

# **Glossary & references**

# Glossary



## **Active transportation:**

Active transportation refers to any form of human-powered transportation (e.g., walking, cycling, using a wheelchair, in-line skating or skateboarding).

## **Built environment:**

The built environment is part of our physical surroundings and includes the buildings, parks, schools, road systems, and other infrastructure encountered by citizens.

## **Natural environment:**

Encompasses the interaction of all living species, climate, weather, and natural resources that affect human survival and economic activity.

## **Social environment:**

Human social environments encompass the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact.

**Public health:** The art and science of preventing disease, prolonging life and promoting health through the organized efforts of society

## **Determinants of health:**

The social and economic determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. The ecological determinants of health include air, water, ecological processes, natural resources, building materials, energy, and a climate conducive to the health of human and other life forms.

## **Social and health equity:**

Implies that ideally everyone should have a fair opportunity to attain their full social and health potential and that no one should be disadvantaged from achieving this potential.

## **Mixed-land use:**

Involves a range of complementary land uses that are located together in a balanced mix, including residential development, shops, employment community and recreation facilities and parks and open space.

# References



[2018: Golden TSI Report](#)

[Golden Active Network Transportation Plan](#)

[Zoning bylaw map](#)

[Resort Development Strategy 2022-2024](#)

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[https://greencommunitiescanada.org/wp-content/uploads/2019/10/Action\\_on\\_Inclusion\\_Resource\\_Kit.pdf](https://greencommunitiescanada.org/wp-content/uploads/2019/10/Action_on_Inclusion_Resource_Kit.pdf)

[CIP ICU Healthy Communities](#)

[Vital pulse Golden & District Community Foundation](#)

[What is the evidence to support the use of therapeutic gardens for the elderly? \(Review\). Korean Neuropsychiatric Association,9:100-110.](#)

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# **Community engagement survey results**

How well do you understand the basics of the proposed Wellness Trail?	How likely would you be to use the trail for personal use?	How likely would you be to use the trail for professional use?	Do you support the creation of a community wellness trail?	How important would the following features be to you for the trail? [Accessibility - suitable for wheelchair use]	How important would the following features be to you for the trail? [Privacy]	How important would the following features be to you for the trail? [Seating]	How important would the following features be to you for the trail? [Parking]	How important would the following features be to you for the trail? [Washrooms]	How important would the following features be to you for the trail? [Gated for private professional use]	How important would the following features be to you for the trail? [Interpretive elements for learning]	How important would the following features be to you for the trail? [Sensory experiences - flowers, edible herbs, sculptures, water features]	How important would the following features be to you for the trail? [Year round access]	Additional feedback on proposed wellness trail how long would you ant this trail	Would you like to be informed by Wildsight Golden via email with key developments on the Wellness trail?	Please add your email address to receive updates from Wildsight Golden
4	3	3	yes	5	3	3	3	1	2	4	4	2		Yes	joandolinsky@gmail.com Adamsleslie77@hotmail.com
5	3	1	Yes, 100%	5	5	3	3	5	1	3	1	5	Great idea	Yes	
5	4	1	Yes	5	3	5	3	3	1	N/A	N/A	N/A	I would like to see the volunteer opportunities available for the maintenance of the trail with an emphasis on mental health. Volunteering and working outside are both positive factors in maintaining ingredients good mental health and healing.	Yes	charlotte.amy1@hotmail.co.uk
4	2	3	I think it would be important to be located in the town of Golden for urban-centred users.	4	5	4	3	4	4	3	5	5			
5	1		No, not at this time.	1	3	2	2	5	N/A	N/A	N/A	3	With so many other local endeavors which are underfunded, and under volunteered which are more inclusive to the wider community which have struggled recently. I do not believe this is the right time to put money and resources into yet another thing. You know Dawn Mountain Trails are all right there and established, and I'm sure the nordic ski club could use some extra support during the summer to help maintain the trails then for the winter. Parking is there, signage is there, quiet, natural sensory experiences already in place, no need to add anything. It's also my understanding the trails are currently closed outside of the ski season to bikes, horses, pets because of insurance costs, which would be the same anywhere.		
5	5	1	Yes. It's a great idea.	1	1	1	3	1	3	3	1	1	I think this trail would be a perfect place to install a wind phone. I think lots of people would use it.	Yes	nortyh@gmail.com
1	3		Not if the intended use is for a very narrow segment of society.	5	5	2	4	2	1	4	1	1	This sounds an awful lot like a gov't funded private park for a select few.	No	
3	5	1	Yes	5	5	3	5	5	1	3	3	5		No	
5	5	1	No, community trails should not be bookable for private service providers.	N/A	5	5	5	2	5	5	5	1	I am opposed the creation of bookable trail spaces but am supportive of new trails.	No	
3	1	1	No. There are lots of spaces for this type of activity. It does not require a new trail to be developed and managed.	1	3	3	3	3	3	3	3	3	Gating a trail and managing a booking system for using said trail will create conflict. If the trail is on public land, it needs to remain open to the public.		
3	5	1	Yes. Love the idea.	4	3	3	1	1	5	2	1	1		Yes	T94chris@telus.net
4	1	1	Why not?	4	3	4	3	3	4	4	4	3	I don't quite know how you are going to lock off the trail for booked use, or keep dog walkers, bikes, skateboards off.	No	
4	4	1	Absolutely!	4	2	2	3	3	1	3	3	2		Yes	liandamurphy@gmail.com
4	2	2	Yes if there isn't a huge cost to the town/residents	1	3	2	1	2	3	1	2	1	It would be good if there was a cleared area where a group could gather-either at the end of the trail or en route.	No	
5	4	1	Yes	1	3	3	4	3	5	2	3	1		No	
3	3	1	yes	1	1	1	5	5	2	1	1	5		No	
3	5	3	Very much.	3	2	4	4	2	3	2	2	3	Most important is a healthy natural environments with trees, plants, birds, possibly water etc. I support the idea as well that a group could reserve a location within the wellness trail area for health or educational activities. Also agree no dogs is best for this type of area.	Yes	Amber.vandrielen@gmail.com aita_bezzola@hotmail.com Griffin Stacy2@gmail.com
4	3	3	Yes	2	4	1	5	5	1	3	3	5			
4	4	1	Yes	5	5	4	5	5	5	5	5	5		Yes	
3	3	1	Yes	1	5	3	1	1	5	2	1	1		Yes	
5	5	1	Absolutely!	4	4	4	4	4	2	2	4	4		Yes	Cherisslavola@gmail.com
4	2	1	No	5	4	1	2	1	1	5	4	5		No	

How well do you understand the basics of the proposed Wellness Trail?	How likely would you be to use the trail for personal use?	How likely would you be to use the trail for professional use?	Do you support the creation of a community wellness trail?	How important would the following features be to you for the trail? [Accessibility - suitable for wheelchair use]	How important would the following features be to you for the trail? [Privacy]	How important would the following features be to you for the trail? [Seating]	How important would the following features be to you for the trail? [Parking]	How important would the following features be to you for the trail? [Washrooms]	How important would the following features be to you for the trail? [Gated for private professional use]	How important would the following features be to you for the trail? [Interpretive elements for learning]	How important would the following features be to you for the trail? [Sensory experiences - flowers, edible herbs, sculptures, water features]	How important would the following features be to you for the trail? [Year round access]	Additional feedback on proposed wellness trail	Would you like to be informed by Wildsight Golden via email with key developments on the Wellness trail?	Please add your email address to receive updates from Wildsight Golden
4	4		1 Yes, but I don't like the exclusive way it would be managed with private bookings. It should be accessible to anyone at any time.	1	3	3	2	2	5	2	2	1	I am concerned that the community will lose access to a trail that is currently open to all. Trails connect places within the community and losing a trail can impact other user groups in a negative way. If this will be a newly created trail, this will not impact such user groups, which would be better. Also, I am wondering how the noise of the trains or highways will impact the peaceful experience of this trail.	No	
5	5		2 Yes	2	4	4	3		3	2	4	4		Yes	meglock@icloud.com
1	1		1 No	1	4	4	4	1	4	4	4	4	I feel as though you're maybe trying to reinvent the wheel here. We have a few trails that would be suitable for what you are proposing. If you're talking about using it for "outdoor talking therapy" then I think you need to consider that Golden is a small town and people typically like privacy when talking with a therapist. I think more accessible trails for wheelchair users would be a good thing though.	No	
2	3		1 Yes, but I'd like more information. Would this trail replace a current trail or is it a new development?	1	2	2	3	3	5	3		1	It seems like this trail might be accessible but it does not sound very inclusive. Is it inclusive to restrict the trail to certain users and private bookings (for limited time periods)? Might pets be allowed on-leash?	No	
5	5		1 Yes but who would maintain it and safety?	1	1	1	1	1	4	1	1	1	Would it be possible to install cameras for safety of users?	Yes	Bobandcarol3@gmail.com
5	3		1 Yes..Great Idea	4	4	4	4	5	4	4	4	5	Great amenity for the community	Yes	Adventurism@gmail.com
5	5		1 Definitely, a great accept for our community	1	2	1	1	3	3	4	5	3	Yeyear round access has the issue of maintenance	Yes	sherylstan@icloud.com
3	4		2 Yes, but I'd be more keen if pets were allowed	5	4	3	4	4	4	4	2	3	Pets should be allowed. Many people that need a wellness walk also need to walk pets. I already find that walking my dog is like forest therapy. Why not combine them?	Yes	greg_galloway15@hotmail.com



# **Parks & recreation survey results**

# Public input: Community Plan

<b>Total Number of Respondents</b>	<b>273</b>
<b>Town Respondents</b>	<b>169</b>
<b>Area A Respondents</b>	<b>104</b>

## Parks & Recreation

How satisfied are you with the condition of the following? Please put a checkmark in the box that best fits your answer.

		Total		Town		Area A	
		#	%	#	%	#	%
<b>Parks</b>	<b>Very satisfied</b>	51	18.7	38	22.5	13	12.5
	<b>Somewhat satisfied</b>	130	47.6	82	48.5	48	46.2
	<b>Somewhat dissatisfied</b>	54	19.8	30	17.8	24	23.1
	<b>Very dissatisfied</b>	13	4.8	6	3.6	7	6.7
	<b>Don't know</b>	8	2.9	4	2.4	4	3.8
<b>Playgrounds</b>	<b>Very satisfied</b>	45	16.5	32	18.9	13	12.5
	<b>Somewhat satisfied</b>	139	50.9	90	53.3	49	47.1
	<b>Somewhat dissatisfied</b>	26	9.5	14	8.3	12	11.5
	<b>Very dissatisfied</b>	8	2.9	4	2.4	4	3.8
	<b>Don't know</b>	32	11.7	18	10.7	14	13.5
<b>Trails</b>	<b>Very satisfied</b>	67	24.5	46	27.2	21	20.2
	<b>Somewhat satisfied</b>	117	42.9	72	42.6	45	43.3
	<b>Somewhat dissatisfied</b>	47	17.2	28	16.6	19	18.3
	<b>Very dissatisfied</b>	20	7.3	11	6.5	9	8.7
	<b>Don't know</b>	7	2.6	4	2.4	3	2.9
<b>Sports Fields</b>	<b>Very satisfied</b>	79	28.9	51	30.2	28	26.9
	<b>Somewhat satisfied</b>	108	39.6	75	44.4	33	31.7
	<b>Somewhat dissatisfied</b>	26	9.5	19	11.2	7	6.7
	<b>Very dissatisfied</b>	5	1.8	1	0.6	4	3.8

	<b>Don't know</b>	35	12.8	19	11.2	16	15.4
<b>Freeride Park</b>	<b>Very satisfied</b>	87	31.9	50	29.6	37	35.6
	<b>Somewhat satisfied</b>	96	35.2	64	37.9	32	30.8
	<b>Somewhat dissatisfied</b>	9	3.3	9	5.3		
	<b>Very dissatisfied</b>	6	2.2	4	2.4	2	1.9
	<b>Don't know</b>	44	16.1	27	16.0	17	16.3
<b>Picnic Areas</b>	<b>Very satisfied</b>	35	12.8	26	15.4	9	8.7
	<b>Somewhat satisfied</b>	97	35.5	60	35.5	37	35.6
	<b>Somewhat dissatisfied</b>	77	28.2	49	29.0	28	26.9
	<b>Very dissatisfied</b>	16	5.9	9	5.3	7	6.7
<b>Natural Areas</b>	<b>Don't know</b>	24	8.8	10	5.9	14	13.5
	<b>Very satisfied</b>	50	18.3	35	20.7	15	14.4
	<b>Somewhat satisfied</b>	84	30.8	56	33.1	28	26.9
	<b>Somewhat dissatisfied</b>	70	25.6	35	20.7	35	33.7
<b>Arena</b>	<b>Very dissatisfied</b>	33	12.1	17	10.1	16	15.4
	<b>Don't know</b>	4	1.5	4	2.4		0.0
	<b>Very satisfied</b>	75	27.5	51	30.2	24	23.1
	<b>Somewhat satisfied</b>	108	39.6	71	42.0	37	35.6
<b>Pool</b>	<b>Somewhat dissatisfied</b>	22	8.1	10	5.9	12	11.5
	<b>Very dissatisfied</b>	5	1.8	3	1.8	2	1.9
	<b>Don't know</b>	33	12.1	17	10.1	16	15.4
	<b>Very satisfied</b>	38	13.9	28	16.6	10	9.6
<b>Mt 7 Rec Plex</b>	<b>Somewhat satisfied</b>	72	26.4	51	30.2	21	20.2
	<b>Somewhat dissatisfied</b>	69	25.3	40	23.7	29	27.9
	<b>Very dissatisfied</b>	50	18.3	23	13.6	27	26.0
	<b>Don't know</b>	20	7.3	15	8.9	5	4.8
<b>Mt 7 Rec Plex</b>	<b>Very satisfied</b>	56	20.5	41	24.3	15	14.4

In general terms, what do you like best about the parks/playgrounds, trails and recreation areas?

	Total		Town		Area A	
	#	%	#	%	#	%
<b>Natural areas</b>	32	11.7	16	9.5	16	15.4
<b>Good to have/variety</b>	49	17.9	36	21.3	13	12.5
<b>Accessibility</b>	46	16.8	26	15.4	20	19.2
<b>Maintenance/cleanliness</b>	24	8.8	19	11.2	5	4.8
<b>Trail system</b>	21	7.7	18	10.7	3	2.9
<b>Trails along the river</b>	16	5.9	4	2.4	12	11.5

Which of the following factors might prevent you from using the parks/playgrounds, trails and recreation areas?

	Total		Town		Area A	
	#	%	#	%	#	%
<b>Not aware</b>	51	18.7	29	17.2	22	21.2
<b>Lack of trails</b>	44	16.1	26	15.4	18	17.3
<b>Lack of connectivity</b>	91	33.3	48	28.4	43	41.3
<b>Condition/ Maintenance</b>	62	22.7	41	24.3	21	20.2
<b>Safety Concerns</b>	45	16.5	37	21.9	8	7.7
<b>None of the above</b>	58	21.2	43	25.4	15	14.4
<b>Other</b>	12	4.4	10	5.9	2	1.9
<b>Safety Concerns</b>	<b>Loose Dogs</b>	9	3.3	9	5.3	
	<b>Wildlife</b>	8	2.9	6	3.6	1.9
	<b>Lighting</b>	5	1.8	4	2.4	1.0
	<b>Garbage</b>	5	1.8	5	3.0	
<b>Other</b>	<b>Dog Poo</b>	4	1.5	4	2.4	
	<b>No bathrooms</b>	2	0.7	2	1.2	

With regard to Golden's parks and trails system, please put the following in order of priority, with 1 being the highest priority.

	Priority		
	Total	Town	Area A
<b>Larger 'linked' system of trails</b>	1	1	1
<b>Develop more trails</b>	2	3	2
<b>More public washrooms</b>	3	4	3
<b>Repairs/Maintenance to existing networks/areas</b>	4	2	6
<b>Upgrade outdoor pool</b>	5	5	4
<b>Aesthetic improvements to existing networks/areas (scenic landscaping)</b>	6	6	5
<b>More benches/seating in 'passive' recreation areas</b>	7	7	9
<b>Development of maps &amp; interpretive signs</b>	8	8	7
<b>Improve signage</b>	9	9	8
<b>Next phase of Freeride park</b>	10	10	10

Do you have any comments or concerns that may not have been addressed in the questions about parks/playgrounds, trails, facilities and recreation?

	Total		Town		Area A	
	#	%	#	%	#	%
<b>Stop destroying natural areas</b>	21	7.7	13	7.7	8	7.7
<b>Maintenance</b>	20	7.3	19	11.2	1	1.0
<b>More green spaces/trees</b>	15	5.5	6	3.6	9	8.7
<b>Pesticide free</b>	6	2.2	4	2.4	2	1.9
<b>Dog poop stations</b>	5	1.8	5	3.0		0.0

Do you think street landscaping and beautification in these areas is important?

	Total		Town		Area A	
	#	%	#	%	#	%
<b>Very important</b>	82	30.0	67	39.6	15	14.4
<b>Somewhat important</b>	88	32.2	72	42.6	16	15.4
<b>I'm not concerned</b>	63	23.1	16	9.5	47	45.2

Do you have any suggestions or comments on future community economic development?

	Total		Town		Area A	
	#	%	#	%	#	%
<b>Tourism/eco tourism</b>	17	6.2	11	6.5	6	5.8
<b>Beautification</b>	14	5.1	9	5.3	5	4.8
<b>Leader in environmental initiatives</b>	13	4.8	8	4.7	5	4.8
<b>No box stores</b>	12	4.4	9	5.3	3	2.9

What is your special place in Golden?

	Total		Town		Area A	
	#	%	#	%	#	%
<b>River/river trails/confluence</b>	101	37.0	57	33.7	44	42.3
<b>Trails</b>	25	9.2	20	11.8	5	4.8
<b>Pedestrian bridge</b>	24	8.8	13	7.7	11	10.6
<b>Mt. 7</b>	10	3.7	8	4.7	2	1.9
<b>Reflection lake</b>	8	2.9	3	1.8	5	4.8
<b>Golden</b>	6	2.2	6	3.6		
<b>Other Lakes (Gorman, Cedar, Holt)</b>	6	2.2	6	3.6		

62) Rank where would you prefer to see the City spend more?

	Priority		
	Total	Town	Area A
<b>Roads &amp; Sidewalks</b>	1	1	4
<b>Parks &amp; Recreation</b>	2	2	3
<b>Community enhancement</b>	3	3	2
<b>Trails</b>	4	4	1
<b>Community Economic Development</b>	5	6	5
<b>Sewage Treatment</b>	6	5	7
<b>Arts &amp; Culture</b>	7	7	6
<b>Water Service</b>	8	8	8

# **Environmental impact assessment**

**Guidelines: Non-motorized Forest & Grasslands - Snow**

### 1. Degradation of Soil, Air, and Water Quality

#### Concern: Water pollution

Results	Desired Behaviours
<ul style="list-style-type: none"> <li>Avoid water pollution.</li> </ul>	<ul style="list-style-type: none"> <li>Pack out all garbage.</li> <li>Use existing facilities for human waste, pack it out, or bury it in deep snow at least 100 m from water sources.</li> </ul>

#### Concern: Soil compaction and erosion

Results	Desired Behaviours
<ul style="list-style-type: none"> <li>Minimize soil compaction and erosion.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid travel and camping on shallow snow packs when the ground is not frozen.</li> <li>Minimize campfires.</li> </ul>

### 2. Integrity of Vegetation Communities

#### Concern: Damage to sensitive sites

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Protect habitats of endangered wildlife species and ecosystems.</li> <li>Protect nesting/calving sites.</li> </ul>	<ul style="list-style-type: none"> <li>Learn to identify endangered species and ecosystems within the operating area.</li> <li>Operate in a manner that is consistent with government's approved approach to recovery planning for species at risk.</li> <li>Obey all signs and area closures.</li> <li>Avoid known nesting/calving sites (seasonal closures might be necessary).</li> <li>Do not damage wildlife trees.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to <u>sensitive sites</u>.</li> </ul>	<ul style="list-style-type: none"> <li>No vegetation damage in sensitive sites or vegetated alpine/tundra and grasslands beyond existing trails caused by non-motorized activities.</li> </ul>

### 3. Direct Disturbance of Wildlife

#### Concerns: Physiological and behavioural disruption, displacement from preferred habitats; direct mortality, habituation/sensitization

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Minimize physiological and behavioural disruption.</li> <li>Minimize changes in habitat use resulting from activities.</li> </ul>	<ul style="list-style-type: none"> <li>Record wildlife encounters, actions taken and responses of animals.</li> <li>Remain on established trails where they exist.</li> <li>Obey all signs and area closures.</li> <li>Do not harass wildlife.</li> <li>Do not feed wildlife.</li> <li>Do not handle wildlife.</li> <li>Do not allow dogs to be at large and harass wildlife.</li> <li>Pack out all garbage.</li> <li>Yield to wildlife on trails and roads.</li> <li>Focus activities in areas and at times of the year when wildlife are least likely to be disturbed (seasonal closures might be necessary).</li> <li>Remain still or retreat when animals are encountered and react to your presence.</li> <li>Stay at distances sufficient to prevent changes to the behaviour of animals (at least 100 m in open areas is the default for large mammals).</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of encounters resulting in an alarm response.</li> <li>Population abundance and distribution trends of wildlife species.</li> </ul>	<ul style="list-style-type: none"> <li>No increase in rate of alarm responses over time caused by non-motorized activities.</li> <li>No harassment caused by non-motorized activities.</li> <li>No abandonment of habitats caused by non-motorized activities.</li> </ul>

#### 4. Integrity of Fisheries Resources

##### Concern: Damage to fish populations and habitats

Results	Desired Behaviours
<ul style="list-style-type: none"> <li>Protect fish populations and habitats.</li> </ul>	<ul style="list-style-type: none"> <li>Do not move live fish or other aquatic life.</li> <li>Do not harm spawning or rearing habitats by crossing or otherwise disturbing streams in these areas.</li> <li>Obey all signs and area closures.</li> <li>Obey all fisheries regulations.</li> <li>Follow desired behaviours related to water quality.</li> </ul>

#### 5. Special Management

##### Concern: Grizzly Bear and Wolverine dens

Results	Desired Behaviours
<ul style="list-style-type: none"> <li>Protect den sites.</li> </ul>	<ul style="list-style-type: none"> <li>Remain at distances sufficient to avoid disturbing Grizzly Bears and Wolverines in known den sites, at least 100 m is the default (seasonal closures might be necessary).</li> </ul>

##### Concern: Ungulate winter ranges

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Minimize physiological or behavioural disruption of ungulates on winter ranges.</li> <li>Continued occupation of ungulate winter ranges.</li> </ul>	<ul style="list-style-type: none"> <li>Remain on established trails where they exist.</li> <li>Obey all signs and area closures.</li> <li>Do not harass wildlife.</li> <li>Do not feed wildlife.</li> <li>Do not allow dogs to be at large and harass wildlife.</li> <li>Minimize activity in and near identified ungulate winter ranges (seasonal closures might be necessary).</li> <li>Stay at distances sufficient to prevent changes to the behaviour of animals (at least 100 m in open areas is the default).</li> </ul>	<ul style="list-style-type: none"> <li>Continued occupancy of ungulate winter ranges.</li> </ul>	<ul style="list-style-type: none"> <li>No harassment caused by non-motorized activities.</li> <li>No abandonment of ungulate winter ranges caused by non-motorized activities.</li> </ul>

##### Concern: Mountain Caribou

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Minimize physiological or behavioural disruption of Mountain Caribou.</li> <li>Continued occupation of existing range by Mountain Caribou.</li> <li>Ensure that non-motorized activities are not a barrier to Mountain Caribou population recovery.</li> </ul>	<ul style="list-style-type: none"> <li>Record encounters with caribou, and actions taken, and responses of animals.</li> <li>Remain on established trails.</li> <li>Obey all signs and area closures.</li> <li>Do not harass wildlife.</li> <li>Do not feed wildlife.</li> <li>Do not allow dogs to be at large and harass wildlife.</li> <li>Minimize activity in and near identified high-use areas (seasonal closures might be necessary).</li> <li>Stay at distances sufficient to prevent changes to the behaviour of animals (at least 100 m in open areas is the default for large mammals).</li> <li>Follow recommendations of Recovery Implementation Groups for Mountain Caribou.</li> </ul>	<ul style="list-style-type: none"> <li>Encounter frequency.</li> <li>Proportion of encounters resulting in an alarm response.</li> <li>Population abundance and distribution trends of subpopulations.</li> </ul>	<ul style="list-style-type: none"> <li>No increase in rate of alarm responses over time caused by non-motorized activities.</li> <li>No harassment caused by non-motorized activities.</li> <li>No abandonment of current range caused by non-motorized activities.</li> </ul>

# **Environmental impact assessment**

**Guidelines: Non-motorized Forest & Grasslands - Snow-free**



## 1. Degradation of Soil, Air, and Water Quality

### Concern: Water pollution

Results	Desired Behaviours
<ul style="list-style-type: none"> <li>Avoid water pollution.</li> </ul>	<ul style="list-style-type: none"> <li>Pack out all garbage.</li> <li>Use existing facilities for human waste, pack it out, or bury it in holes 10 to 15 cm deep located at least 100 m from water sources (use group latrines minimum 30 cm deep for parties of more than 4 persons).</li> <li>Use existing bridges and structures to cross streams, or cross at right angles away from spawning areas where the substrate particle size is cobble or larger, including bedrock.</li> <li>Minimize use of pesticides and herbicides near waterways.</li> <li>Use biodegradable cleaning products.</li> </ul>

### Concern: Soil compaction and erosion

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Minimize soil compaction off established trails.</li> <li>Minimize erosion associated with trails.</li> </ul>	<ul style="list-style-type: none"> <li>Use existing roads and trails where they exist.</li> <li>Avoid travelling on existing trails that show evidence of erosion.</li> <li>Avoid widening existing trails.</li> <li>Use rock and gravel trails where possible.</li> <li>Avoid poorly placed trails (e.g., steep grades with soft substrates).</li> <li>Where no trails exist, travel on rock or other durable surfaces or disperse use and avoid areas where impacts are evident.</li> <li>Avoid off-trail muddy conditions.</li> <li>Obey all signs and area closures.</li> <li>Use designated campsites and/or existing intensive-use sites where they exist, or use rock or durable surfaces for camping.</li> <li>Minimize campfires and use only established fire rings.</li> </ul>	<ul style="list-style-type: none"> <li>Existing path widths.</li> <li>Trail braiding.</li> <li>Evidence of erosion associated with existing trails.</li> </ul>	<ul style="list-style-type: none"> <li>No net increase in trail density caused by non-motorized activities.</li> <li>No net increase in existing trail widths caused by non-motorized activities.</li> <li>No erosion near waterways or in sensitive sites caused by non-motorized activities.</li> </ul>

### Concern: Bank erosion and siltation

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Protect living and non-living substrates.</li> <li>Minimize bank erosion.</li> </ul>	<ul style="list-style-type: none"> <li>Use existing bridges and structures to cross streams, or cross at right angles away from spawning areas where the substrate is particle size is cobble or larger or bedrock.</li> <li>Avoid existing trails that parallel streams and those that show evidence of erosion.</li> </ul>	<ul style="list-style-type: none"> <li>Trail use near waterways.</li> <li>Evidence of siltation near crossings.</li> </ul>	<ul style="list-style-type: none"> <li>No net increase in trails near waterways or waterway crossings caused by non-motorized activities.</li> <li>No evidence of persistent siltation near or downstream of crossings caused by non-motorized activities.</li> </ul>

## 2. Integrity of Vegetation Communities

### Concern: Invasive species

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Minimize spread of invasive plant species (weeds).</li> </ul>	<ul style="list-style-type: none"> <li>Use existing trails where possible.</li> <li>Learn to identify invasive plants.</li> <li>Inspect clothing, equipment, pack animals and pets for plant parts before and after activity.</li> <li>Incinerate or bag and dispose of collected plant parts.</li> <li>Obey all signs and area closures.</li> <li>Leave gates as you found them.</li> <li>Restrict use of areas with invasive plants to times of the year when spread is unlikely (i.e., the period from flowering to seed dispersal).</li> <li>Invasive plants should generally be cut at the ground rather than pulled if pulling is likely to result in dispersal of seed.</li> <li>Pack-in invasive-plant-free feed for pack animals.</li> <li>Avoid grazing animals in infested areas.</li> </ul>	<ul style="list-style-type: none"> <li>Extent and frequency of invasive species occurrence within 5 m of existing trails.</li> </ul>	<ul style="list-style-type: none"> <li>No net increase in invasive species stem densities caused by non-motorized activities.</li> <li>No net increase in spatial extent of current infestations caused by non-motorized activities.</li> </ul>

**Concern: Soil compaction**

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Protect vegetative cover and root systems.</li> </ul>	<ul style="list-style-type: none"> <li>Use existing roads and wide trails where they exist.</li> <li>Avoid widening existing trails.</li> <li>Avoid off-trail muddy conditions</li> <li>Use rock and gravel trails where possible.</li> <li>Avoid travelling on existing trails that show evidence of erosion.</li> <li>Obey all signs and area closures.</li> <li>Use designated campsites and/or existing intensive-use sites where they exist, or use rock or durable surfaces for camping.</li> <li>Minimize campfires and use only established fire rings.</li> <li>With the exception of invasive plants, do not pick or pull vegetation.</li> <li>Do not bury garbage, pack it out.</li> </ul>	<ul style="list-style-type: none"> <li>Existing path widths.</li> <li>Trail braiding.</li> </ul>	<ul style="list-style-type: none"> <li>No net increase in trail density caused by non-motorized activities.</li> <li>No net increase in existing trail widths caused by non-motorized activities.</li> </ul>

**Concern: Damage to sensitive sites**

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Protect habitats of endangered wildlife species and ecosystems.</li> <li>Protect sensitive ecosystems (grasslands, alpine/tundra, and moist-soil ecosystems such as riparian areas and wetlands).</li> <li>Protect nesting/calving sites.</li> </ul>	<ul style="list-style-type: none"> <li>Learn to identify endangered species and ecosystems within the operating area.</li> <li>Operate in a manner that is consistent with government's approved approach to recovery planning for species at risk.</li> <li>Use existing roads and trails.</li> <li>Avoid muddy conditions.</li> <li>Use rock and gravel trails where possible.</li> <li>Obey all signs and area closures.</li> <li>Do not break or trample vegetation in riparian areas.</li> <li>Avoid known nesting/calving sites (seasonal closures might be necessary).</li> <li>Do not damage wildlife trees.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to sensitive sites.</li> <li>Damage to vegetated alpine/tundra and grasslands beyond existing trail network.</li> </ul>	<ul style="list-style-type: none"> <li>No vegetation damage in sensitive sites or vegetated alpine/tundra and grasslands beyond existing trails caused by non-motorized activities.</li> </ul>

### 3. Direct Disturbance of Wildlife

Concerns: Physiological and behavioural disruption, displacement from preferred habitats; direct mortality, habituation/sensitization

Results	Desired Behaviours	Indicators	Limits
<ul style="list-style-type: none"> <li>Minimize physiological and behavioural disruption.</li> <li>Minimize changes in habitat use resulting from activities.</li> </ul>	<ul style="list-style-type: none"> <li>Record wildlife encounters, actions taken, and responses of animals.</li> <li>Remain on established trails where they exist.</li> <li>Obey all signs and area closures.</li> <li>Do not harass wildlife.</li> <li>Do not feed wildlife.</li> <li>Do not handle wildlife.</li> <li>Do not allow dogs to be at large and harass wildlife.</li> <li>Pack out all garbage.</li> <li>Yield to wildlife on trails and roads.</li> <li>Focus activities in areas and at times of the year when wildlife are least likely to be disturbed (seasonal closures might be necessary).</li> <li>Remain still or retreat when animals are encountered and react to your presence.</li> <li>Stay at distances sufficient to prevent changes to the behaviour of animals (at least 100 m in open areas is the default for large mammals).</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of encounters resulting in an alarm response (movement by animals, usually to safer locations).</li> <li>Population abundance and distribution trends of wildlife species.</li> </ul>	<ul style="list-style-type: none"> <li>No increase in rate of alarm responses over time caused by non-motorized activities.</li> <li>No harassment caused by non-motorized activities.</li> <li>No abandonment of habitats caused by non-motorized activities.</li> </ul>

### 4. Integrity of Fisheries Resources

Concern: Damage to fish populations and habitats

Results	Desired Behaviours
<ul style="list-style-type: none"> <li>Protect fish populations and habitat.</li> </ul>	<ul style="list-style-type: none"> <li>Do not move live fish or other aquatic life between water bodies.</li> <li>Do not harm spawning or rearing habitats by crossing or otherwise disturbing streams in these areas.</li> <li>Obey all signs and area closures.</li> <li>Obey all fisheries regulations.</li> <li>Follow desired behaviours related to water quality.</li> </ul>

Leave No Trace

[www.Int.org/main.htm](http://www.Int.org/main.htm)

Outdoor Recreation Council of BC Safety and Information Brochures

[www.orcbc.ca/research\\_pub.htm](http://www.orcbc.ca/research_pub.htm)

# **Land Impacts Survey results - ORCBC**

## **Introduction**

The Outdoor Recreation Council of BC (ORCBC) sought to better understand the impacts of outdoor recreation in rural B.C. communities. At the time of designing the study, there had been limited or outdated research and exploration into the impacts of B.C.'s outdoor recreation sector. This study aims to broadly explore and record observed impacts. The initial data suggests that there are significant challenges and opportunities in B.C.'s outdoor recreation sector that merit further discussion and studies. The study reflects the circumstances and challenges present at the time of the interviews between October 2022 and November 2022. This study does not provide a statistically significant sample or measurable impacts.

## **Methods**

The research is exploratory and qualitative in nature. Interviews (30 minutes to 1 hour) are the main form of data collection. Interviews were conducted primarily with community leaders who could provide perspectives on behalf of community members and who would understand the community's outdoor recreation sector. A thematic analysis of the interviews was used to identify the themes.

**Community Selection:** Five communities with known outdoor recreation sectors were selected. Other considerations included rural classifications, population size, geographic region, and outdoor assets among others.

**Interviewee Selection:** Interviewees were selected to provide perspectives on behalf of the community or of a group in the community. Leadership roles and professional practitioners were selected as they were more likely to have oversight on the sector.

**Interviews and Analysis:** Interviews included general questions and questions on economic, community, equity, and environmental topics. A thematic analysis of the interview data was conducted. The interview data is the main source of data in this study.

## **Results & discussion**

### **A. 3 Key Elements of Outdoor Recreation**

There were three key similarities in all five of the communities that can provide insights about the development of the outdoor recreation sector. The first is the existence of outdoor assets. The second is access to outdoor assets. The third, are the people that access the outdoor spaces. The research revealed how community members in the five communities protect outdoor spaces, create access, and protect access –all of which enables outdoor recreation opportunities and drives people to participate. The research also revealed that there are observable increases in participation of outdoor recreation thought to be accelerated by promotion and by the COVID-19 pandemic

### **B. Impacts**

The interview data suggests that impacts of outdoor recreation are widespread, positive and negative, and include direct or indirect impacts to the land and to the community. The research identified recurring themes from the interview discussions. The themes highlight what the interviewees observed in their communities. There are themes that may exist beyond what emerged during the interview process of this research. Largely discussed were impacts to the land. “Land impacts” refers to impacts in outdoor spaces or that are closely related to the outdoors. In other word, they are directly related to outdoor spaces.

*Table 1: Land impacts discussed in the interviews*

	<b>Theme</b>	<b>Description</b>
1.	Human-Caused Damages to the Land and Its Values	Individual action can intentionally or unintentionally cause damages to the land and associated values such environmental or cultural ones. Too many people leads to overuse which can also cause damages. The table provides an overview of how and where damages were discussed.
2.	Connection to nature	People who participate in outdoor recreation can form personal connection to nature which can motivate responsible recreation, stewardship and education.
3.	Environmental Stewardship	There is active environmental stewardship directly linked to outdoor recreation. The table below provides an overview of the different ways environmental stewardship was discussed.
4.	Knowledge and Skills	Participation in outdoor recreation or the existence of an outdoor recreation sector opens learning opportunities.
5.	Inclusivity and Accessibility	In all five communities, there are initiatives geared towards inclusivity and accessibility with a desire to do more.
6.	Indigenous Involvement	Indigenous involvement can be an important aspect of outdoor projects which may take place as consultations or as unique relationship building between Indigenous Peoples and non-indigenous organizations or governments.
7.	Natural Resource Values	Outdoor recreation influences how natural resources are valued. E.g. the co-existence of extractive and non-extractive values, competition for resources, or transition of resource uses.
8.	Destination Marketing and Management	Destination marketing can motivate people to participate in outdoor recreation however, too many visitors can strain community resources which is leading some tourism organizations towards destination management.

*Table 2: Community impacts discussed in the interviews*

	<b>Theme</b>	<b>Description</b>
1.	Community Culture and Identity	Interviewees described the significance of the outdoor recreation sector economically, socially, and culturally. It was identified as an important part of their community.
2.	Lifestyle and Wellbeing	Easy access to outdoor recreation motivates lifestyle and wellness choices such as increased physical activity.
3.	Social Connection and Community Engagement	Outdoor recreation opportunities can motivate social connection and citizen engagement.
4.	Economic	Every community observes economic activities directly linked to outdoor recreation. Outdoor recreation is also used a selling point and as an economic diversification strategy.
5.	Housing & Migration	The interviews showed that outdoor recreation is a reason that people stay in the community and a reason for people to move into the community.
6.	Strain on Community Infrastructure	Small, rural communities are not always able to keep up with demands caused by outdoor recreation such as with emergency services.

The main challenges discussed were:

1. Limited capacity for land managers namely Recreation Sites and Trails BC and BC Parks
2. Limited funding for land managers, outdoor recreation groups, Indigenous Peoples and destination management.
3. Complex issues and complex processes that are faced for outdoor recreation projects.
4. Over-reliance on volunteers as they play a vital role in maintaining and building outdoor recreation infrastructure and providing opportunities.
5. The need for more planning and visioning as a tactic to improve the outdoor recreation sector and address issues.
6. Limited research and data as a barrier to, economic development, fundraising efforts, understanding wildlife impacts, and understanding the carrying capacity of outdoor spaces.
7. What is Outdoor Recreation? The definition of the sector was questioned as it related to cultural practices, sustenance activities and industry definitions.

**Thank you**



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