
AOA RISK MANAGEMENT POLICY & PROCEDURES



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AOA

Table of Contents

AOA RISK MANAGEMENT POLICY & PROCEDURES.....	2
Background:	2
Introduction	2
Purpose	3
Definitions.....	3
Policy.....	3
Responsibilities	3
Procedures	4
AOA PARTICIPANTS RISK MANAGEMENT POLICIES AND RECOMMENDATIONS	10
1. Safety Rules and Recommendations for Orienteering Activities	10
2. Air Quality Policy for Orienteering Events.....	11
3. AOA Bear Spray Policy.....	18
4. AOA Wild Smart Policy.....	19
5. Mappers Risk Management Policy	20

AOA RISK MANAGEMENT POLICY & PROCEDURES

Approved: February 9, 2020 by the AOA Board of Directors

Background:

About risk management

Risk management seeks to address potential problems before they occur. Risk management aims to be pro-active rather than reactive, creating a safer environment and legally safer operational procedures.

A common mistake organizations make is to view risk management as a document in isolation. It is really an ongoing process that should be applied to all your organization's policies and procedures.

Benefits of risk management

Ultimately, successful risk management has the following benefits for the organization:

- Prevents or limits injury or losses to participants, volunteers and staff;
- Helps to protect AOA, its affiliated clubs and individual members against litigation;
- Ensures that AOA is compliant with all applicable laws, regulations and standards;
- Improves the quality and relevance of the programs and services to its members, participants, partners and sponsors;
- Promotes better business management and human resource management practices;
- Enhances AOA's brand, reputation and image in the community;
- Overall, enhances AOA's ability to achieve its strategic objectives

Risks facing sport and recreation organisations

The inherent nature of sport and recreation means that risk areas are broad. Some general risks that could apply to sports organizations include:

- Not being incorporated
- Not having sound Governance practices and procedures
- Not having a member protection policy
- Not requiring participants to sign a waiver or release form prior to participating
- Providing equipment and facilities that are not safe for intended use.
- Not complying with laws and regulations
- Not complying with Child Protection legislation

Introduction

AOA will endeavor to minimize the risk any particular operation poses to our organisation, our staff, our volunteers, our clients, or the general public.

AOA has developed a Risk Management Program to capture its approach to managing risk. This plan articulates the approach AOA takes to managing risks with a goal of reducing, transferring or avoiding risks.

The following is a useful acronym*. AOA believes following these steps will help to foster a safe environment for our sport organizations:

Reflect on our values, mission, vision, strategic objectives and activities

Integrate risk thinking into all decisions

Scan continuously for new or evolving risks

Keep it simple and understandable

Purpose

The purpose of this document is to identify applicable risks and to enable risk management procedures to be satisfactorily identified, organised and maintained.

Definitions

“Risk” is the probability that an occasion will arise that presents a danger to our organisation, our staff, our volunteers, our clients, or the general public. It includes, but is not limited to,

- Physical hazards
- Financial hazards
- Legal hazards
- Reputational hazards/communication

Policy

AOA has a duty to provide a safe workplace for its staff and volunteers, a safe environment for its members and all participants, and a reliable development path for the organisation. AOA will put procedures in place that will as far as possible ensure that risks are minimised and their consequences averted.

Responsibilities

It is the responsibility of the Board, with the assistance of the ED to carry out risk management analyses of the organisation, and to take appropriate measures.

It is the responsibility of all employees and volunteers to ensure that:

- they are familiar with the organisation’s risk management procedures applicable to their section;
- they observe those risk management procedures; and
- they inform the organization if they become aware of any risk not covered by existing procedures.

Procedures

Managing risk by AOA

1. **Identifying the risks** attached to every element of their operation and the likelihood of that risk eventuating
2. **Identifying practices to avert and mitigate or transfer the risk** and the effects of those risks
3. **Recording the risks, the precautions and the remedies** and communicate it to the appropriate parties

1. Identifying Risk - Maintenance of a Risk Register

Risk Assessment is the process of evaluating and comparing the level of risk against predetermined acceptable levels of risk. It is required to have a Risk Registry that assesses the potential hazards and it is reviewed regularly. As new hazards or risks are identified the risk registry should be updated.

AOA Risk Analysis is based on two criteria:

- Likelihood - How likely is it the risk will occur?
- Severity (or Consequence) - How bad is it if the risk is realized?

Likelihood

- NA=negligible
- Low= unlikely to happen
- Medium= probability is higher
- High= most likely

Severity /Impact:

- NA=negligible
- Low
- Medium
- High

Categories:

- Physical hazards
- Financial hazards
- Legal hazards/ Professional risks
- Reputational hazards/communication

Physical Hazard: Severity - How bad is it if the risk is realized? NA=negligible; Low = Marginal- minor injuries or problems; Medium = may cause severe injury, illness; High= Catastrophic - may result in death or loss of bodily functions

All other organization hazard: Severity/Impact: Low= minor impact on AOA's financial health (impacts are reversible). Medium=higher severity (impacts could be reversible with lots of effort and \$). High= possibility AOA may go bankrupt, or "collapse"

ASSESSMENT AND RISK REGISTRY:

Completed by AOA Board of Directors and additional club leadership, 2020 January.

<https://forms.gle/qyiwZAPMNWZvAkBz5>

Risk: Physical Hazard	Likelihood	Impact/ Severity	Prevention and Mitigation
Participant injury due to orienteering activities for first timers (due to lack of experience).	Low	Low	Safety Rules and Recommendation of Orienteering Participants Information about risks and recommendations Signing Waivers
Participant injury due to equipment, clothing.	N/A to Low	Low	Safety Rules of Orienteering Participants Information about risks and recommendations Signing Waivers
Participant injury due to extreme weather (heat, cold, dehydration, etc.)	Low to medium	Medium to High	Safety Rules and Recommendation of Orienteering Participants Information about risks and recommendations Cancelling events in case of extreme weather Providing water on course Signing Waivers
Participants injury due to other users (hunters, motorcyclists, bikers etc).	Low	Medium to High	Use event planning precautions, obtain permits Inform all parties and participants and give recommendations.
Participant injury due to getting lost/disoriented.	Low to Medium	Low to Medium	Safety Rules and Recommendation of Orienteering Participants Information about risks and recommendations. Best practices at course planning and course recommendations Signing Waivers
Participant injury due to natural disasters.	Low	Medium to High	Pre-event planning and event cancellation due to unforeseen disasters (e.g. forest fire, storm warning) Participants Information about risk and recommendations.
Participant injury due to wildlife encounters.	Low to Medium at some places	Medium to High	Implementation of WildSmart and Bear spray policy Pre-event and annual education campaign. Signing Waiver
Participant injury due to concussion (falls or collision)	Low	Low to Medium	Concussion policy and education
Participant injury due to lack of safety processes (No organizers' safety plan /or emergency action plan, no coaches certification etc.)	Low-Medium	Medium - High	Policies and procedures for safety processes Safety plan and emergency action plan Certification requirements for coaches/officials Permits

Risk: Financial hazards	Likelihood	Impact/ Severity	Prevention and Mitigation
Lack of adequate processes in place for protecting the assets of the organization (lack of Governance, monitoring financials, audits etc.)	NA to Low	Medium	Board governance in place. Continuous monitoring of financial activities. Sound decision making is applied with full board engagement. Annual AGM report and audit
Fraud, non-authorized financial transactions	Low	Low to Medium	Financial procedures sufficient to prevent or expose fraud or unauthorised trading Signing authorities, Monthly financial reports, Financial audit
Lack of adequate Budgeting/Planning	NA to Low	Low to Medium	Adequate budget planning, financial updates, and reporting systems are developed, and monthly updates are monitored by the treasurer and board.
Lack of reporting and accountability	NA to Low	Low to Medium	Adequate reporting systems are developed and monitored by ED and the AOA president and treasurer. Government accountability report is monitored annually.
Lack of Financial diversity (e.g. losing funding)	Low - Medium	Medium to high	Making sure accountability requirements are met, applying for casino funds, looking for grants. Growing membership and programming.
Risk: Legal hazards	Likelihood	Impact/ severity	Prevention and Mitigation
Employee/ Staff legal action risks (lack of hiring procedure, screening, orientation and performance review, liability insurance). Employee risk	Low	Low to Medium	Employee hiring procedure and performance review in place. Employee screening at hiring is in place. Employee job description and orientation is in place. Employee liability insurance is in place. Performance review process with yearly review in place.
Volunteers legal action risk (lack of volunteer management tools, insurance training etc)	L	Low to Medium	Volunteer Program Policy and procedure and education Volunteer liability insurance
Board of Directors legal action risk (lack of application -qualified board, screening, orientation and performance review, liability insurance)	Low	Low	Well established Board governance processes are in place New Board of Directors orientation Board of directors' liability insurance is in place
Youth participants legal actions risk (lack of Safe Sport and Child protection policies and procedures)	Low	Medium	Comprehensive Safe Sport framework. Policies procedures and education to prevent harm to youth.

Athletes legal actions (Code of conduct, Conflict of Interest, Conflict resolution problems)	L	Low to Medium	Policies are in place: Conflict of Interest Conflict resolution Policies
Legal actions escalate to Lawsuits (lack of processes to report and resolve complaints)	Low	Medium	Waivers and Privacy Policy, Dispute resolution procedures are in place
Landowner/manager legal action risk (e.g. damage to their property during events)	Low	Low to Medium	Process to require permits Liability insurance
Risk: Reputational hazards	Likelihood	Impact/ Severity	Prevention and Mitigation
Organization Strategic Plan (e.g. outdated, lack of specifics and accountability, not aligned with vision/mission statement)	Low	Low to Medium	Ensuring that the organisation activities are within the objectives, respectful of the bylaws and represent the membership. Regular communication and feedback from membership established.
Social media / Privacy protection / Communication risk	Low to Medium	Medium	CASL and Privacy Policy is in place Social Media Policy is in place
Club's or members complaints (Lack of Transparency, no collaboration or info sharing etc.)	Low	Low	Regular reports to membership and AGM process are both in place. Improved communication with clubs and leadership
Athlete complaints and disputes	Low	Low	Dispute Resolution in place

“Participants” refers to staff, volunteers, organizers, coaches, members and non-members who participate in any orienteering activities.

2. Identifying practices to avert and mitigate or transfer the effects of those risks

AOA policies and procedures in place to avert and mitigate risks

- AOA Policy Manual: including Board, Staff - HR, Financial policies
- Harassment Policy - Under development in 2020
- Conflict of Interest
- Dispute Resolution
- AOA members: Code of Conduct
- Inclusion, Equity and Accessibility Policy
- Privacy Policy
- Social Media Policy
- Insurance for participants, staff, volunteers and board members
- Screening of Volunteers or Employees
- AOA Participants Risk Management Policies and Recommendations:
 - *Participation Agreement and Waivers*
 - *Safety Rules and Recommendations for Orienteering Activities (AOA)*
 - *Bear Spray Policy*
 - *Wild Smart Policy*
 - *Mappers Risk Management Policy*
 - *Concussion Policy*
 - *Volunteer Program Policy and Screening*
 - *To be developed: Junior programs, Best practices, Supervision, Transportation Policy etc.*

AOA Insurance and Participant's Agreement to transfer the effects of risks:

- AOA is included in Orienteering Canada's comprehensive insurance program that provides General Liability, Sports Accident and Directors and Officers Errors and Omissions coverage to the directors, officers, staff, members and volunteers of AOA. Not all risks are insurable. However, as part of its commitment to risk management, AOA will take all reasonable steps to ensure that insurance coverage is available for those activities that are essential to the mission of AOA and that pose significant risks.
- AOA provides and recommends all members and participants who take part in Orienteering activities to sign the Participation Agreement (for minors under 18 years old) OR Waiver (for adults 18 years and over).

3. **Recording the risks, the precautions and the remedies and communicate them to the appropriate parties.**

- All identified Risks and mitigations are recorded in the Risk Management documents. The document is reviewed periodically by AOA (every 4 years and any additional time when a new risk is identified and addressed.)
- AOA recognizes that communication is an essential part of risk management. This Risk Management document will be communicated frequently to our staff, committees, Clubs, and members.
- AOA will encourage all members to communicate their risk management issues and concerns to their Clubs and AOA.

References:

Via sport – BC government : NSO risk management project

<http://www.viasport.ca/resource/nso-risk-management-project>

http://cces.ca/sites/default/files/content/docs/pdf/cces-risk-management-program-2016-e_0.pdf

Recommended NSO policies

<https://www.communitydirectors.com.au/icda/policybank/>

<https://www.ourcommunity.com.au/icda/risk/?articleId=261>

AOA PARTICIPANTS RISK MANAGEMENT POLICIES AND RECOMMENDATIONS

1. *Safety Rules and Recommendations for Orienteering Activities*
 2. *AOA Air Quality Policy*
 3. *Bear Spray Policy*
 4. *Wild Smart Policy*
 5. *Mappers Risk Management Policy*
 6. [Concussion Policy](#)
 7. [Volunteer Program Policy and Screening](#)
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1. Safety Rules and Recommendations for Orienteering Activities

AOA and all affiliated clubs must encourage their members and participants to review the [Safety Rules and Recommendations](#) information yearly and have it available on their website and events where applicable.

Organizers must be familiar with and apply the Orienteering event management best practices as outlined in the Orienteering Canada [Officials courses](#) manuals. Organizers are recommended to use a **Safety & Emergency Action Plan template and waivers** (which can be obtained from AOA).

General

1. Orienteering is an outdoor activity that carries a risk of personal injury due to natural and man-made hazards, animal encounters and environmental conditions. While the participants acknowledge these risks, the organizers of orienteering events must have rules and recommendations that cover how to reasonably minimize these risks and what to do in case of injury or if a competitor is overdue.
2. There are general safety rules and recommendations which apply to all orienteering events and there are event-specific plans which should provide sufficient details for specific actions and responsibilities to deal with any situation. The key to this plan is to be able to rapidly contact emergency services in the area. Recommended to use the event AOA Safety & Emergency Action Plan template which can be obtained from AOA.
3. In the event of an incident where legal action is taken, our best defense is to demonstrate that we exercised “due diligence

2. Air Quality Policy for Orienteering Events

Approved: January, 2025

REASON FOR THIS POLICY

When air quality is compromised by contaminants in the air a person's health can be adversely affected. Smoke from forest fires and emissions from other sources can have a profound impact on air quality.

The Alberta Orienteering Association (AOA) recognizes the potential short- and long-term health effects of engaging in physical activity outdoors when the air quality is poor. The AOA is fully committed to reducing the risk posed to orienteers from poor air quality.

PURPOSE AND SCOPE

The purpose of this policy is to provide Alberta orienteering officials (coaches and event organizers) with guidelines that aim to reduce the health-related risk of poor air quality on people attending, helping at, and organizing orienteering events in Alberta.

SUMMARY OF THE POLICY

Due to the increasing frequency of poor air quality from forest fires, the AOA has developed a policy regarding orienteering during smoke incidents.

Decision making for orienteering events (C, B , and Canada Cup)

- Decisions related to air quality will be made at the event site, at the start time of the event.
- If possible AQI PM_{2.5} will be measured at the event site using portable monitors.
- Decision makers should also consider real time air quality data. Two examples of on-line resources are:
 - [IQAir air quality map](#)
 - [The World Air Quality Index Project: maps and more](#)
- If AQI PM_{2.5} at the event site is greater than 200 the event will be modified to remove all competitive elements, or if air quality shows an improving trend the start may be delayed provided the event can be completed during daylight.
- If AQI PM_{2.5} at the event site is greater than 300 the event will be cancelled, or if air quality shows an improving trend the start may be delayed provided the event can be completed during daylight.
- If, during an event, the AQI PM_{2.5} goes above 300, no further starts will be allowed. As well, any competitor observed, who is still on the course (e.g. passing through an arena), will be told that due to the extremely hazardous air quality, the event is now cancelled, and that they should report to the download station at the finish area. No results will be published.
- Events may also be cancelled, or postponed if poor air quality prevents organizers from setting up the event. In this case, notification must be posted on all relevant websites as soon as possible.

- For Canada Cup events cancellation or postponement decisions will be made by at least two of the following major officials: event director, controller, event advisor, jury member, course planner.
- For Canada Cup events where participants may have travelled long distances to the event, contingency plans may include rescheduling, or possibly alternate venues for the event.
- For local B and C events, the air quality decisions will be made by one, but preferably two, event officials.
- When poor air quality conditions seem likely, local event (C and B) organizers are encouraged to include possible rescheduling in their contingency planning.

Decision making for training events and youth programs

The program director or coach will follow the Coaching Association of Canada recommendations that at AQI PM_{2.5} greater than 200 the exercise must be either moved indoors, rescheduled, or cancelled.

BACKGROUND ON AIR QUALITY IMPACTS ON OUTDOOR SPORTS

Understanding air quality measurements

The **Air Quality Health Index (AQHI)** is a scale used to measure air quality and its associated health risks. It is important for athletes and event organizers to understand and monitor the AQHI wherever data is available (mostly in urban centers).

The **Air Quality Index AQI - PM_{2.5}** (US EPA air quality index for particulate matter less than 2.5 μ) can be used to monitor wildfire smoke impact. These data are easily obtainable at an orienteering event location and help to assess local conditions at the time of the competition.

- **AQHI values** range from 1 (low risk) to 10+ (very high risk). The AQHI is calculated from measured concentrations of nitrogen dioxide, ground-level ozone, and particulate matter less than 2.5 μ (PM_{2.5})
- **AQI PM_{2.5}** (fine particulate matter) measurements can be used when AQHI is not available. Values range from 0 (low risk) to 301+ (very high risk). We will rely on AQI PM_{2.5} for orienteering forest events because AQHI is often not readily available close to our events. Devices that determine AQI PM_{2.5} are reasonably priced and reasonably accurate.
- There are many resources from which one can learn about air quality, the air quality health index (AQHI), AQI PM_{2.5}, and poor air quality as it impacts outdoor sports. Educational links can be found on the AOA website and Appendix A.

The following table is commonly used to describe the AQHI and AQI PM_{2.5}, and states what people should do given a specific value. The most important thing to remember from an orienteering official's perspective is that, according to Health Canada, **anyone participating in an outdoor sport is considered to be part of the at-risk population.**

Air quality can change rapidly and the AQHI (or AQI PM_{2.5}, whichever is being used) can also be quite different depending on one's location – even adjoining neighborhoods can have differing values. This makes it difficult to determine “rules” regarding the management of orienteering

events, and so in this policy, some discretion is being given to the orienteering officials in charge of an event.

Health Risk	Air Quality Index PM _{2.5}	Air Quality Health Index	Health Message	
			At-Risk Population	General Population
Low Risk	0-50	1 – 3	Enjoy your usual outdoor activities.	Ideal air quality for outdoor activities.
Moderate Risk	51-200	4 – 6	Consider reducing or rescheduling strenuous activities outdoors if you are experiencing symptoms.	No need to modify your usual outdoor activities unless you experience symptoms such as coughing and throat irritation.
High Risk	201-300	7 – 10	Reduce or reschedule strenuous activities outdoors. Children and the elderly should also take it easy.	Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms such as coughing and throat irritation.
Very High Risk	301+	10+ <i>means that the AQHI reading is greater than 10.</i>	Avoid strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion.	Reduce or reschedule strenuous activities outdoors, especially if you experience symptoms such as coughing and throat irritation.

RECOMMENDATIONS FOR ORIENTEERING EVENTS WITH REGARD TO AIR QUALITY

Factors that affect decisions regarding the impact of air quality on an orienteering event

- The type of event:
 - Training
 - Competition (C-, B-, or Canada Cup event)
 - Intensity of competition (e.g. sprint vs. long, or competitive vs. recreational);
- Ability to determine the local AQHI: While the WeatherCAN app provides the AQHI for cities, towns, and villages, an orienteering B- or Canada Cup event is not often close to one of these centers. More often, an AQI PM_{2.5} value close to the site will be available.
- Duration of the event: An orienteering event often runs through a whole day (or more): placement of controls, vetting, the competition window, which can be at least four hours long, and subsequent take-down. During this time the AQHI/AQI PM_{2.5} could vary; some competitors could race during an AQHI <4, while others could experience an AQHI >7. Officials and volunteers are often present for the whole day. A consideration is that air quality can deteriorate rapidly, but usually only improves slowly.
- Pre-event day activities: Air quality can be bad before an event, including during the time organizers and volunteers would be, for example, putting out controls. This pre-event setup often happens one or more days before the event.

Recommendations

Overarching recommendations

1. Decisions regarding an orienteering event will be made based on the local AQI PM_{2.5} value at the start time of the event.

Our recommendation is that clubs in Alberta purchase a monitor, and measure the AQI PM_{2.5} at the event location. The local AQI PM_{2.5} value will be measured by the devices provided by the orienteering club or can be monitored from available local data.

Reasons for using local AQI PM_{2.5}:

- Concerns around orienteering event air quality mostly occur because of the potential for wildfire smoke impact, which can be estimated by AQI PM_{2.5}.
- AQI PM_{2.5} is a key indicator of air quality during wildfire smoke that can be easily measured at the event site.
- Better local accuracy: data from AQI PM_{2.5} measurements are often available closer to orienteering event sites and updated more often than AQHI, which typically is only reported for major urban centers.
- By using AQI PM_{2.5} values, orienteering event organizers can make more informed decisions based on local air quality conditions. However, AQHI values are still included in the policy as they are more familiar to the general public.

2. An orienteering event will be cancelled if the AQI PM_{2.5} is greater than 300.

If, during an event, the AQI PM_{2.5} goes above 300, no further starts will be allowed. As well, any competitor observed, who is still on the course (e.g. passing through an arena), will be told that due to the extremely hazardous air quality, the event is now cancelled, and that they should report to the download station at the finish area. No results will be published. Note that it is likely that the event was already modified (AQI PM_{2.5} was above 200; see below).

Recommendations for Training or Learn-to-Orienteer Events

Decisions regarding whether to modify or reschedule training or learning events will be based on the local AQI PM_{2.5} value, and will be made by the head coach or program leader. We recommend that the Coaching Association of Canada (CAC) /SIRC guidelines ([CAC/SIRC guidelines on air quality and outdoor sports](#)) be used.

US EPA AQI for PM_{2.5}^a	Recommendation	AQHI value
0 - 50	Carry on as usual.	1 – 3
51-200	Reduce intensity and/or duration of the event;	4 – 6

US EPA AQI for PM _{2.5} ^a	Recommendation	AQHI value
	<ul style="list-style-type: none"> The coach or leader should be aware of any pre-existing medical conditions of the participants; Monitor all participants. 	
201 or above	The exercise must be either moved indoors, rescheduled, or cancelled.	7 – 10+

^a This is a modification of the US EPA guideline. The full table of the US EPA AQI PM_{2.5} guideline is given in Appendix A.

Recommendations for C Events

The event organizer(s) will decide whether to modify or cancel a C-event based on the on-site AQI PM_{2.5} value, or closest available published AQI PM_{2.5} data at the start time of the event. As these are local club events, often held within the city, or a minimal distance away, the recommendations are:

US EPA AQI for PM _{2.5}	Recommendation	AQHI value
0 - 50	Carry on as usual.	1 – 3
51-200	At registration notify participants of AQHI value and advise caution.	4 – 6
201-300	At registration notify participants of AQHI value, advise caution, and notify that all competitive aspects of the event (e.g. club “points”) are removed.	7 – 10
300+	The event is cancelled.	10+

Clubs are advised to notify members of this policy at the start of the orienteering season, and provide links to AQI PM_{2.5} data sites so that participants can decide, for themselves, whether to travel to an event.

A possible option in the event of cancellation is to create a MapRun file and advise members they could run the course at their convenience.

Recommendations for B- and Canada Cup-events

For B- and Canada Cup events, a committee of at least two people (e.g. course planner, event director, controller, jury members) will decide on any changes to an orienteering event.

Decisions regarding the event will be made based on the on- or near-site measured AQI PM_{2.5} value at the start time of the event.

Ideally, the AQI PM_{2.5} value is determined for at least two or three locations on the event map.

Event organizers must notify potential participants of this policy in event notices and event websites, and provide links to nearby AQI PM_{2.5} data, so these potential participants can decide for themselves whether to travel to the event.

US EPA AQI for PM _{2.5}	Recommendation	AQHI value
0 - 50	Carry on as usual.	1 – 3
51-200	Notify participants of AQHI value and advise caution.	4 – 6
201-300	Notify participants of AQHI value, advise caution, and let all participants know that all competitive aspects of the event (e.g. posted results, medals) are removed.	7 – 10
300+	The event is cancelled.	10+

If the air quality has been improving (i.e. measurements recorded over a period of time are decreasing), the committee has the option to postpone starts, as long as competitors can still finish during daylight hours.

It is recommended that the host club also post information as to whether refunds will be offered if the event is re-scheduled or cancelled outright.

Recommendations for Pre-Event Activities

What to do in the day or two before an event, and on the morning of the event, when air quality is bad, is more problematic.

- A possible scenario is that the AQI PM_{2.5} is 200, or even 300 or more at the site leading up to an event, when volunteers would normally be putting out controls. **We recommend that event organizers be granted the authority to cancel an event if their volunteers do not have a window to safely put out controls.**
- When air quality is rated as very high risk (AQI PM_{2.5} greater than 300) early on the morning of an event, when volunteers would be doing set-up, some may be willing to carry on, wearing N95 or N99 masks, but others, understandably, may not be willing to even drive to the event site. We recommend that event organizers determine WELL ahead of time what to do in this case, and talk with their volunteers to determine what they would be willing to do, and adjust their plans accordingly.
- An event may be cancelled the day before. In this case, notification must be posted on all relevant websites as soon as possible.

GENERAL RECOMMENDATIONS WHEN ORGANIZING AN ORIENTEERING EVENT WHEN POOR AIR QUALITY IS POSSIBLE

Many of the following are common sense.

- An advisory must be placed on club and event-specific websites, and in other communications such as registration information, competitor newsletters, or information bulletins, that events could be cancelled, re-scheduled, or modified, in the event of poor air quality. Potential participants must be informed that the decision will be made at the event site, at the start time of the event. An event may be cancelled the day before. In this case, notification must be posted on all relevant websites as soon as possible.

- A link to AQI PM_{2.5} data from as close to the event site as possible must be provided, so potential **participants can make their own decision whether to travel to an event**, given the possibility of cancellation, or modification of the event. They should be informed that AQI PM_{2.5} of 200 or above at the event site means that there will be no publication of results or medals given, and when above 300, the event will be cancelled.
- Impacts on health of poor air quality must be posted to club and event-specific web sites (the AQHI/ AQI PM_{2.5} table should be posted, at a minimum).
- Course planners and other volunteers should modify their field work when the AQI PM_{2.5} is 200 or above: either go another time or wear a well-fitting mask that can block PM_{2.5} particles (e.g. N95 or N99 masks).

The bottom line is that orienteering officials should always keep the welfare of participants and volunteers in mind, and base their decisions accordingly.

PRACTICAL CONSIDERATION IN APPLYING THIS POLICY (LESSONS LEARNED)

- It is **CRITICAL** that organizers, club members, and event participants be told about the club policy regarding air quality. Things to emphasise:
 - Poor air quality is not just a temporary inconvenience, but can lead to long-term health impacts, including cancer;
 - Anyone, no matter how healthy, participating in outdoor sport is considered by Health Canada, to be in the “at risk” category;
 - That it will be up to the potential participant to decide whether to travel to an event, as based on this policy.
- A common issue that participants raised was that the air quality information they had (whatever the source) said the air was fine. Our recommendation to address this is for a club to purchase a monitor and measure the AQI PM_{2.5} at the event location, which value will determine the event status (good-to-go, modified, or cancelled).
- There will still be club members who will ignore any warnings, so at this point, as long as all efforts have been made to make them aware of the health risks, and organizers have applied the recommendations as described in section 5.2, organizers have done their best.

3. AOA Bear Spray Policy

General

Orienteering carries a risk of encounters with large wild animals. Historically most encounters have been by organizers prior to the event, rather than at the event itself. One of the most effective strategies at avoiding a negative encounter is carrying bear spray while in the forest. Although this accepted practice has become commonplace among recreationalists in the Bow Valley, there has been some reluctance among race participants to carry bear spray while out on course despite the fact that every year, there are multiple encounters with bears and other wildlife by the general public in bear country.

The AOA wants to ensure that:

- All orienteering event participants are safe.
- All events held in Canmore Nordic Centre Provincial Park are compliant with the CNCPP bear spray policy.

AOA Bear Spray Policy:

For all AOA sanctioned events and all AOA affiliated clubs' events which are held in bear country (designated by map location) and/or an area that has a bear warning in effect:

- Organizers must inform the participants about the risks associated with wildlife and/or bears in the area and implement the recommendations below:
- Participants 18 years and older are recommended to carry bear spray at all times when participating in any orienteering activities alone.
- Youth between the ages of 12-18y are either recommended to carry bear spray or recommended to be accompanied by someone else who is carrying bear spray with them.
- Children under 12 years of age are recommended to be shadowed by an adult who is carrying bear spray with them.
- All participants who carry bear spray must acknowledge that they know how to use it.

Recommendations regarding bear encounters and how to use bear spray:

<http://www.albertaparks.ca/kananaskis-country/advisories-public-safety/wildlife/be-bear-smart/>

4. AOA Wild Smart Policy

General

Many orienteering events happen in wilderness areas where there are animals such as bears, cougars, wolves, elk and moose. Every year numerous interactions between people and wildlife occur. Although most interactions are harmless to both people and wildlife, some can become a serious public safety threat resulting in injury, property damage and/or dead or relocated wildlife.

The AOA wants to ensure that all orienteering participants are safe by knowing how to:

- reduce the risk of animal encounters;
- react in case of animal encounters.

AOA Wild Smart Policy:

- **AOA and all affiliated clubs must encourage their members to review the WildSmart information yearly and have it available on their website where applicable.**
- **Organizers must inform the participants about the risks associated with wildlife in the area and provide safety recommendations.**

Recommended educational information about living with wildlife:

http://www.albertaparks.ca/media/2777016/web_living_wildlife_pamphlet.pdf

<http://www.wildsmart.ca/learn.htm>

About bear encounters and how to use bear spray:

<http://www.albertaparks.ca/kananaskis-country/advisories-public-safety/wildlife/be-bear-smart/>

5. Mappers Risk Management Policy

General:

AOA and affiliated clubs often contract mappers to conduct mapping field work. A very common requirement of working in Alberta is to complete a task hazard assessment of the work being performed. The requirement for this comes from the Alberta Occupational Health and Safety Code. Various aspects of the work are reviewed by people familiar with the tasks that are involved. The intent is that where practicable the risks associated with the individual tasks can be mitigated to an acceptable level.

Mappers Risk Management Policy

1. **All contracted mappers must be familiar with the risk management recommendations by reading the documents provided by AOA, and comply with the following policies:**
 - Safety rules and recommendations for orienteering
 - Bear spray policy
 - WildSmart policy
 - Mappers risk management policy
2. **Mappers must carry bear spray and are advised to also carry an air horn where applicable**
3. **Mappers are required to familiarize themselves with the WildSmart material. Brochure and/or online reference materials will be provided by AOA.**
4. **Mappers working alone in remote areas must have an emergency plan and carry a first aid kit and are required to use the SPOT emergency device.**
5. **Mappers under age 18 are not allowed to work alone in remote areas.**
6. **Mappers under age 18 must work in a group of 2 at out-of-city-limit locations or have a supervising adult on site.**
7. **Mappers under age 16 must always work in a group of 2 or have adult supervision in the area.**

Safety tips and recommendations for all mappers

All mappers need to be familiar with the general [Safety Rules and Recommendation](#) for Orienteering.

Additional information specific to mappers:

- **Uneven terrain/tripping hazards**
Mappers will be reminded of uneven terrain and would draw from previous expertise walking in similar environment.

- **Skin and eye injuries** – including abrasions, cuts from pointed branches/sharp objects as a result of being in a natural environment.

The nature of the mapping process is that it involves relatively slow movement and careful observation of the local terrain. This greatly reduces the possibility of coming in contact in a manner to generate cuts or punctures. Mappers will be informed by general AOA safety recommendations for orienteering activities and how to reduce risk associated skin and eye injuries.

- **Contact with thorns, insect bites and sunburn**

Contact with short thorns can be mitigated by wearing long sleeves and pants. Very long thorns are rare (Cypress Hills is one area) and a site-specific mitigation will be developed for any mapping in that type of terrain. Wearing gaiters, bringing bug repellent or proper bug resistant clothing and applying sunscreen are recommended.

- **Extreme weather: hypothermia, heat stroke, dehydration**

Adjust to weather conditions by dressing according to the temperature; bring layers and hats. Drink plenty of water before, during and after to reduce the risk of dehydration. In case of overheating find shade and stop to rest, cool your body with wet clothes. Being in these conditions for a long period could result in excessive build-up effects.

- **Animal Encounters**

There are a large number of animals that could be encountered in Alberta. Unlike the competitive element of orienteering wherein the noise of the passing orienteer typically scares away the wildlife, mapping is done at a slow speed which increases the possibility and risk of an animal encounter. There are also increased risks associated with encounters with certain animals at specific times of the year – rut and calving seasons are examples.

Mappers must carry bear spray and are advised to also carry an airhorn at the -out of city limit-areas. Mappers must familiarize themselves with the WildSmart material. Brochures and/or on-line reference materials will be provided by AOA.

- **Hunting Season**

The risks are obvious. The primary way to reduce the risk is to require mappers to wear some brightly-coloured clothing – especially in the autumn during the main hunting seasons.

- **Working Alone**

Mapping is typically done by individuals working alone. The risks are multiple. In simple terms the mapper could be wounded or otherwise incapacitated and need assistance in a location far from where people who could provide assistance would be expected to be.

There are many possible situations for mapping projects. There is a similarity amongst them in that for the mitigation of the risks an acceptable means of having routine contact with the mapper must be established. A general comment is that technology

for working alone in remote areas is evolving rapidly so specific recommendations on the communication can change from year to year. At a high level though, the situations can be split into two categories:

- (a) Mapper is working in or close to a city. One or more person(s) will be the designated contact. Routine communication with the mapper is to be done – and it needs to be tested from various parts of the map – to ensure that “dead” areas can be handled.
- (b) Mapper is working remote from a city or where orienteers would be available to provide assistance. For mappers working remotely it is strongly encouraged to use two mappers so that the two can act as primary communication for one another. In this situation it will still be necessary to have a designated non-mapping contact person. This is not only for working alone but for any other need that they might have. If the mappers do not have adequate communication between themselves – such as cell phones (potential dead zones) then a means will be provided to them so that they can maintain contact.
- (c) **AOA will require mappers who work in remote areas alone to wear the SPOT emergency device for safety. AOA will provide the device and train the mappers how to use it.**

- **Natural disasters: lightning, floods and wildfires**

- (a) Danger of electrocution. In the forest the approach of a strong storm with the potential for lightning may not be obvious so it may be necessary for a mapper to stay in the forest during such a storm. Caution must be practiced to avoid high places and avoid large open spaces. In particular, if lightning is observed to be close by it is best to find a low place and “sit it out”.
- (b) In case of heavy rain stay above river beds, dry rock beds and steep hills to stay safe from floods or mudslides.
- (c) In a wildfire situation: try to leave the area in a direction away from the fire. Choose a downhill route (but stay out of canyons) to avoid smoke and be aware of wind direction which blows the fire and smoke towards you. If fire is closing in it’s best to find a wet marsh or lake if possible and stay in the water. If there’s no water around, go to an area clear of vegetation (or already burnt down), a ditch or depression on level ground if possible. Lie face down and cover up your body with dirt.