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Sent: Friday, January 12, 2024 11:20 AM

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Subject: Revised Corridor Bylaw from Muni-Corr for Council to adopt

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Hi Al,

Muni-Corr has been working for the last two years on revising the Corridor Bylaw with input from the ten municipal partners and Riverland Recreational Trail Society. The original bylaw was passed in 2007 by each municipality with the only variation being posted speed limits. I have attached the new bylaw and a copy of the Alberta Recreation Corridor & Trails Classification System manual which is referenced in Section 2(m).

The most significant changes to the bylaw include:

- a) Introducing a fine for overnight camping in the corridor outside of a designated area or without a permit (letter of authorization).
- b) Allowing off road motorbikes (ORM) access. Note that dirt bikes/moto cross bikes are still not allowed as per the OHV Regulations definition of an ORM and the same goes for highway motorbikes.
- c) Exclusive tracked use and non motorized use from January 1st to March 31st each year.

At this time, we would like to ask the M.D. of Bonnyville council to adopt the new Corridor Bylaw to replace the existing one.

If you have any questions or need clarification, please let me know.

Thanks.

Marianne Janke

Executive Director

Alberta's Lakeland Destination Management Organization (DMO)

Alberta's Iron Horse Trail

North East Muni-Corr Ltd.

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BYLAW NO. (insert #)

BEING A BYLAW OF THE (MUNICIPALITY), IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF REGULATING USE OF THE CORRIDOR OWNED BY NORTH EAST MUNI-CORR LTD.

WHEREAS s.7 of the Municipal Government Act (Alberta), as amended, provides that a Municipality may pass bylaws respecting the safety, health and welfare of people and the protection of people and property, and

WHEREAS the Traffic Safety Act, RSA 2000,c. T-6, authorizes a Municipal Council to pass Bylaws to regulate the operation of Off Highway Vehicles and regulate vehicle, animal and pedestrian traffic, within the Corporate Limits of the Municipality.

NOW THEREFORE the Council of the (Municipality) in the Province of Alberta, duly assembled, enacts:

CITATION

1. a) This Bylaw may be cited as the (Municipality) “Corridor Regulation Bylaw”.

DEFINITIONS

2. a) “Chief Administrative Officer” shall mean the individual who holds that position for the (Municipality) at any given time and includes any person authorized to act for and in the name of that individual.
- b) “Council” means the Council of the (Municipality) in the Province of Alberta.
- c) “County or Town.” means the (Municipality) in the Province of Alberta.
- d) “Muni-Corr” shall mean North East Muni-Corr Ltd. a body incorporated in Alberta under Part 9 of the Companies Act of Alberta.
- e) “Hunting” shall mean the capturing or killing, or attempted capture or killing, of animals by means of traps, nets, firearms, bow and arrow, or other such similar means.
- f) “Camping” shall mean staying overnight within the corridor in a tent, RV, holiday trailer, motor home or any other shelter or structure.
- g) “Peace Officer” shall mean a member of the Royal Canadian Mounted police, Municipal Police Service, Special Constable Service, Provincial Conservation Officer, Bylaw Enforcement Officer and the (Municipality) Chief Administrative Officer.
- h) “Corridor” shall mean the abandoned Railway Right-of-Way owned by Muni-Corr and under the joint care and control of the (Municipality) as per this Bylaw and the North East Muni-Corr Ltd. Master Agreement. This shall include any “Rest stops”, “Staging areas” or additional “Lands”.
- i) “Trail” means the semi-developed middle 33 feet of the corridor

which is leased by Riverland Recreational Trail Society and operated as Alberta's Iron Horse Trail.

- j) "Usage Control Device" shall mean any sign, signal, marking or device placed, marked or erected under the authority of this Bylaw for the purpose of regulating, warning or prohibiting use of the Corridor.
 - k) "Trailer" means any device that is attached to or drawn by a Vehicle including but not limited to a towing trailer, tent trailer, camper, holiday trailer, and includes machinery or equipment used in construction or farming.
 - l) "Motor Vehicle" shall mean a Motor Vehicle as defined in Section 1(1) of the Traffic Safety Act R.S.A. 2000-C.T.6.
 - m) "Off Highway Vehicle" shall mean a Motor Vehicle as defined in Section 117 of the Traffic Safety Act R.S.A. 2000 C.T-6. that does not exceed 1.65 m in overall width as defined in the Alberta Recreation Corridor & Trails Classification System, B.i. B1 to B3(s).
 - n) "Weapon" means including, but not limited to, a rifle, shotgun, pistol, handgun, target pistol, air rifle, pellet gun, hunting bow, cross bow, sling shot, and paint ball gun.
 - o) "Mixed-Use" means a combination of non-motorized and motorized users on the same trail with exclusive tracked OHV use and non-motorized use from January 1st to March 31st and OHV and non-motorized use from April 1st to December 31st.
 - p) "Permit" means a letter of authorization from Muni-Corr for access to the Corridor lands.
3. Words importing the masculine gender only, include the feminine gender whenever the context so requires and vice versa.
 4. Words importing the singular shall include the plural or vice versa whenever the context so requires.

REGULATION OF USE

5. Except as otherwise set out in this Bylaw, Council hereby delegates to the Chief Administrative Officer the authority to regulate and control the use of the Corridor as defined in this Bylaw.
6. Unless required or permitted by this Bylaw or by a Usage Control Device, or in compliance with the directions of a Peace Officer, a Person shall not stop, park, or operate a Motor Vehicle, or, an Owner, permit his Vehicle to be stopped, parked or operated, on the Corridor.
7. Unless required or permitted by this Bylaw or by a Usage Control Device a Person shall not park or leave a Trailer on the Corridor or, an Owner permit his trailer to be parked on the Corridor.
8.
 - a) The Chief Administrative Officer is hereby delegated the authority to prescribe where Usage Control Devices, either permanent or temporary, are to be located. The Chief Administrative Officer shall cause such devices to be placed such that they are clearly recognizable in all reasonable light and weather conditions.
 - b) Usage Control Devices authorized by the Chief Administrative Officer as delegated pursuant to s. 8(a) hereof, shall be

deemed to have been made by bylaw of the (Municipality).

9. a) No person shall make or place an obstruction of any kind in, upon or above the Corridor or place any building or structure of any nature in a manner that encroaches upon any portion of the Corridor unless permission has been granted by Muni-Corr and upon such terms and conditions as he deems necessary.
 - b) Every person who fails to obtain permission or comply with the conditions attached thereto shall be guilty of an offence and shall, in addition to any other penalty, cause the removal of the obstruction or encroachment within the time frame indicated after being notified to do so by Muni-Corr. After the expiration of the said time frame, Muni-Corr may cause the removal of the obstruction or encroachment and such removal shall be at the expense of the person causing, placing or permitting the obstruction or encroachment of the Corridor.
 - c) Where an obstruction or encroachment of any kind exists in, upon, or above any Corridor and, in the opinion of Muni-Corr it creates an unsafe condition, Muni-Corr shall be entitled to take such measures as are required for the protection of life or property.
- 9.1 No person, shall hunt or discharge any weapon on or over the Corridor.
- 9.2 No person shall camp overnight in the Corridor unless it is in a designated area or a permit has been obtained from Muni-Corr as outlined in Section 12.
- 9.3 Fires are allowed in designated fire pits only and the use of a fire is subject to Municipal and Provincial fire ban regulations.
- 9.4 Except as provided for in Section 11, motor vehicles are not permitted on the Corridor.
- 9.5 Off Highway Vehicles, are permitted to be operated on the Corridor provided they comply with the following rules of the road:
- a) Registered in accordance with the Traffic Safety Act, RSA 2000, C.T-6.
 - b) Insured, including liability insurance, in accordance with the Traffic Safety Act RSA 2000, C.T-6.
 - c) Operated with consideration for the other users of the Corridor.
 - d) Operated in such a manner so as to only cause minimal disturbance to persons residing adjacent to the Corridor.
 - e) Operated in such a manner so as not to disturb, harass, injure or kill any livestock located adjacent to or within the Corridor.
 - f) Operated at a speed, that considering the circumstances, is reasonable.
 - g) Operated in a manner, that considering the circumstances, is not careless.
 - h) Yielding the Right of Way to other users of the Corridor, who are not operating Off Highway Vehicles.

- i) Moving to the right side of the Corridor when encountering approaching Off Highway Vehicles.
- j) When crossing a Highway that intersects with the Corridor, following the rules laid out in the Traffic Safety Act, RSA 2000, C.T-6, Section 120(3).
- k) Park in a manner so as not to obstruct the Corridor or its access points or intersections with any Highway, and not inconvenience or prevent the use of the Corridor by any other persons.
- l) Follow all aspects relating to Off Highway vehicle use in accordance with the Traffic Safety Act, RSA 2000, C.T-6 and its regulations.

9.6 The Trail is Mixed-Use allowing exclusive use for tracked OHV and non-motorized users from January 1st to March 31st and OHV and non-motorized users from April 1st to December 31st.

- 9.7 No person shall place, permit to be placed, or throw any substance, or thing of any kind, on the Corridor or property located adjacent to the Corridor.
- 9.8 No person shall climb, deface, or interfere with any structure, trees, protection system, or utility located on or adjacent to the Corridor.
- 9.9 No person shall willfully remove, throw down, deface, alter, damage or destroy a Usage Control Device, placed, marked or erected on, or adjacent to, the Corridor.
- 9.10 No person shall conduct himself or otherwise position himself on the Corridor in such a manner as to obstruct or inconvenience any other user of the Corridor.

POWERS OF PEACE OFFICERS

- 10. a) Any Peace Officer is hereby authorized to remove or cause to be removed any Motor Vehicle, or Trailer parked in contravention of this Bylaw.
- b) Any such Motor Vehicle, or Trailer may be removed to a place designated by the Peace Officer where it will remain impounded until claimed by the owner thereof or his authorized agent.
- c) The Towing away of the Motor Vehicle, or trailer shall be in accordance with the Towing and Impound Laws contained in the Traffic Safety Act, RSA 2000, C.T-6.
- d) In the event that an owner of a Motor Vehicle, or Trailer does not claim such Motor Vehicle or Trailer, the storage and removal charges may be collected by the Tow Company pursuant to the provisions of the Traffic Safety Act, RSA 2000, C.T-6.

EXCEPTIONS

- 11. Where, considering the circumstance, it is reasonable and safe, the following groups may operate motor vehicles on the Corridor when required to do so:
 - a) Emergency Motor Vehicles and Off Highway Vehicles including, ambulance services, fire department, search &

rescue, emergency aircraft, vehicles being operated by on duty Peace Officers or trail groomers.

- b) Motor Vehicles used in conjunction with the servicing of public utilities including but not limited to telephone systems, electric systems, natural gas systems and Cablevision systems to whom a permit has been issued by Muni-Corr as outlined in Section 12.
- c) Municipal and other government public works Motor Vehicles and Off Highway Vehicles.
- d) Towing service Motor Vehicles.
- e) Owners of land adjacent to the Corridor to whom a permit has been issued by Muni-Corr as outlined in Section 12.
- f) Any other individual to whom a permit has been issued by Muni-Corr.

PERMITS

- 12. a) To obtain a permit pursuant to Sub-Sections 9.2, 11(b), 11(e) and (f) of this Bylaw, an application must be made to Muni-Corr.
 - b) Muni-Corr may refuse to grant the permit with such terms and conditions, as he deems necessary.
 - c) Muni-Corr may grant the permit for a specified date or may allow a permit of indefinite duration.
 - d) Muni-Corr may grant a permit for a Special Event for a specified date or may allow a permit of indefinite duration.
 - e) Any applicant requesting a permit under subsection (a) hereof shall make an application in writing to Muni-Corr providing the following information:
 - (i) The description and registration information for the Vehicle or Trailer to be parked or operated on the Corridor.
 - (ii) The location of the Corridor the applicant wishes to access.
 - (iii) The date on which the applicant proposes to access the Corridor the applicant is requesting a permit of specific duration.
 - (iv) The purpose for which access to the Corridor is requested.
 - (v) Such other information as may be required.
13. Coincident with issuance of the permit, the applicant shall enter into an agreement to indemnify the (Municipality) and Muni-Corr. for any and all damages caused to the Corridor or any works made or done over, upon or under the same, as a result of the use of the Corridor pursuant to a permit.
14. Muni-Corr may in writing alter, suspend or revoke a permit whenever it is determined that:
- a) The permit was issued in error.

- b) The permit was issued based on incorrect information supplied.
 - c) The permit is in violation of any Municipal bylaw or resolution.
15. Upon request by an applicant or permit holder and when it is determined by Muni-Corr that extenuating circumstances exist, Muni-Corr is hereby authorized to waive or alter any term of an agreement or permit required by this Bylaw.

PENALTIES

16. Except as otherwise provided herein, every person who contravenes any provisions of this Bylaw is guilty of an offence and shall be liable on Summary Conviction to a fine of not more than one thousand dollars (\$1000.00) for a first offence and a fine of two thousand dollars (\$2000.00) for a second offence.
17. Every person who contravenes any provisions of this Bylaw, as enumerated in Schedule “A” herein, is guilty of an offence and shall be liable on Summary Conviction to the penalty specified therein for such offence.
18. An offence ticket shall be deemed to be sufficiently served:
- a) If served personally on the accused.
 - b) If mailed, by ordinary mail, to the address of the registered owner of the Motor Vehicle, Off Highway Vehicle or Trailer concerned, or to the person concerned.
 - c) If attached to or left securely and visible upon the Motor Vehicle, Off Highway Vehicle or Trailer in respect of which the offence is alleged to have been committed.

TRANSITION SECTION

19. All Usage Control Devices which are in place on the effective date of this Bylaw shall be deemed to be valid Usage Control Devices for the purposes of this bylaw until removed.

REPEAL

20. That Bylaw (insert number) known as the “Corridor Regulation Bylaw” be and is hereby repealed.

This Bylaw comes into effect on the date of final passing.

READ A FIRST TIME IN COUNCIL THIS DAY OF ,2024.

READ A SECOND TIME IN COUNCIL THIS DAY OF ,2024.

READ A THIRD AND FINAL TIME, WITH THE UNANIMOUS CONSENT OF ALL COUNCILLORS PRESENT, THIS DAY OF , 2024.

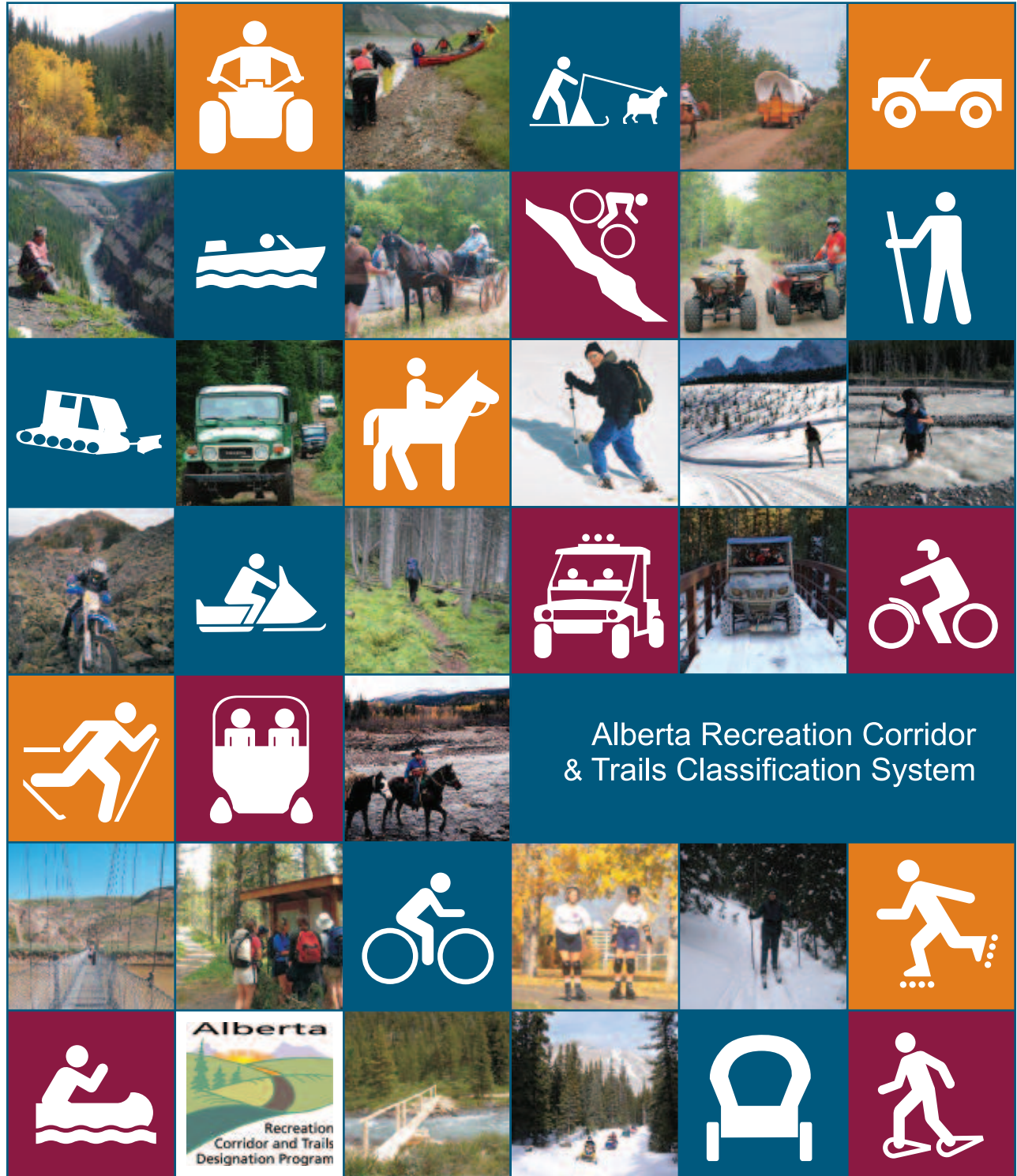
REEVE / MAYOR

CHIEF ADMINISTRATIVE OFFICER

SCHEDULE “A”

PENALTIES AND FEES

OFFENCES	SECTION	SPEC PENALTY
Operate/Stop/Park Motor Vehicle on Corridor	6	\$500 2 nd Offence \$1000
Park Trailer on Corridor	7	\$250.00
Place Obstruction/Structure/On/Over/ Encroaching on/ the Corridor	9(a)	\$250.00
Discharge weapon on/over/ the Corridor	9.1	\$500 2 nd Offence \$1000
Camping overnight in the Corridor outside designated areas and without a permit.	9.2	\$250
Unregistered Off Highway Vehicle	9.5(a)	Use TSA
Uninsured Off Highway Vehicle	9.5(b)	Use TSA
Operate/Park Off Highway Vehicle without consideration for others	9.5(c)	\$250
Operate Off Highway Vehicle in a manner so as to only cause minimal disturbance to persons residing adjacent to the Corridor	9.5(d)	\$250
Operate Off Highway Vehicle in a manner that kills/disturbs/harasses livestock	9.5(e)	\$250
Operate Off Highway Vehicle at unreasonable speed	9.5(f)	\$250
Operate Off Highway Vehicle without care and attention	9.5(g)	\$250
Operator of Off Highway Vehicle fail to Yield to other user	9.5(h)	\$250
Operator of Off Highway Vehicle fail to keep to the Right when meeting other person	9.5(i)	\$250.00
Crossing intersection	9.5(j)	Use TSA
Operator of Off Highway Vehicle obstruct/Inconvenience/Prevent use by/ other users	9.5(k)	\$250.00
Operating an untracked Off Highway Vehicle between January 1st to March 31st.	9.6	\$500 2nd Offence \$1000
Littering	9.7	\$1,000.00
Climb/Deface/interfere with Structure/Trees/Protection System/Utility	9.8	\$500
Remove/Throw down/Deface/Alter/Damage/ Destroy Usage Control device	9.9	\$500
Person Obstruct/Inconvenience another user	9.10	\$250



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Alberta Recreation Corridor and Trails Designation Program

Alberta Recreation Corridors Coordinating Committee

Trails Classification Steering Team

Alberta Tourism, Parks and Recreation

Alberta Sustainable Resource Development

Alberta TrailNet Society

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In plain language, this document provides you with a variety of recreation facility ideas. None of the drawings are intended for construction purposes. The designs come from various sources and do not represent Alberta government standards.

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ALBERTA RECREATION CORRIDOR AND TRAILS CLASSIFICATION



Introduction

The Alberta Recreation Corridor and Trails Classification System is an important component of the Alberta Recreation Corridor and Trails Designation Program now under development by Alberta Tourism, Parks and Recreation.

The system adopted for Alberta provides a basic framework to assist:

- Trail developers and operators with their planning, design and construction decisions
- Landowners and municipal governments in their understanding of a proposed or existing trail
- Land managers with operational decisions
- Trail users and leaders in assessing the suitability of a trail for their ability and desired experience
- The Alberta government as a foundation document for a proposed trail designation program
- Government and other funders in assessing trail requests and grant applications

Requests for a classification system arose from discussions and comments received from the Alberta Recreation Corridors Coordinating Committee and are documented in the committee's 2006 designation program manual. A study conducted by Stantec Engineering, a review of trail classification systems in other jurisdictions, and further discussion among government and trail organizations led to the development of the classification system contained in this document.



The proposed system is designed with a basic classification framework and additional layers containing an increasing level of detail. Within the primary classification, a trail may be designated for a single type of use or multiple types of uses. Five primary trail classifications form the basis of the system:

- Non-motorized Use Trails – trail users do not use an external source of power for locomotion
- Motorized Use Trails – trail users use a motorized vehicle to provide power for locomotion
- Mixed-Use Trails – a combination of non-motorized and motorized trail users are on the same trail
- Extreme Use Trails – specific trail uses that involve competition or an element of danger
- Water Trails – a water route than can accommodate passage by a watercraft

The experience delivered by the trail and its surroundings fall into three classifications:

- Primitive Trails
- Semi-developed Trails
- Developed Trails

The classification system described in this document is intended as a guideline only. The majority of existing and planned trails in Alberta should fit within this system, but it also allows for flexibility in circumstances where environmental sensitivity, physical, cultural, or social site attributes influence trail design.

Background

Albertans and their visitors enjoy the many opportunities for outdoor recreation in this province. A surprising number of these activities utilize the province's networks of trails as either a main activity or a means of access to another activity.

Public trails benefit trail users by offering opportunities to increase physical activity, improve health and wellness, and appreciate the natural and human history in this province. The development of trails also provides opportunities for economic development, rural diversification, tourism and economic retention.

Population growth has seen an increase in the demand for trail development and significantly greater use, and an increase in the types and numbers of recreational vehicles and related gear. These factors have resulted in confusion and, in some cases, conflict among trail users, adjacent landowners, land managers and other parties.

As a result, the Alberta government formed an Alberta Recreation Corridors Legislative Review Committee in 2002 to review existing legislation and use, and determine whether more legislation or regulation was needed. Chaired by the Hon. Ray Danyluk, the committee conducted an extensive stakeholder consultation and also reviewed trails legislation in other jurisdictions. Their discoveries and recommendations are contained in the Alberta Recreation Corridors Legislative Review Committee report released in 2003.

An Alberta Recreation Corridors Coordinating Committee was formed in 2006 to consider and act on the recommendations contained in the 2003 report. One of their earliest acts was to commission a study of trails classification systems and recommend a model for Alberta. The model described in this report builds on this initial work.



CLASSIFICATION BY TRAIL CONDITIONS AND LEVEL OF EXPERIENCE

Opportunities for recreation users to engage in satisfying trail experiences are dependant on a number of natural elements such as vegetation, topography and scenery, and conditions determined by the trail manager such as accessibility, designated use of trails, condition of trails, development of sites and regulations.

Though trail conditions and level of difficulty vary widely, they can be grouped into three broad experiential categories: Primitive, Semi-Developed and Developed.



Primitive

Access:

Access to the trail could be very difficult due to availability and quality of the road. The trail could be remote with few access points and be some distance away from a populated centre.

Naturalness:

Typically the area would show very minor to no visible signs of human modification. There would be no non-recreational uses occurring at or adjacent to the site of the trail, although the trail could be used for access to trapping or hunting.

Social Encounter:

The level of use on the trail at any one time is expected to be low to very low with little likelihood of trail user interaction.

Visitor Impacts:

There is low tolerance for signs of visitor impacts. Trail users are expected to leave no trace on trails, and a pack-in, pack-out philosophy would be expected, particularly on remote trails with no facilities.

Development:

Primitive trails would have a very low level of development. Facilities, if any, would be simple and rustic. There would be minimal signage and low maintenance levels.

Visitor Management:

Rules are in place governing the use of these trails; however, on site management controls, (waste management, patrolling, etc.) are not readily obvious.



Semi-Developed

Access:

Access to the trail would be via an improved road, i.e. gravel or cold mix, and would be within easy commuting distance of a populated centre.

Naturalness:

The area will have signs of human modification. Other non recreational uses adjacent to the trail site could include agriculture, forestry or mining. The trail could traverse forestry areas, grazing reserves, provincial parks or other land use areas.

Social Encounter:

The level of use on the trail at any one time is expected to be low to moderate with some trail user interaction likely.

Visitor Impacts:

With a higher level of use, a higher level of impact is anticipated and accepted by trail users.

Development:

These trails would have a low to moderate level of development. Facility design would be simple but could include a developed trailhead (toilets, trailhead signage, picnic area, and possible campsites) and directional signage along the trail.

Visitor Management:

There will be a moderate level of visitor controls along the trail including items such as signage and waste receptacles. There will be a moderate level of maintenance along the trail, especially at the trail head.



Developed

Access:

Access is easy by an all-weather road and the trail site is relatively close to a populated centre.

Naturalness:

Other non recreational uses adjacent to the trail could include agriculture, forestry, mining or urban development. The trail could traverse forestry areas, grazing reserves or provincial parks.

Social Encounter:

The level of use on the trail at any one time is expected to be moderate to high with trail user interaction expected on a fairly regular basis.

Visitor Impacts:

With a higher level of use, a higher level of impact is anticipated and accepted by trail users.

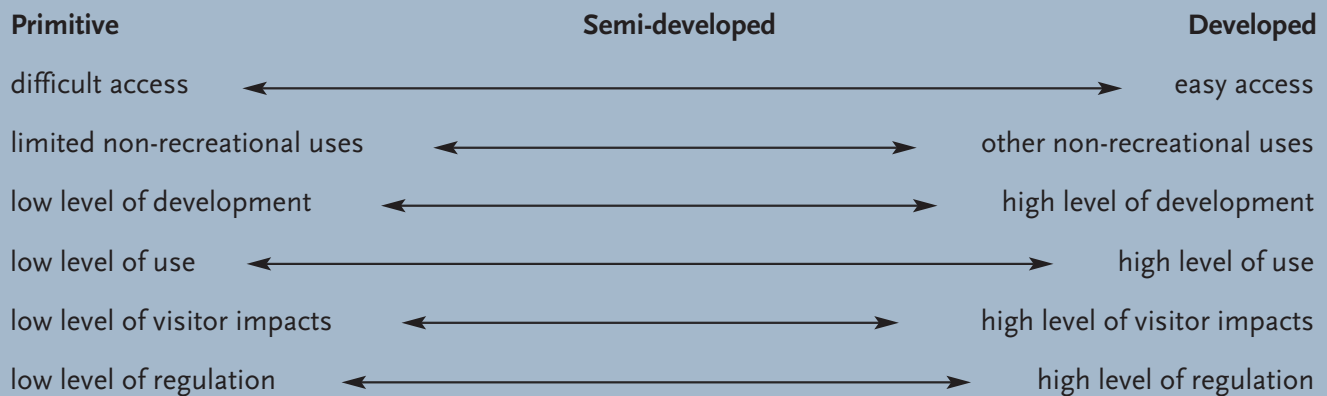
Development:

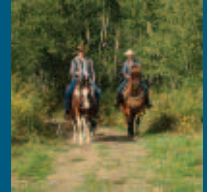
These trails would have a higher level of development. Typical facilities that might be provided include a developed trailhead (washrooms, trailhead signage, and picnic areas) and directional signage along the trail. On site management may be present.

Visitor Management:

These trails will be more regulated than others with enhanced signage, and a higher level of management and maintenance throughout.

The diagram below illustrates the spectrum of conditions between primitive and developed trails. Some trails may have elements of several different trail conditions associated with them. They will be classified according to the conditions that dominate.







CLASSIFICATION BY TYPE OF ACTIVITY

People use trails in many ways and for many reasons. In order to design trails, it is very important to identify the intended trail user, their preferred trail activity and the experience they are seeking. These characteristics will dictate the design guidelines for the trail.

This section profiles a number of different user types and specific trail requirements for each type of activity. Information provided for each user profile includes basic ways of describing people who use trails. They can be categorized as follows:

- **Size:** single users or groups
- **Age:** a variety of age groups
- **Skills:** a range of skill levels
- **Trail experience wanted:**
 - recreational touring or day use
 - nature appreciation
 - solitude
 - social interactions
 - health benefits
 - exercise for self or pet(s)
 - personal challenge
 - travel to reach a destination
 - harvesting where permitted (i.e. hunting or trapping)
 - competition (special permits required)

The design of a trail significantly influences the recreation experience that it provides. It is important that trails are purposely designed to deliver the recreation experience the user is looking for. Basic trail design characteristics for each of the desired trail experiences – Primitive, Semi-developed and Developed consider:

- **Trail Surface:** the material on the trail tread
- **Trail Dimensions:** tread width, clearing width and clearing height
- **Gradient:** the desired slope of the trail tread parallel to the direction of travel for each type of experience

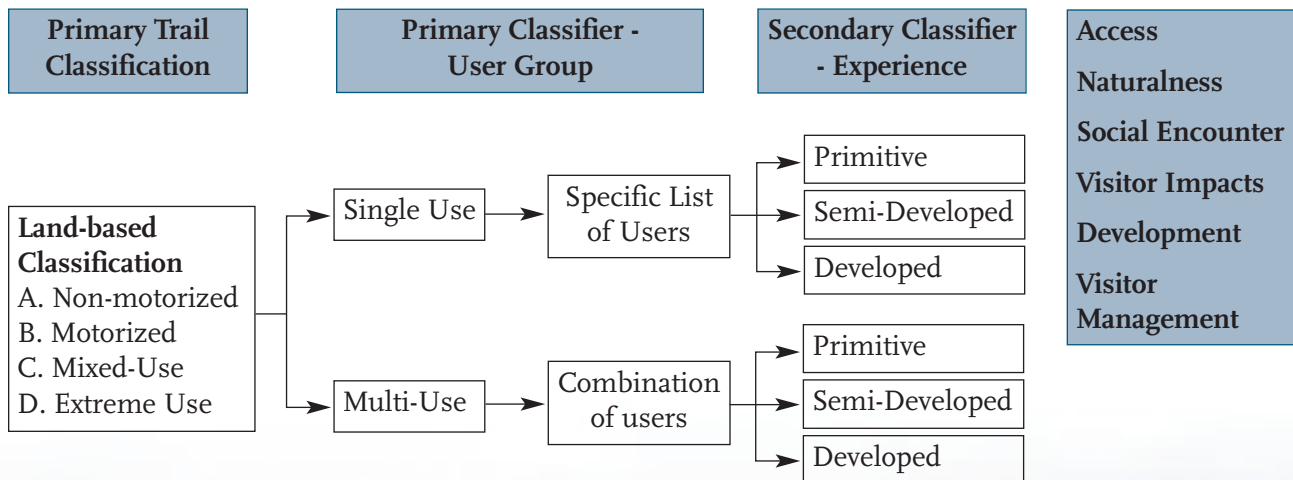




A trail can be either land or water-based. The basic classifications for land-based trails are: non-motorized use, motorized use and mixed-use (which includes both motorized and non-motorized users on the same trail). The trail can be designated as single use (for a single user type) or multi-use (for multiple user types) in either the non-motorized or motorized classifications. The mixed-use classification will be multi-use by definition.

Trail user profiles in the next section provide information for each trail user group and typical cross-sectional trail design characteristics for each experience within that category.

The chart below graphically shows the basic classification system for land-based trails; water-based classification charts are similar but are unlikely to include a “motorized only” classification (see page 30).

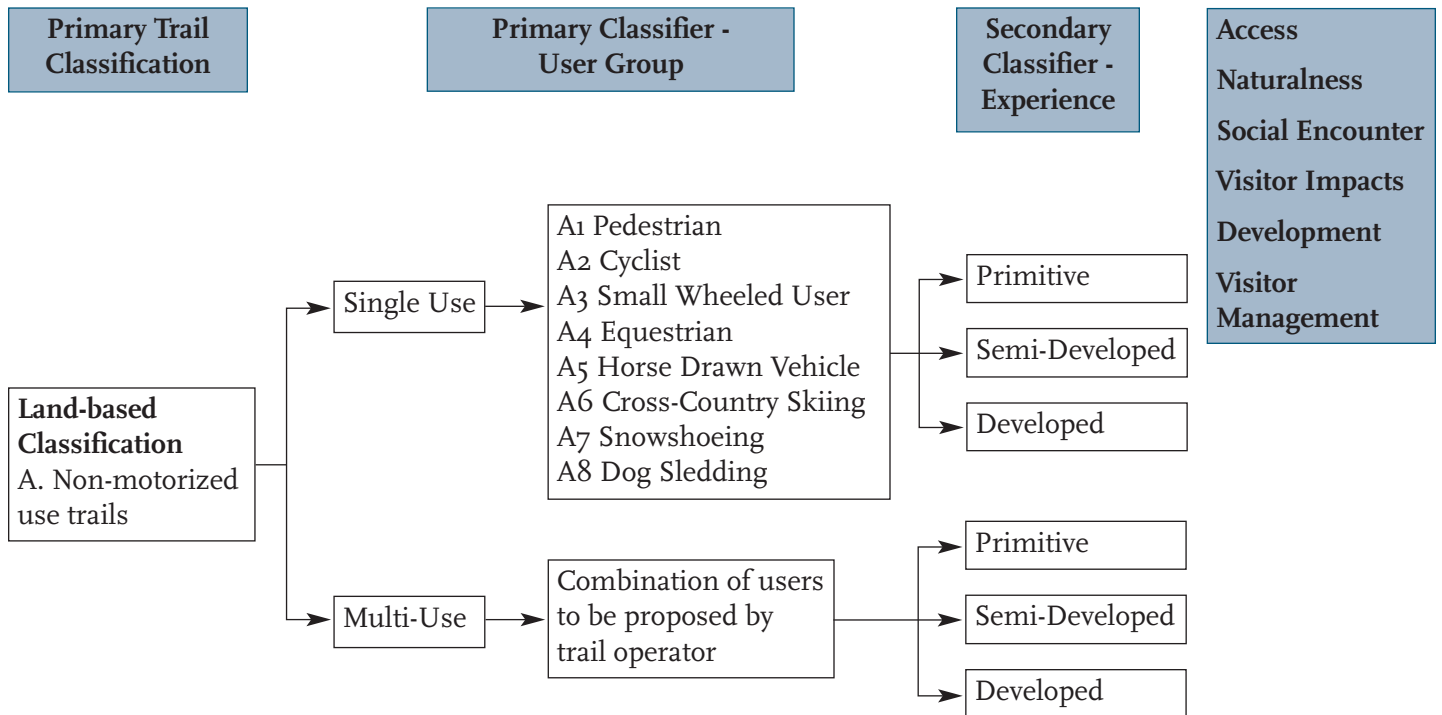


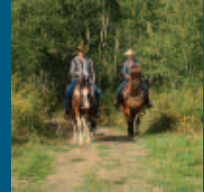


A. Non-Motorized Use Trails

This class includes all trail users who do not rely on a motor of any type to provide a source of power. Power is provided by a horse or other animal or by the users themselves. The trail can be designated for a single user group or for multiple user groups and will be designated as primitive, semi-developed, or developed as shown in the chart below.

A number of user combinations is possible for the multi-use trails and will be determined by the trail operator. The user group with the highest requirements (i.e. widest trail, largest clear zone, and most gentle gradients) will determine the design characteristics for the trail. Design characteristics for each specific user group are included in the following pages with a summary chart on pages 43 to 44.





A. Non-motorized use trails (single use)



A1 Pedestrian (walking, hiking, backpacking, running, orienteering)

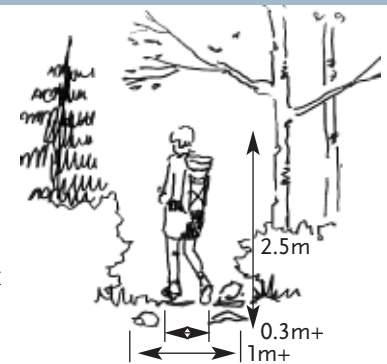
Basic Description:

The pedestrian category includes any person using a trail without a mobility aid, other than a walking stick. A single pedestrian could travel on a trail as narrow as 0.3m with a cleared width of 1m and cleared height of at least 2.5m. Depending on type of use, a variety of surfaces are suitable for pedestrians ranging from rough, unsurfaced natural ground to smooth pavement. Gradients along trail can range from flat to very steep.

Basic Trail Design Characteristics by Type of Experience:

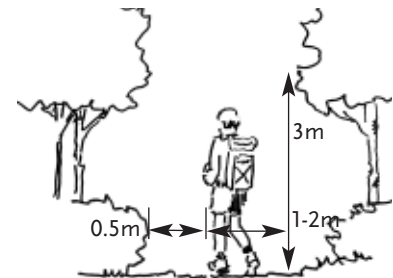
Primitive:

The trail would be in a natural, unimproved state, and could be rough with roots, rocks or fallen trees; it could have steep gradients (up to 45%), with portions that could be near vertical. The trail could be as narrow as 0.3m wide with a cleared area only large enough to accommodate one person (1m width x 2.5m height). Trails in remote areas could traverse streams without bridged crossings.



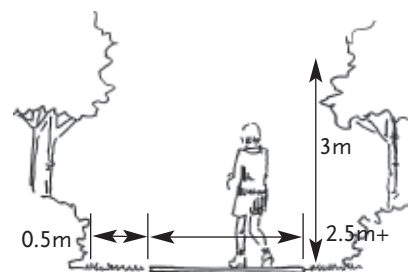
Semi-developed:

The trail surface would have a granular surface such as crushed gravel, shale or wood chips; gradients would be gentle to moderate (up to 20%). The width would range from 1m to 2m with an extra 0.5m cleared zone each side. Clearing height should be at least 3m.



Developed:

The trail would have a smooth, compacted or paved surface with gentle gradients (up to 5%), and a width of 2.5m+. Clearing should be at least 0.5m beyond the trail surface and 3m height.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Natural	up to 45%	0.3m – 1m	1m – 2m	2.5m
Semi-Developed	Granular	up to 20%	1m – 2m	2m – 3m	3m
Developed	Compacted Granular or Paved	up to 5%	2.5m +	3.5m +	3m



A. Non-motorized use trails (single use)

A2 Cyclist (mountain biking, trail touring, freestyle riding)

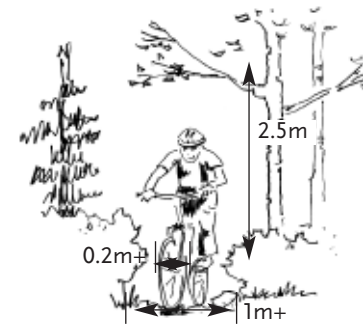
Basic Description:

This user category includes any person on a bicycle. The size of bicycle and rider varies, but could be an average of 0.6m wide and 1.8m high. Cyclists can travel on a variety of trails ranging from a technically challenging trail with a very narrow tread that is minimally wider than a bicycle tire to smooth, wide pavement with wide cleared zones. Travel speeds would range widely, but would typically be between 5km/hr and 30km/hr.

Basic Trail Design Characteristics by Type of Experience:

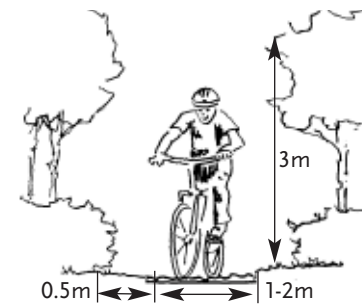
Primitive:

The trail would be unsurfaced and could be rough with roots, rocks or fallen trees; have steep gradients (up to 30%); and be as narrow as 0.2m wide with a cleared area only large enough to accommodate the person and bicycle (1m width and 2.5m height).



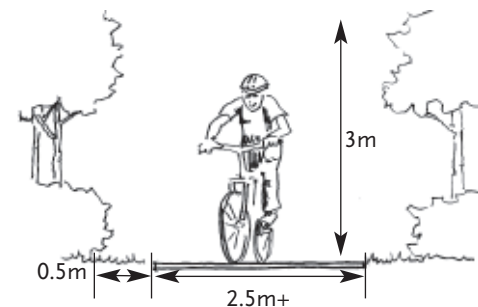
Semi-developed:

The trail tread may be surfaced with a granular material such as compacted crushed gravel; gradients would be gentle to moderate (up to 15%); and the width would range from 1m to 2m width. Clearing would typically be 0.5m beyond the trail tread and a minimum of 3m height.

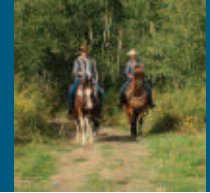


Developed:

The trail would have a smooth, hard surface; gentle gradients (up to 10%); and a width of at least 2.5m. Clearing would be 0.5m beyond the trail tread and a minimum of 3m height.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Unsurfaced	up to 30%	0.2m – 1m	1m – 2m	2.5m
Semi-Developed	Granular	up to 15%	1m – 2m	2m – 3m	3m
Developed	Hard Surface	up to 10%	2.5m +	3.5m +	3m



A. Non-motorized use trails (single use)

A3 Small Wheeled User (inline skates, roller skis, skateboards, wheelchairs, scooters)



Basic Description:

This group includes all people using small wheeled equipment on trails. Typical types of use are inline skates, roller skis, or skateboards. Wheelchairs, including electric assist wheelchairs or scooters, would also be included in this group. There is a range of user types within this group and all trail types may not be suitable for all users. Width of trail required by users can vary with an inline skater or skateboarder needing slightly more width than a pedestrian, and wheelchairs requiring the same height, but more width. Generally, hard surface trails with a minimum width of 1m are suitable for these users. Clearing adjacent to the trail must be wide enough for safe sightlines.

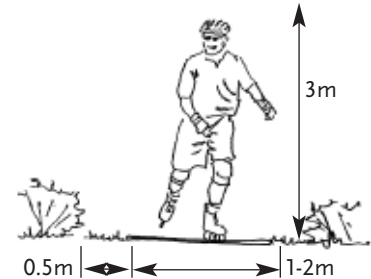
Basic Trail Design Characteristics by Type of Experience:

Primitive:

The trail would be in a natural, unimproved state, and could be rough with roots, rocks, or fallen trees; it could have steep gradients. Typically, primitive trails are not suitable for these users; however, specialized equipment may allow some use of these trails by this group.

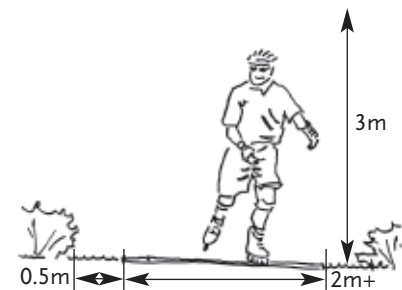
Semi-developed:

The trail may be packed granular or paved; gradients would be gentle to moderate (up to 10%) and the width would range from 1m to 2m. Clearing would typically be 0.5m beyond the trail tread with a minimum 3m clearing height.



Developed:

The trail would have a smooth, paved surface with gentle gradients (up to 5%), with a width of 2m+ and a minimum of 3m clearing height.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	N/A	N/A	N/A	N/A	N/A
Semi-Developed	Packed or Paved	up to 10%	1m – 2m	2m – 3m	3m
Developed	Paved	up to 5%	2m +	3m +	3m



A. Non-motorized use trails (single use)

A4 Equestrian (trail riding, packing, endurance riding)



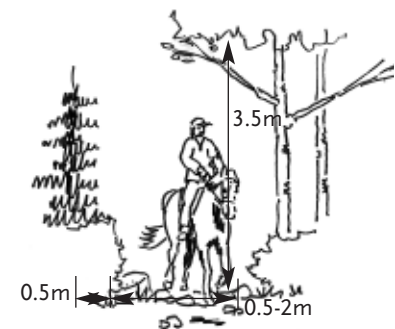
Basic Description:

The equestrian category includes any person on a horse, or other large riding or pack animal. The width of horse and rider can vary substantially, but an average size could be 1m wide by 2.5m to 3m high. Equestrians can travel on a wide range of trail types from very rough and rocky with a cleared zone only large enough for the horse and rider to a smooth natural surface with gentle grades and a wide clear zone. Paved trails are not preferred for equestrian use. Typical types of use include trail riding, packing and endurance riding.

Basic Trail Design Characteristics by Type of Experience:

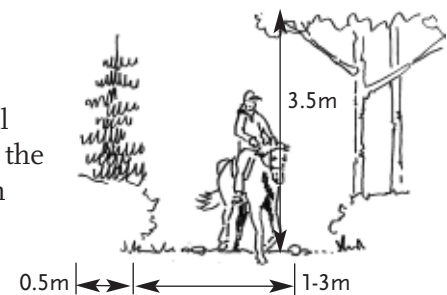
Primitive:

The trail would be unsurfaced and could be rough with roots, rocks or fallen logs. It could have steep gradients (30%+), and be as narrow as 0.5m wide with a cleared area only large enough to accommodate a horse and rider (i.e. 1.5m wide by at least 3.5m high).



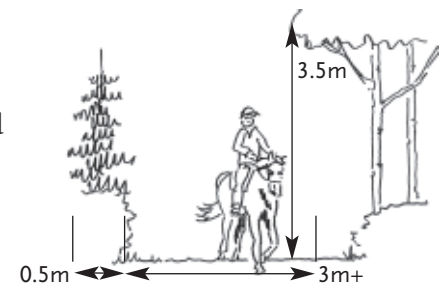
Semi-developed:

The trail surface would be semi-packed, natural or surfaced with a natural granular material; gradients would be gentle to moderate (up to 15%) and the width would range from 1m to 3m wide. The cleared zone should be 0.5m each side of the trail with a cleared height of 3.5m.



Developed:

The trail would have a hard packed, smooth, natural surface with gentle gradient (up to 10%) with a width of 3m or more. The cleared zone should be 0.5m each side of the trail with a cleared height of 3.5m. Services for animals would be provided at the trailhead and along the trail.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Unsurfaced	30%+	0.5m – 2m	1.5m – 2.5m	3.5m
Semi-Developed	Semi-packed	up to 15%	1m – 3m	2m – 4m	3.5m
Developed	Packed	up to 10%	3m +	4m +	3.5m



A. Non-motorized use trails (single use)

A5 Horse Drawn Vehicle (horse and buggy/cart, covered wagon, horse drawn sleigh)



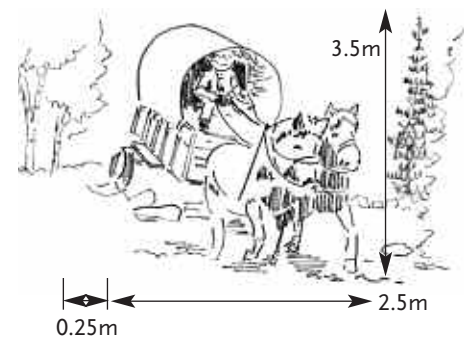
Basic Description:

This category includes people using teams of horses or other large animals pulling covered wagons, carts, buggies, or sleighs. The trail size required by these users will vary widely according to the number of horses and the vehicle being pulled. Users can range from a cart, buggy or sleigh with one or two horses to a covered wagon with a team of six horses. Trails for these users must be smoother than equestrian trails to accommodate the wheeled vehicle or sleigh, and extra clearing widths are required for turning.

Basic Trail Design Characteristics by Type of Experience:

Primitive:

The trail would be natural and unimproved, and could be rough with roots, rocks, or loose gravel; it could have steep gradients (up to 15%) and be as narrow as 2.5m wide with a cleared area of approximately 3m wide by 3.5m high. Wider passing zones should be provided at intervals along the trail. Adequate sightlines are essential.



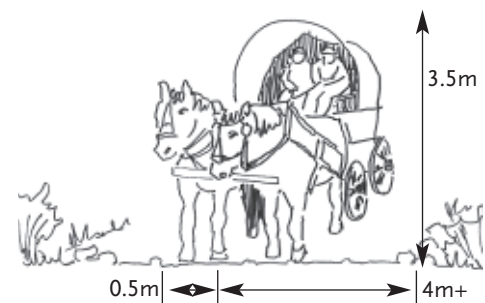
Semi-developed:

The trail surface would be a semi-packed, natural surface; it would have gentle to moderate gradients (up to 10%) and the width would be 3.5m with a cleared width of 0.5m+ each side of the trail and 3.5m clearing height.



Developed:

The trail would have a hard packed, smooth, natural surface with gentle to moderate gradients (up to 10%) and a width of 4m or more. At least 0.5m would be cleared on each side of the trail with a minimum cleared height of 3.5m. Services would be provided for animals at the trailhead and along the trail.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Natural	up to 15%	2.5m	3m – 4.5m	3.5m
Semi-Developed	Semi-packed	up to 10%	3.5m	4.5m – 5m	3.5m
Developed	Hard packed	up to 10%	4m +	5m +	3.5m



A. Non-motorized use trails (single use)

A6 Cross-Country Skiing (track skiing, skate skiing, backcountry skiing)



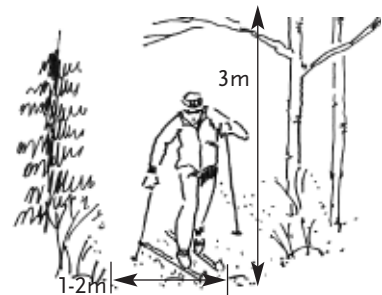
Basic Description:

This category includes any person using cross-country skis. The height of a cross-country skier is the same as a pedestrian but a skier requires a somewhat wider zone to accommodate the use of ski poles and skate skiing techniques. Cross-country skiers can travel on a wide range of trail types from very narrow trails where skiers break their own trail to wide trails that are highly groomed. The cleared zone can be very narrow where speeds are low, but must be wider for safe sight lines in locations where speeds are higher or there are corners. Clearing heights must take into consideration the depth of snow. There are several different types of cross-country skiing which require different levels of trail grooming. These types include classical technique track skiing, skate skiing or backcountry skiing.

Basic Trail Design Characteristics by Type of Experience:

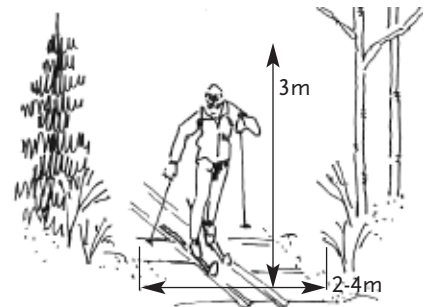
Primitive:

The trail would be unsurfaced and could be rough with roots, rocks, or fallen logs. The trail would not be usable without adequate snow cover and the snow would be un-groomed. There could be sections of steep gradients (up to 30%), and it could be very narrow – as narrow as 1m wide unless extra clearing is required for safety.



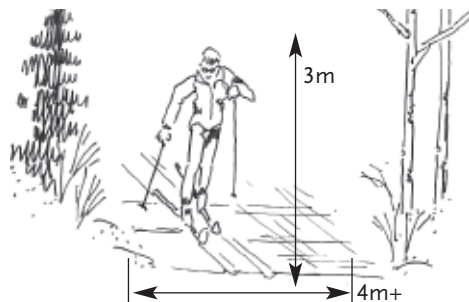
Semi-developed:

The trail surface would be improved to remove large roots, rocks or other debris, and the snow cover would be occasionally packed or groomed. Gradients would be gentle to moderate (up to 20%) and the width would range from 2m to 4m with a cleared height of at least 3m above average snow level.



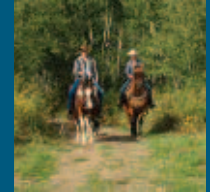
Developed:

The trail would have a smooth surface to allow use with minimal snow cover; the snow would be packed and groomed or trackset. The trail would have a typical width of at least 4m with a gentle gradient (up to 10%). Clearing height would be at least 3m above average snow level.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height*
Primitive	Ungroomed	up to 30%	1m – 2m	1m – 2m	3m
Semi-Developed	Occasionally groomed	up to 20%	2m – 4m	2m – 4m	3m
Developed	Trackset or packed	up to 10%	4m +	4m +	3m

*above average snow level



A. Non-motorized use trails (single use)



A7 Snowshoeing (recreational day use and backcountry touring)

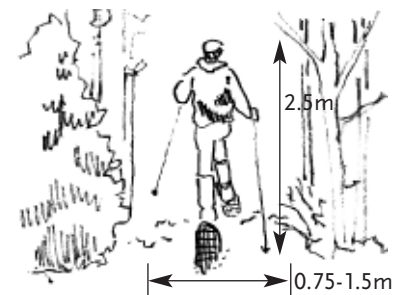
Basic Description:

The snowshoeing category includes any person using snowshoes. The height of a person snowshoeing is the same as a pedestrian, but a somewhat wider trail is required for the movement of the snowshoes and the use of poles. People snowshoeing can travel on a range of trail types from very narrow trails where they break their own trail to wide packed trails. The cleared zone can be as narrow as 1m with a cleared height of 3m above the average snow level. Types of snowshoeing include recreational day use and backcountry touring.

Basic Trail Design Characteristics by Type of Experience:

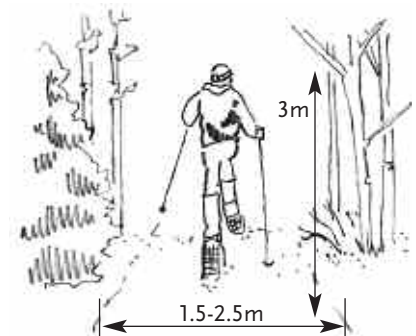
Primitive:

The trail would be unsurfaced and could be rough with roots or rocks or be only a cleared route. The trail would not be usable without adequate snow cover and the snow would be ungroomed. There could be sections of steep gradients (up to 30%), and it could be as narrow as 1m with a cleared height of at least 2.5m above average snow level.



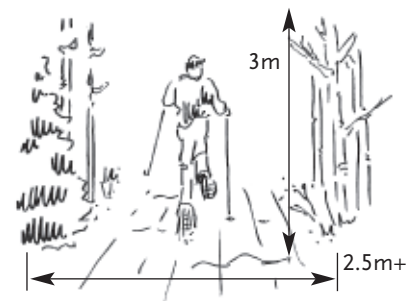
Semi-developed:

The trail surface would be improved to remove large roots or rocks; the snow cover would be occasionally packed or groomed; and gradients would be gentle to moderate (up to 20%). The width would range from 1.5m to 2.5m and the clearing height should be at least 3m above average snow level.



Developed:

The trail would have a smooth surface; the snow would be groomed and packed with gentle gradients (up to 10%); and a typical width would be greater than 2.5m. Clearing height should be at least 3m above average snow level.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height*
Primitive	Ungroomed	up to 30%	0.75 - 1.5m	0.75m - 1.5m	2.5m
Semi-Developed	Packed	up to 20%	1.5m - 2.5m	1.5m - 2.5m	3m
Developed	Groomed and packed	up to 10%	2.5m +	2.5m +	3m

*above average snow level



A. Non-motorized use trails (single use)

A8 Dog Sledding (recreational mushing, transportation, skijoring)



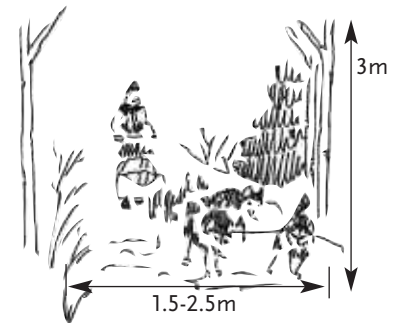
Basic Description:

This category includes individuals riding on sleds pulled by 3 to 16 dogs or on cross-country skis pulled by one or two dogs (skijoring). Sleds average 0.5m wide and 3m long, gang lines are 2.5m and longer. This user group cannot easily manage extreme slopes and needs a cleared area large enough to accommodate side to side movement of the sled and turning movements around corners. Typical types of use in this group include recreational mushing, transportation and skijoring.

Basic Trail Design Characteristics by Type of Experience:

Primitive:

The trail would be unsurfaced and could be rough with roots or rocks; the trail would be usable only with adequate snow cover and the snow would be ungroomed. There could be sections of steeper gradients (up to 30%), and the cleared area could be as narrow as 1.5m for straight stretches, wider at corners. Clearing height should be at least 3m above average snow level. Wider passing zones should be provided at intervals along the trail. Adequate sightlines are essential.



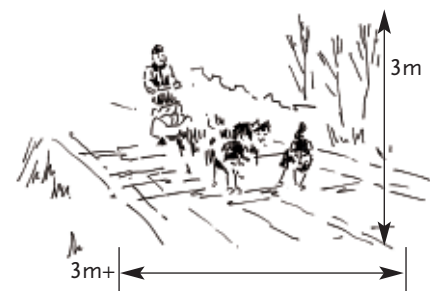
Semi-developed:

The trail surface would be improved to remove large roots or rocks, and the snow cover would be packed. Gradients would be gentle to moderate (up to 20%), and the cleared width would range from 2m to 3m width. The clearing height should be at least 3m above average snow level.



Developed:

The trail would have a smooth surface, and the snow would be groomed and packed. It would have gentle gradients (up to 10%), and a cleared width of at least 3m. The clearing height should be at least 3m above average snow level.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height*
Primitive	Ungroomed	up to 30%	1.5m – 2.5m	1.5m – 2.5m	3m
Semi-Developed	Single track	up to 20%	2m – 3m	2m – 3m	3m
Developed	Double track	up to 10%	3m +	3m +	3m

*above average snow level



Multi-use Non-Motorized Use Trails

Non-motorized use trails can be built, managed and operated for use by more than one single use. If you take the single uses from A1 to A8 and place them in a matrix as below, you can see that a multi-use trail can be built and operated for A1 Pedestrian, A3 Small Wheeled Users and A6 Cross-country Skiing (Example 1).

A number of user combinations is possible for the multi-use trail and will be determined by the trail proponent.

	A1 Pedestrian	A2 Cyclist	A3 Small Wheeled User	A4 Equestrian	A5 Horse Drawn Vehicle	A6 Cross- country Skiing	A7 Snowshoe	A8 Dog Sledding
A1 Pedestrian			Example 1			Example 1		
A2 Cyclist								
A3 Small User Wheeled	Example 1					Example 1		
A4 Equestrian								
A5 Horse Drawn Vehicle								
A6 Cross-country Skiing	Example 1		Example 1					
A7 Snowshoe								
A8 Dog Sledding								

To design a trail for a combination of single uses such as in Example 1 (A1 Pedestrian, A3 Small Wheeled User and A6 Cross-country Skiing) refer back to the Basic Trail Design Characteristics by Type of Experience for each single use A1 to A8, pages 10-17 in this document. The user group with the highest requirements (i.e. widest trail, largest clearing zone, and most gentle gradients) will determine the design characteristics of the trail.

In the operation of non-motorized multi-use trails, the design of the trail is one way to accommodate and manage multiple users. Some of the additional ways would be:

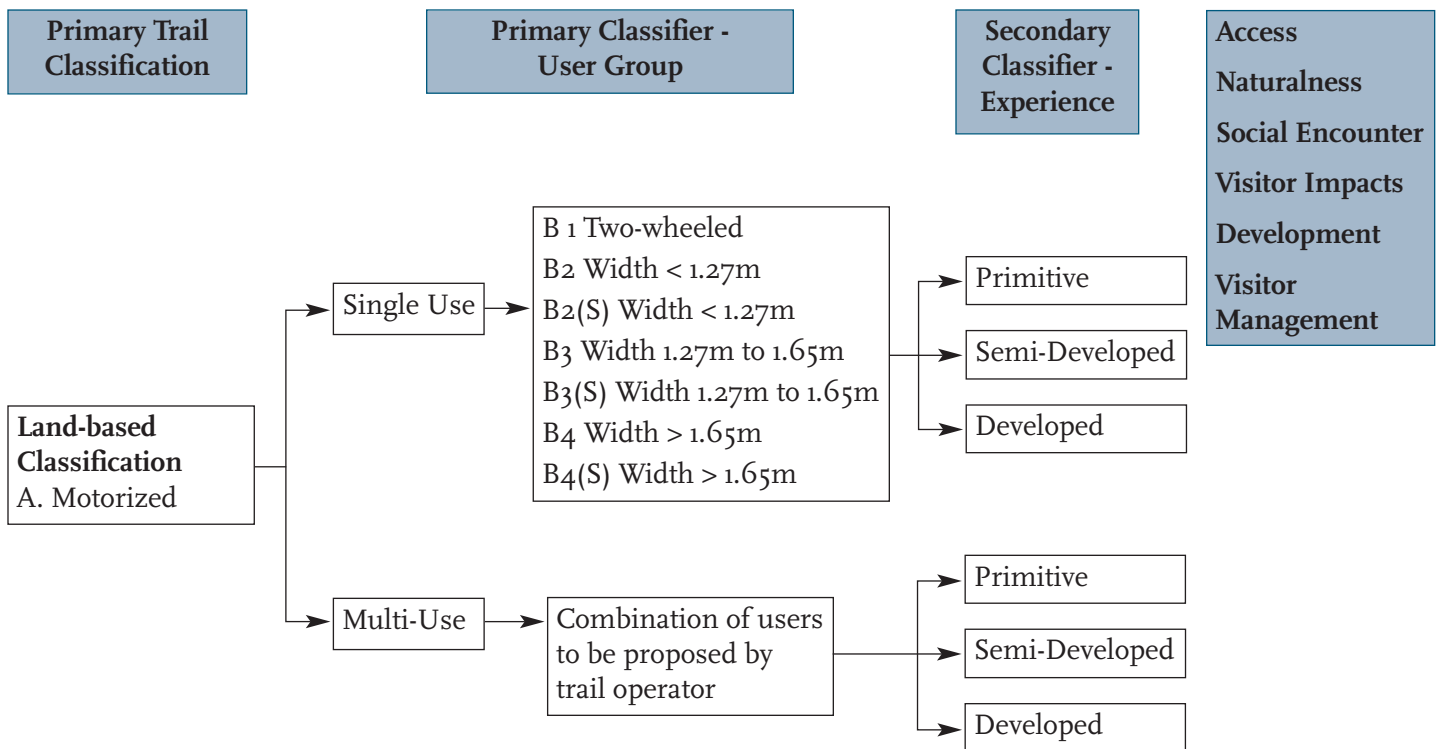
- Setting seasonal restrictions for uses;
- Setting separate hours of operation for different uses;
- Providing educational material to inform users how to share the trail with other types of users;
- Providing a policing element to ensure that only the permitted uses are occurring;
- Erecting signage showing approved uses; and
- Providing maps describing the approved uses.



B. Motorized Use Trails

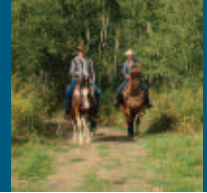
This class includes all trail users who rely on a motor to provide a source of power. The trail can be designated for a single user group or for multiple user groups and will be designated as primitive, semi-developed or developed as shown in the chart below. User group types have been designated according to overall width of the vehicle as described at the bottom of the page.

A number of user combinations is possible for the multi-use trails and will be determined by the trail proponent. The user group with the highest requirements (widest trail, largest clear zone, and most gentle gradients) will determine the design characteristics for the trail. Design characteristics for each specific user group are included in the following pages with a summary chart on pages 44 and 45.



Motorized Vehicle Descriptions:

- B1 Two-Wheeled (one front, one back) motorized vehicle
- B2 Motorized vehicle, width less than 1.27m
- B2(S) Snow vehicle, width less than 1.27m
- B3 Motorized vehicle, width between 1.27m and 1.65m
- B3(S) Snow vehicle, width between 1.27m and 1.65m
- B4 Motorized vehicle, width greater than 1.65m
- B4(S) Snow vehicle, width greater than 1.65m



B. Motorized use trails (single use)

B1 Two-wheeled (one front, one back) motorized vehicle

(power bicycle, mini bike, off-road motorcycle)



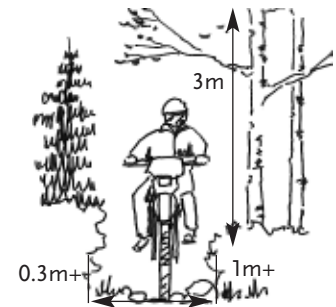
Basic Description:

This category would include any motorized vehicle with two wheels (one front, one back). The width of the vehicle and rider will typically be less than 1m with a height of 2 to 2.5m. They can travel on a variety of trails ranging from a technically challenging trail with a very narrow tread that is minimally wider than the vehicle to smooth, wide trails with wide cleared zones. Types of use could include technical and challenging riding, recreational touring, or transportation.

Basic Trail Design Characteristics by Type of Experience:

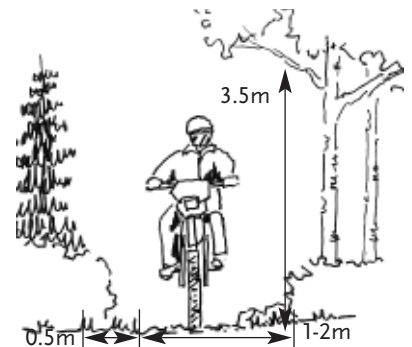
Primitive:

The trail would be un-surfaced and could be rough with roots or rocks; it could have steep gradients (up to 45%), and be very narrow – as narrow as 0.3m wide with a cleared area only large enough to accommodate the person and vehicle (1m width and 3m height).



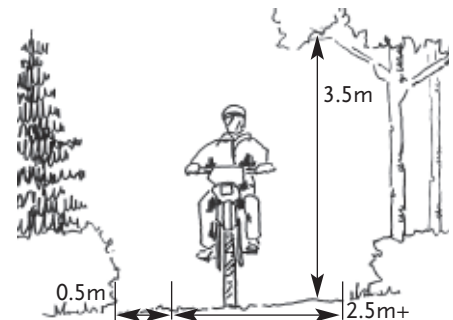
Semi-developed:

The trail would have a smoother natural surface than a primitive trail, but could be rutted. Gradients would be gentle to moderate (up to 15%), and the width would range from 1m to 2m. Clearing would typically be 0.5m beyond the trail tread and a minimum of 3.5m height.



Developed:

The trail would have a smooth natural surface with gentle gradients (up to 10%) and a width greater than 2.5m. Clearing would typically be 0.5m beyond the trail tread and a minimum of 3.5m height.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Unsurfaced	up to 45%	0.3 - 1m	1m – 2m	3m
Semi-Developed	Natural, rutted	up to 15%	1m - 2m	2m – 3m	3.5m
Developed	Natural, smooth	up to 10%	2.5m +	3.5m +	3.5m



B. Motorized use trails (single use)

B2 Motorized vehicle with a width less than 1.27m (50")
 (technical & challenging riding, recreation touring, transportation)



width < 1.27m

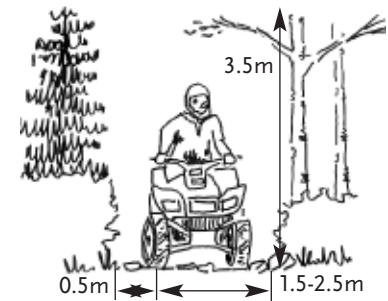
Basic Description:

This category would include off-highway motor vehicles with an overall width of less than 1.27 m (50"). They can travel on a variety of trails ranging from a technically challenging trail with a tread that is minimally wider than the vehicle to smooth, wide trails with wide cleared areas. Types of use could include technical and challenging riding, recreational touring, or work-related transportation.

Basic Trail Design Characteristics by Type of Experience:

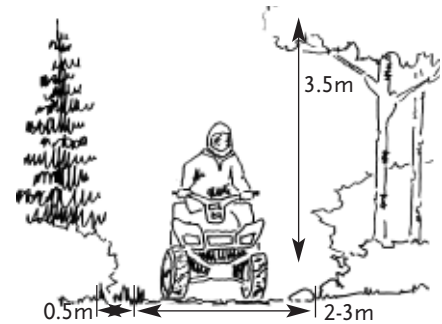
Primitive:

The trail would be unsurfaced and could be rough with roots or rocks; it could have steep gradients (up to 30%), and be as narrow as 1.5m wide with a cleared area 0.5m wider on each side and a minimum of 3.5m in clearing height. Wider passing zones should be provided at intervals along the trail.



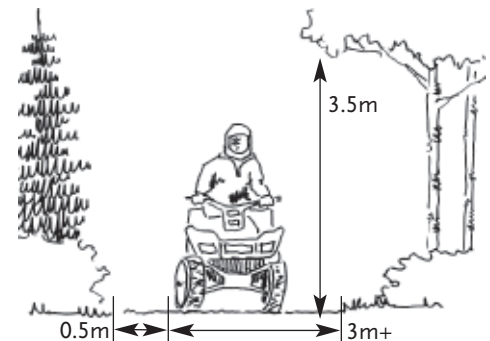
Semi-developed:

The trail would have a smoother natural surface than a primitive trail, but may be rutted. Gradients would be gentle to moderate (up to 20%), and the width would range from 2m to 3m. Clearing would typically be 0.5m beyond the trail tread with a minimum of 3.5m in clearing height.



Developed:

The trail would be at least 3m wide with a smooth natural or man-made surface with gentle gradients (up to 10%) and a cleared width of at least 4m with 3.5m in clearing height.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Unsurfaced	up to 30%	1.5m – 2.5m	2.5m – 3.5m	3.5m
Semi-Developed	Natural, rutted	up to 20%	2m – 3m	3m – 4m	3.5m
Developed	Natural, smooth	up to 10%	3m +	4m +	3.5m



B. Motorized use trails (single use)

B2(S) Snow vehicle with a width less than 1.27m (50")

(technical and challenging riding, rallies, recreation touring, transportation)



width < 1.27m

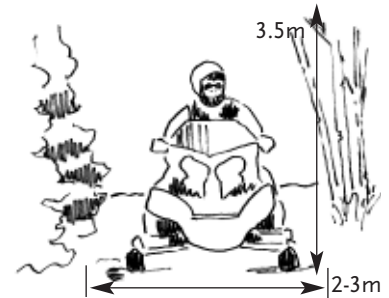
Basic Description:

This category would include any snow vehicle less than 1.27m in width. Adequate snow cover is required and the condition of the snow is more important than the surfacing of the trail below the snow. Generally, trail travel can use the full cleared zone, so dimensions given for trail and clearing are the same. As this is a winter-only use, portions of the trail may not exist in the summer (i.e., if there are water body or wetland crossings). Types of use could include technical and challenging riding, rallies, recreational touring or work-related transportation.

Basic Trail Design Characteristics by Type of Experience:

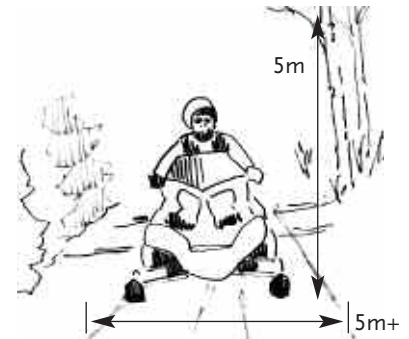
Primitive:

The trail would be unsurfaced and could be rough with roots or rocks. It would have sufficient snow and would be ungroomed. It could have steep gradients (up to 45%) and be as narrow as 2m wide with the trail cleared to a minimum of 3.5m in height above average snow level. Routes that have not been specifically developed as snow vehicles trails, such as cut lines, could be considered in this category.



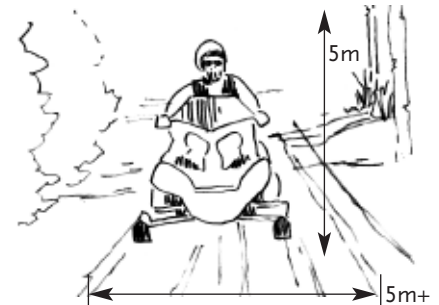
Semi-developed:

The trail surface would be somewhat improved to remove large obstacles that would prevent use of the trail with less snow cover. The snow would be groomed occasionally. Gradients would be gentle to moderate (up to 20%), and the width would be at least 5m (if groomed with a full size groomer). Clearing would typically be a minimum of 5m in height above average snow level.



Developed:

The trail surface would be somewhat improved to remove large obstacles that would prevent use of the trail with less snow cover. It would have a smooth and packed natural surface that is groomed regularly with gentle gradients (up to 15%). It would have a width of at least 5m and a clearing height that is a minimum of 5m above average snow level.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height*
Primitive	Ungroomed	up to 45%	2m – 3m	2m – 3m	3.5m
Semi-Developed	Occasionally groomed	up to 20%	5m +	5m +	5m
Developed	Regularly groomed	up to 15%	5m +	5m +	5m

*above average snow level



B. Motorized use trails (single use)

B3 Motorized vehicle, width between 1.27m (50") and 1.65m (65")
 (technical and challenging riding, rock crawling, recreation touring, transportation)



width 1.27m to 1.65m

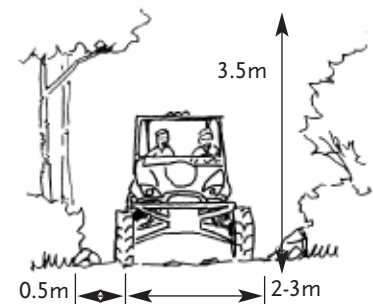
Basic Description:

This category would include a motor vehicle with an overall width of 1.27m (50") or greater, but less than 1.65m (65"). Types of use could include technical and challenging riding, such as rock crawling, recreational touring or work-related transportation.

Basic Trail Design Characteristics by Type of Experience:

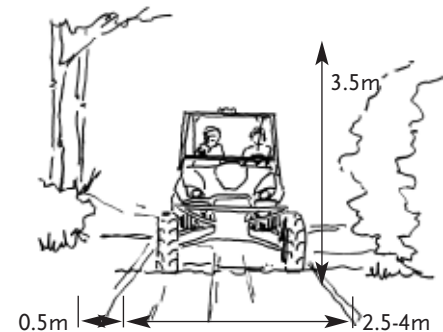
Primitive:

The trail would be unsurfaced and could be rough with roots, rocks or fallen logs. It could have steep gradients (up to 30%) and should be at least 2m wide with a cleared area 0.5m wider on the sides and a minimum 3.5m clearing height.



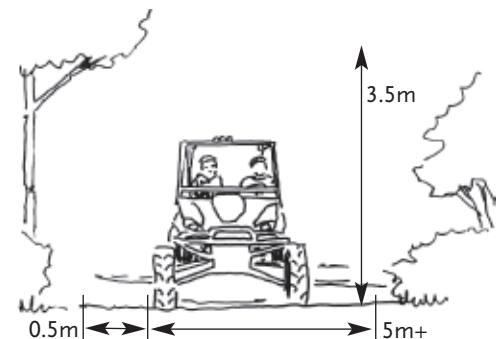
Semi-developed:

The trail would have a smoother natural surface than a primitive trail, but could be rutted. Gradients would be gentle to moderate (up to 15%) with a width ranging from 2.5m to 4m. Clearing would typically be 0.5m beyond the trail tread with a minimum 3.5m clearing height.

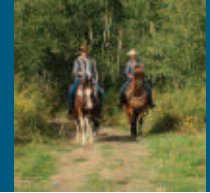


Developed:

The trail would have a smooth natural surface with gentle gradients (up to 10%), and a width of 5m+. Clearing would typically be 0.5m beyond the trail tread with a minimum 3.5m clearing height.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Unsurfaced	up to 30%	2m – 3m	3m – 4m	3.5m
Semi-Developed	Natural, rough	up to 15%	2.5m – 4m	3.5m – 5m	3.5m
Developed	Natural, smooth	up to 10%	5m +	6m +	3.5m



B. Motorized use trails (single use)

B3(S) Snow vehicle, width between 1.27m (50") and 1.65m (65")
(recreation touring, transportation)



width 1.27m - 1.65m

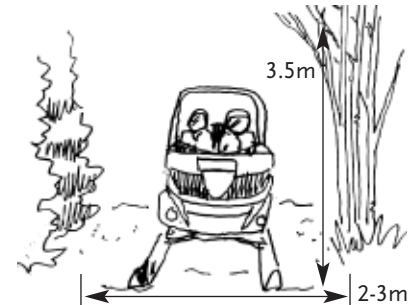
Basic Description:

This category would include a snow vehicle wider than 1.27m (50") but less than 1.65m (65"). Adequate snow cover is required and the condition of the snow is more important than the surfacing of the trail below the snow. Generally, these trail vehicles can use the full cleared zone, so dimensions given for trail and clearing are the same. The most likely types of use would include recreational touring or transportation. As this is for winter-only use, portions of the trail may not exist in the summer (i.e., if there are water body or wetland crossings).

Basic Trail Design Characteristics for these Snow Vehicles:

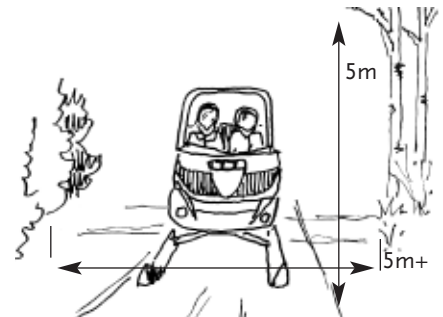
Primitive:

The trail would be ungroomed and could be rough with roots or rocks. It could have steep gradients (up to 30%), and be as narrow as 2m wide with a minimum of 3.5m clearing height above average snow level.



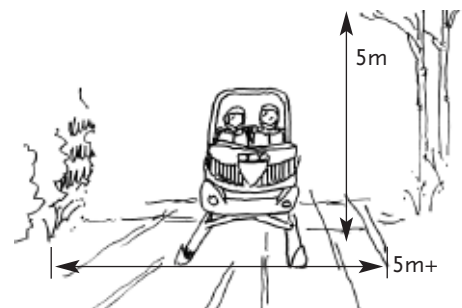
Semi-developed:

The trail surface would be somewhat improved to remove large obstacles, enabling use of the trail with less snow cover. The trail would be occasionally groomed. Gradients would be gentle to moderate (up to 20%), and the width would be 5m (for full size groomer). Clearing height would typically be a minimum of 5m above average snow level.



Developed:

The trail surface would be somewhat improved to remove large obstacles, enabling use of the trail with less snow cover. It would have a smooth and packed natural surface that is groomed regularly with gentle gradients (up to 15%) and a width of at least 5m. Clearing would typically be a minimum of 5m in height above average snow level. Bridges may be provided at water body crossings.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height*
Primitive	Ungroomed	up to 30%	2m – 3m	2m – 3m	3.5m
Semi-Developed	Occasionally groomed	up to 20%	5m +	5m +	5m
Developed	Regularly groomed	up to 15%	5m +	5m +	5m

*above average snow level



B. Motorized use trails (single use)

B4 Motorized vehicle with a width greater than 1.65m (65")

(technical and challenging riding, mud-bogging, recreation touring, transportation)



width > 1.65 m

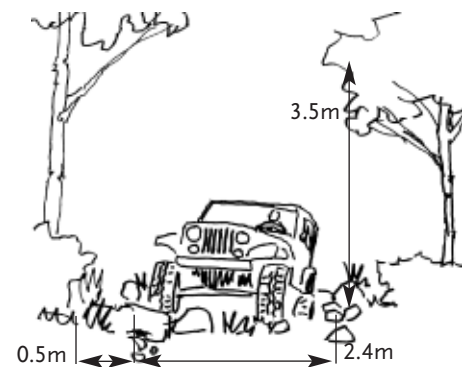
Basic Description:

This category would include a motor vehicle with an overall width of 1.65m (65") or greater. These vehicles can travel on a variety of trails ranging from a technically challenging trail with a tread that is minimally wider than the vehicle to smooth, wide trails with large cleared areas. Types of use could include technical and challenging riding, recreational touring, or transportation.

Basic Trail Design Characteristics for Large Vehicles:

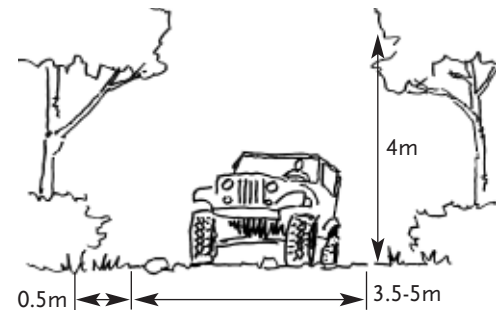
Primitive:

The trail would be unsurfaced and could be very rough with roots or rocks. It could have sharp turns and steep gradients (up to 45%) and be as narrow as 2m wide with a cleared area 0.5m wider on the sides and a minimum of 3.5m clearing height. Wider passing zones should be provided at intervals along the trail.



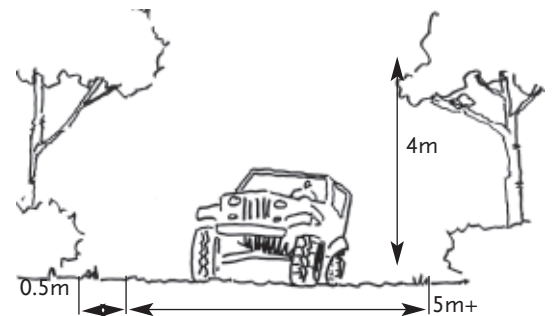
Semi-developed:

The trail would have a smoother natural surface than a primitive trail, but could be rutted. Gradients would be moderate to steep (up to 40%), and the width would range from 3.5m to 5m. Clearing would typically be 0.5m beyond the trail tread with a minimum of 4m clearing height. Pull-off areas would be required for passing.

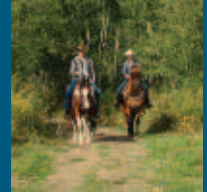


Developed:

The trail would have a smooth natural or man-made surface with gentle gradients (up to 10%), a width of 5m or more with clearing at least 0.5m each side, and a clearing height of 4m.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height
Primitive	Unsurfaced	up to 45%	2 - 4m	3m - 5m	3.5m
Semi-Developed	Natural, rutted	up to 40%	3.5m - 5m	4.5m - 6m	4m
Developed	Natural, smooth	up to 10%	5m +	6m +	4m



B. Motorized use trails (single use)

B4(S) Snow Vehicle with a width greater than 1.65m (65")
(utility, snow grooming, group touring, transportation)



width > 1.65m

Basic Description:

This group would include any snow vehicles with an overall width of 1.65m (65") or wider. The category would include vehicles such as snow groomers that cannot easily travel on narrow, steep trails. Typically the types of use associated with this category would be utilitarian (e.g., trail snow grooming).

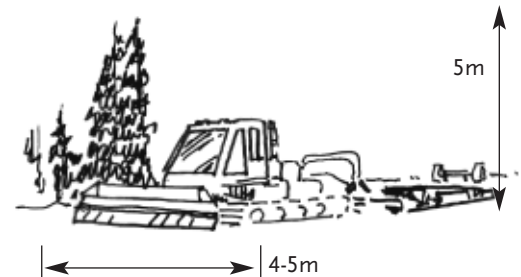
Basic Trail Design Characteristics by Type of Experience:

Primitive:

The trail would be unsurfaced and could be rough with roots or rocks. It could have steep gradients (up to 30%) and be as narrow as 2m wide with a minimum of 3.5m clearing height above average snow level. Trails of this nature would not be groomed.

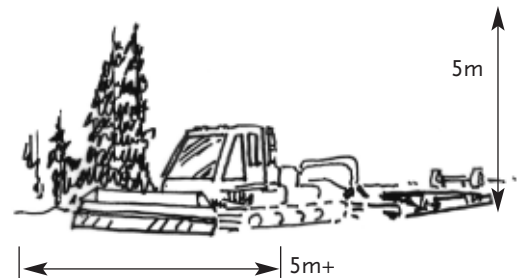
Semi-developed:

The trail would be usable only with sufficient snow. Gradients would be gentle to moderate (up to 20%), and the cleared width would range from 4m to 5m with a minimum of 5m clearing height above average snow level.



Developed:

The trail would be usable only with sufficient snow. It would have a smooth natural surface with gentle gradients (up to 15%), a width of at least 5m and a minimum clearing height of 5m above average snow level.



	Trail Surface	Gradient	Tread Width	Clearing Width	Clearing Height*
Primitive	N/A	up to 30%	2m	3.5m	3.5m
Semi-Developed	Sufficient snow	up to 20%	4 - 5m +	5m +	5m
Developed	Sufficient snow	up to 15%	5m +	5m +	5m

*above average snow level



B. Multi-use Motorized Trails

Motorized use trails can be built, managed and operated for more than one single use.

If you take the seven single uses from B1 to B4(S) and place them in a matrix as below, you can see that a multi-use trail can be built and operated for B1 Two-Wheeled, B2(S) Width < 1.27m and B3 Width 1.27m to 1.65m (Example 1).

A number of user combinations is possible for the motorized use trail (multi-use) and will be determined by the trail proponent. The user group with the highest requirements (tread width, largest clear zone and most gentle gradients) will determine the design characteristics for the trail. Design characteristics for each user group are shown on pages 20 to 26.

	B1 Two- Wheeled	B2 Width <1.27m	B2(S) Width <1.27m	B3 Width 1.27m- 1.65m	B3(S) Width 1.27m- 1.65m	B4 Width >1.65m	B4(S) Width >1.65m
B1 Two-Wheeled			Example 1	Example 1			
B2 Width <1.27m							
B2(S) Width <1.27m	Example 1			Example 1			
B3 Width 1.27m - 1.65m	Example 1		Example 1				
B3(S) Width 1.27m - 1.65m							
B4 Width >1.65m							
B4(S) Width >1.65m							

Motorized Vehicle Descriptions:

- B1 Two-Wheeled (one front, one back) motorized vehicle
- B2 Motorized vehicle, width less than 1.27m
- B2(S) Snow vehicle, width less than 1.27m
- B3 Motorized vehicle, width between 1.27m and 1.65m
- B3(S) Snow vehicle, width between 1.27m and 1.65m
- B4 Motorized vehicle, width greater than 1.65m
- B4(S) Snow vehicle, width greater than 1.65m



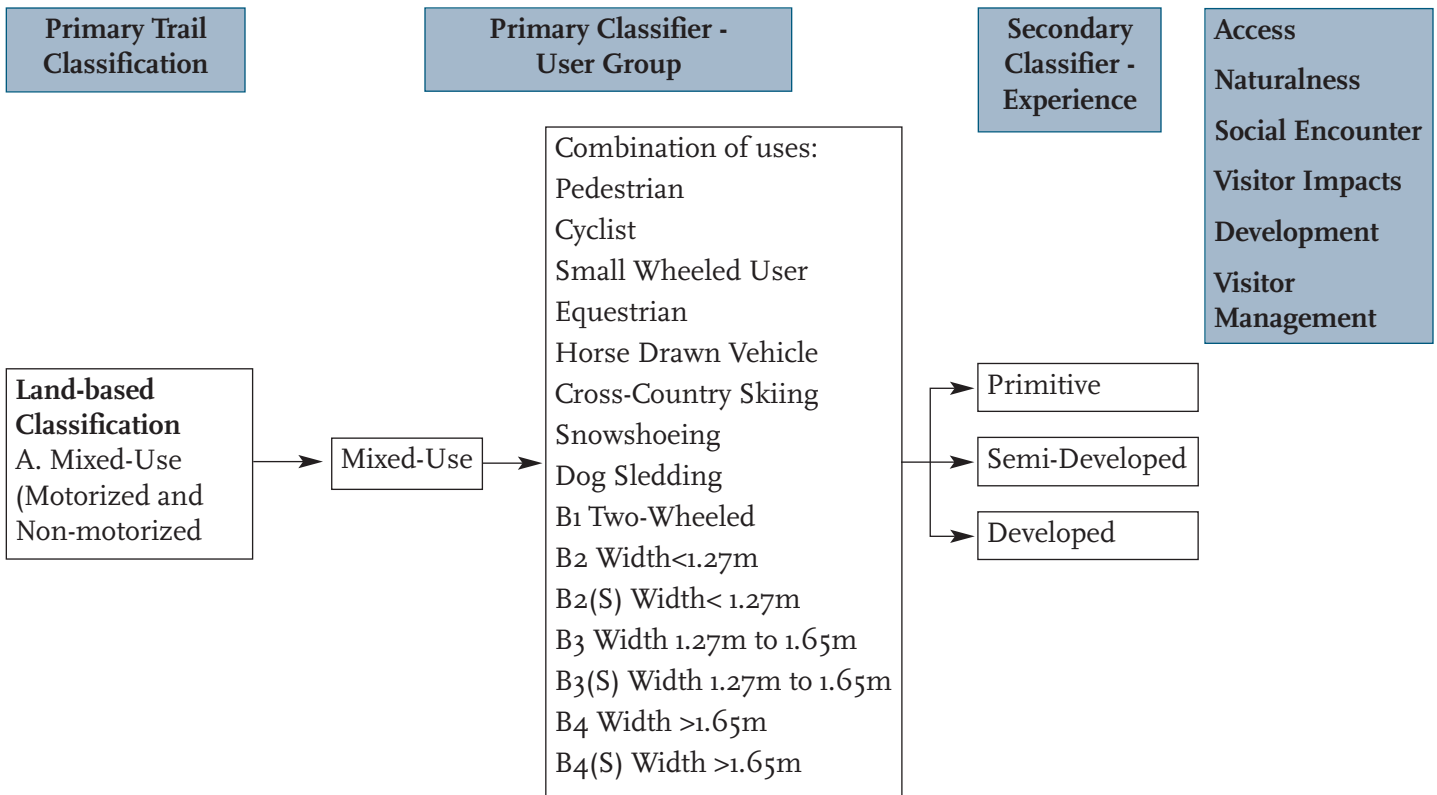
C. Mixed-Use Trails

The mixed-use class includes both motorized and non-motorized uses on the same trail. An extensive number of user combinations is possible and will be determined by the trail operator. The user group with the highest requirements (widest trail, largest clear zone, and most gentle gradients) will determine the design characteristics for the trail. Design characteristics for each user group can be found in the Non-motorized (pages 10-17) and Motorized (pages 20-26) sections of this report.

If the operator of a mixed-use trail permits both non-motorized and motorized uses on the same trail, the design of the trail is one way to

accommodate and manage multiple users. Some of the additional ways to manage mixed-uses are:

- Setting seasonal restrictions for uses;
- Setting separate hours of operation for different uses;
- Providing educational material to inform users how to share the trail with other types of users;
- Providing a policing element to ensure that only the permitted uses are occurring;
- Erecting signage showing approved uses; and
- Providing maps describing the approved uses.





D. Extreme Use Trails



Trails designed for extreme use may not be included in the trail designation program. Requests for extreme use on trails will be dealt with on an individual basis.

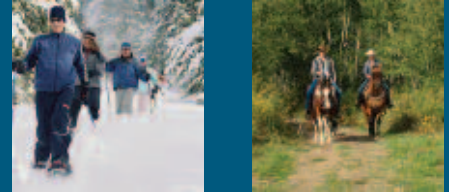
Given the adverse effect this type of use can have on a trail area, it is not expected that many trails would receive this class of designation on a permanent basis. Rather, it is expected that trail operators with other classes of trail designation may receive permits to temporarily allow this type of activity at specific locations. Extreme use will be regulated by the land manager that has jurisdiction of the land or by the province if on Crown lands. In some cases, the use may only be appropriate on private lands.

Sites that might be considered for some extreme uses could include:

- private or public sector gravel pits or other resource extraction areas;
- challenge events on private or public land;
- motocross parks and other private or municipally-run facilities;
- hills for snowmobile hill climbs; and
- ski hill in summer.

Types of restricted uses included in this class that would typically be prohibited on trails under the designation program could include:

- Extreme biking
- Motocross competitions
- Mud bogging
- Hill climbing snow vehicle competitions
- Snow vehicle drags
- Zip lines
- Viaferatta

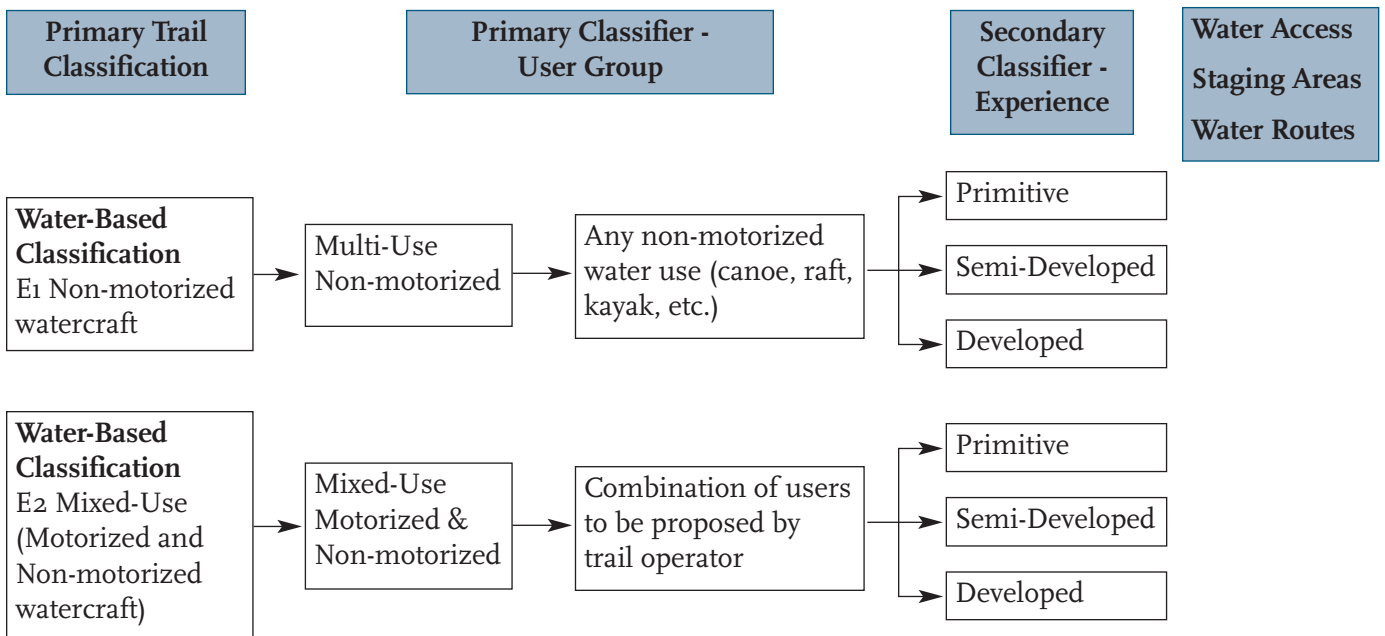


E. Water Use Trails

This trail class includes any natural water route such as rivers or large creeks, or man-made water bodies such as reservoirs or canals. It could also include linked lakes, reservoirs and irrigation headworks that are part of a water system. In Alberta, the beds of all water bodies and their shores to the high water mark belong to the Crown and are considered public property. However, ownership of property around the water body may restrict access.

Type of use on a water body can be restricted by the land manager, but they are rarely, if ever, designated for a single user type. They are however, often designated as non-motorized use only. For the purposes of the Alberta Recreation Corridor and Trails Classification System, there will be two possible water-based classifications: Non-motorized or Mixed-Use as shown in the chart below.

This classification should not be confused with the International River Classification System (IRCS), which rates rapids (see page 33). All water trail users should refer to the IRCS to determine if a water route is suitable for them.





E. Water Use Trail

E1 Multi-Use Non-Motorized Watercraft

(canoe, kayak, raft, sailboat, row boat, pedal boat)



Basic Description:

This user group includes any watercraft that does not rely on a motor for a source of power. Power is supplied by people rowing or paddling, or could be supplied by the wind. All water trails could include rapids (user should refer to route information and the International River Classification System), narrow stretches, shallow stretches, low overhanging vegetation along the shore or dangerous obstacles in the water such as rocks, snags or submerged logs.

Basic Design Characteristics for Type of Experience:

Primitive:

Portages are a possibility. There is no vehicular access to the shore so access to the water is usually difficult. There may be a steep, narrow and rough foot trail to access the water. There would be no facilities or only primitive facilities at the launching site and along the route.

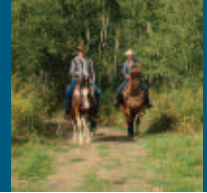
Semi-developed:

Vehicular access is close to or at the shore with a simple boat launch or an easy access trail to allow for carrying the water craft if required. Some facilities would be located at the staging area such as basic washrooms, a parking area and informational signage, and some facilities such as basic campsites would be present along the route.

Developed:

Access to the water would be easy with vehicular access to the shore and a formal boat launch, which may include a dock. Facilities such as washrooms, campsites, parking, signage, picnic areas, and possibly commercial activities would be located at the staging area. Well-developed campgrounds and other services would be located along the route.

	Water Access	Staging Area	Water Route
Primitive	Difficult, no vehicular access, trail could be narrow, steep and rough	No facilities	No facilities
Semi-Developed	Vehicular access close to shore, easy trail or simple boat launch	Basic facilities: toilets, parking, signage	Basic facilities, e.g. rustic campsites, basic toilets
Developed	Vehicular access to shore and formal boat launch, possible dock	Extensive facilities	Extensive facilities, e.g. well-developed campgrounds, washrooms



E. Water Use Trail

E2 Mixed-Use Motorized and Non-motorized Watercraft

(powerboat, houseboat, canoe, kayak, raft, rowboat, sailboat, pedal boat)



Basic Description:

This user group includes motorized and non-motorized watercraft using the same water route. This category would include any craft that can travel on water. All water trails could include rapids (user should refer to route information and the International River Classification System), narrow stretches, shallow stretches, low overhanging vegetation along shore or dangerous obstacles in the water, such as submerged logs.

Basic Design Characteristics for Type of Experience:

Primitive:

Access to the water is via a primitive sloped shore boat launch. There would be no or very primitive facilities at the launch site or along the route.

Semi-developed:

Boats can be launched via a basic boat launch. Some facilities would be located at the staging area such as basic toilets, a parking area and signage, and basic campsites may be found along the route.

Developed:

Access to the water would be easy with an improved boat launch and possible dock. Facilities such as washrooms, parking, signage, picnic areas, and possibly commercial activities would be located at or in the vicinity of the staging area. Facilities such as campgrounds could be found along the route.

	Water Access	Staging Area	Water Route
Primitive	Primitive boat launch site	Primitive facilities	No or very primitive facilities
Semi-Developed	Basic boat launch	Basic facilities: toilets, campsites	Basic facilities, e.g. rustic campsites, toilets
Developed	Improved boat launch and dock	Full service facilities	Extensive facilities, e.g. well-developed campgrounds, washrooms





International River Classification System

River difficulty is rated using the six-part International River Classification System. Individual rapids are rated by class, ranging from Class I to Class VI. Where two ratings are indicated for a specific rapid, the first rating applies to high water conditions and the second to medium-low water.

Class I – Easy: Suitable for novices in all boats. Waves small and regular. Passages clear with occasional channel bars and artificial difficulties such as bridge piers.

Class II – Novice: Suitable for intermediate open canoe, novice closed canoe or whitewater boat with intermediate accompaniment. Rapids of medium difficulty with clear and wide passages. Low ledges, sweepers, snags, log jams and large protruding boulders may be present. Open canoes may ship water.

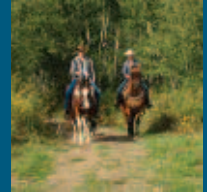
Class III – Intermediate: Suitable for advanced paddlers in open canoes and intermediate paddlers in whitewater and closed boats. Waves numerous, high and irregular rocks, eddies and rapids with clear and narrow passages requiring precise maneuvering. Inspection usually needed. Upper limit for open canoes, although extended reaches at this level are not recommended.

Class IV – Advanced: Suitable for advanced paddlers in closed canoes and whitewater boats. Not suitable for open canoes. Long rapids with powerful and irregular waves. Narrow passages through rocks and boiling eddies, requiring precise maneuvering. Course difficult to scout from the water. Inspection mandatory.

Class V – Expert: Suitable for expert whitewater paddlers only. Extremely difficult, long and very violent rapids following each other almost without interruption. Channel bed is extremely obstructed. Big drops, steep gradient and violent current. Inspection essential but may be difficult due to nature of the terrain.

Class VI – Extreme and Exploratory: Suitable for teams of expert whitewater paddlers, at favorable water levels and with adequate provision for rescue. Difficulties of Class VI carried to extremes of navigability.







TRAIL DESIGN AND MANAGEMENT

The information in this section is intended to provide general design guidance for trail layout, facilities, operations and maintenance. Basic trail design and management considerations are included for each trail condition. Some elements of trail design apply to all trails regardless of the intended use or desired experience. Other design elements will change to accommodate different uses and types of trail development.



Location and Layout Considerations for all Trail Types

Land Ownership

Trails cannot be located on land where the owner has not granted permission for the trail. In addition to ownership, there may be other land rights such as easements or rights of way which must be respected, or regulations which govern land uses. Prior to any trail planning and design work, the site land manager must be contacted for specific requirements for their area.

Environmental Sensitivity

Trails should not be developed in a manner where they can damage the environment. Special design considerations are required to locate trails through sensitive areas such as:

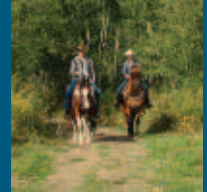
- wetlands;
- fragile habitats;
- nest areas;
- areas with rare or sensitive plant species; and
- soils subject to high erosion.

Generally, stream or water crossings should be avoided wherever possible. If they are required, trail alignment and design is critical to ensure minimal impact.

Safety

Although some trail users may seek an element of risk for their trail experience, it is advisable to avoid inherently dangerous situations for trails such as:

- unstable or eroding soils, avalanche hazards, rock falls, steep slopes or cliffs;
- uncontrolled high traffic road crossings;
- road or railway crossings without appropriate sightlines; and
- unprotected areas close to industrial activity with heavy equipment.



Where hazards cannot be avoided, appropriate signage and/or barriers should be provided to alert trail users to the danger.

Layout

A prime consideration for trail layout should be the experience provided for the trail user. Special features such as scenic viewpoints or historic sites may be destinations or points of interest along the trail. Interesting environments or views, seasonal variation, and areas of cultural significance are elements that contribute to the enjoyment of the trail and should be considered when choosing the trail route.

A looped design is the preferred layout option unless a trail is part of a long distance route, provides a connection between communities or other land uses, or leads to a special feature. A loop layout could include stacked loops that allow the trail user to choose an appropriate distance for the desired experience. Use of dead-end trails should be avoided unless accessing a unique feature. Use of one-way trails should be avoided except on specialty trails where two-way traffic could cause problems.

Trail intersections must be designed with appropriate slopes and sightlines for the designated use. If the trail is a long distance route, sources of water and camping sites must be considered along the trail. Existing trails may be utilized within a trail system if they provide the desired recreation or transportation experience and meet the trail management objectives. Existing trails that do not meet the standard may be upgraded through design and management practices.



Design and Management of Specific Trail Types

This section contains specific information associated with the planning, design, operation and maintenance of trail facilities for each of the three trail experience types: Primitive, Semi-Developed and Developed.

Primitive Trails

Staging Area:

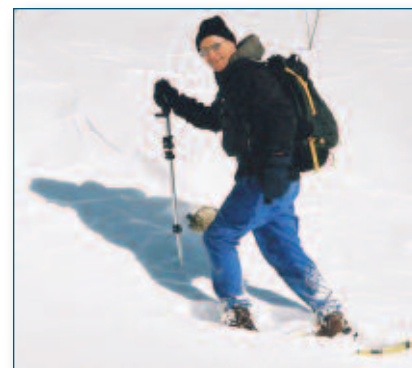
Parking – Parking would be accommodated with a small gravel parking lot sized for an expected number of users. If the users require trailers, e.g. equestrians, dog sledders or motorized vehicle users, the parking area must be large enough to contain the trailers and allow for manoeuvring.

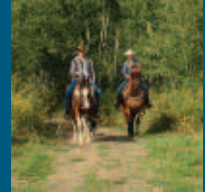
Toilets – If provided, toilet facilities would be rustic pit privies, pump outs (if accessible) or compost toilets.

Signage – As a minimum, a sign at the trail head should indicate the name of the trail, the allowed uses, a route map, the trail distance, the trail profile (elevation gain and loss if applicable), and distances to major destinations reached by the trail. Provision for special notice signs should be considered, e.g. wildlife cautions or trail dangers such as washed out bridges, impassable trail sections or hazardous adjacent uses or activities such as a sour gas well, logging, etc.

Camping – Camping facilities are most typically provided along the trail rather than at the staging area. However, if the staging area is remote, primitive camping facilities at the trail head may be desirable.

Picnic Facilities – Picnic facilities are not necessary at a primitive trail staging area; however, if suitable space is available, a basic picnic facility could be provided, (e.g. table, garbage container).





Garbage Containers – Garbage containers could be provided but regular cleaning must be scheduled. If there is wildlife nearby, the container should be designed to withstand hungry/curious animals. A pack in/pack out trail ethic is encouraged.

Fire Pits – Fires must be properly contained. Fire pits may be considered in association with camping or picnic facilities and only where fires are permitted in the area. Temporary fire bans may be placed if there is a fire hazard.

Water – A source of potable water is desirable at the staging area and may be provided by a well and hand pump. In some cases, users will be responsible for their own water, especially on remote trails.

Electrical Outlets – No electrical outlets are provided at the staging area.



Trail Corridor:

Structures (bridges, boardwalks, view decks, stairs, etc.) – Few, if any, structures would be provided along primitive trails. Bridges would be provided where crossings are dangerous or where the type of use could be damaging to water bodies.

Signage – A minimum amount of basic signage would be used, (e.g. directional signage with distances at key intersections).

Camping – Provision of facilities for camping depends on the location and length of trail. Basic camping areas should be provided if the distance between access points is longer than the slowest user can travel in a day.

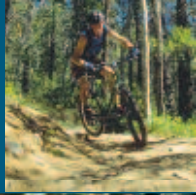
Fire Pits – Fire pits would only be provided in association with camping facilities and only where fires are permitted in the area. Temporary fire bans may be placed if there is a fire hazard.

Water – Trail users would be expected to bring their own water as only natural water sources, which could be unsafe, would be available.

Operations and Maintenance:

Public Education – Education should be a high priority in all trail management plans, but is particularly important for primitive trails. These trails need a low level of management with less trail monitoring and maintenance, and natural impacts such as blow downs or land slides, or impacts from irresponsible trail use may go unnoticed for longer periods of time than on more developed trails. When people are encouraged to be good stewards and responsible users, and are informed about the consequences of their actions, many undesirable behaviours can be potentially avoided, which reduces the level of management required and improves the trail experience for everyone.

Trail Monitoring – Monitoring of primitive trails will depend on several factors such as the level of use and the sensitivity of the environment along the trail. Trail users are the “eyes and ears” of these trails, and can be asked to provide information about trail conditions, use or impacts. Their reports supplement infrequent trail patrols, reduce the level of management required, and improve the trail experience for everyone. Enforcement activity would only be in response to reported incidents.



Trail Maintenance – Maintenance of primitive trails is less frequent than on more developed trails. The highest priorities for maintenance would be issues of safety, serious environmental damage or trail sustainability. There would be less emphasis on general trail maintenance such as clearing deadfalls from the trail. A pack in/pack out mindset is required to keep the trail clean.

Semi-Developed Trails

Staging Area:

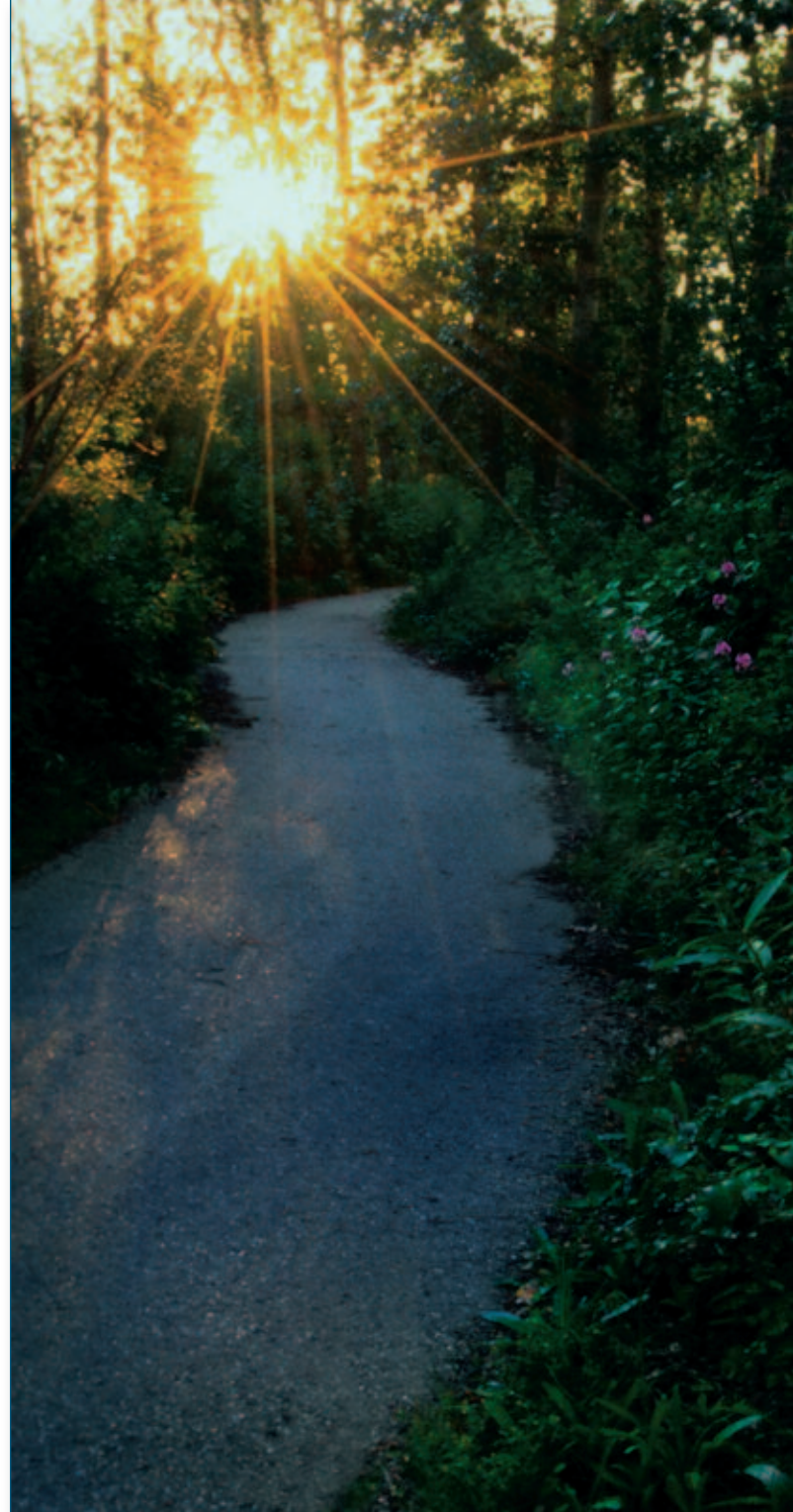
Parking – Parking would be accommodated with a good quality gravel or paved parking lot sized for an expected number of users. If the users require trailers, (e.g. equestrians, dog sledders or motorized vehicle users), the parking area must be large enough to contain the trailers and allow for maneuvering. Where possible, provide a separate designated area for equestrian loading for multi-use trails.

Toilets – Depending on the location and proximity of services, toilet facilities could be fully serviced with water and sewer, or could be pump outs or compost toilets.

Signage – A sign at the trail head should indicate the name of the trail, the allowed uses, trail stewardship messaging, the distance of the trail, the trail profile (elevation gain and loss if applicable) and distances to major destinations reached by the trail. Consider using an all-weather, protected structure for interpretation or special notice signs, (e.g. wildlife cautions or trail dangers such as washed out bridges, impassable trail sections or hazardous adjacent land use or activity).

Camping – Camping facilities are most typically provided along the trail rather than at the staging area. However, some locations may make camping facilities at the trail head desirable.

Picnic Facilities – Picnic facilities are desirable at or near a semi-developed trail staging area, and would include picnic tables, garbage containers and toilet facilities.





Garbage Containers – Garbage receptacles with regularly scheduled cleaning should be provided. If wildlife is in the area, the container should be designed to withstand hungry/curious animals.

Fire Pits – All fires must be contained. Fire pits may be considered in association with camping or picnic facilities if fires are permitted in the area. Temporary fire bans may be placed if there is a fire hazard.

Water – A source of water is desirable at the staging area and could be provided by a well or hand pump, or if the site is serviced, by an outside tap on the washroom building. Trail users are expected to pack their own water supplies.

Electrical Outlets – A light and electrical outlet may be provided at a serviced washroom facility.

Trail Corridor:

Structures (bridges, boardwalks, puncheons, view decks, stairs, etc.) – Structures would be provided where required along semi-developed trails. Bridges or puncheons should be provided at all water body or wetland crossings.

Signage – Directional and distance signage should be provided regularly along the trail. Informational signage about trail hazards or features would be appropriate.

Camping – Provision of facilities for camping depends on the location and length of trail. Basic camping facilities would be required if the distance between access points is longer than the slowest user can travel in a day.

Fire Pits – All fires must be contained. Fire pits would only be provided in association with camping facilities and only where fires are permitted in the area. Temporary fire bans may be placed if there is a fire hazard.

Water – Unless the trail is in an urban area, only natural water sources would be available. Trail users would be expected to bring their own water.



Operations and Maintenance:

Public Education – These trails will have a moderate level of management responding to a higher use level than primitive trails. Public education is the preferred method of influencing trail users and limiting undesirable behaviour on trails.

Trail Monitoring – Monitoring of semi-developed trails should be regularly scheduled to identify physical issues such as fallen trees, erosion problems or other user impacts, and to check for unauthorized uses. Enforcement activity would be restricted to times of peak activity in summer and winter months.

Trail Maintenance – Maintenance of these trails would be more frequent than for primitive trails. The highest priorities for maintenance would be issues of safety or serious environmental damage. Vegetation control, mowing along trail edges, litter removal and general cleanup would be secondary priorities. A “pack in/pack out” mindset should be encouraged to keep the trail clean and limit maintenance requirements.



Developed Trails

Staging Area:

Parking – A paved or gravelled parking lot sized for an expected number of users should be provided for all developed trails.

Toilets – Fully serviced washroom facilities should be provided in the staging areas for developed trails unless it is located in an urban setting with public facilities near by.

Signage – A sign at the trail head should indicate the name of the trail, the allowed uses, trail stewardship messaging, the distance of the trail, trail profile (elevation gain and loss if applicable) and distances to major destinations reached by the trail. Consider using an all-weather, protected structure for interpretation or special notice signs.

Camping – Developed trails will be less remote than other trail types, so camping facilities at the trail head would not normally be needed or provided.

Picnic Facilities – Picnic facilities could be a desirable feature at or near a developed trail staging area, and would include picnic tables, garbage containers and washroom facilities.

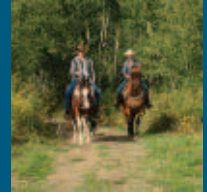
Garbage Containers – Garbage containers with regularly scheduled cleaning should be provided. If wildlife is in the area, the container should be designed to withstand hungry/curious animals.

Fire Pits – All fires must be contained. Fire pits may be considered in association with camping or picnic facilities if fires are permitted in the area. Temporary fire bans may be placed if there is a fire hazard.

Water – A source of water should be provided at the washroom building. An outdoor drinking fountain is a desirable feature where feasible.

Electrical Outlets – Lights and electrical outlets might be provided at serviced washroom facilities.





Trail Corridor:

Structures (bridges, boardwalks, puncheons, view decks, stairs, etc.) – Structures would be provided where required. Bridges or puncheons should be provided at all water body or wetland crossings.

Signage – Directional and distance signage should be provided regularly along the trail. Interpretive signage may be featured to highlight special features or hazards, or for educational purposes.

Camping – Camping facilities would not typically be provided along a developed trail unless in formal campgrounds.

Fire Pits – Fire pits would typically not be provided along a developed trail unless in formal campgrounds.

Water – In urban areas, drinking fountains along trails are desirable if feasible. On most trails, trail users would be expected to carry their own water supplies.

Operations and Maintenance:

Public Education – These trails will have a higher level of management, responding to a higher use level and locations in or close to urban areas. However, public education is the preferred method of influencing trail users and limiting undesirable behaviour on trails.







Trail Monitoring – Monitoring of developed trails should be regularly scheduled to identify physical issues and check for unauthorized uses. Enforcement activity would be more frequent and year round.

Trail Maintenance – Maintenance of these trails should be frequent. Issues related to safety or environmental damage should be addressed immediately. Vegetation control, mowing along trail edges, litter removal and general cleanup would be addressed on a regular basis. Snow clearing of developed trails may be a priority in some locations. A pack in/pack out mindset should be encouraged to keep the trail clean and limit maintenance requirements.



USER PROFILE SUMMARY CHARTS

Class Non-Motorized


Users	Experience	Trail Surface	Gradients	Trail Width	Clearing Width	Clearing Height
PEDESTRIAN						
	Primitive	Natural	Steep (up to 45%)	0.3m-1m (1-3ft)	1m-2m (3-6ft)	2.5m (8ft)
	Semi-developed	Granular	Gentle to moderate (up to 20%)	1m-2m (3-6ft)	2m-3m (6-8ft)	3m (10ft)
	Developed	Compacted Granular or Paved	Gentle (up to 5%)	2.5m+ (8ft+)	3.5m+ (11ft+)	3m (10ft)
CYCLISTS						
	Primitive	Un-surfaced	Steep (up to 30%)	0.2m-1m (8in-3ft)	1m-2m (3-6ft)	2.5m (8ft)
	Semi-developed	Granular	Gentle to moderate (up to 15%)	1m-2m (3-6ft)	2m-3m (6-10ft)	3m (10ft)
	Developed	Hard surface	Gentle (up to 10%)	2.5m+ (8ft+)	3.5m+ (11ft+)	3m (10ft)
SMALL WHEELED USERS						
	Primitive	N/A	N/A	N/A	N/A	N/A
	Semi-developed	Packed or Paved	Gentle (up to 10%)	1m-2m (3-6ft)	2m-3m (6-10ft)	3m (10ft)
	Developed	Paved	Gentle (up to 5%)	2m+ (6ft+)	3m+ (10ft+)	3m (10ft)
EQUESTRIAN						
	Primitive	Unsurfaced	Steep (30% +)	0.5m-2m (18in-6ft)	1.5m-2.5m (5-8ft)	3.5m (11ft)
	Semi-developed	Semi packed	Moderate to steep (up to 15%)	1m-3m (3-10ft)	2m-4m (6-13ft)	3.5m (11ft)
	Developed	Packed	Gentle (up to 10%)	3m+ (10ft+)	4m+ (13ft+)	3.5m (11ft)
HORSE & WAGON						
	Primitive	Natural	Steep (up to 15%)	2.5m (8ft)	3m-4.5m (10-14ft)	3.5m (11ft)
	Semi-developed	Semi packed	Gentle to moderate (up to 10%)	3.5m (11ft)	4.5m-5m (14-16ft)	3.5m (11ft)
	Developed	Packed	Gentle to moderate (up to 10%)	4m+ (13ft+)	5m+ (16ft+)	3.5m (11ft)
CROSS-COUNTRY SKIING						
	Primitive	Ungroomed	Steep (up to 30%)	1m-2m (3-6ft)	1m-2m (3-6ft)	3m (10ft)*
	Semi-developed	Occasionally groomed	Gentle to moderate (up to 20%)	2m-4m (6-12ft)	2m-4m (6-13ft)	3m (10ft)*
	Developed	Trackset or Packed	Gentle (up to 10%)	4m+ (13ft+)	4m+ (13ft+)	3m (10ft)*

* above average snow level


USER PROFILE SUMMARY CHARTS

Class

Non-Motorized

Users	Experience	Trail Surface	Gradients	Trail Width	Clearing Width	Clearing Height
SNOW SHOEING						
	Primitive	Ungroomed	Steep (up to 30%)	0.75m-1.5m (2-5ft)	0.75m-1.5m (2-5ft)	2.5m (8ft)*
	Semi-developed	Groomed	Gentle to moderate (up to 20%)	1.5m-2.5m (5-8ft)	1.5m-2.5m (5-8ft)	3m (10ft)*
	Developed	Groomed and packed	Gentle (up to 10%)	2.5m+ (8ft+)	2.5m+ (8ft+)	3m (10ft)*


DOG SLEDDING

	Primitive	Ungroomed	Steep (up to 30%)	1.5m-2.5m (5-8ft)	1.5m-2.5m (5-8ft)	3m (10ft)*
	Semi-developed	Single track	Gentle to moderate (up to 20%)	2m-3m (6-10ft)	2m-3m (6-10ft)	3m (10ft)*
	Developed	Double track	Gentle (up to 10%)	3m+ (10ft+)	3m+ (10ft+)	3m (10ft)*


Class

Motorized


B1 - TWO-WHEELED MOTORIZED VEHICLE

	Primitive	Unsurfaced	Steep (up to 45%)	0.3m-1m (1-3ft)	0.75m-1.5m (2-5ft)	3m (10ft)
	Semi-developed	Natural, rutted	Gentle to Moderate (up to 15%)	1m-2m (3-6ft)	2m-3m (6-10ft)	3.5m (11ft)
	Developed	Natural, smooth	Gentle (up to 10%)	2.5m+ (8ft+)	3.5m+ (11ft+)	3.5m (11ft)

B2 - WIDTH <1.27m (50") MOTORIZED VEHICLE

	Primitive	Unsurfaced	Steep (up to 30%)	1.5m-2.5m (5-8ft)	2.5m-3.5m (8-11ft)	3.5m (11ft)
	Semi-developed	Natural, rutted	Gentle to Moderate (up to 20%)	2m-3m (6-10ft)	3m-4m (10-13ft)	3.5m (11ft)
	Developed	Natural, smooth	Gentle (up to 10%)	3m+ (10ft+)	4m+ (13ft+)	3.5m (11ft)





B2(S) - WIDTH <1.27m (50") SNOW VEHICLE

	Primitive	Ungroomed	Steep (up to 45%)	2m-3m (6-10ft)	2m-3m (6-10ft)	3.5m (11ft) *
	Semi-developed	Occasionally groomed	Moderate (up to 20%)	5m+ (16ft+)	5m+ (16ft+)	5m (16ft) *
	Developed	Regularly groomed	Gentle (up to 15%)	5m+ (16ft+)	5m+ (16ft+)	5m (16ft) *

* above average snow level

USER PROFILE SUMMARY CHARTS




Class Motorized

Users	Experience	Trail Surface	Gradients	Trail Width	Clearing Width	Clearing Height
B3 – WIDTH 1.27m (50") to 1.65M (65") MOTORIZED VEHICLE						
	Primitive	Unsurfaced	Steep (up to 30%)	2m-3m (6-10ft)	3m-4m (10-13ft)	3.5m (11ft)
	Semi-developed	Natural, rutted	Gentle to Moderate (up to 15%)	2.5m-4m (8-13ft)	3.5m-5m (11-16ft)	3.5m (11ft)
	Developed	Natural, smooth	Gentle (up to 10%)	5m+ (16ft)	6m+ (16ft)	3.5m (11ft)
B3(S) – WIDTH 1.27m (50") to 1.65M (65") SNOW VEHICLE						
	Primitive	Ungroomed	Steep (up to 30%)	2m-3m (6-10ft)	2m-3m (6-10ft)	3.5m (11ft)*
	Semi-developed	Occasionally groomed	Gentle to Moderate (up to 20%)	5m+ (16ft)	5m+ (16ft)	5m (16ft)*
	Developed	Regularly groomed	Gentle (up to 15%)	5m+ (16ft)	5m+ (16ft)	5m (16ft)*
B4 – WIDTH 1.65m (65") or more MOTORIZED VEHICLE						
	Primitive	Unsurfaced	Steep (up to 45%)	2m-4m (6-13ft)	3m-5m (10-16ft)	3.5m (11ft)
	Semi-developed	Natural, rutted	Moderate to Steep (up to 40%)	3.5m-5m (11-16ft)	4.5m-6m (15-19ft)	4m (13ft)
	Developed	Natural, smooth	Gentle (up to 10%)	5m+ (16ft)	6m+ (19ft)	4m (13ft)
B4(S) – WIDTH 1.65m (65") or more SNOW VEHICLE						
	Primitive	Unsurfaced	Steep (up to 30%)	2m (6ft)	3.5m (11ft)	3.5m (11ft)*
	Semi-developed	Sufficient Snow	Gentle to Moderate (up to 20%)	4m-5m (13-16ft)	5m+ (16ft)	5m (16ft)*
	Developed	Sufficient Snow	Gentle (up to 15%)	5m+ (16ft)	5m+ (16ft)	5m (16ft)*

* above average snow level

USER PROFILE SUMMARY CHARTS

Class Water Trails

Users	Experience	Access	Staging Areas	Water Route
Non-Motorized Use				
	Primitive	Difficult, no vehicular access to shore, trail could be narrow, steep and rough	No facilities	No facilities
	Semi-developed	Vehicular access close to shore, easy trail or simple boat launch	Basic facilities - toilets, parking, signage	Basic Facilities - e.g. rustic campsite, basic toilets
	Developed	Vehicular access to shore formal boat launch, possible dock	Extensive facilities	Extensive facilities, e.g. well developed campgrounds, washrooms
Mixed-Use				
	Primitive	Primitive boat launch site	Primitive facilities	No or very primitive facilities
	Semi-developed	Basic boat launch	Basic facilities, e.g. toilets, campsites	Basic Facilities - e.g. rustic campsite, toilets
	Developed	Improved boat launch and dock	Full service facilities	Extensive facilities, e.g. well-developed campgrounds, washrooms



GLOSSARY OF TERMS

ATV (All Terrain Vehicles)

Wheeled or tracked motorized vehicles designed primarily for recreational use or transporting property or equipment on trails, undeveloped roads, marshland or other unprepared surfaces.

Access

The mode of travel used within an area that influences both the level and type of recreational use an area receives.

Average Grade

The steepness of the trail over its entire length – calculated by taking the total elevation gain of the trail, divided by the total distance (X 100 = per cent grade).

Clearing

Refers to the amount of vegetation removal required to accommodate the trail both vertically and horizontally.

Corridor

The full dimensions of the trail, including the area on either side of the tread and the space overhead.

Designated Trail Operator

The group or entity designated as having responsibility for the operation, maintenance and management of a trail.

Enforcement

Enforcement is those activities that compel and/or force adherence to legal requirements.

Grade

The slope of the land, expressed as a ratio of vertical to horizontal, which occurs along a particular section of trail.

Managed Recreation Trail

A linear recreation facility that is marked, mapped and maintained for recreation activity.



Maximum Grade

The steepest section of trail is more than approximately 10 feet in length and is measured in percent with a clinometer.

Public Lands

Refers to lands under federal, provincial or municipal jurisdiction.

Puncheon (Bog Bridge)

A log or timber structure built on the ground for the purpose of crossing a marshy or boggy area.

OHV

Any motorized mode of transportation built for cross-country travel on land, water, snow, ice or marsh or swamp land or on other natural terrain.

Quad

Quad is a common term for all-terrain-vehicles (ATV's) that operate off-highway.

Recreation Corridor

Refers to a corridor of varying width where one or more trail recreation activities may occur., e.g. hiking, biking, cross-country skiing, snowmobiling, equestrian, quad, snowmobile.

Site Management

Refers to the level of site development. Lack of site modifications can facilitate feelings of self-reliance and naturalness; highly developed facilities enhance comfort and social interactions.

Slope

Refers to change in elevation along the length of a trail.

Trail System

Is a network of linked or interconnecting trails.

Trailhead

An access point to a trail or trail system that can be accompanied by various public facilities, including hitching posts for horses, an OHV unloading dock, toilets, water, signs, maps, etc.

Tread

The actual surface of the trail upon which users travel.

Tread Surface

The material and stability of the tread surface (paved, firm, stable, loose, etc.).

Tread Width

Average width of the active tread or beaten path of the trail.

Visitor Impacts

Affect natural resources such as soil, vegetation, air, water and wildlife. Even low levels of use can produce significant ecological impacts, which influence the visitor's experience.

For more information about the Alberta Recreation Corridor and Trails Classification System, contact:

Recreation Branch
Alberta Tourism, Parks and Recreation
Phone: (780) 415-0267
Email: fred.wilton@gov.ab.ca
Web: www.tpr.gov.alberta.ca

To obtain additional copies of this publication and more information about Alberta trails, planning or building a trail, or supporting trail development, contact:

Alberta TrailNet
Phone: (780) 422-7150
Toll-free: 1-877-9-TRAILS
Email: atnadmin@telus.net
Web: www.trailnet.ca

