modification (upgrading and reshaping) through grading and patching.
- Modification or replacement of roadway water drainage systems, including changes to ditches and culverts, through excavation, installation and backfilling by machine.
- Surfacing of gravel or resurfacing of asphalt roads involves the removal of the existing surface, surface preparation (including stripping or scarifying the asphalt surface) and the laying of asphalt. Asphalt material may be either pre-mixed or, on larger projects, prepared on-site.
- Painting involves the painting of centre and edge lines by machine.
- Post installation using wooden guideposts with plastic reflector tape.
- Sidewalk, curb and gutter installation involves framing and pouring of new structure.
- Light installation involves the installation of light poles, including digging holes and pouring concrete foundations.

Maintenance and repair projects on existing roads that could result in the likely release of a polluting substance into a water body; or involve the application of oil, salt, or abrasives to the road, or of a control product to the areas adjacent to the road are included in this sub-class. Project activities include:

- Road surface patching or overlay, which involves the patching of potholes, depressions, bumps etc. using pre-mixed asphalt materials.
- Storage and application of road salts or abrasives:
  - The salt liquid de-icer (MgCl) or abrasives (sand and gravel) are used by the Town of Banff to control ice during the winter months. The Town has a “no-salt” policy, except during dangerous situations, when the head of Environmental Services can authorize the use of spot salt treatments. The Town of Banff has a salt storage shed at their Compound, which contains a mixture of abrasives and 1% salt.

  - Parks Canada uses a combination of gravel, sand, road salt and liquid salt (MgCl) to control ice on Tunnel Mountain Road, Mountain Avenue and Norquay Road. The material is stockpiled at the Parks Canada Compound, where some leaching of salt into the soil has occurred. Parks Canada also has an aboveground storage tank containing MgCl in their compound.

  - Gravel, sand and salt used to control ice is removed through street sweeping in the spring, before the roads are cleaned through flushing. However, residue may be flushed into the storm sewer system during spring run-off and rainfall. Residue from sweeping is stored in the Town of Banff Compound, and reused for other projects.

- During snow removal and storage, snow is plowed from main thoroughfares and stockpiled in roadside locations for collection and deposited at the snow dump behind the Parks Canada horse corrals.

- Vegetation management involves removal of roadside brush and standing and fallen trees by felling, grubbing, and vegetative material either reused as compost or mulch or disposed to the Bow Valley Waste Management Commission's Class III landfill. Rights-of way are generally mown. Herbicide use is minimal, although Round-up is used for spot control occasionally on medians and shoulders.

- Dust control:

  - Calcium chloride is used by Parks Canada to control dust on gravel roads.

  - The Town of Banff does not use chemicals to control dust within the town.

Activities associated with the construction, modification, decommissioning and abandonment of sidewalks, boardwalks and parking lots are similar to the activities associated with the modification of roads. These activities are grouped together in Table 6.2, but are explained in more detail below.

Construction, modification, decommissioning and abandonment of sidewalks activities include:

- Grading and site preparation.

- Installation, including framing and pouring of new structure using timber forms and concrete, asphalt or paving stones.

- Modification includes the realignment of sidewalks involving base repairs and resurfacing with either concrete, asphalt or paving blocks.

- Demolition involves excavation and removal of deteriorated materials.

Construction, modification, decommissioning and abandonment of boardwalks includes:

- Placement of supports for boardwalk without disturbing existing vegetation;
- Framing and installing boardwalk, usually of timber.

Construction, modification, decommissioning and abandonment of parking lots are similar to projects involved in the modification of roads. They include:

- Stripping soil and sub-grade,
- Paving and painting lines,
- Landscaping and light installation, and
- Demolition of existing surface.

Site reclamation and restoration includes:

- Grading, contouring, backfilling (if necessary) of shoulders and ROWs as well as soil preparation prior to seeding.
- Revegetating the disturbed site through seeding, planting and sodding, and herbicide and fertilizer use.

General activities which apply to all stages of a project include:

- **Material handling and storage**: includes stockpiling overburden for use during filling and compacting, and handling construction materials.
- **Equipment operation**: includes machinery used during all activities such as compactors, pumps, jackhammers, compressors, generators, cement mixers, backhoes, trenchers, and trucks.
- **Waste management**: including waste production and disposal, which occurs during all phases of the project. This also includes the collection of all hazardous and non-hazardous waste and its removal to appropriate facilities, as well as re-use and recycling of construction materials.
- **Hazardous material collection and disposal**: including oil-based paint, fuels, oils, lubricants and other petrochemical products.

6.2.1 Typical Seasonal Scheduling and Activity Duration

Construction, modification and routine maintenance activities would normally occur during the spring, summer and fall, while emergency maintenance and repair would occur on an *as needed* basis. All activities would typically occur with greater frequency between April and November, when the ground is thawed. If necessary, ground can be thawed during the winter months through burning of propane on the surface, although this is usually only done for emergency repair

service. Traffic conditions also are taken into account when scheduling repairs. Peak visitor periods are avoided whenever possible. Snow removal and sanding would occur during the winter, as needed.

Project duration varies from one to two days for smaller maintenance and repair activities, to one to three months for larger construction and modification projects.

6.3 Description of Study Areas for Sub-Class 3

The MCSR is being prepared for projects that are conducted regularly and considered routine in nature, and the spatial and temporal extent of the impacts are well understood. Therefore, the potential size of the Study Area for each MCSR Project has been defined below. The Study Areas are defined to include all the environmental components that could be affected by the proposed project.

Sub-Class 3 - Roads	Spatial Extent[(a)]	Temporal Extent
Modification, Maintenance and Repair of Existing Roads within Existing Rights-of-Way or Easements and Construction, Modification, Decommissioning and Abandonment of Sidewalks, Boardwalks and Parking Lots	• Include Existing Rights-of-Way, Easements or Development Site, and 50 m on either side of Rights-of-Way, Easements or Development Site	• **Construction, Modification, Maintenance and Repair** - Duration of the Modification, Maintenance or Repair Phase (e.g. 1 week to 3 months)

(a) The size of the Study Area may need to be adjusted due to site-specific conditions as identified in the CSPR.

6.4 Typical Project Sites and Environmental Setting

Potential project sites are located within all Ecosites found within the CSA. The Ecosites in the CSA and their environmental characteristics are described below, summarized in Table 6.1, and shown in Figures 6.1 and 6.2. Appendix A and Appendix B provide further information regarding the typical environmental setting and the potential environmental sensitivities. The locations of roads, sidewalks and parking lots are also described in Table 6.1 and shown in Figure 6.2.

6.4.1 Athabasca Ecosite 1 (AT1)

AT1 is found on the lower slopes of Tunnel Mountain with slopes between 0 to 5%. This is a largely residential area, the majority of which has been developed. Consequently there are few areas of natural vegetation.

6.4.2 Fireside Ecosite 1 (FR1)

FR1 is located along Cave Road and around the Banff Rocky Mountain Resorts. Lodgepole pine forest occurs in the undeveloped areas. Landforms typically are alluvial fans, while slopes vary from 0 to 5% around Banff Rocky Mountain Resorts and from 5 to 15% near the Cave and Basin.

6.4.3 Hillsdale Ecosite 2 (HD2)

HD2 is found in the Commercial Service District, where the Town of Banff and Parks Canada Compounds are located. Landforms are typically alluvial fans, with slopes from 0 to 5%, and undeveloped areas are vegetated by open white spruce forests. Open grasslands are also typical of this Ecosite, but within the CSA mainly introduced species predominate.

6.4.4 Norquay Ecosite 1 (NY1) and 3 (NY3)

NY1, is typically found on the lower slopes of mountains, and in the CSA is located on Tunnel Mountain and along the road to the Norquay Ski area, where slopes range from 45 to 70%. This Ecosite is typically forested with either Douglas fir or lodgepole pine.

NY3 is found on the northern lower slopes of Tunnel Mountain, with slopes ranging from 45 to 70%. Typical vegetation includes white spruce - Douglas fir forests. The Tunnel Mountain Campground occurs within this Ecosite.

6.4.5 Patricia Ecosite 1 (PT1) and 5 (PT5)

PT1 is fairly extensive in the CSA, occurring mainly on the lower slopes of Mt. Norquay, Sulphur Mountain and Tunnel Mountain. Slopes in these areas range from 5 to 30%. Lodgepole pine forests dominate undeveloped sites. CSA facilities within the PT1 Ecosite include the Banff Centre, the Cave and Basin, the Middle Springs Residential Area and the Timberline Lodge.

The PT5 Ecosite consists of well drained upland segments, separated by poorly to very poorly drained wetland depressions. Slopes typically range from 5 to 15%. In the CSA, the south side of the Bow River is characterized as PT5, and includes residential and parkland areas and the Banff Springs Hotel. Lodgepole pine forests predominate, with some Douglas fir.

6.4.6 Vermilion Lake Ecosite 3 (VL3) and 4 (VL4)

VL3 encompasses wet level floodplains dominated by wet white spruce forest and shrub vegetation. There are two areas of VL3 within the town of Banff. One is located within the northwest sector of the town along Forty Mile Creek and Whiskey Creek. The second area is south west of the Bow River, beside the Recreation Grounds. This is a wetter site which is imperfectly drained.

VL4 also encompasses wet, level floodplains which are frequently poorly drained, and dominated by white spruce. The majority of downtown Banff is located in the VL4 Ecosite, on the floodplain to the east of the Bow River. This area is largely developed.

6.4.7 Panorama Ecosite 1 (PR1)

PR1 is found on the north side of Sulphur Mountain, where the Upper Hot Springs, the Rimrock Inn and the Banff Gondola are located. Slopes are typically 45 to 70%. Dominant vegetation is lodgepole pine.

6.4.8 Sawback Ecosite 3 (SB3)

SB3 is found on the slopes of Sulphur Mountain where the slope is between 45 and 70%. Vegetation cover is dominated by lodgepole pine.

6.4.9 Wildflower Ecosite 1 (WF1)

WF1 is typically found on steep valley walls, and in the Study Area occurs at the top of the Banff Gondola, where slopes range from 45 to 70%. The Engelmann spruce-subalpine fir dominates vegetation.

Table 6.1 Sub-Class 3: Roads: Summary of Ecosites and Environmental Characteristics.

Ecosection / Ecosite	Development Status	Sensitivities[(b)]
Athabasca AT1 3c	• largely developed residential areas with paved residential roads and unpaved lanes	• high water table
Hillsdale HD2 3	• partly developed, includes the Commercial Services District, with paved and unpaved roads • surrounded by natural lands including a wildlife corridor to the north	• includes small areas of parkland and environmental protection (PE), that are ranked as highly important to wildlife; includes the Fenland-Indian Grounds wildlife corridor
Fireside FR1 3,5	• partly developed forested area including the Banff Rocky Mountain Resort. Includes residential roads, including Cave Avenue to the Cave and Basin and the parking lot at the recreation grounds.	• includes natural areas that are ranked as highly important to wildlife, including a wildlife corridor • important wetlands near Cave and Basin • situated on important elk habitat, used for feeding and bedding areas, especially in winter and early spring (Allen, D. 1990).
Norquay NY1x 8	• partly developed steeply sloped forested lands adjacent to the town boundary, on the plateau of Tunnel Mountain	• steep and locally eroding slopes, old growth Douglas fir forests; shallow soils.
NY3 8	• partly developed steeply sloped area, partially within the town boundary, with natural forest on the lower slopes of Tunnel Mountain, includes no roads but is adjacent to Banff Ave.	• includes lands that are ranked as medium to very highly important to wildlife

Table 6.1 Sub-Class 3: Roads: Summary of Ecosites and Environmental Characteristics - *Continued*

Ecosection / Ecosite	Development Status	Sensitivities[(b)]
Patricia PT1 6c	• partly developed and natural forested area on Tunnel Mountain including the Banff Centre and area of environmental protection, with residential roads. • partly developed and natural forested area around Banff Springs Hotel with residential roads and Spray Ave., a collector road	• proximity to rivers, and ecosite that are ranked as highly important to wildlife; includes wet areas important for reptiles and amphibians. • steeper slopes and shallow soils in some sites present erosion and reclamation issues.
PT1 5c	• area around Timberline Hotel including access road • developed residential area, including Middle Springs, and natural forested area south of Bow River, including areas designated as residential reserve and environmental protection, and residential roads	• the ecosite is rated as highly important to wildlife, and includes wet areas important for reptiles and amphibians; • includes areas of wildlife corridors
PT5 5c	• largely developed residential area including staff housing for Banff Springs Hotel, with residential roads and Spray Ave., a collector road • bordered on the South by steeply sloped forest which is part of Sulphur-Golf Course wildlife corridor	• PT5 wet areas susceptible to soil degradation and drainage problems • adjacent to wildlife corridor • wetlands

Table 6.1 Sub-Class 3: Roads: Summary of Ecosites and Environmental Characteristics – *Continued*

Ecosection / Ecosite	Development Status	Sensitivities[(b)]
Vermilion VL3 3c	• largely undeveloped area of Parkland which includes the Recreation Grounds and trail system adjacent to the Bow River, and an access road.	• seasonally high water table; poor drainage; soil may be susceptible to ponding and compaction; ranked as highly important to wildlife; includes wet areas important for reptiles and amphibians
	• also occurs adjacent to Whisky Creek where there are no roads	• adjacent to wildlife corridor north of the town
VL4 3c	• fully developed commercial area with major arterial, collector and residential roads, and downtown parking lots	• high water table
Panorama Ridge PR1 7,8	• sub-alpine ecosite of steeply sloped natural area where Rimrock Hotel, Banff Gondola and Upper Hot Springs are located, accessed by Mountain Avenue	• ranked as highly important to carnivores and breeding birds. • steepness plus seepage areas (related to lateral shallow subsurface water) can affect stability, erosion and re-vegetation. • important wildlife corridor
PR2 6c	• area largely undeveloped sub-alpine forest, accessed by Mt. Norquay Road	• ranked as very highly important to carnivores - especially marten, weasel and mink. Deep snow in winter makes it less important for large carnivores.
Wildflower WF1 8	• sub-alpine ecosite with areas of steep slopes and exposed bedrock • top of the Banff Gondola is located here	• steep and locally unstable slopes; snow avalanches, shallow soils, steep slopes and rock outcrops can present erosion and re-vegetation issues.

(a) Altered ecosite is largely or fully developed and all or much of the natural; habitat has been removed. Wildlife may use the remaining or introduced vegetation.

(b) Other potential sensitivities are described in Appendix B.

6.5 Potential Environmental Effects of Sub-Class 3 Projects

Based on the environmental conditions, location and other site-specific conditions at project sites, potential environmental effects from Sub-Class 3 projects have been identified.

An environmental matrix (Table 6.2) has been used to identify which project activities will likely impact each environmental component. This matrix identifies the potential range of magnitude of the impacts that could result from project activities if no mitigation measures are implemented. Potential impacts are rated as high, moderate or low in magnitude, or none. Only those activities with potential environmental impacts are included in the table.

The highest magnitude potential **pre-mitigation** environmental effects as identified from Table 6.2 include:

- Impact on water quality and aquatic resources from projects located in proximity to waterbodies, including:
  - *Sedimentation* from culvert and ditch projects, and application of abrasives during icy conditions. Surface water runoff and increased sedimentation resulting from eroded soils can decrease the quality of surface waters that they enter. Changes in water quality can impact aquatic resources.
  - *Contamination* of surface water from use and runoff of salt liquid de-icer (MgCl) or rock salt (NaCl). Low potential exists for chronic effects to aquatic organisms.
  - *Contamination* from improper waste disposal or hazardous materials handling and vehicle and equipment leaks or spills during operation.
- Impacts to soil and vegetation from use of salt. Road salt, including MgCl and NaCl, has recently been classified as a toxic substance by Environment Canada (2001). Increased salt concentrations in soil can result in salt absorption through vegetation roots, and salt accumulation on foliage and branches can result from splash and spray during application (Environment Canada 2001). Effects include impacts on soil structure, soil permeability, soil swelling and crusting, soil electrical conductivity and soil osmotic potential. The liquid deicer, which contains MgCl, has undergone an environmental screening in the town of Banff, and no significant environmental effects were identified. The use of the MgCl solution should result in a 30% reduction of the use of road salt within Banff (Hunter 2001).
- General negative aesthetic impacts due to project activities, including visual and noise effects, and loss of the wilderness experience.

Table 6.2 Matrix of Potential Pre-Mitigation Environmental Impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects - Sub-Class 3.

Activity	Environmental Components						
	CEAA Trigger	Air Quality	Hydrology, Water Quality and Aquatic Resources	Landforms and Soil	Vegetation	Wildlife Habitat and Populations	Aesthetics (Vision, Noise)
Modification of Roads and Construction, Modification, Decommissioning and Abandonment of Sidewalks, Boardwalks and Parking Lots							
Grading and gravel resurfacing		L	L	L	—	—	L-M
Material stripping, excavation, subgrade repair	✓	L	L	L	—	—	L-M
Road shoulder modifications		—	L	—	—	—	L-M
Replace or modify culverts and ditches	✓	—	L-M	—	—	—	L
Re-surfacing (asphalt)		L	L	—	—	L	L-H
Post installation and replacement		—	—	—	—	—	L
Painting lines		—	L	L	—	—	L
Sidewalk, curb and guttering installation		—	—	—	—	—	L
Light installation (10 or more)	✓	—	—	L	L	L	—
Maintenance and Repair of Roads							
Patching		L	L	—	—	L	L
Storage/application of road salts and abrasives	✓	—	L-M	L-M	L-M	L	L
Snow removal and storage		—	L-M	L	L-M	L	L
Vegetation management (herbicides)	✓	—	L	—	L	L	L
Dust control (CaCl outside town boundary)	✓	P	L	—	—	—	—
Site Reclamation and Restoration							
Grading		L	L	P	---	---	L
Revegetation, including herbicide use	✓	—	L	P	P	P	P
General Activities [(a)]							
Materials handling/storage		L			L	L	L
Equipment operation and maintenance		L	L-M	L-M	L	L	L
Waste management		—	P	P	—	—	P
Hazardous materials handling/storage		—	L-M	L	—	—	L

Potential Magnitude of Impacts:
H = High Negative
M = Moderate Negative
L = Low Negative
— = None
P = Positive

(a) Applies to all activities.

6.6 Mitigation Measures, Guidelines and Standards

Standard construction measures are available which significantly reduce the magnitude of these potential impacts.

Table 6.3 provides a summary of typical mitigation measures that should be used to reduce the magnitude of environmental impacts identified in Table 6.2. Mitigations associated with general activities should be fully considered in the pre-planning stage to ensure that they are the most effective while on-site. It is important to recognise that appropriate mitigation measures will depend on site-specific environmental characteristics, which can be determined from Table 6.2. Many of these outlined mitigation procedures are currently practised within the CSA.

There are specific mitigation measures to be used during development activities in Banff National Park. These are described in:

- Banff National Park, Directive 17 "Environmental Guidelines for Development Projects".

- Alberta Transportation and Utilities. 1995. "Standard Specification for Highway Maintenance". Edmonton, Alberta.

- Environmental Standards for Road Maintenance Functions in National Parks. Prepared for Canadian Parks Service by Environmental Systems Group, Delcan Corp. (1989), a publication prepared to develop a set of environmental standards to focus specifically on road operation and maintenance activities in national parks, and corresponding methods of environmental protection.

Proponents of projects in the CSA are required to be familiar with these recommended construction techniques, and to use them on project sites to minimize the impacts of their activities.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects

Activity	Potential Impacts	Mitigation Measures
Pre-Planning		
General activities	Runoff / sedimentation; Soil contamination	• Prepare an Emergency Response Plan for the worst case, i.e., heavy rainfall and runoff events, high winds, spills, fires, etc. • In the event of emergency operations (as defined in Section 6.10 of the MCSR), call 911. The Warden Dispatch may also be contacted (available 24 hours/day) at (403) 762-4506 or the Wardens Office at (403) 762-1470 to notify of any emergency procedures required. • Ensure all activities are conducted at least 30 m from waterbodies.
	Dust production	• Have a water source available to wet down exposed soil and dry areas.
	Wind and water erosion	• Prepare a satisfactory Sediment and Erosion Control Plan covering all construction and restoration periods. • Acquire necessary sediment control equipment, (i.e., straw bales, landscaping fabric, sediment fences, etc.) and install prior to construction. • Extra planning should be used for areas with silty deposits (VL3 and VL4) and sloped areas with sandy deposits (see Figure 5.1).
	Compaction of soils	• Identify soils susceptible to compaction (fine textured and organic soils) • Wherever possible, use equipment of low bearing weight, low PSI tires, or tracked vehicles, especially in sensitive sites.
	Slope failure	• Assess slope stability (based on slope length, soil texture, steepness, soil depth) and adjust activities to avoid these areas if possible. Use appropriate setbacks. • Pay particular attention when planning for slopes of Class 6 (15-30%) or greater, especially where soils are shallow and likely to move with disturbance.
	Habitat loss and fragmentation or encroachment on wildlife movement corridor	• Identify wildlife habitat that may be impacted by activities and avoid sensitive areas. • Identify and avoid wetlands. • Ensure only necessary vegetation is removed and delineate areas to be avoided with biodegradeable flagging tape and/or temporary fences.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
General activities (continued)	Sensory disturbance and mortality of wildlife	When working adjacent to natural areas: • According to the wildlife that may be present, schedule high noise level activities and other intrusive construction activities to avoid critical life stages (breeding, nesting, rearing, migration). Consult with Parks Canada (403-762-1416) to discuss any localized wildlife concerns. • Confine "noise" activities to hours set out in Town of Banff Noise Bylaw. • Consider posting wildlife signs to reduce vehicle speeds and increase driver awareness near construction areas were wildlife mortality has or is likely to occur. • Educate workers to not harass or attract wildlife, keep the site free of food scraps, and dispose of garbage in bear proof containers.
	Disturbance of archaeological resources	• Determine whether there are archaeological sites in the area (see Figure 6.1). • Consult with Parks Canada (403-762-1416) if sites are identified. • If potential archaeological sites may be subject to ground disturbance, then activities should be adapted to avoid them. • Educate workers to stop work immediately and to notify site supervisor upon finding any archaeological artefacts.
	Public safety	• Outline traffic control measures and assess the need for flagging personnel. • Call utility line companies to identify infrastructure locations (Alberta OneCall: 1-800-242-3447).
	Reduced aesthetics	• Evaluate the site layout, access routes and construction activities to minimize their visual impact. • Plan work schedule to confine "noise" activities to hours set out in Town of Banff Noise Bylaw. • Work should be conducted during periods of low park visitation to reduce noise and visual impacts

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Modification of Roads and Construction, Modification, Decommissioning and Abandonment of Sidewalks, Boardwalks and Parking Lots		
Grading and gravel resurfacing; Material stripping, excavation, subgrade repair; Road shoulder modifications; Replace or modify culverts and ditches; Re-surfacing (asphalt)	Dust production / aesthetics	• Wet down dry, exposed soils, particularly during windy periods. • Ensure materials being stored or transported are covered with tarps or equivalent material. • Minimize grading and excavation on windy days to limit dust production. • Avoid spillage and excess applications.
	Runoff / sedimentation (through intermittent drainage pathways including storm sewer systems)	Particularly areas with slope class of 5 (5-15%) or greater and sites close to water. • Wet down or cover stockpiles with polyethylene sheeting, tarps, or vegetative cover. • Minimize vegetation cover removal. • Filter or settle out sediment before the water enters any drainage pathway; including stormwater systems. • Control overland flow up gradient and down gradient of exposed areas by use of diversion ditches, bales, vegetative filter strips, and/or sediment traps.
	Wind and water erosion	All Ecosites, especially VL3 and VL4 in steeply sloped areas, and sloped areas with sandy loam/loamy sand soils for water erosion (see Figure 6.1): • Protect exposed soils with coarse granular materials, mulches, or straw along drainage pathways. • Cover fills or stockpiles with polyethylene sheeting, tarps, or vegetative cover. • Line steep ditches with filter fabric, rock or polyethylene lining to prevent channel erosion.
	Contamination from runoff of poorly adhered seal coat	• Only apply seal coat to dry surface and not prior (within 24 hrs.) or during rainfall.
	Sensory disturbance	• According to the wildlife that may be present, schedule high noise level activities and other intrusive construction activities to avoid critical life stages (breeding, nesting, rearing, migration). Consult with Parks Canada (403-762-1416) to discuss any localized wildlife concerns. • Educate workers to not harass or attract wildlife, keep the site free of food scraps, and dispose of garbage in bear proof containers.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Post installation and replacement	Sensory disturbance and mortality to wildlife	• See mitigations for "General activities".
Painting lines	Contamination from accidental spills	• Spill contingency plans, equipment and supplies will be present on-site at all times and employees trained in their use. • Paints should be selected that have minimal amounts of potentially harmful substances, particularly water soluble organic chemicals, lead and other metals. Rust inhibiting paints should be chosen over barrier types of paints to refuse the total volume of paint required over the long term. • Hand painting is preferred over spray painting. Where sprayers are used, they must be properly adjusted to minimize the amounts of paint lost to overspray.
Sidewalk, curb and guttering installation	Reduced aesthetics	• See mitigations under "General activities".
Light installation (10 or more)	Runoff / sedimentation	• Light installations requiring small excavations for pre-formed concrete bases should minimize the amount of disturbed soil. • Minimize the time that borrow is exposed and the excavation remains open. If deemed necessary, use site specific erosion control methods (see mitigations for "Grading and gravel resurfacing".) • Do not schedule work during wet weather
	Reduced aesthetics	• See mitigations under "General activities".
Maintenance and Repair of Roads		
Patching	Runoff of poorly adhered seal coat	• Only apply seal coat to dry surface and not prior (within 24 hrs.) or during rainfall
Storage and application of road salts and abrasives	Salt contamination/ salt impact on vegetation	• Store salt under dry shelter, away from wind or water erosion on impervious platform. • Ensure no runoff from storage of salt to soil or water. For dangerous locations: • Minimize the application rate of salt to the road. • Restrict application of salt (including liquid deicer) to the traveled surface of the road, and ensure calibration is tightly controlled. • Salt-minimizing measures include pre-wetting of salt; calibration of spreaders; combined use with sand and gravel; early snow removal from roads
	Contamination from accidental spills	• Prepare an appropriate Spill Response Plan. In the event of emergency operations (as defined in Section 6.10 of the MCSR), call 911. The Warden Dispatch may also be contacted (available 24 hours/day) at (403) 762-4506 or the Wardens Office at (403) 762-1470 to notify of any emergency procedures required.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Storage and application of road salts and abrasives (continued)	Attraction of wildlife to roads (salt) causing mortality	• Minimize the application rate of salt to the roads, particularly in proximity to wildlife corridors. • Restrict salt to the traveled surface of the road. • Reduce speed limits.
Snow removal and storage	Salt contamination	• Accumulated snow contaminated with salt should only be disposed at designated areas away from sensitive vegetation and drainage pathways. • Dispose of snow in designated Parks Canada snow dump. • Minimize the application rate of salt to the roads, and ensure the calibration is tightly controlled so salt application is restricted to the road surface.
Vegetation management	Contamination from fertilizers and herbicides	• Accurately assess the need for chemicals during right-of-way maintenance. Use products and methods identified in Parks Canada Management Directive 2.4.1 (1985). • Avoid herbicide/fertilizer use in proximity to, or where run-off may reach waterbodies. • Ensure adjacent natural areas are not affected by herbicide use.
	Damage to adjacent vegetation, loss of native vegetation	To protect undeveloped areas adjacent to development site: • Minimize area cleared. Clearly mark area to be cleared with biodegradable flagging tape and/or temporary fences. • Ensure vertical (Rocky Mountain) juniper, Douglas fir and limber pine are protected. • Hoarding around trees to be retained must be installed beyond the tree's drip line prior to commencement of site work. • A development permit from the Town of Banff Planning and Development Division (403-762-1215) is required before removing any vegetation. • Ensure excavated material does not damage or bury plant material that is to be retained on the site or in adjacent areas. • Trees are to be cut so that they fall inside the cleared perimeters. • Care must be taken during grubbing and stripping to ensure that trees and roots on the edge of the cleared area are not disturbed. • Minimize grubbing in all areas. Grubbing and stripping may not be permitted on steep slopes.
Dust control (outside town)	Runoff of CaCl into water bodies	• Avoid spillage and excess applications. Use water, when possible.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Site Reclamation and Restoration		
Grading	Dust production	• Wet down dry, exposed soils, particularly during windy periods. • Ensure materials being stored or transported are covered with tarps or equivalent material.
	Runoff/ sedimentation	• Halt grading on exposed soil during events of high rainfall intensity and runoff. Consult the Sediment and Erosion Control Plan. • Cover stockpiles of soil with polyethylene sheeting, tarps, or vegetative cover. Where possible, establishment containment structures to trap runoff.
	Wind and water erosion	Particularly in areas with silty deposits (VL3 and VL4) and sloped areas with sandy deposits (see Figure 6.1): • Protect exposed soils with coarse granular materials, mulches, or straw along drainage pathways. • Recontour slopes to pre-disturbance conditions.
Revegetation	Runoff / Sedimentation (through intermittent drainage pathways including storm sewers)/erosion	• Initiate replanting of disturbed areas immediately after construction is completed. • For every tree cleared, plant at least two native trees. • Protect exposed soils with coarse granular materials, mulches, or straw along drainage pathways.
	Compaction of soils	• Cultivate affected areas before reclaiming, especially areas with fine textured or organic soils.
	Contamination from fertilizers and herbicides	• Accurately assess the need for chemicals during site revegetation. Use products and methods identified in Parks Canada Management Directive 2.4.1 (1985). • Do not use fertilizers and herbicides in areas where residue or run-off may enter a waterbody or drainage pathway. • Do not over water.
	Weed invasion	• Revegetate exposed areas at first opportunity. • Ensure topsoil is clean and weed free. If clean fill is unavailable, check on weeds or treat as needed for 3 years following landscaping and revegetation. • Revegetate with Parks Canada approved grass seed mix or the Town seed mix for landscape rehabilitation (see Appendix C). • Monitor the site to ensure appropriate weed control for two years following landscaping (applicable to construction crews only). • Follow Parks Canada Integrated Pest Management Plan 2.4.1 for weed control.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
General Activities [(a)]		
Materials handling/storage	Dust production	• Wet down dry, exposed soils or cover with tarps. • Ensure materials being stored or transported are covered with tarps or equivalent material.
	Damage to adjacent vegetation	• Excavated material will not be permitted to damage or bury plant material that is to be retained on the site or in adjacent areas. • If tree damage does occur, a horticultural sealant will be applied to the tree damage as soon as possible. Diseased vegetation should be disposed of through burning. A burning permit must be obtained. • Protect undisturbed land by only stockpiling materials on heavy canvas or polypropylene tarpaulins to protect native vegetation. Excavated material should not be permitted to damage or bury plant material that is to be retained on the construction site or in adjacent areas.
	Decreased aesthetics (visual) and public safety	• Materials will be stored within the confines of the work site.
Equipment operation and maintenance	Decrease in ambient air quality due to emissions	• Ensure all equipment is properly tuned, free of leaks, in good operating order, and fitted with standard air emission control devices. • Minimize idling of engines at all times.
	Dust production	• Wet down dry and dusty roads. • Do not use oil-based dust suppressants. • Reduce speeds. • Ensure materials being stored or transported are covered with tarps or equivalent material.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Equipment operation and maintenance (continued)	Contamination of soil and water from accidental spill	• Prepare an appropriate Spill Response Plan. Prepare an appropriate Spill Response Plan. In the event of emergency operations (as defined in Section 6.10 of the MCSR), call 911. The Warden Dispatch may also be contacted (available 24 hours/day) at (403) 762-4506 or the Wardens Office at (403) 762-1470 to notify of any emergency procedures required.. • Avoid work in high risk areas, particularly in areas of high water table, steeply sloped sites or in close proximity to streams. • Have spill containment equipment is on-hand and all personnel are trained in their use. • Ensure all construction equipment is free of leaks from oil, fuel or hydraulic fuels. • In-stream crossing of any waterbody (including wetlands) by construction equipment, or the use of such equipment within waterbodies is strictly prohibited unless prior approval has been confirmed by Parks Canada. • Designate refuelling areas at least 100 m away from any water body. Refuelling sites will be bermed with an impermeable liner to contain 125% of the anticipated fuel quantity. Any contaminated rainwater will be moved out of the park. • Refuelling activities should not be conducted where run-off could carry contaminants into drainage pathways (including storm sewers). • Dispose of contaminated materials at provincially certified disposal sites outside of the Park. No treatment of contaminated soils (e.g., bioremediation) is allowed in the Park. All applicable documentation demonstrating proper disposal should be obtained.
	Compaction of soils	• Restrict vehicular travel and other equipment operation to the construction site and approved access routes. • Vehicle parking will be restricted to specialized areas on the construction site. • Minimize or halt construction traffic during wet conditions when the soil shows signs of ponding or rutting. • In sensitive areas, if possible, use equipment which minimizes surface disturbance including low ground pressure tracks/tires, blade shoes and brush rake attachments.
	Damage to adjacent vegetation	Undeveloped areas adjacent to development site: • Careful machine operation is required to ensure that damage to surrounding vegetation does not occur. • Excavated material must not be permitted to bury plant material that is to be retained. Snow fences may be used to prevent excavated material escaping into the surrounding forest.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Equipment operation and maintenance (continued)	Weed invasion	• All construction equipment from outside Banff National Park will be steam cleaned prior to arrival to minimize the risk of introducing weeds. • Construction equipment from outside the Park will not be washed while in the Park.
	Sensory disturbance to wildlife	All undeveloped areas and areas bordering natural habitat, especially wildlife movement corridors and natural wetlands: • Use existing roadways, pathways and previously disturbed areas for site access and travel within the site. • Educate workers not to enter wildlife corridors. • Confine "noise" activities to hours set out in Town of Banff Noise Bylaw.
	Increased traffic levels	• Time construction activities to minimize vehicle conflicts on access roads and/or use flagging personnel.
Waste management (general)	Contamination of soil and water from accidental spill or improper disposal	• No rock, silt, cement, grout, asphalt, petroleum product, lumber, vegetation, domestic waste, or any deleterious substance shall be placed or allowed to disperse into any stream, river, pond, storm or sanitary sewer, or other water course.
	Aesthetics (visual and smell)	• Collect all waste, store appropriately and dispose trade waste at Bow Valley Waste Management Commission's Class III landfill, and household garbage at the Waste Transfer Station. • All garbage and food must be stored in bear-proof bins as per the Banff Waste Bylaw. • Construction sites must undergo thorough clean-up, including removal of general litter, survey stakes and flagging tape at project completion.

Table 6.3 Sub-Class 3: Mitigations for reducing impacts from Road, Sidewalk, Boardwalk and Parking Lot Projects – *Continued*

Activity	Potential Impacts	Mitigation Measures
Hazardous materials collection and handling	Contamination of soil or water	• Prepare an appropriate Spill Response Plan. Prepare an appropriate Spill Response Plan. In the event of emergency operations (as defined in Section 6.10 of the MCSR), call 911. The Warden Dispatch may also be contacted (available 24 hours/day) at (403) 762-4506 or the Wardens Office at (403) 762-1470 to notify of any emergency procedures required. • All toxic/hazardous materials will be identified during demolition and will be handled as required under the Canadian Environmental Protection Act, Transportation of Dangerous Goods Act and Workplace Hazardous Materials Information Service. • Dispose of contaminated materials at provincially certified disposal sites outside of the Park (i.e., at Bow Valley Waste Management Commission's Class III landfill). No treatment of contaminated soils (e.g., bioremediation) is allowed in the Park. All applicable documentation demonstrating proper disposal should be obtained. Alternatively, use the paint exchange program in Banff. • All hazardous materials and wastes will be clearly labelled with WHMIS labels and information. • Spill contingency plans, equipment and supplies will be present on-site at all times and employees trained in their use. • All fuels, oils, lubricants and other petrochemical products will not be stored within 100 meters of any waterbody (including wetlands). • Do not store fuels, lubricants, solvents, paints, and other chemicals on site overnight except within construction trailers secured with lock and key. Storage should be on a bermed, impervious site (secondary containment). Permits are required from Banff National Park or Town of Banff. • No rock, silt, cement, grout, asphalt, petroleum product, lumber, vegetation, domestic waste, or any deleterious substance shall be placed or allowed to disperse into any stream, river, pond, storm or sanitary sewer, or other water course.

6.7 Residual Impacts

Residual impacts are those impacts still remaining **after all appropriate mitigation has been implemented**.

The potential residual impacts likely to result from project activities have been defined using the following terms:

- **Magnitude of Impact** refers to the percentage of a population or resource that may be affected. Where possible, the population or resource base should be defined in quantitative or ordinal terms. High, medium or low are the terms identified.
- **Direction** refers to whether an impact to a population or resource is considered to be positive, negative or neutral.
- **Duration** refers to the time it takes a population or resource to recover from the impact. It can be identified as short-term (< 3 to 6 months), moderate-term (6 months to 2 years) and long-term (> 3 years).
- **Frequency** refers to the number of times an activity is likely to occur and can be identified as once, intermittent, or continuous.
- **Geographical Extent** refers to the geographical area potentially affected by the impact and may be rated as local (within Study Area), or regional (within Banff National Park) or Provincial.
- **Degree of Reversibility** refers to the extent an adverse effect is reversible or irreversible over a 5 year period.
- **Significance Unknown** as the evaluation requires site-specific information.

If the appropriate measures are followed, the potential impacts identified in Table 6.2 and described in Section 6.5 should be reduced to insignificant levels.

As most of the projects in the Sub-Class will occur on already disturbed sites, the potential residual impacts are likely to include:

- Impacts to water quality can be reduced by careful use of mitigation measures when installing culverts and applying and storing salt and abrasives; including preparing appropriate Spill Response Plans, ensuring that spill contingency equipment and measures are in place before work begins, and constructing enclosures to contain all foreign materials. Provided these mitigations are implemented, residual impacts to surface water quality should be low, negative, short-term, occur once, regional and reversible. This would be considered insignificant.
- Impacts to soil and vegetation from potential contamination from storage and application of road salt, painting, or paving will be minimal and unlikely, provided the

mitigations measures provided in Table 6.3 are followed, including storing salt under dry shelter, away from wind or water erosion on an impervious platform and restricting salt to the traveled surface of the road. Provided such mitigations are followed, residual impacts will be low, negative, short-term, intermittent, local and reversible. This would be considered not significant.

- Negative aesthetic impacts can be reduced by adhering to noise restrictions and reducing visual effects by careful placement of facilities. If this is done, these impacts become insignificant.

Use of appropriate mitigation measures should be effective in reducing potential impacts from Sub-class 3 projects to insignificant levels.

6.8 Malfunctions and Accidents

The likelihood of accidents and malfunctions occurring that would cause negative environmental impacts is minimal, as the project activities are routine and their effects predictable. Examples of unlikely accidents or malfunctions and their mitigations include:

- Heavy rains could lead to unexpected erosion and sediment to waterbodies. Possible mitigation measures include the use of straw bales to contain and direct flow.

- Spills of asphalt, paint, herbicides, salt from equipment operation. Possible mitigation includes cleaning spills using standard spill containment kits and procedures.

6.9 Effects of the Environment on the Project

Natural events including flooding, forest fire, heavy wind or snow have the potential to affect construction projects, and, in extreme cases, create emergency situations. These issues and concerns are considered to be mitigable through use of careful planning and Emergency Response procedures. Such measures should be included in Emergency Response Plan, as recommended in Table 6.3.

6.10 Emergencies

The Agency has advised Parks Canada "that pursuant to Section 7(1) of the Act, an environmental assessment is not required of a project where the project is to be carried out in response to an emergency and the project is carried out in the interest of preventing damage to property, the environment, or is in the interest of public health and safety. The scope and magnitude of actions taken by Federal Authorities in these circumstances will be defined by the powers that authorize the emergency actions. However, Federal Authorities should, as a matter of policy, attempt to ensure that environmental considerations are factored into their emergency response planning to the extent possible."

Emergencies within BNP, other than those of a national scale, include but are not limited to the actual occurrence of, and/or imminent threat of flooding, dam failure, extreme erosion, facility structural damage and forest fire, snow, rock or debris avalanche, natural gas leaks or explosions, train derailments and railway track failure, toxic materials release or spill, natural event blockage of the TransCanada Highway or CPR Mainline, and telephone or electrical failure to the town of Banff or the hamlet of Lake Louise. Initial actions or immediate containment will be approved but will require a post project environmental assessment and follow-up. If a longer-term project arises from the initial emergency, the normal environmental assessment protocol will apply to any further undertakings.

If a project would normally be covered by the MCSR, then it would also be covered if it resulted from emergency situations that occur within or proximate to the outlying areas of the town of Banff. Projects that would not normally be covered by the MCSR will not be covered in an emergency situation.

6.10.1 Emergency Situation Environmental Assessment Procedure

Protocols in the event of one of the above-specified emergencies include calling 911. The BNP Warden Office should also be informed of the nature and location of the emergency, initial action proposed and any subsequent follow-up. The 24-hour Banff Park Dispatch Office phone number is (403) 762-4506 and the Warden's office is (403) 762-1470.

The week following an emergency, a CSPR form must be completed and submitted to Parks Canada as outlined in Section 6.12.

6.10.2 Post Emergency Environmental Assessment

Should the emergency action require further long-term work already covered in the MCSR, a CSPR form may be used. When emergency repair is outside the activities included under the MCSR, an individual environmental assessment will be required. Upon submission, an individual environmental assessment will undergo a 14-day public review period.

6.11 Follow-Up Programs

Follow-up is required to ensure compliance with project mitigations, and to track whether the recommended mitigations are effective in reducing predicted impacts.

6.11.1 On-site Monitoring and Auditing during Construction

The Town of Banff is the proponent for road projects in the CSA. Before carrying out a project that requires a class screening project report (CSPR), it is the responsibility of the proponent to ensure an independent, qualified environmental monitoring professional is available on site to carry out monitoring of construction practices. The monitor shall ensure that the mitigations and any other conditions of the MCSR are implemented during the project, and shall report to the

Town of Banff Environmental Services Department pursuant to an approved monitoring plan and schedule.

Where the proponent (the Town of Banff or their assigned construction company) can demonstrate there is an operational Environmental Management System (EMS) in place, and that the Operation Controls of the EMS comply with the MCSR mitigations, and are subject to quarterly review as part of the ongoing operation of the EMS, the requirement for an on-site monitor will be waived.

Parks Canada, as the Responsible Authority, will be responsible to audit compliance with this provision, by conducting site visits on an occasional basis, to confirm that environmental monitoring professionals are available when required and that recommended mitigations are being implemented.

6.11.2 Training of Construction Crews

It is the responsibility of the proponent to ensure that construction and maintenance crews are familiar with the mitigations and any other conditions of approval of the MCSR, and how they are to be implemented. Training of crews will be conducted by a qualified environmental professional, or by a construction supervisor familiar with the project-specific mitigations and how they apply in Banff National Park.

Parks Canada will be responsible to audit construction sites to confirm compliance with this provision.

6.11.3 Long-term Monitoring Programs

As the projects included in this sub-class are small scale and routine, long-term site specific monitoring is not required.

However, long-term monitoring programs are already in place that can assist in tracking the accuracy of predicted impacts and the effectiveness of required mitigations. Monitoring projects in place which track changes in the environmental components impacted by sub-class 3 projects include:

- Aquatic resources of Whiskey Creek (see Highwood Environmental Management. 2002. *Baseline Monitoring Report for the Aquatic Resources of Whiskey Creek. An Ecological Indicator for the Town of Banff's Environmental Management Project*. Report 4 of 6); and
- Water quality in the Bow River, conducted by the Town of Banff and Environment Canada (see Highwood Environmental Management. 2002. *Baseline Monitoring Report for Water Quality of the Bow River. An Ecological Indicator for the Town of Banff's Environmental Management Project.* Report 5 of 6).

These monitoring programs should be continued long-term. Management tools to address the impacts identified during these monitoring programs should be initiated, where possible, and additional mitigations implemented as needed.

6.12 Preparing the Class Screening Project Report

The information included in this MCSR provides the background environmental and project information necessary to prepare the Class Screening Project Report. It is the responsibility of the project proponent to provide site-specific information necessary for Parks Canada, the Responsible Authority (RA), to reach a decision on project approval. This information will be provided through completion of a Class Screening Project Report, which includes completion of Class Screening Form A-3.

Form A-3 will be completed by the proponent, and submitted to Parks Canada. Depending upon the expected environmental effects of the individual project, the project will receive approval based on the information in Form A-3, or the proponent will be requested to either provide additional information or will require an individual assessment.

Projects that have:

- Significant adverse environmental impacts that are not or cannot be mitigated; or
- Uncertain environmental impacts;

will not receive approval under the MCSR but will be reclassified, and an individual assessment will be required. Parks Canada will specify the scope of assessment required for these projects. This does not mean the project may not proceed. Instead, it means that the project activities and/or the environmental impacts are not covered under the MCSR.

Approval will be given within 14 calendar days of Form A-3 being submitted, or notification of reclassification will be provided within 14 calendar days.

6.12.1 Completing Form A-3

Form A-3 is to be completed by proponents of projects for any new or existing building in the town of Banff or its immediate vicinity, and submitted to the Banff Town Hall. Information and copies of forms can be obtained from:

- Environmental Services
  Banff Town Hall
  110 Bear St.
  P.O. Box 1260
  Banff, Alberta
  T1L 1A1
  Phone (403) 762-1215
- CEAA Coordinator
  The Banff National Park Warden's Office
  Hawk Ave.
  P.O. Box 900
  Banff, Alberta
  T1L 1K2
  Phone (403) 762-1416

6.13 Time Lines

Parks Canada, as the Responsible Authority, will review all projects and provide a response to the proponent within 14 days of submission.

Town of Banff Class Screening Project Report Form A-3
Sub-Class 3: Roads

COMPLETING A CLASS SCREENING PROJECT REPORT FORM

Forms can be obtained at Environmental Services at the Banff Town Hall or at the Environmental Assessment Office at Banff National Park Warden's Office. Once completed, forms should be returned to one of these offices.

If you have questions about completing the form or the assessment process you should call the Environmental Assessment Office. The addresses and phone numbers for both the Town of Banff and Parks Canada's Environmental Assessment Office are provided below. Incomplete or improperly completed forms will be returned. In some cases you may be asked to supply additional information or to do an individual environmental assessment.

Parks Canada's Environmental Assessment Office will complete a review of the form within 14 days of its submission, and the proponent will be informed of the decision. If approved, a signed document, called the "Environmental Screening Approval Report," will be mailed or faxed to you. A Town of Banff Development Permit may be required once the assessment has been approved.

Certain projects may not need an environmental assessment. Other projects may require a more detailed individual environmental assessment. Such projects are usually those that are located near environmentally sensitive areas, are within 30 m of a waterbody, are excluded from the MCSR, or those where unproven mitigations are to be used. If your project requires an individual environmental assessment, you will be advised. An individual environmental assessment may need to be prepared by an individual or firm with experience in environmental assessment.

The Environmental Assessment Office Banff Warden's Office 238 Hawk St, Industrial Compound P.O. Box 900 Banff, Alberta T1L 1K2 Tel. (403) 762-1416	Environmental Services Banff Town Hall 110 Bear Street P.O. Box 1260 Banff, Alberta T1L 1A1 Tel. (403) 762-1215

This CSPR form is to be completed by the project proponent or the proponent's authorized agent for proposed road development activities within the Town of Banff or areas adjacent to the town. It is the responsibility of the proponent to ensure that all information provided in this form is accurate and correct. Incomplete or inaccurate forms will be returned. To assist you in the preparation of the form, the following attachments have been provided:

- **Attachment 1**: Mitigation Information for Road Projects (Table 6.3)
- **Attachment 2:** Map of Wildlife Corridors, Ecosites, and Archaeology (Figure 6.1)
- **Attachment 3:** Potentially Sensitive Sites in the Class Screening Area (Appendix B)

SUB-CLASS 3: ROADS

Projects included in Sub-Class 3 are the modification, maintenance and repair of existing roads within existing rights-of-way or easements (only applies when maintenance and repair activities could result in the likely release of a polluting substance into a water body; or involve the application of a dust control product or salt to the road, or of a pest control product to the areas adjacent to the road), and construction, modification, decommissioning and abandonment of sidewalks, boardwalks and parking lots up to 75 stalls. Construction of new roads and modification of roads outside of existing rights-of-way are not covered under the Model Class Screening Report (MCSR) and will require an individual environmental assessment. Any activities associated with parking lots over 75 stalls or construction of parking lots in previously undisturbed areas are not covered under the MCSR, and will require an individual environmental assessment.

SECTION 1: DESCRIPTION OF THE PROJECT

This section is designed to determine whether you have a project as defined in the Canadian Environmental Assessment Act that requires an environmental screening.

1. Please provide a **summary description of your project** on a separate sheet and attach. A site plan showing the proposed development must be attached. A one page site plan is acceptable.

a. Does your project involve (check all of the following that apply)?

i. The construction of a new road ☐ YES ☐ NO

ii. The maintenance or repair of a road? ☐ YES ☐ NO

iii. The construction, modification, decommissioning or abandonment of a sidewalk or parking lot up to 75 stalls? ☐ YES ☐ NO

b. If your project requires excavation:

i. Will the excavated material be re-used on site? ☐ YES ☐ NO

ii. What is the total quantity of material to be excavated? (specify units) _____

c. Will a new lease or new right-of-way be required to accommodate your project? ☐ YES ☐ NO

d. If your project is a maintenance or repair project, will it:

i. Result in the likely release of a polluting substance into a waterbody? ☐ YES ☐ NO

ii. Involve the application of oil or salt to a road, sidewalk, or parking lot? ☐ YES ☐ NO

iii. Involve the application of a control product (e.g., herbicide) to the areas adjacent to the road, sidewalk or parking lot ☐ YES ☐ NO

SECTION 2: LOCATION OF PROJECT

This section is designed to determine if your projects fits into Sub-Class 3 (Roads) of the Model Class Screening Report (MCSR).

2. If your project is located:

a. Within the town of Banff please provide:

Street Address:

Ecosite (initials and name, *e.g.,* Norquay $\frac{\text{NY3}}{8}$ Refer to Attachment 2):

b. *Outside* the town of Banff:

If your project is located on the periphery of the town, or providing infrastructure to one of the areas listed below, please circle:

- Banff Rocky Mountain Resorts
- Rimrock Inn
- Upper Hot Springs
- Timberline Lodge
- Cave and Basin
- Banff Gondola

SECTION 3: DESCRIPTION OF THE ENVIRONMENTAL AND CULTURAL SETTING

This section is designed to determine whether your project could potentially impact any valued environmental or cultural components, and if it may cause any impacts not identified in the MSCR.

3.

a. Will your planned development be located on or adjacent to any of the potentially sensitive sites or special resources described in Attachment 3?

☐ YES ☐ NO

If **YES,** please identify the type of site or resource by clearly marking Attachment 3 and returning it with this form.

b. Is your proposed project located on or adjacent to any of the following?

i. Previously undisturbed or undeveloped land ☐ YES ☐ NO

ii. The perimeter of town ☐ YES ☐ NO

iii. Land with steep or unstable slopes ☐ YES ☐ NO

iv. Wildlife corridors (see Attachment 2) ☐ YES ☐ NO

v. Within 30 meters of a waterbody (river, stream, creek) ☐ YES ☐ NO

c. In what year or decade were the facilities now existing on site constructed?

_____
Year

d. Has any investigative work been done by you or previous owners to determine:

i. Possible contamination of the site ☐ YES ☐ NO ☐ UNSURE

ii. The existence of hazardous materials on the site (e.g., asbestos, lead, PCB) or in the soil ☐ YES ☐ NO ☐ UNSURE

iii. The presence of fuel tanks, fuel storage etc. on the site (Fuel includes gasoline, propane, diesel, heating oil *i.e,* any hydrocarbon product)? ☐ YES ☐ NO ☐ UNSURE

If **YES**, please attach a list of the work done or copies of the reports or documents.

Note: *Parks Canada may request that a Phase I Environmental Site Assessment be completed as part of the environmental screening depending on the history of the site or neighbourhood***.**

SECTION 3: ***Continued***

e. Are any historic or archaeological resources directly or indirectly affected by your project (see Attachment 2)? ☐ YES ☐ NO ☐ UNSURE

f. Will your project cause any impacts to the environmental or cultural/heritage setting that have not been identified in Table SC-3 (below)? ☐ YES ☐ NO

g. If you answered **YES** to Question 3(f)**,** briefly describe those impacts not already identified. Please attach a separate sheet to this form, if necessary.

Table SC-3: Potential environmental effects from roads projects

• Dust production	• Habitat loss, fragmentation
• Decrease in air quality	• Wildlife sensory disturbance
• Runoff/sedimentation of waterbodies	• Encroachment on wildlife movement corridors
• Soil and water contamination	• Increased traffic
• Soil compaction and erosion	• Risk to public safety
• Slope failure	• Waste production
• Loss of topsoil	• Hazardous materials
• Damage/loss of vegetation	• Use of resources
• Changes in noise/visual quality	• Impact to historical or archaeological resources

SECTION 4: MITIGATIONS

This section is designed to identify what mitigations will be used to remove or reduce the potential impacts identified above, and to determine the potential for impacts to remain after the mitigations are implemented.

4.

a. Will Standard MCSR mitigations as described in Attachment 1 be used? ☐ YES ☐ NO ☐ UNSURE

b. Will any environmental mitigations be undertaken *other than* or *in addition to* those listed in Attachment 1? ☐ YES ☐ NO ☐ UNSURE

If you answer **YES** or **UNSURE** to 4(b), please submit detailed information on your proposed mitigations on a separate sheet along with this form.

c. Will your project involve blasting, dredging, surface or groundwater dewatering, excavation of contaminated soil or disposal of any hazardous materials? If so, please specify on a separate sheet. ☐ YES ☐ NO

d. Will your project require geo-technical investigation - drilling, soil sampling, - to determine soil capacity, contamination, groundwater depth etc? ☐ YES ☐ NO

e. If you answer **YES** to 3(f), and you identified additional potential impacts in 3(g), please describe additional mitigations to be followed to address those impacts. Please attach a separate sheet if necessary.

SECTION 5: COMPLIANCE MONITORING

This section is designed to determine how you will ensure mitigations will be followed during your project.

5.

a. Will an environmental monitor be available on site to ensure the mitigation measures described in Attachment 1 and Section 4 are implemented? ☐ YES ☐ NO

b. Please indicate those groups/individuals you have informed about your project.

SECTION 6: APPLICATION SIGNATURE

As the developer of the proposed project or his/her authorized agent, I guarantee that to the best of my knowledge all information provided here is complete, correct and accurate.

Signature:	Date:
Name:	Phone:
Address:	

SECTION 7: FOLLOW-UP PROGRAM

(*Parks Canada to complete*)

7.

a. Is a follow-up program required for this project? ☐ YES ☐ NO

If you answered **YES**, describe any project specific follow-up activities that are warranted to verify the environmental effects or the effectiveness of mitigation measures. Describe responsibilities for follow-up activities.

SECTION 8: SIGNIFICANCE

(*Parks Canada to complete*)

8.

a. Is the project likely to cause significant environmental effects if all of the mitigations are followed?

☐ NEGLIGIBLE ☐ LOW ☐ MED ☐ HIGH

Note: This form to be attached to the Banff National Park Environmental Screening Approval Report Form.