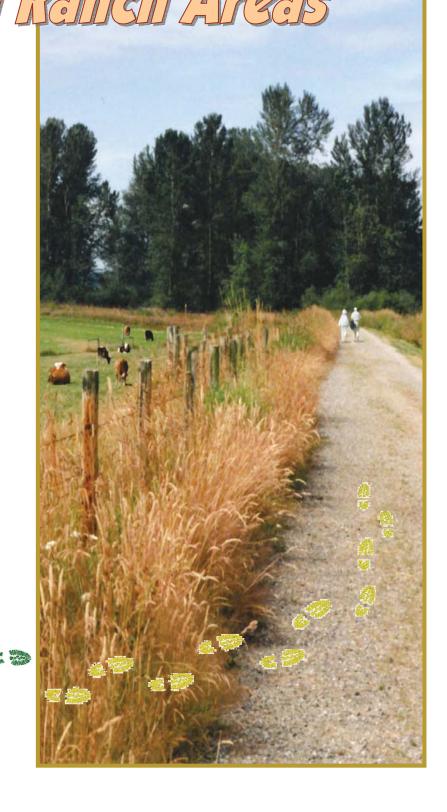
A Guide to
Using and Davaloping Trails
in Farm and Ranch Areas





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British Columbia Ministry of Agriculture and Lands

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Trans-Canada Trail - Abbotsford

About this Guide

This guide was principally prepared for the people who are directly involved in the planning, design, development and maintenance of trails that go through agricultural lands. These could include: trail clubs and non-governmental organizations, provincial or local government staff, consultants, contractors or volunteers. The guide contains many suggestions and recommendation; however, site-specific conditions and local circumstances may demand modification of the techniques and process described in the Guide.

The Challenge . . .

The farming and ranching lifestyle is unique. Farms and ranches occur within rural landscapes where families both live and work. The challenge is to recognize this and to follow a trail development process that establishes a positive, working relationship with the agricultural community. This involves gaining a full understanding of the special issues surrounding trails and agriculture and working together to find practical solutions in a setting of mutual respect

Code for Trails in

Agricultural Areas . . .

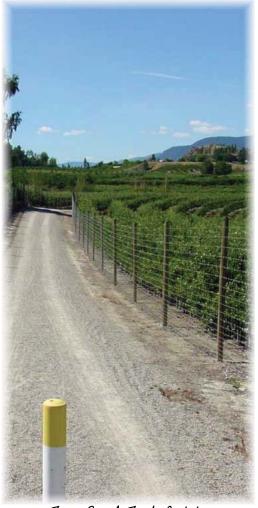
Regardless of the type of trail you are planning, there is a basic trail code – general rules to follow when developing and using a trail. An agricultural trails code has been used to highlight some issues and opportunities and to propose design, trail use and management solutions.

Design Examples . . .

Focus on ways to create 'agricultural trails' that are good neighbours with agriculture.

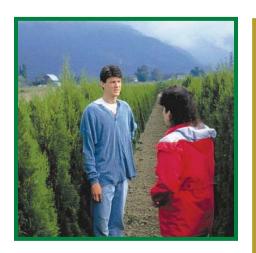
Planning Process . . .

This Guide outlines a process to ensure the agricultural community plays an integral part in trail routing, development and possible assistance with long-term operation of proposed trails. This Guidebook will provide a basis for increased trust and mutual support.

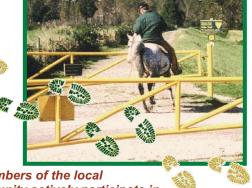


Trans-Canada Trail - Penticton

This Guide benefits you...







In a perfect world,
why shouldn't members of the local
agricultural community actively participate in
the planning and design of trails in agricultural areas?
Why shouldn't maintenance and operations of the trail
Involve seasonal jobs for students in the agricultural community?

If you are planning to develop a trail in a farm or ranch area, the Guide:

- highlights important agricultural issues that are sometimes overlooked;
- suggests solutions to some of the most common agricultural issues and concerns; and
- provides a step-by-step trail development and public consultation process that involves the farm and ranch community

If you are a farmer or rancher, the Guide:

- suggests that the agricultural community be consulted and encouraged to help in the trail development and management process; and
- encourages a trail design that provides opportunities for the agricultural community (e.g direct farm marketing).

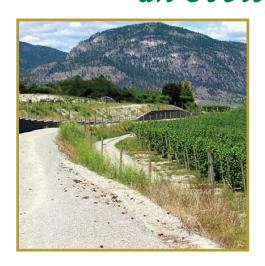
If you enjoy using trails, the Guide encourages:

- users to play an important role in keeping farms and ranches a safe and productive work place;
- trail users to support local agriculture to keep farm communities alive; and
- responsible use of the trail to reduce the need for restrictions on access and activity.



Trails in Agricultural Areas

1. Trails in Agricultural Areas an Overview

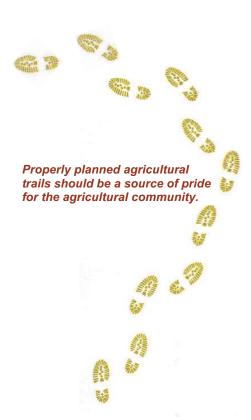


Trails in rural and urban areas are beginning to function more and more as an integral part of transportation and recreation systems. In recent years interest in new trails has grown, with the most significant being the Trans Canada Trail system. The British Columbia provincial government has been recognized as one of the Trans Canada Trail's most active supporters. It is anticipated that interest in trail development will continue to grow substantially.

In many cases, existing and proposed trails go through agricultural lands. Trail use has implications on farming and ranching – implications not always fully appreciated by trail developers and trail users.

If well designed and managed, trails can achieve a high level of compatibility with the farms and ranches they pass through. Trails in agricultural areas provide an opportunity to ensure trail users have a fuller appreciation of the contributions made by the agricultural community. It is also possible for trails in the countryside to create economic benefits – particularly through direct farm marketing and agritourism.

Following is a summary of the key features and concepts of the Guide.





Issues and Opportunities

Issues

BC agriculture produces over 200 different commodities. In terms of scale, some operations use land intensively - others quite extensively. Each type and size of farm will have differing issues and opportunities that may require a distinct response to trail design and management. At the same time, farming and ranching operations share many common characteristics and concerns:

Security and Trespass

- Trespass –The potential for trespass and damage to crops and livestock forage is greatly increased when trails border farm fields or pass through rangeland.
- Harassment of Livestock This is a serious concern for farmers and ranchers. Stress on livestock can lead to decreased birth rates and productivity and increased livestock mortality.
- Gates Gates and fences play a vital role in farm management and security. Trail users who accidentally leave gates open that need to be closed, or close gates that were intentionally left open, can cause serious problems for farm operations.
- Fire Farms and ranches are often at great risk to fire. For example, tinder dry barns may contain hay or volatile fertilizers and pesticides. Runaway grassland and forest fires can devastate operations. To make matters worse, farms and ranches are often located far from the nearest fire hall, which can result in slow response times and increased damage.
- Theft and Vandalism Allowing greater public access to farms and ranches may increase vulnerability to theft and vandalism.



The majority of rangeland in British Columbia

is leased from the Crown and is essential to the viability of ranch operations. It is important to recognize that although the public has the right to use these lands for recreation, ranchers also have the right to make a living.

The biggest issue for ranchers is harassment of livestock. A herd of cattle stampeded by a trail user or dog can run off significant dollars of beef weight.

On rangeland, motorbikes, mountain bikes and All Terrain Vehicles (ATVs) often explore 'off-trail'. This is hard on the grasslands, tearing up the grass and soil and reducing the amount and quality of forage available for livestock.

These trails can interfere with cattle grazing patterns by leading cows into areas they are not meant to go.

Trails in Agricultural Areas

Interference with Farm and Ranching Operations

- Access for Farm Machinery A farm is a workplace and trail users should not interfere with day-to-day operations. Vehicles parked in front of gates and along narrow agricultural roads can block access for farm machinery.
- Privacy / A Place of Work A farm is a private residence and a work place and should be respected as such. When a trail is developed next to a farm and a farmer's work is interrupted by trail users for directions or other questions, this can be costly. As the saying goes - 'time is money'.

Crop and Field Damage

- Dust Sensitive food crops (e.g. lettuce) adjacent to the trail are susceptible to damage from dust.
- Drainage Trails that change the landscape's existing surface drainage can cause significant damage to fields, alter farming patterns and delay planting.
- Litter A piece of garbage or glass bottle, thrown into a nearby field, can cost a farmer a lot of time and money due to damaged machinery, livestock illness or a crop that cannot be marketed.
- Invasive Plants The introduction of noxious and invasive plants into agricultural lands can threaten livestock health, decrease crop yields and reduce the quality of livestock forage.

Opportunities

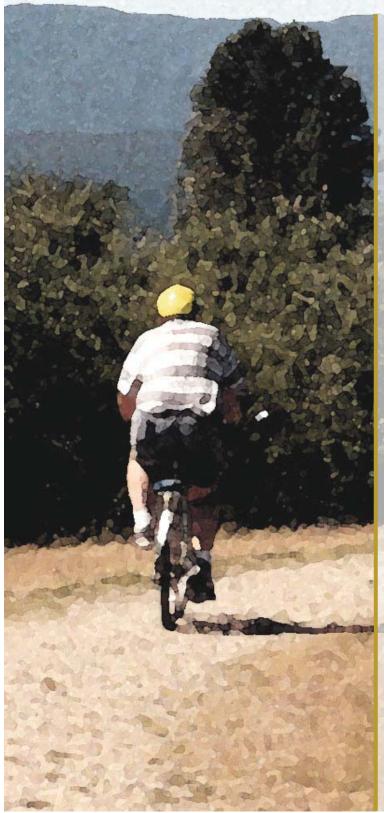
Public trail access through agricultural lands can provide opportunities to farming and ranching operations. Many farms and ranches are located in remote areas – others closer to urban development. Regardless of their location, for most of us in BC, food production is no longer a part of our daily lives. As a result, the connection between the supermarket and the farm/ranch has been lost. Trails have the potential to foster a reconnection to agriculture by:

- raising public awareness of agricultural processes and encouraging appreciation of our farmers and ranchers. This can be enhanced with interpretive signage and brochures.
- providing additional business opportunities for farmers and ranchers. Trails can serve as a conduit for agri-tourism and direct farm marketing.



Trail Development Tool Box

There are a number of typical trail design, use and management solutions that respond to the issues and opportunities surrounding agricultural trail development. Used independently or in combination, these 'tools' can be modified to effectively address most situations.



Design Solutions

- Trail Users Identifying the user groups that are the most appropriate for the type of trail and trail location will help minimize potential conflicts with farmers and ranchers.
- Trail Routing Trail alignment can determine the amount of impact a public trail will have on a farm or ranch. In many cases, trails are developed along existing or historic rail and access-road right-of-ways that pass directly through farm and ranch lands. Every effort should be made to find alternative trail routes that go around rather than through these areas in order to avoid any potential conflicts. Where this is not feasible, it may be necessary to provide for temporary rerouting around agricultural lands to accommodate seasonal changes in land use (e.g. harvest time, lambing or calving season, rotational grazing in rangeland).
- Buffers Leaving a visual or physical barrier between trail users and a sensitive area of a farm or ranch can offer privacy and security. There are five basic types of agricultural buffers: fencing, physical separation, water features, vegetation and elevation differences. Appropriate fences can protect food crops from wandering trail users and dogs. If the crop is sensitive to dust (e.g. lettuce or fruit crops), the trail could be set back from the field, or there could be management actions for dust control.
- Signage A well-designed, coordinated sign system can help ensure smooth, efficient trail management. There are four general types of trail signs: do's and don'ts, trail information, interpretive and advertisement. Trailhead signs, for example, should be placed in appropriate locations so trail users do not disturb farm and ranch operations by parking in the wrong places and constantly asking for directions.

Trails in Agricultural Areas

Trail Use / Management Solutions

- Code of Conduct Minimize the impacts on farms and ranches by developing a code of conduct that informs trail users of the "do's and don'ts" of a trail through an agricultural area.
- Trail/Trailhead Closures Consider closing trails during times of intense farm use or sensitive operations when there are safety concerns.
- Volunteers Consider the use of volunteers to ensure the safe use of the trail on days (e.g. harvest time) when sections of the trail must be repeatedly used by farm vehicles.
- Communication with Landowners/Ranchers Making contact with and involving the agricultural community in the planning and design of the proposed trail is the key to a successful trail.
 - Long-Term Management Maintain contact with the agricultural community and work with them to resolve issues through an appointed contact person. Consider methods to patrol the trail in order to ensure appropriate use (e.g. dogs on leash, no ATVs on a pedestrian trail).
- Maintenance Reliable trail maintenance goes a long way to ensure that the trail does not impact farm/ranch productivity.



Dut on the Ranch

Provide a buffer of existing vegetation as a visual screen for the ranch yard to maintain privacy for family and ranch hands.

Rangeland trail routes must respect the seasonal grazing pattern of livestock (spring and summer range). Close trails that pass through areas of the ranch that are currently being used and provide alternate trail routes.

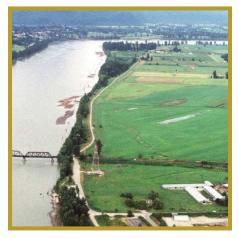


Planning and Partnerships

Trail planning should involve a strong partnership between the agricultural community and trail proponents. The key to successful trails in agricultural areas is the continued involvement and input of farmers and ranchers, throughout the planning and management process. This helps to ensure special agricultural issues are addressed at every stage of the development and ongoing management of trails. For greater detail see pages 13 to 33.







Vision and Partnerships

A vision statement outlines a general idea and location for a proposed trail and serves as a starting point for public discussion and input.

- If the proposed trail corridor passes through agricultural land, one of the main objectives of the vision statement should be to build and maintain partnerships with local farmers and ranchers. In turn, this will allow opportunities to seek their input into the planning and design of the proposed trail.
- Identify and contact local agricultural organizations and individual landowners. Invite them to participate in the trail planning process as part of a formal trail planning advisory committee and/or as part of public meetings.

Issues and Opportunities

A thorough inventory and analysis involves a detailed exploration of the issues and opportunities surrounding trail development through farm and ranch lands. This provides the information needed to choose the most appropriate trail route, design and facilities, coordinate trail construction, as well as manage and operate the trail effectively.

- Seek input from the agricultural community.
 Provide an effective forum for farmers and ranchers to express any ideas and/or concerns they may have about the trail and to contribute their invaluable local area knowledge.
- This input could take the form of landowner interviews, working groups, feedback from the advisory committee, surveys and public workshops.

Trails in Agricultural Areas

Trail Routing and Concept

The next step is to begin exploring options and alternatives for the location, route, and development of the proposed trail and develop a number of different "concept plans". For example, which trail routes present the greatest opportunities and the fewest issues for farmers and ranchers? Is re-routing of existing right-of-ways possible?

- Develop typical cross-section drawings that show the relationship between the trail and adjacent agricultural areas.
- Encourage feedback from the agricultural community through the trail advisory committee and a public workshop.
- Incorporate the concept plan or the elements of all concepts that meet the public's approval into a detailed design.

Detailed Design

A detailed design looks at the specific elements of a proposed trail; it builds on opportunities and resolves individual issues.

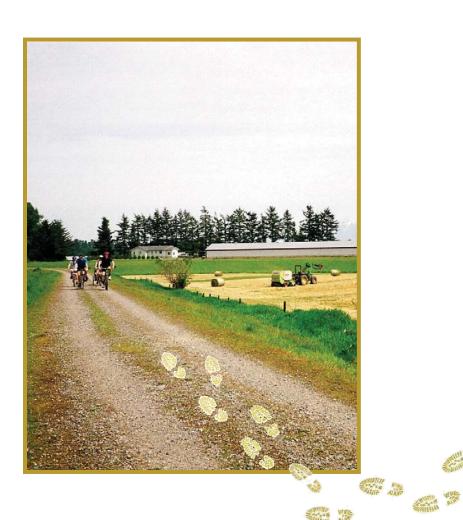
- Work with individual farmers who are directly impacted by the trail to pinpoint site-specific issues and concerns and to discover potential opportunities and solutions.
- Encourage further input from farmers and ranchers through a final public open house. With the involvement of the agricultural community in the planning and design process from the outset there should not be any big surprises.

Trail Construction and Management

Trails are a long-term investment. Following the planning process, the key to the enduring success of a trail is a proper construction, management and maintenance program.

- Discuss with farmers and ranchers to become aware of any special construction considerations for agricultural areas.
- Let the public know how the construction is progressing and provide a contact person who can answer questions and address concerns.
 Provide a management structure for the trail that will provide long-term support and quick response to future issues and opportunities related to agriculture.





2. Goels of Gonelies* (for trails in Agricultural Areas)



Regardless of the type of trail, general rules or etiquette should be followed when using a trail. In this spirit, an agricultural trails code has been used to highlight several issues and opportunities that in turn serve as guideposts to proposed design, trail use and management solutions for each.

- Always keep to the trail and avoid trespassing onto farmlands
- Leave gates and livestock alone
- Keep dogs under control at all times
- Help prevent fire, vandalism and other damage
- Keep out of the way of farm vehicles
- Leave no litter and avoid the spread of invasive plants and disease
- Be prepared for limited facilities along the trail
- Respect farm families and private property
- Support agricultural livelihoods
- Observe all other 'Rules of the Trail'



Keep to the trail and avoid farmlands Why?



Jut on the Ranch

Due to the scale and nature of rangeland, trails in these areas tend to lack comprehensive planning and are rarely well built or maintained. This lack of trail planning may cause problems for ranchers. With the increasing popularity of mountain biking and ATVs, ranchers have noticed a significant increase in the number of trails. These new trails also create new cow trails, leading to changes in grazing patterns. They allow cattle to drift off the range into unauthorized areas, sometimes even into urban areas.

A practical solution to this problem is to design and build trails that stop cattle drift as well as enhance the trail riding experience. For example, provide a series of short fences and/or design fences to go across the trail that allow bikers to pass over.

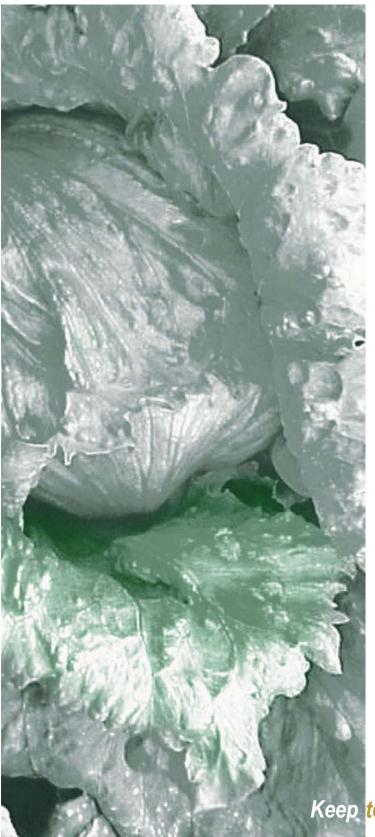
To avoid trampling or contaminating crops

Trail users venturing into farm fields, whether it is to explore or to find a shortcut, can cause significant damage to valuable crops and create health concerns surrounding food crops.

To moderate dust concerns

Dust can become a problem for both trail users and farmers, particularly during the dry season. Trail users (especially motorized vehicles) can damage adjacent crops such as lettuce, cherries and other fruit that are particularly sensitive to dust accumulation. Alternatively, dust created by crop harvesting and other farming operations can be unpleasant for trail sers.





Design Solutions

- Where possible, minimize potential conflicts by routing trails to avoid vegetable and fruit crops.
- Use buffers (e.g. fencing, vegetation and/or physical separation) to keep trail users away from crops and to minimize exposure to dust. Route the trail to take advantage of natural buffers.
- Design narrow trails and use a trail surface material which minimizes dust creation (e.g. compacted gravel) in areas where buffering is difficult.
- Consider the potential need to restrict access to the trail during sensitive operations and provide facilities to allow this (e.g. gates).

Trail Use / Management Solutions

- Promote basic trail etiquette. Many conflicts can be avoided if trail users stay on the trail.
- Provide consistent and easily recognizable signs along the trail so people do not accidentally wander off the trail onto farm property.
- Supply information through brochures or websites to let people know the issues associated with trespassing on agricultural land.
- Provide temporary signage to warn trail users of trail conditions during times of intense farm activity (e.g. harvest time) when large volumes of dust may be created.
- Establish a good working relationship between farmers/ranchers and trail managers to ensure quick reaction to issues related to changes in agricultural operations or management.
- As appropriate, limit trail use or users (e.g. equestrian closure or ATV closure at certain times).

Keep to the trail and avoid farmlands

Leave gates and livestock alone

Why?



Dut on the Ranch

Ranchers leave livestock to roam free on the range with minimal need for gates or fences. This can lead to conflicts, especially if trail users and livestock are using the same trails.

The biggest issue for ranchers is harassment of livestock. A motorized vehicle, or mountain biker can easily spook and scatter a herd of cattle.

Requiring trail users to display identification on their motorbikes, ATV or mountain bikes would allow ranchers to identify and address irresponsible individuals.

Other ideas to reduce the harassment of livestock include: providing programs and information sessions to educate trail users in rangeland riding etiquette; design trail maps to highlight ranch issues; and posting trailhead signs.

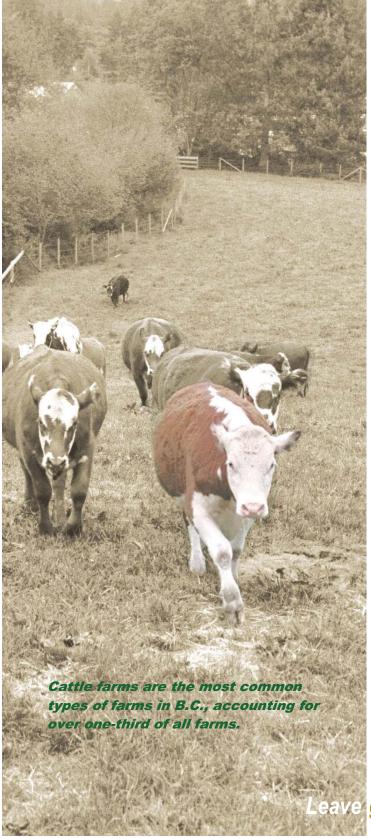
To make sure that livestock remain separated and are not accidentally let loose

Fencing and gates play an important role in farm management and security. In many cases, livestock are split up based on breed or gender. A horse-breeding farm may separate one breed of horses from another breed; a cattle farm may separate the cows from the bulls. Farmers also manage grazing by rotating livestock from one field to another.

In BC, many trails have been developed within their own right-of-way and do not involve the actual passage through field or range areas. However, where this is not the case, trail users <u>must</u> leave gates as they find them: re-close a gate if it was found closed and leave a gate open if it was found open. All it takes is for one person to forget and serious harm can come to a farmer's livestock. Horses and cattle, for example, can become sick and even die if they get into the wrong field and bloat on lush forage. Closing gates that were intentionally left open can endanger livestock if they can no longer gain access to their water supply.

To avoid personal danger and to maintain livestock productivity

Farm animals are sometimes unpredictable. Livestock harassment, intentional or not, can injure animals, cost farmers time and money and may also endanger a trail users' life. Taking a shortcut through a farmer's field may stampede a herd of cattle, running off the beef weight that the farmer has managed, through great expense, to put on. Making excessive noise near poultry barns can panic the birds resulting in loss, injury and may reduce egg laying.



Design Solutions

- Design trails to minimize the need for gates, but recognize where gates are needed in support of agriculture.
- In situations where gates are required provide gates or means of access that people can pass through but animals cannot (e.g. stiles, baffle gates, cattle guards) or self-closing gates (e.g. latched gates with springs).
- Provide signs that indicate to a trail user whether the gate should be left open or shut; or, leave gate control to farmers and ranchers by locking gates open or shut.
- Provide buffers to keep trail users away from livestock.

Trail Use / Management Solutions

- Provide signs and trail etiquette information emphasizing to trail users that gates should be left as they are found.
- Respond to feedback from farmers. Where a trail passes through a farm and trail users are continually leaving gates open, consider rethinking the trail design and routing and find ways to resolve the issue.

Livestock is the backbone of many farm and ranch operations and their value would surprise most people. An average Holstein cow is worth about \$3,000.









ave gates and livestock alone

Keep dogs under control Why?



Jut on the Ranch

Trail users must be encouraged to keep their dogs under control. A common problem for ranchers is dogs chasing and scattering herds, which complicates round up as well as running off beef weight and generally stressing the cattle.





Don't shoot!

That's my dog!

If a dog is seen bothering or running near livestock, a farmer or rancher can shoot it. The dog owner may be prosecuted and fined, even if the dog has not actually attacked an animal.

To stop dogs from chasing and harassing livestock

When you are in rural areas and can't see anything but the odd herd of cattle for miles around, it is tempting to let your dog roam free to do whatever it is that dogs naturally like to do. People may think it harmless to let their dog "interact" with the farm animals they encounter along the way. In fact, dogs can chase and harass livestock until animals either collapse in exhaustion or are seriously injured. Pregnant animals and their young are particularly vulnerable to stress and injury from dogs. Sheep easily become stressed at the sight of a free running dog and may abort their young.

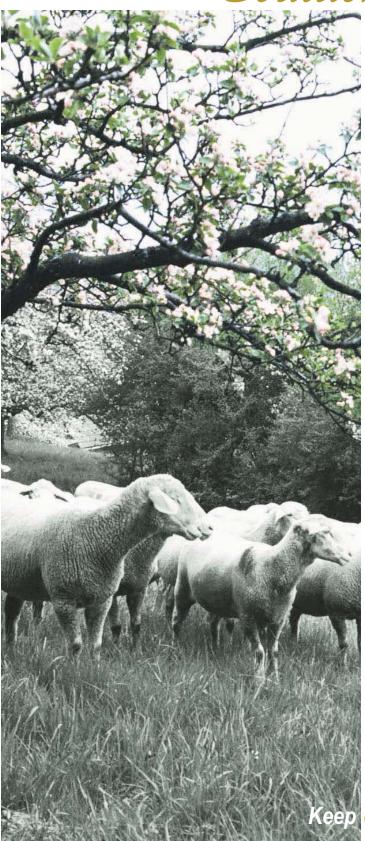
To prevents dogs from damaging crops

Dogs left to run through crops can do extensive damage. Not only can they trample plants, but dog excrement is foul smelling and can be unsafe to livestock and to humans if food crops are contaminated. Many harmful parasitic diseases can be transmitted to humans and/or livestock via dog faeces.



Cock of Conclude

Solutions:



Design Solutions

- Identify areas of the trail that are sensitive to dogs (e.g. food crops, farm buildings) and designate them as on-leash areas. Provide signs and maps to highlight these on-and off-leash sections of the trail.
- Provide effective fencing to keep dogs out of sensitive areas.
- Supply doggie bags at all trailhead facilities and garbage receptacles, encouraging trail users to pick up after their dogs.

Trail Use / Management Solutions

- Keep your dogs leashed at all times and do not let them off the trail. It is not an appropriate place for your dog to be in fields with food crops or running with livestock.
- Choose to leave your dog at home if it is aggressive, noisy or not readily controlled.
- As part of the management strategy, consider methods to enforce dog leash rules.

"Attention all dogs! Grab your leash and have your owner take you for a stroll....!

See Appendix 2 for municipal initiatives to create "dog-off leash" specific areas.



Help prevent fire, vandalism and other damage

Why?



Jut on the Ranch

Mountain bike, motorbike and ATV use can quickly degrade open grassland areas causing erosion problems and reducing forage areas for livestock.



Fires can start as the result of:

- cigarettes carelessly dropped to the ground;
- campfires not properly extinguished or when sparks spread fire to nearby grass and underbrush;
- a piece of glass left lying in the sun creating enough heat to start a fire; and
- motorbikes without fire arrestors on their exhaust systems.

Fire risk on farms is a serious threat due to:

- barns filled with hay or grain that will ignite almost instantly;
- stored fertilizers and petroleum products;
- arson:
- slow response time from fire halls due to more remote locations; and a
- lack of adequate water supply, equipment or resources to fight a fire.

To prevent fire from destroying a farmer's livelihood

The devastating effects of forest fires are broadly known. The development of trail systems needs to strongly reinforce an awareness of these dangers and require strict adherence to rules concerning the use of fire. But the threat of fire is also a constant and serious concern to farmers. This concern is magnified with the presence of trails through farmland. The threat increases during the dry summer months when more and more people start using the trails.

To avoid theft and vandalism

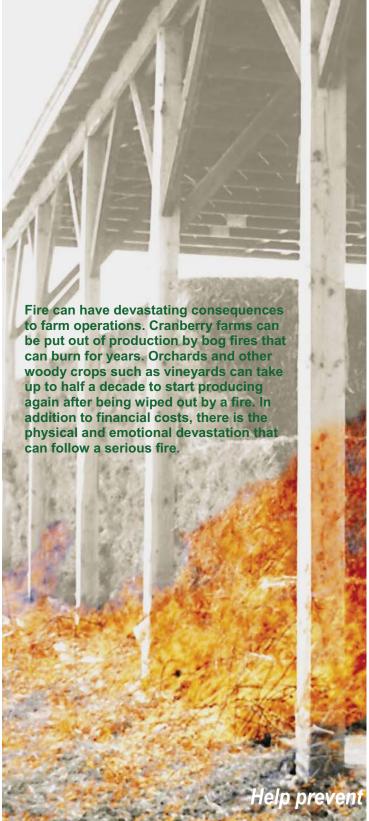
Increased public access to farms and ranches can result in increased opportunity for theft and vandalism. Farm machinery can be a target for vandalism. Farm operations are often time sensitive (e.g. haying). Waiting for an essential machine or vehicle to be repaired can result in significant loss for the farmer.

To minimize unintentional damage

People are often unaware that their actions may result in damage to farm property. Many farm crops, such as blueberries or grapes, must be covered with nets to prevent them from being eaten by birds. Birds sometimes get caught and when people try to cut them free, they leave a hole in the net for other birds to get through and destroy the crop.

Close attention must be paid to trail construction so that it does not increase water management problems for farmers and ranchers. If surface drainage is redirected and concentrated into a field it can saturate the soil, change the suitability of the soil for crops and delay farmers' access to fields.

Motorized vehicles and mountain bikes can easily tear up trail surfaces and, when taken off-trail, can damage fields and crops. They rip up plants, compact the soil and change surface drainage patterns.



Design Solutions

- Route trails away from farm buildings or improve buffering to minimize exposure to trail users (e.g. fence sensitive areas to keep people out).
- Store equipment and flammable materials (e.g. fertilizers and petroleum products) in secure storage areas to minimize the risk of theft, vandalism and accidental fires.
- Depending on the type and location of the trail, the use of campfires may be banned or confined to designated camping spots along the trail with fire rings provided where appropriate.
- Encourage no smoking on the trail or establish no smoking areas where the trail is near barns, outbuildings and other high-risk areas.
- Provide fire hazard signs as part of trailhead facilities to increase awareness.
- Design the trailway so that stormwater does not affect agricultural operations.

Trail Use / Management Solutions

- Follow proper trail etiquette and respect campfire regulations.
- Require fire arrestors for all motorized bikes.
- Post emergency phone numbers to call if someone is seen acting improperly.
- Decide on a procedure and criteria for closing and redesigning trails about which farmers/ranchers complain or which are hazardous.



A small barn filled with hay can be worth up to \$50,000. A large dairy barn, without cows or hay can be worth \$250,000.

lelp prevent fire, vandalism and other damage

Keep out of the way of farm vehicles





To avoid blocking roadways and gates

Where do you park your car at the trailhead? A common concern of farmers is with people parking in front of gates or along both sides of narrow farm roads, making it difficult for farmers to pass by with farm machinery. It is important to remember that farmers and ranchers do not keep a nine-to-five schedule; they may require field access or need to move large equipment any time of the day or week.

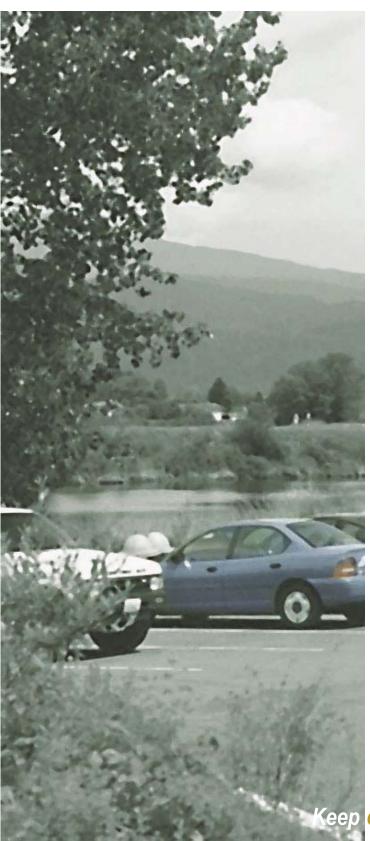
To maintain access to all areas of the farm or ranch

When deciding on a trail route, every effort should be made to bypass farms and to avoid splitting up individual farm units. It is common, however, for a trail to traverse a farm or ranch operation. This is particularly the case when trails are developed along old rail lines and access roads. In these cases farmers and ranchers will need to cross the trail in order to access severed parts of their farm. For instance, a winery may be located on one side of a trail and a vineyard on the other. Convenient access must be maintained to these areas to allow farm operations to function efficiently.

In other cases, a trail may see heavy farm use for a few days a year during periods of field preparation, planting and harvesting. During these times, there is generally a large volume of truck traffic that can be dangerous to trail users. Furthermore, many farm operations hire large, expensive custom harvesters, which means any hold up or slowing of trucks can be very costly to the farmer.







Design Solutions

- Provide parking areas at trailheads.
- Provide convenient access for farm machinery.
 Locate field access points close together,
 minimizing traveling distance on the trail.
- Reduce conflicts between machinery and trail users. Maintain sight lines (avoiding blind spots, sharp turns and hills that impede the view) or build overpasses/underpasses.
- Design and build trails to accommodate farm machinery where necessary (e.g. make bridges wide enough for farm machinery). If needed, design fencing and gates to control access and allow for temporary closures associated with farm operations.

Trail Use / Management Solutions

- Communicate with farmers and ranchers early in the planning process to determine the level of necessary farm vehicle use and crossing of the trail. This will improve safety for trail users, reduce liability and guarantee the greatest efficiency for farm activities.
- Coordinate trail construction and maintenance with farm operations.
- Consider temporary trail closures during times of "active farming" (eg. harvest time) or post temporary signs warning trail users to be extra cautious. Where there are volunteer trail associations, request "flag persons" to assist with the safe movement of trail users during critical periods when the trail is being used by farmers and/or ranchers.
- Practice proper trail etiquette and give the right-ofway to farm vehicles by moving to the side of the trail.
- Provide route maps and information signs that highlight farming areas and raise trail user awareness of the potential hazards and responsibilities of using agricultural trails.

out of the way of farm vehicles

Leave no litter and avoid the spread of invasive Why? plants and disease



What is an invasive plant?

Invasive plants are typically non-native plants that have been introduced to BC without the insect predators and plant pathogens that help keep them in check in their native habitats. Invasive plants possess some or all of the following characteristics that make them harmful and difficult to control.

- Aggressive invaders, prolific seed producers.
- Produce seeds that can lie dormant for many years.
- Have extensive root systems, thorns or burrs for protection.
- Produce chemicals that inhibit growth for other desirable vegetation.
- May be toxic or harmful to livestock.

For more information on invasive plants check the following websites:

> http://www.weedsbc.ca http://www.al.gov.bc.ca/cropprot/weeds.htm http://www.trailsbc.ca/weedinfo.htm

To prevent harm to farm equipment

Litter is a common hazard to every day farm activity. For example, pop cans and bottles can be picked up by farm equipment and damage machinery.

To protect livestock health and crop value

Littering is an act of disrespect for the landscape and other trail users as well as for the farmer. In addition to being offensive, a piece of garbage left by a trail user can cause serious injury to livestock and can spoil and entire crop. Aluminum pop cans, thrown away by careless trail users, into a farmer's hay or corn field are picked up by forage harvesters, cut into hundreds of small pieces, and inadverttly fed to livestock. These small, sharp pieces of metal get ledged in animals' stomachs causing illness and sometimes death – a condition known as hardware disease. An entire crop of peas can be wasted if someone, unthinkingly, throws a glass bottle into the field. Health inspectors require farmers to guarantee no foreign objects have been picked up during harvesting.

The introduction of noxious and invasive plants into agricultural lands can threaten livestock health, reduce livestock forage and decrease crop yields as a result of plant competition. Weeds such as knapweed and tansy ragwort can be carried onto farmland on people's shoes and pant legs, by dogs, and on all types of vehicles. Invasive plants caught up on recreational vehicles such as bicycles and all-terrain vehicles can be carried many kilometers from where first picked up.

Trail users can inadvertently transport disease that can threaten farm and ranch operations. Foot and mouth disease, for example, is a highly contagious viral infection that affects cattle, swine, sheep, goats and other cloven-hooved animals. Although it does not threaten human health, it has devastated livestock in Europe. Developing trails through agricultural lands increases public exposure to livestock, heightening the risk of disease transmission. As a result, precautions need to be taken to minimize this threat.



Design Solutions

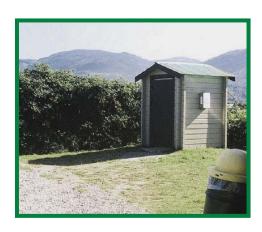
- Supply well-maintained garbage receptacles at key locations along the trail.
- Provide buffers to distance trail users from fields so litter does not find its way into crops.
- Minimize water crossings. Where crossings are needed, provide a bridge to discourage people from walking through the water since pathogens can be passed on through the water supply. Consider riparian and water quality interpretive signage at the streamside.

Trail Use / Management Solutions

- Follow proper trail etiquette: don't litter and stay on the trail.
- Post signs at trailheads letting people know the consequences of littering and making them aware of the concern surrounding the spread of disease. Ask people to consider staying at home if they have recently traveled in a country that has foot and mouth disease.
- Station volunteers at trailheads during busy times of the year, or when certain invasive plants are coming into seed, to educate trail users.
- Stage litter "clean-up" events. Not only do they get rid of the problem, they educate the public.
- Require temporary trail closures if disease threats appear in B.C.
- Work with local governments and other groups to develop invasive plant control programs.

Leave no litter and avoid the spread of weeds and disease

Be prepared for limited facilities along the trail *Why?*



To dispose of human waste in a proper fashion

Many trail systems offer minimal toilet facilities. They may only be provided at trail access points, which can sometimes be located kilometres apart. Trail users should be aware of how to properly take care of their own waste since, as with dog feces, human excrement presents health concerns to surrounding crops and cattle.

To ensure water is carried by trail users

Drinking water is often in limited supply, especially along remote trail systems. For this reason trail users should be instructed to bring their own water supply and warned that rivers, streams, and accessible agricultural water sources found along a trail, may not be safe to drink.



If there are no toilet facilities, stay clear of food crops and water sources if you must relieve yourself!





Design Solutions

- Provide outhouses and drinking water at trailheads and other appropriate locations along the trailway.
- Supply maps showing the location of all the facilities along the trail so trail users can plan ahead.

Trail Use / Management Solutions

- As appropriate, provide information on signs, in brochures, in recreation guides and on the internet that encourages trail users to familiarize themselves with the location and to use washroom facilities provided along the trail.
- Consider contracting out washroom and garbage facility maintenance to nearby farm operators.
- Confine camping and/or overnight accommodation to designated camping sites with proper facilities.

Be prepared for limited facilities along the trail

Respect farm and ranch families and private property



To respect privacy

Farm and ranch families often live a long way from their closest neighbours. Families, who value this privacy, may feel that new trail development would interfere with their way of life. It is important to be sensitive to these feelings and work with the landowners to address any concerns they may have.

To respect the work place and minimize interruptions

In almost every guide concerning trail etiquette, the importance of respecting private property adjacent to the trail is emphasized.

This 'trail code' is particularly important in farm and ranch areas. A farm is not only a farm family's home, but it is also their place of work. Like many work places, a farm or ranch often involves expensive and, in some cases, dangerous equipment for those unfamiliar with their operation. Livestock and crops are the foundation of a farm family's livelihood. Farmers are busy people. Frequent interruptions by trail users asking questions reduces the amount of work a farmer can do in a day.

A farmer spends hours preparing the soil for planting, harvesting crops, and nurturing livestock and expends large sums of money to produce the food we eat. This money and time spent is a high-risk venture, a gamble. Mother Nature is dealing the cards. Throw in some rules and regulations, being covered with dirt and bugs at many a day's end, and you have the life of a farmer.

28



Design Solutions

- Preserve visual and physical buffers to maintain personal privacy for farm families (e.g. planting and fences around farm/ranch houses).
- Minimize intrusions by locating trailheads and trails away from farm residences and other farm buildings.
- Anticipate trail users' needs for information, water, and washrooms and provide for these facilities in the trail design.

Trail Use / Management Solutions

- Practice proper trail etiquette and keep noise levels down when near farm buildings, especially first thing in the morning or at night.
- Provide consistent and easily recognizable signs along roads when identifying trailheads so people do not interrupt farm business by accidentally parking in front of gates or on farm property.

Respect farm and ranch families and private property

Support agricultural livelihoods Why?



Dut on the Ranch

Private ranch lands are primarily used for winter forage production and winter range (the cattle come back to the ranch to be fed for the winter). The rest of the year, livestock are turned out onto rangeland that is tenured from the Crown. The right for ranchers to make a living should be valued and every effort should be made to respect their operations. Ranchers need to be involved in the planning and management of trails. For example, trails that pass through spring range should be closed until the cattle have moved up onto the summer range.

To encourage public understanding and support for agriculture

With less than 2% of the BC population farming and ranching the land, few of us give a second thought to the sources of our food. What happens to farms and ranches is crucial to our province's well being. How often do you make the connection to the farm or to the ranch when you take a bite of an apple, throw a hamburger on the barbecue or even as you marvel at a flock of Trumpeter swans winging by? Although many of us have lost our direct connection to agriculture, our reliance on that connection is as strong as ever.

Trails through agricultural land provide a key opportunity to educate people about the challenges faced by today's farm families and their contributions to the local economy.

To accommodate future changes in farm land-use and management

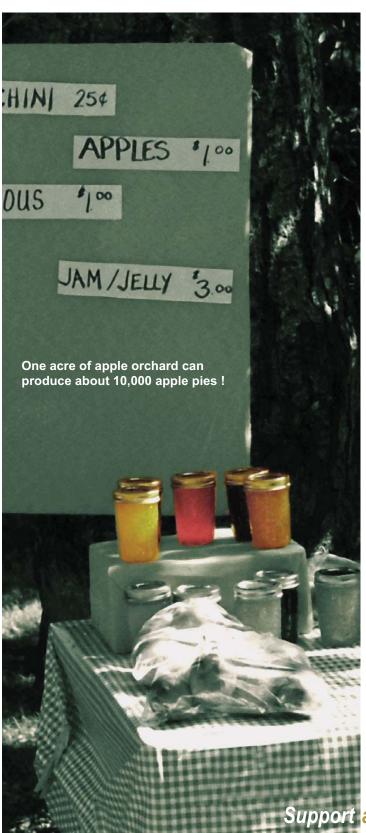
Farms and ranches evolve over time. Whether the business stays in the family or changes hands, farmers/ranchers must keep up with the developing agricultural industry and market demands. Trails too need to be flexible and continually evolving in order to accommodate local farmers' and ranchers' needs and concerns. For example, issues and concerns change when a hay field is converted into a more sensitive food crop such as lettuce. Changes to trail design may be necessary if a dairy farm changes from a confinement (where the cows are confined to a barn) to a grazing operation. Trail design and management must ensure continued access to lands as well as respond to current land use and management practices and future change in the agricultural operations along the trail.



BC agriculture is a strong contributor to the province's economy. In the year 2000, farmers' and ranchers' cash receipts stood at more the \$2.3 billion.

Economic spin-offs are also generated by almost 1,000 food processing businesses in the province.





Design Solutions

- Identify trail alignments that provide natural buffers to farmland, minimizing conflicts with existing and future farm operations. Designated buffer areas should be taken from the trail right-ofway not farmland.
- Provide trail users with key views to agricultural lands and operations, increasing awareness of the working landscape.
- Incorporate interpretive features along the trail in the form of interpretive sign, brochures, "Farm Fresh Guide" publications, or displays of old farm equipment.
- Identify alternative trail routes in the trail plan where appropriate. Consider diverting the trail along an alternative route or along a local trial or road system for a few days each year during times of intense agricultural activity such as planting and harvesting.
- Allow tasteful advertising at trailhead kiosks for direct farm market outlets that may be located along the trail.

Trail Use / Management Solutions

- Develop a system to identify and address farmers' and ranchers' concerns: maintain a regular reporting schedule that encourages feedback from landowners; appoint a contact person with the authority to take quick and effective action; and/or provide signage on the trail with a contact number to call if there are any problems.
- Recognize opportunities for direct farm marketing. (e.g. sale of produce ad process foods and wine tasting) and agri-tourism opportunities (e.g. guest ranches, bed and breakfast, bird watching and trail rides). Encourage u-pick operations, temporary employment serving tourists, and special events (e.g. farm tours, hay rides).

upport agricultural livelihoods

Observe all other 'Rules of the Trail'

Why?



Resolving agricultural issues and trail use conflicts as well as minimizing damage to trails and ecosystems depends – to a large extent, on the level of responsibility demonstrated by trail users themselves. Public trails are often used by many different usergroups. For each of these group "trail rules" may vary, allowing hikers, equestrians, mountain bikers, motor bikers, snowmobilers, and cross country skiers to enjoy the trail.

To encourage cooperation among trail users

When using public trails, everyone needs to be aware of, and follow, the "trail rules" that apply to their particular user group. In addition to this, when traveling through agricultural areas, all trail users must be aware of, and observe, the more general "Agricultural Code of Conduct" outlined in this document.

To build positive relationships between trail users and farmers/ranchers

Developing and maintaining positive reliable partnerships between trail users and landowners is vital to the ongoing success of a trail and ovoiding conflict.

Dut on the Ranch

Due to the nature of trails in rangeland, it is difficult to resolve issues simply through design. If a trail in a rangeland area is to be successful, it is important to develop a "Code of Conduct" that is understood and followed by all trail users.







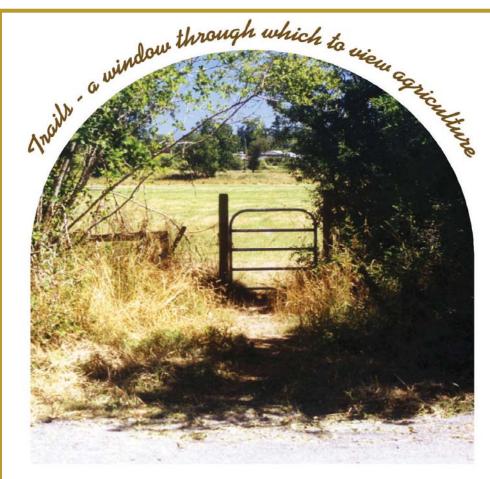
Design Solutions

- Provide signs, brochures and information on websites that highlight the user 'Rules of the Trail' and explain their importance.
- Identify the intended trail users and design the trail to minimize conflicts between them. For example, build trails that can comfortably accommodate both hikers and horse riders.
 Provide appropriate trail surfaces and widths and prune vegetation to allow equestrians to pass.
- Install physical impediments to motorized vehicles at trail access points.

Trail Use / Management Solutions

- Encourage trail users and farmers to get involved in the trail planning process from the very beginning. Listen to their issues, and incorporate their ideas.
- Program special events to bring trail user-groups and farmers together. This provides opportunities to get to know and understand each other's issues and concerns.
- Consider incorporating trail patrols into the management program to help enforce the rules of the trail.

the 'Rules of the Trail'



Many trails are located within farm areas and offer excellent opportunities to gain a better appreciation of BC agriculture. But gates must be left untouched. This gate allows cattle to cross from one field to another across the trail – <u>not</u> to provide access for trail users into the fields.

Design Examples

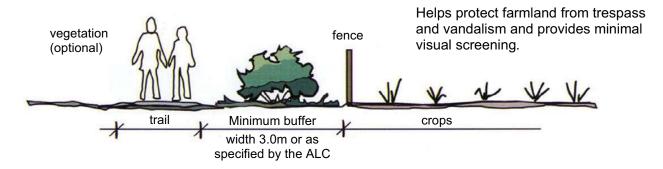
3. Design Examples

Buffer Types

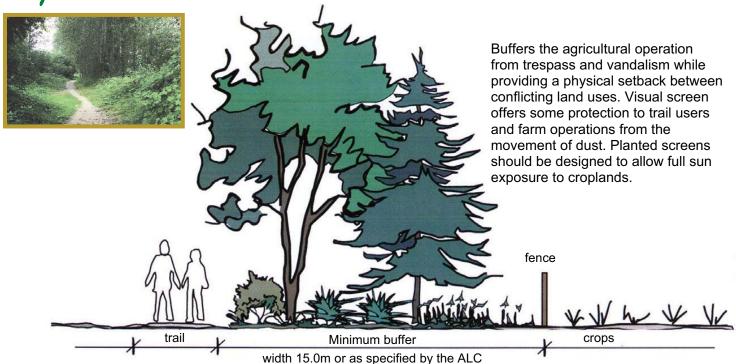
Fence



Trail routing needs to be undertaken with buffers in mind. During the planning process, sensitive areas along the trail corridor need to be identified. Where possible, a trail route should be chosen which maintains natural buffers to these areas. In some cases however, these buffers may require augmentation (e.g. supplemental planting, and/or new fencing). In rangeland situations, buffer scale will need to reflect the larger scale of the landscape. The following buffer examples are consistent with the 'Landscaped Buffer Specifications' of the BC Agricultural Land Commission (ALC).

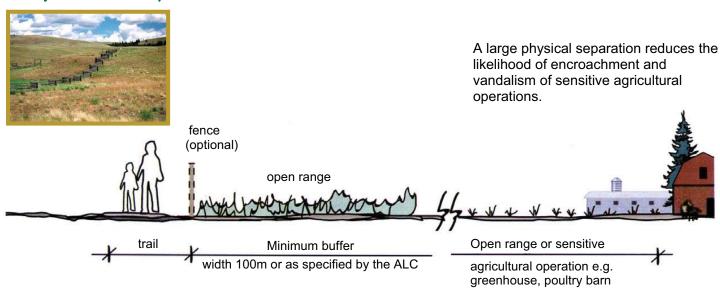


Vegetative Screen

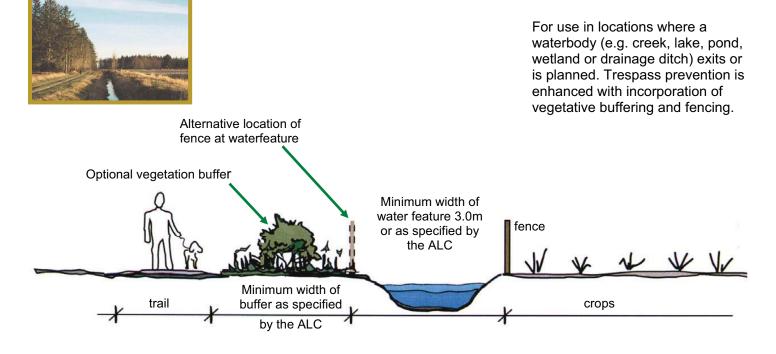


Buffer Types

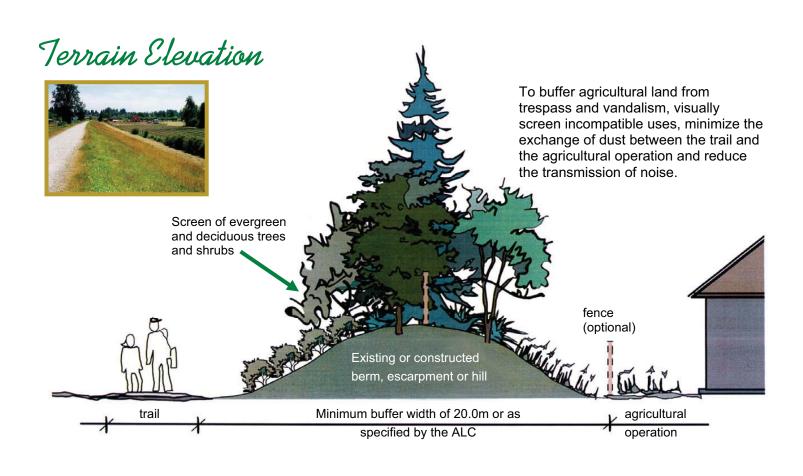
Physical Separation

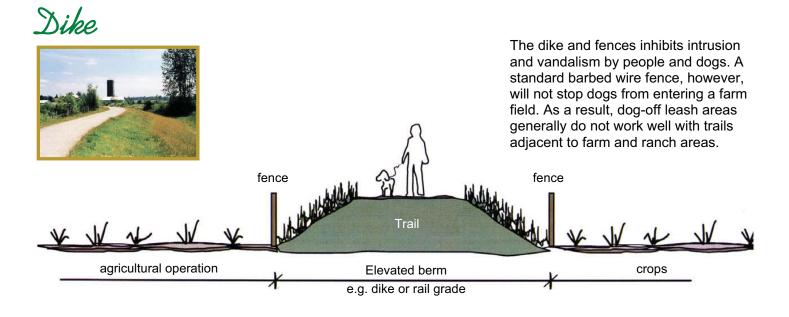


Water Feature & Fence



Design Exemples





Typical Trailhead Plans

Through proper trailhead design and siting, conflicts between trail users and agricultural operations can be minimized. The location of trailheads that provide parking and other facilities should be carefully considered to avoid the use of farmland. This may require the siting of trailheads along portions of the trail outside the agricultural area, or the use of smaller "pocket" trailhead facilities that can be sited with minimal intrusion. Trailheads should be well marked and located away from sensitive areas of the farm (e.g. crops, barn, farmhouse and yard) and should provide:

 proper parking facilities for trail users to ensure that cars do not block access for farm machinery

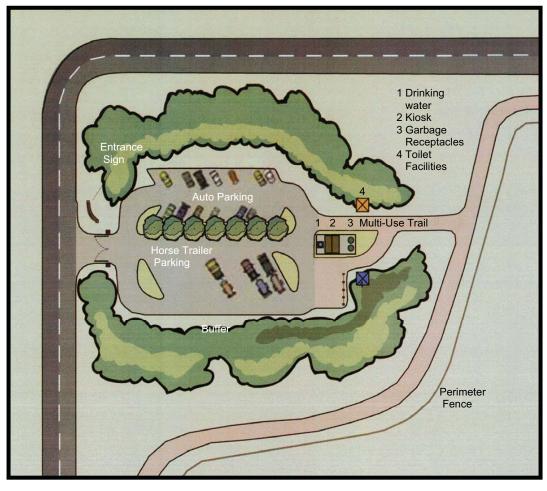


Design Examples

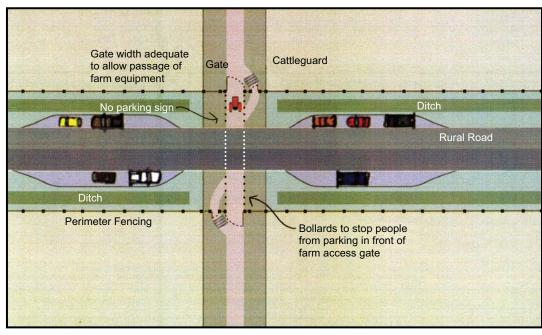
Major Multi-Use

Trailheads should be well marked and highly visible. Approach signs are typically located 1 km and 400 m before trailhead in either direction

In the case of a multi-use equestrian trail, it is necessary to provide a separate staging area for horses, to minimize conflicts between horses and people



Minor Multi-Use



Signage

Do's and don'ts signs

e.g. code of conduct, no smoking, off/on-leash areas



Trail information signs

e.g. trail and trail user-group identification, trailhead parking, temporary trail closures and rerouting



FARMING AREA Please Respect Farm Operations. Trail users must yield right-of-way to farm

vehicles and animals!

Stay on designated trail
Keep dogs on a leash,
Please do not litter.

Landalda Regional Tred for the Street Street



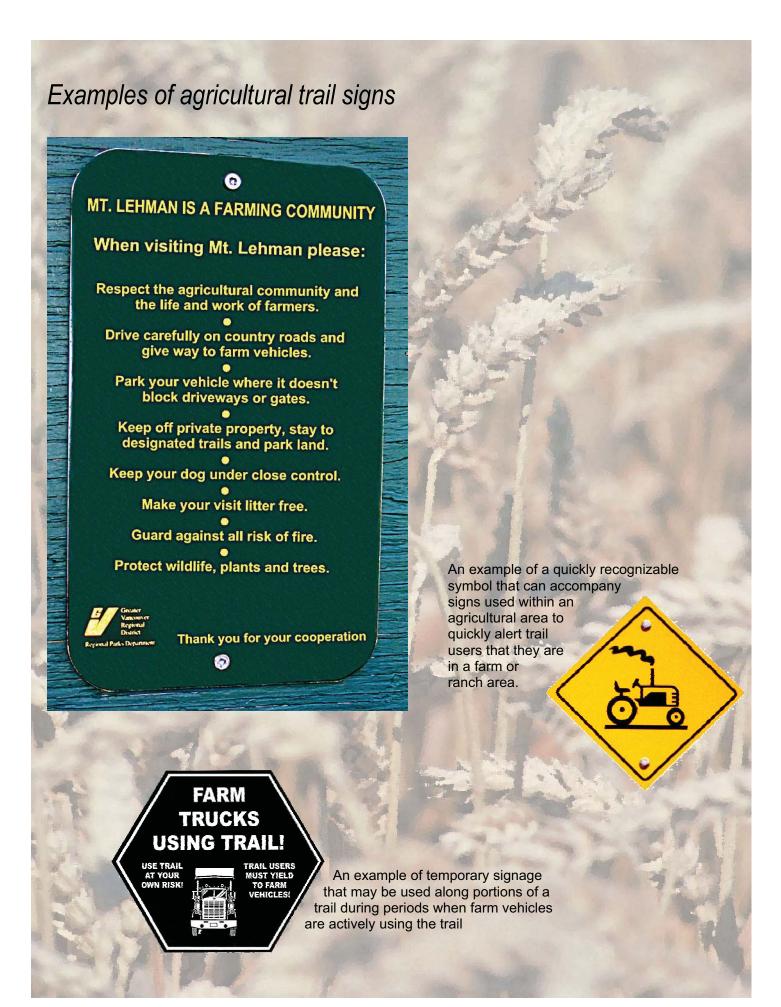


Temporary advertisement / sponsorship signs



In most cases these different types of signs will be permanent features along the trail. In some situations temporary signs may be used to alert a trail user of farm vehicle activity on the trial or posted to identify temporary closures.

Normally, all trail associated signs, even those that may deal exclusively with agricultural matters, should use common "trail" colours and lettering to ensure users can quickly identify them as trail signs.



Examples of agricultural trail signs



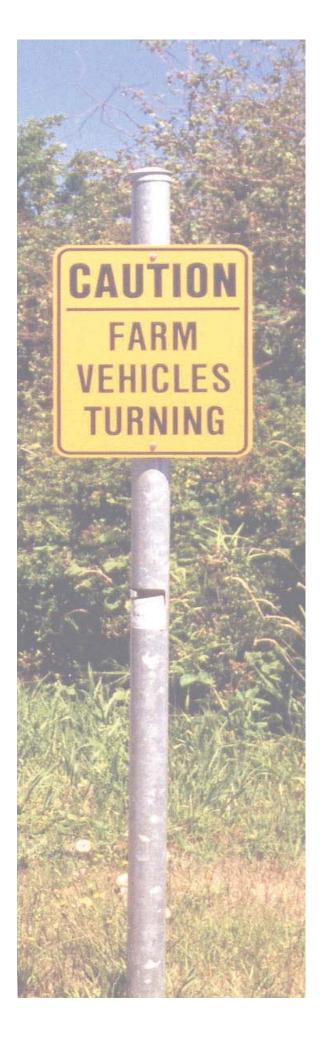
Safety First!

It is common to find former rail lines that passed through farm and ranch areas converted to trails. Many dikes, originally built to protect farmland, are also now being used as recreational trails.

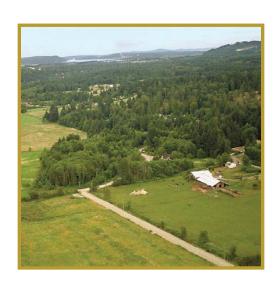
In many cases, old rail beds and dikes have been used to access fields for decades. As a result, it is important during the trail planning process to identify the historic use of these routes for agricultural purposes and accommodate this use in the future.

Farm vehicles and equipment may only be crossing directly over the trail to access a field; in other cases it may involve moving farm equipment some distance along the trail. During periods of planting and harvesting farm traffic along the trail may be quite frequent.

Proper signage can go a long way to ensure safety first.



4 Panning and Pub



So you're planning a trail through agricultural land ...

There is no single way to plan and implement a successful agricultural trail. However, you will find that most successful trails begin with a plan that outlines the specific actions that must be carried out to achieve the trail vision. The preparation of a trail plan in an agricultural area involves two key ingredients:

- a thorough investigation of the trail project area;
- the participation of farmers, ranchers and trail users.

Involving the agricultural community at the beginning of the planning process will help ensure agricultural issues are addressed and will benefit both the agricultural and recreational communities. In reality, there will be a variety of people with different backgrounds and interests involved in trail development, both paid and volunteer.

The trail planning process outlined is composed of five major stages:

- 1. Vision and Partnerships
- Issues and Opportunities
- Trail Routing and Concept
- **Detailed Design**
- 5. Trail Construction and Management

The Advantage of Planning:

- opens lines of communication and identifies issues clearly;
- various options and choices can be considered;
- focuses efforts, saving time and money:
- planning documents are valuable communications tools; and
- the process of developing a plan becomes a means for increasing political support.



Vision and Partnerships

Vision Statement

A vision statement paints a picture of where a proposed trail could lead you, what you could do, who you could meet, and what you could see. The vision is often put forward to the public at the time of a trail proposal by a group of people interested in creating a trail and is intended to elicit public discussion and support. In other cases, a proposal for a trail may be part of an on-going recreational planning program of a local government, the province or other agencies. Regardless of its source, the vision statement presents goals and objectives to strive towards and should state:

- 1. The purpose of the trail Emphasize the connections the trail will create (e.g. between other recreational areas or urban developments).
- 2. Who it is intended to serve Identify the user groups for which the trail will be designed.
- The general location It may not be appropriate to present a route map showing actual parcels of land affected until potential issues have been identified and landowners have been contacted.
- 4. A general description of the landscape through which the trail passes. It may go through a variety of land uses including agricultural. It is important to stress the importance of building and maintaining partnerships with the agricultural community.

It may also include:

- A general description of the planning process that will be followed, highlighting the points at which the agricultural community will be consulted and encouraged to provide input.
- List of the key participants or partners and their roles.
- Background information, placing the trail into its historical context. Provide a brief outline of the early history of the trail and a description of how the proposed trail fits in with other community plans (e.g. land use, environmental, recreation, agricultural and neighbourhood plans).

Public Involvement

Be prepared to identify and work with potential managing agencies early on and work out liability issues and concerns.

Send a vision statement to all stakeholder groups including all landowners who could be directly affected by the proposed trail. Let them know you are interested in their input and invite them to participate in the planning process.

Every situation where a trail may go through farm and ranch lands will be different. In some cases only a few ranchers may be affected by the proposed trail; in other areas it could directly affect many farms along its route. An important step in the process is to determine the number of farms and ranches involved. Where there are only a few farms, they all could be asked to participate on a Trail Planning Advisory Committee. When many farms and ranches are involved however, a cross-section of community representatives from the agricultural area should be invited to participate on the Committee.



Using the public process to build partnerships



Clear and frequent communication is the backbone of all good partnerships.

The key partnerships should be identified through the process of defining and articulating the vision statement. The individuals and/or organizations that are directly affected by the proposed trail may include:

- farmers, ranchers and their oganizations;
- recreationalists and outdoor enthusiasts;
- local landowners and businesses, and
- neighbourhood associations.

Others to involve are:

- conservationists;
- staff from local provincial and federal agencies who might be responsible for approving, funding, or managing the proposed trail;
- police, fire and emergency medical officials;
- representatives from local schools, colleges, and universities; and
- local civic organizations, service clubs and scouting groups.

Forging partnerships gives everyone a sense of ownership and helps ensure the trail's future. A popular way to facilitate input into trail development is to create a **Trail Planning Advisory Committee** composed of representatives from the agricultural community, landowners, local and provincial governments as well as from the various trail user groups. It is recommended that this Committee be kept to fewer than twelve members for the sake of efficiency and effectiveness.

The role of this Committee is to provide local and regulatory knowledge as well as feedback on the trail design and development process. The Committee provides a means to discuss and merge diverse views and resolve differences of opinion between user groups and organizations. This allows decisions to be arrived at through consensus. Great trails often result from a blend of ideas, patience and a willingness to compromise.

Linking with Agriculture

Local commodity groups, farmers' institutes, local government Agricultural Advisory Committees or staff of the Ministry of Agriculture and Lands could all potentially help provide valuable insights into local agriculture and play an important part in the consultative process.



Issues and Opportunities

Encourage farmers and ranchers to contribute their invaluable local-area knowledge and express their ideas and concerns about the trail.

Dublic Involvement

Present findings of inventory and analysis to the advisory committee and identify anything that was overlooked.

Consider hosting a design workshop with the advisory committee and design professionals to work out some of the details on the goals and objectives of the trail as well as trail route concepts.

Split the group into smaller workgroups, and have each consider the trail from a different perspective.



Understanding the issues and opportunities of a proposed trail is a critical first step in trail planning as it lays the foundation for the final plan. An inventory and analysis will provide the information needed to choose the most appropriate trail route, design the trail and other facilities, coordinate trail construction, as well as manage and operate the trail effectively.

Inventory and analysis

Time can be saved in the field by studying maps, aerial photographs, farm plans, neighbourhood plans and other relevant information sources. In some cases, an agricultural land use inventory may have been completed and maps generated using a Geographic Information System (GIS).

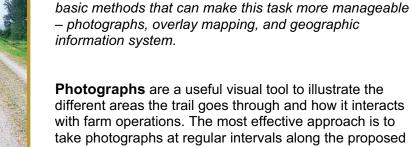
When it's time to go out into the field to gather and confirm information, consider what the most efficient and effective tools will be to record the information that you need. Take a compass, map, altimeter and camera. It may also be useful to bring a Global Positioning System (GPS) to help pinpoint boundaries, special features, and hazards.

Ideally the inventory and analysis should take into account different seasons of the year as well as varying weather conditions. For example, the best time to evaluate drainage patterns is during or just after a heavy rainfall. It is also important to consider that snowmobilers and cross-country skiers will present a different set of issues and opportunities than will hikers, equestrians and mountain-bikers.

It is also useful to incorporate the information that has been gathered into a binder of 'typical conditions' which are found along the proposed trail route. This binder would provide a comprehensive trail profile that highlights each point along the trail route where conditions change and/or where there are significant features or special concerns. This is a useful way to present and understand the issues and opportunities associated with the trail route and is a helpful resource during the planning process.

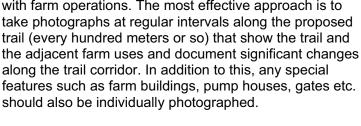
Recording the inventory and analysis





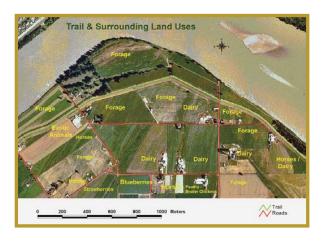
- photographs, overlay mapping, and geographic information system. Photographs are a useful visual tool to illustrate the different areas the trail goes through and how it interacts with farm operations. The most effective approach is to

Once all the information has been gathered, it must be recorded in a format that can be effectively used in the next planning stage: creating concept plans. There are three





Overlay mapping is a process that separates all the relevant information into its component parts and allows them to be evaluated independently or in combination with each other. For example, understanding the relationship between environmental information (hydrology, vegetation, soil and slope) and farmland use and management patterns may be important when locating areas that have existing vegetation, streams or elevation change that can act as a buffer for sensitive farm areas.



Geographic Information System (GIS), if available, offers an extremely convenient means to record a wide variety of data in layers. GIS allows information to be examined and maps and reports generated, and data viewed in different combinations. Information may include land use and ownership data, topography, hydrology, soils, vegetation, habitat areas, and slope conditions

A detailed map should be developed from, or modified by, these sources of information to include all items that might be considered in locating trail routes and that might have either positive or negative effects on trail location. Alternative routes can be drawn on the map to optimize the positive effects and minimize negative ones.

Inventory

base information

Analysis

opportunities and constraints

Organization

- Who are the governing jurisdictions within the study area and which ones govern land-use decisions? The Range Act governs most of the interior rangeland. However, in almost all other cases, local governments will be involved in the trail planning process (often as the trail proponent) and their support is needed to ensure the trail's success.
- Identify local laws that affect trail planning and development (e.g. laws that regulate agriculture, wetlands, air and water quality, land use, soil erosion, and waste disposal).
- Identify the Agricultural Land Reserve (ALR)
 boundary and record where the trail is within the
 ALR. This will provide a strong (but not necessarily
 definitive) indication of where farm and ranching
 activities will be located.
- Identify organizations or individuals in support and in opposition to the proposed trail.

- How will legislation help or hinder the proposed trail? For example, rules and regulations regarding parking and/or signage.
- How can this support be used to the greatest advantage? What are people's concerns? Are they valid? How can the issues be addressed?
- For more information about the relationship of the ALR and trails see Appendix 1, page 55.

Land Use and Ownership

- Identify land use (agricultural, industrial, residential, park and any special reserves, historic features or management areas).
- What are the current farm/ranch activities in the study area?
- Locate property lines and identify ownership.
- Identify the potential conflicts and/or benefits a trail may have on the various land uses. For example, what impacts could the trail have on land use, ownership and activity of the existing farms/ranches?
- Highlight the parcels of land in public ownership and look for a pattern that suggests the best route for the trail (do not assume that public land is automatically ideal for the trail).

Environmental and Cultural Assessment

- Biophysical: topography, hydrology, vegetation.
- Physical: bridges, trestles, roads, fences, gates.
- Farm operation: both those that parallel and straddle the proposed trail.
- Agricultural: crops, buildings, access roads, ditches and drainage facilities (e.g. pumps), fencing, gates and cattle guards, and current farm crossings of the proposed trail.
- Cultural History: History of the farms/ranches in the area. What types of farm operations were there and how have they changed?

- Isolate and map environmentally sensitive areas that are unsuitable for trails and public access.
- Identify points of intersection between roads/streams/railways and the trail.
- Locate specific areas of a farm or ranch that are sensitive to public access (e.g. barns, crops).
- Are there opportunities to explore the agricultural history of the area through interpretive signage and displays along the trail?

Inventory

base information

Analysis

opportunities and constraints

Trail Use and Access

- Locate existing and proposed public access within the study area (e.g. bicycle paths, sidewalks, trail systems in the community).
- Identify the form and intensity of anticipated trail use. Who are the potential trail users and what are their needs and desires? This includes pedestrian (including disabled), vehicular (mountain bikes, trail bikes, ATVs, snowmobiles); water-based; and others (e.g. equestrians, cross-country skiers).
- How might the proposed trail enhance the existing transportation system? Are there opportunities to link the proposed trail to other existing and proposed trails in the area?
- What are the potential trail use conflicts?
 Opportunities? (farmer/trail user; user/user)
- What areas should trail routes avoid? (e.g. feeding grounds, water sources, food crops, spring and/or summer range)
- Identify potential trailheads/parking areas. What are the potential parking/farm conflicts? Opportunities?
- How can trail access benefit a farmer? (e.g. agri-tourism, direct farm marketing)

Management and Maintenance

- Identify how and when the trail right-of-way may be required for agricultural purposes (e.g. harvest, field access).
- What agency or organization will govern the management and maintenance of the trail? Who will assume liability?
- Research future development and/or livestock management plans of the surrounding farms.

- What conflicts are there with farm operations?
- Are there opportunities to involve the farm community in trail maintenance? What are the benefits to the farmer (e.g. improvements to drainage or field access at the time of trail development)?
- Identify locations where trail use may come into conflict with farm operations.
- How can agricultural operations be improved at the time of trail development?

Community Impact

What is the attitude of the agricultural community towards the proposed trail?

- How can the agricultural community benefit from trail development?
- Use the planning process to ensure strong lines of communication are developed with the farm community. This will ensure a high level of understanding in the farm community of the trail and its purpose, impacts and benefits.
- How can the trail be used to educate the larger community about agricultural concerns?

Trail Routing and Concept

Public Involvement

Depending on interest, consider working with the Trail Advisory Committee to develop the concept plans themselves. Break the committee into smaller workgroups and have each group develop 1-2 scenarios, listing the opportunities and constraints for each. Then decide as a group which scenario is the most appropriate. The benefits of this approach are two-fold; you get direct, local-knowledge input into the plans as well as creating a final design that belongs to the community.

OR

Present alternative development scenarios, prepared by a trail designer, to the Trail Advisory Committee and encourage an objective evaluation of the scenarios by analyzing each concept's constraints and opportunities. Actively involve the community in the decision-making and record their comments.

Encourage greater public input with a public workshop. Provide large-scale aerial photos, route plans and sample sections along with the proposed design guidelines and route alternative maps. Invite local government representatives and the trail advisory committee to attend and discuss the trail.

Keeping in mind the trail's original vision, design criteria, safety and management objectives, effort should be made to incorporate into the detailed design, as closely as possible, the scenario or elements of various scenarios that most closely meet public approval.



Once the goals and objectives have been agreed upon and the opportunities and constraints have been identified, it is time to explore options and alternatives for the location, route, and development of the proposed trail. Preparing concept plans allows you to dream, make ambitious plans, and explore ideas before you work toward a final detailed plan and the design is finalized.

The purpose of the concept stage is to generate a number of alternative trail routes and designs that explore feasible options. Each concept put forward will have its own strengths and weaknesses, however each should meet the goals and objectives of the proposed trail. The best concept will be the one (or a combination of concepts) that addresses the goals and objectives most successfully. In order to make an impartial decision each concept should be evaluated using the same criteria:

Agriculture

- Privacy
- Security
- Dog control
- Risk of fire
- Protection of crops and livestock
- Drainage
- Severing of farm units
- Field access and need to use or cross trail for farm purposes

Environment

- (with additional criteria)

Public safety

(with additional criteria)

Quality of Life

(with additional criteria)

Aesthetics

(with additional criteria)

Detailed Design

Concept plans and designs can be developed either by a trail designer or by the advisory group itself and are intended to act as a stepping-stone to carry the design forward. The plans might include:

Conceptual trail routes

 Identified based on the principles of agricultural trail design

Conceptual cross section designs and plans showing:

- Trailhead facilities illustrating access, washrooms, signage, surface materials, litter barrels
- Trail types showing the differences between surface materials, width, grading and routing design for the various sections of a trail
- Mitigation methods such as buffers, fences, gates and signage

Precedent photographs

 Illustrating other trails through agricultural land that have dealt with similar issues

Conceptual trail construction and management plan identifying:

- Rough cost estimates
- Seasonal operations

Maintenance and management operators

- Changes over time
- Construction and maintenance scheduling issues

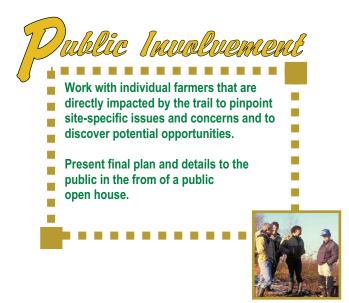
Where a concept design provides a general outline of what the trail is going to look like and where it is going to go, a detailed design fills in the specific details and brings it all together. The concept design will have identified general issues and general solutions; the detailed design looks at specific issues and specific solutions. For example, it will have been recognized that public exposure to farm buildings should be limited in order to reduce the possibility of fire, theft, vandalism and the harassment of animals. The next step would be to identify specific farm buildings that are accessible from the trail and to determine exactly how they are to be buffered from the trail. This will involve precise measurements as well as determining types of vegetation, fences and gates.

Further detailed information gathering will be required to help with the detailed design: a land survey of the trail and trailhead to determine locations and grades; detailed assessments; environmental reports; road access and permits; and landowner consultation. Construction and maintenance scheduling will also determine design details.

The final products of this stage are a series of construction drawings and specifications that illustrate the various trail components: trail surface, bridges, drainage, fences, gates, buffers and trailhead facilities. Construction contractors (or volunteers) will use these drawings to create detailed cost estimates and to build the trail.

Principles of Trail Routing and Design in Agricultural Areas:

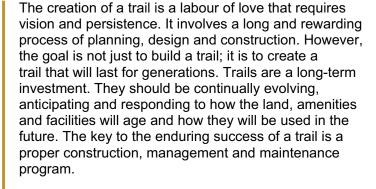
- respect the rights of landowners;
- use public land where possible;
- direct trails away from/around agricultural areas wherever possible;
- avoid the fragmentation of farms and rances if at all possible;
- discover, assess, avoid, or appropriately mitigate potential points of conflict between the trail and agricultural operations:
- seek solutions that are not management intensive; and
- encourage safe, enjoyable and agriculturally compatible use.



Trail Construction, Management and Maintenance



Provide 'Farm Awareness Training' before trail construction begins.



Trail Construction

Once the trail route and design has been finalized, the construction process can begin. The first step is to consider who will be building the trail. There are a number of options, each with their advantages and disadvantages:

Parks Staff

- Often act as the general contractor for trail construction.
- Their assistance can bring valuable experience.

Private Contractors

- Farmers may be interested in building sections of the trail or at least be part of the construction team, as it would provide opportunities for 'off-farm' income. This would also secure a positive relationship between the agricultural community and the trail. However, they may lack expertise in trail construction.
- Professional contractors are experienced, can accept liability and will likely have the resources to complete the project.

Volunteer Groups

- Help develop community stewardship and may be less costly.
- May lack expertise, may be less organized and the construction process may take longer.



Construction Considerations:

Before construction begins it is important to inform the managers and workers about the agricultural issues that must be considered during the construction process.

- Coordinate with landowners to determine the most appropriate time to work on the trail (i.e. not harvest time).
- Techniques to manage soil erosion and dust.
- Techniques to manage surface water drainage.
- Delineate trail corridor to keep workers from going onto private property.
- Identify areas that are sensitive to noise (e.g. if the trail is going past a poultry barn) and consider alternative methods of construction for those areas.



Once the trail has been completed, who will be responsible for its maintenance, policing and for determining any future changes in use?

enthusiasm and dedication to trail management. This allows a close relationship with farmers and ensures needs and concerns are quickly addressed. However, organizational difficulties may hinder regular maintenance and speedy response time to farmers' concerns. These organizations cannot provide reliable long-term commitment; as people lose interest or as the focus changes, the group may dissolve, leaving the management of the trail in question.

Establishing a clear and permanent long-term trail management plan as well as continuing contact with farmers and ranchers are fundamental requirements to minimize conflicts with the agricultural community.

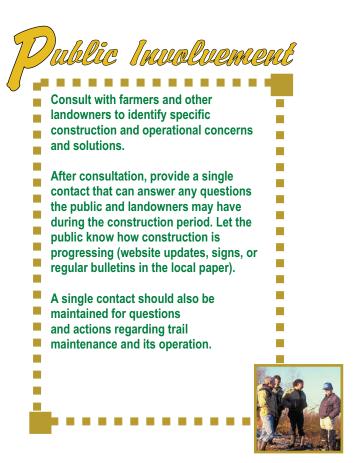
Trail Management

Farmers must be assured that the trail will continue to have minimal impact on their operations and that any concerns they may have in the future will be addressed. Key factors in an agricultural trail's ongoing success are:

- the provision of a contact person who oversees the management of the trail and who has the authority to solve issues in a timely manner;
- notifying each farm operator along the length of the trail of the name and phone number (e-mail address) of the trail contact person. If over the years, this contact person changes, the farm operators should be informed of the change.

It is very common for a local, provincial or federal parks agency to take on the management responsibilities of a trail as it develops. This ensures administration by an established professional organization that will ensure reliable, long-term management of the trail. However, this conventional structure may not be able to accommodate a quick response to farmers' concerns. The trail may also need to compete with other parks for limited maintenance funds. The trail may be a low priority and therefore lack the money it requires to be properly maintained.

Non-profit groups, volunteers and private property owners can also take on the responsibility for trail management. These organizations attract people who are passionate about the trail's success and who bring



Trail Closures

In certain situations trails may have to be closed. This may occur if a portion of the trail is traversed by a pipeline or during the repair of an intersecting road or highway. In other cases. closures may be necessary as a result of



landslides, flooding or perhaps downed electrical wires or other obstructions. While the length of closures may vary in these circumstances, closures for disease prevention purposes could be prolonged.

In Britain, in 2002, a very serious outbreak of foot and mouth disease occurred. To lessen the potential for the spread of disease, most of Britain's trail system was closed to public use for an extended period. While it is hoped that an outbreak of disease of this magnitude never occurs in Canada, if it does, swift action will be needed on many fronts to prevent its spread.

When developing trails that come close to, or pass through farm and ranch lands, plans should be in place to provide for swift closure for an extended period should the need arise. Formulating appropriate language for signage must be developed. A sufficient number of signs must be available for immediate use in such an emergency. An assessment must be made of critical points along the trail where access may be prohibited through temporary gates or other means. How and where material can be quickly obtained for temporary gates or other structures needs to be determined.

As is the case when preparing for any emergency, these considerations should form part of the early planning process prior to the trail being developed. For existing trails, emergency planning for a possible closure is strongly recommended.

Trail Maintenance

Reliable trail maintenance goes a long way to ensure that the trail does not impact farm productivity. (e.g. litter, erosion and drainage control, fire, fences). Maintenance considerations should include:

Trail Corridor Maintenance

- Repairing and replacing signs, fences, gates, bridges and other structures
- Control of invasive plants
- Litter collection
- Clean drainage structures
- Vegetation pruning
- Trail surface management (e.g. dust control & safety)

Trailhead Facility Maintenance

- Restroom cleaning and upkeep
- Parking surface and signage upkeep
- Vegetation management

Trails in the Agricultural Land Reserve

The Provincial Agricultural Land Commission (ALC) is responsible for the administration of the Agricultural Land Reserve (ALR). The ALR is a provincially designated agricultural land base comprising roughly 4.7 million hectares throughout BC. Since its creation in 1974, the Commission's mandate has been to preserve BC's limited supply of agricultural land and encourage farming. In accordance with the provisions of the *Agricultural Land Commission Act*, all nonfarm uses, including recreation trails and related facilities, located in the ALR must obtain the approval of the ALC. This requirement applies to trail proposals sponsored by public agencies, community groups or private proponents within public rights-of-way or on private land.

The Commission recognizes the larger public interest in recreation trails and acknowledges that trails in rural areas often go through the ALR. Generally, the Commission supports properly planned and managed recreation trails.

When reviewing recreation trail proposals in the ALR, the Commission considers the following:

- The extent to which the trail proponent has engaged the local agricultural community and in particular, adjacent agricultural landowners, in the trail planning process.
- The extent to which the location of the trail corridor minimizes the fragmentation of farmland. Ideally, the Commission suggests that trails be directed to the periphery of an agricultural area and, where practical, that physical barriers such as topographic features, watercourses and ravines be used to separate the trail from adjacent farm operations.

- Where recreation trails cross agricultural land, the Commission looks for special measures to mitigate potential conflicts between trail users and farmers. These measures can include fencing, buffering and landscaping, gates and appropriate trail signs. As part of the Commission's review it consults with the agricultural community and individual landowners regarding the appropriateness of the proposed measures.
- The identification of opportunities to increase awareness of adjacent farm activities by trail users and promote agriculture.
- Information on how the trail will be maintained and managed and how the trail operator will maintain contact with adjacent farmers and respond to possible future concerns.

The Agricultural Land Commission supports the recreation trail planning ideas described in this Guide. It strongly encourages trail proponents to consider this approach when planning and managing trails in agricultural areas.

For additional information on recreation trails in the Agricultural Land Reserve, please contact the ALC by phone at 604 660-7000 or by mail at: Agricultural Land Commission #133 - 4940 Canada Way, Burnaby, BC, V5G 4K6.

Check the Commission's webpage at

http://www.alc.gov.bc.ca



Dog Off-Leash / Dog On-Leash

A popular pasttime for many people is to find a local trail and take their dog for a walk. With many trails in BC passing through or near farm and ranch land, it is important that dogs be kept under control at all times and not allowed to wander into farm fields or harass livestock. Pages 18 and 19 of the Guide provide additional details on the potential serious impacts dogs can cause in agricultural areas.

Although many trails are fenced and will keep farm and ranch livestock in, most farm fences will not keep dogs out.

Many local governments have dog control bylaws on the books but some municipalities are taking additional steps. While requiring that dogs always be kept under control, they are pre-determining specific areas (parks and trails) where dogs may be off-leash, while all other public areas require dogs to be on-leash.

The **City of Abbotsford** provides an example of a municipality that has developed a program which requires dogs to be 'on-leash' in most of the City's parks and trails. At the same time, four specific parks and trails have been designated as 'off-leash' areas, although there remains a requirement for dogs to be kept under control in these areas as well.

An important feature of the program is signage that is provided at various parks to inform people of alternative locations where dogs are permitted to go off-leash. Numerous 'dog stations' are also provided to assist dog owners in cleaning up after their pets.



A five strand, barbed wire fence runs along most of the length of GVRD's Matsqui Trail in Abbotsford. For most of the trail's length it borders Matsqui Prairie farmland. The fence provides a deterrent to trespass but will not prevent dogs from entering fields if off-leash and not under the control of their owners.



To support the Dog Off-Leash policy, Abbotsford has information on its website (http://www.abbotsford.ca/Page98.aspx) and has developed a brochure that provides maps and further details about the policy (http://www.abbotsford.ca/Ironpoint/Asset694.aspx). Like many local governments, the City of Abbotsford backstops their dog control policy with a series of regulatory bylaws that can be found on their website. Three City bylaws are particularly relevant including the Dog Licence Bylaw No. 268-96, the Good Neighbour Bylaw No. 1256-2003 and the Pound Bylaw No. 1132-2002.

The City of Abbotsford provides one example of how, through the initiative of the City and cooperation of the public, a management program can be put in place to enhance the overall enjoyment of parks and trails for all users. As a general rule, trails in farm and ranch areas should always be considered strong candidates as **dog on-leash** areas. Measures such as these will strongly contribute to lessening the potential adverse impacts of dogs on livestock and crops in agricultural areas.

Risk Management and Liability

In the development of any trail, an underlying objective is to create a valuable recreation resource that can be safely enjoyed by the public. As is true with any activity, accidents, unfortunately, can and do happen.

This raises the question of liability when incidents may occur and how best to manage these risks. The following comments should not be construed as legal advice. Rather, this appendix is intended only to comment on the importance of this subject when considering trail development, management, maintenance, and use strategies.

For trails within agricultural areas there are risks similar to other trails. Some risks, however, are often unique to a farm or ranch setting.

These distinctive circumstances will most often be associated with the challenges of building a trail next to places of business that involve the production of food, keeping of livestock and the use of farm machinery and other equipment. There is also the added concern that farmers have with respect to the transmission of disease and invasive plants. The agricultural sector is expected to bring to the market a safe and healthy product.

Each of these concerns is magnified by the potential for trespass. Risk management in such situations should focus on the safety of trail users by taking all reasonable steps to avoid trespass and in doing so reduce possible harmful effects to the farm or ranch operation.

A second important consideration that can have liability implications is the interaction between farm operations and the trail and trail users. Normal farm operations often involve the use of machinery. With a trail directly adjacent to or through a farm, it is possible that this may give rise, for short periods of time, to an increase in dust and particulate matter in the air or a concern being expressed with the use of pesticides.

Today's trails in rural areas may often have been historically used by farmers and ranchers to access fields and move livestock. This is particularly the case where trails utilize former rail beds and dikes. In some cases, this may involve simply traversing the trail to access a field beyond, or it may require travel with farm machinery or the movement of livestock along sections of the trail.

Each of these situations has the potential to increase risk. While they pose management challenges, the level of risk can be largely eliminated or significantly reduced by:

- being aware of agricultural/trail relationships;
- working closely with the farm/ranch community to identify where there is potential for trespass or integration of the farm operation and trail use;
- develop trail design and management solutions to generally acceptable standards (examples: fencing and buffering) to deal with the identified situations;
- provide ample, well placed, cautionary and directional signage;
- establish user guidelines;
- patrol the trail regularly;
- ensure trail maintenance; and
- develop a crisis management plan.

In the end, risk management is a key to avoiding incidents where liability becomes a factor. A key to risk management is a focus on prevention.

Additional Information:

In British Columbia, important legislative references are the *Occupiers Liability Act* and *Trespass Act*.

Trails Canada has published an informative paper entitled "Risk Management and Liability for Trails" that is recommended and can be found on their web site at: http://www.trailscanada.com/documents/Monitor_3_Final.pdf.



Agricultural Land Commission

http://www.alc.gov.bc.ca

The Agricultural Land Commission's primary objective is the preservation of BC's limited amount of agricultural land in the Agricultural Land Reserve (ALR). The Commission has a long history of working with local governments on a range of planning processes. Commission approval is needed when trail pass through the ALR.

BC Agriculture Council

http://www.bcac.bc.ca

102 – 1482 Springfield Road Kelowna, BC, V1Y 5V3 Phone: (250) 763-9790 Fax: (250) 762-2997 Email: bcac@bcagcouncil.com

The council provides leadership and takes initiatives in representing, and promoting the collective interests of agricultural producers in B.C. Contact information for BC's major agricultural commodity groups can be found on the Council's *Members Directory*.

InfoBasket

http://infobasket.gov.bc.ca

InfoBasket is a portal to Agri-Food information on the Internet that provides links to sources from around the world, including governments, universities and research institutes.

Local Governments of BC

http://www.civicnet.bc.ca

Union of BC Municipalities Suite 60 – 10551 Shellbridge Way Richmond, BC V6X 2W9 Phone: (604) 270-8226 Fax: (604) 270-9116

The Union of BC Municipalities, 'Civicnet' provides a convenient link to all BC local governments. Many local governments have specific information about trails within their municipalities and regional districts.

Ministry of Agriculture and Lands

http://www.al.gov.bc.ca

The Ministry provides a key source of information about a wide range of agricultural topics focused on British Columbia.

Ministry of Forests and Range

http://www.gov.bc.ca/for

The Ministry of Forests and Range offers an extensive network of trails for those wishing to experience BC's natural beauty. The Ministry has developed an extensive Recreation Manual. Chapter 10 of the Manual specifically deals with Recreation Trail Management offering in depth, technical information on trail development and management.

Ministry of Tourism, Sport and the Arts

http://www.gov.bc.ca/tsa

Within the Tourism and Recreation division of the Ministry there is information on BC's Trans Canada Trail. The site includes detail information on Cycling BC's portion of the Trans Canada Trail.

Strengthening Farming Program

http://www.al.gov.bc.ca/resmgmt/sf

Ministry of Agriculture and Lands Resource Management Branch

1767 Angus Campbell Rd, Abbotsford, BC Canada V3G 2M3 Phone: (604) 556-3100 Fax: (604) 556-3099

Toll Free: 1 888 221-7141

This Program is coordinated by the Ministry of Agriculture and Lands with the assistance of the Agricultural Land Commission. A primary objective of the Program is to work with local governments and the farm and ranch sector to help ensure agriculture's place in communities across BC.

Trails BC

http://www.trailsbc.ca

The Trails Society of British Columbia 315 - 1367 west Broadway Vancouver, BC Canada V6H 4A9 Phone: (604) 737-3188

Email: trailsbc@trailsbc.ca

Trails BC provides a number of services including access to its newsletter. Trail Talk and a variety of resources including safety tips and information on trail maintenance. The site also provides regional specific information as well.

Trails Canada

http://www.trailscanada.com/english/00 home e.htm

This website is noted as having, "virtually everything about trails in Canada". The site provides a search facility for specific trails and trail groups, access to their Pathfinder newsletter and "Trail Builders" resource centre. "Trail Builders" contains a number of articles on topics of interest to organizations developing trails, including Risk Management and Liability for Trails.



Trans Canada Trail http://www.tctrail.ca

Trans Canada Trail Foundation 43 Westminster Avenue North Montreal, Quebec, Canada H4X 1Y8 Phone: 1 800 465-3636 or (514) 485-3959

Fax: (514) 485-4541 Email: info@tctrails.ca

The Trans Canada Trail is a non-profit, registered charity organization, whose primary purpose is to raise funds to build a recreational trail that will wind its way through every province and territory in Canada. Currently the trail has over 18,000 kilometres registered. Extensive information about the trail is available.