



ORIENTEERING BRITISH COLUMBIA (OBC) RISK ASSESSMENT AND SAFETY PLAN



Version 1.0

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ORIENTEERING BC

RISK ASSESSMENT AND SAFETY PLAN



General

Orienteering is an outdoor activity, which can be challenging and exhilarating. However, like all adventure-based outdoor pursuits, orienteering can also present some degree of risk to the participant. For the most part, orienteering can be considered a relatively safe activity with few incidents, but occasional situations can and do arise, which may create a risk of injury to the orienteer. This is due, in large part, to the nature of the variable terrain that is a component of the sport of orienteering.

To ensure a safe, enjoyable but still challenging orienteering experience, the event organizer and course planner must make calculated decisions on which areas are suitable to use for an orienteering event. In addition, organizers must also ensure that safety equipment, such as First Aid equipment, is always on hand and that response plans, such as an organized search for overdue orienteers, are well established and easily followed should such situations arise.

The intent of this document is to provide an overall risk assessment and safety plan to be used by Orienteering British Columbia and affiliated clubs to provide guidance on how to reduce or address the risks associated with orienteering and provide safety information.

Risk Assessment

Risks are an inevitable part of any outdoor adventure activity and require careful analysis. By conducting a risk assessment on the sport of orienteering in BC, a comprehensive strategy can be developed to ensure the continued safe enjoyment of the sport of orienteering.

It is not possible to eliminate all risks; however, a careful mitigation strategy can help bring the potential risk within an acceptable tolerance level. A risk assessment matrix is a tool to help to evaluate and prioritize risks and develop an appropriate response to eliminate, transfer or mitigate risks to acceptable levels. Also, an overall comprehensive risk reduction stance can address many of the key issues that will ensure a safe delivery of orienteering events and maintain confidence by the public that orienteering is an overall safe and enjoyable activity.

Risk Reduction - General

The International Orienteering Federation (IOF) is the entity responsible for setting all the rules and guidelines for the sport of orienteering and Orienteering Canada provides the interpretation of these IOF rules and guidelines to member provincial associations and clubs within Canada.

Within these rules and guidelines are protocols that are designed to ensure the overall fairness of the sport as well as ensure the safety of its participants. From a risk reduction perspective, Orienteering Canada has already developed set requirements in several key areas, which include the following:

- Only trained and certified Orienteering Officials can design courses and run events
- All participants in the sport of orienteering must provide informed consent to understand all risks associated with orienteering
- Competitors are obligated to carry certain minimum safety equipment
- All clubs must follow established response protocols in the event of overdue participants.

Trained Event Staff - OBC-affiliated clubs must ensure that only trained and certified officials are given responsibility for organizing events and provide training and certification opportunities as needed. Orienteering Canada has developed a program for training and certifying officials. At a minimum, to run a local C-Event, a trained Level O100 Official is needed. This individual is trained in proper course design and event organization, including safety components, to ensure orienteering courses are presented in appropriate terrain to the correct level of participants. As events get more complex and involve more participants, a higher level of official is required (O200, O300 and O400). With this expanded knowledge comes a deeper understanding of the expected physical limits of orienteering athletes and the organizational components to ensure their safety during competition. The framework for certification of officials is as follows:

Certification	Qualification
Level O100	Organize and plan C events.
Level O200	Organize and plan B events; control B and C events.
Level O300	Organize and plan all Canada Cup events including Canadian and North American Orienteering Championships; control C events, B events and Canada Cup events.
Level O400	Control all events; act as a World Ranking Event Advisor.

Informed Consent - All public participants in orienteering must provide informed consent prior to taking part in an orienteering activity offered by any of the orienteering clubs within Canada. This informed consent is not just an insurance requirement, but also offers the participant insight into the types of risks they may encounter and lets them evaluate their physical and mental readiness to take on these challenges. BC orienteering clubs must ensure that all new members are made aware by signing waivers to acknowledge their acceptance of these risks.

Minimum Personal Safety Equipment - It is a well-established requirement that all participants in orienteering activities must carry a whistle to summon aid if needed. The standard signal is three blasts of the whistle. It is part of the rules of the sport of orienteering that, once a whistle is heard by another orienteer, they must abandon their course and immediately assist the orienteer in need. During city park events and local meets, the obligation to carry a whistle is left as a responsibility for the participant. However, when young participants are involved, or more advanced competitions take place in more difficult terrain, Start Personnel must verify that the participant is carrying a whistle. It is highly advisable that orienteering clubs have extra whistles on hand for loan or sale to new orienteers to make sure they get into the immediate habit of carrying a whistle as a regular part of their participation in events.

Event Safety Protocols - Having a First Aid kit at the Registration Area and having a set plan to respond to incidents is one of the responsibilities of event organizers. One of the biggest concerns for orienteering event organizers is ensuring that all orienteers report to the Finish. This requires careful management to

identify who has finished their course and quickly recognize if someone is overdue. If an orienteer is overdue, a response plan must be engaged to help search for the missing orienteer. This also includes having communications equipment (Cell phone or radio) to help facilitate a search. All of this requires some pre-planning.

The aspects discussed above represent the main considerations that provide risk reduction on an organizational level. In particular, the requirement that trained and certified officials are the only ones allowed to plan courses and organize events is of utmost importance. This is not only part of the insurance requirements, but is essential to ensure that only knowledgeable and trained personnel put on orienteering events open to the public within the correct standards to minimize risk to participants.

Detailed Risk Analysis

The variable outdoor landscape, and the requirement for orienteers to move over uneven terrain as a main aspect of the sport, does present further risks which need to be considered. These need to be addressed individually as part of a detailed risk analysis.

To analyze all main risks associated with the sport of orienteering, a risk assessment matrix has been developed. This permits each potential hazard to be carefully analyzed based on two main factors associated with risk - the **likelihood** of an unfortunate event (such as an injury) occurring and the **impact/consequence** this may have on the individual and the organization. Each potential hazard can then be assessed based on these two criteria to derive an overall risk level rating.

Using other related outdoor sports and activities as a model, the following criteria were developed to define the likelihood and impact/consequence ratings. These are described as follows:

Likelihood Rating

Score	Description	Chance
5	Very Likely	Risks that are highly likely to occur or expected to occur in most circumstances.
4	Likely	Risks that will probably occur in most circumstances.
3	Possible	Risks that might occur at some point.
2	Unlikely	Risks that are relatively uncommon but have a small chance of manifesting.
1	Rare	Risks that are extremely rare, with almost no probability of event occurring.

Impact/Consequence Rating

Score	Description	Details
1	Negligible	Risks that bring no real negative consequence. For example: slight injury (cuts, scrapes) requiring no medical attention; minimal impact on event success, environment or positive public perception.
2	Minor	Risks that have a small potential for negative consequences. For example: minor injuries (such as a sprained ankle) requiring first aid or some medical attention; occurrences that are minor or have no significant impact to program activities and/or participant satisfaction.
3	Moderate	Risks that could bring negative consequences. Serious injuries requiring hospitalization / ongoing medical attention (such as broken bones, severe anaphylaxis); situations that may cause the rescheduling and/or replacement of activities. Impact on participant satisfaction.
4	Major	Risks that could have substantial negative consequences. Injuries that are life threatening or cause long term disability; large disruption to event/program.
5	Severe	Risk with extreme negative consequences. Fatality; severe Program disruption causing broad loss of reputation.

The relationship between these two criteria was used to establish an overall risk rating. For example, if the impact of a certain risk was negligible and its occurrence was likely (i.e. slight injury such as cuts and bruises) the rating was low. Risks that could have a severe or major consequence may be considered very serious (i.e. spinal injury from a fall), but if they have a very rare chance of occurring, then this risk can also be judged as low.

Risk Rating

Likelihood	Impact				
	1- Negligible	2 - Minor	3 - Moderate	4 - Major	5 - Severe
1 - Rare	Very Low	Very Low	Low	Low	Medium
2 - Unlikely	Very Low	Low	Low	Medium	High
3 - Possible	Low	Low	Medium	High	High
4 - Likely	Low	Medium	High	High	Extreme
5 - Very Likely	Medium	High	High	Extreme	Extreme

Risk Level

Very Low (1-2)
Low (3-4)
Medium (5-10)
High (11-19)
Extreme (20-25)

Risk Analysis Matrix

Each risk was analyzed in conjunction with existing mitigation measures already in place, such as ensuring proper course design and making sure orienteering participants are properly dressed and equipped. These mitigation strategies are considered **preventive measures** that could reduce or eliminate undesired consequences. If the risk was still apparent, then further post-mitigation **response measures** were also considered for the purpose of reducing the level of harm on the participant after an incident occurs, such as having a quick response plan to deal with an injured or lost orienteer to reduce physical or psychological harm to the participant and provide aid to them. These **response measures** can help reduce the risk rating within an acceptable range.

Annex A contains the summary of the Risk Analysis Matrix for orienteering within BC. All event organizers should make sure to read and understand the mitigation measures, such as prevention strategies as well as the response measures, to ensure they are in place and well-prepared while conducting their orienteering event.

Prevention - Whenever possible the greater hazards associated with orienteering should be reduced or avoided by course planners and event organizers through careful decision-making. As many of the risks in orienteering are directly associated with environmental hazards (such as areas of rock fall, steep drop offs, river currents etc), these risks could be reduced or mitigated by analyzing potential route choices and carefully locating control sites to avoid areas of potential harm. However, not all potential for injury to the orienteer can be completely eliminated. To pursue the aim of eliminating all risk is not a practical consideration as the adventure and outdoor nature of orienteering demand that a level of challenge must continue to exist in order to enjoy all aspects of the sport. Therefore, providing information to the orienteers at the beginning of an event is crucial to make them alert for any known hazards. **Annex B** contains a **Safety Briefing Format** which can be used as a guide on what to communicate to participants.

Response - Beyond prevention, there is a need for a secondary strategy, which involves a defined response plan should an incident or injury occur. A pre-planned response will make a reaction to an event involving injury swift and methodical. Also, it will remind organizers to have certain resources always on hand at all orienteering events such as communication gear, first aid kits, and emergency contact numbers.

Overdue Orienteers

An Orienteer not arriving back at the Finish Area by the required course closure time is always a cause for concern. Typically, the experience level of the orienteer will be a main factor. Those new to the sport of orienteering are more likely to make navigation errors and misjudge the amount of time they may need to return to the Finish Area. However, even more experienced orienteers may occasionally make a significant navigation error that causes them to be overdue.

Causes – Beyond a simple lack of navigation experience, some of the potential compounding factors, which could cause orienteers to become lost/overdue, could also be the following:

- Not carrying a watch (no way to reference time spent on course)
- Not carrying a compass (losing direction)
- Sustaining an injury (twisted ankle etc) which can slow progress
- Making a 180 degree error
- Inadvertently travelling off the map, and no longer being able to re-locate

Not wearing a watch may be particularly true of junior orienteers, who may not wear one in favour of keeping time with their cellular phone. Those coaching or assisting junior orienteers should be especially vigilant that these junior participants have a timepiece (e.g. watch or mobile phone) on them prior to heading out on their course.

Response – **Annex C** contains a step-by-step **Response Plan for dealing with an Overdue Orienteer**. The stages involved in dealing with a potential overdue orienteer are first, gather information, second, organize a search, and third, if necessary should a search by event officials, volunteers and/or participants prove unsuccessful, take the next steps to engage outside authorities.

Emergency Contact Numbers

On rare occasions during an orienteering event, an incident may occur which will require that outside help, such as an ambulance service or search and rescue group, be summoned. In preparation for this, it is helpful to have the applicable emergency numbers for a given area on hand. **Annex D** contains a handy reference sheet to record Emergency Contacts, which can be filled in by the event organizer to make this information easily available.

Summary

Good planning and forethought will help keep all participants safe during an organized orienteering activity. Please keep this emergency plan with your emergency response gear (first aid kit, radios etc), so that it can be easily located and referenced. **Annex E** contains a summary of responsibilities for all Event Organizers and Course Planners. Stay Safe!

ANNEX A - RISK ANALYSIS MATRIX

Potential Risk Situations	Existing Mitigation Measures - Preventive Strategy	Risk Analysis			Post-Mitigation Analysis		Risk Acceptance
		Likelihood	Impact	Rating	Further Response Measures to Reduce Harm	Adjusted Rating	Proceed Yes/No
Human Factors							
Not returning to Finish by Course Closure Time/ Orienteer Getting Lost	<ul style="list-style-type: none"> Clearly communicate course closure times Ensure participants wear watches or have a timing device Ensure young junior participants travel in pairs or are accompanied by an adult Ensure participants set out on courses that are matched correctly to their ability Ensure all participants carry a whistle to gain attention 	Possible	Moderate	Medium	<ul style="list-style-type: none"> Employ well-established protocols to identify overdue participants Utilize routine search procedures to locate overdue orienteer quickly to reduce harm on participant Set time limits to involve other agencies to aid in search 	Low	Yes
Young competitor (child) separated from parent while on course and not returning to Finish	<ul style="list-style-type: none"> Ensure adults with children are on the appropriate course (i.e. no long courses) Ensure parent as well as the child are carrying a whistle to gain attention 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> As per Overdue Orienteer Protocol, utilize routine search procedures to locate overdue child quickly to reduce harm to participant. Treat any lost child with a higher priority than a lost adult. Mobilize as many volunteers to aid in search as possible. If child is not located within an hour of being reported missing, involve other agencies to aid in search 	Low	Yes
Competitor getting confused or emotionally distressed due to age, inexperience or physical fitness	<ul style="list-style-type: none"> Ensure adults and children are on the appropriate course matched to ability and have the requisite skills for success Ensure beginner instruction has been done to provide basic necessary skills and make all competitors aware of how to seek help Use course marshals or manned controls if working with inexperienced or young orienteers Ensure all participants carry a whistle to gain attention 	Possible	Minor	Low	<ul style="list-style-type: none"> Provide aid to help competitor(s) to return to Finish as needed by sending out an experienced orienteer to assist Provide further follow up instruction/ guidance to encourage future success 	Low	Yes

Potential Risk Situations	Existing Mitigation Measures - Preventive Strategy	Risk Analysis			Post-Mitigation Analysis		Risk Acceptance
		Likelihood	Impact	Rating	Further Response Measures to Reduce Harm	Adjusted Rating	Proceed Yes/No
Terrain Related Hazards							
Sustaining a slight injury (cuts, scrapes, bruises) requiring no First Aid	<ul style="list-style-type: none"> Recommend correct body clothing (proper footwear, leg coverings, etc) Avoid placing controls that require travel through dense or unpleasant vegetation areas 	Likely	Negligible	Low	<ul style="list-style-type: none"> N/A 	Low	Yes
Fall hazard causing minor injuries (sprains, twisted knee, etc) requiring some first aid response	<ul style="list-style-type: none"> Avoid placing controls in areas of unstable terrain (rocky, slippery areas) by careful course planning. Ensure all participants carry a whistle to summon aid 	Possible	Minor	Low	<ul style="list-style-type: none"> Keep First Aid Kit visible at the Start/Finish area Have First Aider available to assist injured orienteer as necessary 	Low	Yes
Fall hazard causing a major injury (broken bones)	<ul style="list-style-type: none"> Avoid bringing course participants into dangerous areas (cliffs, rock falls etc) by careful course planning Note any areas to avoid by placing out-of-bounds areas on maps Provide specific information to participants during their initial safety/event briefing warning them about using caution in certain areas Ensure participants carry a whistle to summon aid 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have a First Aid Kit visible at the Start/Finish Area Have a trained First Aider available to assist and also travel to the injured orienteer if necessary Have a vehicle available to assist an injured orienteer to get to medical aid as needed or engage BC ambulance if casualty cannot be transported by personal vehicle 	Low	Yes
Fall hazard causing a Neck or Spinal Injury (Immobilizing the Orienteer)	<ul style="list-style-type: none"> Avoid all dangerous areas where falls, that may cause severe injury could happen, by careful course planning Mark specific areas out-of-bounds on maps so that orienteers will know to avoid these areas Provide specific information to participants to warn them of any potential dangerous hazards in the area Ensure participants carry a whistle to summon aid 	Rare	Severe	Medium	<ul style="list-style-type: none"> Have a First Aid Kit and trained First Aider available to travel to the casualty to assess the situation Have a robust communications plan to seek aid Seek immediate assistance from the Search and Rescue Personnel to help extract the injured orienteer to safety Engage BC Ambulance for travel to hospital 	Low	Yes

Potential Risk Situations	Existing Mitigation Measures - Preventive Strategy	Risk Analysis			Post-Mitigation Analysis		Risk Acceptance
		Likelihood	Impact	Rating	Further Response Measures to Reduce Harm	Adjusted Rating	Proceed Yes/No
Terrain Related Hazards (Specific to Urban Terrain)							
Contact with motor vehicle while crossing a road	<ul style="list-style-type: none"> Avoid any difficult/dangerous road crossings with careful course design. Mark areas out-of-bounds and/or identify mandatory or safe crossing areas. Consider use of a crossing guard if young participants are involved. Remind participants at Start to anticipate road crossing and to exercise caution. 	Rare	Major	Low	<ul style="list-style-type: none"> Have a trained First Aider with a First Aid Kit available to assist and also travel to the injured orienteer if necessary Have a vehicle available or request BC Ambulance to assist an injured orienteer to get to medical aid 	Low	Yes
Contact with a pedestrian/bicycle while in urban area	<ul style="list-style-type: none"> Avoid designing courses that could result in dangerous bicycle/runner interactions. Warn participants at Start, if bicycle traffic may be expected in the competition area Consider running course during early hours to avoid any busy times in urban areas which may increase bicycle traffic. 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have a trained First Aider with a First Aid Kit available to assist and also travel to the injured orienteer if necessary Have a vehicle available or request BC Ambulance to assist an injured orienteer to get to medical aid 	Low	Yes
Animal Related Hazards							
Potential Dangerous Encounters with wildlife (Bears, Cougar)	<ul style="list-style-type: none"> Consider cancelling a planned event, if there has been a recent sighting of dangerous wildlife Ensure all young junior participants travel in pairs or are accompanied or shadowed by an adult, when in forest wilderness areas Sweep competition area with volunteers and noise makers prior to event if presence of dangerous wildlife is suspected Require competitors to carry bear spray in areas where encounters are possible Ensure all participants carry a whistle to create noise 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> If an orienteer has spotted or encountered dangerous wildlife, cancel the event immediately Set out volunteers in teams of three to travel backwards on each course and encourage orienteers to head directly to the Finish Area Account for all participants by checking Start lists and Finish times Notify the local Conservation Office/Police of the wildlife sighting / close encounter 	Low	Yes
Encounter with Poisonous Snake	<ul style="list-style-type: none"> Advise participants if poisonous snakes are expected to be on alert listening for the sounds of rattlesnakes If a snake is spotted, participants are to avoid sudden movement, give lots of space and back away slowly Wear gaiters to protect the lower legs Ensure all participants carry a whistle 	Rare	Major	Low	<ul style="list-style-type: none"> In areas where poisonous snakes are possible, have First Aid Kit with anti-venom available at Finish Area If a severe snake bite is suspected, transport the casualty to hospital immediately 	Low	Yes

Potential Risk Situations	Existing Mitigation Measures - Preventive Strategy	Risk Analysis			Post-Mitigation Analysis		Risk Acceptance
		Likelihood	Impact	Rating	Further Response Measures to Reduce Harm	Adjusted Rating	Proceed Yes/No
Insect Related Hazards							
Bee/Wasp Stings	<ul style="list-style-type: none"> Avoid area with a wasp/bee hive if discovered during course planning and control selection - rope off with caution tape Drop control if necessary should a wasp/bee hive be discovered during course setting - mark area Warn participants about the potential presence of bees/wasps based on seasonal conditions 	Possible	Minor	Low	<ul style="list-style-type: none"> Have First Aid Kit with After Bite medication available 	Low	Yes
Bee/Wasp Stings - Allergic Reaction	<ul style="list-style-type: none"> Precautions as above. Competitors, who know they have a sensitivity, must carry an Epi-Pen with them at all times when the presence of bees/wasps is likely Young participants with a wasp/bee sting sensitivity must travel with an adult Ensure all participants carry a whistle to summon aid 	Rare	Major	Low	<ul style="list-style-type: none"> Have First Aid Kit with antihistamine tablets available at Finish Area (note – antihistamine tablets can reduce the adverse effects of a bee sting) If a severe allergic reaction is suspected, have vehicle available to transport the casualty to hospital immediately 	Low	Yes
Tick Bites (Note: Tick bites can lead to Lyme Disease and early detection should be emphasized)	<ul style="list-style-type: none"> Alert participants if the weather conditions and type of area may make the presence of ticks likely Encourage participants to wear protective clothing, long pants, gaiters, cap etc. Encourage participants to check their body and clothing carefully for ticks after returning to the Finish Area 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have First Aid Kit equipped with tick remover to help extract ticks available at Finish Area 	Low	Yes
Tick Bites leading to Lyme Disease	<ul style="list-style-type: none"> Precautions as above. Encourage participants to check their body and clothing carefully for ticks after returning to the Finish Area Remove any ticks as soon as possible Retain the tick for analysis, if at all possible 	Rare	Moderate	Low	<ul style="list-style-type: none"> Have competitor monitor bite site for tell-tale bulls eye rash indicating infected tick bite Encourage quick follow-up with medical care, if an infected tick bite is suspected 	Low	Yes

Potential Risk Situations	Existing Mitigation Measures - Preventive Strategy	Risk Analysis			Post-Mitigation Analysis		Risk Acceptance
		Likelihood	Impact	Rating	Further Response Measures to Reduce Harm	Adjusted Rating	Proceed Yes/No
Plant Related Hazards							
Encounter with Poisonous Plants - Poison Ivy, Poison Oak, Stinging Nettle and Giant Hogweed	<ul style="list-style-type: none"> Avoid area if discovered during course planning and control selection Drop control if necessary should an area of poisonous plant be discovered during course setting - mark area if necessary Warn participants about the potential presence of poisonous plants based on seasonal conditions Special caution should be advised if Giant Hogweed is discovered (Avoid area completely) 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have First Aid Kit with medication available to treat skin irritation Have water available at Finish 	Low	Yes
Weather Related Hazards							
Heat-Related Injury (Heat stroke or heat exhaustion)	<ul style="list-style-type: none"> Remind competitors to carry water and drink often. Suggest wearing a hat/sun shade. Provide water on course as per course planning recommendations Provide plenty of water and other cool refreshments at the Finish Area Consider cancelling the event if weather is severe (ie. Extreme heat) 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have a trained First Aider available to treat any potential heat-related injuries Have areas of shade, cool water available for the casualty Use a vehicle air conditioning to cool down the casualty and keep them out of the heat Drive casualty to immediate medical aid if deemed serious 	Low	Yes
Hypothermia	<ul style="list-style-type: none"> Remind competitors to wear appropriate clothing to remain warm if stopped; check participants at Start Area. Use a manned control to check participants if on a long course, or loop course through Start Area Check-in on orienteers at Finish area Provide hot drinks at Finish and a warm-up area if possible. Consider cancelling the event if weather is severe (i.e. freezing rain, dense fog, heavy persistent rain, snowy icy conditions) 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have a trained First Aider available to recognize and treat the hypothermic orienteer Have warm blankets, space blankets available to give to casualty Use a vehicle to warm up the casualty and keep them out of the elements Drive casualty to immediate medical aid if deemed serious 	Low	Yes

Potential Risk Situations	Existing Mitigation Measures - Preventive Strategy	Risk Analysis			Post-Mitigation Analysis		Risk Acceptance
		Likelihood	Impact	Rating	Further Response Measures to Reduce Harm	Adjusted Rating	Proceed Yes/No
Weather Related Hazards (continued)							
Falls due to unexpected snow or ice on course.	<ul style="list-style-type: none"> Consider cancelling event if unexpected snow or icy weather conditions may make falls more likely Apply road salt if possible to reduce slippery sections (e.g. near Finish chute) Advise orienteers to wear appropriate footwear (spiked shoes) to increase traction on ice or snow 	Unlikely	Moderate	Low	<ul style="list-style-type: none"> Have a trained First Aider with a First Aid Kit available to assist and also travel to the injured orienteer if necessary 	Low	Yes
Unexpected Environmental Changes - Fire, Flash Flood , Avalanche/Rock Fall, High Winds (with tree fall potential)	<ul style="list-style-type: none"> Cancel event immediately If event already in progress, gather all orienteers in area by having volunteers run the course forwards and backwards and instructing orienteers to promptly return to the Finish Area Account for all orienteers and event staff prior to leaving the event area 	Rare	Severe	Medium	<ul style="list-style-type: none"> No further harm reduction possible. Event must be cancelled 	Medium	No
Other Hazards							
Regional Public Health Warning (e.g. COVID-19 pandemic)	<ul style="list-style-type: none"> Cancel all orienteering activities 	Rare	Severe	Medium	<ul style="list-style-type: none"> Re-adjust the presentation of orienteering activities based on the rules and guidance provided by regional health authorities 	*See Note	*See Note
						*Note: Only if approved by Regional Health Authorities can the provision of public orienteering events be allowed to resume.	

ANNEX B – ORIENTEERING EVENT AND SAFETY BRIEFING FORMAT

Component	Information to be Covered
General Overview	<ul style="list-style-type: none"> ▪ Type of event (point-to-point, Score-O etc) ▪ Number of controls in the area ▪ Number of courses available
Required Equipment	<p>List mandatory or recommended equipment:</p> <ul style="list-style-type: none"> ▪ Compass (highly recommended) ▪ Whistle (mandatory) ▪ Watch (highly recommended) ▪ Water (as required) ▪ Miscellaneous – pencil, etc. (as recommended)
Course Closure Time	<ul style="list-style-type: none"> ▪ Absolute Finish Time is _____. ▪ All Orienteers must report back by this time. <p>IMPORTANT: ALL COMPETITORS MUST REPORT TO THE FINISH, REGARDLESS IF YOU COMPLETED YOUR COURSE OR NOT.</p>
Potential Hazards	<ul style="list-style-type: none"> ▪ Expected Hazards in the terrain; as applicable: ▪ Terrain - i.e. cliffs, rocky areas, deep swamps, etc. ▪ Wildlife - i.e. bears, cougars, snakes, etc. ▪ Miscellaneous - i.e. roadways, traffic, etc.
Emergencies	<p>Inform participants, what to do in case of the following:</p> <ul style="list-style-type: none"> ▪ If you get injured, need immediate assistance, or are very disoriented and unable to return to the Finish Area, blow your whistle three times to attract attention. Only blow your whistle in a genuine emergency. ▪ If you hear a whistle, stop your course, investigate and provide help where needed. Alert event organizers at the Finish Area as soon as possible.
Safety Bearing	<ul style="list-style-type: none"> ▪ If applicable, provide and describe the safety bearing to find large linear feature (ie. Highway or river etc) that will help funnel the orienteer back to the finish
First Aid	<ul style="list-style-type: none"> ▪ Describe the location of the First Aid Kit (usually the registration tent) ▪ Identify the first aid attendant
Location of Refreshments	<ul style="list-style-type: none"> ▪ Describe any water stations on course ▪ Water and snacks available at Start/Finish
Additional Info	<ul style="list-style-type: none"> ▪ Provide any extra info as required by specific event

ANNEX C - OVERDUE ORIENTEERS – RESPONSE PLAN

At course closing time, check the finish list to see if any participants are missing. If a participant has not returned, follow the procedure below:

Gather Information about the Orienteer

1. Check the start list to determine if the participant actually started and note his/her start time. Determine how long the participant has been on the course.
2. Ask other participants if they have seen the missing person either on the course or at the finish. The person may have returned and not checked in to the Finish.
3. Determine the location where the person was last seen. Was it early in the course or late? Did he/she appear to be lost/in trouble? What was he/she wearing? Did he/she have any food or drink?
4. Search parking areas, washrooms, and other nearby facilities. Is the person's car still in the parking lot? Are the person's belongings at the staging area? Are there friends or family waiting at the Finish?
5. Arrange for control pick-up volunteers to keep an eye out for the overdue participant. At least one volunteer must remain at the Finish at all times, in case the participant returns.
6. If the event is using SI and the SI number of the participant is known, the control units can be downloaded to confirm the time of each punch.
7. Check the event registration form or ask around for the person's cellular number. Call the phone.

Commence a Search

8. Send an experienced orienteer (or team of two experienced orienteers) with a cellular phone or radio to run the course backwards.
9. Send another experienced orienteer or team to run the course forwards.

Note: If the event is a Score-O, it will be more difficult to establish the route taken by the orienteer. In this situation, it would be best to send out teams of experienced orienteers equipped with radios or cellular phones to check a group of controls that are located close to each other. Several teams may need to be dispatched to different sectors in order to visit each control site.

10. If necessary, send other experienced volunteers (with cellular phones or radios) to check all major trails and roads, and/or drive or run the perimeter of the map, especially the area of a safety bearing.

Contact Emergency Services

11. At some point **no later than 3 hours past the overdue person's maximum allowed time**, the event director must contact emergency services and ask for assistance.
12. The decision to call in emergency services should be made by the event director and the controller and will depend upon circumstances. Examples of factors to be considered include:
 - Age, health, experience of the participant
 - Weather conditions
 - Length of time the participant is overdue
 - Last known location of participant
 - Amount of daylight left
 - Nature of the terrain
13. The Emergency Services will become the search master upon arrival at the site.

ANNEX D – EMERGENCY CONTACTS

The following information is applicable to the location where the orienteering event/activity is scheduled to take place.

Event Location:	
Local Police #:	
Local Ambulance #:	
Nearest Hospital:	
Hospital #:	

ANNEX E – SUMMARY OF RESPONSIBILITIES FOR SAFETY

Event Organizer Responsibilities:

- Ensure a well-stocked First Aid Kit is on hand at the event venue
- Ensure water is always available at the Start and Finish
- Make participants aware of any hazards during the pre-event safety briefing
- Liaise with Course Planner/Setter about placing any public warning signs in the area of the event such as 'Event in Progress' signs for busy roads where competitors may likely cross
- Take note of any sudden changes in the weather and be prepared to make a decision to cancel the event if severe conditions indicate that the orienteers may be unsafe (e.g. Wind Storm)

Course Planner/Setter Responsibilities:

- Ensure courses are set with expected participants in mind (do not have junior participants crossing busy roads, plan routes that may cross dangerous areas, etc.)
- Provide master maps or course planners notes, so that orienteers can make the correct choice as to which level of course they should choose
- Consider all potential route options during course planning and make sure orienteers are not inadvertently led into any dangerous or unpleasant areas
- Mark areas of particular concern as out-of-bounds on the map to warn away orienteers as selecting them as a potential route choice
- If necessary, use marked routes or flagging tape as visual indicators to orienteers of any particular areas in the terrain that they should avoid