

7.0 SUB-CLASS 4: TRAILS AND PARKS

Construction, Modification, Maintenance and Repair, Decommissioning and Abandonment of Trails, Parks, Parkettes and Recreation Grounds

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7.1 Description of Class of Projects

This Sub-Class of the MCSR addresses the construction, modification, maintenance and repair, and abandonment and decommissioning of trails, parks, parkettes and recreation areas in the Class Screening Area (CSA), which includes the town of Banff and Banff Rocky Mountain Resorts, the Timberline Lodge, the Rimrock Inn and the Tunnel Mountain Campground, the Cave and Basin and Upper Hot Springs and the Banff Gondola (Figure 7.1).

Parks Canada is the Responsible Authority (RA) under the Act for all project activities in the CSA. Within the town boundary, the Town of Banff Environmental Services Department or private contractors carry out all construction projects, while the Town of Banff Operations Division carries out maintenance and repair activities. Outside the town boundary, Parks Canada is responsible for conducting all work.

All projects in this sub-class involve a pre-planning component. Pre-planning includes such activities as 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 visitation times and critical wildlife life stages (e.g., nesting, incubation, etc.). These steps are an important pre-cursor to engaging in any of the projects and activities described in this Sub-Class.

7.2 Typical Projects Associated with the Construction of Trails, Parks, Parkettes and Recreation Ground

7.2.1 Trails

Trails included in this project are inside the town of Banff boundary. Trails are located within a right-of-way that is typically 20 m wide, while the trail is 2.5 m in width. Only the trail width within the right-of-way is cleared of vegetation. Trails range in length from 20 to 900 m. Trails typically access natural areas and provide alternatives to sidewalks and roads. Trails within the town usually continue outside the town boundary, where they are maintained by Parks Canada. Trails typically are surfaced with a trail mix, composed of a crushed gravel and clay mixture, and may be provided with lighting and/or benches. Trails that are paved with asphalt and boardwalks are not addressed in this sub-class, but are included under Sub-Class 3, which applies to roads and sidewalks.

- **Construction** projects for Trails include:
 - Clearing of vegetation;
 - Preparing base, grading, trail surfacing, installation of fixtures (fixtures may include excavation, pouring concrete, and installation – e.g., lights, benches, boardwalks, garbage bins, etc.); and
 - Fence construction, including the building of permanent fences (possibly with gates for human passage) made out of metal posts and chain link or wood.

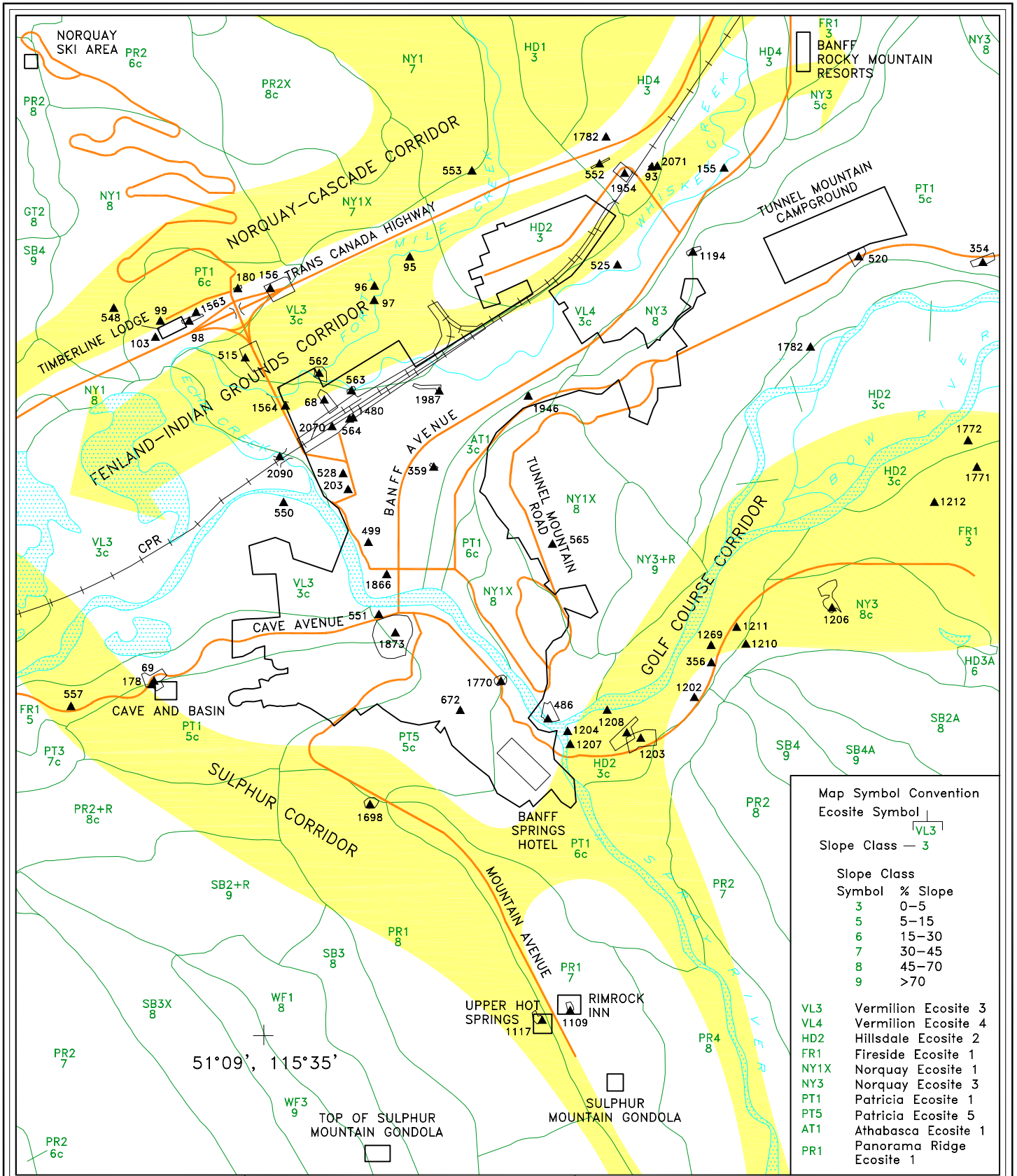
7.2.2 Parks, Parkettes and the Recreation Ground

Parks and parkettes located inside the Town of Banff are classed as Level 1 or Level 2, depending upon the level of maintenance they receive. Table 7.1 lists the different parks and parkettes, and their level of maintenance. Parks are primarily designed to provide aesthetically pleasing green space within the town, and facilities include benches, gardens, washrooms, garbage bins, lighting, trails, irrigation, fire pits, etc. Cemeteries are classed as parks for this project. **Note:** The Mountain View Cemetery is outside the town boundary.


Table 7.1 Maintenance Activities Scheduled for Town of Banff Parks, Parkettes and Recreation Grounds.

Level 1 Sites	Activities ^(a)
Banff Cemetery Mountain View Cemetery Recreation Grounds Bridge Abutment Central Park School grounds Recreation Centre grounds Wolf St. Triangle Rundle Parkette	Horticulture Maintenance (annuals/perennials/arbour care) Turf Maintenance (fertilizing/regular cutting and trimming) Litter Pick Irrigation (automatic and manual) Capital Improvements
Level 2 Sites	Activities
Neufield Hedge Rotary Park II Bow Avenue Pathway	Minor Horticulture (pruning trees/planting minimum) Turf Maintenance (minimum fertilizing/cutting 3-4 monthly) Irrigation (as required manually) Litter Pick (weekly or as required)

^(a) Activities apply to all parks in this level.



Map Symbol Convention

Ecosite Symbol | 

Slope Class — 3

Slope Class	
Symbol	% Slope
3	0-5
5	5-15
6	15-30
7	30-45
8	45-70
9	>70

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

LEGEND







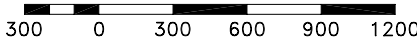


-  Local Study Area (Town of Banff and Outlying Areas)
-  Road
-  Railroad
-  Available Wildlife Corridors
-  Ecosites
-  Archaeological Site and Sensitive Area

Figure 7.1
Ecological Information within the Class Screening Area (Sub-Class 4)

SOURCE: POPE (2001)

Scale 1:30,000
 Metres

The recreation ground is located on the south side of the Bow River, and provides the following recreational facilities:

- Tennis courts,
- Soccer grounds,
- Baseball diamonds,
- Running track,
- Cook shelters, tables and benches, and fire pits and fire wood,
- Playgrounds,
- Trails, including bridges and culverts over small drainages,
- Washroom facilities,
- Irrigation systems,
- Lighting,
- Landscaping,
- Fencing, and
- Garbage bins.

This MCSR does not address the construction of facilities, such as tennis courts, which are constructed from asphalt. These are covered by Sub-Class 3, which includes roads and sidewalks. Typical projects in Sub-Class 4 include:

- **Construction** projects for new Parks, Parkettes and the Recreation Ground include:
 - Clearing of vegetation,
 - Preparing base, grading by machine, surfacing playfields (e.g. red shale on baseball diamonds), and installation of fixtures (fixtures may involve excavation and grading, pouring concrete, installation or construction of camp kitchens, lights, fire places, irrigation etc.)
 - Establishing turf, either with seed or sod, including irrigation and fertilizer,
 - Landscaping, including trees, shrubs, and use of fertilizer, and
 - Fence construction, including the building of permanent fences (possibly with gates for human passage) made out of metal posts and chain link or wood.

7.3 **Typical Projects Associated with the Modification, Maintenance, Repair Decommissioning and Abandonment of Trails, Parks, Parkettes and Recreation Ground**

- **Modification, Maintenance and Repair** of trails, parks, parkettes, or recreation ground projects include:
 - Resurfacing with trail mix, topdressing, seed or sod,
 - Maintaining fixtures (including irrigation),
 - Vegetation management including pruning, tree watering, removal of danger trees and use of herbicides for weed control in parks, parkettes and Recreation Grounds only), and
 - Winter plowing and sanding of some trails, e.g. Bow River Trail, and parks, parkettes and recreation ground.

Modification and repair of trails is carried out on an *as needed* basis, and on a pre-determined priority in winter. The maintenance schedules for parks, parkettes and the Recreation Grounds are shown in Table 7.1.

- **Decommissioning and Abandonment** projects for trails, parks, parkettes, or recreation ground do not normally occur in the CSA. However, should decommissioning and abandonment occur, the following activities would be completed:
 - Removal and disposal of fixtures, and
 - Reclamation, including resurfacing and revegetating.

General Activities associated with Trails, Parks, Parkettes and the Recreation Grounds:

- **Waste Management** includes the storage, collection, transport and disposal of all waste associated with projects in the CSA. Bear-proof bins are emptied daily, or less frequently as needed by truck operation or by hand.
- **Equipment Operation** includes the use of trucks, graders, backhoes, cement mixers, snowplows, mowers, tractors, etc. Machinery is not frequently used on trails.

7.4 **Typical Seasonal Scheduling and Project Duration**

Construction of trails, parks, parkettes and Recreation Grounds would normally occur during spring, summer, and fall when the soil is not frozen, to facilitate construction.

Modification and repair would occur on an as needed basis, primarily during spring and fall when use is low. Snow removal occurs at some parks and trails during the winter months, on an *as needed* basis.

Maintenance activities for parks are scheduled on a daily to bi-weekly schedule during the spring, summer, and fall, but are minimal during the winter months.

Duration of projects varies. Construction and modification activities last from two days to three weeks, depending on the size of the project. Maintenance or repair activities are much smaller in scope so require from a few hours to one week to complete.

Abandonment and decommissioning of any of the projects does not normally occur in the CSA. If necessary, decommissioning and abandonment would require up to one week.

7.5 Description of Study Areas

This 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 4 - Trails and Parks	Spatial Extent ^(a)	Temporal Extent
Construction, Modification, Maintenance and Repair, and Decommissioning and Abandonment of Trails, Boardwalks and of Parks, Parkettes and Recreation Grounds	<ul style="list-style-type: none"> • Include development site, or linear corridor, plus 50 m around site, or from centre line of corridor 	<ul style="list-style-type: none"> • Construction - Duration of Construction Phase (e.g. 2 to 6 months) • Modification, Maintenance and Repair - Duration of Modification, Maintenance or Repair Phase (e.g. 1 day to 1 month) • Decommission and Abandonment, Reclamation or Restoration - Duration of Decommissioning and Abandonment Phase and time for site to re-establish vegetation for selected end land use (e.g. 2 weeks 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.

7.6 Typical Project Sites and Environmental Setting

Potential project sites are located within different Ecosites in the CSA (Figure 7.1).

Trails within the town are found parallel to the Bow River, or provide access to various natural sites including the Tunnel Mountain area, the Recreation Grounds, the Cave and Basin, and the Banff Springs Hotel. Within the town, they are located on river flats typically composed of fluvial deposits. They cross through all Ecosites within the town boundary. Trails located outside the town boundary access outlying facilities including the Sulphur Mountain area, the Cave and Basin, and Tunnel Mountain Campground.

Parks, parkettes and recreation areas are identified in Section 7.2.2, Table 7.1.

No parks, parkettes or recreation areas maintained by the Town of Banff staff are located outside the town boundary, with the exception of the Mountain View Cemetery. Parks are typically located on flatter, fluvial areas, and found in all Ecosites. The recreation ground is located south of the Bow River in Ecosite VL3. It is on fluvial deposits in areas that are not well drained.

The Ecosites in the CSA, their development status and sensitivities are described in Table 7.2, and shown in Figure 7.1. Further information on the environmental setting is provided in Appendix A and Appendix B.

7.6.1 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.

7.6.2 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.

7.6.3 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.

7.6.4 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.

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

PT1 is fairly extensive in the Study Area, 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.

7.6.6 *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.

7.6.7 *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.

7.6.8 *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.

7.6.9 *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.

Table 7.2 Environmental Characteristics of Ecosites in the Class Screening Area – Sub-Class 4

Ecosection / Ecosite	Development Status	Sensitivities ^(a)
Athabasca <u>AT1</u> 3c	<ul style="list-style-type: none"> largely developed residential areas 	<ul style="list-style-type: none"> high water table
Hillsdale <u>HD2</u> 3	<ul style="list-style-type: none"> partly developed; includes the Commercial Services District, surrounded by natural lands including a wildlife corridor to the north 	<ul style="list-style-type: none"> includes small areas of parkland that are ranked as highly important to wildlife; includes the Fenland-Indian Grounds wildlife corridor
Fireside <u>FR1</u> 3,5	<ul style="list-style-type: none"> partly developed forested area including the Cave and Basin area <ul style="list-style-type: none"> trail to Cave and Basin trails and boardwalk at Cave and Basin facility also Banff Rocky Mountain Resort area 	<ul style="list-style-type: none"> 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 <u>NY1x</u> 8 <u>NY3</u> 8	<ul style="list-style-type: none"> partly developed steeply sloped forested lands adjacent to the town boundary, on the plateau of Tunnel Mountain, <ul style="list-style-type: none"> trails on Tunnel Mountain partly developed steeply sloped forested lands near Surprise Corner partly developed steeply sloped area with natural forest on the lower slopes of Tunnel Mountain 	<ul style="list-style-type: none"> 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

Table 7.2 Environmental Characteristics of Ecosites in the Class Screening Area – Sub-Class 4 – *Continued*

Ecosection / Ecosite	Development Status	Sensitivities ^(a)
Panorama Ridge <u>PR1</u> 7,8 <u>PR2</u> 6c	<ul style="list-style-type: none"> • sub-alpine ecosite of steeply sloped natural area where Rimrock Hotel, Banff Gondola and Upper Hot Springs are located <ul style="list-style-type: none"> - trails • area largely undeveloped sub-alpine forest 	<ul style="list-style-type: none"> • 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 • ranked as very highly important to carnivores - especially marten, weasel and mink. Deep snow in winter makes it less important for large carnivores
Vermilion <u>VL3</u> 3c <u>VL4</u> 3c	<ul style="list-style-type: none"> • largely undeveloped area of Parkland and Environmental Protection. <ul style="list-style-type: none"> - Recreation Grounds - trails around Recreation Grounds and Bow River • also occurs adjacent to Whisky Creek • fully developed commercial area <ul style="list-style-type: none"> - trails adjacent to river - parkettes located in downtown core 	<ul style="list-style-type: none"> • 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 north of the town • high water table
Wildflower <u>WF1</u> 8	<ul style="list-style-type: none"> • sub-alpine ecosite with areas of steep slopes and exposed bedrock • top of the Banff Gondola is located here 	<ul style="list-style-type: none"> • steep and locally unstable slopes; snow avalanches, shallow soils, steep slopes and rock outcrops can present erosion and re-vegetation issues

7.7 Potential Environmental Effects of the Construction, Modification, Decommissioning and Abandonment of Trails, Parks, Parkettes and Recreation Grounds

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 7.3) has been used to identify which project activities will likely impact which 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 impacts are included in the table.

The highest magnitude potential **pre-mitigated** environmental effects as identified from Table 7.3 include:

- Impact upon wildlife habitat and populations due to the placement of linear corridors in areas used by wildlife, including wildlife movement corridors.

Table 7.3 Matrix of Potential Pre-Mitigation Environmental Impacts from the Construction, Modification, and Decommissioning and Abandonment of Trails, Parks, Parkettes and Recreation Grounds before Mitigation – Sub-Class 4

Activity	CEAA Trigger	Environmental Components					
		Air Quality	Hydrology, Water Quality and Aquatic Resources	Landforms and Soil	Vegetation	Wildlife Habitat and Populations	Aesthetics (Vision, Noise)
Pre-planning							
General							
Construction Activities for Trails							
Clearing of vegetation	✓	—	L	L	L	L-M	L
Preparing base, grading, trail surfacing and installation of fixtures		—	L	L	—	—, L	L
Fence Installation	✓	—	—	—	—	L-M	—
Construction Activities for Parks, Parkettes and Recreation Ground							
Clearing of vegetation		—	L	L	L	L-M	L
Preparing base, grading, surfacing playfields, installation of fixtures		—	L	L	—	—	L
Establishing turf		—	L	—	—	M	P
Landscaping	✓	—	L	—	L	L-M	P
Fence Installation	✓	—	—	—	—	L-M	—
Modification, Maintenance and Repair of Trails, Parks, Parkettes and Recreation Grounds							
Resurfacing (excluding asphalt)		—	L	—	—	—	P
Maintaining fixtures (including irrigation)		—	L	L	—	—	—
Vegetation management (including herbicides)	✓	—	L	—	L	—	P
Winter plowing and sanding		—	L	—	—	L	—
Decommissioning and Abandonment of Trails, Parks, Parkettes and Recreation Grounds							
Reclamation and restoration		—	—	—	P	P	—
General Activities^(a)							
Waste Management		—	—	—	—	P	P
Equipment Operation		L	L	L	L	L	L

Potential Magnitude of Impacts:

- H = High
- M = Moderate
- L = Low
- P = Positive
- = None

^(a) Applies to all activities.

7.8 Mitigation Measures, Guidelines and Standards

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

Table 7.4 provides a summary of typical mitigation measures that should be used to address the potential environmental effects identified in Table 7.3. 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 7.2. Many of these outlined mitigation procedures are currently practised within the Study Area.

Documentation of procedures currently used includes:

- Banff National Park, Directive 17: “Environmental Guidelines for Development Projects”; and
- Town of Banff. No date. “Town of Banff Parks Maintenance Management System”.

Contractors are responsible to be familiar with these recommendations.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds

Activity	Potential Impacts	Mitigation Measures
Pre-Planning		
General activities	Runoff / sedimentation; Soil contamination	<ul style="list-style-type: none"> • 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 7.12 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.
	Wind and water erosion	<ul style="list-style-type: none"> • 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 7.1).
	Compaction of soils	<ul style="list-style-type: none"> • Identify soils susceptible to compaction (fine textured and organic soils). • In sensitive areas, use equipment of low bearing weight, low PSI tires, or tracked vehicles, especially in sensitive sites.
	Habitat loss and fragmentation; or encroachment on wildlife movement corridor	<ul style="list-style-type: none"> • 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 biodegradable flagging tape and/or temporary fences.
	Sensory disturbance and mortality of wildlife	<p>When working adjacent to natural areas:</p> <ul style="list-style-type: none"> • 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 where 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.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds - *Continued*

Activity	Potential Impacts	Mitigation Measures
General activities (continued)	Disturbance of archaeological resources	<ul style="list-style-type: none"> • Determine whether there are archaeological sites in the area (see Figure 7.1). • 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	<ul style="list-style-type: none"> • Use appropriate signage for closed trails, parks, parkettes, and Recreation Grounds (e.g., signage for trail detours during construction/maintenance). • Call utility line companies to identify infrastructure locations (Alberta OneCall: 1-800-242-3447)
	Reduced aesthetics (noise and visual)	<ul style="list-style-type: none"> • 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, periods of low visitation.
Construction of Trails		
Clearing of vegetation	Runoff / sedimentation	<ul style="list-style-type: none"> • Minimize vegetation cover removal and grubbing. • Initiate replanting of disturbed areas immediately after construction is completed. • Halt construction activity on exposed soil during events of high rainfall intensity and runoff and refer to the Sediment and Erosion Control Plan. Periodically inspect erosion control structures for effectiveness.
	Compaction	<ul style="list-style-type: none"> • Restrict vehicles to access routes. • Select appropriate equipment, especially in erosion/slump prone areas (as identified on mapping). In sensitive areas, for example: wide tracked equipment, rubber tired vehicles and low bearing pressure weight equipment can be used.
	Reduced aesthetics	<ul style="list-style-type: none"> • Transport stockpiled material offsite immediately or stockpile cleared vegetation in an area out of view from public until it can be disposed of appropriately.
Preparing base, grading, trail surfacing and installation of fixtures	Runoff / sedimentation (through intermittent drainage pathways including storm sewer systems)	<p>Particularly areas with slope class of 5 (5-15%) or greater and sites close to water (see Figure 7.1).</p> <ul style="list-style-type: none"> • 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.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds - *Continued*

Activity	Potential Impacts	Mitigation Measures
Preparing base, grading, trail surfacing and installation of fixtures (continued)	Wind and water erosion	<p>All Ecosites, especially VL3 and VL4 in steeply sloped areas, and sloped areas with sandy loam/loamy sand soils for water erosion (see Figure 7.1).</p> <ul style="list-style-type: none"> • Protect exposed soils with coarse granular materials, mulches, or straw. • 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.
Fence installation	Barrier to wildlife movement	<ul style="list-style-type: none"> • Evaluate the need for all fences. • Construct fences and orient in such a manner to reduce impacts on wildlife movement (see Figure 7.1). Consult with Parks staff to determine appropriate fence designs and locations (403-762-1416).
Construction of Parks, Parkettes & Recreation Grounds		
Clearing of vegetation; Preparing base, grading, surfacing playfields, installation of fixtures	Runoff/sedimentation; wind and water erosion; Compaction; Reduced aesthetics	<ul style="list-style-type: none"> • See mitigations for “Construction of Trails”.
Establishing turf; Landscaping	Contamination from fertilizers and herbicides	<ul style="list-style-type: none"> • Accurately assess the need for chemicals. Use products and methods recommended in Parks Canada, Management Directive 2.4.1 (1985) The Management of Pesticides. • Minimize use of fast-release fertilizers. • Do not use herbicides in areas where residue may enter a waterbody. • Do not over water.
	Attracting wildlife and causing increased potential for interaction between wildlife and people	<ul style="list-style-type: none"> • Plant Parks-approved grass seed and native non-palatable species (see Appendix C) of trees and shrubs, to discourage wildlife.
	Water erosion	<ul style="list-style-type: none"> • Initiate replanting of disturbed areas within 48 hours after construction is completed.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds - *Continued*

Activity	Potential Impacts	Mitigation Measures
Fence installation	Barrier to wildlife movement	<ul style="list-style-type: none"> See mitigations for “Fence installation” under “Construction of trails”.
<i>Modification, Maintenance and Repair of Trails, Parks, Parkettes and Recreation Grounds</i>		
Resurfacing	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. <ul style="list-style-type: none"> Cover stockpiles with polyethylene sheeting, tarps, or vegetative cover. Minimize vegetation cover removal. If necessary, use bales, vegetative filter strips, and/or sediment traps to control any sedimentation along the trail being resurfaced.
	Wind and water erosion	<ul style="list-style-type: none"> Protect exposed soils with coarse granular materials, mulches, or straw. Use mulch or aggregate to prevent soft areas from turning into large depressions Cover fills or stockpiles of surfacing materials with polyethylene sheeting or tarps.
Maintaining facilities (including irrigation)	Runoff / sedimentation (through intermittent drainage pathways including storm sewer systems)	<ul style="list-style-type: none"> Minimize the time that the excavation remains open during irrigation repairs. If deemed necessary, use site-specific erosion control methods, including bales, vegetative filter strips, and/or sediment traps. Do not schedule work during wet weather
Vegetation management (including herbicide use in parks, parkettes and Recreation Grounds)	Contamination from fertilizers and herbicides	<ul style="list-style-type: none"> Accurately assess the need for chemicals. Use products and methods recommended in Parks Canada, Management Directive 2.4.1 (1985) The Management of Pesticides. Minimize use of fast-release fertilizers. Do not use fertilizers and herbicides in areas where residue or runoff may enter a waterbody or drainage pathway. Do not over water.
	Damage to adjacent vegetation, loss of native vegetation	<ul style="list-style-type: none"> Do not go off-road or trail to remove trees. Chip dead or dangerous trees, stockpile and use for tree beds. Buck remainder of trees to be used as firewood. Dispose of diseased vegetation by burning. Obtain burning permit.
Winter plowing and sanding	Runoff / sedimentation (through intermittent drainage pathways including storm sewer systems)	<ul style="list-style-type: none"> Ensure that sand spreading mechanisms are properly tuned to minimize the use of sand on trails. Train staff in proper use of plowing machinery so adjacent vegetation is not damaged.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds - *Continued*

Activity	Potential Impacts	Mitigation Measures
<i>Decommissioning and Abandonment of Trails, Parks, Parkettes and Recreation Grounds</i>		
Reclamation or restoration	Contamination from accidental spills	<ul style="list-style-type: none"> • Accurately assess the need for chemicals. Use products and methods recommended in Parks Canada, Management Directive 2.4.1 (1985) The Management of Pesticides. • Minimize use of fast-release fertilizers. • Do not use herbicides in areas where residue may enter a waterbody. • Do not over water.
	Erosion (water)	<ul style="list-style-type: none"> • Initiate replanting of disturbed areas within 48 hours after construction is completed. • For every tree removed, plant two native trees.
<i>General Activities</i>		
Waste management (general)	Visual impacts (including viewscapes)	<ul style="list-style-type: none"> • 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.
	Contamination of soil and water from accidental spill or improper disposal	<ul style="list-style-type: none"> • Prepare an appropriate Spill Response Plan. In the event of emergency operations (as defined in Section 7.12 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. • Dispose of contaminated soil at provincially certified disposal sites outside of the Park. Written proof of disposal is required. No treatment of contaminated soils (e.g., bioremediation) is allowed in the Park. • 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.
Equipment operation and maintenance	Decrease in ambient air quality due to emissions	<ul style="list-style-type: none"> • Ensure all equipment is properly tuned, in good operating order, and fitted with standard air emission control devices. • Minimize idling of engines at all times.
	Dust production	<ul style="list-style-type: none"> • Wet down dry and dusty roads. • Do not use oil-based dust suppressants. • Reduce speeds. • Ensure fine materials being stored or transported are covered with tarps or equivalent material.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds - *Continued*

Activity	Potential Impacts	Mitigation Measures
Equipment operation and maintenance (continued)	Soil and water contamination from accidental spills.	<ul style="list-style-type: none"> • Prepare an appropriate Spill Response Plan. In the event of emergency operations (as defined in Section 7.12 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 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 run-off could carry contaminants into drainage pathways (including storm sewers). • 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.
	Compaction of soils	<ul style="list-style-type: none"> • 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, use equipment which minimizes surface disturbance including low ground pressure tracks/tires, blade shoes and brush rake attachments.

Table 7.4 Sub-Class 4: Mitigation for Reducing Impacts of Trails, Parks, Parkettes and Recreation Grounds - *Continued*

Activity	Potential Impacts	Mitigation Measures
Equipment operation and maintenance (continued)	Damage to adjacent vegetation	Undeveloped areas adjacent to development site: <ul style="list-style-type: none"> • 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 entering the surrounding forest.
	Weed invasion	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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 and, if possible, to periods of low visitation.
	Increased traffic levels	<ul style="list-style-type: none"> • Time activities to minimize vehicle conflicts on access roads.

7.9 Residual Impacts

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

The potential residual impacts likely to result from this project 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 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.

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

- Impact upon wildlife habitat and populations from project activities are low to moderate, negative, short-term, intermittent, local and reversible. However, longer-term impacts may result from the location of the trail or park, for example:
 - Sensory disturbance to wildlife in previously undisturbed areas (trails),
 - Fragmentation of habitat and disruption of wildlife movement corridors (trails),
 - Attraction of wildlife to introduced grasses, shrub and tree species (parks), and
 - Increased potential for interaction between wildlife and people (parks and trails).

These impacts are rated as low to moderate, negative, long-term, continuous, regional and irreversible. Due to their location, they are not considered to be significant.

7.10 Malfunctions and Accidents

The likelihood of accidents and malfunctions occurring that would cause negative environmental impacts is minimal, as the activities associated with construction, modification, maintenance and repair, decommissioning and abandonment of trails, parks, parkettes and recreation sites are routine and their effects predictable. There are no examples of unlikely accidents or malfunction.

7.11 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 under Table 7.4.

7.12 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.

7.12.1 *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 7.14.

7.12.2 *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.

7.13 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.

7.13.1 *On-site Monitoring and Auditing during Construction*

The Town of Banff is the proponent for trails and parks 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.

For routine maintenance and repair projects, an on-site monitor will also be necessary to ensure construction practices comply with MCSR mitigations. However, 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 *for routine maintenance and repair projects only*.

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.

7.13.2 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.

7.13.3 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 4 projects include:

- The spatial loss of habitat and disruption of wildlife movement corridors (see Pope, Wendy. 2001. *Wildlife Corridors Around Developed Areas in Banff National Park. Progress Report Winter 2000/01*. Prepared for Parks Canada);
- Impacts to vegetation and soils from trail proliferation within the town (see Highwood Environmental Management. 2002. *Baseline Monitoring Report for Trails in the Town of Banff: An Ecological Indicator for the Town of Banff's Environmental Management Project*. Report 3 of 6.)

Long-term trends identified from such programs will enable future impacts to be more accurately predicted, and management procedures to be implemented. It is recommended that the Town of Banff continue the trails monitoring program and consider implementation of management recommendations.

7.14 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-4.

Form A-4 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-4, 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-4 being submitted, or notification of reclassification will be provided within 14 calendar days.

7.14.1 Completing Form A-4

Form A-4 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 Street
P.O. Box 1260
Banff, Alberta
T1L 1A1
Phone (403) 762-1215
- CEAA Coordinator
The Banff National Park Warden's Office
Hawk Avenue
P.O. Box 900
Banff, Alberta
T1L 1K2
Phone (403) 762-1416

7.15 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-4
Sub-Class 4: Trails and Parks**

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 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 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
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This CSPR form is to be completed by the project proponent or the proponent’s authorized agent for proposed trail or park 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 Trails Projects (Table 7.4)
- **Attachment 2:** Map of Wildlife Corridors, Ecosites, and Archaeology (Figure 7.1)
- **Attachment 3:** Potentially Sensitive Sites in the Class Screening Area (Appendix B)

SUB-CLASS 4: TRAILS AND PARKS

Projects included in Sub-Class 4 include construction, modification, maintenance or repair, and decommissioning and abandonment of trails and of parks, parkettes and the Recreation Grounds.

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 trail, park, parkette or recreational grounds | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| ii. The decommissioning of an existing trail, park, parkette or recreational grounds. | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| iii. The modification, maintenance or repair of an existing trail, park, parkette or recreational grounds. | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| iv. The issuing of a new lease or right-of-way. | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
- b. If your project requires excavation will it be (check all that apply)
- | | | |
|--|------------------------------|-----------------------------|
| i. For geotechnical investigation? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| ii. For post holes only? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| iii. Outside the footprint of an existing site? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| iv. Will the excavated material be re-used on site? | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| v. What is the total quantity of material to be excavated? (specify units) | | _____ |

SECTION 2: LOCATION OF PROJECT

This section is designed to determine if your projects fits into Sub-Class 4 (Trails and Parks) of the Model Class Screening Report (MCSR).

2. a. Is your project located inside the town of Banff boundary? If yes, please provide:

Street Address:

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

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 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 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-4 (below)? YES NO
- g. If you answered **YES** to 3(f), briefly describe those impacts not already identified. Attach a separate sheet to this form, if necessary.

Table SC-4: Potential environmental effects from trails, parks, parkettes and recreation ground 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, above, 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.

8.0 REFERENCES

- Alberta Environment (AENV). 1995. Environmental Protection Guidelines for Electric Transmission Lines. Conservation and Reclamation Information Letter 95-2.
- Axys Environmental Consulting Ltd. and David Walker and Associates. 1998. Best available methods for common leaseholders activities. Prepared for Line Leaseholders Working Group, Jasper National Park.
- Alberta Transportation and Utilities. 1995. Standard Specification for Highway Maintenance. Edmonton, Alberta.
- Delcan Corporation. 1989. Environmental Standards For Road Maintenance Functions in National Parks. Submitted to Natural Resources Branch, Canadian Parks Service, Environment Canada.
- Environment Canada and Health Canada. 2001. Canadian Environmental Protection Act. Priority Substances List Assessment, Road Salt. Canadian Environmental Protection Act, 1999.
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APPENDIX A

DESCRIPTION OF THE TYPICAL ENVIRONMENT

DESCRIPTION OF THE TYPICAL ENVIRONMENT

The typical environment has been described at two levels:

- Regional setting and ecological land classification, and
- Local setting.

1.1 Regional Setting and Ecological Land Classification

The town of Banff is located in Banff National Park within the Front Ranges of the Rocky Mountains, at an elevation of 1384 m (4540 ft) asl. The town covers an area of 3.94 km² and falls within the Lower Bow Valley watershed. It is located on the flood plain of the Bow River, near its junction with the Spray River, surrounded by the mountains of the Front Ranges, with the flanks of Tunnel Mountain falling within the town boundaries.

The Ecological (Biophysical) Land Classification (Holroyd and Van Tighen, 1983; Holland and Coen, 1982) presents landform and soil, vegetation and wildlife information mapped at a scale of 1:50 000, with increasing levels of detail progressing from Ecoregion, to Ecosection and Ecosite. Ecoregions are based primarily on vegetation, which reflects microclimate, and are divided into Ecosections which are based on broad landform, drainage and soil characteristics. Ecosections are further divided into ecosites, which are based on specific soil and vegetational differences. Ecosites found in the Study Area are shown in Figure 4.2 and listed in Table A.1.

The Montane Ecoregion is found at the lowest elevation in the Banff National Park (1350 to 1600 m) and is characterized by vegetation types dominated by:

- Douglas fir and white spruce,
- Aspen poplar, and
- Grasslands on the driest sites.

While white spruce and Douglas fir are the climax species, lodgepole pine and aspen poplar forests dominate the area in and around the town of Banff. The lodgepole pine forests are a result of extensive fires around the turn of the century. The grasslands contain a variety of native and introduced species and species dominance varies with the edaphic and topographic conditions. Wetlands are also a major part of the Montane Ecoregion in this area (Leeson and Harrison 1988).

The Montane Ecoregion comprises 2.9% of Banff National Park of which 77.4% is in the Bow River valley, where town of Banff's facilities are concentrated. The very high importance of the Montane Ecoregion to wildlife, its limited extent and the concentration of developments in this region create wildlife management problems.

The Subalpine Ecoregion which occurs at elevations above the Montane is cooler and moister, and is divided into the Lower and Upper Subalpine. The dominant vegetation in the Lower Subalpine is closed coniferous forest, with mature forests dominated by Engelmann spruce and subalpine fir. The upper boundary is about 2000 m elevation. The Upper Subalpine vegetation is

transitional between the Lower Subalpine closed forest and the treeless Alpine tundra, with open forests and stunted tree growth common.

1.2 Local Setting

For the purposes of this report, the setting has been divided into a number of components, including air quality, hydrology, water quality and aquatic resources, landforms and soils, vegetation, wildlife habitat and populations, heritage resources, socio-economic and aesthetics.

1.2.1 Air Quality

Air quality within the town has not been dramatically affected by development to date, but is deteriorating due to both local activities and long-range atmospheric transport. Local activities contributing to this decline include emissions from local and highway vehicular traffic, residential and commercial heating units, and particulate from campfires in summer, and wood-burning stoves and fireplaces during the winter.

Combustion sources typically result in emission of oxides of nitrogen (NO_x), carbon monoxide (CO), volatile hydrocarbons (VOCs) and particulate matter (PM). Ambient PM concentrations can be relatively high in smaller communities, especially those located in mountain valley settings. PM<2.5µm in diameter is of particular concern because this is the respirable size range. Vehicle emissions and wood burning stoves, campfires and fireplaces contribute to this level. The Town of Banff has initiated an air-monitoring program within the town, which includes PM_{2.5}, hydrocarbon gases and volatile organic compounds. For more information, see the following report:

- Highwood Environmental Management and URS Corporation. 2002. 'Baseline Monitoring Report for Air Quality in the Town of Banff. An Ecological Indicator for the Town of Banff's Environmental Management Project. Report 1 of 6.'

1.2.2 Hydrology, Water Quality and Aquatic Resources

The town is located on the banks of the Bow River which originates from the glacier and icefields above Bow Lake, approximately 130 km northwest of Banff. The average gradient between Bow Lake and Banff is just over 5 m/km. Other streams in the area include the Spray River, Cascade River, Echo Creek, Forty Mile Creek and Whiskey Creek. Several lakes also occur in the area including the Vermilion Lakes, Two Jack Lake and Johnson Lake. There are at least six sites of hot springs in the area including the Cave and Basin and the Upper Hot Springs, which are associated with the Sulphur Mountain fault zone.

Near the town of Banff, wetlands occur in the Vermilion Lakes-Fenland area, in the Middle Springs and Cave and Basin area, as well as behind the Banff Springs Hotel, on the lower slopes of Sulphur Mountain. These wetlands contain a wide diversity of vegetation types.

Both the hamlet of Lake Louise (upstream) and the town of Banff discharge treated effluent into the Bow River, which impacts the water quality. Coliform and bacterial levels are monitored on a regular basis by both Banff National Park and the Banff Health Unit. Results fall within

Canadian and Alberta Water Quality Standards. The Town of Banff recently upgraded its wastewater treatment plant. The Town has also initiated a monitoring program, including Bow River and effluent from the wastewater treatment plant. Baseline results are available in the following reports:

- 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.
- Highwood Environmental Management. 2002. Baseline Monitoring Report for Effluent Quality of the Banff Wastewater Treatment Plant. An Operational Indicator for the Town of Banff's Environmental Management Project. Report 6 of 6.

Phosphorus levels increase below Lake Louise, likely resulting in increased benthic algae. Increased concentrations of sodium have also been observed, possibly caused by road salt used for highway maintenance by Parks Canada.

Four species of game fish are native to Banff National Park: Westslope Cutthroat Trout, Bull Trout, Mountain Whitefish and Lake Trout. Of these, the Westslope Cutthroat and the Bull Trout are threatened and becoming rare. Introduced fish in the Banff National Park include Yellowstone Cutthroat Trout, Rainbow Trout, Brown Trout, Brook Trout and Cisco. A number of smaller fish species, both native and introduced also occur. The Banff Longnose Dace, an endemic subspecies, is endangered. Three species of tropical fish introduced to the Cave and Basin Hot Springs are also of interest.

1.2.3 Landforms and Soils

The landforms for the area are glacial and fluvial in origin. The town is located at the junction of the Bow and Spray Rivers, and the majority of the town is located on fluvial plain, surrounded by peaks including Tunnel, Sulphur and Cascade mountains. Soils within the town are primarily of glaciofluvial origin, with medium to coarse textured Eutric Brunisols predominating. The geology of the area is characterized by highly faulted rock layers, primarily of limestone.

In the low lying floodplain areas, exposed soils developed from fluvial parent material, especially of loamy sand or sandy loam texture, are susceptible to wind erosion. Exposed finely textured soils are susceptible to dust generation when disturbed. On longer, steeper slopes, especially where shallow soils overlay bedrock, exposed soils of moraine parent material are susceptible to water erosion.

Slopes within the town are typically < 5%, except on the lower slopes of Tunnel Mountain and Sulphur Mountain, where slopes range up to 15% in residential areas, and up to 70% in the Banff Centre Commercial Area.

1.2.4 *Vegetation*

Much of the natural vegetation within developed areas of the town has been removed or altered as a result of development. In many instances, introduced species have been used to replace the natural vegetation.

The natural vegetation is characterized by both forest and grassland communities, both of which are distinct components of the Montane ecoregion. The area outside the town and undisturbed areas within the town are dominated by lodgepole pine and aspen poplar forests, many of which are a result of extensive fires around the turn of the century. Most of the aspen stands within the town have been removed by development activity.

Areas of native grassland are found to the north of the town, but not within the town boundaries due to disturbance from development.

There are areas of unique old growth forest within the town boundary. In the Commercial Services District (Industrial Compound) area, 240-year-old white spruce are found beside Whiskey Creek. Douglas fir up to 22 m in height and more than 350 years old are found on Tunnel Mountain Road, overlooking Bow Falls. Other unique species found within the town include vertical juniper and limber pine. The Town of Banff is monitoring native vegetation within the town. Baseline results are available in the following report:

- 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.

1.2.5 *Wildlife Habitat and Population*

The Montane Ecoregion is an important habitat for ungulates and carnivores, providing grazing opportunities during the summer, and cover and low snow depth during winter. The lower Bow Valley is an important corridor for animal movement.

The variety of habitat types in and around the town of Banff provides for a diversity of wildlife, including a number of small mammals, beaver, and ungulates such as mule deer, white-tailed deer, elk, moose, bison and big-homed sheep. Carnivores and omnivores include coyotes, wolves, some wolverines, lynx, cougar, black bear and grizzly bear.

The Lower Bow River watershed is used by every species of ungulate occurring in Banff National Park except Woodland caribou. It includes a major winter range for elk and mule deer and is also used in winter by bighorn sheep. Moose and mountain goat are uncommon.

Mule deer winter in the Lower Bow River valley on forested south-facing slopes and the slopes of Tunnel Mountain, as well as along the edges of the Bow River floodplain. Moose were formerly common in the Vermilion Lakes but are now uncommon. Although white-tailed deer are rarely seen, the Lower Bow River is one of the few parts of Banff National Park where they occur regularly in small numbers.

The Montane grasslands provide habitat for numerous species of birds such as the calliope hummingbird and the upland sandpiper. Raptors recorded in the area include the sharp-shinned hawk, bald eagle, goshawk, red-tailed hawk and osprey.

Until the early twentieth century, numerous fires burned in the Lower Bow Valley, creating extensive areas of good ungulate range. As fire control within Banff National Park increased, the maturing of these fire successional forests has resulted in a steady decline in the extent and quality of ungulate range since the middle of the century.

A limited number of frog and toad species, salamanders and the wandering garter snake are also found in the area.

A number of wildlife corridors have been identified around the Class Screening Area (Figure 4.2).

1.2.6 Heritage Resources

The primary heritage resources in the town of Banff are historical buildings and archaeological sites. A list of nationally recognized heritage buildings within the CSA is shown in Table A2. Figure 4.2 provides locations of all known archaeological sites.

The primary heritage resources in the town of Banff are historical buildings and archaeological sites. A list of nationally recognized heritage buildings within the Class Screening Area is shown in Table A.2. Figure 4.2 provides locations of known archaeological sites.

In accordance with the Town of Banff Heritage Resource Policy, the Town of Banff maintains a record of all buildings, structures, cultural landscapes, archaeological sites, and natural areas located within the town boundaries. The Town of Banff Heritage Corporation has completed an evaluation and assessment of all resources older than 40 years old in the Town's database in order to determine their eligibility for inclusion in the Town of Banff Registry of Recognized Heritage Resources. Resources may be evaluated as "A", "B", or "C", heritage resources as follows:

- "A" level resources have the highest heritage value and are the community's most important heritage resources;
- "B" level resources have high heritage value and are the community's important heritage resources that reinforce the historic character of "A" ranked resources; or
- "C" level resources have moderate heritage value that complement the character of "A" and "B" level resources and reinforce the historic interest, texture and character of the community.

In order to be included in the Town of Banff Registry of Recognized Heritage Resources, a resource must be identified as having heritage value and/or heritage character and evaluated as an "A", "B", or "C" resource. Presently, the registry contains 36 "A", 9 "B", and 3 "C" level resources. The registry is voluntary in that a resource owner must authorize the inclusion of the resource in the registry. The registry is used for planning purposes and provides no legal

authority to preserve or restrict development of a resource. Non-financial conservation incentives are only available to those resources included in the registry. A resource included in the registry may also be eligible for designation as a Municipal Historic Resource in accordance with the *Alberta Historical Resources Act*. Presently, there are four resources (one commercial, three residential) in Banff that have been designated and legally protected as Municipal Historic Resources.

1.2.7 *Socio-Economics*

Increased demand for tourism facilities has placed development pressure upon the Town to accommodate additional visitors, thereby placing additional pressure upon the Town infrastructures, including: water and waste water treatment facilities, provision of power, roads, waste management and tourist facilities.

An increased labour pool is also required to provide tourist services, and the provision of affordable residential accommodations for this group has become a concern.

Under CEAA, only those socio-economic effects that result directly from environmental effects need to be addressed in environmental assessment. In Banff, for example, if poor water quality began to affect fishing and consequently tourism, the socio-economic effects of poor water quality would need to be considered. To date this is not the case, therefore socio-economic issues do not need to be considered in this MCSR.

1.2.8 *Aesthetics*

Negative visual impacts are caused in Banff by reduced air quality (from wood smoke and vehicular emissions), interrupted or impacted viewsapes (from intrusive and/or visually inappropriate development) and/or increased traffic levels. Increased noise levels can result from increased levels of development. Visual and noise effects, as well as increased numbers of tourists, could result in a decrease in the "wilderness experience", which is frequently the aim of visitors to Banff.

Table A.1 Ecosites identified in the local study area

Location	Ecosection	Ecosite	Characteristics ^(a)
Inside the Town of Banff	Athabasca	$\frac{AT1}{3c}$	Montane, fluvial, pine/buffaloberry Complex slope 0 to 5%
	Hillsdale	$\frac{HD2}{3}$	Montane, fluvial, open white spruce Slope 0 to 5%
	Fireside	$\frac{FR1}{5}$	Montane, fluvial, pine/buffaloberry Slope 5 to 15%
	Norquay	$\frac{NY1X}{8}$	Montane, morainal, Douglas fir, pine/buffaloberry, lithic Slope 45 to 70%
		$\frac{NY3}{8}$	Montane, ice contact stratified drift, wet herb meadow, cottongrass fen sedge fen Slope 45 to 70%
	Patricia	$\frac{PT1}{5c}$ $\frac{PT1}{6c}$ $\frac{PT1}{7}$ $\frac{PT5}{5c}$	Montane, morainal, pine/buffaloberry Complex slope 5 to 15% Montane, morainal, pine/buffaloberry Complex slope 15 to 30% Montane, morainal, pine/buffaloberry Slope 30 to 45% Montane, morainal-fen, mesic pine, pine/buffaloberry, black spruce-pine, open spruce Complex slope 5 to 15%
Vermilion	$\frac{VL3}{3c}$	Montane, fluvial. White spruce > wet shrubby meadows, wet shrub thicket Complex Slope - 0 to 5%	
	$\frac{VL4}{3c}$	Montane, fluvial, White spruce Complex Slope - 0 to 5%	
Outside the Town of Banff • Upper Hot Springs • Rimrock Hotel • Banff Gondola (base)	Panorama Ridge	$\frac{PR1}{8}$	Lower subalpine, morainal, lodgepole pine/false azalea/grouseberry Slopes 45 to 70%
• Banff Gondola route	Sawback	$\frac{SB3}{8}$	Lower subalpine colluvial, lodgepole pine/juniper/bears berry Slopes 45 to 70%
	Wildflower	$\frac{WF1}{8}$	Upper subalpine, colluvial, Engleman spruce - subalpine fir/grouseberry Slopes 45 to 70%

Location	Ecosection	Ecosite	Characteristics ^(a)
• Tunnel Mountain Campgrounds	Patricia	$\frac{PT1}{5c}$	Montane, morainal, pine/buffaloberry Complex slope 5 to 15%
• Timberline Lodge	Patricia	$\frac{PT1}{6c}$	Montane, morainal, pine/buffaloberry Complex slope 15 to 30%
• Mt. Norquay (including access road)	Patricia	$\frac{PT1}{6c}$	Montane, morainal, pine/buffaloberry Complex slope 15 to 30%
	Norquay	$\frac{NY1}{8}$	Montane, morainal, Douglas fir/pine/buffaloberry Slope 45 to 70%
	Panorama Ridge	$\frac{PR2}{6c}$	Lower subalpine, morainal, pine/buffaloberry Complex slope 15 to 30%
• Banff Rocky Mountain Resort	Fireside	$\frac{FR1}{3}$	Montane, fluvial, pine/buffaloberry Slope 0 to 5%

^(a) Characteristics include ecoregion, parent material, vegetation and slope

Table A.2 Federally-designated heritage buildings

Heritage Building ^(a)	Designation
Administration Building and Gardens	Recognized Federal Historic Building
Banff Springs Hotel	Recognized Federal Historic Building
Cave and Basin Bathing Pavilion	Classified Federal Historic Building
Claremount House, Middle Springs	Recognized Federal Historic Building
CPR Station	National Historic Railway Station
Information Building	Recognized Federal Historic Building
Natural History Museum	Classified Federal Historic Building
Superintendent's Residence	Recognized Federal Historic Building
Banff Firehall	Recognized Federal Historic Building
Upper Hot Pool Caretaker's Cottage	Recognized Federal Historic Building

Source: Bernard, Pacas and Marshall (1995). State of the Banff-Bow Valley

^(a) Locally recognized Heritage Buildings have been documented by the Town of Banff Heritage Corporation.

APPENDIX B

POTENTIALLY SENSITIVE SITES IN THE CLASS SCREENING AREA

POTENTIALLY SENSITIVE SITES IN THE CLASS SCREENING AREA

The following represents sites that are potentially sensitive to disturbance. Considerations of these sensitivities should be included in future development plans.

1. General Wetlands and Riparian Habitats

Whiskey Creek and associated springs. Middle Springs Creek and associated springs, Bow River, Forty Mile Creek, Forty Mile/Echo/Whiskey Creek/CPR 'Y' Wetlands, Discharge zones along the toe of Sulphur Mountain, Stables Wetlands (Recreation grounds to Cave and Basin).

2. Sand Dune and Beach Ridges

Fenland, Recreation Centre lands, lands including the train station and extending into residential areas SE of the station into downtown blocks past Rundle Church. Rocky Mountain Resort/new corrals/Brewster Doughnut Area.

3. Stream Levees

Bow River, Forty Mile/Echo Creek

4. Fish Spawning Sites

Forty Mile Creek, Bow River, Whiskey Creek, CPR 'Y'

5. Waterfowl Habitat

Whiskey Creek behind Cougar Street, Bow River, Forty Mile/Echo/Whiskey Creek/CPR 'Y' Wetlands, Stable Wetlands.

6. Beaver Habitat

Potential beaver habitat should be identified and projects designed to minimize the disruption of habitat. Potential sites include the CPR 'Y' and associated lands, Whiskey Creek, Fenlands, Bow River Levees, Horse Bams/Cave and Basin Wetlands.

7. Avifauna

Some parts of the class screening area are used by breeding and migrating birds. The most significant bird habitat is the shrub/wetland area on the Bow River flood plain adjacent to the Recreation Area (Edwards 1988). Other sites should also be reviewed.

8. Vegetation

Disturbance of the following species should be avoided whenever possible:

- Limber Pine: Tunnel Mountain, Hoodoos.
- Douglas Maple: North slope of Tunnel Mountain.
- Douglas Fir: most dry forested sites.

- Aspen: various locations.
- Balsam Poplar: various locations, especially in the vicinity of stable wetlands.

9. Viewpoints/Viewscapes

Surprise Corner, Bow River views, views from the Banff Springs Hotel, Mt. Norquay and Tunnel Mountain Drive.

10. Incidentals

- Fossils: sites should be surveyed for the presence of fossils; known and potential sites include Norquay Road, Bow Falls outcrops. Tunnel Mountain trail, Mt. Rundle talus rocks near the climbing practice rock and the landscaping rock in the recreation grounds play areas. Any exposure/application of "Rundle Rock" should be examined for fossils.
- Glacial Deposits: evidence of glacial and periglacial activity should be preserved as interpretive features. Features include: flutings along upper Tunnel Mountain Trail; till and outwash exposure at Grizzly Street; and outwash gravels at Compound Road turnoff from Banff Avenue.
- Bedrock Exposures offer an opportunity to interpret the geologic history of Banff National Park. Potential sites include: Bow Falls areas. Tunnel Mountain, Drive rock cuts; Buffalo Street; Norquay Road; and. Vermilion Lakes Drive older stone fences.
- Historical features sites should be reviewed for potential historical/archaeological features.

APPENDIX C

GRASS SEED MIXTURE FOR LANDSCAPE REHABILITATION

GRASS SEED MIXTURE FOR LANDSCAPE REHABILITATION^(a)

Species	Variety	%
Agropyron riparium “Sodar”	Western Wheat Grass	25
Agropyron smithii, common	Awned Wheat Grass	25
Agropyron subsecundum	Slender Wheat Grass	20
Festuca ovina “Nakista”	Hard Fescue	5
Koeleria macrantha (crinata)	June Grass	5
Lolium perenne	Perennial Rye Grass	5
Poa alpina	Alpine Bluegrass	15

^(a) Apply at a rate of 55 kg per hectare, working into soil or hydroseeding.