

Models of prevention focused outdoor recreation (land based) public safety

Report for the New Zealand Winston Churchill Memorial
Fellowship

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Executive Summary

As a 2018 recipient of the New Zealand Winston Churchill Memorial Fellowship I travelled to Canada and USA to engage with organisations who play a role in land-based outdoor recreation safety.

Over the course of my travel I met with a range of organisations covering a diverse variety of land-based outdoor recreation activities, with the common theme that they were all relevant to the prevention-focused work of the [New Zealand Mountain Safety Council](#) (MSC) and my role as Partnerships and Insights Manager.

During April and May 2018 I spent four weeks travelling through British Columbia, Alberta (Canada) and Washington State (USA).

The aim of my travel was to engage with organisations who play a role in public outdoor recreation safety (prevention), with two primary objectives:

1. To learn about prevention strategies and initiatives used in North America, with the intention of applying these ideas in New Zealand and,
2. To share examples of successful land-based outdoor recreation prevention strategies and initiatives used in New Zealand.

This trip clearly shows that the prevention system in New Zealand are world-leading. Examples of work I showcased at meetings was typically met with widespread acclaim and became an aspirational goal for many of the organisations I met with. It is naturally incredibly pleasing to receive such positive feedback from others regarding the MSC work, but as this trip is testament to, resting on those success stories is a risky business and

continually working towards achieving greater results requires continued focus and on-going strategic thinking.

In this report I outline my findings by presenting prevention strategies and initiatives that could be implemented to improve outdoor safety in New Zealand:

- A participant focused track grading and communication system
- Track condition updates and public reporting tool
- School curriculum integrated learning resources
- Implement new 'safety funnels' (or refine existing)
- Emotive signage
- Game Animal Classification
- International prevention Symposium
- The Red Chair Affect

Since returning home I have run four 2hour workshops with MSC staff to download my experience and discuss the findings. These workshops are just the beginning of a process in which the organisation will continue to discuss these ideas with possible implementation into future business plans.

I am committed to on-going communication with several of the people/organisations I met with and since returning have conducted Skype meetings to continue the conversations we started during my visit. This also serves as an opportunity to incorporate other MSC staff, with the intention that these Skype meetings be open to our whole team and develop into a reoccurring opportunity.

In recent weeks MSC has embarked on a project with the Department of Conservation (DOC) to revise all on-site signage within the Gertrude Valley (Fiordland National Park) and develop new supporting resources. This project will draw strongly on my experience at Lynn Canyon and the emotive signage they have used to combat a similar problem.

As New Zealand's largest manager of public walking and tramping tracks it is logical to initially focus on DOC, but in time other parties such as Councils will need to be involved.

Several of my findings won't see any immediate action, for example the International Prevention Symposium, but this learning has no expiry date and we can draw on this at any time in the future when the topic is relevant.

I trust that those reading this report will find my key learnings and recommendations to be interesting, ideally inspiring discussion and further thinking.

For more information or to discuss any aspect of my report please don't hesitate to contact me at Nathan.Watson@mountainsafety.org.nz.

Introduction

This travel was made possible with the support of the New Zealand Winston Churchill Memorial Fellowship and the New Zealand Mountain Safety Council (MSC).

I would like to take this opportunity to thank them both for their invaluable support, without this my trip would not have been possible.

In this report I will share a range of key learnings, findings and recommendations, as well as a trip summary of where I went and who I met with.



Itinerary – for further details please see the full trip report in the appendices

24 April 2018	Depart New Zealand
24 to 30 April	Vancouver & surrounds, including Victoria
2 to 4 May	Penticton
5 to 7 May	Revelstoke
8 to 11 May	Jasper National Park
12 to 16 May	Banff National Park & Canmore
18 to 20 May	Port Angeles/Olympic National Park
21 May	Sedro Woolley/North Cascades National Park
22 May	Bellingham
23 May	Depart Vancouver
25 May	Arrive New Zealand

Key Learnings, Findings and Recommendations

Over the following pages I present my eight major findings. Each of these are ideas that I believe, if implemented, would positively contribute to safety improvements in New Zealand.

Each finding is presented in a relatively brief format and to some extent each one would require more work to develop into a fully-fledged proposal. In some cases, further research into the concept would be beneficial as I have decided on these findings purely through my limited observations and meetings while travelling through Canada and USA over four weeks.

Each finding would require additional organisational buy-in from other partners within the safety/prevention sector, if the concepts were to be developed further and implemented in New Zealand. The partnerships that the MSC have with others would be central to this process.

Some of these findings could be implemented with very little financial resourcing required. For example, the use of emotive and consequential signage would not necessarily require any new financial investment as this new approach would be used instead of standard signage. On the other hand, some of my findings would require significant investment, such as the development of a track conditions update tool, however if this was built onto an existing tool, such as the MSC [Plan My Trip](#), the cost would be reduced (as much of the initial base development already exists) while the value of the tool for the user would increase substantially.

Overall, my major findings represent the 'big ideas' that I developed through all my personal observations, experiences and dedicated meetings while travelling for four

weeks. In addition to these major findings there were numerous more subtle concepts, ideas, and examples that I picked up along the way. Not to mention the numerous international contacts. These have all contributed to my wider thought process and aided the development of the major ideas, while also providing me with a different lens to view our broader prevention work in New Zealand through and, where relevant, international examples to learn from.

As an example of this, I have not developed a specific finding around the use of activity specific social media ambassadors, however this is a topic I discussed with Avalanche Canada and has been part of an on-going discussion amongst MSC staff. Should MSC decide to trial this tactic we can learn from Avalanche Canada's experiences. Additionally, Parks Canada are currently building an incident visualisation tool to assist with improved internal safety management policy planning. This tool utilises the same IT software that MSC intends to use to build our own insights visualisation tool, so this connection allows us to learn from Parks Canada's experiences.

While also developing new ideas, this trip was just as valuable for reaffirming existing successful prevention tactics. The use of social media, partnerships with existing organisations who already reach large audiences, the development and promotion of video material, and the importance of an insights led culture where evidence trumps anecdotes. On numerous occasions I was sitting and listening to examples of prevention work that shared strong similarities to projects MSC have used in New Zealand.

1. Participant focused track grading and communication system

The public system used by Parks Canada to communicate track grades was incredibly simple, easy to understand and use. By comparison, in my opinion, the NZ track grading system (specifically the way in which it is communicated to the public) feels overly complex, hard to interpret and not designed with needs of the end user in mind.

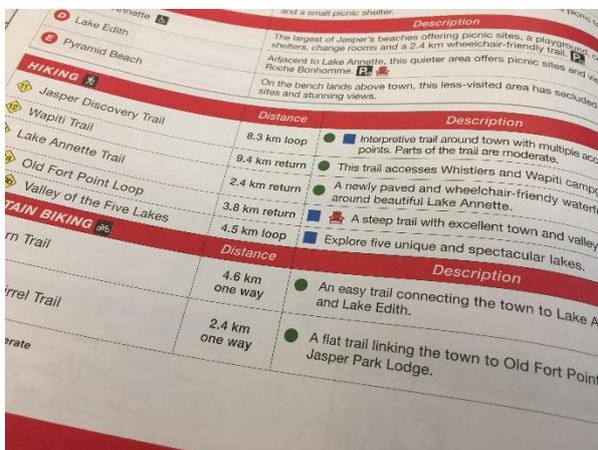
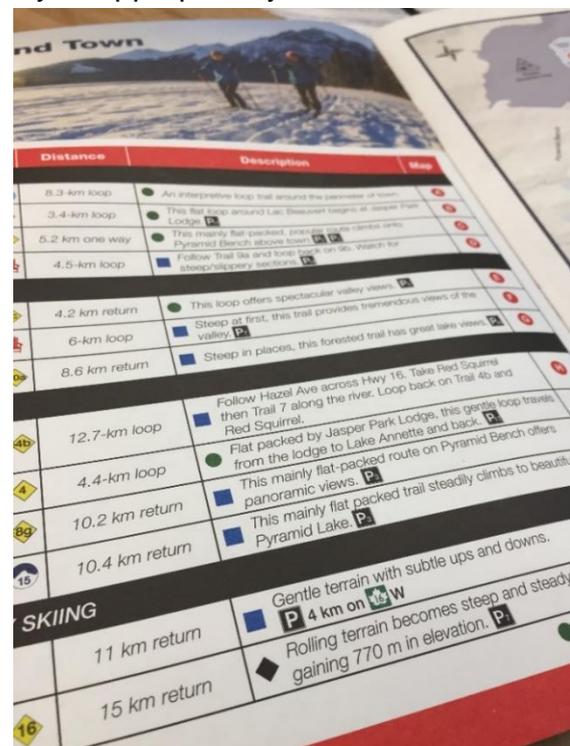
In NZ we have a track classification system that features 6 different grades, these are not colour coded, numbered, or easily distinguished from each other, aside from using a confusing icon system. The 6 different grades use a variation in language which can make several of them hard to distinguish from each other without reading the descriptions or an intimate knowledge of the system, or specific tracks. For example, the difference between 'Easiest: Short Walk' and 'Easy: Walking Track' is not necessarily apparent through the name only.

Parks Canada use a simple combination of a colour coded and numbered system. This proved to be a very clear and concise way of providing a simple system for visitors to identify the different track grades and match the most suitable one to their ability.

Parks Canada use 'Green = easy / Blue = moderate / Black = hard' to classify tracks/trips, and these are supported by basic icons whereby green features a circle, blue a square and black a diamond. New Zealand may benefit from an additional classification of 'Red = route' or a double black diamond to cater for this unique track type.

This system, or a similar approach that is focused on maximising understanding, would be better suited for the general recreating public and would allow users to more effectively choose a trip that appropriately matched their fitness, experience, competency, available time and trip goals. All too often in NZ we encounter incidents where the user has not selected an appropriate trip in comparison to their competency. This is not always caused by the complexity of the current grading system, but a simplified version would likely go some way to reducing this problem and improving user understanding and the ability to appropriately self-select a track.

Images below: Examples of the Parks Canada track grading system used in various public information sources.



Currently most New Zealand tracks use the Standards New Zealand HB8630:2004 'Tracks and Outdoor visitor Structures' handbook as their guide. This standard sets out the process used to determine the appropriate track grading based primarily on the predominant user group. I do not believe it is necessary to revise the 6 identified user groups or to revise which standard the relevant track is built to, as this system appears to meet the needs of those responsible for the management of those facilities. However, I do believe with the simple addition of an improved 'public facing' grading system (implementing colours) this would provide users with more clarity and understanding, and therefore would be better informed to self-select the appropriate track/trip option.

Table below: The basic colour grading system applied alongside existing New Zealand track classifications.

Current Track Classification (DOC)	User Group	Visitor Group (DOC)	Proposed New Public Grading System
 Easiest: Easy Access Short Walk	1	Urban Residents (not used by DOC)	Green (Easy) <small>(Used with a wheelchair accessible icon when relevant)</small>
 Easiest: Short Walk	2	Shortstop Travellers	Green (Easy)
 Easy: Walking Track	3	Day Visitors	Green (Easy)
 Intermediate: Tramping Track (Great Walk)	4	Backcountry Comfort Seekers	Blue (Moderate)
 Advanced: Tramping Track	5	Backcountry Adventurers	Black (Difficult)
 Expert: Route	6	Remoteness Seekers	Red (Very Difficult)

Similar examples of a colour coded system in New Zealand already exist within the Mountain Biking and Ski sectors. See [Makara Peak MTN Bike Park](#) as one example of this.

2. Track condition updates and public reporting tool

I was continually impressed by the quality of up to date track information rangers and visitor centre staff were able to provide users who were looking for a suitable trip.

This information is particularly valuable for users who have not decided on a trip option and are open to guidance from a knowledgeable and trusted source, or who have decided on a trip option but when presented with new information are willing to change their plans to suit. Up to date track condition information is critical to help users select trips that are appropriate for their skills and experience, suit the time they have available and to ensure they are adequately prepared for the conditions ahead. Quality track information can help to ensure smart decision making from the outset, with one of the most important decisions of the trip planning phase being guided by relevant and timely information.

The different agencies I meet with all used similar information sources to gather the most up to date track conditions. Typically, these included staff in the field, user reports/feedback, and third-party public report/observation sites.

On multiple occasions I observed staff interact with visitors and I regularly heard advice such as: *'...that track is still under 50% snow cover, we suggest you think about this other option [track name] which is a better choice for you right now'....*

Following up with the staff after their conversation had finished their response was often similar when I asked 'where does your information come from?' *'...daily reports from our staff and users providing regularly feedback [in the field to staff and afterwards at the visitor centre]'.*

My meeting with Olympic National Park captured this so well '*...We also use a third-party public site [name] and extract reports from that, they do it so well, so why would we replicate that when we can work with them?*'

Both Parks Canada and the US National Parks Service (in the places I visited) appeared to have a higher concentration of staff in the field compared to New Zealand. While there will be various reasons for their staff to be in the field one of those reasons related to the enforcement of permits. This naturally provided an easy avenue for staff to report the latest track conditions back to civilisation where that information was communicated to the public in a timely manner.

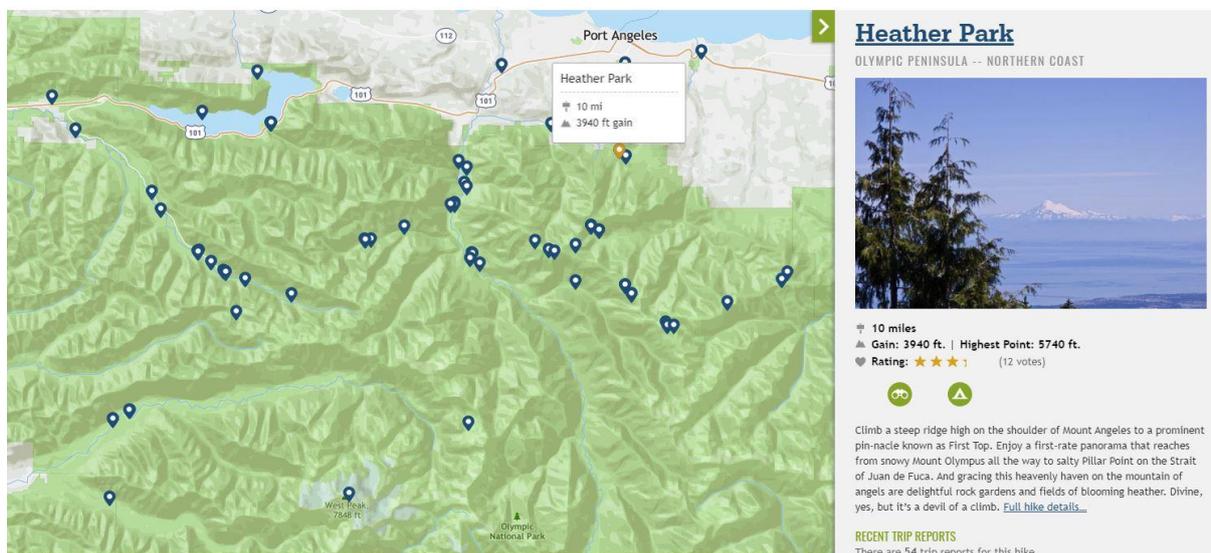
New Zealand has various park staff (across both DOC and certain Council authorities) in the field on a regular basis, but this varies significantly based on location and season. My experience suggests we don't have the same number of parks staff out and about and we don't appear to cover the same breadth of tracks compared to what I experienced on my travels, certainly not at the same frequency. An additional source of information on the latest track conditions is the users themselves. With many popular tracks across New Zealand experiencing daily use these users could provide a frequent source of up to date information. The challenge is capturing that data.

I came across several successful examples of public observation/report tools that already capture user generated information and provide this for wider public consumption. I strongly believe that New Zealand would benefit from such a tool. A

natural fit would be inclusion into the Mountain Safety Council's 'Plan My Trip' tool as this already combines weather, avalanche and location specific facility alerts alongside tailored gear lists and trip recommendations. Development of a dedicated track conditions reporting tool would require investment, but there is currently nothing like this in New Zealand and evidence from Canada and USA suggests it would be an extremely valuable addition.

The best example of this tool is from [Washington State Trails Association](#). This site receives a significant number of users reports/posts that cover basic information such as date of trip, track conditions, road access conditions and if any snow or bugs are present. The user can then post a description of what they experienced and upload images. Other users can access these reports for free and indicate if they found the information helpful. Through the first 20 days of August 2018 the site had received 1696 user reports, approximately 84 a day.

Images below: Screenshots from the existing Washington State Trails Association public reporting tool. The first image shows where observations have been made. The final two images are examples of public observations showing track conditions.



TRIP REPORT

Lake Angeles, Klahhane Ridge & Heather Park

OLYMPIC PENINSULA

TRIP REPORT BY:



neek

WTA Member



HIKED: yesterday

TYPE OF HIKE: Day hike

TRAIL CONDITIONS: Trail in good condition

ROAD: Road suitable for all vehicles

BUGS: No bugs

SNOW: Snow free



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Print

South Puyallup To Wonderland

MOUNT RAINIER AREA -- NW - CARBON RIVER/MOWICH



4 photos



337tts



Hiked: yesterday

Beware of: road, trail conditions



4 people found this report helpful

View report text

In preparation for the 2018 winter MSC developed a public observation tool within the [New Zealand Avalanche Advisory](#) that allows users to post observations of avalanche or snowpack conditions. This system was heavily influenced by Avalanche Canada's [Mountain Information Network](#) (public observations). While this observation tool is not currently relevant to track conditions, it does set a New Zealand precedent in relation to gathering public observations.

3. Primary and Secondary School integrated learning resources

A common tactic used not only in safety prevention is to target young people, primarily children. Think McDonalds 'Make it click' campaign as a well-known example of promoting a message (and increasing sales). Influencing young people is believed to have a positive impact on behaviours later in life and so naturally safety organisations will often look to target youth as a long-term solution.

Avalanche Canada run an effective school-based programme whereby they've developed student and teacher resources that link to the current Canadian school curriculum. The programme is elective and therefore requires Avalanche Canada to actively promote it, led by a Youth Education Co-ordinator. The programme is most popular amongst schools which are based in mountain communities and live amongst the daily occurrence of avalanches.

While there is no room in the New Zealand school curriculum to include topics specific to outdoor recreation safety I believe there is merit in further work to understand if a curriculum linked resource would be utilised by classroom teachers. The resource would need to ensure it related to multiple parts of the New Zealand school curriculum and year levels, and given topics such as science, maths, geography and physical education can all be associated with outdoor recreation it is likely to be useful for many different subjects. What would make a resource of this kind even more useful is if it covered a broad range of personal outdoor recreation safety themes, not just land-based, and this would provide opportunity for the likes of MSC and Water Safety NZ to collaborate.

The resource would need to cater for today's modern classroom environments where devices are increasingly common and developed in such a way that it minimised teacher preparation time while also providing flexibility so it could be used within short classroom windows or longer duration annual school camps or term long discovery programmes.

Of course, the greatest obstacle to success is that the programme would remain optional, and when competing against other essential subjects for limited classroom time the annual uptake would likely be low as a percentage of all schools. However, with the right development process, whereby teachers, parents and students were involved and with the right implementation I think it would be reasonable to expect a growing number of teachers and schools using the resource each year. Smart promotion of the resource and targeted partnerships with the likes of teacher training institutes and professional development opportunities would add to its reach.

4. Enhanced 'funnels' that provide guaranteed prevention opportunities

'Funnels' are prevention gold. Hypothetical doorways that your target audience must all pass through. Any system that channels participants through a 'gate' provides the unique opportunity to influence their safety as they become a captured audience, at least momentarily. The value of these can't be underestimated as a prevention mechanism, especially if the opportunity is maximised.

These funnels are somewhat limited within the New Zealand context as most of our outdoor recreation spaces are free to enter with little to no access restrictions in place. Prevention organisations in New Zealand must often look beyond the obvious to find funnels. There are of course some exceptions; all (legal) hunting in New Zealand requires a firearms licence, a captured audience on at least one occasion in that hunter's life, and a growing number of tramping huts and tracks require bookings, another funnel in action.

New Zealand does not have the same management framework and legal system in which many of the same funnels as North America can exist. An example of this is the overnight permit system (or mandatory orientations) used in some Canadian Parks/specific tracks¹ (i.e. for the West Coast Trail and Arctic National Parks) and Washington State, whereby overnight trampers must connect face to face with a ranger to collect their permit (failure to have a permit results in a fine, which is

¹ In many Canadian Parks you can now buy overnight permits online, removing the mandatory face to face meeting, however you still need to acknowledge some important messages through the online process.

enforced by park wardens) and this interaction with a visitor centre ranger is one of their main prevention tactics.

While this face to face interaction may not predominantly focus on 'safety', it does provide the perfect opportunity for such topics to be discussed in detail if relevant. I personally witnessed several interactions where Parks staff were advising participants to alter their plans based on conditions, to select another option based on experience and time available, or to watch out for certain hazards on their chosen trip. While this type of interaction is not uncommon in New Zealand through existing Department of Conservation (DOC) Visitor Centres (and to a lesser extent the likes of tourist visitor centres) it is the scale of this 'funnel' in North America that provides immense value compared to New Zealand. Every one of the 100,000+ overnight visitors to Olympic NP (the highest Park in USA for overnight hiking) must obtain their permit through a face to face meet with a visitor centre ranger. Direct interaction with participants on this scale in New Zealand is unheard of.

As mentioned earlier, New Zealand does not have an overnight permit system of this nature, and I'm not advocating that we implement one for a number of reasons not relevant to safety. Rather my point is the immense value of these 'funnels' from a purely safety prevention perspective and the need to maximise those that already exist, and where possible (and acceptable) build or improve systems to design more 'funnels'.

Examples of where 'funnels' could be further enhanced in New Zealand are not hard to pinpoint, and in some cases there is already work underway by the likes of the MSC and partners to maximise those that exist, but more emphasis should be placed on the value of these by organisations and Government agencies that may not initially consider the role they can play in providing more 'safety funnel' opportunities.

5. Emotive signage

Typically, the use of signage to convey information relies on a rather standard text based 'warning' approach. Signage in the outdoors is often no different. 'Warning', 'Danger', 'Beware', 'Risk'. Don't do this, or that. Be careful. Bold text, big words followed by smaller words with more detail, sometimes 'we won't be liable' is included and so on.

This typically standard signage was also the norm throughout almost every place I visited in Canada and Washington State except for one very unique location, Lynn Canyon Park. Tucked away on the edge of North Vancouver within the suburb of Lynn Valley, Lynn Canyon provides an easily accessible yet truly natural outdoor environment. Lynn Canyon Park sets itself apart from others through its use of innovative signage. Emotive, consequential, thought-provoking and cutting edge. Their approach draws significant attention to the deadly consequences of the Canyon.

The Park is managed by the District of North Vancouver. After a period of relatively low incidents the Park has experienced an increasing number of fatalities or serious injuries due to cliff jumping. The signage was installed to target 12-18 year olds and its development included a collaborative effort involving the local community, police, fire and rescue department and search and rescue organisations. The decision was made to use signage that was attention grabbing and psychologists were involved to help develop the messaging.

While there's not yet been any formal research to measure the effects of the signs, anecdotally staff are noticing a lot more people stopping to read these signs (compared with the traditional signs), a lot of people taking pictures of the signs and the signs are now a topic of discussion (where as typically no one ever talks about safety signage).



The Park still experiences on average 1 fatality per year, and this number has not reduced since the new signs went in, but it has held stable through a period of significant visitor growth (historically it was only a local community site but now it receives growing international visitor attention due to the Canyon) so the overall participation/visitation to fatality rate has decreased. Upon installation the signs did receive some initial criticism from the local community, but this has subsided as understanding of the issue has increased and the success of the signs has been felt by residents.

I spoke with Park management and their advice on this type of signage was very relevant:

- Take the risk and do something different
- Switch the signs up frequently so they're refreshed and keep users interested
- Move the placement of signs frequently so they are different and appear new

- Never just install the signs and leave them as their impacts will wear off, especially with the regular users or local community who return time and time again

I strongly believe there is a case to be made for signage of this nature at key locations in New Zealand, especially where the typical user is of a demographic that would respond to the emotive, thought-provoking and consequential messaging, at the very least they might stop and read the warning.

6. Game Animal Classification

I'm going to start this finding with a clarification; I'm no expert in the subject of conservation, game animal management or pest control. I'm also aware that there's two sides to this topic, and much of it has been in the media spotlight of late as the New Zealand hunting community and political wills have clashed over management of NZ Himalayan Tahr management. My travel to North America and the development of this finding are merely a coincidence of timing given the New Zealand Minister of Conservation has recently announced a review of the Game Animal Council.

On my trip I met with several organisations involved in hunting and naturally many recreational hunters. While for the most part the hunters were not well versed in the NZ hunting scene, that did not apply in all cases and some would be considered experts in both countries. Our discussions were often varied but one topic that did seem to be a constant feature was the topic of pest vs managed species.

In British Columbia and Washington State (and I'm sure other places in North America) game animals such as deer (I'll use this animal as my example throughout) are classified as a 'managed species', unlike in New Zealand where they are classified as 'pests'.

While that simple change in language might appear meaningless I believe there is a potentially significant consequence, possibly overshadowed by the more obvious impacts in relation to game animal management.

In British Columbia and Washington State, because deer are managed species, a hunter must obtain a permit to hunt and each hunting season they apply for and (if lucky) are issued with a certain number of 'tags', think of these as each being approval to kill that animal. So, if a hunter is issued with 5 tags for deer they can legally hunt and kill 5 deer. A hunter may have tags for other animals as well. The tags will only last the length of that hunting season and depending on the animal there may be restrictions in place as to where they can be hunted, their size, gender and so on. Game animal management in effect.

Whereas in New Zealand, deer are classified as a pest (being an introduced species) and there is no 'tag' system or game animal management restrictions that limit where, when, or what can be hunted. It's effectively open season on that pest in the hopes of eventual eradication (or populations limited to what is considered acceptable standards).

I believe these different systems have a role to play in hunter safety, and that New Zealand's 'pest' approach to game animals could be having an adverse impact on hunter safety, especially incidents involving firearms (See [A Hunter's Tale](#)).

It is not my place, nor my knowledge area, to debate the merits of 'pest' vs 'managed species' except for how these classifications may impact hunter safety, so I will steer away from the conservation and game management debate and share my thinking on the hunter safety element.

It's at this point I must stress that this theory needs more research. My position is based on very limited experiences and nothing more than anecdotal conversations with hunters.

As one hunter told me "If I've only got one tag for the season, I'm not going to waste it on a bad shot or a bad animal. I'm going to take my time, properly ID the animal and make sure it's the one I want."

I believe it's this thorough, clear and concise, systematic thinking that has been engrained since day one that is leading to almost zero mis-identified target shootings in British Columbia and Washington State. The mentality and attitude of the hunter is so different because the system in place dictates that is the case. With limited tags issued to hunters the hunter's attitude is instantly altered and the mindset of 'the right animal' is given far greater importance. Hunters are forced, through system design, to properly ID their animal because failure to do so will result in a wasted tag on a animal you didn't want (which may not be re-issued next year) or worst case legal proceedings for shooting an animal you were not permitted to hunt. Imagine toppling a female moose when you had tags for a deer!

Flip things around to the NZ context. Because deer are considered a pest, how many hunters are shooting without properly identifying their target because it doesn't matter if it's not a quality animal, the right age or gender, because it's a pest and there are no repercussions?

Mis-identified shootings are an emotive topic, often not as simple as one contributing factor, however I believe the topic of game animal classifications and how we manage our wild animals is likely to play a role in hunter safety and is worthy of further research.

7. International Prevention Symposium

Regular face to face contact with international prevention organisations is both costly and time consuming, especially from New Zealand. Both Europe and North America benefit from close proximity and easy access allowing cost effective and regular professional exchanges. This enables more collaborative work and the cross pollination of ideas was evident on my travels in the way several of the organisations I met referenced these on-going exchanges.

While some of the challenges we face in NZ are unique, many of them are issues that other countries are also experiencing. While I believe we have the ability to work out our own solutions, somewhat independent from the international community, this approach would not allow us to maximise the work being performed overseas, or vice versa, for other countries to follow our lead and learn from our experiences. There is no reason to work in isolation from each other when our goals are so aligned.

It was abundantly clear to me through almost every one of my meetings that there is opportunity for further sharing and collaboration, and that this would be a welcome addition to the way many of the organisations currently approach prevention work. 'Has anyone else experienced this issue before?' 'What tactics have worked best in a situation like this?' There are several ways in which prevention organisations could enhance each other's work through continued sharing.

I fully intend to stay in touch with many of the people I met on my travels, and since returning to New Zealand I have already done just that. Nowadays the likes of Skype make this so much easier. But nothing beats face to face discussion, especially as a mechanism to connect multiple parties over the same topic. Therefore, I believe the concept of an international prevention symposium has merit, especially when driven by a world leading (outdoor safety prevention) country like New Zealand.

This symposium would be an opportunity for outdoor safety prevention organisations from across the world to meet, share their experiences, challenges, successful tactics and how they measure their impact. The symposium could draw on a wider theme of prevention to present examples of successful case studies in other areas, with application to outdoor safety, examples from roading safety campaigns come to mind.

This symposium would be a way of bringing these organisations and experts together, in New Zealand, and providing a more cost-effective way to connect and maintain regular engagement with our international colleagues. It would also provide a useful mechanism to test our ideas and thinking with others or get feedback on new approaches before they're implemented.

With outdoor safety prevention being such a limited field in New Zealand one really does have to look overseas at some point to find new concepts and challenge engrained thinking.

8. The Red Chair Affect

Gros Morne National Park (Newfoundland) installed 18 sets of chairs throughout the Park in 2013. Since then visitors have been seeking them out and sharing their chair adventures on social media (#ShareTheChair!). The programme has expanded across multiple Canadian National Parks and the popularity of the Red Chairs continues to grow.

The intention of the chairs is to encourage users to get out and connect with nature as they are placed in special locations around each Park. Some chairs are placed in easy access locations and others require a more challenging adventure, regardless of their placement they are designed to encourage quiet contemplation and enjoyment in the outdoors.

I visited one Red Chair site on an afternoon tramp at the Valley of the 5 Lakes in Jasper National Park and have been researching more about them since. While Parks Canada are using them to promote recreation and connecting with nature, I believe the concept could be used for other purposes relevant to New Zealand; user dispersal through encouraging visitors to explore different locations and safety improvements by drawing users into more suited (safer) locations through the incentive of the 'red chair affect'.

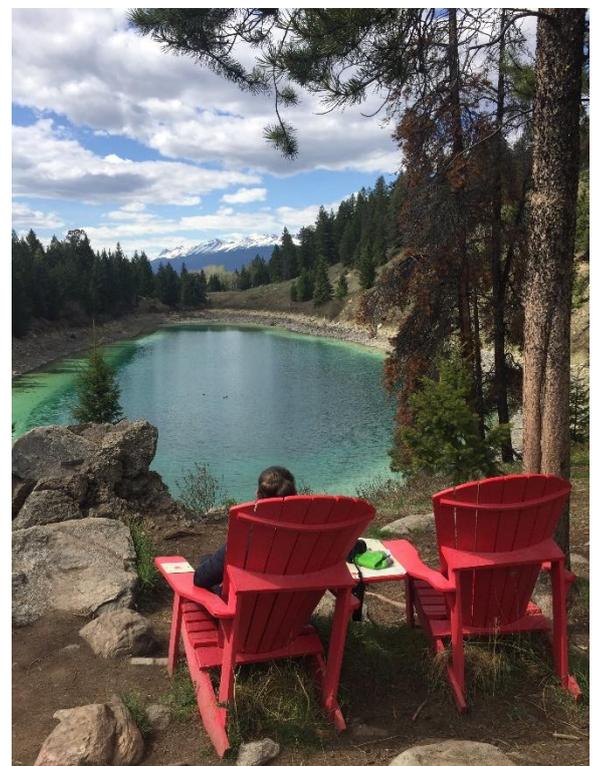
Benefits:

1. Promotion of places to visit (primarily via walking and tramping) that are well suited to all user levels and thereby providing suitable alternatives to more

challenging trips while still providing the necessary 'buzz' and social media opportunity to 'get the photo'.

2. Encourages visitors to explore lesser known locations or places where there's adequate capacity to assist with greater visitor dispersal.
3. This naturally creates an opportunity to 'funnel' people through official information sources i.e. Red Chair website and Red Chair social media platforms. This allows for the addition of safety information provided within a suitable (and subtle) context.

Examples of two locations where this concept could be piloted includes the Tongariro National Park. Placing Red Chairs at Tama Lakes could help to draw users away from the (at times) overcrowded Tongariro Alpine Crossing (assisting user dispersal) and promoting a lesser known, but more suitable poor weather option (less hazardous trip option). Placing Red Chairs at Lake Marian or Key Summit in Fiordland National Park could help draw users away from the treacherous Gertrude Saddle, where social media is driving an influx of ill-equipped and unprepared visitors to a site that requires advanced tramping skills.



I believe a concept such as the red chairs would be a successful programme if implemented in New Zealand and could be used across a multitude of land managers such as DOC and City or Regional Councils.

You can find more information about the Red Chairs in Jasper National Park [here](#).

What comes next

It is of course this next phase where a trip of this nature can return real benefits.

Reflecting on the primary trip objective 'to learn about prevention strategies and initiatives used in North America, with the intention of applying these ideas in New Zealand' and having developed a suite of findings, it is now time to turn my attention to sharing these with other people and relevant organisations in New Zealand.

Since returning home I have run four 2hour workshops with MSC staff to download my experience and discuss the findings. These workshops are just the beginning of a process in which the organisation will continue to discuss these ideas with possible implementation into future business plans.

I am committed to on-going communication with several of the people/organisations I met with and since returning have conducted Skype meetings to continue the conversation we started during my visit. This also serves as an opportunity to incorporate other MSC staff, with the intention that these Skype meetings be open to our whole team and develop into a reoccurring opportunity.

This is an important point because the value of this trip will serve to benefit long term gains rather than immediate strategic or tactical changes.

However, there are also findings which I believe can be raised with other organisations now, for example the participant focused track grading and communication system. This topic is perfectly placed for more in-depth discussion to begin, keeping in mind changes of this nature and scale require long-term planning and implementation.

Over the coming months I will be socialising many of these findings with organisations such as the Department of Conservation (DOC). This will include specific meetings with relevant senior staff (to progress specific findings) and a presentation to a wider staff audience (to focus on a broader update regarding my trip and promote the Trust). It is my intention, supported by the MSC, to propose a joint effort to conduct several projects that will seek to progress these findings towards actual changes. Having the support of DOC is integral, especially to implement a participant focused track grading and communication system and to launch an initiative like the Red Chairs.

In addition to specific work with partner organisations I am also actively looking for wider opportunities to share my experience and findings. This serves to increase the community benefits of my experience for all New Zealanders.

Currently I am discussing or intend to pursue options with:

- New Zealand Recreation Association
- Tourism Industry Aotearoa
- Walking Access Commission
- LandSAR
- Sport NZ
- New Zealand Search and Rescue

It is hopeful that these organisations will in some way include a piece on my experience through their communication channels, with links to this report and the Trust webpage.

I have published a blog post via the MSC Medium page which can be viewed [here](#).

This will serve as an alternative means of promotion and will be included in future MSC Facebook and Twitter posts, and monthly partner e-news updates.

Conclusion

I have been very privileged to receive the support of the New Zealand Winston Churchill Memorial Fellowship and the Mountain Safety Council, as without their backing this trip would not have been possible.

I strongly believe that my time in Canada and USA was incredibly valuable, from both a personal and professional perspective. The challenge on return is of course to turn these experiences into meaningful outcomes and I am confident that there will be on-going positive benefits, not only for myself but for the MSC's work and that of other relevant sector organisations. Ultimately, the best outcome is the positive impact to outdoor recreation land-based participants and I am hopeful that in time my ideas and findings will lead to public facing prevention projects. I am particularly certain that the topic of improved track classifications would be a significant benefit and I intend to invest some energy behind this.

I am also confident that this experience has been beneficial for those people and organisations I met in Canada and USA. The opportunity to share what we are doing in a small country at the bottom of the world was very empowering, and it is no stretch to say that the likes of our insights work has truly opened eyes to what is possible. It was the collaborate sharing that I feel I valued most through this trip and by giving insight into what we do in New Zealand I was able to receive so much in return.

Appendices

LinkedIn Posts

While travelling I posted several LinkedIn updates that can be viewed through the following links:

<https://www.linkedin.com/feed/update/urn:li:activity:6395027835928612865>

<https://www.linkedin.com/feed/update/urn:li:activity:6395354790012030976>

<https://www.linkedin.com/feed/update/urn:li:activity:6395439432924823552>

<https://www.linkedin.com/feed/update/urn:li:activity:6395459950860210176>

<https://www.linkedin.com/feed/update/urn:li:activity:6395780486760923136>

<https://www.linkedin.com/feed/update/urn:li:activity:6397275416725381120>

<https://www.linkedin.com/feed/update/urn:li:activity:6397650413230919680>

<https://www.linkedin.com/feed/update/urn:li:activity:6397876528876785665>

<https://www.linkedin.com/feed/update/urn:li:activity:6399475964069453824>

<https://www.linkedin.com/feed/update/urn:li:activity:6400542325948448768>

<https://www.linkedin.com/feed/update/urn:li:activity:6401635432777555968>

<https://www.linkedin.com/feed/update/urn:li:activity:6402531032364650496>

<https://www.linkedin.com/feed/update/urn:li:activity:6403810983957135361>

<https://www.linkedin.com/feed/update/urn:li:activity:6405242147167178752>

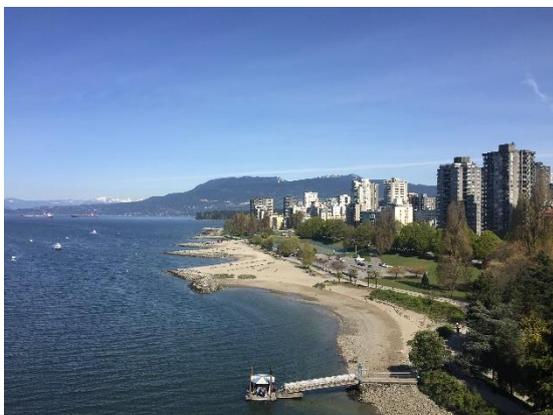
Travel Details; where I went and who I met with

Departing NZ on 23 April 2018, I flew directly into Vancouver, British Columbia, where I was based for the first week of the trip.

While it would be very easy to write at length about the fantastic city and scenery (quickly turning this report into a tourism promotion) I will refrain from that! However, I feel some context here would be helpful for understanding the similarities between Vancouver and certain locations in New Zealand with respect to outdoor recreation.



Population differences aside, Vancouver (and the surrounding lower BC mainland) is situated at the foothills of numerous mountain ranges, with easy access to the outdoors for all residents and visitors, both domestic and international. These outdoor areas become very remote, and very big, quickly, and they're incredibly easy to access from the neighbouring metropolitan areas. The topography of this terrain creates many unique geographic features, like canyons, that descend well into the



urban suburbs and present some fantastic outdoor playgrounds literally in the backyard of many residents. It's therefore not surprising that this area (commonly referred to as the 'North Shore') experiences

significant participation across a diverse range of outdoor recreation activities. The outdoor environments around Vancouver and lower BC mainland are the perfect playgrounds for almost any recreation activity.



The North Shore area is also the busiest location in British Columbia (potentially all of Canada although I can't verify that) for Search and Rescue operations. Local search and rescue volunteer teams can be exceptionally busy. According to AdventureSmart Canada there are approximately 1600 call outs a year in this area alone.

After a rest day to reset the body clock I was straight into a full day of meetings. My first session was with the British Columbian Wildlife Federation (BCWF). Amongst other things the BCWF are the current providers of the Conservation Outdoor Recreation Education (CORE) British Columbian Hunter Safety Programme. In BC, like many other provinces in Canada and states in the USA, a hunter is legally required to obtain a hunting licence in addition to holding a firearms licence. In BC those wishing to obtain that hunting licence are required to complete a hunter safety education course, the CORE, before they're legally allowed to hunt (and their permit system requires this to obtain 'tags' to hunt specific animal species).



The CORE programme covers a range of topics, with firearms and hunting safety being a central part, but also including hunting ethics, conservation, local laws and regulations, first aid and bush survival skills.

The programme is delivered by a network of about 400 BCWF approved instructors/examiners across the province and can be completed using both online and face to face methods. Further information regarding the CORE programme can be found on the BCWF website [here](#).

After the morning with BCWF I spent the afternoon with AdventureSmart Canada founder and current BC Co-Ordinator, Sandra Riches.

Sandra and I decided it would be fitting to spend our afternoon together meeting at the top of the Grouse Mountain Gondola, a suitable location to discuss prevention tactics right in the heart of the North Shore mountains overlooking Vancouver.

The Canadian AdventureSmart programme in BC is the closest example of an organisation in North America (that I have found) most comparable to the MSC, primarily because their sole focus is search and rescue (SAR) prevention. While they work closely with local SAR groups they do not play a role in the SAR response, instead focusing their attention on the prevention space.

Interestingly, throughout the afternoon together it became apparent that our two organisations shared some strong similarities between our work, despite having had no previous association with each other. Through our own independent strategic and

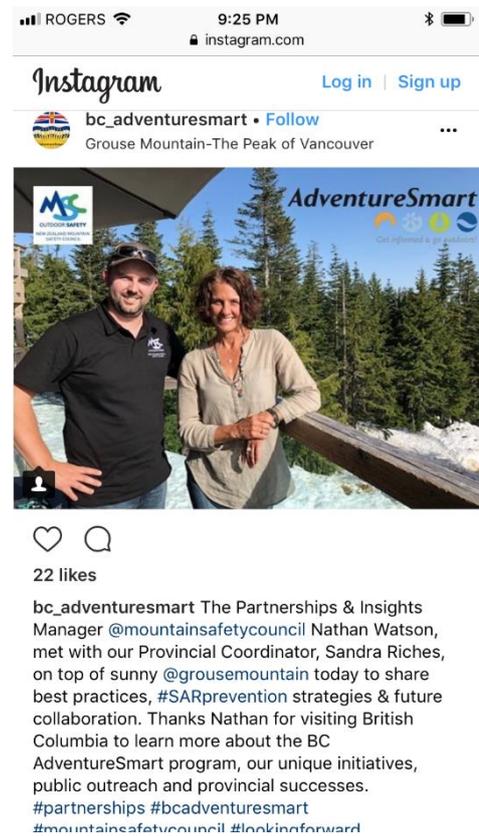
operational processes we've both arrived at similar tactical approaches. While AdventureSmart Canada does not present their strategic and operational priorities in the same manner as the MSC (partnerships, insights and messaging) a combination of these are used that underpin all of their work.

AdventureSmart Canada invest heavily in a public outreach model, relying on seasonal staff and volunteers to deliver prevention messages through direct public engagement.

Further information regarding AdventureSmart Canada can be found [here](#), or by following the [BC Adventuresmart Instagram](#) account.

The following day started with a sea plane flight to the provincial capital Victoria, Vancouver Island where the BC Provincial Government is based.

After a short morning visit with the Director of Fish and Wildlife to discuss the provincial Government's hunter safety work (they oversee all legislative and policy control relevant to the CORE programme delivered by BCWF) I spent the afternoon with several staff from BC Parks.



BC Parks manage the third largest combined amount of public recreation land in the entire continent of North America. This includes many of the Parks north of Vancouver (comprising the North Shore area) and stretching right up the province of BC, bordering Alaska and the Yukon. Many of the Parks are equally as remote and



wild as the countries National Parks further inland and provide endless recreation opportunities for domestic and international visitors.



Despite managing such a significant amount of recreation space and much of it so close to a large population base, BC Parks aren't particularly active in the prevention space. Further information regarding BC Parks can be found on their website [here](#).



With two full days of meetings completed the remainder of my stay in Vancouver centred around getting out and exploring the surrounding outdoor environments from a participant's perspective. One notable highlight was a visit to Lynn Canyon Park. Over the years the park has been the centre of on-going safety issues with annual fatalities and serious injuries from people attempting to enter the canyon or cliff jumping. Their current approach to safety signage – the most emotive and thought-provoking examples I've ever come across – are used to raise awareness of the issue and prevent further serious incidents.

Nowadays the signs are as much a part of visitor selfies as the Canyon itself. I spoke with Park management about the signage and include more information on this topic in my findings.



Lynn Canyon



After a week in Vancouver it was time to move on. My next stop was Penticton where I would be attending the Canadian Avalanche Association (CAA) Spring Meeting, the annual gathering of avalanche and mountain professionals from across Canada.

Breaking the drive East from Vancouver to Penticton with an overnight stop in Manning Park provided a good way to ease into driving on the right hand side and allowed time for plenty of stops along the way to enjoy the Cascade Mountains. Expectations were high for wildlife viewing, perhaps around the next corner there'd be a grizzly bear on the road...

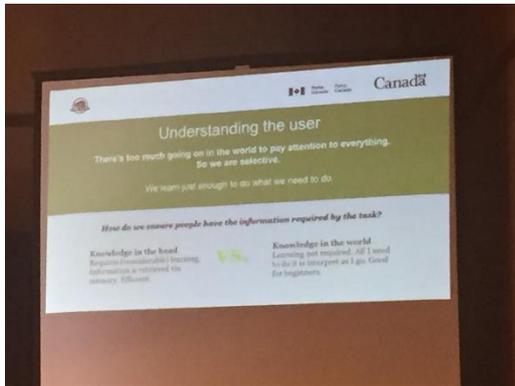
Attending the CAA Spring Meeting over two days was an excellent way to step inside the professional Canadian world of avalanche and

alpine safety and connect with members from across Canada which would otherwise been impossible to see on my limited itinerary. The meeting also draws in many relevant partner organisations such as Parks Canada and I was able to use this time to build some connections that I managed to work into meeting further on in my travels.

One very relevant example of this was the ability to connect with a staff member from Parks Canada who'd led a project to build a public safety information tool



around the Rogers Pass area (one of the world's largest and longest running avalanche control programmes). Hearing about the development of this tool was particularly helpful as MSC have recently embarked on a similar project and it was helpful to share our learnings. Additionally, I was able to use this time to connect with



Simon Fraser University Professor and Avalanche Research Chair Pascal Heagel, and several of his Masters students, who are exploring some very relevant research topics about communicating risk in the outdoors.

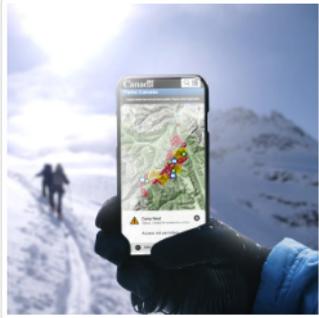
Pascal and I have committed to on-going contact and a willingness of our organisations to share our research work for mutual benefit. CAA also operate the Canadian Info-Ex (avalanche information exchange) and I was able to spend some time with the Info-Ex manager to learn about their system. This is a particularly relevant topic to MSC as we operate the NZ version of this tool, which is essential for collecting data that allows our public avalanche forecasters to produce accurate advisories.

The feeling I experienced being amongst the attendees was one of being part of a sector gathering, as opposed to my other meetings which were more along the lines of small groups specifically at my request. I found the event really helped me to understand how the wider outdoor recreation sector operates in Canada and prepared me for many of my



meetings ahead, especially as I was travelling towards big mountain country (aka The Rockies).

 Rogers Pass Backcountry Access app



Parks Canada is pleased to launch a new web-based app to support the Winter Permit System in Glacier National Park.

Rogers Pass backcountry access is an interactive map that provides real time updates on what areas are open, geo-location on GPS-enabled devices, and access to live avalanche forecasts and webcams.

Try the new app and let us know how we can improve it. You can email comments to RevGlacier.Reception@pc.gc.ca.

[Launch the app now](#)

Departing Penticton, I continued further East towards my next destination, Revelstoke. The town acts as a bit of a gateway to the 'mountains', in particular the National Parks that lie further East; Revelstoke, Yoho, Glacier, and on into the Rockies.

Revelstoke is a winter paradise and while there was still a reasonable amount of snow around higher up the town was in full spring transition mode. My visit coincided with the much quieter shoulder season before summer proper really takes off.



Both Avalanche Canada and the Canadian Avalanche Association have their national offices here, having just spent two days at the CAA Spring Meeting my time in Revelstoke was all about connecting with Avalanche Canada (AC).

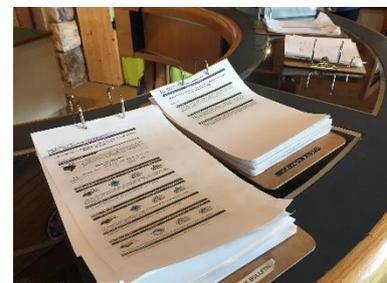


Over the course of a full day I managed to sit down with most of the AC team in particular their core group of full-time forecasters, warning services manager, executive director, communications manager and several key programme specific staff involved in their public outreach, social media and school programmes. It was an exceptionally rewarding day and I really valued the opportunity to learn more about avalanche prevention work in Canada.



One of my key takeaways from this experience was the importance of distinguishing 'content' from 'context'. Removing the topic of avalanches from the subject, the work AC are doing in the prevention space could easily be replicated/directed towards other land-based recreation activities. I wasn't only able to learn more about avalanche prevention, but prevention in general, as many of the tactics AC use could easily be adopted for other activities such as tramping or hunting.

I also really valued the opportunity to discuss prevention strategies with a new group of people. The pool of prevention focused professionals in NZ is relatively small and I found the opportunity to discuss this topic



with a new group of people to be exceptionally rewarding. Understanding more about the unique challenges in Canada (think snowmobiling and snow shoeing) and how a prevention focused organisation was working to address relevant issues provided a

great opportunity to challenge my own thinking and critically analyse the approach we are using at MSC.



I believe both Avalanche Canada and MSC can continue to learn more from each other and the two organisations would benefit from continued communication and sharing.



My next work stop was several hundred kilometres

North-East in the town of Jasper, situated inside Jasper National park. The drive from Revelstoke to Jasper passed through many impressive natural areas including Revelstoke, Glacier and Yoho National Parks, the Icefields Parkway and one of my personal favourite stops the small railway town of Field.

The drive into Jasper also provided the first bear sighting, proof that the numerous 'watch out for bears' warning signs were at least somewhat accurate (over the course of the



trip I saw four bears, and many more signs, so perhaps they were needed after all).

In Jasper I had already planned to connect with the Parks Visitor Safety Manager, Rupert Wedgewood, but I also added a new contact made via the CAA Meeting,

Lucas Habib. It was my meeting with Lucas (Visitor Safety and Compliance Officer) that proved to be one of the most valuable of my time in Canada.

Lucas was able to provide me with a broad overview of Parks Canada's safety work including

specific examples of prevention initiatives from various sites throughout the country, and a comprehensive window into their system for collecting and analysing incident data.



Much like my time with Avalanche Canada I also really valued the opportunity to discuss prevention strategies with a dedicated Parks Canada staff member. I believe both Parks Canada and MSC can continue to learn more from each other and,

also like Avalanche Canada, the two organisations would benefit from continued communication and sharing.



Jasper was also my first real opportunity to stretch my legs for any meaningful amount of time. While I had grand plans for scaling one of the local peaks a combination of two-timing factors; a lot of snow still around up high and a tight



schedule to follow, meant a more realistic goal was required. Wanting to maximise the personal opportunity but also balanced against the professional trip goals I opted for

the popular 'Valley of the 5 Lakes' circuit.

This was a great opportunity to experience a popular day walk first hand and also soak up some of the gorgeous scenery. My experience preparing for this trip was a significant contributing element towards several of my findings.



Departing Jasper I felt mixed emotions. I was excited to head south to Banff but also sad to leave such a wonderful town with still so many things to explore. A destination for future adventures perhaps.

Jasper felt a lot like rural South Island NZ; small town, surrounded by mountains, everyone heading into or coming out of the hills, rivers, lakes and changing weather.

The further South we drove, through Lake Louise and then onto Banff, that atmosphere was replaced by a distinctly 'Queenstown' like energy. Tourist shops, hotels, adventure tourism providers and restaurants but all within the surrounding

ring of some very impressive mountains and outdoor scenery. This was big time Rocky





Mountains meets big time tourism destination, I could see the 'safety' implications from the car window!

Visiting Banff was always high on my list, not only for its iconic outdoors mecca reputation but because I knew this was a key destination to connect with a range of folk who were heavily involved in outdoor safety prevention.

While in Banff for four nights I spent a very productive afternoon with Parks Canada staff, specifically the Banff, Yoho and Kootenay National Park Visitor Safety Manager Brian



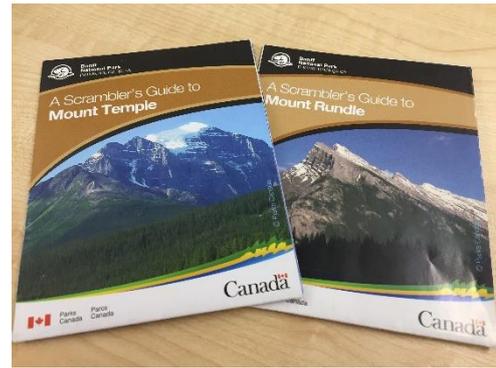
Webster and Visitor Safety Specialist Grant Statham, Jeremy MacKenzie from Kananaskis Public Safety (Alberts Parks) and Peter Tucker the Executive Director of the Association of Canadian Mountain Guides. In Banff I also had the opportunity to check out another popular visitor centre and stretch my legs a bit on some of the nearby tracks, both valuable opportunities to see and experience how prevention is



promoted to the public and what tools/resources/info is on-hand to influence users in the vicinity of where they'll ultimately get outdoors.

The prevention measures currently utilised in the Banff NP area are numerous and several of them have been central to my report findings.

Departing the mountains I headed East from Banff through the flat landscape towards Calgary. I certainly felt a mixture of emotions at this stage; energised by an amazing 3 weeks in Canada and with the promise of more in



Washington State, but also a sense of sadness that this part of the trip, which I'd looked forward to and planned for so long, was over.

Seattle was a necessary logistical stop in order to access my next destination on the Olympic Peninsula; Olympic National Park and the town of Port Angeles. I was more



than a little intrigued to see how the Americans approached the topic of prevention. Through the Canadian leg I had started to develop a good picture of what I felt were prevention measures that could be considered for use in NZ and I was keen to see if similar ideas were already in use in Washington State; through the US National Parks Service or Forestry Service.

The town of Port Angeles itself is nothing to write home about but as one of the main gateways to Olympic National Park and home to the Parks primary Visitor Centre it was an essential destination. The travel from Seattle to Port Angeles was one of the scenic highlights, even compared with Canadian leg. Travelling on car ferry across Puget Sound and the quiet tree lined roads of the Olympic Peninsula was an enjoyable change from endless mountains.

Olympic NP is not the most visited Park in the US on a pure per visitor basis, but it does boast the highest number of overnight pack backing (tramping) stays out of all US National parks. The Park has a distinctly NZ feel with strong



similarities between geography, climate, remoteness and facilities. Situated on the Western edge of the continent it bears the brunt of the ferocious Pacific Ocean storms, much like NZ's West Coast does, and with large numbers of overnight trampers utilising the numerous track networks it was the perfect choice for the purposes of my trip.



With not enough time to explore the Park as much as one should, I concentrated on the staff based in Port Angeles, fortunately this included the Chief Ranger and Wilderness Information Centre Manager, and a visit to Hurricane Ridge

Visitor Centre, one of the most popular sites to access the Park.

Like the Canadian system the US National parks also require any overnight visitor to obtain a permit before they can legally stay in the Park (and wardens enforce these rules) and that makes the Wilderness Information Centre a mandatory stop on ever visitors stay (day visitors can obtain a permit from the toll booth on the road so don't have to visit the info centre and there's no enforced conversation with rangers).

While there will be those who debate the merits of a mandatory permit system (especially in a country like NZ where most access to conservation land is free and unrestricted) the value of this system, purely from a safety prevention perspective is significant. In short, every single overnight visitor (most of who are



tramping) experience a compulsory face to face meeting with a ranger. This provides one of the most valuable prevention opportunities and allows for a value-add exchange like no other. The 'funnel' effect in full swing. I had come to realise during my time in Canada that this system, while not built this way for the purposes of improving safety, appeared to be having a significant

positive impact on just that and was often the primary prevention tactic used by the land managers (Parks Canada, BC Parks, US National Parks Service et.).



After three nights in Port Angeles it was time to move on again and continue North through the islands of Puget Sound on another car ferry, impressive bridges and through idyllic rural island life back onto the busy interstate 5 into



Bellingham. From Bellingham I had a long day trip into the North Cascades National Park via meetings in Sedro-Woolley and Marblemount with rangers from the US



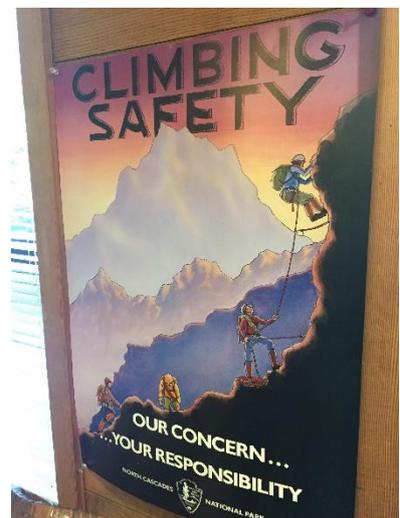
National Parks team for North Cascade NP and the Mt Baker-Snoqualmie National Forest team from the US Forest Service.

Washington State is packed with outdoor recreation opportunities and two popular locations include the North Cascades NP and Mt Baker National Forest. Both locations see major visitor numbers with large urban populations less than 2 hours away.

North Cascade National Park is a climbing mecca that draws a more experienced crowd in for some of the best rock in North America, while Mt Baker regularly



receives the highest annual snowfall anywhere in the world, making it a major winter alpine destination. Both areas see their share of



incidents with annual search and rescue and fatality numbers in North Cascade NP similar to NZ's more popular National Parks.

After a final brunch meeting in Bellingham the following day with Simon Trautman from the US National Forest Service Avalanche Centre it was time to pack up one last



time. A quick taxi ride North across the border and back into Vancouver for a sunny afternoon before boarding the return flight home.

An amazing 4 weeks away. I feel very privileged to have had the opportunity, meet so many wonderful people, and am looking forward to applying the things I've learnt back home.